

Customer Perception towards Online Food Delivery Services- Development of Conceptual Model

Dsouza Prima Frederick ¹, & Ganesh Bhat S. ²

¹ Research Scholar, Institute of Management & Commerce, Srinivas University, Mangalore-575001, India.

Orcid ID: 0000-0003-2568-5619; Email ID: primadsouza.cmc@srinivasuniversity.edu.in

² Research Professor, Institute of Management & Commerce, Srinivas University, Mangalore, India.

Orcid ID: 0000-0003-1950-8536; Email ID: ganbhatbvr@rediffmail.com

Area of the Paper: Business Management.

Type of the Paper: Review paper.

Type of Review: Peer Reviewed as per [C|O|P|E](#) guidance.

Indexed In: OpenAIRE.

DOI: <https://doi.org/10.5281/zenodo.6642705>

Google Scholar Citation: [IJCSBE](#)

How to Cite this Paper:

Dsouza, Prima Frederick, & Ganesh Bhat, S., (2022). Customer Perception towards Online Food Delivery Services- Development of Conceptual Model. *International Journal of Case Studies in Business, IT, and Education (IJCSBE)*, 6(1), 470-505. DOI: <https://doi.org/10.5281/zenodo.6642705>

International Journal of Case Studies in Business, IT and Education (IJCSBE)

A Refereed International Journal of Srinivas University, India.

Crossref DOI : <https://doi.org/10.47992/IJCSBE.2581.6942.0175>

Paper Submission: 28/05/2022

Paper Publication: 16/06/2022

© With Authors.



This work is licensed under a [Creative Commons Attribution Non-Commercial 4.0 International License](#) subject to proper citation to the publication source of the work.

Disclaimer: The scholarly papers as reviewed and published by the Srinivas Publications (S.P.), India are the views and opinions of their respective authors and are not the views or opinions of the S.P. The S.P. disclaims of any harm or loss caused due to the published content to any party.

Customer Perception towards Online Food Delivery Services- Development of Conceptual Model

Dsouza Prima Frederick ¹, & Ganesh Bhat S. ²

¹ Research Scholar, Institute of Management & Commerce, Srinivas University, Mangalore-575001, India.

Orcid ID: 0000-0003-2568-5619; Email ID: primadsouza.cmc@srinivasuniversity.edu.in

² Research Professor, Institute of Management & Commerce, Srinivas University, Mangalore, India.

Orcid ID: 0000-0003-1950-8536; Email ID: ganbhatbvr@rediffmail.com

ABSTRACT

Purpose: *The central idea of the paper is to study the influencing factors that shape the customer perception of online food delivery services and develop a conceptual model based on established customer theories and systematic literature review.*

Design: *Secondary data is collected from books and journal papers using search engines such as Google Scholar, Research gate, SSRN, Base, Semantics and Infilbnet. Postulates and affecting factors to customer perception are proposed using the focus group interaction method.*

Findings: *The study identified several determinants for customer usage of online food delivery services such as perceived benefits, prior experience, subjective norms and system quality which are proposed to influence the attitude and perception of the customers.*

Originality: *This paper highlights the various affecting factors influencing the customers' preference to use online food delivery services.*

Paper Type: *Review of literature for the development of conceptual model.*

Keywords: Customer Perception, Online Food Delivery Services, Theory of Reasoned Action, Theory of Planned Behaviour, Technology Acceptance Model, Innovation Diffusion theory, Theory of Adoption of Innovation, Uses and Gratification theory, Expectation Confirmation Theory, Social Influence Theory, Perceived Benefit, Prior experience, Subjective Norms, System Quality, Customer Attitude.

1. INTRODUCTION :

The development spree in digital technologies over the late 1990s has transformed the way people shop. While the electronic shopping sector is booming, it has taken over a significant portion of the whole food industry, eventually displacing traditional restaurant dine-outs. Although, online food ordering has certain drawbacks, the benefits of online purchasing cannot be overlooked (Frederick & Parappagoudar, 2021) [1] (Aryani, et al. 2022) [2] (Frederick, et al. 2021) [3]. In today's fast-paced world, the adoption of internet purchasing has reached new heights (Tasnim, et al. 2022) [4] (Frederick, 2022) [5]. The younger generation prefers to buy food items from online hubs to a greater extent than older generation as they offer numerous advantages to customers' such as easy access to variety of food items, quick transactions, convenience of time, and attractive promotional offers. Apart from these motivators, there are also operational and non-transactional irritants with ordering food online, such as internet connectivity, various e- payment risks, distribution issues, privacy risks, and so on, which function as de-motivators for online consumers (Chakraborty, et al. 2022) [6] (Frederick & Bhat, 2021) [7]. Of course, online food ordering and e-marketing are still in its nascent stage, it is critical for marketers to understand how customers behave in this method which has secured the advantages of buying (Srivastava, et al., 2022) [8], (Frederick, 2022) [9]. Many restaurants are moving online because it lowers their operating costs, which results in offering food products at less price or discounts in order to be competitive in today's dynamic market. In addition, changing lifestyle and significant income growth are two demographic aspects that have contributed to the bloom in this online food industry. Customers' perceptions of online ordering of food, shape their desirable and undesirable attitudes about

it, which in turn influence their behaviour and results in growth and development of the online food business (Frederick & Parapagoudar, 2021) [10]. However, any product’s use and purchase are primarily determined by the customer’s perception of the item and this perception is formed based on how well a product is promoted by the vendors. Therefore, online food deliverers and restaurant partners are laying up their best marketing efforts to carve a niche in customer’s mind. Considerably, taste, food quality, colour, quantity, website design, and customer service are some of the stimuli that affect online buyers’ perceptions (Frederick, 2022) [11]. Many aspects of consumers’ perception are to be explored to gain the confidence and consideration of Indian customers in this virtual shopping world, such as what exactly does the customer think before buying any product online, what are their anxieties, expectations, fear and problems faced by customers, which the online food providers have to dissuade (Frederick & Bhat, 2022) [12]. Although many scholars have extensively researched on ‘e - shopping and perception’, but, so far, none has proposed a systematic strategy showing the overall ‘perception of customers towards online food delivery services. Further, there are a few studies undertaken in developed economies of the west that give some idea on customer perceptions of the decision-making process during online purchases.

Given this background, the present research study is an attempt to find the determinants influencing consumers’ perceptions towards online food delivery services which will be tremendously valuable for online food deliverers for advertising their food items and services and increase their customer-base. In addition, it will also give clear insights on customers’ perceptions of privacy issues, allowing the online delivery partners to make more informed decisions to mitigate such risks and attract more customers to order online food.

2. OBJECTIVES :

The main objectives of this study are:

- (1) To analyse the current status of intellectual base of customer perception towards online food delivery services by systematic review of literature.
- (2) To refurbish the proposed model through focus group interaction.
- (3) To identify the affecting factors of customer perception towards online food delivery services.
- (4) To frame postulates based on focus group interactions.
- (5) To list out advantages, benefits, constraints and disadvantages of the proposed model for customer perception towards online food delivery services.
- (6) To give suggestions to prove the conceptual model using the empirical method for further study to prove the hypotheses.

3. STUDY OF CONCEPTUAL MODELS :

3.1 Related Works:

Below Table 1 exhibits the contribution by different scholars across globe highlighting major findings of customer perception towards online food delivery services.

Table 1: Contribution by scholarly articles

S. No.	Contribution	Reference Number
1.	In Shah Alam, Malaysia, researchers have found a link between food delivery app qualities and perceived value amongst millennial working professionals. Five qualitative aspects such as ease, design, reliability, affordability, and numerous food options were analyzed using a quantitative approach. The analysis shows that the customer is influenced by these five qualitative factors and among youngsters in the early stages of their careers, pricing is the most influential element in determining their perception.	Azizul, et al. (2019). [13]
2.	Rating online, review and e-tracking have been added to UTAUT’s current theory. The analysis revealed that there are three additional components introduced to the conceptual model, online rating online review and online tracking which has a substantial impact on consumer satisfaction and the desire to utilise mobile food delivery applications in Jordan.	Alalwan (2020). [14]

3.	Gratification theory was employed incorporating the factors such as “service quality, system quality, perceived promotions, product quality, perceived pricing, and value” which help in boosting consumer e-satisfaction towards online food delivery apps. The findings revealed that online food delivery apps success model can be achieved by combining e-commerce structure technique with “product quality, perceived pricing, perceived promotions, and electronic Word-of-Mouth (e-WOM).” Further, the findings suggest that consumer e-satisfaction has stronger result on e-WOM than user satisfaction, whereas user satisfaction has a stronger influence on intention to reuse than customer e-satisfaction.	Wang, et al. (2019). [15]
4.	Attribution theories was employed to conduct a research based on “food delivery intermediates service”, which included time-saving options and online coupons. The analysis revealed that convenience of time is a critical element for online consumers, whereas pricing is not considered while utilising an online food delivery intermediary’s service. In addition, time is a crucial concern for professionals, which leads them to use modern method of ordering food through online sources.	Mahande, et al. (2019). [16]
5.	The study was made to comprehend customer behaviour in response to the use of food delivery apps. The analysis examined the relation between “food quality and e-service quality”, found that “e-service quality” has an impact on food quality. Thus, customers’ perception of food quality will be influenced by their web experience.	Ray, et al. (2019). [17]
6.	Customer loyalty is influenced by “food quality and e-service”. The study found that quality of food influences the loyalty of the customers and not due to e-service quality. Moreover, customer satisfaction mediates between “e-service quality and food quality” and towards “e-loyalty” for OFDS.	Suhartanto, et al. (2019). [18]
7.	The study described the perspective of younger generations in terms of food delivery service facilities in Vietnam. The analysis stated, digital food apps enhance consumer experience and delight by being user-friendly and allowing for “anytime and anywhere” interactive contact. The research examined at a customer’s decision-making process in the loyalty circle while selecting a food delivery service.	Nguyen (2019). [19]
8.	The research study outlined the potential and problems that the Chinese food delivery business faces. They underlined the importance of tech innovation in a functional society, as well as the enrichment of the eating experience by utilising an offline to online meal delivery network. This study provided a distinct perspective on the new industry’s prospects and problems, as well as the health repercussions of connected behaviour changes and its wide impact on the social environment.	Maimaiti, et al. (2018). [20]
9.	The ubiquitous acceptability model was used to commence the study on wearable technology for older individuals in health monitoring. Few studies appear to have looked into smartphone app adoption in the context of mobile food ordering apps, indicating that further study is needed in this field.	Li, et al. (2019). [21]
10.	To understand the willingness to utilise smartphone diet apps, researchers used a self-administered survey application. “Performance expectancy, effort expectancy, social influence, enabling environments, and personal innovativeness” were identified as five predictors of mobile diet app usage intentions in the study.	Okumus, et al. (2018). [22]
11.	Independent elements such as presents design, trustworthiness, pricing, and many meal options were evaluated towards attitude and intention toward food delivery apps. The researchers conducted a comparative study between individual and joint families and found that individual person prioritized	Cho, et al. (2019). [23]

	qualitative traits and a prefer variety of food options, whereas joint families' households prioritised dependability and convenience.	
12.	The analysis observed “aesthetic design, informative design, and cooperation design” of Indian internet food aggregators. The mobile app attribute conversion model was empirically tested to analyse the smartphone app qualities of online food aggregators that impact buying behaviour and, as a result, contribute to conversion. The findings revealed that in order to facilitate conversion and influence a customer’s purchasing choice, food aggregators must create a well-structured mobile app and visually appealing. In addition, through focus group discussion, a new construct, collaborative design, was developed, which influenced conversion.	Kapoor & Vij (2018). [24]
13.	In a customer’s review of culinary online-to-online trade, researchers looked at information quality and reliability. The study looked at the central and rim of purchasing behavior. Consumers with a strong purchasing regularity process signals via the centre path, whereas customers with a relatively low initial regularity rely on the peripheral route.	Kang & Namkung (2019). [25]
14.	Through expanded theory of “IT continuance and contingency framework”, Malaysian online food aggregators were investigated for “Hedonic motivation, price online purchase experience, time saving orientation, online coupons and convenience motivation, post-usage usefulness, attitude, and intention”. This research examined at the elements that influence Chinese students aged 18 to 22’s views about online food buying. Thus, consumers’ perceptions of online purchases will enhance if the service offers access convenience, or the right to buy online at any time and from any location.	Yeo, et al. (2017). [26]
15.	The study in Turkey, used Technology Acceptance Model and examined the online food ordering and evaluated “perceived ease of use, perceived utility, innovativeness, and trust”. The respondents were undergraduate and graduate students, and survey was carried for unified mass which enabled them to address the issue of a heterogeneous group’s diverse Internet usage patterns. The study concluded that mentioned elements affect their internet usage pattern.	Alagoz & Hekimoglu (2012). [27]
16.	The research study elucidated environment friendly behavioural intention considering drone food delivery services. It employs “norm activation theory and theory of planned behaviour”. Behavioral intentions and attitude and of food delivery services adopting drones revealed a good correlation.	Kim & Hwang (2020). [28]
17.	The study highlights the effect of online food delivery services on long-term sustainability in the context of a contagion. The study illustrates the “role of online food delivery apps in the Covid-19”, the major benefit enables users to get meals with dine in experience, while the detrimental effect ensured the delivery personnel.	Li, et al. (2020). [29]
18.	By analysing the parameters in China, including UTAUT elements perceived task-technology fit and trust, the study provides a complete model for predicting sustained intention and satisfaction of adopting OFD’s. Moreover, the study examines the present state of the COVID-19 pandemic, along with psychological and technological variables influencing consumers’ desire to continue using food delivery services in China. Further, the author has laid scope for further research in the field of cloud kitchens.	Zhao & Bacao (2020). [30]
19.	The study examined the cloud kitchen from the perspective of a marketing strategy, as well as from competition, customer, environment and market.	Choudhary (2019). [31]

	When adjusting to creative marketing methods, the study suggests that continual examination of cloud kitchens market position is necessary.	
20.	In a progressively digitalized India, the author highlighted the web - based business and analyzed the cloud kitchens – Holachef. The findings of the study revealed customers must be satisfied with proactive technological framework, food quality and logistical service.	Jha & Bhattacharyya (2018). [32]
21.	The success of food delivery applications in India was explained, by identifying the key factors of competitive advantage. The study discovered that staying competitive would be the best technique for attracting and retaining customers.	Meenakshi & Sinha (2019). [33]
22.	The digital food services business in India was studied and revealed that the quantity of orders placed on a daily basis indicated its expansion. Therefore, the food delivery service companies are focusing and strengthening their investments on the online food industry, which major contributors in redefining the traditional restaurant practices to web kitchens.	Ren, et al. (2020). [34]

1.2. Analysis through Review of Models and Focus Group Interaction:

Several theories explain the customer perception concept and the present study has reviewed eight models to identify the variables for further studies. They are:

3.2.1 Theory of Reasoned Action (TRA):

This theory was propounded by Martin Fishbein and Icek Ajzen in 1975. It explains volitional behaviours such as impulsive, spontaneous or habitual, the outcome of which is simply scripted, cravings or mindless. This type of behaviours is not considered because the result of such behaviour is the consequence of decision taken by an individual unconsciously or forcibly. In addition, this model does not consider behaviours which demands special opportunities or skills or resources. Reason underlying is that an individual may be prevented from performing a behaviour due to lack of some opportunities.

(a) Behavioural Intentions, Attitudes and Subjective Norms

According to TRA model, Behavioural intentions is the closest predictor to volitional behaviour. Individual behaviour i.e. a person's attitude and normative behaviour i.e. subjective norms both influence behavioural intentions. Mathematically TRA is expressed as:

$$BI = (A_B)W_1 + (SN)W_2,$$

Where,

BI = An individual behavioural intention.

A_B = An individual attitude

SN = Subjective Norms

W_2 = Weights

In TRA model, attitude is a response to some behaviour. For instance, if an individual is encouraged to consume any five vegetables and fruits every day for his improvement in health, in such case a person attitude will depend on his positive or negative state of mind to understand the degree of his feelings towards the same. Therefore, Attitude A_B is Weighted W_1 by the importance of a person's attitude towards an object. Moreover, a person refers to others opinion to know about the importance of his behaviour is referred as Subjective Norms (SN). For instance, an individual may seek others feeling towards importance of consumption of the fruits and vegetables daily. Subjective norms are also Weighted W_2 by impact of importance of normative influence. Below figure 1 shows the components of TRA model.

The figure 1 shows the TRA model depicts that attitude and subjective norms results on behavioural intentions and later influences the volitional behaviour. For instance, an anti-drug campaign is organised for youth, then the TRA model suggests that the volitional behaviour of the young minds can be enhanced by influenced their attitude, subjective norms and behavioural intentions. Influential or

motivating deliberations could help the young minds from refraining themselves to drugs and others belief towards the ill effects of consumption of drugs could also help in avoidance of drugs.

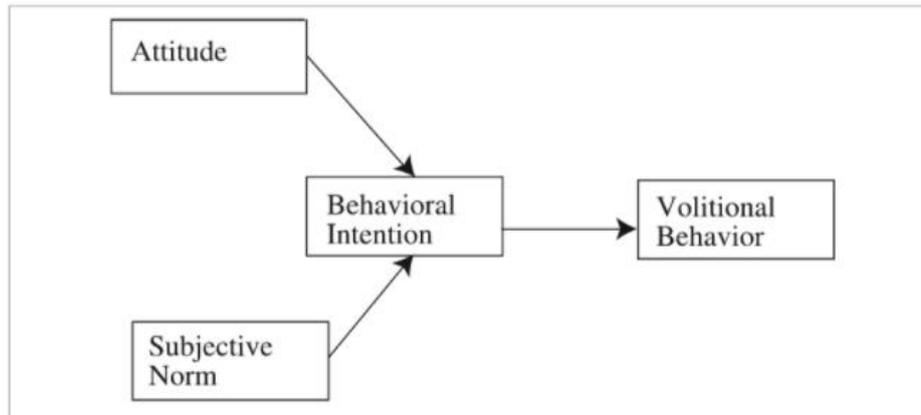


Fig. 1: Components of Theory of Reasoned Action Model [35]

(b) Strength and Belief Evaluation

According to Fishbein and Ajzen (1975), beliefs of an individual influences the attitude and behaviour. However, in the same is modified in 1967 and 1976 through Summative Model. It suggests TRA is mathematically expressed as:

$$A_B = \text{Sum } b_i e_i$$

Where,

A_B = an individual attitude

b_i = belief strength

e_i = belief attitude

Beliefs are influenced by attitude. For instance, the cognition “Smoking is injurious to health” signifies a belief (avoid smoking) with a volitional behaviour (decision to avoid cigarettes). Therefore, belief strength is the inevitability in the belief held. For instance, an individual inevitability or likeliness avoiding cigarettes will reduce injuries to health. Belief evaluation, in this example is the positive and negative pose of the mind-set towards the consumption.

(c) Normative Beliefs

A subjective norm is the result of “normative beliefs and motivation to comply”. Therefore, it is expressed as:

$$SN = \text{Sum } b_i m_i$$

Where,

b_i = Normative beliefs

m_i = motivation to comply

For instance, there is an extravaganza of consumption of drugs among students in higher education campus. A student may have normative belief such as what his/her friends feel or think about spree drinking and a motivation to comply is when friends think that spree drinking is good thing to do so I do drink. Below figure depicts the TRA model in complete form.

The figure 2 exhibits the complete TRA model in a complex and casual manner. It shows the volitional behaviour is influenced by target influencers directly or indirectly. The source of influential deliberations can directly relate to behavioural intentions of an individual. The source to pass an influential deliberation to influence one’s attitude and subjective norms can indirectly influence one’s volitional behaviour. TRA model is used in numerous studies with many volitional behaviours in social science studies and research (Dillard & Pfau, 2002) [35]. However, this theory is not free from criticism as it needs to address three issues listed below; (1) Relationship between attitude and normative beliefs. (2) All the components are adequate to understand volitional behaviour. (3) Restricted range of meaning.

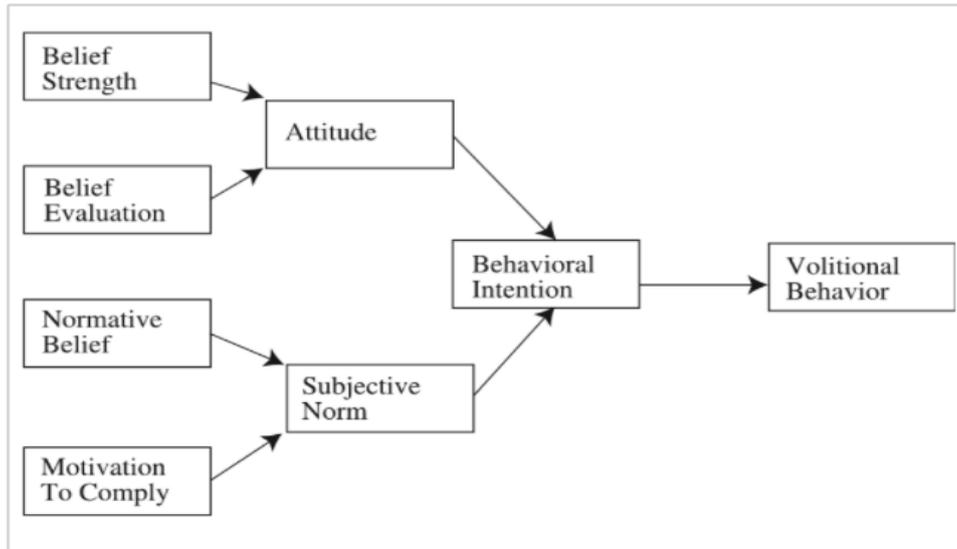


Fig. 2: TRA model [35]

3.2.2 Theory of Planned Behaviour (TPB):

Failure of TRA to cope with non-volitional forms of behaviour led to the creation of a new theory by Icek Ajzen termed "Theory of Planned Behaviour" (1991). As a result, Ajzen modified TRA to take into account additional variables of behaviour that go beyond the purview of customers. The extra variable of Perceived Behavioural Control (PBC) was incorporated into the TRA, resulting in a new model, the "Theory of Planned Behaviour". PBC is defined as "the perception of both the internal as well as the external constraints while executing any behaviour". In basic terms, perceived ease or complexity determines a person's unique behavioural desire when performing out such a given behaviour (Ajzen, 1991) [36].

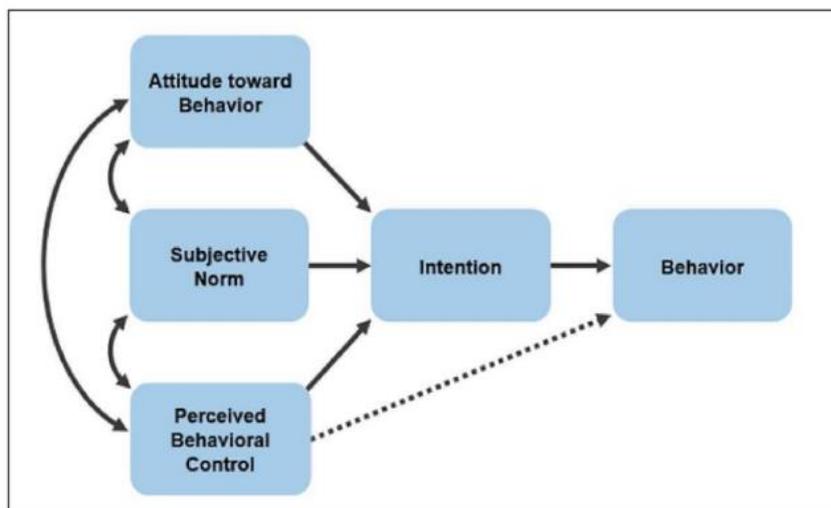


Fig. 3: Theory of Planned Behaviour (TPB) [33]

It proposes "expected behavioural intention and perceived behavioural control" work together to determine their behavioural performance. Behaviour is influenced by specific inputs such as intentions and assisting conditions, as well as frequent stimulus. The TPB has the ability to accurately predict any individual's behaviour. However, due to the issue of multicollinearity between the variables in the model, it has certain limitations. Prior studies by Hansen, et.al. (2004) [37] referred TRA and TPB and discovered that in TPB, an extra path is formed from the subjective norm to attitude, and it displays a higher percentage of dissimilarity in shopping intentions than in TRA. Further, with the addition of

perceived self-efficacy and perceived risk variables to the TPB model (Choi & Geistfeld, 2004) [38] measure the attitude of person and perceived behavioural control.

To analyze the influence on perception and behaviour, Limayem, et al. (2000) [39] added 2 additional elements to the TPB- perceived innovativeness and perceived consequences. They addressed for subjective norms through customer perception components, and behavioural control includes ease of navigation, transaction efficiency, website usability, design specification, webstore velocity, and efficiency. As a result, some studies have effectively employed the “Theory of Planned Behaviour” to infer key elements of behavioural intentions in diverse technology settings, such as online purchasing. (Chiu et al. 2009) [40]; (Choi & Geistfeld, 2004) [38]; (Hansen & Jan, 2009) [41]; (Hansen, et al. 2004) [37]; (Kang, et al. 2006) [42]; (Macovei, 2015) [43]; (Pavlou & Fygenson, 2006) [44].

The model was challenged as in many circumstances, it was unable to fully explain nuanced individual behaviour. As a result, a variety of earlier research used the TPB to incorporate a multitude of extra factors in attempt to elucidate more variability in social cognition. The TPB is frequently chastised for, among other things, failing to account for moral impacts on conduct (Armitage & Conner, 2001) [45].

3.2.3 Technology Acceptance Model (Tam):

This model is famously used for estimating user acceptance of new technology such as online purchase. Davis (1989) devised a simple, effective, and easy-to-use model for forecasting technology adoption based on the “theory of reasoned action (TRA)” (Davis, 1989) [46]; (Davis, et al. 1989) [47]. Two most important factors that define the desire to use any new technological system, according to this model, are “perceived ease of use and perceived utility.”

Fred Davis described “perceived usefulness as the degree to which a person believes that using a particular system would enhance his/her job performance” and “perceived ease of use as the degree to which a person believes that using a particular system would be free from effort (Davis, 1989).” Therefore, “perceived utility and ease of use” are the two most crucial in determining consumer adoption of technology and subsequent usage behaviour.

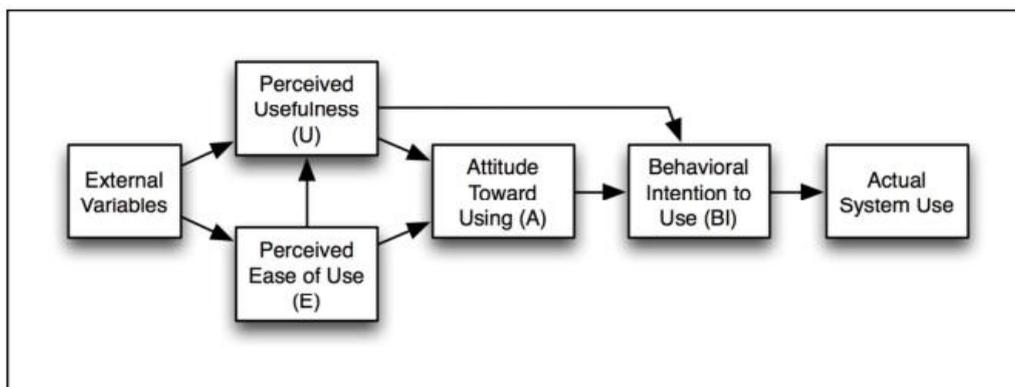


Fig. 4: Technology Acceptance Model [49]

This theory is widely been employed and modified as a classic model to explore and anticipate acceptance and denial of any breakthrough technology by customers in a various studies (Khan, et al., 2015) [48]; (Legris, et al. 2003) [49]; (Moshrefjavadi, et al. 2017) [50]. TAM is used by researchers to analyze customers’ technical acceptance of online purchasing. TAM is an emerging technology technique that provides a stable base for studying consumers’ online purchasing habits (Fayad & Paper, 2015) [51]; (Porter & Donthu, 2006) [52]; (Sevim, et al. 2017) [53]. The classic TAM (Davis, 1989) does not adequately capture essential factors which influence customers’ perceptions of online ordering. As a result of technological advancements, TAM has been modified from time to time by incorporating essential elements (AlGhaith, 2015) [54]; (Ramayah & Ignatius, 2005) [55]; (Sevim, et al. 2017) [56]. The technological adoption paradigm comprised extrinsic motivators like perceived utility and perceived ease of use, but not internal motivators like enjoyment, humour or subjective norms. Internal motivators also play an important role in predicting internet usage (Al-Ghaith, 2015) [54]; (Galib, et al. 2018) [57]; (Ramayah & Ignatius, 2005) [55]. Hamid (2008) reported that perceived risk influences customers’ technology adoption level, and that technology usage familiarity lessens perceived risks to a certain degree (Hamid, 2008) [58]. The TAM has been further expanded by the researchers to include

personality, web views and perceived appropriateness as potential motivators for customers to adopt online purchasing. (O’Cass & Fenech, 2003) [59]. Researchers proposed that “perceived ease of use and perceived usefulness” of the Technology and online purchases have favourable effects on consumers’ intention to purchase online, and TAM is perhaps the most significant method for predicting customers’ intentions to adopt the innovative technologies such as purchasing online, based on the modification and extension of the TAM approach. (Hamid, 2008) [58]; (Al-Ghaith, 2015) [54]; (Galib, et al. 2018) [57]; (Koufaris, 2002) [60]; (Lee, et al. 2003) [61]; (Limayem, et al. 2000) [81]; (O’Cass & Fenech, 2003) [59]; (Porter & Donthu, 2006) [51]; (Sevim, et al. 2017) [53]; (Sun & Zhang, 2006) [62]; (Tornatzky & Klein, 1982) [63].

3.2.4 Innovations Diffusion Theory

In 1962, Everett M. Rogers created the innovation diffusion theory. According to him, any invention possesses the five fundamental criteria listed as “relative advantage, compatibility, complexity, trialability, and observability.”

According to diffusion theory, an individual’s willingness to embrace an invention is determined by his attitude toward it as, “better than the idea it supersedes, i.e. relative advantage”, “consistent with existing values, past experiences, and needs of potential adopters, i.e. compatibility”, “difficult to understand and use, i.e. complexity”, “experimented with on a limited basis, i.e. trialability”, and “the results of an innovation are visible to others, i.e. observability” (Rogers, 2003) [64]. Therefore, for rapid innovation adoption, it must have the specific traits: “superior perceived relative advantage, more suitable with societal values and norms, easily understood by most members of the social system, easily assessable and effortlessly seen as a result of innovation by an individual.”

The key four traits of innovation, i.e. “relative advantage, compatibility; trialability and observability” is favourably related to “degree of adoption”, on the other hand, the fifth characteristic, i.e. “complexity” is negatively related. In comparison to conventional selling, ecommerce is an advanced use of information technology that is widely favoured by marketers. IDT is famously used to study about a customer’s online purchase habits. Moreover, in comparison to traditional purchasing, researchers believe purchasing online to as an innovation in shopping tactics. (Adapa, 2008) [65]. Therefore, the pace of online purchase adoption is determined by the characteristics of online sites and its spread into the social system. In addition, the spread and growth of internet commerce is also influenced by cultural factors (Adapa, 2008) [65]. The process innovation of purchasing online was positively associated and strongly connected with online activity, and online purchasing intention is a function of perception (Goldsmith, 2002) [66].

3.2.5 Theory of Adoption of Innovations

Several scholars believe that electronic purchasing should be regarded a breakthrough, comparable to other information technology developments that are expanding and being embraced by cultural context. Numerous aspects, such as “trialability, perceived compatibility, perceived relative benefit, perceived complexity, and observability of the invention”, have a substantial impact on the adoption process (Rogers, 2003) [64]. The diffusion of innovation is concerned with the spread of breakthrough from its genesis to its end user. While the adoption focuses on the emotional process of a buyer going through the initial learning to the final approval of any technology like online shopping (Gatignon, et al. 1989) [67]; (Peter & Langerak, 2001) [68]; (Sahin & Rogers, 2006) [69]. Even though the “Technology Acceptance Model and the Theory of Innovation Adoption” have some similarities, TAM does not include Rogers’ suggested elements. The TAM components of “perceived usefulness and perceived ease of use” is associated to the ‘theory of Adoption of Innovations’ concepts of “perceived relative advantage and perceived complexity” (Davis, et al. 1989) [46]. Customers’ perceptions of the relative advantage and acceptance of online shopping are profoundly impacted by customers’ perceptions of the comparative advantage and suitability of e-ordering, whereas customers’ perceptions of the perceived complexity of online stores are negatively influenced by customers’ intention to adopt online purchases, according to Verhoef and Langerak’s, a study of Dutch households (Peter & Langerak, 2001) [68]. The researchers noted that consumers’ perceptions of the “relative advantage, compatibility, and complexity” of online purchasing have a massive effect on their adoption of information technology, and that these components have a deep connection with the adoption of new technologies like online

purchases (Pichlak, 2015) [70]; (Ram & Sheth, 1989) [71]; (To & Ngai, 2006) [72]; (Tornatzky & Klein, 1982) [63].

3.2.6 Uses and Gratifications Theory

It is grounded on studies and communication approaches. This theory has been widely applied in different situations involving communication technologies such as the Internet to help comprehend the psychological aspects for using any electronic media. The Online world offers a wide range of communication possibilities and has transformed the way society purchase. As a result, the Internet's perceived utility is another persuasive element for the convergence of communication and economic operations, such as product sales. The "feeling of satisfaction" is described as gratification in this viewpoint. The essential premise of this theory is that individuals utilise new media not just for entertainment, but also to build a better understanding of the many elements of that technology. Researchers have used this approach to investigate the emotional, behavioural, and cognitive factors that influence consumer web activity. Six motivating elements over using the Internet have been discovered by researchers: "simplicity of use, wide exposure, relaxation, self-development, job chances, and global exposure". (Akar & Nasir, 2014) [73]. Prior studies states, customers' online purchase intentions are favourably connected with their satisfaction with the Internet (Bhatnagar, et. al., 2000) [74]. This theory was used by Foucault & Sheufele (2002) to investigate the driving aspects for buying books from the online market and to try to comprehend the satisfaction gained from online purchasing (Foucault & Scheufele, 2002) [75]. Luo (2002) investigated how "configurability, entertainment, and irritation affect online consumers' behaviour, web usage, web attitude, and satisfaction" using the theory of uses and gratifications. To be more specific, the impacts of attitude toward the online in terms of "configurability, entertainment, and irritation" are measured, as well as the usage and satisfaction of the web. The findings suggest that Internet users view the internet as entertaining and informative, and that they have a favourable attitude toward online-based behaviour (Luo, 2002) [76].

3.2.7 ECT: Expectation-Confirmation Theory

Richard L. Oliver devised this theory in 1977 as a tool to compare "consumer satisfaction, repurchase intention, and behaviour". The ECT theory focuses on four main constructs: "expectations, perceived performance, belief disconfirmation, and satisfaction". This theory's core structure is based on the following rationale: the buyer develops expectations prior to acquisition, then forms a perception of the product's quality after first use (Oliver R.L., 1977) [77]. This theory's central concept is satisfaction, which serves as an interface between expectation and perception (Oliver, 1980) [78]. According to the ECT, the generation of validation occurs when a consumer's expectation meets the perceived performance, resulting in consumer satisfaction. He noted that when regulating elements such as satisfaction and trust get formed in the customer's mind, acceptance and continuity are intertwined, and pleased consumers are more committed to extend using offerings (Bhattacharjee, 2001) [79].

3.2.8 Social Influence Theory (SIT)

According to Lisa Rashotte, "social influence is a change in a person's cognition, feeling, attitude, and behaviour as a consequence of the interaction with another individual, group, or society as a whole" (Rashotte, 2007) [80]. Social influence is divided in two categories vis-à-vis, as Normative Social Influence (also known as Subjective Norms) and Informational Social Influence. Subjective norms refer to people's perceptions of society's expectations to act or not perform in a certain manner, independent of their beliefs or opinions. Some customers, for example, believe that if they do not accept new technology, new items, or new channels, they would be considered "old fashioned" in society. As a result, regardless of whether customers have a favorable or unfavorable opinion of the technology, this attitude creates societal pressure on them to accept and utilise it. The informational social influence is a growing experience in which buyers gain insight about technology through interactions with social groups and then choose whether or not it should be embraced. Consumers are more likely to reject an invention unless they get good feedback about it from other social circles. Customers' perceptions of online purchasing are also influenced by social influence norms, particularly family standards. (Limayem, et al. 2000) [81]. Customers' online purchasing intentions are likely to grow if a favourable atmosphere for the Internet is available within the social group who shopped online. Customers that have conducive social-environmental norms, such as families, associates, and friends who have

previous online purchasing experience, are more likely to make more purchases through online ordering. (Limayem et al. 2000) [81].

3.3 Understanding the pattern of affecting factors and variables on research issue:

Advancement in technology has changed the pace of life for every individual which has slowly changed the lifestyle and pattern of consumption. Day-to-day schedules of people are becoming busier with work and personal life commitments and perhaps dining out many times remains as an option which often doesn't realise due to time constraints. Therefore, many individuals prefer to place an order to get the benefits of convenience of time and place. In addition, comparison of price with more promotional and discounts offers persuades one to order frequently. Moreover, well known restaurants with good credentials and known for good quality food supply are partnered with online food deliverer aggregators, creates a favourable perception on fresh food supply which is healthy to consume. Besides the packaging is done through eco-friendly material which conserves the nature and well-trained delivery personnel with appropriate background checks leads to create a positive attitude and perception of the consumers to dine in with placing order on online platform. Online Food delivery services offer more benefits than dine out option and in addition every customer gets personalised service from the online food deliverer. Therefore, such a pleasing experience influences the customer to use online food services. Moreover, the friends and social peer group pleasant experiences will influence one to place order online. Besides the quality of technology is very appealing to customers as it gives updated information about food items and the visual designs are very attractive with easy navigation for quick access and privacy to personal and financial data of the customers are highly secured. These all-beneficial factors influence a positive attitude and perception to make one place order for food online. The study has attempted to refer several customer perception theories to understand the affecting factors for customers to use electronic mode for purchases. The variables are identified by reviewing different customer perception model and focus group interaction method. TRA model, TPB model, Expectation Confirmation theory and Social Influence theory explains the perceived benefits and subjective norms as major influencing factor to customer attitude and perception to use online food delivery services. In addition, TAM theory, Theory of Adoption of Innovation, Innovation and Diffusion Model, Uses and Gratification Theory explains the system quality to be very crucial for influencing customers' attitude and perception to use online food delivery services.

4. DEVELOPMENT OF CONCEPTUAL MODEL BASED ON RESEARCH ISSUE :

Following postulates are formulated by reviewing different customer perception models and focus group interaction:

P₀₁: Perceived Benefit is dependent on Customer Attitude.

P₀₂: Prior Experience is dependent on Customer Attitude.

P₀₃: Subjective Norms is dependent on Customer Attitude.

P₀₄: System Quality is dependent on Customer Attitude.

P₀₅: Customer Attitude is dependent on Customer Perception.

P₀₆: Perceived Benefit is dependent on Customer Perception.

P₀₇: Prior Experience is dependent on Customer Perception.

P₀₈: Subjective Norms is dependent on Customer Perception.

P₀₉: System Quality is dependent on Customer Perception.

P₁₀: Customer Attitude mediates the relationship between Perceived benefit and Customer Perception.

P₁₁: Customer Attitude mediates the relationship between Prior Experience and Customer Perception.

P₁₂: Customer Attitude mediates the relationship between Subjective Norms and Customer Perception.

P₁₃: Customer Attitude mediates the relationship between System Quality and Customer Perception.

Figure 5 exhibits the proposed conceptual model based on postulates for the present study.

The various factors affecting the proposed model are as follows:

4.1 Perceived Benefits:

Ease of use: Online food offers several benefits; one such benefits is "perceived ease of use" which refers to, as an individual's perception of their expertise and comfortability with the online buying procedure. In other words, perceived ease of use with buying online refers to how easy a buyer believes it will be to shop online (Davis, 1989) [46]. If a consumer finds that an online vendor's website is very

difficult to search and navigate to place order for the desired items, then the probability is high that they will not purchase again (Pearson, et al. 2007) [82]. Researchers discovered that surfing long time to access a webpage, having a convoluted navigational structure, lethargic process efficiency, disorganized site content, and a sophisticated purchasing process all deter customers from making a future online purchase (Lim & Dubinsky, 2004) [83]. It is found that the fifty percent range in customer online purchasing intentions may be explained by the perceived utility or simplicity of use, and risk connected with online shopping (Liu & Wei, 2003) [84]; (Teo, et al. 2003) [85]. These two components are the primary motivators for customers to buy online since they reduce the cognitive and emotional effort required to execute the transaction (Shang, et al. 2005) [86]. Therefore, customers' perceptions of ease of use are one of the key predictors and is positively connected with their attitude and perception to purchase intentions (Lee, 2018) [87]; (Ramayah & Ignatius, 2005) [88]; (Teo, et al. 2003) [85].

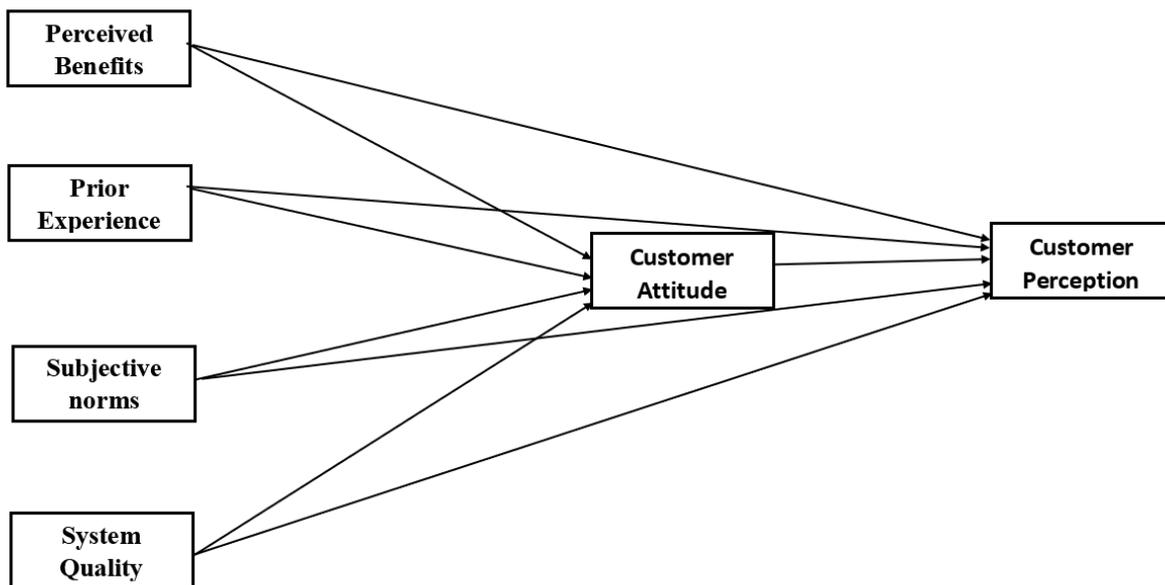


Fig. 5: Proposed Conceptual Model

Source: Author

Price: Price is the value paid for the product or service. Perception towards price depends on several factors such as affordability of the customer and competitive price in comparison to other similar products. Consumers perceive value of food items to be appropriate when quality and price charged matches their expectations. Therefore, in a purchase agreement, price refers to the market value that must be exchanged for a product or service (Nagle & Holden, 1987) [89]. Every consumer seeks potential savings through discounts since they are anxious over how much cash they can save after availing concessions (Darke, et al. 1995) [90]. Prior study revealed that customers are inclined to make more orders merely to get a discount on food products from sellers (Tversky & Kahneman, 1981) [91]. The impact of a reduction in price is further backed up by research, which shows that discounts significantly boost value of products offerings by inferring that the defined price is a sufficient for the value (Thaler, 2008) [92]. Cheaper prices for the product will enhance the turnover of a seller for buyers, whereas offering more discounts promotes the products value (Madan & Suri, 2001) [93]. Moreover, price-saving approach takes into account not just savings, but also the cost of avoiding paying any extra charges while making a purchase or utilising a service (Escobar-Rodríguez & Carvajal-Trujillo, 2013) [94]. Therefore, managers will be motivated to reduce price as customers are allured by a lower price (DelVecchio & Puligadda, 2012) [95]. Moreover, numerous types of consumers choose food items from various sorts considering pricing and quality aspect in the food service industry, therefore, consumers have a tendency to reason and make decisions depending on the most value they can gain from an order by getting it at low price (Ollila, 2011) [96]. Consequently, consumers will analyze the ingredients in the context of nutritional benefits and the value of the food item they desire to order. For example, according to an empirical study done by (Nakandala & Lau, 2013) [97], customers are prepared to pay more for food item which offers better nutritional value and vice versa.

In addition, odd pricing for fairly low pricing restaurants will result in a greater possibility for consumers to explore them for both dine-in and take-away (Parikh & Weseley, 2004) [98]. Of late, consumers look at the costs online by exploring multiple websites and online food deliverer apps to find the best source to place order considering the most significant discount offered by the company which is more beneficial service. Therefore, many customers prefer online service as it facilitates price comparison and allowing consumers to buy items at a cheaper price (Chiu, et al. 2014) [99]; (Eriksson & Nilsson, 2007) [100]; (Gentry & Calantone, 2002) [101]. However, in contrast to traditional versus e-purchasing, the relative benefit of e-service offers both reduced time and cost benefits, making it online experience considerably more convenient (Akroush & Al-Debei, 2015) [102]. Therefore, above considerations show link between price with attitude and perception.

Food quality: Keller & Kotler (2012) explained “product quality is a characteristic of a product or service capable of bearing promises or insertions to satisfy customer needs” [103]. In food industry, quality of food items served is an important determinant to give a satisfying experience to the customers which is determined by appearance, shape, texture, ripe level, color, portion, temperature, aroma and taste (Gaman & Sherrington, 1996) [104]; (Jones, et al. 2001) [105]; (West, et al. 2006) [106]. In a research study by Davis, et al. (2018) [107] gave seven indicators for determining the food quality vis-à-vis taste of the food either sweet, bitter, salty or sour, standard portion, texture of food in terms of liquid or solid or dry or soft, color, flavour, presentation and temperature. Therefore, the most vital aspect of a restaurant’s perfect experience is the food (Sulek & Hensley, 2004) [108]. Prior Studies, combined all food characteristics into a single variable, food quality, whereas some studies created a model of dining experience and increase customer loyalty, observed that food quality had a variety of characteristics (Kivela, et al. 1999) [109]. Food serving contains aspects such as colour, taste, consistency, and temperature are described in terms of sensory properties of the food by Brown (2018) [110]. According to Peri (2006) [111], food quality is an essential necessity to fulfil the demands of diners. Given the importance of food quality in the food service industry, prior research looks at a wide range of food evaluation criteria. The common definition of food quality among researchers highlights appearance, menu item, nutritional option, flavour, timeliness, and temperature. Moreover, it is evident that visceral feature of food quality is Temperature (Kivela, et al. 1999) [109]. In addition, it has an impact on how food aroma is formed and in-turn will interact with several other organoleptic properties like smell, taste and sight (Delwiche, 2004) [112]. Therefore, it is one of the vital elements of enthralling desire in the dining experience (Kahkonen, et al. 1995) [113]. Further, taste of food, also considered as crucial element in satisfying food experience (Kivela, et al. 1999) [109]. Of late, many individuals have become food savvy which induces the restaurants to consider serving good taste food to be more important (Cortese, 2003) [114]. However, some restaurants consider taste to be prioritize than the messy kitchens and serving a delicious and tasty meal helps in repurchase intention among customers (Kivela, et al. 1999) [109].

Customers in food service should be able to choose from a broad selection of cuisines since they come from diverse of regional, ethnic, and socioeconomic groups, and they all have distinct culinary preferences. Food menu differences is essential to provide assorted banqueting preferences of a large customer base. (Payne-Palacio & Theis, 2005) [115]. Furthermore, presentation of the food is very important, which is a method for displaying food that is beautifully adorned to grab the attention of the customer and satisfy their idea of quality (Namkung & Jang, 2007) [116]. Moreover, the presentation of food is one of the variables that food features in simulating dining delight and increase customer retention (Kivela, et al. 1999) [109]. Asides, one of the item variables in the TANGSERV scales is culinary display (Rajpoot, 2002) [117]. Customers’ perceptions of the restaurant experience may be influenced by the availability of healthful cuisine (Johns & Tyas, 1996) [118]. As formerly stated, many restaurant patrons are concerned about their health, therefore the distribution of healthy food products is more important as one of the key tenets of dining delight (Sulek & Hensley, 2004) [119]. Besides serving nutritious food, fresh food also should be served which is juicy, crispy and gives good flavour or aroma (Peneau, et al. 2006) [120]. Prior studies states, freshness of food is considered as a critical key quality indicator (Johns & Tyas, 1996) [118]; (Kivela, et al. 1999) [109]. Therefore, quality of food is considered as an important determinant in influencing customers attitude and perception.

Time: Presently, many individuals busy with their work schedule prefer to get food at their doorstep rather than visiting a restaurant to order food which consumes more time. Prior research found that “one out of every two and a half meals are consumed outdoor” (Kara, et al. 1995) [121] . Since 1980s, there

has been a drastic transformation in the food industry. The take-away and delivery industry are tremendously segmented, with a varied options and cuisine choices (Alreck & Settle, 2002) [122]; (Stephen, 1999) [123]. Therefore, Restaurant chain sales continue to rise even in challenging times. Customers show a strong preference towards OFD services due to their sheer speed, time convenience, and reliability (Dixon, et al. 2009) [124]. Of late, the majority among these delivery orders are from the household segment, which indicates approximately about 70% of orders indicating that the intended audience for food delivery is household segment. Moreover, the customer's perception of a usage of technology for online shopping is measured by perceived value as the customers gets the time benefit (Gentry & Calantone, 2002) [101]. Therefore, a customer believes online shopping to be valuable as it provides convenience of time, minimizes effort, and enables longer shopping time with swift checkouts (Chiu et al. 2014) [95]. Further, it is observed that elite customers value time therefore online shopping is more appealing to them as it allows them to save time (Punj, 2012) [126]. In-addition, sheer conveniences to make e-payments saves time component which adds a significant impact on post-usage usefulness (Eriksson & Nilsson, 2007) [100]. The adoption of e - commerce, time saving features and consumer awareness are both positively associated for acceptance and adoption of shopping online (Chang, et al. 2004) [127]. Therefore, prior studies confirm that time saving acts as a crucial component influencing attitude and perception.

Menu: Menu of food items for different varieties offered by restaurants attracts the customers to place order for the desired food from different restaurants. Therefore, culinary to be served is important aspect for a restaurant business to stay competitive in the online business. Thus, a menu with food items provided with many flavours, taste, temperature and availability will persuade customers intention to place an order. Kotler & Keller (2012) [128] identified the requirements for product completeness i.e., food items must be available in different plate servings with various flavours, the listed food items on menu should be innovative and finally meets the taste buds of every customer expectation.

Packaging and Delivery: Good Packaging contributes to impulsive buying (Ghani and Kamal, 2010) [129]. Prior studies identifies packaging as a promotional tool (Silayoi & Speece, 2007) [130]; (Hellström & Nilsson, 2011) [131] employed to get attention from the customers (Thalhammer, 2007) [132], which leads to effective ordering process (Hall, et. al., 2004) [133]. Therefore, food items packaged in a safe and attractive manner influences one's mind to purchase and re-purchase in future (Atkin, et al. 2006) [134]; (Wigley & Chiang, 2009) [135]. Attractive packaging indicates good product (DeBono, et. al., 2003) [136]. Prior studies explained that packaging has two features vis a vis visual and verbal indicators which influences the customers cognitive behaviour (Kauppinen-Raïsa'nen, et al. 2012) [137]. Encoding verbal info into visual imagery necessitates conscious effort, while interpreting visual stimuli is unconscious and spontaneous (Mueller, et al. 2010) [138]. Foods items are often considered low-involvement items due to the relatively high volume and low value (Hingley, et al. 2007) [139]. From the standpoint of a food company, marketing relies heavily on e-communication in packaging to connect at the best available price with the customers (Omar, et al. 2011) [140]. Despite the fact that a considerable percentage of newly introduced food items (72-88%) do not succeed, the relevance of designing package in food marketing is still recognized (Wells, et al. 2007) [141]. Rising restaurant competition has compelled many vendors to pay greater attention to visual package design in order to add value to their food products and establish brand preferences. Prior study states that perceived packaging value has a major impact on food product purchase intentions (Shaharudin, et al. 2010) [142], and attitude and perception towards brand impacts the re-purchase behaviour (Mallinckrodt & Mizerski, 2007) [143]. Visual packaging design should be at the basis of business development for restaurants and designing their food packaging appropriately in the contemporary market will help gaining strong brand preference, therefore, they need to highlight features such as quality, colour, logo, lettering, graphics, size to enhance consumer base for forming positive perceptions towards food product quality, preference over brand and product value (S.T. Wang, 2013) [144]. Therefore, the following hypotheses is proposed for the study:

Hypothesis 01: There is significant relationship between Perceived Benefit and Customer Attitude

Hypothesis 06: There is significant relationship between Perceived Benefit and Customer Perception

Hypothesis 10: Customer Attitude mediates the relationship between Perceived benefit and Customer Perception

4.2 Prior Experience:

Online order entails exchanging of precious time from busy schedule, little effort to searching desired product from varied choices, and money to pay for the value of the product which is carried out through the digital platform (Wu, 2013) [145]. As a result, owing to certain lacking factors like direct connection with the desired items, online purchases is still perceived as perilous in comparison to offline ones (Laroche, et al. 2005) [146]; (Thamizhvanan, et al. 2013) [147]. Hence, interest, cognitive process, continuity, and mental structure of a person's online experience are required to be considered while understanding their perception to use online platform for purchases (Huang, 2012) [148]. However, as the consumers keep ordering food online, they may gain a deeper understanding on how they need to transact online for purchases. Some of the researchers have categorized the online shoppers into two folds based on their experience vis-à-vis, product experience in direct touch, which takes place when consumer directly interacts with the product or services and online experience with indirect approach, whereby the consumer is indirectly engaged with the product's or services marketing (Keng, et al. 2011) [149]; (Li, et al. 2002) [150]. Therefore, a "post-adoption" arises when a consumer interacts directly with the product, whereas a pre-purchase adoption occurs when a person comes into contact with the product through commercials" (Karahanna, et al. 1999) [151]. Most significantly, prior e-purchase experience lessens the concern over online uncertainty, making online experience more trustworthy. Moreover, a person's prior e-ordering experiences impacts his/her expectation of the effort necessary for placing order on online portal in future (Shim, et al. 2001) [152]; (Weisberg, et al. 2011) [153]. This also contributes to e-loyalty to e-commerce websites, particularly if customers are content with the choices and quality assurance made available (Melis, et al. 2015) [154]. Consumer with prior e-purchase experience have a lesser amount of ambiguity, resulting in high desire to buy online a product or services. Moreover, web shoppers previously having e-purchase experience are further inclined to use it again due to trust that has been established. Therefore, re-purchase inclinations are driven by expectations from prior online orders (Shim, et al. 2001) [152]. Consumers with appropriate prior experience with e-commerce knowledge and technical abilities can determine whether an online ordering source is sufficiently based on the encryption or verification procedures it employs, in addition to other factors, such as value of the product and convenience which are precedence over security issues (Chen et al. 2010) [155]. Moreover, the "perceived usefulness and ease of use" reflects intentions in direction of the expectation, indicating a link between convenience incentives and customer buying experiences (Alavi, et al. 2016) [156]; (Gentry & Calantone, 2002) [157]; (Valaei, et al. 2016) [158]. Irrespective of whether high or low the avoidance uncertainty is, prior experience serves to promote customer attitude and perception for purchase (Ling, et al. 2010) [159]. Customers are more likely to utilize and revisit a website if they find it beneficial to order online. Consequently, repurchase desire will be higher, as an individual's gets motivated for re-purchase based on his/her prior experience. Thus, it is revealed that prior online ordering experience is linked to attitude and perception and following hypotheses is proposed.

Hypothesis 02: There is significant relationship between Prior Experience and Customer Attitude

Hypothesis 07: There is significant relationship between Prior Experience and Customer Perception

Hypothesis 11: Customer Attitude mediates the relationship between Prior Experience and Customer Perception

4.3 Subjective Norms:

An individual's expectations and perceptions are based on prior experiences, reviews and recommendations from family, friends and different sources such as- experts, consumer institutes, mass media and government. Therefore, the concept Subjective norms, – i.e. "the perceived social pressure to perform or not to perform the behaviour" (Ajzen, 1991, p. 188) [36] is crucial determinant customer perception to order food online. It was shown to be the lowest determinant of intention in the TPB in past schema. (Armitage & Conner, 2001) [45]; (Sheppard, et.al., 1988) [160]. Therefore, in some research studies it was purposely omitted (e.g., Sparks, et al. 1995) [161]. However, there are many studies which shows significant relationship between subjective norms and attitude (e.g., Trafimow & Finlay, 1996) [162]. The conflicting results suggest that it will have an indirect influence on intention via some other variable. And although Fishbein and Ajzen (1975) [163] argue that distinguishing attitudinal and normative components is essential, there is a possibility that they are intimately

connected (Ryan, 1982) [164]. Many researchers have found that social group influences their attitude and perception (Fulk, 1993) [165]; (Schmitz & Fulk, 1991) [166], (Han & Kim, 2010) [167]; (Ryu & Jang, 2006) [168]. The total impact of subjective norms on online food purchase should not be avoided as many customers feel more influenced by social groups such as friends and relatives in food purchasing and therefore, subjective norms have influence on attitude and perception (Shin & Hancer, 2016) [169]. Therefore, subjective norm may have favourable impact on customer attitude and perception and following hypotheses is proposed:

Hypothesis 3: There is significant relationship between Subjective Norms and Customer Attitude

Hypothesis 8: There is significant relationship between Subjective Norms and Customer Perception

Hypothesis 12: Customer Attitude mediates the relationship between Subjective Norms and Customer Perception

4.4 System Quality:

In addition to the convenience of technology usage which corresponds towards easy to access a modern media while making a purchase online. Hence, it offers the convenience of time and accessibility. Therefore, belief among the customers that the available system for e-purchase is easy to use will result in increased desire to make further purchases (Chiu et al., 2014) [125].

Information Displayed: Consumers have a higher level of trust in online buying websites that have simple features and provide simple and fast navigation on their sites. Customers are also more inclined to trust shopping websites that include accurate, thorough, and up-to-date information that is devoid of biases and inaccuracies (Kim, et al. 2005) [170].

Visual Design: Consumers' buying experiences are stimulated by easy user interface, and well-designed shopping websites that give social interactivity in the form of seamless navigation and social networking feature, which in turn inspires the customer to shop from that website (Hansen, et al. 2004) [37].

Navigation Design: Navigational ease when visiting online websites for purchases is also an important component of convenience. (Montoya-Weiss, et al. 2003) [171].

Privacy: The advent of the Internet has dramatically changed the way person or organisation functions such as process, analyze, and share information. With the universality of information technology and the internet, the cost of gathering and analyzing consumer information has reduced substantially (Ashworth & Free, 2006) [172]. Customers' details such as contact lists, identities, financial information, as well as other purchasing preferences are acquired by interactive web during registration and order placement. Such data is extremely significant to enterprises since it enables them to discover customer preferences and desires, as well as produce better marketing and customised offers (Liu, et al. 2004) [173]. Individuals often hesitant to share their personal and sensitive details on online sites as they believe that such information might be exploited for other purposes (Almoussa, 2011) [174]; (Lauer & Deng, 2007) [175]; (Sreya & Raveendran, 2016) [176]. Customers stereotypically have no understanding what the underlying intention and subsequent use of the obtained information, and they believe they have no influence over the information collected by online vendors (Fortes & Rita, 2016) [177]; (Nehf, 2007) [178]; (Udo, 2001) [179]. Moreover, consumers have raised serious questions about the confidentiality of the shared data to online vendors, since they perceive that they are unable to control companies' data gathering tactics. Therefore, online privacy is very crucial aspect for every online vendor as they need to set some regulations that protects users' personal information from unauthorised access (Chiu et al. 2009) [40]; (Miyazaki & Fernandez, 2001) [180]. On the other hand, the customers expect clarity on the use and purpose of personal information asked during online transactions although it is mentioned in the privacy regulations and terms but it is very difficult for a layman to understand (Nehf, 2007) [178]. It is observed that an online vendor is interested to collect personal information from customers in order to build a database of their preferences and buying habits although they encounter several obstacles as marketers demand increasingly detailed information but the majority of customers are hesitant to share personal information out of fear for their privacy, and some customers even quit further online purchases (Karwatzki, et al. 2017) [181]; (Kobsa, 2007) [182]; (Eduardo, et al. 2002) [183]. Further, if people sense a high level of privacy concern from online web-stores, one would gladly hesitate to supply personal as well as financial information and may refuse to buy online. Therefore, customers' perceptions of credibility and loyalty are influenced by privacy issues

and in case of discontentment with online purchasing, it results in impeding the expansion of the online vendor's business (Lauer & Deng, 2007) [175]; (Liu, et al. 2005) [184]; (Udo, 2001) [179]. Despite the fact that privacy is a top issue for online retailers, studies have shown that the less tech-savvy users have the most privacy qualms when it comes to online purchasing (Fortes & Rita, 2016) [177]; (Eduardo, et al. 2002) [183]. Therefore, a customers will only go for purchasing online if their anxieties about security, trust, and privacy are adequately handled (Odom, et al. 2002) [185] and customers will not choose to purchase online if they are concerned about their financial and personal information (Chang, 2014) [186]; (Connolly & Bannister, 2007) [187]; (Lauer & Deng, 2007) [175]; (Lee & Turban, 2001) [188].

Security: Every customer ordering food online believes that the system by which he/she places order, the online vendor has created policies and procedures to secure ones' personal and sensitive details from cyber-attacks which is also referred to as perceived security. Therefore, online security protects personal and financial information from unauthorised access or theft (Lee & Turban, 2001) [188]. Although many vendors operating online is constantly trying to improve their security measures, but it has been discovered that there are still vulnerabilities in web security. As a result, security related concerns are one of the top priority issues for all online vendors (Gupta & Shukla, 2014) [189]. However, when making an online purchase, a customer has to frequently disclose his personal and financial details to retailers on web pages, therefore, many consumers' concern about security issues and the abilities of the vendors to prevent unauthorised access to their details which may lead to a diminution in customer trust in further purchases (Lauer & Deng, 2007) [175]; (Teoh, et al. 2013) [190]. Studies shows that consumers circumvent online purchasing for a variety of reasons and the most common reason is lack of security and network stability as they need to share their personal details to the websites (Hahn & Kim, 2009) [191]. In contrary, customers with good attitude toward online purchase are much less worried about the safety of e- payment systems, demonstrating a negative correlation between concerns for e-payments and attitude. In addition, to protect shoppers from the risk of fraud and hacking, online retailers offer advanced security features for personal and financial information such as cryptography, digital signatures, and certificates, which has positively influenced the customers' purchasing intentions and led to a favourable consumer perception (Eid, 2011) [192]; (George, 2002) [193]; (Lee & Lin, 2005) [194]; (Cheung & Lee, 2003) [195]; (Lee & Turban, 2001) [188]; (Ranganathana & Ganapathy, 2002) [196].

Risk: The uncertainty of an activity's potential results in terms of gain or loss, as well as the contentment or dissatisfaction with the consequences leads to perceived risk (Murray, 1991) [197]. It is observed that due to the ambiguity of online purchases, customers feel a higher amount of risk when compared to conventional method (Biswas & Biswas, 2004) [198]; (Cunningham, et al. 2005) [199]; (Forsythe, et al. 2006) [200]; (Samadi & Nejadi, 2009) [201]. Customers' perceptions are influenced by perceived risks as online porchasing lacks the ability to personally see the items as well as face-to-face interaction with vendors (Bianchi & Andrews, 2012) [202]; (Liu & Forsythe, 2010) [203]; (Sweeney, et al. 1999) [204]; (Verhagen, et al. 2006) [205]. Prior studies noted that intangibility is a powerful determinant of perceived risk, and in addition, perishability with product and service delivery grows, the degree of risk associated with it dramatically increases (Zeithaml, 2000) [206]. Because clients cannot physically see the product resulting unpredictable than shopping from physical stores. Furthermore, the buyer has no way of knowing if the information submitted to unknown internet sellers is secure (Tariq, et. al., 2017) [207]; (Chaturvedi, et al. 2016) [208]; (Dig, et al. 2017) [209]. The perceived convenience and utility factors influence the choice process that leads to purchasing online, whereas the perceived risks have a negative impact (Bhatnagar, et al. 2000) [210]; (Sorice, et al. 2005) [211]. Consequently, customers will be more likely to purchase online if they believe there are less risks associated with doing so (Claudia, 2012) [212]. Consumers' perceptions of risk associated with online purchasing are primarily concerned with security and privacy issues about bank details submitted to the online retailer, product quality, and online transaction integrity. Customers' risk perceptions of buying items and services from online businesses are reduced when they have a high level of trust (McAllister, 1995) [213]. Consumer perception of risk is a multidimensional phenomenon, according to previous research, and it may be categorised as risk pertaining to –“quality, financial, convenience, delivery, privacy, and service” in online purchase (Bianchi & Andrews, 2012) [202]; (Chaturvedi, et al. 2016) [208]; (Mou, et al. 2017) [214]. Among several risk, the most significant perceived risks linked with online buying for customers are service risk, financial risk and performance risk (Bianchi & Andrews,

2012) [202]; (Claudia, 2012) [212]; (Forsythe & Shi, 2003) [215]; (Sreya & Raveendran, 2016) [176]. Therefore, customers' perceptions of online purchases are greatly influenced by perceived risks (Ariff, et al. 2014) [216]; (Forsythe, et al. 2006) [200]. In contrast to traditional retail purchasing, buyers view purchasing online to pose a significant amount of risk and therefore, to increase customers trust and lessen risk perception, online vendors should provide accurate well-described clauses, product details, clarity on return or exchange and adequate security features which will result into positive perception of customers (Brosdahl & Almousa, 2013) [217]; (Nawi, et al. 2019) [218]; (Zheng, et al. 2012) [219]; (Aghdaie, et al. 2011) [220]; (Al-Debei, et al. 2015) [221]. Therefore, the following hypotheses is proposed:

Hypothesis 04: There is significant relationship between System Quality and Customer Attitude

Hypothesis 09: There is significant relationship between System Quality and Customer Perception

Hypothesis 13: Customer Attitude mediates the relationship between System Quality and Customer Perception

4.5 Attitude:

According to Schiffman, et al. (2010) [222], attitude is defined as, "in a consumer behaviour background, attitude is a learned predisposition to behave in a consistently favourable or unfavourable way with respect to a given object". This emphasized precise explicit consuming or marketing principles. It argues that attitudes can be acquired and that can influence purchasing decisions. They are created as a result of first-hand contact with the product, knowledge gleaned from others, and exposure to advertisements, the online world, and other personal selling channels. In addition, quality of attitude is that they are dependable, constant, and coherent with the behaviour they portray. Users' attitudes toward online buying are driven by their transaction "preferences, demography, lifestyle, and perceptions of value." Stephen (2015) [223] adopted Belk's definition of the "extended self" to describe how consumers behave in digital contexts. He noted that in the digital world, consumers may have more than one character. These could be distinct from the attitude which he possesses in reality. The digital mode enables for a wide range of personalities to emerge. People attempt to utilise these avatars to sway others in the online technology. These are marketers who have the potential to influence opportunity and future purchasers. Kedah & Ismail (2015) [224] discovered that online food order is an efficient method of buying, scheduling, and handing out food, notably for crowded city residents. The web platform allows businesses to deliver interactive and customised customer service which allows the offering to be tailored, increasing excellent customer experiences. In fact, easy accessibility and range of options, it can lead to impulse purchases. Customers may easily refine their digital search to find an appropriate match of locale, desired cuisine, affordable pricing, and other features. Therefore, the elementary design for ease with which information is easily available from multiple threads on interactive media, which drives consumer choices. According to Goh, et al. (2017) [26], digital revolution seems to have had a massive influence on trade and business. It has transformed the consumer market. The trade has taken off and is set to grow bigger. It is projected to develop significantly faster than any other type of commerce. The convenience of e - shopping is perhaps the most appealing aspect. The food business, in particular, may profit and flourish in several ways. Although at present it is still in its infancy, it will prosper sooner with participation of many restaurants to offer wide of range of food services online. Prabhu (2016) [225] agreed that the market for online food buying has grown significantly in a brief span of time. He claims that it now accounts for about 65 percent of the entire shipments. This is a major boon and rationale for continuing to enhance app features in order to delight, retain, and increase customer base. It is customised, but standards of quality are constantly being implemented on the virtual platforms in order to sustain the experience as smooth and tailored as feasible. It's critical to keep old customers by enhancing software, but not so significantly that it puzzles or inconveniences them. According to Kedah & Ismail (2015) [224], modifying and tweaking the app design, particularly in the visuals, dramatically increases service quality. Images, text, hues, and symbols are the major components should be used to create a good impression. Therefore, the service providers ought to tailor their approach to the lifestyle and tastes of the community in large. (Goh, et al. 2017) [26], found that innovations and marketing in the online food retail segment have significantly led to the expansion in online food revenues, which is continuing to rise. This is particularly due to business owners have resorted to modern techniques to offer online ordering services to their consumers

in order to make the ordering procedure easier for them. This attractive initiation has led to change in attitude of the customers to order food online. However, a creative and predictive method of implementing ahead and designing the user experience is a crucial juncture in determining whether the smartphone app is worthwhile to download, run, and use (Byrne, 2016) [226]. Freemans (2014) [227] reported that the user's perception of delight impacted the trigger to purchase food on the spur of the moment in the majority of instances. Besides, the uniqueness of visual design is crucial in persuading users to adopt it. Moreover, identifying the attitude of the customers towards visual design must be considered while designing and optimising the app to favourably influence more positive attitude. Park & Kim (2013) [228] described an individual experience towards technology and systems will influence their attitude. Therefore, continuance of usage of these online food delivery services will depend on convenience factor received while operating those systems and technology leading to favourable perception post usage. A technology which offers ease of use is perceived more advantages. Therefore, the following hypotheses are proposed.

Hypothesis 5: There is significant relationship between Customer Attitude and Customer Perception

4.6 Perception:

Kotler, et al. (2015) [229] defined perception "is a process carried out and used by individuals to select, organize, and interpret information input to create a meaningful picture of the world." Customer perception is determined by several affecting factors such as food quality, price & brand image of partner restaurant or online food deliverer services. Therefore, a good selection of menus, many famous restaurant partners, value and various modes of payment will influence a positive perception to place an order for food items.

The technology adoption is analysed by understanding one's perceived usefulness and attitude resulting in perception (Davis, 1989) [46]. However, TRA theory explains an individual attitude to a stimuli (Ajzen and Fishbein, 1975) [163] and the individual's perception depends on observable actions. Furthermore, the theory argues that an individual who carry positive attitude will be more definite to have favourable perception (Kuo and Yen, 2009) [230]; (Valaei, et al. 2016) [158]. Therefore, there is a favourable association of attitude with perception. Many such scholarly articles have empirically proven relating to e-purchases customers attitude influencing perception in studies such as- "online learning" (Liaw, 2008) [231]; (Liaw, et al. 2007) [232], "digital assistant in the healthcare industry" (Yi, et al. 2006) [233], "technology adoption in hotel industry" (Lam, et al. 2007) [234], "e-banking" (Shih & Fang, 2004) [235], "anti-virus software" (Dinev & Hu, 2007) [236], "Internet-based learning" (Lee, et al. 2005) [237], "search engines" (Liaw & Huang, 2003) [238], "e- blogs" (Hsu & Lin, 2008) [239]. According to Limayem, et al. (2000) [240], positive attitude impacts the perception of the buyers to buy online. In addition, few studies reported customer socio-demographic features, lifestyle also affects the attitude and perception of the customer to place an order online (Taylor & Todd, 1995) [241]; Wu, 2013) [145].

5. ABCD LISTING FRAMEWORK FOR THE CONCEPTUAL MODEL :

Business models can be analyzed with many strategic analysis techniques for identifying factors to sustain in long run. One such recently introduced analysis framework is ABCD by Aithal, et al. (2016) [242]. This technique can be used to analyze any business models, concepts, ideas and strategies (Aithal, 2017) [243]; (Frederick & Bhat, 2022) [12]; (Frederick, et al. 2022) [244]. Below Table 2 exhibits the ABCD listing for proposed model.

Table 2: ABCD Listing for Proposed Conceptual Model

ADVANTAGES	BENEFITS	CONSTRAINTS	DISADVANTAGES
<ul style="list-style-type: none"> • Increasing population with more young appetite groups • More employment opportunities with higher disposable income • Change in lifestyle of the people • More number of working women's • Low physical operational maintenance 	<ul style="list-style-type: none"> • Well trained, experienced and professional staff with hassle free delivery • Strong brand name with good number of recognized partner restaurant base • Cuisines with low prices and at concessional rates • Fresh and nutritional food supply • Customized menu with wide range of food choices 	<ul style="list-style-type: none"> • Cost of establishment is high • More reliance on paid media to increase turnover • Fixed prices for food items are difficult • Delivery employees are more subject to frequent turnover due to long working hours, less payment and climatic changes • Reliability of customers towards new partner restaurant is relatively low 	<ul style="list-style-type: none"> • Price competitions from the rival restaurants • Negative perception due to mistakes by one of the partner restaurants in the past • Economic crisis with unemployment situations • Creating uniqueness is difficult • Stringent regulations and government interference

Source: Author

6. ARGUMENTS TO APPROVE THE PROPOSED CONCEPTUAL MODEL USING EMPIRICAL METHOD AS FURTHER STUDY :

The responses for the structured questionnaire will be collected from 385 respondents from Palghar district, Maharashtra state with purposive sampling method. The questionnaire will adopt five-point summated Likert scale. The collected data will be run through Jamovi software for Descriptive analysis and Causal analysis will be run through SMARTPLS 3.0 to find reliability and validity for data with Measurement Model, Direct Effect, Mediator Analysis, R-square, f-square, Q-square and derive Structural Equation Model (SEM) to prove proposed hypotheses. Further, IPMA analysis will be conducted to identify the importance and total effect of constructs and its indicators which requires more improvements to determine success for online food service aggregators.

7. CONCLUSION :

The study highlighted the attitude and perception of customers towards online food delivery services by reviewing the customer perception models and systematic review of scholarly articles. It is observed that, customers use the online food delivery services as it offers many benefits in terms of price, value, convenience and so on. However, there are even few constraints for usage due to trust issues, privacy, etc. Therefore, the study has proposed conceptual model to analyze the attitude and perception of the customers which will contribute by identifying most pleasing service norms and dissatisfying services issues involved in online food delivery services. These issues can be improved and optimised further for adopting innovative strategies to create retain the existing customers and attract new individuals to place food order online.

REFERENCES :

- [1] Frederick, D. P., & Parappagoudar, S. K. (2021). A Descriptive Analysis on Sustainable Business Strategy of Online Food Service Industry. *International Research Journal of Modernization in Engineering Technology and Science*, 3(3), 545–554. [Google Scholar](#)

- [2] Aryani, D. N., Singh, P., Khor, Y. X., Kee, D. M. H., Selvia, K., Lee, C. W., ... & Anantharavoo, L. (2022). Factors Influencing Consumer Behavioral Intention to Use Food Delivery Services: A Study of Foodpanda. *Journal of the Community Development in Asia (JCDA)*, 5(1), 69-79. [Google Scholar](#)
- [3] Frederick, D. P., Nayak, P., & Reddy, B. (2021). E-Business Processes In Food Services. *International Journal of Advanced Research*, 9(10), 821–829. [Google Scholar](#)
- [4] Tasnim, J., Alam, T., Saha, S., & Rabbi, M. F. (2022). Online Food Delivery (OFD) System: An Empirical Study of the Polarization of Potential Consumers and Investigating the Association Between the Determinants Molding the Polarization During COVID-19 Pandemic. In *ICT Analysis and Applications* (pp. 403-411). Springer, Singapore. [Google Scholar](#)
- [5] Frederick, D. P. (2022). Customer Satisfaction Towards Online Shopping with reference to Mangalore City, Karnataka. *International Journal of Management, Technology and Social Sciences (IJMITS)*, 7(1), 322-334. [Google Scholar](#)
- [6] Chakraborty, D., Kayal, G., Mehta, P., Nunkoo, R., & Rana, N. P. (2022). Consumers' usage of food delivery app: a theory of consumption values. *Journal of Hospitality Marketing & Management*, 1(1),1-19. [Google Scholar](#)
- [7] Frederick, D. P., & Bhat, G. (2021). Review on Customer Perception towards Online Food Delivery Services. *International Journal of Creative Research Thoughts*, 9(7), b301-b314. [Google Scholar](#)
- [8] Srivastava, A., Malhotra, R., Bhatt, A. K., & Srivastava, P. (2022). Investigation of Consumer Perception Toward Digital Means of Food Ordering Services. In *Proceedings of Second Doctoral Symposium on Computational Intelligence* (pp. 1-14). Springer, Singapore. [Google Scholar](#)
- [9] Frederick, D. P. (2022). Recent Trends in Neuro marketing—An Exploratory Study. *International Journal of Case Studies in Business, IT and Education (IJCSBE)*, 6(1), 38-60. [Google Scholar](#)
- [10] Frederick, D. P., & Parappagoudar, S. K. (2021). SWOC Analysis of Zomato-A Case of Online Food Delivery Services. *International Research Journal of Modernization in Engineering Technology and Science*, 3(3),537–544. [Google Scholar](#)
- [11] Frederick, D. P. (2022). IFE & EFE, TOWS and QPSM Analysis of Online Food Delivery Services. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 6(1), 117-125. [Google Scholar](#)
- [12] Frederick, D. P., & Bhat, G. (2022). Quantitative ABCD Analysis of Online Food Delivery Services. *International Journal of Case Studies in Business, IT and Education (IJCSBE)*, 6(1), 76-92. [Google Scholar](#)
- [13] Azizul, J., Albattat, A., Shahrman, I. A., & Irfan, K. F. (2019). The relationship between food delivery apps attributes towards customer perceived value among young working adults in Shah Alam. *International Journal of Scientific & Technology Research*, 8(11), 2478-2482. [Google Scholar](#)
- [14] Alalwan, A. A. (2020). Mobile food ordering apps: An empirical study of the factors affecting customer e-satisfaction and continued intention to reuse. *International Journal of Information Management*, 50(1), 28-44. [Google Scholar](#)
- [15] Wang, W. T., Ou, W. M., & Chen, W. Y. (2019). The impact of inertia and user satisfaction on the continuance intentions to use mobile communication applications: A mobile service quality perspective. *International Journal of Information Management*, 44(1), 178-193. [Google Scholar](#)
- [16] Mahande, R. D., & Malago, J. D. (2019). An E-Learning Acceptance Evaluation through UTAUT Model in a Postgraduate Program. *Journal of educators online*, 16(2), n2; 1-10. [Google Scholar](#)

- [17] Ray, A., Dhir, A., Bala, P. K., & Kaur, P. (2019). Why do people use food delivery apps (FDA)? A uses and gratification theory perspective. *Journal of Retailing and Consumer Services*, 51(1), 221-230. [Google Scholar](#)
- [18] Suhartanto, D., Helmi Ali, M., Tan, K. H., Sjahroeddin, F., & Kusdiby, L. (2019). Loyalty toward online food delivery service: the role of e-service quality and food quality. *Journal of foodservice business research*, 22(1), 81-97. [Google Scholar](#)
- [19] Nguyen, M. (2019). How Food Delivery Services in Vietnam Accommodate Millennial and Generation Z: Case company: Delivery Now. Pp. 1-59. [Google Scholar](#)
- [20] Maimaiti, M., Zhao, X., Jia, M., Ru, Y., & Zhu, S. (2018). How we eat determines what we become: opportunities and challenges brought by food delivery industry in a changing world in China. *European journal of clinical nutrition*, 72(9), 1282-1286. [Google Scholar](#)
- [21] Li, J., Ma, Q., Chan, A. H., & Man, S. (2019). Health monitoring through wearable technologies for older adults: Smart wearables acceptance model. *Applied ergonomics*, 75(1), 162-169. [Google Scholar](#)
- [22] Okumus, B., Ali, F., Bilgihan, A., & Ozturk, A. B. (2018). Psychological factors influencing customers' acceptance of smartphone diet apps when ordering food at restaurants. *International Journal of Hospitality Management*, 72(1), 67-77. [Google Scholar](#)
- [23] Cho, M., Bonn, M. A., & Li, J. J. (2019). Differences in perceptions about food delivery apps between single-person and multi-person households. *International Journal of Hospitality Management*, 77(1), 108-116. [Google Scholar](#)
- [24] Kapoor, A. P., & Vij, M. (2018). Technology at the dinner table: Ordering food online through mobile apps. *Journal of Retailing and Consumer Services*, 43(1), 342-351. [Google Scholar](#)
- [25] Kang, J. W., & Namkung, Y. (2019). The information quality and source credibility matter in customers' evaluation toward food O2O commerce. *International Journal of Hospitality Management*, 78(1), 189-198. [Crossref](#)
- [26] Yeo, V. C. S., Goh, S. K., & Rezaei, S. (2017). Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services. *Journal of Retailing and Consumer services*, 35(1), 150-162. [Google Scholar](#)
- [27] Alagoz, S. M., & Hekimoglu, H. (2012). A study on tam: analysis of customer attitudes in online food ordering system. *Procedia-Social and Behavioral Sciences*, 62(1), 1138-1143. [Google Scholar](#)
- [28] Kim, J. J., & Hwang, J. (2020). Merging the norm activation model and the theory of planned behavior in the context of drone food delivery services: Does the level of product knowledge really matter?. *Journal of Hospitality and Tourism Management*, 42(1), 1-11. [Google Scholar](#)
- [29] Li, C., Miroso, M., & Bremer, P. (2020). Review of online food delivery platforms and their impacts on sustainability. *Sustainability*, 12(14), 5528; 1-17. [Crossref](#)
- [30] Zhao, Y., & Bacao, F. (2020). What factors determining customer continuingly using food delivery apps during 2019 novel coronavirus pandemic period?. *International journal of hospitality management*, 91(1), 102683;1-12. [Crossref](#)
- [31] Choudhary, N. (2019). Strategic analysis of cloud kitchen—A case study. *Management Today*, 9(3), 184-190. [Google Scholar](#)
- [32] Jha, S., & Bhattacharyya, S. S. (2018). Online restaurant entrepreneurship: the story of Holachef in an increasingly digitalized India. *Emerald Emerging Markets Case Studies*, 8(1), 1-17. [Crossref](#)

- [33] Meenakshi, N., & Sinha, A. (2019). Food delivery apps in India: wherein lies the success strategy?. *Strategic Direction*, 35(7), 12-15. [Crossref](#)
- [34] Ren, S., Kwon, S. D., & Cho, W. S. (2020). Online Food Delivery (OFD) services in Cambodia: A study of the factors influencing consumers' behavioral intentions to use. Pp 1-12. [Google Scholar](#)
- [35] Dillard, J. P., & Pfau, M. (2002). *The persuasion handbook: Developments in theory and practice*. Sage Publications. pp 259- 288. [Google Scholar](#)
- [36] Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211. [Google Scholar](#)
- [37] Hansen, T., Jensen, J. M., & Solgaard, H. S. (2004). Predicting online grocery buying intention: A comparison of the theory of reasoned action and the theory of planned behavior. *International Journal of Information Management*, 24(6), 539– 550. [Crossref](#)
- [38] Choi, J., & Geistfeld, L. V. (2004). A cross-cultural investigation of consumer e-shopping adoption. *Journal of Economic Psychology*, 25(6), 821-838. [Google Scholar](#)
- [39] Limayem, M., Khalifa, M., & Frini, A. (2000). What makes consumers buy from Internet? A longitudinal study of online shopping. *IEEE Transactions on Systems, Man, and Cybernetics Part A: Systems and Humans*, 30(4), 421–432. [Crossref](#)
- [40] Chiu, C. M., Chang, C. C., Cheng, H. L., & Fang, Y. H. (2009). Determinants of customer repurchase intention in online shopping. *Online Information Review*, 33(4), 761–784. [Crossref](#)
- [41] Hansen, T., & Jan, J. M. (2009). Shopping orientation and online clothing purchases: The role of gender and purchase situation. *European Journal of Marketing*, 43(9/10), 1154–1170. [Crossref](#)
- [42] Kang, H., Hahn, M., Fortin, D. R., Hyun, Y. J., & Eom, Y. (2006). Effects of perceived behavioral control on the consumer usage intention of e-coupons. *Psychology and Marketing*, 23(10), 841–864. [Crossref](#)
- [43] Macovei, O. I. (2015). Applying the theory of planned behavior in predicting proenvironmental behaviour: The case of energy conservation. *Acta Universitatis Danubius. Œconomica*, 11(4), 15-32. [Google Scholar](#)
- [44] Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS Quarterly: Management Information Systems*, 30(1), 115–143. [Crossref](#)
- [45] Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British journal of social psychology*, 40(4), 471-499. [Google Scholar](#)
- [46] Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, 13(3), 319–339. [Crossref](#)
- [47] Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, 35(8), 982–1003. [Crossref](#)
- [48] Khan, S. A., Liang, Y., & Shahzad, S. (2015). An Empirical Study of Perceived Factors Affecting Customer Satisfaction to Re-Purchase Intention in Online Stores in China. *Journal of Service Science and Management*, 08(03), 291–305. [Crossref](#)
- [49] Legris, P., Ingham, J., & Collette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information and Management*, 40(3), 191–204. [Crossref](#)

- [50] Moshrefjavadi, M. H., Rezaie Dolatabadi, H., Nourbakhsh, M., Poursaedi, A., & Asadollahi, A. (2017). An Analysis of Factors Affecting on Online Shopping Behavior of Consumers. *International Journal of Marketing Studies*, 4(5), 81-98. [Crossref](#)
- [51] Fayad, R., & Paper, D. (2015). The Technology Acceptance Model E-Commerce Extension: A Conceptual Framework. *Procedia Economics and Finance*, 26(961), 1000–1006. [Crossref](#)
- [52] Porter, C. E., & Donthu, N. (2006). Using the technology acceptance model to explain how attitudes determine Internet usage: The role of perceived access barriers and demographics. *Journal of Business Research*, 59(9), 999–1007. [Crossref](#)
- [53] Sevim, N., Yüncü, D., & Eroğlu Hall, E. (2017). Analysis of The Extended Technology Acceptance Model in Online Travel Products. *Journal of Internet Applications and Management*, 8(2), 45–61. [Crossref](#)
- [54] Al-Ghaith, W. (2015). Applying the Technology Acceptance Model to Understand Social Networking Sites (SNS) Usage: Impact of Perceived Social Capital. *International Journal of Computer Science and Information Technology*, 7(4), 87 105–117. [Crossref](#)
- [55] Ramayah, T., & Ignatius, J. (2005). Impact of perceived usefulness, perceived ease of use and perceived enjoyment on intention to shop online. *ICFAI Journal of Systems Management (IJSM)*, 3(3), 36-51. [Google Scholar](#)
- [56] Sevim, N., Yüncü, D., & Eroğlu Hall, E. (2017). Analysis of The Extended Technology Acceptance Model in Online Travel Products. *Journal of Internet Applications and Management*, 8(2), 45–61. [Crossref](#)
- [57] Galib, M. H., Hammou, K. A., & Steiger, J. (2018). Predicting Consumer Behavior: An Extension of Technology Acceptance Model. *International Journal of Marketing Studies*, 10(3), 73-90. [Crossref](#)
- [58] Hamid, N. R. A. (2008). Consumers' behaviour towards internet technology and internet marketing tools. *International Journal of Communications*, 2(3), 195-204. [Google Scholar](#)
- [59] O'Cass, A., & Fenech, T. (2003). Web retailing adoption: Exploring the nature of internet users Web retailing behaviour. *Journal of Retailing and Consumer Services*, 10(2), 81–94. [Crossref](#)
- [60] Koufaris, M., Kambil, A., & LaBarbera, P. A. (2001). Consumer behavior in Web-based commerce: An empirical study. *International Journal of Electronic Commerce*, 6(2), 115–138. [Crossref](#)
- [61] Lee, Y., Kozar, K. A., & Larsen, K. R. T. (2003). The Technology Acceptance Model: Past, Present, and Future. *Communications of the Association for Information Systems*, 12(1), 752–775. [Crossref](#)
- [62] Sun, H., & Zhang, P. (2006). The role of moderating factors in user technology acceptance. *International Journal of Human Computer Studies*, 64(2), 53–78. [Crossref](#)
- [63] Tornatzky, L. G., & Klein, K. J. (1982). Innovation Characteristics and Innovation Adoption-Implementation: a Meta-Analysis of Findings. *IEEE Transactions on Engineering Management*, EM-29(1), 28–45. [Crossref](#)
- [64] Rogers, E. M. (2003). Diffusion of Innovations, Fifth Edition. Social Networks. Simon & Schuster. [Google Scholar](#)
- [65] Adapa, S. (2008). Adoption of Internet Shopping: Cultural Considerations in India and Australia. *Journal of Internet Banking and Commerce*, 13(2), 1–17. [Crossref](#)

- [66] Goldsmith, R. E. (2002). Explaining and Predicting Consumer Intention to Purchase over the Internet: An Exploratory Study. *Journal of Marketing Theory and Practice*, 10(2), 22–28. [Crossref](#)
- [67] Gatignon, H., Eliashberg, J., & Robertson, T. S. (1989). Modeling Multinational Diffusion Patterns: An Efficient Methodology. *Marketing Science*, 8(3), 231–247. [Crossref](#)
- [68] Verhoef, P. C., & Langerak, F. (2001). Possible determinants of consumers' adoption of electronic grocery shopping in the Netherlands. *Journal of Retailing and Consumer Services*, 8(5), 275-285. [Crossref](#)
- [69] Sahin, I., & Rogers, F. (2006). Detailed Review of Rogers Diffusion of Innovations Theory and Educational Technology-Related Studies Based on Rogers. *The Turkish Online Journal of Educational Technology*, 5(2), 14–23. [Google Scholar](#)
- [70] Pichlak, M. (2015). The innovation adoption process: A multidimensional approach. *Journal of Management and Organization*, 22(4), 476–494. [Crossref](#)
- [71] Ram, S., & Sheth, J. N. (1989). Consumer resistance to innovations: The marketing problem and its solutions. *Journal of Consumer Marketing*, 6(2), 5-14. [Crossref](#)
- [72] To, M. L., & Ngai, E. W. T. (2006). Predicting the organisational adoption of B2C e-commerce: An empirical study. *Industrial Management and Data Systems*, 106(8), 1133–1147. [Crossref](#)
- [73] Akar, B., & Nasir, V. A. (2014, March). A critical review of online consumers' purchase intentions. In *Advances in Business-Related Scientific Research Conference, Venice* (pp. 26-28). [Google Scholar](#)
- [74] Bhatnagar, A., Misra, S., & Rao, H. R. (2000). On risk, convenience, and internet shopping behavior. *Communications of the ACM*, 43(11), 98–105. [Crossref](#)
- [75] Foucault, B. E., & Scheufele, D. A. (2002). Web vs campus store? Why students buy textbooks online. *Journal of Consumer Marketing*, 19(5), 409–423. [Crossref](#)
- [76] Luo, X. (2002). Uses and Gratifications Theory and E-Consumer Behaviors: A Structural Equation Modeling Study. *Journal of Interactive Advertising*, 2(2), 34–41. [Crossref](#)
- [77] Oliver R.L. (1977). Effect of Expectation and Disconfirmation on Postexposure Product Evaluations: An Alternative Interpretation. *Journal of Applied Psychology*, 62(4), 480–486. [Crossref](#)
- [78] Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(4), 460–469. [Crossref](#)
- [79] Bhattacharjee, A. (2001). Understanding Information Systems Continuance: An Expectation-Confirmation Model. *MIS Quarterly*, 25(3), 351–370. [Crossref](#)
- [80] Rashotte, L. (2007). Social Influence. In *The Blackwell Encyclopedia of Sociology*. pp 1-3. [Crossref](#)
- [81] Limayem, M., Khalifa, M., & Frini, A. (2000). What makes consumers buy from Internet? A longitudinal study of online shopping. *IEEE Transactions on Systems, Man, and Cybernetics Part A: Systems and Humans*, 30(4), 421–432. [Crossref](#)
- [82] Pearson, J. M., Pearson, A., & Green, D. (2007). Determining the importance of key criteria in web usability. *Management Research News*, 30(11), 816-828. [Crossref](#)
- [83] Lim, H., & Dubinsky, A. J. (2004). Consumers' perceptions of e-shopping characteristics: an expectancy-value approach. *Journal of Services Marketing*, 18(7), 500-513. [Crossref](#)

- [84] Liu, X., & Wei, K. K. (2003). An empirical study of product differences in consumers' E-commerce adoption behavior. *Electronic Commerce Research and Applications*, 2(3), 229-239. [Google Scholar](#)
- [85] Teo, H. H., Oh, L. B., Liu, C., & Wei, K. K. (2003). An empirical study of the effects of interactivity on web user attitude. *International journal of human-computer studies*, 58(3), 281-305. [Google Scholar](#)
- [86] Shang, R. A., Chen, Y. C., & Shen, L. (2005). Extrinsic versus intrinsic motivations for consumers to shop on-line. *Information & management*, 42(3), 401-413. [Google Scholar](#)
- [87] Lee, H. J., Lee, K. H., & Choi, J. (2018). A Structural Model for Unity of Experience: Connecting User Experience, Customer Experience, and Brand Experience. *Journal of Usability Studies*, 14(1), 8-34. [Google Scholar](#)
- [88] Ramayah, T., & Ignatius, J. (2005). Impact of perceived usefulness, perceived ease of use and perceived enjoyment on intention to shop online. *ICFAI Journal of Systems Management (IJSM)*, 3(3), 36-51. [Google Scholar](#)
- [89] Nagle, T., & Holden, R. (1987). *The strategy and tactics of pricing* (sixth edition, Vol. 3). Englewood Cliffs, NJ: Prentice Hall. Pp 1-352. [Google Scholar](#)
- [90] Darke, P. R., Freedman, J. L., & Chaiken, S. (1995). Percentage discounts, initial price, and bargain hunting: A heuristic-systematic approach to price search behavior. *Journal of Applied Psychology*, 80(5), 580-586. [Google Scholar](#)
- [91] Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Experiments in Environmental Economics*, 211(4481), 453-458. [Crossref](#)
- [92] Thaler, R. H. (2008). Mental accounting and consumer choice. *Marketing Science*, 27(1), 15-25. [Crossref](#)
- [93] Madan, V., & Suri, R. (2001). Quality perception and monetary sacrifice: A comparative analysis of discount and fixed prices. *Journal of Product & Brand Management*, 10(3), 170-184. [Crossref](#)
- [94] Escobar-Rodríguez, T., & Carvajal-Trujillo, E. (2013). Online drivers of consumer purchase of website airline tickets. *Journal of Air Transport Management*, 32(1), 58-64. [Google Scholar](#)
- [95] DelVecchio, D., & Puligadda, S. (2012). The effects of lower prices on perceptions of brand quality: A choice task perspective. *Journal of Product and Brand Management*, 21(6), 465-474. [Crossref](#)
- [96] Ollila, S. (2011). Consumers' attitudes towards food prices. In *Department of Economics and Management, University of Helsinki, Helsinki*. Pp 1-340. [Google Scholar](#)
- [97] Nakandala, D., & Lau, H. C. (2013). An application of a fuzzy-based optimisation model for selecting food products based on cost and nutrition. *Journal of Research for Consumers*, 24(1), 15-21. [Google Scholar](#)
- [98] Parikh, A., & Weseley, A. J. (2004). The effect of price level and price type on perceptions of a restaurant. *J. Res. Consum*, 7(1), 1-18. [Google Scholar](#)
- [99] Chiu, C. M., Wang, E. T. G., Fang, Y. H., & Huang, H. Y. (2014a). Understanding customers' repeat purchase intentions in B2C e-commerce: The roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*, 24(1), 85-114. [Crossref](#)
- [100] Eriksson, K., & Nilsson, D. (2007). Determinants of the continued use of self-service technology: The case of Internet banking. *Technovation*, 27(4), 159-167. [Google Scholar](#)

- [101] Gentry, L., & Calantone, R. (2002a). A comparison of three models to explain shop-bot use on the web. *Psychology & Marketing*, 19(11), 945–956. [Crossref](#)
- [102] Akroush, M. N., & Al-Debei, M. M. (2015). An integrated model of factors affecting consumer attitudes towards online shopping. *Business Process Management Journal*, 21(6), 1353–1376. [Crossref](#)
- [103] Keller, K. L., & Kotler, P. (2012). Branding in B2B firms. In *Handbook of business-to-business marketing*. Edward Elgar Publishing. Pp 1-50. [Google Scholar](#)
- [104] Gaman, P. M., & Sherrington, K. B. (1996). *The science of food*. Routledge. pp 1-50. [Google Scholar](#)
- [105] Jones, P., Clarke-Hill, C., Shears, P., & Hillier, D. (2001). Retailing organic foods. *British Food Journal*, 103(5), 358-365. [Crossref](#)
- [106] West, B. B., Wood, L., & Harger, V. P. (2006). *Food Service in Intuitions*. New York: John Wiley and Sons. Inc. pp. 1-35. [Google Scholar](#)
- [107] Davis, B., Lockwood, A., Alcott, P., & Pantelidis, I. S. (2018). *Food and beverage management*. Routledge. Pp 32-49. [Google Scholar](#)
- [108] Sulek, J.M., and Hensley, R. L., (2004). The relative importance of food, atmosphere, and fairness of wait. *Cornell Hotel and Restaurant Administration Quarterly*, 45(3), 235-247. [Google Scholar](#)
- [109] Kivela, J., Inbakaran, R., & Reece, J. (1999), Consumer research in the restaurant environment Part 1: A conceptual model of dining satisfaction and return patronage. *International Journal of Contemporary Hospitality Management*, 11(5), 205-222. [Google Scholar](#)
- [110] Brown, A. C. (2018). Understanding food: principles and preparation. 2nd. Ed. Belmont CA: Wadsworth, Thomson Learning [TX354. B76 2004]. Pp. 1-20. [Google Scholar](#)
- [111] Peri, C. (2006). The universe of food quality. *Food Quality and Preference*, 17(1/2), 3-8. [Google Scholar](#)
- [112] Delwiche, J. (2004). The impact of perceptual interactions on perceived flavour. *Food Quality and Preference*, 15(2), 137-146. [Google Scholar](#)
- [113] Kähkönen, P., Tourila, H., & Hyvönen, L. (1995), Dairy fat content and serving temperature as determinants of sensory and hedonic characteristic in cheese soup. *Food Quality and Preference*, 6(2), 127-133. [Google Scholar](#)
- [114] Cortese, A. (2003). *Fine dining? Just across the lobby: Some of the best new restaurants are popping up in hotels*. Business Week, pp. 130-131. [Google Scholar](#)
- [115] Payne-Palacio, J., & Theis, M. (2005). *Introduction to foodservice (10th ed.)*. Upper Saddle River, NJ: PrenticeHall. Pp 1-19. [Google Scholar](#)
- [116] Namkung, Y., Jang, S., (2007). Does food quality really matter in restaurant: its impact of customer satisfaction and behavioral intentions? *Journal of Hospitality and Tourism Research*, 31(3), 387–410. [Google Scholar](#)
- [117] Rajpoot, N. A. (2002). TANGSERV: A multiple item scale for measuring tangible quality in food service industry. *Journal of Foodservice Business Research*, 5(2), 109-127. [Google Scholar](#)
- [118] Johns, N., Tyas, P., Ingold, T., & Hopkinson, S. (1996). Investigation of the perceived components of the meal experience, using perceptual gap methodology. *Progress in Tourism and Hospitality Research*, 2(1), 15-26. [Google Scholar](#)

- [119] Sulek, J.M., & Hensley, R.L., (2004). The relative importance of food, atmosphere, and fairness of wait. *Cornell Hotel and Restaurant Administration Quarterly*, 45(3), 235-247. [Google Scholar](#)
- [120] Péneau, S., Hoehn, E., Roth, H.-R., Escher, F., & Nuessli, J. (2006). Importance and consumer perception of freshness of apples. *Food Quality and Preference*, 17(1/2), 9-19. [Google Scholar](#)
- [121] Kara, A., Kaynak, E., & Kucukemiroglu, O. (1995). Marketing strategies for fast-food restaurants: A customer view. *International Journal of Contemporary Hospitality Management*, 7(4), 16–22. [Crossref](#)
- [122] Alreck, P., & Settle, R. (2002). The hurried consumer: Time-saving perceptions of Internet and catalogue shopping. *Journal of Database Marketing & Customer Strategy Management*, 10(1), 25–35. [Crossref](#)
- [123] Stephen, B. (1999). Whither the small independent take-away? *British Food Journal*, 101(9), 715–723. [Google Scholar](#)
- [124] Dixon, M. J., Kimes, S. E., & Verma, R. (2009). Customer preferences and use of technology-based service innovations in restaurants. *Cornell Hospitality Report*, 9(7), 1–20. [Google Scholar](#)
- [125] Chiu, C. M., Wang, E. T. G., Fang, Y. H., & Huang, H. Y. (2014b). Understanding customers' repeat purchase intentions in B2C e-commerce: The roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*, 24(1), 85–114. [Crossref](#)
- [126] Punj, G. (2012). Income effects on relative importance of two online purchase goals: Saving time versus saving money? *Journal of Business Research*, 65(5), 634–640. [Crossref](#)
- [127] Chang, M., Cheung, W., & Lai, V. S. (2004). Literature derived reference models for the adoption of online shopping. *Information & Management*, 42(4), 543–559. [Crossref](#)
- [128] Kotler, P., & Keller, K. L. (2012). *Marketing Management*: Philip Kotler, Kevin Lane Keller. Pearson. Pp 23-29. [Google Scholar](#)
- [129] Ghani, U. & Kamal, Y. (2010). The impact of in-store stimuli on the impulse purchase behavior of consumers in Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 2(8), 155-162. [Google Scholar](#)
- [130] Silayoi, P. & Speece, M. (2007). The importance of packaging attributes: a conjoint analysis approach. *European Journal of Marketing*, 41(11/12), 1495-1517. [Google Scholar](#)
- [131] Hellström, D., & Nilsson, F. (2011). Logistics-driven packaging innovation: a case study at IKEA. *International Journal of Retail & Distribution Management*, 39(9),638-657. [Google Scholar](#)
- [132] Thalhammer, R.R. (2007). Natural product packaging: reflecting a contemporary philosophy. *Global Cosmetic Industry*, 175(12), 52-55. [Google Scholar](#)
- [133] Hall, J., Binney, W. & O'Mahony, G. B. (2004). Age related motivational segmentation of wine consumption in a hospitality setting. *International Journal of Wine Marketing*, 16(3), 29-43. [Google Scholar](#)
- [134] Atkin, T., Garcia, R. & Lockshin, L. (2006). A multinational study of the diffusion of a discontinuous innovation. *Australasian Marketing Journal*, 14(2), 17-33. [Google Scholar](#)
- [135] Wigley, S. & Chiang, C.-L.R. (2009), Retail internationalisation in practice: Per una in the UK and Taiwan. *International Journal of Retail & Distribution Management*, 37(3), 250-270. [Google Scholar](#)

- [136] DeBono, K.G., Leavitt, A. & Backus, J. (2003). Product packaging and product evaluation: an individual difference approach. *Journal of Applied Social Psychology*, 33(3), 513-521. [Google Scholar](#)
- [137] Kauppinen-Raïsaˆnen, H., Owusu, R. A. & Bylon, A. B. (2012). Brand salience of OTC pharmaceuticals through package appearance. *International Journal of Pharmaceutical and Healthcare Marketing*, 6(3), 230-249. [Google Scholar](#)
- [138] Mueller, S., Lockshin, L. & Jordan, J. L. (2010). What you see may not be what you get: asking consumers what matters may not reflect what they choose. *Marketing Letters*, 21(4), 335-350. [Google Scholar](#)
- [139] Hingley, M., Taylor, S. & Ellis, C. (2007). Radio frequency identification tagging. *International Journal of Retail & Distribution Management*, 35(10), 803-820. [Google Scholar](#)
- [140] Omar, M.W., Fadzil, M.I., Ali, M.N.M. & Shaharudin, M.R. (2011). The effectiveness of bumiputra SME food product packaging in the Malaysian customers' perception. *Canadian Social Science*, 7(2), 102-109. [Google Scholar](#)
- [141] Wells, L. E., Farley, H. & Armstrong, G.A. (2007). The importance of packaging design for own-label food brands. *International Journal of Retail & Distribution Management*, 35(9), 677-690. [Google Scholar](#)
- [142] Shaharudin, M. R., Pani, J. J., Mansor, S. W., & Elias, S. J. (2010). Purchase intention of organic food; perceived value overview. *Canadian Social Science*, 6(1), 70-79. [Google Scholar](#)
- [143] Mallinckrodt, V. & Mizerski, D. (2007). The effects of playing an advergame on young children's perceptions, preferences, and requests. *Journal of Advertising*, 36(2), 87-100. [Google Scholar](#)
- [144] Wang, E. S. (2013). The influence of visual packaging design on perceived food product quality, value, and brand preference. *International journal of retail & distribution management*, 41(10), 805-816. [Crossref](#)
- [145] Wu, I. L. (2013). The antecedents of customer satisfaction and its link to complaint intentions in online shopping: An integration of justice, technology, and trust. *International Journal of Information Management*, 33(1), 166–176. [Crossref](#)
- [146] Laroche, M., Yang, Z., McDougall, G. H. G., & Bergeron, J. (2005). Internet versus bricks-and-mortar retailers: An investigation into intangibility and its consequences. *Journal of Retailing*, 81(4), 251–267. [Crossref](#)
- [147] Thamizhvanan, A., & M.J., X. (2013). Determinants of customers' online purchase intension: An empirical study in India. *Journal of Indian Business Research*, 5(1), 17–32. [Google Scholar](#)
- [148] Huang, E. (2012). Online experiences and virtual goods purchase intention. *Internet Research*, 22(3), 252–274. [Crossref](#)
- [149] Keng, C. J., Ting, H. Y., & Chen, Y. T. (2011). Effects of virtual-experience combinations on consumer-related “sense of virtual community. *Internet Research*, 21(4), 408–434. [Crossref](#)
- [150] Li, H., Daugherty, T., & Biocca, F. (2002). Impact of 3-D advertising on product knowledge, brand attitude, and purchase intention: The mediating role of presence. *Journal of Advertising*, 31(3), 43–57. [Crossref](#)
- [151] Karahanna, E., Straub, D. W., & Chervany, N. L. (1999). Information technology adoption across time: A cross-sectional comparison of pre-adoption and post-adoption beliefs. *MIS Quarterly: Management Information Systems*, 23(2), 183–213. [Crossref](#)

- [152] Shim, S., Gehrt, K., & Lotz, S. (2001). Export implications for the Japanese fruit market: Fruit-specific lifestyle segments. *International Journal of Retail & Distribution Management*, 29(6), 298–314. [Crossref](#)
- [153] Weisberg, J., Te'eni, D., & Arman, L. (2011). Past purchase and intention to purchase in e-commerce: The mediation of social presence and trust. *Internet Research*, 21(1), 82–96. [Crossref](#)
- [154] Melis, K., Campo, K., Breugelmans, E., & Lamey, L. (2015). The Impact of the Multi-channel Retail Mix on Online Store Choice: Does Online Experience Matter? *Journal of Retailing*, 91(2), 272–288. [Crossref](#)
- [155] Chen, Y. H., Hsu, I. C., & Lin, C. C. (2010). Website attributes that increase consumer purchase intention: A conjoint analysis. *Journal of Business Research*, 63(9–10), 1007–1014. [Crossref](#)
- [156] Alavi, S. A., Rezaei, S., Valaei, N., & Wan Ismail, W. K. (2016). Examining shopping mall consumer decision-making styles, satisfaction and purchase intention. *International Review of Retail, Distribution and Consumer Research*, 26(3), 272–303. [Crossref](#)
- [157] Gentry, L., & Calantone, R. (2002b). A Comparison of Three Models to Explain Shop-Bot Use on the Web. *Psychology and Marketing*, 19(11), 945–956. [Crossref](#)
- [158] Valaei, N., Rezaei, S., Ismail, W. K. W., & Oh, Y. M. (2016). The effect of culture on attitude towards online advertising and online brands: Applying Hofstede's cultural factors to internet marketing. *International Journal of Internet Marketing and Advertising*, 10(4), 270–301. [Crossref](#)
- [159] Ling, K. C., Chai, L. T., & Piew, T. H. (2010). The effects of shopping orientations, online trust and prior online purchase experience towards customers' online purchase intention. *International Business Research*, 3(3), 63–76. [Google Scholar](#)
- [160] Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of consumer research*, 15(3), 325-343. [Google Scholar](#)
- [161] Sparks, P., Shepherd, R., Wieringa, N., & Zimmermanns, N. (1995). Perceived behavioural control, unrealistic optimism and dietary change: An exploratory study. *Appetite*, 24(3), 243-255. [Google Scholar](#)
- [162] Trafimow, D., & Finlay, K. A. (1996). The importance of subjective norms for a minority of people: Between subjects and within-subjects analyses. *Personality and social psychology bulletin*, 22(8), 820-828. [Google Scholar](#)
- [163] Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological bulletin*, 82(2), 261. [Google Scholar](#)
- [164] Ryan, R. M. (1982). Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory. *Journal of personality and social psychology*, 43(3), 450-461. [Google Scholar](#)
- [165] Fulk, J. (2017). Social construction of communication technology. *Academy of Management Journal*, 36(5), 921–950. [Google Scholar](#)
- [166] Fulk, J., Schmitz, J., & Steinfield, C. W. (1990). A social influence model of technology use. *Organizations and communication technology*, 117(1), pp. 140. Newbury Park, CA: Sage. [Google Scholar](#)

- [167] Kim, Y., & Han, H. (2010). Intention to pay conventional-hotel prices at a green hotel—a modification of the theory of planned behavior. *Journal of Sustainable Tourism*, 18(8), 997-1014. [Google Scholar](#)
- [168] Ryu, K., & Jang, S. (2006). Intention to experience local cuisine in a travel destination: The modified theory of reasoned action. *Journal of Hospitality & Tourism Research*, 30(4), 507-516. [Google Scholar](#)
- [169] Shin, Y. H., & Hancer, M. (2016). The role of attitude, subjective norm, perceived behavioral control, and moral norm in the intention to purchase local food products. *Journal of foodservice business research*, 19(4), 338-351. [Google Scholar](#)
- [170] Kim, D. J., Song, Y. I., Braynov, S. B., & Rao, H. R. (2005). A multidimensional trust formation model in B-to-C e-commerce: a conceptual framework and content analyses of academia/practitioner perspectives. *Decision support systems*, 40(2), 143-165. [Google Scholar](#)
- [171] Montoya-Weiss, M. M., Voss, G. B., & Grewal, D. (2003). Determinants of online channel use and overall satisfaction with a relational, multichannel service provider. *Journal of the academy of marketing Science*, 31(4), 448-458. [Google Scholar](#)
- [172] Ashworth, L., & Free, C. (2006). Marketing dataveillance and digital privacy: Using theories of justice to understand consumers' online privacy concerns. *Journal of business ethics*, 67(2), 107-123. [Google Scholar](#)
- [173] Liu, C., Marchewka, J. T., Lu, J., & Yu, C. S. (2004). Beyond concern: a privacy–trust–behavioral intention model of electronic commerce. *Information & Management*, 42(1), 127-142. [Google Scholar](#)
- [174] Almousa, M. (2011). Perceived risk in apparel online shopping: a multi-dimensional perspective. *Canadian Social Science*, 7(2), 23-31. [Google Scholar](#)
- [175] Lauer, T. W., & Deng, X. (2007). Building online trust through privacy practices. *International Journal of Information Security*, 6(5), 323-331. [Google Scholar](#)
- [176] Sreya, R., & Raveendran, P. T. (2016). Dimensions Of Perceived Risk In Online Shopping-A Factor Analysis Approach. *BVIMSR's Journal of Management Research*, 8(1), 13-18. [Google Scholar](#)
- [177] Fortes, N., & Rita, P. (2016). Privacy concerns and online purchasing behaviour: Towards an integrated model. *European Research on Management and Business Economics*, 22(3), 167-176. [Google Scholar](#)
- [178] Nehf, J. P. (2007). Shopping for Privacy on the Internet. *Journal of Consumer Affairs*, 41(2), 351-375. [Google Scholar](#)
- [179] Udo, G. J. (2001). Privacy and security concerns as major barriers for e-commerce: a survey study. *Information management & computer security*, 9(4), 165-174. [Crossref](#)
- [180] Miyazaki, A. D., & Fernandez, A. (2001). Consumer perceptions of privacy and security risks for online shopping. *Journal of Consumer affairs*, 35(1), 27-44. [Google Scholar](#)
- [181] Karwatzki, S., Dytyanko, O., Trenz, M., & Veit, D. (2017). Beyond the personalization–privacy paradox: Privacy valuation, transparency features, and service personalization. *Journal of Management Information Systems*, 34(2), 369-400. [Google Scholar](#)
- [182] Kobsa, A. (2007). Privacy-enhanced personalization. *Communications of the ACM*, 50(8), 24-33. [Google Scholar](#)
- [183] Eduardo B. Andrade, Velitchka Kaltcheva, and Barton Weitz (2002). Self-Disclosure on the Web: the Impact of Privacy Policy, Reward, and Company Reputation. *Advances in Consumer*

- Research Volume 29*, eds. Susan M. Broniarczyk and Kent Nakamoto, Valdosta, GA : Association for Consumer Research, Pages: 350-353. [Google Scholar](#)
- [184] Liu, C., Marchewka, J. T., Lu, J., & Yu, C. S. (2005). Beyond concern—a privacy-trust-behavioral intention model of electronic commerce. *Information & Management*, 42(2), 289-304. [Google Scholar](#)
- [185] Odom, M. D., Kumar, A., & Saunders, L. (2002). Web assurance seals: How and why they influence consumers' decisions. *Journal of Information Systems*, 16(2), 231-250. [Google Scholar](#)
- [186] Chang, K. C. (2014). Examining the effect of tour guide performance, tourist trust, tourist satisfaction, and flow experience on tourists' shopping behavior. *Asia Pacific Journal of Tourism Research*, 19(2), 219-247. [Google Scholar](#)
- [187] Connolly, R., & Bannister, F. (2007). Consumer trust in Internet shopping in Ireland: towards the development of a more effective trust measurement instrument. *Journal of Information Technology*, 22(2), 102-118. [Google Scholar](#)
- [188] Lee, M. K., & Turban, E. (2001). A trust model for consumer internet shopping. *International Journal of electronic commerce*, 6(1), 75-91. [Google Scholar](#)
- [189] Gupta, K., & Shukla, S. (2016, February). Internet of Things: Security challenges for next generation networks. In *2016 International Conference on Innovation and Challenges in Cyber Security (ICICCS-INBUSH)* (pp. 315-318). IEEE. [Google Scholar](#)
- [190] Teoh, W. M. Y., Chong, S. C., Lin, B., & Chua, J. W. (2013). Factors affecting consumers' perception of electronic payment: an empirical analysis. *Internet Research*, 23(4), 465-485. [Google Scholar](#)
- [191] Hahn, K. H., & Kim, J. (2009). The effect of offline brand trust and perceived internet confidence on online shopping intention in the integrated multi-channel context. *International journal of retail & Distribution Management*, 37(2), 126-141. [Google Scholar](#)
- [192] Eid, M. I. (2011). Determinants of e-commerce customer satisfaction, trust, and loyalty in Saudi Arabia. *Journal of electronic commerce research*, 12(1), 78-93. [Google Scholar](#)
- [193] George, S. (2002). NHS Direct audited: Customer satisfaction, but at what price?. *BMJ*, 324(7337), 558-559. [Google Scholar](#)
- [194] Lee, G. G., & Lin, H. F. (2005). Customer perceptions of e-service quality in online shopping. *International journal of retail & distribution management*, 33(2), 166-176. [Google Scholar](#)
- [195] Cheung, C. M., & Lee, M. K. (2003). An integrative model of consumer trust in internet shopping. *ECIS 2003 Proceedings*, 48. [Google Scholar](#)
- [196] Ranganathan, C., & Ganapathy, S. (2002). Key dimensions of business-to-consumer web sites. *Information & management*, 39(6), 457-465. [Google Scholar](#)
- [197] Murray, K. B. (1991). A test of services marketing theory: consumer information acquisition activities. *Journal of marketing*, 55(1), 10-25. [Google Scholar](#)
- [198] Biswas, D., & Biswas, A. (2004). The diagnostic role of signals in the context of perceived risks in online shopping: do signals matter more on the web?. *Journal of interactive marketing*, 18(3), 30-45. [Google Scholar](#)
- [199] Cunningham, L. F., Gerlach, J. H., Harper, M. D., & Young, C. E. (2005). Perceived risk and the consumer buying process: internet airline reservations. *International Journal of Service Industry Management*, 16(4), 357-372. [Google Scholar](#)

- [200] Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C. (2006). Development of a scale to measure the perceived benefits and risks of online shopping. *Journal of interactive marketing*, 20(2), 55-75. [Google Scholar](#)
- [201] Samadi, M., & Yaghoob-Nejadi, A. (2009). A survey of the effect of consumers' perceived risk on purchase intention in e-shopping. *Business Intelligence Journal*, 2(2), 261-275. [Google Scholar](#)
- [202] Bianchi, C., & Andrews, L. (2012). Risk, trust, and consumer online purchasing behaviour: a Chilean perspective. *International Marketing Review*, 29(3), 253-275. [Google Scholar](#)
- [203] Liu, C., & Forsythe, S. (2010). Sustaining online shopping: Moderating role of online shopping motives. *Journal of Internet Commerce*, 9(2), 83-103. [Google Scholar](#)
- [204] Sweeney, J. C., Soutar, G. N. & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: a study in a retail environment. *Journal of Retailing*, 75(1), 77-105. [Google Scholar](#)
- [205] Verhagen, T., Meents, S., & Tan, Y. H. (2006). Perceived risk and trust associated with purchasing at electronic marketplaces. *European Journal of Information Systems*, 15(6), 542-555. [Google Scholar](#)
- [206] Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: what we know and what we need to learn. *Journal of the academy of marketing science*, 28(1), 67-85. [Google Scholar](#)
- [207] Tariq, M., Abbas, T., Abrar, M., & Iqbal, A. (2017). EWOM and brand awareness impact on consumer purchase intention: mediating role of brand image. *Pakistan Administrative Review*, 1(1), 84-102. [Google Scholar](#)
- [208] Chaturvedi, S., Gupta, S., & Hada, D. S. (2016). Perceived risk, trust and information seeking behavior as antecedents of online apparel buying behavior in India: an exploratory study in context of Rajasthan. *International Review of Management and Marketing*, 6(4), 935-943. [Google Scholar](#)
- [209] Dig, I. C., Domingo, L. M., & Consignado, M. (2017). Perceived Risks and Online Purchase Intention of Young Professionals in the Fifth District of Cavite. In *DLSU Research Congress. De La Salle University, Manila, Philippines*, 1(1), 1-7. [Google Scholar](#)
- [210] Bhatnagar, A., Misra, S., & Rao, H. R. (2000). On risk, convenience, and Internet shopping behavior. *Communications of the ACM*, 43(11), 98-105. [Google Scholar](#)
- [211] Sorce, P., Perotti, V., & Widrick, S. (2005). Attitude and age differences in online buying. *International Journal of Retail & Distribution Management*, 33(2), 122-132. [Crossref](#)
- [212] Claudia, I. (2012). The Effect of Control Variables When Using Technology Acceptance Model to Predict Consumers' intentions to Buy Online. *Academic Research International*, 3(1), 137-145. [Google Scholar](#)
- [213] McAlister, A. (1995). Behavioral journalism: beyond the marketing model for health communication. *American Journal of Health Promotion*, 9(6), 417-420. [Google Scholar](#)
- [214] Mou, J., Shin, D. H., & Cohen, J. F. (2017). Trust and risk in consumer acceptance of e-services. *Electronic Commerce Research*, 17(2), 255-288. [Google Scholar](#)
- [215] Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Journal of Business research*, 56(11), 867-875. [Google Scholar](#)

- [216] Ariff, M. S. M., Sylvester, M., Rahim, K. A., & Zakuan, N. (2014). Consumer Online Shopping Behaviour; Empirical Evidence from Malaysia. *Advanced Science Letters*, 20(10-11), 2319-2327. [Google Scholar](#)
- [217] Brosdahl, D. J., & Almousa, M. (2013). Risk perception and internet shopping: comparing United States and Saudi Arabian consumers. *Journal of management and marketing research*, 13(1), 1-17. [Google Scholar](#)
- [218] Nawi, N. C., Al Mamun, A., Hamsani, N. H. B., & Muhayiddin, M. N. B. (2019). Effect of consumer demographics and risk factors on online purchase behaviour in Malaysia. *Societies*, 9(1), 10; 1-5. [Google Scholar](#)
- [219] Zheng, L., Favier, M., Huang, P., & Coat, F. (2012). Chinese consumer perceived risk and risk relievers in e-shopping for clothing. *Journal of Electronic Commerce Research*, 13(3), 255-274. [Google Scholar](#)
- [220] Aghdaie, S. F. A., Piraman, A., & Fathi, S. (2011). An analysis of factors affecting the consumer's attitude of trust and their impact on internet purchasing behavior. *International Journal of Business and Social Science*, 2(23), 1-10. [Google Scholar](#)
- [221] Al-Debei, M. M., Akroush, M. N., & Ashouri, M. I. (2015). Consumer attitudes towards online shopping: The effects of trust, perceived benefits, and perceived web quality. *Internet Research*, 25(5), 707-733. [Google Scholar](#)
- [222] Schiffman, L. G., Kanuk, L. L., Kumar, S. R., & Wisenblit, J. (2010). Consumer decision making and beyond. *Consumer behavior*, 424-465. [Google Scholar](#)
- [223] Stephen, A. (2015). The role of digital and social marketing in consumer behavior. *Current opinion in Psychology special issue on consumer behaviour*, 10(1), 17-21. [Google Scholar](#)
- [224] Kedah, Z., & Ismail, Y. (2015). Key success factors of online food ordering services: An empirical study. *Malaysian Management Review*, 50(2), 19-36. [Google Scholar](#)
- [225] Prabhu, A., & Dongre, R. (2018). Analysis of customer attitude towards electronic food ordering. *KIMI Hospitality Research Journal*, 3(1), 1-6. [Google Scholar](#)
- [226] Byrne, G., Ahearne, E., Cotterell, M., Mullany, B., O'donnell, G. E., & Sammler, F. (2016). High performance cutting (HPC) in the new era of digital manufacturing—a roadmap. *Procedia Cirp*, 46(1), 1-6. [Google Scholar](#)
- [227] Freeman, B., Kelly, B., Baur, L., Chapman, K., Chapman, S., Gill, T., & King, L. (2014). Digital junk: food and beverage marketing on Facebook. *American journal of public health*, 104(12), e56-e64. [Google Scholar](#)
- [228] Park, E., & Kim, K. J. (2014). An integrated adoption model of mobile cloud services: exploration of key determinants and extension of technology acceptance model. *Telematics and Informatics*, 31(3), 376-385. [Google Scholar](#)
- [229] Kotler, P., Burton, S., Deans, K., Brown, L., & Armstrong, G. (2015). *Marketing*. Pearson Higher Education AU. Pp 29-49. [Google Scholar](#)
- [230] Kuo, Y. F., & Yen, S. N. (2009). Towards an understanding of the behavioral intention to use 3G mobile value-added services. *Computers in Human Behavior*, 25(1), 103-110. [Google Scholar](#)
- [231] Liaw, S. S., Huang, H. M., & Chen, G. D. (2007). Surveying instructor and learner attitudes toward e-learning. *Computers & education*, 49(4), 1066-1080. [Google Scholar](#)
- [232] Liaw, S. S. (2008). Investigating students' perceived satisfaction, behavioral intention, and effectiveness of e-learning: A case study of the Blackboard system. *Computers & education*, 51(2), 864-873. [Google Scholar](#)

- [233] Yi, M. Y., Fiedler, K. D., & Park, J. S. (2006). Understanding the role of individual innovativeness in the acceptance of IT-based innovations: Comparative analyses of models and measures. *Decision sciences*, 37(3), 393-426. [Google Scholar](#)
- [234] Lam, T., Cho, V., & Qu, H. (2007). A study of hotel employee behavioral intentions towards adoption of information technology. *International Journal of Hospitality Management*, 26(1), 49-65. [Google Scholar](#)
- [235] Shih, Y.Y., & Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet Research*, 14(3), 213-223. [Crossref](#)
- [236] Dinev, T., & Hu, Q. (2007). The centrality of awareness in the formation of user behavioral intention toward protective information technologies. *Journal of the Association for Information Systems*, 8(7), 1-15. [Google Scholar](#)
- [237] Lee, M. K., Cheung, C. M., & Chen, Z. (2005). Acceptance of Internet-based learning medium: the role of extrinsic and intrinsic motivation. *Information & management*, 42(8), 1095-1104. [Google Scholar](#)
- [238] Liaw, S. S., & Huang, H. M. (2003). An investigation of user attitudes toward search engines as an information retrieval tool. *Computers in human behavior*, 19(6), 751-765. [Google Scholar](#)
- [239] Hsu, C. L., & Lin, J. C. C. (2008). Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation. *Information & management*, 45(1), 65-74. [Google Scholar](#)
- [240] Limayem, M., Khalifa, M., & Frini, A. (2000). What makes consumers buy from Internet? A longitudinal study of online shopping. *IEEE Transactions on systems, man, and Cybernetics-Part A: Systems and Humans*, 30(4), 421-432. [Google Scholar](#)
- [241] Taylor, S., & Todd, P. (1995). Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International journal of research in marketing*, 12(2), 137-155. [Google Scholar](#)
- [242] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2015). A new ABCD technique to analyze business models & concepts. *International Journal of Management, IT and Engineering*, 5(4), 409-423. [Google Scholar](#)
- [243] Aithal, P. S. (2017). ABCD Analysis of Recently Announced New Research Indices. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 1(1), 65-76. [Google Scholar](#)
- [244] Frederick, D. P., Sujaya, H., & Salins, M. (2022). Quantitative ABCD Analysis of Online Shopping. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 6(1), 313-329. [Google Scholar](#)
