

Impact of E-Service Quality on Customer Intention to Use through E-Satisfaction: Evidence from Online Food Ordering Applications

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The study explores the impact of online food ordering applications and e-services quality through e-satisfaction and intention to use, also to work on the contextual as well theoretical gap. Furthermore, the moderating role of brand trust on e-service quality dimensions and on customer e-satisfaction is investigated. Convenient sampling technique is used, and the sample size is 384. Hayes process is used for testing the moderating and mediating relationships of hypothesis and linear regression is used for test the direct relationships of hypothesis. Brand trust has not been acknowledged as moderators in the earlier researches. The integrated model based on the extended theory of customer satisfaction index (CSI) model is proposed. The result of the study provides valuable insights for future researchers, restaurant operators and application developers, to tackle the problems while they are facing to satisfy customers and grab their intention to use.

Key words: *Customer Satisfaction, Intention to reuse, Service Quality*

1. Introduction

Technology had swiftly evolved by the time, in which it had enabled people to work and complete their activities easier and in the more proficient way. (Wilson, 2018). e-commerce has been well established as a medium for the company to meet global markets (El-Gawady, 2017). With the coming of the 21st century, we have entered an “e” generation era. The Internet has created a remarkable level of interest through its contribution with all kinds of businesses starting from e-Commerce, e-Business, ePayment, eEntertainment. Internet is now becoming the global system, which permits peoples to communicate globally, find anything globally, and

also permit peoples to buy/sell anything online, in term of business, the rapid development of internet has affected the way of business proceedings (Kaur, 2011).

E-commerce has influenced human life's recognition and innovation. Online customer purchasing actions are not like a neuromuscular market capable of touching, evaluating and shopping the goods after that. Given the concentration of the cooperation, collective the customers' understanding to issues associated to cost, time and convenience, entrepreneur have begun to make use of technological applications in their challenges to dominate the limitations affecting to human encounter (Al Sukkar, A. and Hasan, H., 2009). Researchers have highlighted the reputation of service quality in customer attainment and retention and in encouraging customers' focal services (Kauffman, R. J., Lai, H., & Ho, C. T. , 2010). Those features are precarious in terms of defining Consumer assessment of the general quality of m-services, which in turn considerably affects the ongoing use of m-service behaviors (Wang & Liu, 2016)

Unlike formal technology-based virtual commerce, e-commerce allows companies to be delivered by mobile phones over a wireless communications network anywhere else and instantly. (Chang, 2009). The development in enterprise applications that encourages e-commerce interactions has altered user and company activities. The accessibility of e-commerce applications as a business level allows consumers to shop effectively, smoothly concurrent offerings and tariffs and facilitate customer satisfaction immediately (Kedah, 2015). Nowadays, the Internet has become a fresh marketing tool. Marketers use the web for marketing scheduling information collection. Companies that not only advertise on the internet but companies have also increased their chances of receiving e-mails and orders by offering distribution centers, company interactions and buyers 24 hours a day (Kishada & Wahab, 2015). This fast internet growth provides both a chance and The contest facing eateries, creating a strong opposition. Loyal clients are indispensable in this difficult setting for online businesses (Pee, Jiang, & Klein, 2019). The group of actors of the online food delivery trade in Pakistan are not only worldwide Fast food joints including McDonald's and Kentucky Fried Chicken, which operate their own ordering facilities, but also many tiny and standard unusual stores and fast food chains using counterparties such as fast food chains Food panda, Ubereat, Eat Mubarik, cheetay.pk. This notice obviously demonstrates global competition in the digital customer service industry in Pakistan. Consequently, exploring the possibility of using internet food services on the Pakistani industry by fair value itself is reasonable. (Ahmed, Su, Rafique, Zaman Khan, & Jamil, 2017)

Study by Nicholas Wilson directed the future researchers towards the satisfaction of customers and intention to reuse. Research study has been conducted an analysis on the e commerce industry in Indonesia, thus the results generated shows that research might not be generalizable to the other companies. another research using this subject in another context in order to growth the generalizability of the topic (N. Wilson & Christella, 2019) also another study of Ali

Abdallah Alalwan indicates Irrespective Efforts of this analysis to enhance comprehension of mobile food ordering applications in contextual, Thus, environment research study needs to be investigated, certain types of measuring techniques could be suitable by obtaining customer database figures from MFOA providers (Alalwan, 2020).

Aim of present study is to fill these gaps and provide researchers and applicants a complete and integrated model Customer satisfaction and intent to use MFOAs. In addition, there has been no research to assess client trust moderation. This research will suggest a model covering consumer e-satisfaction dimensions and the mobile application component and discussing key points from Pakistani customers ' point of view. In this study, the model will be evaluated empirically for Pakistan. To fill this gap, this investigation will be carried out. Virtual food ordering applications has issues that affect customer satisfaction and intention to use. In Pakistan E-commerce has introduce a new dimension of purchasing product and services from anywhere. Internet users, especially youth have shown more interest in buying products online. In this research study, this interest transferal in customer intention to use. It is crucial to know whether firms' website/application is giving an added advantage that could trigger online purchase intention. It is very essential "To investigate the services quality of online food retailers or suppliers as a significant indication towards customer's satisfaction and intention to use".

Does application/website have progressive outcome on customer e-satisfaction? Weather product variety has an encouraging impact on customer e-satisfaction? Does delivery performance have an affirmative impact on customer e-satisfaction? Is there any moderating effect of brand trust on website/application design and customer e-satisfaction? Does brand trust influence the moderating effect on product variety and on customer e-satisfaction? Is there any moderating effect of brand trust on delivery performance and on customer e-satisfaction? Does e-satisfaction have an affirmative impact on intention to use? Is there any mediating effect of e-satisfaction on application design and on intention to use? Does e-satisfaction mediates the relationship between product variety and intention to use.? Is e-satisfaction have a mediating effect on intention to use and on delivery performance.

2. Literature Review & Hypotheses Formulation

While mobile food ordering apps are prevalent technologies adopted globally by the restaurant industry, scholarly interest in examining mobile food ordering Applications are now in their early phases. (Okumus, Ali, Bilgihan, & Ozturk, 2018). In a dynamic and hostile environment difficult company setting, Service quality on its own, such as in the restaurant industry, is not adequate to secure the future of the business, much less improve business performance (Han & Hyun, 2017). Online sales are now a key component of any economy. Across the globe, consumer confidence in online shopping was evident and growing. (Zhang, Lu, Gupta, & Zhao, 2014). Online shopping has been noted to give more satisfaction to contemporary customers



who are looking for comfort and speed (Yeo, Goh, & Rezaei, 2017). Having your own brand name, like Amazon, is also a good idea. (Moshrefjavadi, Rezaie Dolatabadi, 2012). Another primary factors that prevents shopping online is the absence of consumer confidence in internet suppliers (Chen, Hsu, & Lu, 2018). Holding and selling a brand's products can enhance the confidence quotient. The brand name also has a major impact on the customer's final purchasing choice (Gong, Stump, & Maddox, 2013).

Since the increasing Numbers could represent the trend towards more distribution of food online, making it simpler and more popular than offline And may also address for 65 percent of the market share, the more clearly, technology app styling makes things a lot easier for people and reflects a luxurious or elevated-tech way of living.(R., Singh, Pathan, & Kanade, 2017). Studies found that the mechanism has been effective in tackling the problems through cost-effective growth in the field of internet food service Studies found that the system was successful in overcoming the issues through cost-effective online food service growth (Dang et al., 2018). In a modest and difficult company setting, as in the restaurant services industry, service quality by itself is not sufficient to ensure the continued existence of the company, or even to enhance the success of the company. (Jin, 2015). According to this strategy, in the OFD environment, a faithful The customer commonly requests the food, at all though directly via the store website. Secondly, Affection can be seen as an expression of emotion of the willingness of the customer to purchase back and advise them (Gursoy, Chen, & Chi, 2014).

Mobile devices have grown and become more personal in recent years according to consumer needs. For many organizations, personalization is truly important when identifying their clients to suit their tastes and then create relevant products and services for each specific user community. In fact, the personalization involves the recall of personal data, tracking previous interactions and making a personalized request. Finally, accessibility and interactivity are two final features of m-commerce which allow users to access sellers and buyers easily and continually (Pandarinath et al., 2017). This is a prerequisite for mobile devices to run on the internet network. Mobile customers may communicate with a dealer and directly interact with the vendor. If not, the sellers have also the opportunity to make a successful platform for many promotional reasons to reach their customers (Persaud & Azhar, 2012).

There are no retail shops in most online food providers. Such businesses connect with their clients through the company website and social media. As customers do not see real products, 58 percent rely on and draw on online food images, 26 percent prefer online feedback and 9 prefer online videos. (Holmberg, E. Chaplin, Hillman, & Berg, 2016). According to the report, more than 20 percent of customers aged 20-40 purchase food online and half routinely (e.g., at least once a month) have the same. Office employees and business owners are most of them. The researcher thus recommends that operators extend their coverage spectrum to reach a higher market share (Liang & Lim, 2011). Conscious of the convenience of online food

production, consumers have the chance to try unique foods or rare ones. The steady growth in this online market confirms this growing trend (Printezis & Grebitus, 2018).

Website design has been a significant focus, the interface between the internet customer and the retailer. Site design can be seen as the point to which the site thoroughly created and intended for visual appeal, easy access, and simple visitor navigation. If the retailer also designs their website, the consumer will also be attracted to scroll, search the products, and make a purchase on their website. It will also decrease the time spent searching for data, make the customer happy to run the website, leading in satisfaction and enjoyment depending on its design. (Vijay, Prashar, & Parsad, 2017). On the basis of studies by (Guo *et al.*, 2012), (Liu, 2008), (Alam and Yasin, 2010), (Karim, 2011) and (Chen, 2012), there is Positive impact on online shopping among application design and customer satisfaction. So the help of existing literature we can purposed that there is positive impact of website design on customer e-satisfaction.

H₁ Website/application have progressive influence on customer e-satisfaction

Product range is the company's wide product categories that are designed to meet customer demand and needs. Wide product range can attract clients and contentment would be supplementary confident if online stores offer Broad product portfolio (P. Kumar & Kanchan, 2017). By providing internet consumers an inclusive array of products, they have many preferences in choosing a product based on their needs, wishes or tastes. Offering many preferences will also satisfy clients as the business can satisfy and satisfy the heterogeneous requirement of clients through the online store (Gibson *et al.*, 2017). After reviewing the past researches Positive connection suggested in Product variety and customer e-satisfaction. So, we hypothesized that:

H₂ Product variety has an encouraging influence on customer e-satisfaction

Timely & reliable delivery now online shopping setting is the two significant roles for satisfying or pleasing the internet consumer (Yu, Subramanian, Ning, & Edwards, 2015). Reliable delivery relates to providing the correct products without flaw and securely packaging the item; and products should be prepared to fulfill the promised delivery timetable or should be called upon on time. If the business conducts its delivery service such as late or unsafe products, clients can readily move to another web store and move to the standard shop with just a single click away or even a client (Abrar, Zaman, & Satti, 2017). So the study hypothesized that:

H₃ Delivery performance has an affirmative impact on customer e-satisfaction

In an examination of the outcome of website satisfaction on intention to use the customer website, surveys discovered that online satisfaction must be accomplished earlier customers plan to yield (Mohamed, Hussein, Zamzuri, & Haghshenas, 2014). Studies recognized a broad range of mobile application characteristics counting effortless use, reply time, photographic application and confidence that could influence the assessment of e-quality by customers, resulting in satisfaction or discontent (Lin, Fan, & Chau, 2014) Consumers linked their satisfaction with the improved mobile application Interface and demonstrated a greater desire to reuse the website if the findings of the relevant prior studies have been satisfied, so we put forward the subsequent hypothesis.

H₄ E-satisfaction has positive impact on intention to use.

Ultimately, online buyers will turn back to some online stores they trust. Online buyers will eventually turn back to some online stores they trust. Trust is the key to creating a partnership. By enhancing the desire of clients to buy back and increase their cost tolerance, confidence adds financial value to a brand (Al-Qeisi & Jayawardhena, 2014). Consumers correlated Their pleasure with the improved design of the framework and their willingness to use the platform more if consistency is reached. Based on the results of previous major studies, we suggest the hypothesis below:

H₅ Brand trust has moderating effect on application design and e-satisfaction.

Product diversity and brand confidence, in particular its real factor that could help explain and predict customer loyalty. Brand confidence is also often connected with customer satisfaction (So, King, Sparks, & Wang, 2016). Variety of products can lead in brand loyalty because it generates extremely appreciated exchange relationships (Priem & Swink, 2012). Brand is a bunch of existing elements and intangible aspects (as a declaration, denoted in a spot) where these characteristics are preserved applicably, Will bring satisfaction to clients and a high brand importance / trust (Shin et al., 2013). So we hypnotized that

H₆ Brand trust influences the moderating effect on product variety and on customer e-satisfaction.

Delivery time for the website could be the gage for item "location" In this campaign mix, the distribution of the product or service to the final place on time (Abdallah & Jaleel, 2015). Customers prefer shipping time faster because internet shoppers anticipate delivery faster than going to the physical shop. These services such as timely and reliable delivery will satisfy the client and on the following day they will continue to use the same online store (Hong & Hai, 2018), so we can hypothesized that:

H₇ Brand trust has moderating effect on delivery performance and on customer e-satisfaction.

The next factor for the evaluation is the "e- consumer satisfaction" plan to use the food ordering method. This dimension means that the opinion, answers and opinions of the customer are properly recorded. (Mardiana et.al., 2015). Also in his study Ajzen determine that Where users know that the application / platform of an e-commerce firm is improved, the content is up-to-date, users feel an e-commerce portal is usable and plans to use, and users agree that the service provider is available and that customers willing to help them whenever they need the quality of the service are acceptable, consumers can take a position on the subject (Venkatesh, Thong, & Xu, 2012), so we can hypothesized that :

H₈ E-satisfaction has mediating effect on application design and on customer intention to use.

Variety of products is a wide variety of goods sold by the company to satisfy consumer demands and needs. Consumers may prefer a wide range of goods and companies are cheaper as online businesses deliver a wide variety of products (Zahra, Rasheed, & Hassan, 2018). The online shop has a greater potential to provide the market, like conventional ones, with different product categories. The company offers online customers a variety of products based on their needs, preferences and interests. The company's multiple demands would also allow retailers to fulfill and satisfy their customers ' heterogeneous requirements through the online store. (Tussyadiah, 2016). Consumer distinction has been discerned in the online shopping world to have a positive impact on customer satisfaction and intention to use, so we hypothesized that:

H₉ E-satisfaction has mediating effect on product variety and on customer intention to use.

Time and timely delivery in the online retail world is both essential to fulfill or appease the online customer (Ziaullah, Feng, & Akhter, 2014). The safe distribution guarantees no items are delivered poorly and are appropriately prepared and that the customers follow the negotiated delivery schedule or are picked up on time. When the company produces its goods such as defective or dangerous products, customers can step into a typical shop with a single click or customer easily on another(Holmberg et al., 2016). Past studies have indicated a common word "purpose to use" rather than device use because the precise measurements of the system use are almost impossible to measure. (Mardiana, 2015). Literature demonstrates that use of system in future and use of system in present are completely different in meanings (Fayada, 2015). In the sense of the online food ordering business, customer satisfaction and their intention to use is linked to the delivery efficiency in which the food ordered can be delivered easily and reliably and free delivery service. So, it is hypothesized that:

H10 E-satisfaction has mediating effect on delivery performance and on customer intention to use.

3. Theoretical framework

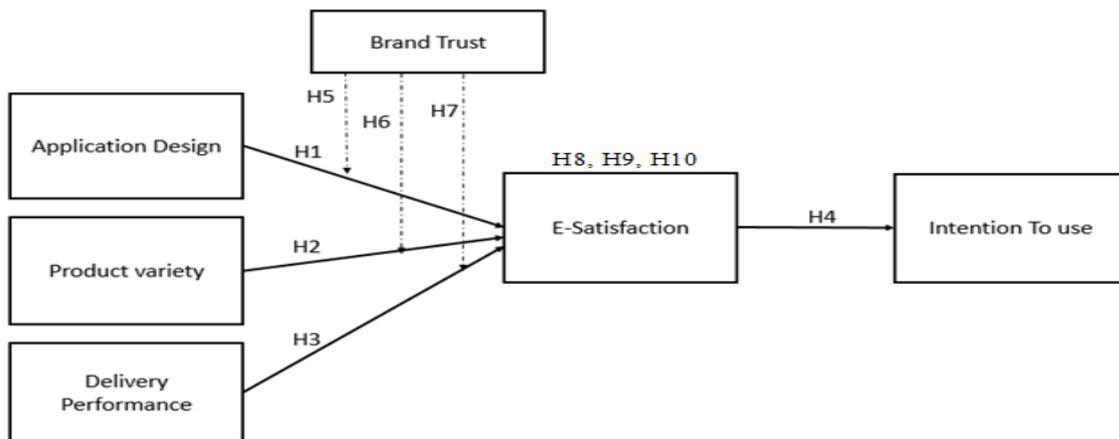


Figure 1. Theoretical Framework

4. Research Methodology

The survey questions were adopted from the past researches conducted in this field. Data will be collected from different individuals so this research is basically a Cross-Sectional by collecting data at one time with the help of structured questionnaire adopted from existing literature. Present study is to be conducted as descriptive research design by providing statistical explanation for collected quantitative data. In fact, the innovative technology is expected to be used by people from big towns rather than by people from small towns and provinces. Ethnicity is also a critical factor with the use of mobile devices. The group of adolescents is one of the most important consumers of E-commerce. Respondents of present study were youth generation, so questionnaires are distributed among those personally and face-to-face or via email etc. Unit of analysis of this research are those individuals and students of Pakistan.

Present study targeted the youth generation of Lahore Pakistan, Sources and statistics show that 68 percent of Pakistan's smartphone users are on Android. 77 percent of smartphone consumers are between the ages of 21 and 30. More than one cell phone is used by 60 percent of Pakistanis. Now for this population Morgan in 1970 recommended the sample size should be 384 respondents on 95% confidence level (Krejcie & Morgan, 1970). and also several researchers, (Hair et al., 2010) State that for the studies that has been carried out structural equation modeling (SEM) method a sample size between 150-400 respondents were enough to justify the results. Moreover, (Beaers, Iwata & Lerman, 2013) stated that for a multivariate

study, the minimum sample size required was 150, while maximum sample size requires was 300. The sample size for the present study is 384. According to Krejcie and Morgan's table if the target population is infinite, the sample size of 384 should be taken in order to achieve 95% confidence level.

Collecting information from people will be using via convenient sampling technique, within students in Lahore. The method of sampling selected in this study is of an almost non-probability sampling. The main reason why the whole population size is unknown to the researcher was not accurate; the study thus adopts non-probability sampling of sample method because it is difficult to adopt samples of probability in Lahore city identify the consumers in the retail industry. This analysis took a convenience sample also known as an availability survey for the unexpected case. Convenience samples are also referred to as haphazard samples, which include interviews with people that are haphazardly available because no probability or system of any kind is followed. This is also referred to as convenience sampling.

5. Data Analysis

For data analysis purpose, initially data will be added on SPSS and after coding and filtering, Structural Equation Modeling will be used for this study, by measuring reliability, validity, Model goodness, Model assessment and hypothesis testing through SPSS software under SEM, Hayes process approach.

Scale measurement is a very critical step in empirical analysis of data. To confirm that the data have collected through our research survey is accurate and reliable, we as a researcher needs to find out the reliability level for each variable's scale. Reliability analysis is performed to identify the Cronbach's Alpha of each scale. According to previous studies an authentic and reliable value of Cronbach's alpha relies between .60 -.90 (Nunnally and Bernstein, 1994).

Strong relation to multiple regression is considered to be the path analysis It is indeed an extension of the regression model that researchers are using to check the compatibility of a correlation matrix with a causal model (MacKinnon, Fairchild, & Fritz, 2007) Path analysis is a mathematical tool that allows users to investigate impact variations in a vector system. The influence of a variety of predictor variables on several dependent variables is one of several variations of this general linear model.

Table 1. Instruments details

| Sr.no | Variables | Source (year) | Items | Scale |
|-------|----------------------|--|-------|-------|
| 1 | Application Design | (Guo & Liu, 2012) | 6 | 1-5 |
| 2 | Product Variety | Perez-Lopez et al. (2006), Lau and Idris (2001) and Edgar and Geare (2005) | 6 | 1-5 |
| 3 | Delivery Performance | (Lee & joshi, 2007) | 5 | 1-5 |
| 4 | E-Satisfaction | (Anderson & Srinivasan ,2017) | 4 | 1-5 |
| 5 | Brand trust | (Jones and Kim 2010) | 6 | 1-5 |
| 6 | Intention to use | (Verkasalo et al. (2010) | 4 | 1-5 |

The study uses Hayes method in SPSS version 23 to determine the relationship between variables or check our hypothesis. The Hayes method is used for analyzing analysis model mediations and moderations. According to the Hayes model, if complete mediation occurs, it means that independent and dependent variables have a positive relationship that is mediated by the intervention variable. Likewise, for moderation, the Hayes method demonstrates that if partial moderation occurs, it means a good link between independent as well as dependent variables will arise even if there is no moderation.

The determination of this research study is to investigate intention to use applications online for food ordering, so that two things have to be met by the respondent to achieve valid results. It means that, firstly, participants are over 18 years old from Lahore in Pakistan. Furthermore, participants will learn mobile trading and have expertise in the use of m-commerce. A questionnaire, a report and a positive presentation of 384 participants are used to collect data.

Descriptive Statistics

The standard deviation levels, high limits, minimal limits and mean of analysis variables are described in the concise statistical table No 2. The standard deviation in application design is 3.731, maximum limit is 28.00 and minimum limit is 10.00, while the mean is 23.39. Mean is used for determining the norm or main pattern in results, and standard deviation represents the number of value differences in the data set. Current research analyzes show low standard deviations in the program architecture, product diversity and execution efficiency. Respectively for the product design the minimum limit is 7.00, maximum limit is 28.00, mean is 24.25 and the standard deviation is 3.545. the next variable comes delivery performance the results as minimum limit is 8.00, maximum limit is 24.00, mean is 19.59 and the standard deviation is 2.97. e-satisfaction readings noted as 4.00, 20.00, 16.56, and standard deviation is

2.65. then intention to use statistics are 6.00 minimum, 19.00 maximum, 16.36 mean, and 2.461 standard deviation. The last variable

that is brand trust, and the statistics are as minimum, maximum, mean, standard deviation are as, 6.00, 19.00, 16.36, 2.461.

Table No 2: Reliability Analysis

| Variables | Minimum | Maximum | Mean | Standard Deviation |
|----------------------|---------|---------|-------|--------------------|
| Application Design | 10.00 | 28.00 | 23.39 | 3.731 |
| Product Variety | 7.00 | 28.00 | 24.25 | 3.545 |
| Delivery Performance | 8.00 | 24.00 | 19.59 | 2.978 |
| E Satisfaction | 4.00 | 20.00 | 16.56 | 2.658 |
| Intention To Use | 6.00 | 19.00 | 16.36 | 2.461 |
| Brand Trust | 8.00 | 28.00 | 24.34 | 3.681 |

Table No 3: Reliability Analysis

| Sr. No | Variables | Cronbach's Alpha | No. of items |
|--------|----------------------|------------------|--------------|
| 1 | Application Design | .839 | 6 |
| 2 | Product Variety | .775 | 6 |
| 3 | Delivery Performance | .770 | 5 |
| 4 | E-satisfaction | .825 | 4 |
| 5 | Intention to use | .772 | 4 |
| 6 | Brand Trust | .852 | 6 |

This section explains the findings of empirical hypotheses. In current research, the testing of hypotheses is carried out in SPSS software. We used linear regression analysis to evaluate the direct hypotheses, while we used Hayes (a tool in SPSS to test moderation and mediation) to examine the moderation hypothesis. When calculating tolerance, model number 1 of the Hayes cycle is used.

Table 4: Hypothesis Testing (AD, ES)-Hypothesis 1

| R | R. square | Coefficient | T | P.(sig) |
|------|-----------|-------------|------|---------|
| .626 | .391 | .446 | 15.6 | .0001 |

Hypothesis 1 states that “Application design is directly related with e-satisfaction”. It proposes that there be existent an optimistic link within application design and e-satisfaction. This hypothesis is supported with results as $\beta = .446$, $T = 15.6$, $p < 0.01$, $R = .626$.

Table 5: PV, ES-Hypothesis 2

| R | R. square | Coefficient | T | P.(sig.) |
|------|-----------|-------------|------|----------|
| .692 | .479 | .519 | 18.7 | .000 |

Hypothesis 2 indicates the strong correlation between the product variety and e-satisfaction as "product variety is linked favorably to e-satisfaction". The findings of H2 are as follows: $\beta = .519$, $T = 18.7$, $p < 0.01$, $R = .692$. Therefore, H2 is assisted according to the results.

Table 6: DP, ES-Hypothesis 3

| R | R. square | Coefficient | T | P.(sig) |
|------|-----------|-------------|------|---------|
| .709 | .502 | .633 | 19.6 | .006 |

The statement of hypothesis 3 is “delivery performance is linked with e-satisfaction directly”. It represents the significant affirmative affiliation between delivery performance and e-satisfaction. Findings of hypothesis 3 supported hypothesis i-e., $\beta = .502$, $T = 19.6$, $p < 0.01$ and $R = .709$.

Table 7: ES, IS-Hypothesis 4

| R | R. square | Coefficient | T | P.(sig) |
|------|-----------|-------------|------|---------|
| .698 | .487 | .646 | 19.0 | .004 |

According to Hypothesis 4 e-satisfaction and intention to use are related with each other in a positive manner. For hypothesis 4 the statement is as “There is a direct significant relationship between e-satisfaction and intention to use”. Results support the hypothesis i-e., $\beta = .646$, $T = 19.0$, $p < 0.01$, $R = .698$.

Table 8: Model Summary Hypothesis 5

| R | R. square | Df1 | Df2 | P.(sig) |
|------|-----------|--------|----------|---------|
| .779 | .607 | 3.0000 | 380.0000 | .006 |

Table 9: (A), BT, AD, ES

| Path of variables | Coefficient | T | P.(sig.) | LLCI | ULCI |
|-------------------|-------------|--------|----------|--------|--------|
| AD → ES | 0.983 | 10.081 | .004 | 0.7913 | 1.1748 |
| BT → ES | 1.0436 | 12.644 | .001 | 0.8813 | 1.2059 |
| AD × BT → ES | -0.0349 | -8.778 | .021 | -.0427 | -.0271 |

Moderation of brand trust within the link of application design and e-satisfaction is analyzed in hypothesis 5 by using model 1 of Hayes process. Hypothesis 5 states that “Brand trust moderates the link between application design and e-satisfaction”. The results indicate that, coefficient=0.983, T=10.081, $p < 0.05$, and LLCI-ULCI= 0.7913-1.1748. By observing following data, we can accomplish that here exists a progressive relationship between application design and e-satisfaction. Statistics describes that brand trust and e-satisfaction also has a momentous relation as coefficient= 1.0436, T=12.644, $p < 0.05$, & LLCI-ULCI= 0.8813-1.2059. The results for application design into brand trust and e-satisfaction are as, coefficient=-0.0349, T=-8.778, $p < 0.05$, LLCI=-0.0427 and ULCI=-0.0271. This show that association is significant and positive. Thus, hypothesis is accepted.

Table 10. Hypothesis 6-Model Summary

| R | R. square | Df1 | Df2 | P.(sig) |
|------|-----------|--------|----------|---------|
| .787 | .619 | 3.0000 | 380.0000 | .002 |

Table 11 (A), BT, PV, ES

| Path of variables | Coefficient | T | P.(sig.) | LLCI | ULCI |
|-------------------|-------------|--------|----------|--------|--------|
| PV → ES | 0.8244 | 9.6048 | .004 | .6557 | .9932 |
| BT → ES | 0.9216 | 9.6303 | .020 | .7334 | 1.1097 |
| PV × BT → ES | -0.0289 | -6.758 | .001 | -.0374 | -.0205 |

Brand trust is measured as a moderator between product variety and e-satisfaction in hypothesis 6. This hypothesis is stated as “Technology acceptance acts as a moderator between system quality and intention to use”. Hypothesis 6 proposes that product variety and e-satisfaction are directly related with each other and brand trust moderates this relationship in a positive manner. Findings represent that product variety is positively linked with e-satisfaction as, coefficient=0.8244, T=9.6048, $p < 0.05$, LLCI=.6557 and ULCI=.9932 Analysis illustrate that

brand trust has a substantial relation by e-satisfaction as, coefficient=0.9216, T=9.6303, $p < 0.05$, LLCI=.7334 & ULCI=1.1097. Statistics for product variety into brand trust and e-satisfaction shows that their association is highly significant i-e., coefficient=-.0289, T=-6.758, $p < 0.05$, ULCI=-.0374 and LLCI= -.0205. Hence, Hypothesis 6 is accepted.

Table 12- Model Summary (BT, DP, ES)-Hypothesis 7

| R | R. square | Df1 | Df2 | P.(sig) |
|------|-----------|--------|----------|---------|
| .787 | .620 | 3.0000 | 380.0000 | .0062 |

Table 13 (A), BT, DP, ES- Path of variables

| Path of variables | Coefficient | T | P.(sig.) | LLCI | ULCI |
|-------------------|-------------|---------|----------|--------|--------|
| DP → ES | 1.1066 | 10.3145 | .041 | .8956 | 1.3175 |
| BT → ES | 0.8495 | 10.2830 | .006 | .6871 | 1.0120 |
| DP × BT → ES | -.0350 | -7.6743 | .039 | -.0440 | -.0261 |

In hypothesis 7, brand trust is analyzed as a moderation between delivery performance & e-satisfaction. Hypothesis is stated as “brand trust moderates the relationship of delivery performance and e-satisfaction”. It proposed that delivery performance and e-satisfaction are significantly associated with one another whereas brand trust acts as a moderator among them. Results reveals that delivery performance has a encouraging and significant relation with e-satisfaction as, coefficient=1.1066, T=10.3145, $p < 0.05$, lower limit=.8956 and upper limit=1.3175, We can conclude that brand trust is significantly related with e-satisfaction by observing following statistics, coefficient=0.8495, T=10.2830, $p < 0.05$, LLCI-ULCI is equal to .6871, 1.0120 respectively. According to the analysis, the relation of delivery performance into brand trust and e-satisfaction is significant and direct i-e., coefficient= -.0350, t=-7.6743, $p < 0.05$, LLCI= -.0440 and ULCI= -.0261. Hypothesis 7 is supported using statistical results.

Table 14: Model Summary (AD, ES, IS)-Hypothesis 8

| Variables | R | R. square | Coefficient | T | P | LLCI | ULCI |
|------------|-------|-----------|-------------|---------|-------|--------|--------|
| AD → ES(a) | .7211 | .5163 | 1.9845 | 19.2132 | .0300 | 1.6907 | 2.1873 |
| ES → IS(b) | .8123 | .6354 | .4681 | 14.8553 | .0100 | .4394 | .5303 |

Table 15 (A), AD, ES, IS- Direct Effect

| Direct Effect | | | | |
|--------------------------|--------------------|----------------------------|----------------------------|--------------------------|
| Path of variables | Coefficient | P(sig.) | Confidence Interval | |
| NWG → EI (c') | .3463 | .0000 | LLCI | ULCI |
| | | | .1843 | .5138 |
| Indirect Effects | | | | |
| Path of variables | Coefficient | Confidence interval | | Results |
| NWG → NM → EI | .9413 | LLCI | ULCI | Partial Mediation |
| | | .6548 | 1.2071 | |

To obtain the required results for proposed hypothesis 8, analysis is performed in Hayes process 23 version with the implementation of model 1, as model 1 is used to analyze mediations. Statement of proposed hypothesis is stated as E-satisfaction has mediating effect on application design and on customer intention to use. The relationship between application design (IV) and e-satisfaction (MV) are statistically significant, $R = .7211$, $R^2 = .5163$, coefficient = 1.9845 $p < 0.05$, and $CI = 1.6907 - 2.1873$. At the same time relationship between e-satisfaction (MV) and towards intention to use (DV) is positive and significant also at $R = .8123$, $R^2 = .6354$, coefficient = .4681, $t = 14.8553$, $p < 0.05$ and $CI = 0.4394 - 0.5303$.

The result shows that mediation is a partial mediation. There is a direct effect that is statically significant among application design and e-satisfaction towards intention to use, $p = < 0.001$, $c' = .3463$ and $CI = .1843-5272$.

An interval indicates that the indirect effect between application design, e-satisfaction and intention to use was above zero at $CI = .6548-1.2071$, results in statistically significant partial mediation with $a.b = .9413$, (Kane & Ashbaugh, 2017). The result of hypothesis 8 shows that it supported.

Table 16: Model Summary (PV, ES, IS)-Hypothesis 9

| Variables | R | R. square | Coefficient | T | P | LLCI | ULCI |
|--------------------|----------|------------------|--------------------|----------|----------|-------------|-------------|
| PV → ES (a) | .6314 | .3784 | .3755 | 14.1331 | .0001 | .3464 | .3290 |
| ES → IS (b) | .8463 | .6673 | .6129 | 12.0423 | .0015 | .5488 | .6785 |

Table 17 (A), PV, ES, IS- Direct Effect

| Direct Effect | | | | |
|-------------------|-------------|---------------------|---------------------|----------|
| Path of variables | Coefficient | P(sig.) | Confidence Interval | |
| PV → ES (c) | .2988 | .0000 | LLCI | ULCI |
| | | | .2596 | .3389 |
| Indirect Effects | | | | |
| Path of variables | Coefficient | Confidence interval | | Results |
| PV → ES IS | .2219 | LLCI | ULCI | Accepted |
| | | .1593 | .2802 | |

Hypothesis 9 is a mediation hypothesis and is analyzed in SPSS with the help of Hayes process. Its statement is presented as E-satisfaction has mediating effect on product variety and on customer intention to use. Findings of the analysis shows that product variety is positively linked with e-satisfaction, coefficient is equal to .3755, $t = 14.1331$, p is less than 0.05, R is equal to .6314, lower limit = .3464 whereas, upper limit is equal to .3290. Results also reveals that e-satisfaction has a positive association with customer intention to use and this relation is confirmed with the assistance of following values; $R = .8463$, coefficient = .6129, p is less than 0.05, lower limit is equal to .5488 and upper limit is equal to .6785.

Table 18 (A), PV, ES, IS

| Variables | R | R. square | Coefficient | T | P | LLCI | ULCI |
|----------------|-------|-----------|-------------|---------|-------|-------|-------|
| DP → ES (a) | .7363 | .5120 | .4203 | 19.5643 | 0.024 | .3608 | .4611 |
| ES → IS (b) | .8212 | .6421 | .5243 | 11.1301 | 0.012 | .4582 | .6024 |

Table 19 (A), PV, ES, IS- Direct & Indirect Effects

| Direct Effect | | | | |
|-------------------|-------------|---------------------|---------------------|----------|
| Path of variables | Coefficient | P(sig.) | Confidence Interval | |
| DP → IS (c) | .3496 | .0001 | LLCI | ULCI |
| | | | .2743 | .3961 |
| Indirect Effects | | | | |
| Path of variables | Coefficient | Confidence interval | | Results |
| DP → ES IS | .2246 | LLCI | ULCI | Accepted |
| | | .1604 | .2864 | |

While observing direct path of the hypothesis we have obtained following results; coefficient is equal to .2988, p is less than 0.05, lower limit is equal to .2596 and upper limit is equal to .3389.

Further, the results for indirect path are as follows; coefficient = .2219, lower limit is equal to .1593 and upper limit is equal to .2802. So, after analyzing following results it is confirmed that hypothesis 9 is accepted and valid and e-satisfaction mediated the association of product variety and customer intention to use.

Table 16: Model Summary (DP, ES, IS)- Hypothesis 10 Table shows the findings for hypothesis 10 and proved that this hypothesis is valid and relations showed in the hypothesis are significant. Statement of proposed hypothesis is stated as “E-satisfaction has mediating effect on delivery performance and on customer intention to use. The result statistics indicates that product variety and e-satisfaction are significantly interrelated. coefficient is equal to .4203, p is less than 0.05, $t = 19.5643$, $R = .7363$, lower limit is equal to .3608 and upper limit is equal to .4611. Further, it also reveals that e-satisfaction is significantly influenced by intention to use and this relationship is confirmed with the assistance of given results i-e., coefficient = .5243, $p < 0.05$, $t = 11.1301$, $R = .8212$, lower limit is equal to .4582 whereas, upper limit is equal to .6024. Direct effects of the present hypothesis indicate that delivery performance impacts on intention to use in a positive way as, coefficient is equal to .3496, p is less than 0.05, lower limit is equal to .2743 and upper limit is equal to .3961. Finally, the hypothesis is confirmed while observing the indirect path that shows that e-satisfaction mediates the association of delivery performance and customer intention to use, coefficient is equal to .2246, upper limit is equal to .2864 and lower limit is equal to .1604. This hypothesis is also a partially mediated hypothesis. And significantly supports the results.

6. Results and Discussion

According to the first hypothesis, application design of an electric commerce system such applications increase the intention of its e-customer satisfaction to use such systems or applications on regular basis i-e., “application design is positively associated with e-satisfaction”. Results of analysis proves that statement of first hypothesis is accepted with following results as $\beta = .601$, $t(382) = 15.6$, $p < 0.01$, $R = .623$.

Results of hypothesis 2 indicates that with an increase in product variety of an electric commerce system e.g., an online food delivery application, the e-satisfaction of customer that increase in future. Decreased product variety will lower the intention of users. Second hypothesis proposed that “product variety is directly related with e-satisfaction” and this statement is accepted after the observation of given results: $\beta = .519$, $T = 18.7$, $p < 0.01$, $R = .692$.



Next hypothesis discussed the relationship of delivery performance with e-satisfaction and after the analysis suggests that user's intention to use an electric commerce system increases when the delivery performance for that system increases. Hence, third hypothesis which states that "Delivery performance is linked with e-satisfaction directly" is accepted with significant results as; $\beta=.502$, $T= 19.6$, $p<0.01$ and $R=.709$.

The statement for hypothesis 4 i.e., "e-satisfaction is directly related with intention to use" is accepted with results as $\beta=.646$, $T=19.0$, $p<0.01$, $R=.698$. The significant results of fourth hypothesis suggests that user's satisfaction level is directly dependent on intention to use of an online food ordering application. An increase in application design of a system or application lead towards an increase in user's satisfaction.

Results suggest that the following results are accepted for the hypothesis 5 of this research: coefficient=0.983, $T=10.081$, $p<0.05$, and LLCI-ULCI= 0.7913-1.1748. In this hypothesis brand trust is playing moderator role. The fifth hypothesis designates that the relationship of application design and e-satisfaction of customer's restraint of brand trust.

Hypothesis six reveals the moderating impact of product variety explains that the influence of e-satisfaction on user's brand trust. Product variety becomes greater when e-satisfaction of users positively acts as a moderator on their relationship. The statement of hypothesis is stated as, "brand trust has a positive moderating effect on e-satisfaction of users and product variety" and is accepted with following result statistics coefficient=0.8244, $T=9.6048$, $p<0.05$, LLCI=.6557 and ULCI=.9932.

Table 20. Results Summary

| Sr. No. | Hypothesis | P value | Results |
|----------------------|---|---------|-----------|
| Hypothesis 1 | Application design is positively associated with e-satisfaction. | P<0.01 | Supported |
| Hypothesis 2 | Product variety is directly related with e-satisfaction. | P<0.01 | Supported |
| Hypothesis 3 | Delivery performance is linked with intention to use directly. | P<0.01 | Supported |
| Hypothesis 4 | E-satisfaction has a direct effect on intention to use. | P<0.01 | Supported |
| Hypothesis 5 | Brand trust has a positive moderating effect on application design and e-satisfaction. | P<0.05 | Supported |
| Hypothesis 6 | Brand trust moderates the relationship with product variety and e-satisfaction. | P<0.05 | Supported |
| Hypothesis 7 | Brand trust has a direct moderating effect on delivery performance and on e-satisfaction. | P<0.05 | Supported |
| Hypothesis 8 | E-satisfaction has mediating effect on application design and on customer intention to use. | P<0.05 | Supported |
| Hypothesis 9 | E-satisfaction has mediating effect on product variety and on customer intention to use. | P<0.05 | Supported |
| Hypothesis 10 | E-satisfaction has mediating effect on delivery performance and on customer intention to use. | P<0.05 | Supported |

Hypothesis 7 shows the association of delivery performance and e-satisfaction and indicates that brand trust acts as a moderating variable on them. hypothesis reveal that delivery performance will influence e-satisfaction level in a very significant and positive manner when the brand trust is higher. Thus, this hypothesis is also accepted and the following results are stated as, coefficient=1.1066, T=10.3145, p<0.05, lower limit=.8956 and upper limit=1.3175.

Hypothesis 8 indicates that the indirect effect between application design, e-satisfaction and intention to use was above zero at CI = .6548-1.2071, results in statistically significant partial mediation with a.b = .9413, The result of hypothesis 8 shows that it supported. Further, the results hypothesis 9 are as follows; coefficient = .2219, lower limit is equal to .1593 and upper limit is equal to .2802. So, after analyzing following results it is confirmed that hypothesis 9 is accepted and valid and e-satisfaction mediated the association of product variety and customer intention to use.

The last hypothesis, that is hypothesis 10, which confirmed while observing the results that shows that e-satisfaction mediates the association of delivery performance and customer intention to use, coefficient is equal to .2246, upper limit is equal to .2864 and lower limit is equal to .1604. This hypothesis is partially mediated hypothesis. And significantly supports the results.

The summary of results shows that all the hypothesis is supported and having the significant results. And all the values are in acceptable range and there is strong relationship off all variables with each other's in a significant way.

7. Conclusion and Recommendations

The research aims at investigating influences upsetting the intention of consumers to use in applications for online food orders. The results of this study have theoretical as well as management implications, benefiting researchers interested trendy the integrated customer satisfaction index (CSI) model based on the extensive theory. And the companies involved with framework m-commerce. According to a large number of previous studies, this study was designed to recognize factors that can affect online food order application consumers. Intention to use online food ordering applications and to test hypothesis using statistical methods. The results of this study include better understanding of the model and expanded form of the customer satisfaction index.

Findings of the supporting results contributed significantly to the intention to use. In many countries, among particular in Pakistan as a developing country, this model was applied to the m-commerce adoption. Further, this study contributed in literature as it is the only study conducted in Pakistan related to the m-commerce on online food ordering applications. For the first time brand trust is studied in customer satisfaction index model as moderating construct on the link of services dimensions i-e., application design, product variety, delivery performance. The effects of the study disclosed adoption of mobile business is close to the development of technology that use online food ordering applications. This research is also important as a way of predicting the reactions of food order application users to economic activity shifts and innovations. Finally, this model was used to demonstrate the consequences of the strategy to be used, which enables companies to take advantage if operational implications are clarified and implemented.

The findings of this study can be used to provide business professionals with a better strategy focused on the factors that influence the use of m-commerce to improve m-commerce transactions. In order to build their credibility on the m-commerce platform in Pakistan, businesses, individuals, service providers, micro commerce merchants are benefitting and gaining insight into research to achieve optimal performance in a highly competitive environment, companies must take their key elements into account, encourage users' intention



to use m-commerce systems, gain better insight in the allocation of capital and resources and convey consumer preferences.

Constructed on the outcomes above of this thesis it was disclosed that application design, product variety, delivery performance had a progressive major effect on e-satisfaction. So it shows that e-service quality dimensions lead to customer e-satisfaction by customer's intention to use. The company's service and its customers may influence people's satisfaction with the company through its website design, verity of products and delivery performance with the business of the company. Even though application design and e-satisfaction of user did directly and significantly affect intention to use, product variety takes a directly substantial influence on e-satisfaction of user and delivery performance has directly affects intention to use through e-satisfaction of users.

While this analysis attempted to gain a better considerate of the aspects that initiative the intention to use an online ordering application in Pakistan, there are certain significant constraints. This model will be improved by future research on the subject in developed and developed countries. Secondly, this study's sample size is fairly small and cannot represent the entire population of Pakistan. To order to better determine intention to use of food ordering applications, a further analysis would find a better sampling form. For future studies, there are additional dynamics that affect intention to use as users because m-commerce purpose has changed over time.

REFERENCES

- Abdallah, S., & Jaleel, B. (2015). Website appeal: Development of an assessment tool and evaluation framework of e-marketing. *Journal of Theoretical and Applied Electronic Commerce Research*. <https://doi.org/10.4067/S0718-18762015000300005>
- Abel, J. P., Buff, C. L., & Burr, S. A. (2016). Social Media and the Fear of Missing Out: Scale Development and Assessment. *Journal of Business & Economics Research (JBER)*. <https://doi.org/10.19030/jber.v14i1.9554>
- Abrar, K., Zaman, S., & Satti, Z. W. (2017). Impact of Online Store Atmosphere, Customized Information and Customer Satisfaction on Online Repurchase Intention. *Gmjacs*.
- Ahmad, N., Omar, A., & Ramayah, T. (2010). Consumer lifestyles and online shopping continuance intention. *Business Strategy Series*. <https://doi.org/10.1108/17515631011063767>
- Ahmed, Z., Su, L., Rafique, K., Zaman Khan, S., & Jamil, S. (2017). A study on the factors affecting consumer buying behavior towards online shopping in Pakistan. *Journal of Asian Business Strategy*. <https://doi.org/10.18488/journal.1006/2017.7.2/1006.2.44.56>
- Al-Qeisi, K., Dennis, C., Alamanos, E., & Jayawardhena, C. (2014). Website design quality and usage behavior: Unified theory of acceptance and use of technology. *Journal of Business Research*. <https://doi.org/10.1016/j.jbusres.2014.06.016>
- 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(April 2019), 28–44. <https://doi.org/10.1016/j.ijinfomgt.2019.04.008>
- Basri, N. F., & Aziz, F. A. (2012). Asian Journal of Food and Agro-Industry. *Characterisation Studies of Cocoa Butter $\beta(V)$ Polymorphs from Sabah, Malaysia*.
- Bryman, A., & Bell, E. (2005). Business Research Methods – Företagsekonomiska forskningsmetoder. In *Social Research*.
- Burtch, G., Ghose, A., & Wattal, S. (2013). An empirical examination of the antecedents and consequences of contribution patterns in crowd-funded markets. *Information Systems Research*. <https://doi.org/10.1287/isre.1120.0468>
- Cai, Y., & Cude, B. J. (2012). Consumers' adoption of online shopping. In *Encyclopedia of Cyber Behavior*. <https://doi.org/10.4018/978-1-4666-0315-8.ch040>
- Chang, S. C., Chou, P. Y., & Wen-Chien, L. (2014). Evaluation of satisfaction and repurchase intention in online food group-buying, using Taiwan as an example. *British Food Journal*. <https://doi.org/10.1108/BFJ-03-2012-0058>
- Chen, Y. M., Hsu, T. H., & Lu, Y. J. (2018). Impact of flow on mobile shopping intention. *Journal of Retailing and Consumer Services*. <https://doi.org/10.1016/j.jretconser.2017.04.004>
- Dang, A. K., Tran, B. X., Nguyen, C. T., Le, H. T., Do, H. T., Nguyen, H. D., ... Ho, R. C. M. (2018). Consumer preference and attitude regarding online food products in Hanoi, Vietnam. *International Journal of Environmental Research and Public Health*.



- <https://doi.org/10.3390/ijerph15050981>
- Enache, M. C. (2015). Modern Web Application Frameworks. *Annals of Dunarea de Jos University. Fascicle I : Economics and Applied Informatics*.
- Gibson, B., Geertman, J. M. A., Hittinger, C. T., Krogerus, K., Libkind, D., Louis, E. J., ... Sampaio, J. P. (2017). New yeasts-new brews: Modern approaches to brewing yeast design and development. *FEMS Yeast Research*. <https://doi.org/10.1093/femsyr/fox038>
- Gong, W., Stump, R. L., & Maddox, L. M. (2013). Factors influencing consumers' online shopping in China. *Journal of Asia Business Studies*. <https://doi.org/10.1108/JABS-02-2013-0006>
- Goodhue, D. L., Lewis, W., & Thompson, R. (2012). Comparing pls to regression and lisrel: A response to marcoulides, chin, and saunders. *MIS Quarterly: Management Information Systems*. <https://doi.org/10.2307/41703476>
- Gursoy, D., Chen, J. S., & Chi, C. G. (2014). Theoretical examination of destination loyalty formation. *International Journal of Contemporary Hospitality Management*. <https://doi.org/10.1108/IJCHM-12-2013-0539>
- Han, H., & Hyun, S. S. (2017). Impact of hotel-restaurant image and quality of physical-environment, service, and food on satisfaction and intention. *International Journal of Hospitality Management*. <https://doi.org/10.1016/j.ijhm.2017.03.006>
- Holmberg, C., E. Chaplin, J., Hillman, T., & Berg, C. (2016). Adolescents' presentation of food in social media: An explorative study. *Appetite*. <https://doi.org/10.1016/j.appet.2016.01.009>
- Hong, P. T. T., & Hai, T. Van. (2018). Customer Satisfaction in Mobile Service Quality: Evidence from Hanoi and Ho Chi Minh City's Officers. *VNU Journal of Science: Economics and Business*. <https://doi.org/10.25073/2588-1108/vnueab.4182>
- Industry Analytics Research Consulting. (2018). Food Traceability Market Research Report: Market size, Industry outlook, Market Forecast, Demand Analysis, Market Share, Market Report 2018-2023.
- Jin, N. (Paul). (2015). Moderating Role of Relationship Quality on the Link between Restaurant Experiences and Customer Loyalty for the Market of Mature Customers. *Journal of Quality Assurance in Hospitality and Tourism*. <https://doi.org/10.1080/1528008X.2015.1013410>
- Johnson, M. D. (2015). Customer Satisfaction. In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition*. <https://doi.org/10.1016/B978-0-08-097086-8.73025-X>
- Kishada, Z. M. E. M., & Wahab, N. A. (2015). Influence of Customer Satisfaction, Service Quality, and Trust on Customer Loyalty in Malaysian Islamic Banking. *International Journal of Business and Social Science*.
- Kumar, D. V. (2014). A study on Needs of Visual Merchandising for Online & Physical Stores. *IOSR Journal of Business and Management*. <https://doi.org/10.9790/487x-169698101>
- Kumar, P., & Kanchan. (2017). Online Shopping Behaviour among Students with Special Reference to Ludhiana, Punjab, India. *Journal of Marketing and Consumer Research*



Journal.

- Lian, J. W., & Lin, T. M. (2008). Effects of consumer characteristics on their acceptance of online shopping: Comparisons among different product types. *Computers in Human Behavior*. <https://doi.org/10.1016/j.chb.2007.01.002>
- Liang, A. R. Da, & Lim, W. M. (2011). Exploring the online buying behavior of specialty food shoppers. *International Journal of Hospitality Management*. <https://doi.org/10.1016/j.ijhm.2011.01.006>
- Lin, H., Fan, W., & Chau, P. Y. K. (2014). Determinants of users' continuance of social networking sites: A self-regulation perspective. *Information and Management*. <https://doi.org/10.1016/j.im.2014.03.010>
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation Analysis. *Annual Review of Psychology*. <https://doi.org/10.1146/annurev.psych.58.110405.085542>
- Malhotra, N., & Birks, D. (2007). Marketing Research : An Applied Approach (Mixed media product). In *Marketing Research*.
- Mamchych, T., Olenko, A., Osypchuk, M., & Shportyuk, V. (2002). Quantative methods in social sciences. *Bulletin of Kyiv University*.
- Marvasti, A. (2018). Research methods. In *The Cambridge Handbook of Social Problems*. <https://doi.org/10.1017/9781108656184.003>
- Max Magni, Martinez, A., Motiwala, R., & Rodriguez, A. (2017). Consumer sentiment around the world: Trending upward. In *McKinsey.com*.
- Mohamed, N., Hussein, R., Zamzuri, N. H. A., & Haghshenas, H. (2014). Insights into individual's online shopping continuance intention. *Industrial Management and Data Systems*. <https://doi.org/10.1108/IMDS-07-2014-0201>
- Moshrefjavadi, M. H., Rezaie Dolatabadi, H., Nourbakhsh, M., Poursaedi, A., & Asadollahi, A. (2012). An Analysis of Factors Affecting on Online Shopping Behavior of Consumers. *International Journal of Marketing Studies*. <https://doi.org/10.5539/ijms.v4n5p81>
- Nyeko, J. S., Moya, M., Kabaale, E., & Odongo, J. (2014). Factors Influencing the Short Message Service (SMS) Mobile Banking Adoption: A Users' Perspective in the West Nile Region in Uganda. *European Journal of Business and Management*.
- 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*. <https://doi.org/10.1016/j.ijhm.2018.01.001>
- Pandarath, C., Nuyujukian, P., Blabe, C. H., Sorice, B. L., Saab, J., Willett, F. R., ... Henderson, J. M. (2017). High performance communication by people with paralysis using an intracortical brain-computer interface. *ELife*. <https://doi.org/10.7554/eLife.18554>
- Persaud, A., & Azhar, I. (2012). Innovative mobile marketing via smartphones. *Marketing Intelligence & Planning*. <https://doi.org/10.1108/02634501211231883>
- Priem, R. L., & Swink, M. (2012). A Demand-side Perspective on Supply Chain Management.



- Journal of Supply Chain Management*. <https://doi.org/10.1111/j.1745-493X.2012.03264.x>
- Printezis, I., & Grebitus, C. (2018). Marketing Channels for Local Food. *Ecological Economics*. <https://doi.org/10.1016/j.ecolecon.2018.05.021>
- Publishing, B. (2011). Economics Department of the University of Pennsylvania Institute of Social and Economic Research -- Osaka University. *International Economic Review*. <https://doi.org/10.1080/00420986820080431>
- R., A., Singh, A., Pathan, S., & Kanade, V. (2017). Online Food Ordering System. *International Journal of Computer Applications*. <https://doi.org/10.5120/ijca2017916046>
- Retail, O., Service, S., Zahra, N., Rasheed, H., & Hassan, A. (2018). *Online Retail Stores Service Quality and Its Impact on Behaviors of Customers with Mediating Role of Attitude Noreen Zahra 1, Haroon Rasheed 2 and Atif Hassan 3*. 8(1), 140–153. Retrieved from <https://gmjacs.bahria.edu.pk/wp-content/uploads/2018/09/Paper-13.pdf>
- Schaupp, L. C. (2010). Web site success: Antecedents of web site satisfaction and re-use. *Journal of Internet Commerce*. <https://doi.org/10.1080/15332861.2010.487414>
- Shin, J. I., Chung, K. H., Oh, J. S., & Lee, C. W. (2013). The effect of site quality on repurchase intention in Internet shopping through mediating variables: The case of university students in South Korea. *International Journal of Information Management*. <https://doi.org/10.1016/j.ijinfomgt.2013.02.003>
- So, K. K. F., King, C., Sparks, B. A., & Wang, Y. (2016). The Role of Customer Engagement in Building Consumer Loyalty to Tourism Brands. *Journal of Travel Research*. <https://doi.org/10.1177/0047287514541008>
- Tiwari, R., Buse, S., & Herstatt, C. (2012). The Mobile Commerce Technologies: Generations, Standards and Protocols. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1583453>
- Tussyadiah, I. P. (2016). Factors of satisfaction and intention to use peer-to-peer accommodation. *International Journal of Hospitality Management*. <https://doi.org/10.1016/j.ijhm.2016.03.005>
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly: Management Information Systems*. <https://doi.org/10.2307/41410412>
- Vijay, T. S., Prashar, S., & Parsad, C. (2017). Online Shoppers' Satisfaction. *International Journal of Strategic Decision Sciences*. <https://doi.org/10.4018/ijds.2017040104>
- Wang, R. J. H., Malthouse, E. C., & Krishnamurthi, L. (2015). On the Go: How Mobile Shopping Affects Customer Purchase Behavior. *Journal of Retailing*. <https://doi.org/10.1016/j.jretai.2015.01.002>
- Wilson, B., & Henseler, J. (2007). Modeling Reflective Higher-Order Constructs using Three Approaches with PLS Path Modeling: A Monte Carlo Comparison. *Conference Proceedings ANZMAC 2007*.
- Wilson, N., & Christella, R. (2019). *An empirical research of factors affecting customer satisfaction: a case of the indonesian e-commerce industry*. 14(1), 21–44.



<https://doi.org/10.19166/derema.v14i1.1108>

- Wong, W. M., & Mo, H. F. (2013). Automobile Purchase Intention of Consumers in a Multiracial Society: A Hierarchical Regression Analysis Model. *Journal of Applied Business and Economics*.
- 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*. <https://doi.org/10.1016/j.jretconser.2016.12.013>
- Yu, J., Subramanian, N., Ning, K., & Edwards, D. (2015). Product delivery service provider selection and customer satisfaction in the era of internet of things: A Chinese e-retailers' perspective. *International Journal of Production Economics*. <https://doi.org/10.1016/j.ijpe.2014.09.031>
- Zhang, H., Lu, Y., Gupta, S., & Zhao, L. (2014). What motivates customers to participate in social commerce? the impact of technological environments and virtual customer experiences. *Information and Management*. <https://doi.org/10.1016/j.im.2014.07.005>
- Ziaullah, M., Feng, Y., & Akhter, S. N. (2014). E-Loyalty: The influence of product quality and delivery services on e-trust and e-satisfaction in China. *International Journal of Advancements in Research & Technology*.