A STUDY OF FOOD DELIVERY APPLICATION DYNAMICS IN DELHI/NCR: CONTEXT OF A DEVELOPING MARKET

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ABSTRACT

Applications for online food delivery (OFDA) have achieved tremendous renown in developing markets due to ascending internet penetration, increased smartphone usage, and changes in consumer behavior. Also, offer convenience, speed, and variety, to accessible online food options. Using essential factors of Unified Theory of Acceptance and Use of Technology (UTAUT) approach, this current paper seeks to examine critical elements influencing consumers' adoption of applications for online meal delivery in Delhi/NCR. Additionally, research expanded to include the constructs of hedonic motivation and online food image, which influence consumers' desire to use meal delivery services online. A quantitative methodology was used in the study, and 468 respondents took part. Partial least squares analysis is used to analyse the data after the questionnaires are distributed using a convenience sampling technique. The study focused on measurement properties via Confirmatory Factor Analysis (CFA) and SEM using Smart PLS 4.0. The final validation shows effort expectancy, social influence, hedonic motivation & online food image favorably influence intention to use OFDA. Yet, performance expectancy and facilitating features no influence over behavioral intention. Theoretical contributions and practical consequences are presented with reference to the study outcomes. This research has produced a number of useful outcomes, including improving the shared economy industry's current knowledge base and skill set. OFD industry practitioners can use this result to better understand how to improve the behavioral intentions of developing market customer.

***KEYWORDS**: Behavioral Intention, UTAUT, Online Food Delivery Application, PLS-SEM, Hedonic Motivation, Online Food Image.*

Introduction

The e-commerce sector has expanded significantly in the last several years. O2O strategies allow businesses to attract online customers and drive them to offline locations for purchases or services. As a result, companies can offer seamless integration of online convenience with in-store experiences. which have transformed traditional job functions and task execution (Batra, R.; Liu, w.; Wang, H., 2017; Cho, M.H.;Li, J., Bonn, M.A.; 2019). O2O is a marketing approach based on IT and communication technology (ICT). It focuses on engaging customers online and guiding them to make purchases in physical locations. These customers are then encouraged to visit offline stores to

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complete transactions. The goal is to blend the convenience of online interaction with the benefits of in-person shopping (Sun, X.Y.; Liu, D., Ji, S.W.;2014). In essence, this system allows customers to place orders online and collect goods or services at physical outlets. The growing popularity of online food ordering applications in developing nations can be attributed to a number of factors, including increased smartphone adoption, better internet connectivity, and shifting consumer preferences. Online food ordering and discovery platforms have revolutionized how Indian consumers dine. Outsourcing in the food and restaurant industry has gained significant traction among business owners, driven by the potential for increased income, a wider client base, and an expanding customer base (Vinish P. et al., 2021). The rise of food technology startups, especially through mobile apps, has contributed to the rising trend of Online based food ordering is rapidly gaining momentum in India. These services became widely adopted across both urban and rural households. The shift reflects a growing reliance on digital platforms for everyday essentials. (Mponela et al., 2024). In 2023, India's food service market was valued at around 70 billion USD. The projection indicates a significant rise, expected to hit USD 125 billion by 2029. This reflects the strong expansion and rising demand within the sector, this growth includes full-service restaurants, quick-service outlets, cafes, bars, and the cloud kitchen sector. Each segment contributes to the expanding food service industry. The Indian industry of online meal delivery is anticipated to grow to 351.2 million users by 2029 (Statista, 2024). Food delivery apps provide busy users with real-time connectivity through mobile devices, ensuring speed and convenience (Lee, S.B.; Lee, E.Y.; Y.J.J., Jeon, 2017). This study expands on previous research into consumer behavior in the food service industry while incorporating the acceptance of information technology systems. It applies an expanded UTAUT framework for analysis these factors. The objective is to better comprehend how consumers adopt and interact with technology in the food service sector. This model enhances the traditional UTAUT by incorporating hedonic motivation and online food images. This study explores key elements influencing the intentions of consumers to use online food delivery apps from various angles. It emphasizes delivery apps as an essential marketing channel for restaurants, investigates consumer behavior within the online food marketplace. By analyzing these behaviors, the study offers a comprehensive understanding of how users interact with these platforms. The outcomes contribute insightful information about the dynamics of food supply app usage. The global adoption of online based meal ordering has seen substantial growth. In India, the widespread use of smartphones and the swift rise of mobile applications have significantly altered consumer lifestyles. This transformation reflects a broader trend towards digital convenience. The increased accessibility of mobile technology has reshaped how Indians interact with food services. Consequently, online food ordering is now a necessary component of day-to-day existence (Singh, 2018; Gupta, 2019). Consumers eagerly embrace the internet and Online Food Delivery Applications (OFDAs) for the convenience, accessibility to information, and interactivity they provide (Gupta et.al., 2019; Chen et al., 2009). Businesses that adapt to this digital shift by offering user-friendly mobile applications for ordering and delivery are likely to see increased revenue (Wang et al., 2010). Online food delivery (OFD), facilitated by platforms that allow consumers to purchase from a broad selection of goods or services, is a growing trend (Cho et al., 2019). Online food Platforms such as Zomato, Swiggy, and Food Panda allow users to place orders from various restaurants via apps or websites. Alalwan (2020) suggests that these platforms can enhance a restaurant's revenue potential, while Cho et al. (2019) emphasize how they assist users in selecting from a diverse array of food providers. By 2028, The market for online meal delivery is anticipated to grow a value of USD 81.91 billion. Digital ordering is a simple process that assures consumers that restaurants are embracing technological advancements (Ramesh et al.). Food delivery apps are anticipate to be a major contributor to the restaurant & fast-food sectors in the Indian market. The growing popularity of new information technologies has spurred extensive research on information systems and online food delivery apps globally. This study introduces new variables, including "Hedonic Motivation" and "Online Food Image," as they are essential drivers of online food acceptance and may increase the forecasting precision of the usual model along with the key variables originating with UTAUT framework, such as performance expectancy, effort expectancy, social influence, and facilitating conditions. Principal goal is to identify the elements which impact Delhi/NCR consumers' behavioral intentions regarding online meal delivery apps. This research employs an expanded rendition of UTAUT (Unified Theory of Acceptance and Use of Technology) model for empirical analysis so as to accomplish objective. When it comes to forecasting user intentions for different information technologies, this particular model is thought to possess greater explaining ability compared to Technology Acceptance Model (TAM) (Xu, X.; Thong, J.Y.; Venkatesh, V.L.;2012). Despite the rapid expansion of delivery apps, there is a dearth

of thorough scholarly research on this subject. Prior research (Cho et al., Okumus et al., 2003; Lee et al., 2017;) have explored related topics, but this area remains relatively under-examined. Delivery apps that facilitate real-time communication via mobile devices offer busy consumers speed and convenience (Lee et al., 2017). Thus, with the UTAUT model, this research aims to examine intentions of consumers regarding online meal delivery services in a developing nation. The focus is on understanding how various factors influence user behavior in this context. By utilizing the UTAUT framework. The study aims to provide insight into consumer attitudes and adoption patterns.

Research Gap

The review of the literature reveals a notable research gap concerning the elements influencing consumers' plans to utilize meal delivery services online, particularly in developing nations such as India (Jin-Xiang et al., 2006). This gap is crucial to address, as understanding these influencing variables could provide valuable insights for marketers and policymakers. Such insights can help target key areas to improve customer adoption and satisfaction with these services. By focusing on these determinants, strategies can be better tailored to enhance user engagement and service utilization. Overall, addressing this gap is essential for optimizing marketing and policy approaches in the online meal delivery sector. With the rapid evolution of consumer behaviour and market dynamics, existing models, such as the UTAUT model by Venkatesh (2003), do not fully capture the variables influencing consumer behavioural intentions toward using online food delivery apps. To bridge this gap, two additional constructs are incorporated into the base UTAUT model. The first is hedonic motivation, as it significantly impacts a consumer's purchasing and consumption decisions, particularly when interacting with technology-based apps (Rezaei & Ismail, 2014). The second construct is online food image, which provides crucial information about food choices, simplifying influencing purchasing intention and aiding in decision-making (Kim & Lennon, 2000).

Theoretical Model

The Unified Theory of Acceptance and Use of Technology, or UTAUT, model have applied to numerous studies as to investigate technology embracement. UTAUT incorporates ideas from multiple structures, like the Motivational Model, The Theory of Reasoned Action (TRA) and Technology Acceptance Model (TAMThis comprehensive approach contributes to a more nuanced comprehension of the reasons and mechanisms behind users' adoption of new technologies. UTAUT is considered superior to TAM, as TAM does not adequately account for the interaction between its own variables and a variety of external factors (Lee et al., 2019; Agarwal &Karahanna, 2000), and it struggles to elucidate technology use in work-related environments (Morosan & DeFranco, 2016). Venkatesh et al. (2003) Overcome these limitations, introduced UTAUT framework. The current framework combines various current paradigms & hypotheses concerning the uptake of technology. UTAUT provides a more comprehensive understanding of technology acceptance by integrating these frameworks. As a result, UTAUT is widely regarded as among the most reliable & contemporary framework for evaluating the uptake of technology. (Shiferaw & Mehari, 2019). It has been employed to elucidate behavioural intentions regarding technology across various domains, including food delivery applications. These elements are crucial in determining how users adopt and engage alongside technology. The perceived benefits of utilising a technology are assessed through performance expectancy. Effort expectancy measures how simple or complex a technology is to use. Social influence is the study of how friends' and family's use of technology influences a person's acceptance. The quality and accessibility of the technical infrastructure that underpins and facilitates the application of technology are known as "facilitating conditions" (Zmud et al., 2016; Brown and Venkatesh (2005); Venkatesh et al. (2003)). These factors collectively shape how users perceive and engage alongside new technologies. In addition to these four UTAUT constructs, this study incorporates two additional factors: Hedonic Motivation and Online Food Image. Hedonic motivation pertains to the enjoyment and satisfaction gained from making use of technology. Additionally, Head and Hassanein (2007) demonstrated that the inclusion of text and images that convey social presence on e-commerce websites can increase consumers' enjoyment and build trust in online shopping. Additionally, Francis et al. (2021) employed UTAUT to study online food delivery intentions in Ghana. Similarly, this research extends the UTAUT model to examine customer behaviours pertaining to services for online food delivery (OFD) in Delhi/NCR region.
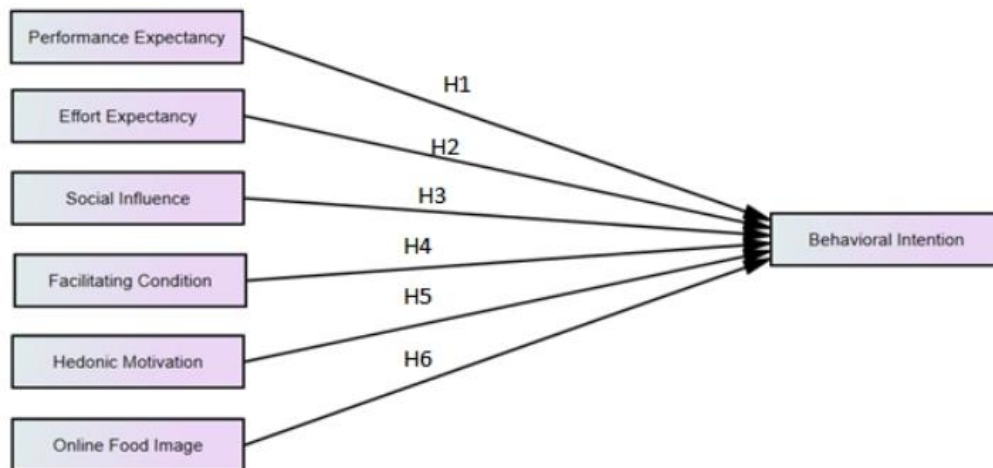
Fig. 1 Theoretical Model

Literature Review and Hypothesis Development

Performance Expectancy and Behavioral Intention

Performance Expectancy, According to Venkatesh et al. (2003), is the extent to which a people's believes that using a system will improve their performance at work. According to empirical research, behavioral intention gets notably impacted by performance expectancy (Farooq et al. (2017), Jyoti et al. (2023), Suki & Suki (2017), Mehta et al. (2019), and Naranjo-Zolotov et al. (2019)). For instance, that among executive business students, performance expectancy significantly impacts the usage and adoption of lecture capturing systems (LCS) within the information technology sector (IT) as discovered by Farooq et,al. (2017). Mehta et al. (2019) found that purpose to adopt digital learning is significantly impacted by performance expectancy. Result emphasizes influence over perceived benefits in a acceptance of digital learning. Suki and Suki (2017) found that performance expectancy features major influence on students' intentions to employ storytelling and animation in classroom. This demonstrates how crucial perceived benefits are in promoting the use of cutting-edge teaching strategies. According to the study of(Jyoti, Sharma ,K.R Gola; 2023) investigates performance expectancy significantly positively affects the e-banking consumer in India by highlighting the benefits of using e-banking service. According to Naranjo-Zolotov et al. (2019), discovered that intention and performance expectancy are significantly correlated in the context to e-participation activities. Their research reveals that individuals are more inclined to participate online if they think it will be valuable. This emphasizes how perceived value influences users' behavior online. Consequently, we posit:

H₁: Performance expectancy has significantly influence users' intention to use online food delivery service.

Effort Expectancy and Behavioral Intention

Venkatesh et al. (2003) define effort expectancy as the degree of simplicity or complexity of a system's use. Research has indicated that the purpose to adopt technology is affected by effort expectancy (Jyoti, et,al., 2023; Wong et al., 2013; Sumak& Sorgo, 2016; Rana et al., 2016; Isaac et al., 2019). The factor of effort expectancy features major impact over consumers' propensity in accepting new technologies. According to the study of (Jyoti, sharma,K.R Gola; 2023) investigates effort expectancy significantly positively affects the e-banking consumer in India by ease of use associated with these e-banking service. According to Wong et al. (2013), early childhood teachers' aadoption and application of interactive whiteboards are influenced by their level of effort expectancy. The findings of these studies indicate that individuals' perceptions on technology's ease of use features substantial impact on their attitudes towards adopting & using it. Given its impact on people's willingness to accept new tools and systems, effort expectancy is a crucial factor in technology adoption research. With these observations in mind, the following hypothesis can be put forth.

H₂: Effort expectancy has significantly influence users' intention to use online food delivery service.

Social Influence and Behavioral Intention

Venkatesh et al. (2003) define social influence as the degree to which individuals believe the people around them anticipate them utilizing a new system. (Venkatesh et al., 2003) highlights how a person's behavior is shaped by how they believe the other people expect them utilizing technology. Studies already revealed that social influence features major effect on behavioral intentions.(Jyoti et al., 2023; Chua et al., 2018; Kurfalı et al., 2017; Macedo, 2017; Howard et al., 2017; Lwoga& Komba, 2015). Similarly, Macedo (2017) discovered a link between older adults' intentions to use IT and communication technologies (ICTs) and social influence. These results demonstrate the significant opinion of others has an impact on how technology is adopted. Furthermore, it is recommended by Chong et al., (2016) & Lee et al., (2019) that OFDS providers use worthwhile promotions to draw in more customers. Numerous contexts have demonstrated how social influence influences behavioral intentions. As per Howard et al. (2017) and Kurfalı et al. (2017), Furthermore, it affects Tanzania's continued adoption of web-based LMSs (Lwoga & Komba, 2015). According to the study of (Jyoti, sharma, K.R Gola; 2023) investigates social influence significantly positively affects the e-banking consumer in India by societal encouragement with these e-banking service. The aforementioned studies highlight the noteworthy social influence's effects on the acceptance & application patterns of technology. Considering these findings, the following theory is put forth:

H₃: Social Influence has significantly influence users' intention to use online food delivery service.

Facilitating Condition and Behavioral Intention

Facilitating conditions are associated with person's evaluation between the quality and accessibility of the organizational and technical resources required in order to facilitate the utilization of a system, Venkatesh et al. (2003). This concept highlights how adequacy of infrastructure influences technology adoption and use. Scholarly investigations have indicated that favorable circumstances have an effect on the intention of behavior (Jyoti et.al, 2023; Zhou et al., 2020; Jewer, 2018; Reyes Mercado, 2018; Kurfalı et, al., 2017; Howard et, al., 2017).To give an example, Zhou et al. (2020) discovered the a acceptance of self-service parcel services, delivery at the last-mile is highly impacted by facilitating conditions. According to Reyes-Mercado (2018), encouraging circumstances can influence non-adopters' decisions to use fitness trackers. Jewer (2018) found that favorable circumstances features noteworthy effect on patients' intentions to use websites that show ED wait times. Improved infrastructure and assistance are likely to enhance the attractiveness and accessibility of these apps, thus driving their increased adoption for food procurement. As a result, The following theory is proposed:

H₄: Facilitating condition has significantly influence users' intention to use online food delivery application.

Hedonic Motivation and Behavioural Intention

Hedonicc consumption includes fantasy, sensual experiences, and the pleasure of pursuing distinct pursuits (Musnaini et al., 2017). Thus, hedonic motivation describes the intrinsic benefits that people derive from using technology, such as joy, pleasure, or fun (Venkatesh et al., 2012). Since intrinsic motivation incorporates enjoyment one derives by utilising technology, it can be a major factor in examining acceptance by users & usage of it (Venkatesh & Brown, 2005). Earlier Studies have revealed, hedonic motivation features notable impact in the uptake of novel technologies (Thong et al., 2006; Brown & Venkatesh, 2005; Van der Heijden, 2004; Childers et al., 2001). Additionally, researches by Rezaei & Ghodsi (2014) and Yeo et al. (2017) have shown, hedonistic websites increase user satisfaction by providing an experiential approach to hedonism. According to Venkatesh et al. (2012), behavioral intentions are directly impacted by hedonic motivation. Based on these results, it is suggested that hedonic motivation also influences users' intentions for usage of the internet meal delivery services. As a result, following theory is proposed:

H₅: Hedonic motivation significantly influence on Users' intention towards using OFD services

Online food image and Behavioural intention

Chen et al. (2013) define online store image as the comprehensive understanding of the features, capabilities, & psychological effects of the store that affect customer behavior when they engage in tandem with it. Studies have indicated that behavioral intentions are positively impacted by an online store's image (Kim et al., 2000; Song et al., 2012; Kim et al., 2012). Song & Kim (2012), for instance, measured the quantity of data displayed in product images using their size and discovered that this data affects the perception of risk. This in turn affects the intention of customers to use. In a similar

vein, Kim and Lennon (2000) showed that increasing product information influences consumer choice and is positively correlated with intentions to buy. These results demonstrate how thorough product images influence consumer behavior. Churchill (1979) emphasized the effects of internet retailers image attributes on online buying behavior. According to Klein (2003), product and service images are viewed to elevate virtual product experiences and elicit a sense of presence, influencing prospective online purchase behavior. Furthermore, consumers' brand attitudes, product knowledge, and purchase intentions are all impacted by online images (Li et al., 2001; Koernig, 2003; Berry & Clark, 1986; Krentler & Guiltinan, 1984). According to Robin et al. (2020), consumers' decision-making processes are significantly affected by the way photographs are presented in an online context. The following theory is put forth in light of this literature:

H6: Online food image significantly influence users' intention to use online food delivery service.

Research Methodology

Data Collection

The study aims to ascertain users' intentions to use online food delivery services, with a particular emphasis on the Delhi/NCR area. To ascertain respondents' intentions regarding online food delivery apps, an online survey was disseminated (OFDA). Table 1 provides a detailed profile of the 468 responses that were assembled. A questionnaire that incorporated constructs and items from previous studies was created to be able to assess the theoretical framework. Using an Extended UTAUT model, we included Venkatesh et al. (2003)-based measurement items for performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC).As shown in Table 2, hedonic motivation items were derived from Mikhael et al. (2023) and online food image items were modified from Escobar-Rodriguez et al. (2013). Measures for each construct were developed from validated studies. A 5-point Likert scale was used to record participants' answers, with 5 denoting strong agreement and 1 denoting strong disagreement. There were two sections in survey. Measurement items were chosen in accordance with the particular focus of this research from body of existing literature. Smart PLS 4.0 was used in order to analyse data. Hair et al. (2012) state that partial least squares analysis was done when needed to evaluate structural models & measurement. To evaluate suitability of measurement items, confirmatory factor analysis was applied to measurement model.

Measurement Model

Four important variables—performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions—from the UTAUT model (Venkatesh et al., 2003) were used in this study. These factors were selected in order to investigate their impact on the primary topic of study. The study attempted to obtain insights into these factors' influence on the topic under investigation by integrating them.

Table 1: Participants Profile

Demographic	Frequency	Percentage
Gender		
Male	271	58%
Female	197	42%
Age		
Under 20	69	15%
20-30	251	54%
31-40	70	15%
41-45	43	9%
45 above	35	8%
Education Level		
Secondary School	71	15%
Sr. Secondary School	60	13%
Graduate	178	41%
Post-Graduate	63	13%
PH.D	83	18%
Other	13	3%
Occupation		
Student	194	42%
Govt. Employee	82	18%
Pvt. Employee	48	10%

Self-Employee	38	8%
Professional Job	70	15%
House wife	58	12%
Other	10	2%
Frequency of using OFD for 1 month		
1-2 times	94	20%
3-4 times	197	42%
5-6 times	110	24%
7-8 times	37	8%
Above 9 times	30	7%
Annual Income(INR)		
Below INR 5,00,000	153	33%
5,00,000-10,00,000	108	23%
10,00,000-15,00,000	89	19%
15,00,000-20,00,000	39	8%
INR 20,00,000 above	79	17%

In order to evaluate their impact on technology acceptance, hedonic motivation and online food image were added as additional constructs. The reliability of variable was evaluated utilizing Cronbach's alpha & Composite dependability (CR). By computing the Average Variance Extracted (AVE) with loadings of reflective items over 0.7 cutoff, convergent validity was demonstrated. All of the extended UTAUT model variables (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Online Food Image) showed loadings above 0.90, indicating that the online food delivery application construct was deemed high-order. Every construct had an AVE value greater than 0.5, and the values varied from 0.82 to 0.97. All of the constructs had AVE values above 0.5 and the AVE values ranged from 0.82 to 0.97, supporting convergent validity, by ensuring certain the square root of the Average Variance Extracted (AVE) was more elevated compared to associations between components, discriminate validity was verified, as indicated in Tables 2-4. This attests to the fact that every construct is unique.

Data analysis

Smart PLS (v.4.1.0.2), a popular application that applies Partial Least Squares method to Structural Equation Modelling (PLS-SEM), was employed for analyzing data in this research. Researchers frequently use SEM techniques to assess model fit & make sure model fits the dataset (Sarstedt, Henseler, and Ringle 2011). Two popular methods of SEM are covariance-based SEM (CB-SEM) & partial least squares SEM (PLS-SEM).

Insert Table 3: Validity and Reliability for all Constructs.

Measurement Items	Loadings	α	CR	AVE
Performance Expectancy	0.949	0.966	0.970	0.903
PE1	0.982			
PE2	0.980			
PE3	0.901			
PE4	0.936			
Effort Expectancy	0.972	0.981	0.980	0.945
EE1	0.971			
EE2	0.974			
EE3	0.964			
EE4	0.980			
Social Influence	0.987	0.988	0.991	0.976
SI1	0.988			
SI2	0.990			
SI3	0.985			

Facilitating Condition	0.959	0.971	0.970	0.921
FC1	0.971			
FC2	0.974			
FC3	0.969			
FC4	0.923			
Hedonic Motivation	0.938	0.933	0.952	0.882
HM1	0.958			
HM2	0.897			
HM3	0.960			
Online Food Image	0.905	0.893	0.931	0.821
OFI	0.930			
OF2	0.877			
OF3	0.910			
Behavioral Intention	0.948	0.944	0.964	0.899
BI1	0.953			
BI2	0.953			
BI3	0.938			

Average Variance Extracted (AVE), CR stands for Composite Reliability, and α stands for Cronbach's alpha.

Insert Table 4: Discriminant Validity

	BI	PE	EE	SI	FC	HM	OFI
BI	.948						
PE	.847	.950					
EE	.787	.780	.972				
SI	.775	.742	.839	.987			
FC	.832	.786	.829	.788	.959		
HM	.806	.784	.854	.838	.823	.939	
OFI	.800	.748	.787	.774	.788	.811	.906

The PLS-SEM method was used in this study because it can support theoretical validation, elucidate intricate relationships between constructs, and assess the significance of path coefficients (Hair, Ringle, and Sarstedt 2011; Fishbein and Ajzen 1974).Researchers have extensively employed the

Partial Least Squares Structural Equation Modelling (PLS-SEM) method for examining intricate or direct relationships between variables and evaluate influence of UTAUT constructs on users' behavioral intentions (B. Kaba et al., 2014; Pimtong et al., 2021;Surya et al., 2021; Huseyin et al., 2022; Shaya et al., 2023). Notably, discriminant validity can be proven by PLS-SEM without a minimum sample size being needed (Chin, 1998).

Result

Structural Model

After the measurement model was verified, PLS-SEM served as a means of evaluating how hypothetical model fit the data. To evaluate relationships, bootstrapping was done with 5000 subsamples, and the t-statistic was used to analyze the results. Table 5 and Figure 3 present the path coefficients.

Hypothesis Testing

The Smart-PLS analysis established the correlations and significant levels.
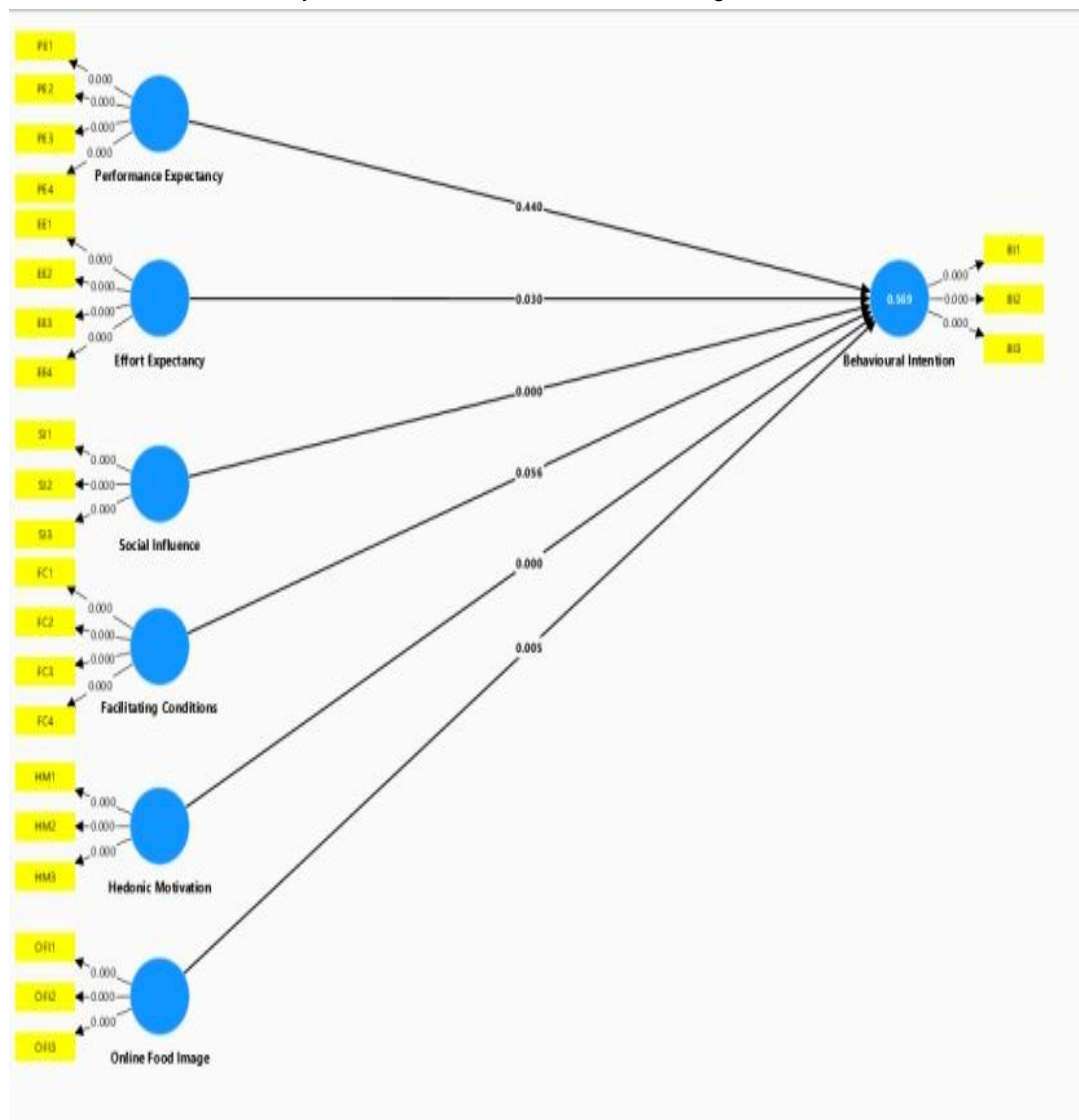

Figure 3: Extended UTAUT model on Consumer Intention to Use Online Food Delivery Apps

Path coefficient & results in Table 5.

Hypothesis	Description	T-Statistics	P-value	Result
H1	Performance Expectancy -> Behavioural Intention	0.772	0.440	Not supported
H2	Effort Expectancy -> Behavioural Intention	2.175	0.003	Supported
H3	Social Influence -> Behavioural Intention	3.975	0.000	Supported
H4	Facilitating Conditions -> Behavioural Intention	1.915	0.056	Not supported
H5	Hedonic Motivation -> Behavioural Intention	6.446	0.000	Supported
H6	Online Food Image -> Behavioural Intention	2.818	0.005	Supported

To look into the impacts of additional constructs (Hedonic Motivation & Online Food Image) and the UTAUT variables (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions) on users' behavioral intention to order meals online, bootstrapping analysis with 5000 subsamples was carried out. Table 5 and Figure 3 present the significant and non-significant results. While hypotheses H1 and H4 were not supported, significant positive relationships were found for H2, H3, H5, and H6.

Discussion

This research employs the UTAUT model (Venkatesh, 2003) as its conceptual structure to investigate how online food delivery (OFD) services affect users' behavioral intentions. The primary objective is to elucidate the ways in which different aspects of OFD platforms influence consumers' intentions to use them. This paper objective is to offer important perceptions of the dynamics of consumer adoption of food delivery apps in developing countries by analyzing existing literature and adding extra like Hedonic Motivation & Online Food Image along with core UTAUT variables: Effort Expectancy, Social Influence, Performance Expectancy and Facilitating Conditions. Performance expectations engage in a major part in the acceptance of ITlike lecture recording systems (Farooq et al., 2017). While Suki & Suki (2017) emphasized its critical role in students' intentions to use animation and storytelling for enhanced inventiveness, Mehta et al. (2019) noted its strong effect on e-learning adoption. Nevertheless, in contrast to earlier studies, according to our final conclusions, performance expectations featured noticeable influence over users' behavioral intentions. That being said, Samuel et al.'s (2014) study discovered that the impact of PE on behavioral intentions to make use of ICT of institution was statistically insignificant, which is in line with our findings. However, the next variable of our UTAUT model effort expectancy features markedly favorable impact on users' intention, which is in line with previous research (Wong et al., 2013; Sumak & Sorgo, 2016; Rana et al., 2016, Isaac et al., 2019; K.R Gola; 2023) have demonstrated that the purpose of using technology is affected by effort expectations. Additionally, they have discovered that effort expectancy positively impacts the internet usage in businesses. Even, Same findings were made by Wong et al. (2013) and Rana et al. (2016) regarding its influence on system adoption and general technology embrace. These studies highlight the role that perceived ease of use plays in shaping technology adoption behaviors. Previous study has shown that social influence positively affects behavioral intention (Lwoga& Komba, 2015; Chua et al., 2018; Macedo, 2017; Kurfalı et al., 2017; Howard et al., 2017; Jyoti, Sharma, K.R Gola; 2023). Chua et al. (2018). In developing nations, social influence is a significant factor in determining consumer intentions. Empirical studies have indicated that favorable circumstances have an impact on the intention to act (Kurfalı et al.,

2017; Howard et al., 2017; Jewer, 2018; Reyes Mercado, 2018; Zhou et al., 2020). Zhou and colleagues (2020) discovered fact the adoption of self-service parcel services is positively impacted by enabling conditions. Our research shows no discernible Facilitating conditions' impact on users' behavioral intentions, in contrast to these findings. Similar to Ting et al. (2012) and Jyoti et.al, (2023) who discovered that facilitating conditions for mobile e-books in younger users were irrelevant, this discrepancy may arise from the age range of our sample (20–30 years), where users generally have high tech proficiency. The study by (Jyoti, Sharma, K.R Gola; 2023) facilitating conditions featured no substantial influence on consumers' behavioural intention in adoption of e-banking service in India. Hedonic motivation has been found to have a direct impact on and to be a critical factor in the process of technology acceptance in many previous studies (Van der Heijden, 2004; Brown & Venkatesh, 2005; Childers et al., 2001; Thong et al., 2006). According to research by Rezaei & Ghodsi (2014) and Yeo et al. (2017), hedonic websites provide an experiential understanding of hedonism and increase user satisfaction. Our research also demonstrates that hedonic motivation features significant influence over users' behavioral intentions to use technology, that aligns with findings. Prior investigations (Kim et al., 2000; Kim et al., 2012; Song et al., 2012) has demonstrated that positive online food images influence behavioral intention.

Conclusion

Online food delivery applications are experiencing significant growth in developing countries. Despite increasing research on this subject, few studies specifically address behavioral intention to use these offerings in underdeveloped regions. The shift from offline to online purchasing likely reflects evolving consumer behavior. This paper objective is to ascertain the critical elements affecting Users' acceptance of internet-based food delivery applications through Unified Theory of Acceptance and Use of Technology (UTAUT). Findings reveal fact that social influence, hedonic motivation, effort expectancy & virtual food image positively impact users' behavioral intentions to adopt these services. However facilitating conditions and performance expectancy, showed negative effect, potentially due to the market's openness in developing countries and the evolving consumer attitudes toward new technology.

These findings suggest that business experts and regulators should take action to enhance online meal delivery services. Promoting digital platforms for meal ordering can also contribute to broader digitalization efforts and support economic growth, especially as users become more comfortable with the technology and less concerned about privacy or financial security risks. Finally, the study encourages further research into how different theoretical models influence online consumer behavior, especially when it comes to developing nations. First, it employs non-probability sampling, so future studies ought to consider using probability sampling methods, such as stratified sampling, to ensure representation across all regions of a country. Second, while this study focuses on factors influencing online meal supply application use in developing countries, future studies could apply the extended UTAUT model to other domains beyond food delivery to increase the explanatory power of the findings. Additionally, the study did not account for moderating elements, including age, gender, & experience. Future studies could incorporate these elements to gain a deeper knowing how they impact the connection between behavioural intention and the constructs, potentially offering more nuanced insights for scholars and practitioners alike.

Implication

The quick expansion of internet meal delivery applications (OFD) in developing countries like India offers a unique opportunity for policymakers and businesses to tap into consumer convenience, foster business growth, and boost economic development. Based on the study's findings, Brands should focus on word-of-mouth marketing, social media influencers, and peer recommendations to amplify social influence. This will broaden the reach and make OFD services accessible to a larger portion of the population. Platforms can incorporate personalized meal recommendations, exclusive deals, and gamification elements (like rewards, badges, or challenges) to increase the fun and enjoyment associated with using the pulverating high-quality images, videos, and interactive features like live kitchen views or food preparation updates can create a more immersive experience, enhancing the pleasure of ordering through the platform. Platforms can incorporate personalized meal recommendations, exclusive deals, and gamification elements (like rewards, badges, or challenges) to increase the fun and enjoyment associated with using the pulverating high-quality images, videos, and interactive features like live kitchen views or food preparation updates can create a more immersive experience, enhancing the pleasure of ordering through the platform. Address Performance Expectancy

and Facilitating Condition Challenges, which does not affect behavioral intention of Users. Since performance expectancy and favourable circumstances were discovered to be non-important, efforts should be made to educate consumers on how OFD apps can enhance their efficiency and performance. Demo videos or tutorials showing how quickly and easily food can be ordered may change perceptions. Given that facilitating conditions were not found to significantly influence usage, improving trust through secure payment options, transparent information policies, and ensuring the protection of customer information is essential to remove any latent barriers to adoption. By acting on these insights, policymakers and businesses can foster a more effective ecosystem for online food delivery, meeting consumer needs while driving growth in the digital economy.

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Appendix

Variable	Code	Statement	References
Performance Expectancy			
	PE1	I find OFD apps provide accurate information.	Venkatesh et al. (2003)
	PE2	I find OFD apps improve my chance of placing an order for food that are significant to me.	
	PE3	I find that using OFD applications helps me complete the ordering process faster.	
	PE4	I can save time when I use OFD apps for ordering food	
Effort Expectancy			
	EE1	I find it easy to learn how to use online food delivery apps for ordering food.	Venkatesh et al. (2003
	EE2	I find my interaction with online food delivery apps for ordering food clear and understandable.	
	EE3	I find using online food delivery apps easy for me.	
	EE4	I find it easy to become proficient at using online food delivery apps for ordering food.	
Social Influence			
	SI1	People whose opinions I value think I should use online food delivery apps.	Venkatesh et al. (2003
	SI2	People who influence my decisions believe I should use online food delivery apps.	
	SI3	The people whose opinions I value prefer that I use online food delivery apps for ordering food.	
Facilitating Condition			
	FC1	I am capable of using online food delivery apps because I have the required resources.	Venkatesh et al. (2003
	FC2	I have the necessary knowledge to operate online food delivery apps for ordering food.	
	FC3	I am comfortable using online food delivery apps for placing food orders.	
	FC4	I have no trouble using online food delivery apps for ordering food.	
Hedonic Motivation			
	HM1	I find using online food delivery apps for ordering food to be fun.	Mikhael et al. (2023)
	HM2	I find using online food delivery apps for ordering food to be enjoyable.	
	HM3	I find using online food delivery apps for ordering food to be very entertaining.	
Online Food Image		**Online Food Image**	
	OFI1	Food images shown on OFD app is very attractive.	Escobar-Rodriguez et al. (2013).
	OFI2	Food images shown on OFD app has good quality.	
	OFI3	Food images shown on OFD apps similar to the what we want to get.	
Behavioral Intention			
	BI1	I intend to continue using OFD apps in the future	Venkatesh et al. (2003)
	BI2	I will always try to use OFD apps in my daily life.	
	BI3	I plan to continue to use OFD frequently	

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