Institute of Business Administration Karachi
Leadership and Ideas for Tomorrow

Business Review

Article 4

Volume 17 Issue 1
January-June 2022

6-30-2022

Engaging the customers through social mobile application experience

Nida Zaheer
Bahauddin Zakariya University, Multan, Pakistan

Muhammad Rizwan
Bahauddin Zakariya University, Multan, Pakistan

Recommended Citation

Zaheer, N., & Rizwan, M. (2022). Engaging the customers through social mobile application experience. *Business Review, 17*(1), 69-84. Retrieved from https://doi.org/10.54784/1990-6587.1472

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

Business Review: (2022) 17(1):73-88
Original Paper

Engaging the Customers Through Social Mobile Application Experience

Nida Zaheer · Muhammad Rizwan*

Abstract This paper aims to investigate the customer experience and postpurchase behavior in the mobile application environment. This study is experimental with a quantitative approach. Two hypothetical mobile apps were developed; social-focused and information-focused. Data was collected by surveying 400 online shoppers and, analyzed by employing SEM and multi-group analysis techniques using Amos. Results suggest that a mobile app that is socially focused enhances the customer experience and customer engagement behavior respectively. Next, the need for touch provides boundary conditions between customer experience and customer engagement behavior. Behavioral experience can be enhanced by improving online customer experience with the help of atmospherics have implications for the retailers. Social mobile apps with richer media experience reduce the uncertainties and lead towards customer engagement behavior. Two real mobile applications were developed based on richer media experience focusing on social elements and limited media experience focusing only on information. Studies are limited to cognitive and affective experience. This study also focused on social presence and sensory appeal with cognitive and affective dimensions. Customer engagement behavior was studied in depth.

Keywords m-commerce, online customer experience, Customer engagement behavior, social mobile apps, multi-group analysis, need for touch

Nida Zaheer
Bahauddin Zakariya University
E-mail: nidazaheer83@gmail.com

Muhammad Rizwan
Bahauddin Zakariya University
E-mail: mriz@bzu.edu.pk
*corresponding author

Published by iRepository, July 2022

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

1 Introduction

Rapidly changing technology and the increasing number of well-informed customers changed their traditional mode of search and evaluation especially in the digital environment such as mobile apps (Eigenraam et al 2018; Newman et al 2017). Mobile applications have become a major changer in retailing (Lee and Kim 2019). The available literature shows that the probability of buying using mobile apps is affected by several variables such as customer experience, customer engagement, customization, and quality (Molinillo et al 2020).
Customer engagement is receiving greater attention in the marketing literature (Thakur 2019). It is argued that the engaged customers are highly profitable to the firm (Carlson et al 2019) are less price-sensitive (Izogo and Jayawardhena 2018), and advocate the firm to others (Roy et al., 2018). However, despite the importance, research efforts are limited to customer engagement behavior using mobile applications (Rasool et al 2020). Studies on the mobile application were focusing on the adoption of the mobile app (Liu et al 2019), the intention to reuse attitude toward the app (Cheung and To 2017) m-loyalty (Japutra et al 2021) design factors (Bhandari et al 2017). There is a no dearth of literature on customer engagement in the online environment however, most of the studies are conducted on engaging customers in the website environment (Pansari and Kumar 2017; Roy et al 2018). These findings cant be generalized to m-commerce due to situational differences (Wang et al 2015). Therefore, based on the discussion above we can argue that it is important to understand the shopping mobile application experience and its effect on customer behavior.
It has been argued that engagement is derived from experiencing the website in a specific way (Calder et al 2009). Further, it is also confirmed that customers look for experience while interacting with the website (Eigenraam et al 2018). Mobile applications have greater potential to enhance customer experience. They facilitate the shopping experience by providing a userfriendly environment (Natarajan et al 2017. Research efforts are considerable in the website environment (Bleier et al 2019; McLean and Wilson 2016). Since a large number of studies on customer experience were conducted in the website context; nevertheless, there is a limited understanding of the way mobile apps help enhance the customers experience (Molinillo et al 2020). Therefore, it is imperative to explore the way a mobile app can help to enhance the customer experience.
The present paper also aims to examine the underlying mechanism through which design elements and customer experience contribute to customer engagement behavior in the context of the mobile application. Further; overcoming the uncertainties of online purchasing has been studied.

2 Literature review

2.1 S-O-R Model:

This study adopts a stimulus organism and response model. This model asserts that certain stimuli such as atmospherics influence cognitive and affective state termed organism and affects response (Mehrabian and Russell 1974). So, this

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

study uses the S-O-R model, design elements (stimuli), customer experience (organism), and customer engagement behavior (response). The S-O-R model is a theoretical framework for understanding customer intentions and behavior (Hsu et al 2012b). Further, it is largely used in retailing and e-commerce contexts to describe consumer behavior (Wu et al 2019). However, studies on m-commerce using the SOR framework are not large and require research efforts (Rodríguez-Torrico et al 2019).

2.2 Design Elements in mobile app

Atmospheric qualities of mobile app shopping have gained considerable interest and emerged as an important topic (Lee and Kim 2019). The atmospherics of a website is the design of the webpage that consists of verbal and visual elements (Bleier et al 2019). Design elements play a significant role in enhancing customer experience and customer engagement (Bhandari et al 2017; Bleier et al 2019). The research efforts are not large to study the role of the shopping mobile app environment. Research effort needs to focus on design elements in the context of mobile applications (Iyer et al 2018; Kumar et al 2018). The design element is further categorized into social-focused and information-focused. Social focus includes design elements with richer media experience and information focus is linked with the design of a webpage with fewer media experiences and more information focused (Bleier et al 2019). Extent literature focused on a few design elements focusing on information or social aspects (Bhandari et al 2017; Kumar et al 2018; Lee and Kim 2019). However, an in-depth understanding of design elements is not clear. This study aims to investigate the role of visual, verbal, and navigational design elements in the mobile app context with richer media experience/social focus in comparison with an informative app with fewer media experiences.

H_1: Social focused design elements (visual, verbal, verbal/visual, and navigational) have a positive influence on customer experience in mobile application

2.3 Online Customer Experience

It is argued that obtaining customers and their retention rely on a positive customer experience (Chepur and Bellamkonda 2019). Mobile applications can enhance customer experience (Molinillo et al 2020). Online customer experience has been studied in three groups; the first was flow (Hsu et al 2012a), and the second was cognitive and affective. The third wave conceptualized it as multidimensional (Izogo and Jayawardhena 2018). However, a holistic understanding of the customer experience needs further consideration (Petermans et al 2013). This study fills this gap by studying a holistic understanding of customer experience by incorporating dimensions of informativeness, entertainment, sensory appeal, and social presence.

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

In a physical retail environment, customers can ask directly about the product information from the seller. In e-commerce, its a challenge to discover information from different sources (Richard et al 2010). It is affirmed that comprehensive, relevant, and, precise information facilitates the intention to purchase(Pandey and Chawla 2016). Entertainment is one of the crucial reasons for using the mobile app (Ho and Syu 2010). In online retailing, cues such as color, fonts, graphics, and, product presentation make the website entertaining (Wu et al 2014). The entertainment of a website has a positive influence on online shoppers (Hsieh et al 2014). So, the entertainment of a mobile app helps in creating customer experience and is included in the study as a dimension of customer experience.

Entertainment is one of the crucial reasons for using the mobile app (Ho and Syu 2010). In online retailing, cues such as color, fonts, graphics, and, product presentation make the website entertaining. (Wu et al 2014). The entertainment of a website has a positive influence on online shoppers (Hsieh et al 2014). So, the entertainment of a mobile app helps in creating customer experience and is included in the study as a dimension of customer experience. Online retailing is attributed to a limitation of human and social features which is a barrier to the growth of e-commerce (Choi 2016). In the online environment, social presence can be created using pictures, software-generated talking faces, virtual agents, and online reviews (Mimoun and Poncin 2015). The Online environment has a limitation on sensory experience (Bleier et al 2019). Sensory experience can be stimulated using images and videos (Elder et al 2017). It increases perception about the product and leads towards intention to purchase (Gentile et al 2007).

2.4 Customer Engagement Behavior

Customer engagement is important to capture the market shares in high competition (Pansari and Kumar 2017). It is a multidimensional construct that consists of cognitive, affective, and behavioral aspects (Eigenraam et al 2021). Technology advancement and the creation of mobile apps raised options for behavioral engagement (Ho and Syu 2010). Literature is lacking in customer engagement and related to the mobile application context (Tarute et al 2017). Therefore, this study fills this gap by studying repurchase intention, word of mouth, and customer complaint behavior that arises after experiencing the mobile application. A purchasers intention towards buying again from the same online store based upon the judgment of the purchases in the past is known as repurchase intention (Hellier et al 2003). Customer retention is important for retailers. Since, they are less conscious about price and increase profits for the company (Khalifa and Liu 2007).

Online purchases are attributed to intangibility and limited experience. Purchaser searches for ways to compensate for this limitation such as electronic word of mouth (Ha and Im 2012; Yen and Tang 2019). In an online environment that is attributed to product intangibility, it is imperative to understand

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

how purchasers express themselves for reducing risk (Siqueira Jr et al 2019). Customer complaint behavior arises due to buyers dissatisfaction that causes some action (Lam and Tang 2003). It comprises three types of behavior; voice, private response, and response to some third party. Complaining to the company is attributed to voice response. Response in the form of negative word of mouth is termed the private response. Taking some legal action is complaining to the third party (Mei et al 2019; Singh 1988). The focus of the present study is internal response to service and external response to service. Based upon the discussion above the following hypothesis can be formed to explore the influence of online customer experience on customer engagement behavior.

H_2: Informativeness of a mobile application has a positive influence on dimensions of customer engagement behavior.
H_3: The entertainment of a mobile application has a positive influence on dimensions of customer engagement behavior.
H_4: Social presence of a mobile application has a positive influence on dimensions of customer engagement behavior.
H_5: Sensory appeal of a mobile application has a positive influence on dimensions of customer engagement behavior.

2.5 Need for touch

In an online environment, sensory information is not sufficient. The online environment is attributed to a lack of tangibility and leads to a lessening consumer experience (Overmars and Poels 2015). The purchasers wish to touch the product physically is termed as the need for touch (Jin and Phua 2015). Touch plays a significant role in deciding to purchase online (Peck and Childers 2006). Failure of online retailing is mainly attributed to the limitation of tactile input in web retailing leads to less experience and engagement (Overmars and Poels 2015). The use of technologies for reducing tactile limitation has some problems such as cost, installation, resources, and network limitations (Rodrigues et al 2017). Past studies use the need for touch as a moderator between the influence of customer experience and brand attitude (Keng et al 2012), product presentation video, and intention to purchase (Flavián et al 2017).

H_6: The need for touch provides a boundary condition between online customer experience and customer engagement behavior.

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

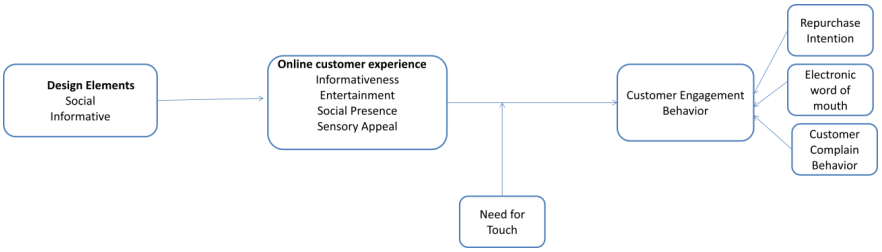

Fig. 1: Theoretical Framework

3 Methodology

3.1 Theoretical Framework

3.2 Experimental Design

The present study is experimental and focusing factorial experiment design. Factorial design helps to calculate the influence of two or more experimental conditions on the dependent variable (Sekaran and Bougie 2016). The experiment design which is full factorial is complex, laborious and, needs a large number of experiments to conduct. We used Taguchi 1986 orthogonal array Which reduces the number of cells that are required (Davis and John 2018). We need 68 cells; 17 combinations of design elements per product * 2 products * 2 firms. It has been confirmed that the use of experiments in the context of mobile apps enhances realism which leads to better quality results (Kumar et al 2018). Further, experiment designs using mobile apps have been studied in the past (Kumar et al 2018). They found that using experiments they collected data close to the real feelings.So, experiment design is employed in the present study to get data close to real. Then, we selected the sample size. The sample size was selected based on the 10 rules of thumb (Hair et al 2014). The total sample should be 10 times greater than the number of items. So, a 50*10=500 sample size was selected for the study.

3.3 Demographics

The target audience for the study is male and female students of the university familiar with mobile apps. There were 420 responses we received. In the data cleaning process, we eliminated 20 responses for accuracy. The responses were deleted due to missing data, the respondents did not fill out the questionnaire completely (Sekaran and Bougie 2016). Out of 400 responses, 201 responses were from the experimental group and 199 from the control group. The demographics of the study include 200 respondents male and female each. Qualification includes Bachelors 121, Masters 116, MPhil 116, and 47 Ph.D. scholars. Further their age group; Less than 20 years 120, 21-30 Years 168, 31-40 years 75, 41-50 years 37. The demographics of the study are presented in table 2.

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

Table 1: Experimental stimuli

Design Element	**Click Retail/social Focused**	**Press Retail/Information Focused**
Product description Tone	Emotional	Unemotional
Product Description	25% larger	Baseline description
Bullets	5	3
Information about return policy	Available	No
Crop picture	Available	No
Lifestyle photo	Available	No
Photo size	Available	Basic
Video	Available	No
Ratings	Available	No
Endorsement	Available	No
Comparing matrix	Available	No
Recommendation Agent	Available	No
Filters	Available	No
Cart of shopping	Available	No
Method to pay	Available	No
Dynamic Filter	Available	No
Search with keyword	Available	No

Table 2: Demographics

Experimental Group	**Frequency**	**Control Group**	**Frequency**
Gender		**Gender**	
Male	96	Male	110
Female	105	Female	89
Education		**Education**	
Bachelors	60	Bachelors	61
Master	70	Master	46
M-phill	60	M-phill	56
Phd Scholars	11	Phd Scholars	36
Age		**Age**	
Less than 20	59	Less than 20	61
21-30	89	21-30	79
31-40	40	31-40	35
41-50 and above	13	41-50 and above	24

3.4 Scale assessment

Scales from previous literature were used in the survey. Items adopted for informativeness (Luo 2002), entertainment (Hausman and Siekpe 2009), social presence (Gefen and Straub 2003), sensory appeal (Jiang and Benbasat 2007), repurchase intention (Wu et al., 2014), electronic word of mouth (Yoo and Gretzel 2008) customer complaint behavior (Zeithaml et al 1996), and auto-telic need for touch (Peck and Childers 2006). Table 4.2 exhibits the model fitness of the study

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

4 Results and discussion

4.1 Reliability and validity

In the first step, we assessed the psychometric attributes of the scale. We measured the reliability of the scale all values were above 0.7 and within a satisfactory range. Then AVE was computed to assess convergent validity. All values are above 0.5 and accepted. Next Discriminant validity is achieved. Results are in the satisfactory range (Civelek 2018).

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

Table 3: Reliability and validity

Variable	Composite Reliability (CR)	Average Variance Extracted (AVE)	Informativeness	Entertainment	Social Presence	Sensory Appeal	Repurchase Intention	Customer complaint Behavior	e-WOM
Informativeness	0.856	0.665	0.815						
Entertainment	0.852	0.657	0.506***	0.811					
Social Presence	0.841	0.517	0.509***	0.229***	0.719				
Sensory Appeal	0.736	0.482	0.611***	0.516***	0.675***	0.694			
Repurchase Intention	0.88	0.71	0.663***	0.373***	0.667***	0.651***	0.843		
Customer Complain Behavior	0.879	0.645	0.659***	0.450***	0.640***	0.755***	0.637***	0.803	
e-WOM	0.888	0.44	0.728***	0.533***	0.714***	0.768***	0.747***	0.899***	0.663

Notes for the model: N=400, ??2=909.834, Degree of freedom=443, CFI=0.96, TLI=0.96, RMSEA=0.05 .

Published by iRepository, July 2022

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

4.2 Hypothesis testing

The relationship of experience dimensions to customer engagement behavior was measured using SEM on Amos 23 version. The output is presented in Tables 4 and 5.

Experiment group

The results of the experimental groups show that there is a significant influence of informativeness, and social presence, on repurchase intention. Informativeness, entertainment, social presence, and sensory appeal with e-wom. Further, informativeness and sensory appeal with complaint behavior. However, results are not significant for entertainment with repurchase intention and CCB.

Table 4: Hypothesis testing for Experimental Group

Hypothesis		**RPI**		**e-wom**		**CCB**	
			p		p		p
H2	Info	0.34	***	0.311	***	0.298	***
H3	Ent	0.036	0.486	0.109	0.006	-0.05	0.91
H4	SP	0.454	***	0.296	***	0.102	0.083
H5	SA	0.132	0.064	0.334	***	0.545	***

Control group

The results of the control groups show that there is a significant and positive influence of entertainment, social presence, and sensory appeal on repurchase intention. Informativeness social presence, and sensory appeal with e-wom. Next, informativeness and sensory appeal with complaint behavior. However, there is no support for informativeness and repurchase intention and entertainment with e-wom and CCB.

Table 5: Hypothesis testing for Control Group

Hypothesis		**RPI**		**e-wom**		**CCB**	
			p		p		P
H2	Info	0.06	0.23	0.22	***	0.247	***
H3	Ent	0.123	0.018	0.025	0.61	0.033	0.56
H4	SP	0.53	***	0.322	***	0.061	0.37
H5	SA	0.229	***	0.398	***	0.57	***

4.3 Multi-group analysis

Metric invariance was executed to check the group difference. As we have two groups, one is an informational-focused app and the second is a social-focused mobile app. Multi-group analysis or between-group analysis use to know the significant difference among groups (Byrne 2004). The analysis was performed

Published by iRepository, July 2022

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

using Amos. The chi-square difference between groups is not significant. So, we can conclude that the information app is different from the social app. Table 6 presents the findings of the Metric invariance analysis. The results of the multi-group analysis exhibit that both groups are significantly different from each other.

Table 6: Metric invariance analysis

	Chi-square	df	p	Invariant
Unconstrained	1905	6		
Fully constrained	1930	18		
Total group		2		
Group difference	33.464	24	0.095	N0

4.4 Moderation analysis

Hayes process macro was used to measure the boundary condition need for touch. It is a simple tool to calculate results with fewer efforts (Hayes et al 2017). Model no 1 was used to assess the moderating influence. The output is presented in table 7. The findings of this study demonstrate that NFT provides boundary conditions between customer experience dimensions and customer engagement behavior dimensions.

Table 7: The moderating role of NFT

Repurchase Intention		SE	t	p	LCL	UCL
Info x NFT	0.2	0.04	4.43	0	0.11	0.3
ENT x NFT	0.16	0.05	3.15	0	0.06	0.26
SP x NFT	0.15	0.05	3.06	0.002	0.05	0.25
SA x NFT	0.17	0.05	3.42	0.001	0.07	0.28
Electronic word of mouth						
Info x NFT	0.21	0.03	6.36	0	0.014	0.27
ENT x NFT	0.22	0.03	6.22	0	0.14	0.29
SP x NFT	0.2	0.03	6.05	0	0.14	0.27
Complaint Behavior						
Info x NFT	0.26	0.04	5.92	0	0.17	0.35
ENT x NFT	0.21	0.04	4.38	0	0.11	0.31
SP x NFT	0.2	0.04	4.14	0	0.1	0.3
SA x NFT	0.17	0.04	3.65	0	0.08	0.27

4.5 Discussion

This study has investigated the role of design elements (social-focused/informationfocused) in the creation of online customer experience which leads to customer engagement behavior. Further, brand image was also studied to know its role in mitigating the need for touch. The outcomes of the research suggest that social

Published by iRepository, July 2022

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

mobile app with richer media has more influence on customer experience and customer engagement behavior. It suggests that people while using the mobile app are more motivated by experience rather than only information. It means only product pictures and videos and text related to information only doesnt enhance their purchase intention. Rather, with text, pictures, and video retailers can add picture crop, picture of recommendation agent, use of the product, and other elements which enhance the experience. Further, this rich experience influences sensory appeal and social presence which in turn leads to repurchase intention from the store, spreading the word of mouth, and complaint behavior.

This research effort has made some contributions. First, findings affirmed that design elements of the mobile application with richer media experience have a significant and positive influence on customer behavior. These findings are similar to the past findings in the mobile app context (Kumar et al 2018; Lee and Kim 2019). This finding has implications for the retailer to design the app page that is entertaining and influences the sensory and social appeal for compensation of risks in online shopping.Second, it has investigated, the influence of mobile app-based customer experience on customer engagement behavior. Research efforts are limited to studying customer experience as a uni-dimensional construct. This study provided a theoretical contribution by studying it as a multi-dimensional construct (Bleier et al 2019). This finding has implications for the retailer that they should evoke multiple experiences through atmospherics rather than single. This enhanced experience causes the user to stay on the page.

Third, most of the studies in the past were focusing measuring experience using existing mobile apps. This study has made the contribution that we have developed real mobile apps to measure real responses. Fourth, the need for touch provides moderation. The effect is larger for qualities such as social presence and sensory appeal, but less so for informativeness and entertainment, according to the findings. We can conclude that knowledge is less crucial for experience products, whereas other signals such as social presence and sensory appeal are more important (Maity and Dass 2014).

4.6 Limitations and directions for future research

The present study is not free from limitations and that should be addressed in the future. The study was conducted in a lab setting. It lacks external validity. Further, it has focused only on two products apparel and mobile phone. Future research might be conducted to study other products. The influence of customization based on contents customized to location can be investigated further. Another main limitation of the study is it took design elements as experimental stimuli. There is a need to understand which design element has a relatively greater influence on customer experience and in turn customer engagement.

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

5 Conclusion

This study aims to examine the role of design features in enhancing experience and customer engagement behavior. Further need for touch provides the boundary condition between the influence of customer experience and customer engagement behavior. Pakistan is an emerging economy and population-wise fifth country. The past few years have witnessed the rapid growth of technology applications and mobile customers. This increasing trend motivates researchers and managers to know what motivates customers to purchase from the mobile app. What type of experience is required to engage customers (Hanif et al 2021; Molinillo et al 2020). This study will be helpful for the retailer to design a mobile app that is having rich media experience which will enhance customer experience and leads to engagement behavior. Further, a richer media experience will mitigate the need for touch in an online environment.

References

Bhandari U, Neben T, Chang K, Chua WY (2017) Effects of interface design factors on affective responses and quality evaluations in mobile applications. Computers in Human Behavior 72:525–534

Bleier A, Harmeling CM, Palmatier RW (2019) Creating effective online customer experiences. Journal of marketing 83(2):98–119

Byrne BM (2004) Testing for multigroup invariance using amos graphics: A road less traveled. Structural equation modeling 11(2):272–300

Calder BJ, Malthouse EC, Schaedel U (2009) An experimental study of the relationship between online engagement and advertising effectiveness. Journal of interactive marketing 23(4):321–331

Carlson J, Rahman MM, Taylor A, Voola R (2019) Feel the vibe: examining value-in-the-brand-page-experience and its impact on satisfaction and customer engagement behaviours in mobile social media. Journal of Retailing and Consumer Services 46:149–162

Chepur J, Bellamkonda R (2019) Examining the conceptualizations of customer experience as a construct. Academy of Marketing Studies Journal 23(1):1–9

Cheung MF, To WM (2017) The influence of the propensity to trust on mobile users' attitudes toward in-app advertisements: An extension of the theory of planned behavior. Computers in Human Behavior 76:102–111

Choi S (2016) The flipside of ubiquitous connectivity enabled by smartphone-based social networking service: Social presence and privacy concern. Computers in Human Behavior 65:325–333

Civelek ME (2018) Essentials of structural equation modeling. Essentials of Structural Equation Modeling (2018)

Davis R, John P (2018) Application of taguchi-based design of experiments for industrial chemical processes. Statistical Approaches With Emphasis on Design of Experiments Applied to Chemical Processes 137

Eigenraam AW, Eelen J, Van Lin A, Verlegh PW (2018) A consumer-based taxonomy of digital customer engagement practices. Journal of Interactive Marketing 44:102–121

Eigenraam AW, Eelen J, Verlegh PW (2021) Let me entertain you? the importance of authenticity in online customer engagement. Journal of Interactive Marketing 54:53–68

Elder RS, Schlosser AE, Poor M, Xu L (2017) So close i can almost sense it: The interplay between sensory imagery and psychological distance. Journal of Consumer Research 44(4):877–894

Flavián C, Gurrea R, Orús C (2017) The influence of online product presentation videos on persuasion and purchase channel preference: The role of imagery fluency and need for touch. Telematics and Informatics 34(8):1544–1556

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

Gefen D, Straub D (2003) Managing user trust in b2c e-services. e-Service 2(2):7–24
Gentile C, Spiller N, Noci G (2007) How to sustain the customer experience:: An overview of experience components that co-create value with the customer. European management journal 25(5):395–410
Ha Y, Im H (2012) Role of web site design quality in satisfaction and word of mouth generation. Journal of Service Management
Hair JF, Black W, Babin B, Anderson R, Tatham R (2014) Pearson new international edition: Multivariate data analysis. Exploratory Data Analysis in Business and Economics pp 23–60
Hanif MS, Wang M, Mumtaz MU, Ahmed Z, Zaki W (2021) What attracts me or prevents me from mobile shopping? an adapted utaut2 model empirical research on behavioral intentions of aspirant young consumers in pakistan. Asia Pacific Journal of Marketing and Logistics
Hausman AV, Siekpe JS (2009) The effect of web interface features on consumer online purchase intentions. Journal of business research 62(1):5–13
Hayes AF, Montoya AK, Rockwood NJ (2017) The analysis of mechanisms and their contingencies: Process versus structural equation modeling. Australasian Marketing Journal (AMJ) 25(1):76–81
Hellier PK, Geursen GM, Carr RA, Rickard JA (2003) Customer repurchase intention: A general structural equation model. European journal of marketing
Ho HY, Syu LY (2010) Uses and gratifications of mobile application users. In: 2010 international conference on electronics and information engineering, IEEE, vol 1, pp V1–315
Hsieh JK, Hsieh YC, Chiu HC, Yang YR (2014) Customer response to web site atmospherics: Task-relevant cues, situational involvement and pad. Journal of Interactive Marketing 28(3):225–236
Hsu CL, Chang KC, Chen MC (2012a) Flow experience and internet shopping behavior: Investigating the moderating effect of consumer characteristics. Systems Research and Behavioral Science 29(3):317–332
Hsu CL, Chang KC, Chen MC (2012b) The impact of website quality on customer satisfaction and purchase intention: perceived playfulness and perceived flow as mediators. Information Systems and e-Business Management 10(4):549–570
Iyer P, Davari A, Mukherjee A (2018) Investigating the effectiveness of retailers mobile applications in determining customer satisfaction and repatronage intentions? a congruency perspective. Journal of Retailing and Consumer Services 44:235–243
Izogo EE, Jayawardhena C (2018) Online shopping experience in an emerging e-retailing market. Journal of Research in Interactive Marketing
Japutra A, Utami AF, Molinillo S, Ekaputra IA (2021) Influence of customer application experience and value in use on loyalty toward retailers. Journal of Retailing and Consumer Services 59:102,390
Jiang Z, Benbasat I (2007) Research noteinvestigating the influence of the functional mechanisms of online product presentations. Information Systems Research 18(4):454–470
Jin SV, Phua J (2015) The moderating effect of computer users autotelic need for touch on brand trust, perceived brand excitement, and brand placement awareness in haptic games and in-game advertising (iga). Computers in Human Behavior 43:58–67
Keng CJ, Liao TH, Yang YI (2012) The effects of sequential combinations of virtual experience, direct experience, and indirect experience: the moderating roles of need for touch and product involvement. Electronic Commerce Research 12(2):177–199
Khalifa M, Liu V (2007) Online consumer retention: contingent effects of online shopping habit and online shopping experience. European Journal of Information Systems 16(6):780–792
Kumar DS, Purani K, Viswanathan SA (2018) Influences of appscapeon mobile app adoption and m-loyalty. Journal of Retailing and Consumer Services 45:132–141
Lam T, Tang V (2003) Recognizing customer complaint behavior: The case of hong kong hotel restaurants. Journal of Travel & Tourism Marketing 14(1):69–86
Lee Y, Kim HY (2019) Consumer need for mobile app atmospherics and its relationships to shopper responses. Journal of Retailing and Consumer Services 51:437–442
Liu H, Lobschat L, Verhoef PC, Zhao H (2019) App adoption: The effect on purchasing of customers who have used a mobile website previously. Journal of Interactive Marketing 47:16–34

Published by iRepository, July 2022

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

Luo X (2002) Uses and gratifications theory and e-consumer behaviors: A structural equation modeling study. Journal of Interactive advertising 2(2):34–41
Maity M, Dass M (2014) Consumer decision-making across modern and traditional channels: E-commerce, m-commerce, in-store. Decision Support Systems 61:34–46
McLean G, Wilson A (2016) Evolving the online customer experience is there a role for online customer support? Computers in Human Behavior 60:602–610
Mehrabian A, Russell JA (1974) An approach to environmental psychology. the MIT Press
Mei XY, Bagaas IK, Relling EK (2019) Customer complaint behaviour (ccb) in the retail sector: why do customers voice their complaints on facebook? The International Review of Retail, Distribution and Consumer Research 29(1):63–78
Mimoun MSB, Poncin I (2015) A valued agent: How ecas affect website customers' satisfaction and behaviors. Journal of Retailing and Consumer Services 26:70–82
Molinillo S, Navarro-García A, Anaya-Sánchez R, Japutra A (2020) The impact of affective and cognitive app experiences on loyalty towards retailers. Journal of Retailing and Consumer Services 54:101,948
Natarajan T, Balasubramanian SA, Kasilingam DL (2017) Understanding the intention to use mobile shopping applications and its influence on price sensitivity. Journal of Retailing and Consumer Services 37:8–22
Newman CL, Wachter K, White A (2017) Bricks or clicks? understanding consumer usage of retail mobile apps. Journal of Services marketing
Overmars S, Poels K (2015) How product representation shapes virtual experiences and repatronage intentions: the role of mental imagery processing and experiential value. The International Review of Retail, Distribution and Consumer Research 25(3):236–259
Pandey S, Chawla D (2016) Understanding indian online clothing shopper loyalty and disloyalty: the impact of e-lifestyles and website quality. Journal of internet Commerce 15(4):332–352
Pansari A, Kumar V (2017) Customer engagement: the construct, antecedents, and consequences. Journal of the Academy of Marketing Science 45(3):294–311
Peck J, Childers TL (2006) If i touch it i have to have it: Individual and environmental influences on impulse purchasing. Journal of business research 59(6):765–769
Petermans A, Janssens W, Van Cleempoel K (2013) A holistic framework for conceptualizing customer experiences in retail environments. International Journal of Design 7(2)
Rasool A, Shah FA, Islam JU (2020) Customer engagement in the digital age: A review and research agenda. Current Opinion in Psychology 36:96–100
Richard MO, Chebat JC, Yang Z, Putrevu S (2010) A proposed model of online consumer behavior: Assessing the role of gender. Journal of Business research 63(9-10):926–934
Rodrigues T, Silva SC, Duarte P (2017) The value of textual haptic information in online clothing shopping. Journal of Fashion Marketing and Management
Rodríguez-Torrico P, San-Martín S, San José-Cabezudo R (2019) What drives m-shoppers to continue using mobile devices to buy? Journal of Marketing Theory and Practice 27(1):83–102
Roy SK, Shekhar V, Lassar WM, Chen T (2018) Customer engagement behaviors: The role of service convenience, fairness and quality. Journal of Retailing and Consumer Services 44:293–304
Sekaran U, Bougie R (2016) Research methods for business: A skill building approach. john wiley & sons
Singh J (1988) Consumer complaint intentions and behavior: definitional and taxonomical issues. Journal of marketing 52(1):93–107
Siqueira Jr JR, Peña NG, ter Horst E, Molina G (2019) Spreading the word: How customer experience in a traditional retail setting influences consumer traditional and electronic word-of-mouth intention. Electronic Commerce Research and Applications 37:100,870
Taguchi G (1986) Introduction to quality engineering: designing quality into products and processes. Tech. rep.
Tarute A, Nikou S, Gatautis R (2017) Mobile application driven consumer engagement. Telematics and Informatics 34(4):145–156
Thakur R (2019) The moderating role of customer engagement experiences in customer satisfaction–loyalty relationship. European Journal of Marketing
Wang RJH, Malthouse EC, Krishnamurthi L (2015) On the go: How mobile shopping affects customer purchase behavior. Journal of retailing 91(2):217–234

https://ir.iba.edu.pk/businessreview/vol17/iss1/4
DOI: https://doi.org/10.54784/1990-6587.1472

Wu LY, Chen KY, Chen PY, Cheng SL (2014) Perceived value, transaction cost, and repurchase-intention in online shopping: A relational exchange perspective. Journal of business research 67(1):2768–2776

Wu R, Wang G, Yan L (2019) The effects of online store informativeness and entertainment on consumers approach behaviors: empirical evidence from china. Asia Pacific Journal of Marketing and Logistics

Yen CLA, Tang CHH (2019) The effects of hotel attribute performance on electronic word-of-mouth (ewom) behaviors. International Journal of Hospitality Management 76:9–18

Yoo KH, Gretzel U (2008) What motivates consumers to write online travel reviews? Information Technology & Tourism 10(4):283–295

Zeithaml VA, Berry LL, Parasuraman A (1996) The behavioral consequences of service quality. Journal of marketing 60(2):31–46