The Role of External, Internal Influences In Consumers’ Online Shopping Intentions

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Abstract

The e-commerce industry in Pakistan has seen exceptional development in the past few years. This growth has been fuelled up by the rapid adoption of technology, improving standards of living, and an increasingly young population, besides increasing access to the Internet through broadband and the use of smartphones. The purpose of this paper is to narrow this knowledge gap by examining the impact of environmental and motivational factors on consumers’ online shopping intentions in Pakistan. By using the structural equational model, this study applies the concept of the Stimulus-Organism-Response paradigm, with the combination of the Technology Acceptance Model. The proposed research model examined through a sample of 345 online shoppers to explain the factors that affect their online shopping intention. The results show the significance of the external effect of environmental stimulus, and internal motivational factors significantly affect the organism process, containing perceived usefulness, perceived ease of use, and perceived enjoyment. Perceived usefulness, perceived ease of use, and perceived enjoyment affect consumers’ online shopping intentions.

Keywords: SOR paradigm; TAM model; Inner motivational factors; Shopping intentions

Introduction

The recent decade has witnessed the rapid expansion of e-commerce. This expansion has been an outcome of numerous advantages derived by the early adopters of an e-commerce system, for example, an e-commerce industry of Pakistan was $15 Million in 2014 and US$ 60-100 million (2015), showing an immense growth trend over the last several years [1]. This growth has been fuelled by the rapid adoption of technology, improving standards of living, an increasingly young population and economically advancing middle class, besides increasing access to the Internet through broadband and use of smartphones and tablets. In light of the above facts, the e-commerce market of Pakistan is very lucrative for foreign investment in the online business.

Previous studies on e-commerce have empirically examined online shopping intentions [2-6] traditional mall shopping [7], and mobile shopping [8,9] the emotional influence of online buying [8], online buying motivation [11], and the effects of hedonic and utilitarian intentions on user behaviour Lin & Lu, 2015) [12,13]. They established that consumers’ online buying intentions are involved and affected by environmental factors.

Considering that the online shopping intentions are self-evaluated sentiment of enjoyment and an effect of perceived ease of use (PEU) and perceived usefulness (PU), examining the adoption of online shopping intentions in emerging markets (like Pakistan) from a psychological viewpoint is significant. In this perspective,
the Stimulus-Organism-Response (SOR) paradigm [14] gives a structured way to investigate the effects of high-tech elements as internal/external environmental stimuli on consumers' experiences towards online shopping. This study shed light on consumers online shopping intentions through the proposed model, which considers system and service quality as external and utilitarian, hedonic shopping orientation as internal environmental stimuli; perceived usefulness perceived ease of use, and perceived enjoyment as the person’s inner organism changes; and online shopping intention as the response. With this proposed model, online shopping intentions in emerging economies can be adequately described in this study. This study makes a significant contribution to scholars and practitioners in emerging markets dealing with e-commerce.

**Literature Review**

**Online shopping intention**

Consumer’s online shopping behaviour is also called internet buying/shopping behaviour: Online buying behaviour has a direct affiliation with these aspects, such as information characteristics, logistics support, e-stores, websites' technological characteristics, product characteristics, and homepage presentation. According to previous studies, the online shopping experience offers consumers both utilitarian and hedonic shopping orientations [15-17]. Utilitarian shopping orientations (USO) arise when the buying trip achieves specific usage requirements, reflecting non-emotional, cognitive, a goal-oriented, and a goal-oriented result [4]. So, the shopping beliefs are either external or internal, where the internal hedonic orientation indicates the drives of leisure, fun, and enjoyment. In contrast, the external utilitarian value is linked with well-designed aspects of buying. Hedonic shopping orientation (HSO) shows buying’s prospective entertaining and emotive worth. It can be directed by improved arousal, participation, escapism, fantasy, and emotive features of the buying [4,41].

**SOR framework**

SOR paradigm is widely used in earlier studies on online consumers’ behaviour [18,19]. For example, Parboteeah, et al. [20] investigated the effects of mood and task-related nodes on a webpage of consumers’ emotional and cognitive practices and also their successive online shopping behaviour. Eroğlu, et al. [21] studied the applicability of the S-O-R paradigm to the atmospheric abilities of virtual retailing showed that the buyers’ levels of participation and atmospheric responsiveness mediate the link among environmental signs and shopping effects (e.g., time and money spent, site revisit). Wang, et al. [22] established that the association between web athletics, online shopping, satisfaction, and perceived quality of service on the bases of the SOR paradigm. McKinney, et al. [23] used the SOR paradigm for the determination of customers’ inner motivations for online buying varies and that these drives have a significant influence on buyer satisfaction.

In line with Kim, et al. [24] and Hsu, et al. [25], this study reveals that the quality of a webpage is a significant stimulus in the online shopping environment. This research follows the “DeLone and McLean Model of Information Systems Success” [26] to determine the quality of a webpage through “system and service quality,” defined as “the degree to which users believe that the overall service and system performance meets their expectations” [27]. Further to these qualities, the quality of information is a significant aspect of quality [28,29]. From the perspective of the online social system, information quality “reflects the accuracy, comprehensiveness, and timeliness of information provided by mobile social network service providers” [30].

Both PU and PEU are the key components of the famous Technology Acceptance Model (TAM) [31]. In line with Hong, et al. [32] and Hew, et al. [33] these two concepts are key to clarifying consumer behaviour in the studies related to the adoption of new technology. In recent times Fu, et al. [25] employed perceived usefulness in the perspective of online purchase intention to clarify the intention to online buy a movie ticket, while Moslehpour, et al. [34] employed both constructs in the perspective of e-purchase intentions of the Taiwan nationals. They suggested that both concepts could forecast user intention. Due to the importance of perceived ease of use and perceived usefulness in forecasting customer behaviour and their accordance with an online buying perspective, they are supposed to be a decent replacement for consumers’ cognitive responses in this study.

In contrast, PE is considered based on Motivation Theory. According to KY Lin, et al. [35], Hew, et al. [35], and Deci [36], “the motivations in human behaviour can be categorized into intrinsic and extrinsic motivation.” Fred D, et al. [37] applied the same theory in the framework of information technology. They state that “humans are extrinsically motivated to commit an action when the performance of such action could achieve valued outcomes (e.g., improving job performance), whereas they are intrinsically motivated to commit an action when they are interested in the performance of the said action, rather than the outcomes. From their study, they conceptualized perceived usefulness as a form of extrinsic motivation and perceived enjoyment as a form of intrinsic motivation”. Pantano, et al. [38] applied these ideas of Motivation Theory. They explained that with three other TAM variables, perceived enjoyment is a key motive for consumers’ intentions towards online shopping. Following this opinion, it is probable that consumers’ inner motivation could be a related concept that utilities as a proxy for their affective responses.

**Research Model and Hypothesis**

**System and service quality (SSQ)**

Sang, et al. [27] described that the quality of a system and service is significantly linked with consumers’ opinions about new technology. As online shopping platforms provide products and...
services to consumers’ through their online systems, SSQ works as a significant external stimulus that affects shoppers’ affective and cognitive responses. Ahn, et al. [39] described in their study regarding online shopping that SSQ performs as the ancestor for PU, PEU, and PE. Moreover, the impact of SSQ on consumers’ online shopping intentions has been better cited under the environs of online social systems [27,40]. Likely, it is supposed that the affirmative view of SSQ of online shopping platforms will initiate positive affective and cognitive responses by consumers. Thus, we propose the following:

H1a. System and service quality positively influence consumers’ perceived usefulness.

H1b. System and service quality positively influence consumers’ perceived ease of use.

H1c. System and service quality positively influence consumers’ perceived enjoyment.

**Utilitarian shopping orientation (USO)**

Holbrook, et al. [34] consumption model focused on the significance sought in the course of ingestion practice may be inclined by individual variances. According to Babin, et al. [15] “a utilitarian (economic) shopping orientation entails the tendency to seek instrumental value (e.g., saving time or effort),” while they always try to reduce time spent and effort in search and purchasing of a product [41]. The interactivity of a webpage is also perceived as proposing utilitarian sides of reducing effort and time, risk, and growing chances of searching a better substitute [42]. Webpages like Taobao, daraz.pk, and specialized online shopping apps offer the utilitarian factors of ease and information related to products/services [42]. Several studies have emphasized that utilitarian orientation drives consumers’ usage behaviour [15,16,43]. Online utilitarian buyers are likely with an emphasis on the functional feature of the online experiences, for example, usability, price, quality, and other buying related aspects [40,41]. Li H, et al. [44] proposes more research regarding the influence of individual variances, for example, how the available information is being treated while online shopping.

Both PU and PEU reveal the utilitarian features of online buying [45,46]. Therefore, in this study, we investigate the link among PU, PEU, and USO as individual variances. We generate:

H2a. Utilitarian shopping orientation positively influences consumers’ perceived usefulness.

H2b. Utilitarian shopping orientation positively influences consumers’ perceived ease of use.

**Hedonic shopping orientation (HSO)**

According to Babin, et al. [15], a hedonic (fun) shopping orientation demands the propensity to pursue practical worth (e.g., fun). Numerous studies have emphasized that hedonic orientation drives consumers’ usage behaviour [4,21,41]. Hedonic shoppers involved in looking for products, enjoy their experience of shopping, and taking shopping as relaxation. Online shopping gives the hedonic aspect [48,45]. Previous studies explored that individual variances play a significant role in the way how technology is being used [45,49,50]. Lee et al. [45] proposed further study about the influences of individual variances, e.g., information treating chic while online shopping. Hedonic shopping values may influence consumers’ online shopping intentions. PE shows the hedonic traits of online buying. Therefore, in online shopping studies, hedonic characteristics can be considered.

Fenech, et al. [51] studied the special effects of hedonic buying orientation on perceived ease and usefulness in an online trading adoption scenario. Though, they did not find any positive effects of hedonic orientation on both perceived ease of use or usefulness for selling through webpages. In their research, Fenech, et al. [51] did not consider “perceived enjoyment,” which is a recreational fact and may link with the hedonic buying orientation relatively than perceived ease and value, which are utilitarian factors. Perceived enjoyment replicates the hedonic facets of online purchasing. Hence, we hypothesize as follows:

### Table 1: Findings of CFA

| Items                        | Loading | α    | AVE  | CR   |
|------------------------------|---------|------|------|------|
| System and service quality (SSQ) |         |      |      |      |
| SSQ 1                        | 0.896   |      |      |      |
| SSQ 2                        | 0.902   | 0.901| 0.773| 0.931|
| SSQ 3                        | 0.911   |      |      |      |
| SSQ 4                        | 0.803   |      |      |      |
| Utilitarian shopping orientation (USO) |         |      |      |      |
| USO 1                        | 0.911   |      |      |      |
| USO 2                        | 0.899   |      |      |      |
| USO 3                        | 0.91    | 0.91 | 0.788| 0.937|
| USO 4                        | 0.828   |      |      |      |
| Hedonic shopping orientation (HSO) |         |      |      |      |
### Table 1

|   | HSO1 | HSO2 | HSO3 | HSO4 | HSO5 | HSO6 |
|---|------|------|------|------|------|------|
| HSO1 | 0.816 |      |      |      |      |      |
| HSO2 | 0.848 |      |      |      |      |      |
| HSO3 | 0.857 |      |      |      |      |      |
| HSO4 | 0.863 | 0.925 | 0.727 | 0.941 |      |      |
| HSO5 | 0.871 |      |      |      |      |      |
| HSO6 | 0.858 |      |      |      |      |      |

**Perceived usefulness (PU)**

- PU1: 0.824
- PU2: 0.769
- PU3: 0.816
- PU4: 0.816

**Perceived Ease of Use (PEU)**

- PEU1: 0.91
- PEU2: 0.913
- PEU3: 0.903
- PEU4: 0.788

**Perceived enjoyment (PE)**

- PE1: 0.895
- PE2: 0.91
- PE3: 0.863
- PE4: 0.876

**Shopping intentions (SI)**

- SI1: 0.916
- SI2: 0.92
- SI3: 0.976
- SI4: 0.849
- SI5: 0.944

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**H3.** Hedonic shopping orientation positively influences consumers' online shopping intentions (Table 1).

**Perceived usefulness (PU)**

Davis FD [31] defined PU as “the degree to which a person believes that using a particular system would enhance his/her job performance.” Perceived usefulness has been broadly adopted in numeral studies in the online social network [28,52,53-55] and shopping through Smartphone technology [56,28,57,58] [20,33] studies to describe consumers’ online shopping intention. Therefore, it can be better determined that perceived usefulness plays the role of the key driver in consumers’ online shopping intentions. Also, it is expected that this cognitive response of consumers’ could then affect their online buying intention (e.g., their reaction). So, we hypothesize:

**H4.** Perceived usefulness positively influences consumers’ online shopping intentions.

**Perceived ease of use (PEU)**

Davis FD [31] defined PEU as “the degree to which a person believes that using a particular system would be free of effort,” which is a key driver for the acceptance/adoption of applications based on new technologies [50]. The influence of PEU consumers’ behavioural intentions towards the adoption/acceptance of online shopping in emerging markets is explained in some previous studies [2,28,59-61]. Accordingly, the better the PEU of the online shopping environment, the more progressive is the consumers’ intention towards its adoption/usage, so the higher the prospect that it will be used. Additionally, PEU is supposed to have an indirect influence on consumers’ behavioural intention towards the adoption of new technologies through perceived usefulness in an online shopping context too [57]. Thus, PEU is further supposed to have an indirect influence on consumers’ intentions through PU.

**H5a.** Perceived ease of use has a positive indirect influence on consumers’ intentions through perceived usefulness.

**H5b.** Perceived ease of use positively influences consumers’ online shopping intentions.

**Perceived enjoyment (PE)**

Perceived enjoyment has immense applicability in affecting the consumers’ intention to use ‘pleasure-oriented information systems and hedonic platforms,” for example, online social networks [62,28,63,64] [29,33,74,79]. Davis FD et al. [37] defined PE as “the extent to which the activity of using the computer is perceived to be enjoyable in its own right, apart from any performance
consequences that may be anticipated." Earlier studies Davis FD, et al. [37] establish that PE, with PU, were determining factors of attitude for the adoption of new technology. In an online shopping environment, enjoyment has a significant influence on consumers’ attitudes in e-tailers [45,65]. Childers, et al. [48] investigated recreational and economical shopping through webpages. Moreover, the relation among consumers’ online shopping intentions and perceived enjoyment has been confirmed by numerous studies in the area of online social systems [66,67]. Thus, this study examines the influence of PE on consumers’ online shopping intentions.

H6. Perceived enjoyment positively influences consumers’ online shopping intentions.

Methodology

The thing to study is the consumers’ online shopping intentions in emerging markets, so this study used a questionnaire adapted from earlier studies to check the suggested model. Therefore, the emphasis was not only on measuring the consumers’ online shopping intention itself but also on the consumer’s external and internal environmental effects that affect their online shopping intentions.

Hair JF, et al. [68] described that PLS (partial least squares) is a “second-generation” method that has achieved growing fame in the turf of an information system or marketing in the recent era. For complete assessment and adequate statistical influence, the least sample size is executed by following [69]. According to the rule of thumb, the sample size should not be less than the following: “ten times the scale with the largest number of formative indicators, or ten times the largest number of structural paths directed at a particular construct in the structural model” [69]. Our sample size for the current study is 303. Hence, our sample size is sufficient. We used Smart PLS for data analysis. Smart PLS 3.2.7 software used and employed PLS-SEM “partial least squares structural equation modelling” to evaluate the model in light of the empirical data [70]. It is clear that PLS-SEM is an appropriate method for “prediction-oriented research” [71], and Hair JF, et al. [72] establish that it “has the advantage of not holding the distributional assumption of normality, making less demand on measurement scales, and being able to work with much smaller as well as much larger samples.”

Measures

The survey questionnaire employed to gather data had two segments. It contained two distinct sections: (i) general and demographic characteristics, (ii) SOR constructs’ using measures from earlier literature. Each item was measured on a seven-point Likert scale anchored by “strongly disagree” (1) and “strongly agree” (7). The scale items measuring System and service quality were adapted from [69] (i.e., Utilitarian shopping orientation scale items from [16], and the scale item of Hedonic shopping orientation from [7]). Similarly, the scale items of TAM [45,61,73], while the scale items of purchase intentions were [74]. To check the reliability and internal consistency between the questions associated with each variable, “Cronbach’s alpha” tests were conducted. All variables were reliable, given that reliability was higher than 0.70.

Sample population and data collection

Before the primary survey was fielded, first, a study based on focus group was conducted with seven Ph.D. students from the school of management, having specialized skills in survey design. Resultantly, minor changes regarding the wording and the sequence of some questions were made as recommended by the focus group. Second, take the feedback and content validity based on familiarity with the online shopping system. Forty valuable reviews were analyzed after that questionnaire was considered as the final version.

Convenience sampling technique was used for the collection of data from different cities of Pakistan through a self-administered survey. Well-trained students managed the survey to a convenience sample of people who were approached around shopping malls, the streets, and in the universities. Prospective participants were first asked whether they had prior experience of online shopping from (daraz.pk or Homeshopping.pk), which are the most famous online shopping platforms in Pakistan. We targeted the people between age group 18-29, the reason for focusing on this age group is that they are believed as early adopters of any product or technology [75,76]. Participants who agreed to complete the survey finished the self-administered questionnaire in the presence of the survey helpers, who collected complete questionnaires immediately upon their completion.

Data analysis

The study used the Mann-Whitney U test to judge any potential non-response bias. To observe the possible non-response bias, we matched the structure of the first and last 50 respondents. The result showed that there were no significant variances, proposing that non-response bias may not be a severe apprehension for this research (Table 2).

| Measures   | Value | Frequency | (%)  |
|-----------|-------|-----------|------|
| Gender    | Male  | 195       | 64.4 |
|           | Female| 108       | 35.6 |
| Age       | 19-23 | 166       | 54.8 |
|           | 24-29 | 137       | 45.2 |

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Results

Measurement model

To check the validity and reliability of each hypothesis, we conducted four sets of necessary tests: item reliability, internal consistency reliability, discriminant validity, and convergent validity [72]. Hair JF, et al. [72] note that “for the establishment of internal consistency reliability, values [of] composite reliability (CR) must be greater than 0.7.” Our results (Table 1) show that the hypotheses in this study achieved composite reliability greater than 0.869, showing decent internal consistency. Joe F Hair et al. [72] and Bagozzi, et al. [77] recognize that “for item reliability, an individual item must exhibit significant standardized loadings above 0.7 (p < 0.001).” The lowermost loading of an item was 0.706, which was above the threshold of 0.7. Joe F Hair, et al. [72] establish that “to confirm convergent validity, the average variance extracted (AVE) of a construct must be over 0.5.” In this study, the results were between 0.550 (hedonic shopping orientation) and 0.734 (shopping intention), endorsing convergent validity.

For suitable discriminate validity, Fornell, et al. [78] established that “the square root of each construct’s AVE to be greater than its correlation with each of the remaining constructs.” Our results (Table 3) fulfill this criterion. Hence, the discriminant validity of all hypotheses can be established.

Table 3: Square of correlation between latent variables.

|                           | SSQ | USO | HSO | PU | PEU | PE | SI |
|---------------------------|-----|-----|-----|----|-----|----|----|
| System and service quality (SSQ) | 0.88 |     |     |    |     |    |    |
| Utilitarian shopping orientation (USO) | 0.51 | 0.88 |     |    |     |    |    |
| Hedonic shopping orientation (HSO) | 0.38 | 0.36 | 0.85 |    |     |    |    |
| Perceived Usefulness (PU) | 0.41 | 0.56 | 0.45 | 0.8 |     |    |    |
| Perceived Ease of Use (PEU) | 0.43 | 0.55 | 0.36 | 0.55 | 0.88 |    |    |
| Perceived enjoyment (PE) | 0.58 | 0.54 | 0.46 | 0.41 | 0.52 | 0.86 |    |
| Shopping intention (SI) | 0.47 | 0.48 | 0.47 | 0.43 | 0.46 | 0.62 | 0.92 |

Note: N=303. Boldface numbers are the square root of the AVE of each construct

Structural model

The findings demonstrate that the calculated path coefficients are significant. The outcomes show that system and service quality has significant positive relationship with perceived usefulness (H1a: β = 0.123 p < 0.05), perceived ease of use (H1b: β = 0.501 p < 0.001), perceived enjoyment (H1c: β = 0.691 p < 0.001), utilitarian shopping orientation has significant positive relationship with perceived usefulness (H2a: β = 0.333 p < 0.001), perceived ease of use (H2b: β = 0.409 p < 0.001), hedonic shopping orientation has significant positive relationship with perceived enjoyment (H3: β = 0.169 p < 0.001), perceived usefulness has significant positive relationship with shopping intention (H4: β = 0.128 p < 0.01), perceived ease of use has significant positive relationship with shopping intentions (H5: β = 0.362 p < 0.001), perceived enjoyment has significant positive relationship with shopping intention (H6: β = 0.196 p < 0.001). The model explains that 68% of the variance related to the dependent variable (i.e., shopping intention).

Discussion and Implications

This study tried to explain the consumers’ online shopping intentions by using the SOR paradigm. By using the theoretical lens of the SOR paradigm, the model successfully combined the “DeLone and McLean Model of Information System Success” [26], “Technology Acceptance Model” [31], and “Motivation Theory” [36]. Thus far, online shopping scholars have yet to examine these theories and models as a single model under the framework of the SOR paradigm. Overall, the proposed model provides a predictive accuracy (R2 = 0.683) for consumers’ online shopping intention. These findings back the use of the proposed model; hence, the suggested model is supposed to disclose some new insights and possible implications to scholars.

The PLS-SEM outcomes yield three key results: (1) The external effect of the environmental stimulus (system and service quality), affects perceived usefulness, perceived ease of use toward online shopping system, and perceived enjoyment; (2) The internal effect of the stimulus, utilitarian and hedonic shopping orientation, significantly affect the organism process, containing perceived usefulness, perceived ease of use toward online shopping system, and perceived enjoyment; and (3) Perceived usefulness, perceived ease of use, and perceived enjoyment affect consumers’ purchase intention. Such findings are inconsistent with the SOR framework [14,28,21,72], which suggests that inner organism plays a key role in environmental stimuli and response. Such outcomes also back the key mediating role of perceived usefulness, perceived ease of

Table:<br>Table 1: Descriptive statistics of variables.<br><br>Table 2: Summary of inner relationship of the model and square of correlation between latent variables.
use, and perceived enjoyment in the current study, which is in line with earlier studies [80,81].

Overall, the application of the SOR paradigm has been acknowledged in the perspective of consumer’s online shopping intentions. All environmental stimuli can affect consumer’s cognitive (perceived usefulness, perceived ease of use) and affective (perceived enjoyment) responses, which subsequently plays a vital role among stimuli and response (consumers’ online shopping intentions).

Theoretical implications

First, earlier studies have examined both utilitarian and hedonic orientations in consumption behaviour context [16,82], but this study indicates that utilitarian and hedonic orientations significantly direct influence on shoppers’ usefulness, ease of use, and enjoyment, while indirectly influence their online shopping intentions. This study discloses that the shopping environment of daraz.pk or Homeshopping.pk evokes shopper’s emotional reactions, which is in line with the findings of earlier studies.

Second, in line with earlier studies [5,60,83], perceived ease of use was found to have a significant effect on perceived usefulness and shopping intention. This result shows that when the consumers perceive online webpages as easy to use, he/she may develop a positive intention for the utility of the system. This positive link could be endorsed to the fact that consumers are keen to adopt the online shopping on the bases of ease of use. Such consumers eventually tend to classify the usefulness of technology in emerging markets. Scholars are recommended to apply these constructs in their research to get more insights from their target audiences and add new facts to the literature.

Finally, this study has revealed another significant outcome: consumers’ might have a particular opinion of online social network exhaustion when they are using online shopping platforms. So, an in-depth examination into this new research field looks to be a promising direction for scholars in emerging markets, since the study on the use of online social networks for shopping is presently in its early stages. Scholars should also uncover other environmental stimuli, which might play significant roles in developing online shopping intentions [84,85].

Managerial implications

Managers are strongly encouraged to improve their system and service quality, as this specific aspect is of great significance for the perceived enjoyment of consumers in using online shopping platforms. Managers should ensure that their systems execute transactions safely and timely, offer real-time consumer service, and justify issues among shoppers and merchants easily and quickly.

Moreover, managers should also consider the starring roles of artificial intelligence in online shopping. The easiest way to do this is to design and assimilate a command function related to voice into their webpages or apps. With the synthesis of voice command function and artificial intelligence, consumers could ask any questions about a specific product or service “anywhere anytime,” without the difficulty of in-depth searching and reading. Moreover, the issue of information overload is released with this kind of solution.

Limitations and Future Research Directions

Despite limitations, this study also gives instructions for future research. First, we checked and suggested that online shopping intentions based on the SOR paradigm in the context of an emerging market like Pakistan, future studies can further test our idea in other emerging markets or compare developed and developing countries. Moreover, a suggestion for prospective research can be, use of m-commerce, social commerce, f-commerce and w-commerce, accounting that it can play a considerable role in the progression and the innovation of online shopping approaches.

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Conflict of Interest

Authors declare no conflict of interest.

References

1. PTA (2017) PTA Annual Report 2016-17.
2. Bosnjak M, Galesic M, Tuten T (2007) Personality determinants of online shopping: Explaining online purchase intentions using a hierarchical approach. Journal of Business Research 60(6): 597-605.
3. Chou JS, Ting CC (2011) Will you spend more money and time on internet shopping when the product and situation are right?. Computers in Human Behavior 27(1): 203-208.
4. Chopdar PK, Sivakumar VJ (2018) Understanding psychological contract violation and its consequences on mobile shopping applications use in a developing country context. Journal of Indian Business Research 10(2): 208-231.
5. Mohammadi H (2015) Investigating users’ perspectives on e-learning: An integration of TAM and IS success model. Computers in Human Behavior 45: 359-374.
6. Rahayu R, Day J (2015) Determinant Factors of E-commerce Adoption by SMEs in Developing Country: Evidence from Indonesia. Procedia - Social and Behavioral Sciences 195: 142-150.
7. Kesari B, Atulkar S (2016) Satisfaction of mall shoppers: A study on perceived utilitarian and hedonic shopping values. Journal of Retailing and Consumer services 31: 22-31.
8. Liu F, Zhao X, Chau PYK, Tang Q (2015) Roles of perceived value and individual differences in the acceptance of mobile coupon applications. Internet Research 25(3): 471-495.
9. Xu C, Peak D, Prybutok V (2015) A customer value, satisfaction, and loyalty perspective of mobile application recommendations. Decision Support Systems 79: 171-183.
10. Bui M, Kemp E (2013) E-tail emotion regulation: examining online hedonic product purchases. International Journal of Retail & Distribution Management 41(2): 155-170.
11. Lin S, Shen Y (2011) Taobao Data on Women’s Apparel Online Sales of Consumer Behavior Analysis. International Conference on Internet Technology and Applications.
12. Li M, Dong ZY, Chen X (2012) Factors influencing consumption experience of mobile commerce: A study from experiential view. Internet Research 22(2): 120-141.

13. Lin KY, Lu HP (2015) Predicting mobile social network acceptance based on mobile value and social influence. Internet Research 25(1): 107-130.

14. Mehrabian A, Russell JA (1974) An Approach to Environment Psychology: MIT, USA.

15. Babin BJ, Darden WR, Griffin M (1994) Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value. Journal of Consumer Research 20(4): 644-656.

16. Peng C, Kim YG (2014) Application of the Stimuli-Organism-Response (S-O-R) Framework to Online Shopping Behavior. Journal of Internet Commerce 13(3-4): 159-176.

17. Monsuwé TPY, Dellaert BGC, Buyter KD (2004) What drives consumers to shop online? A literature review. International Journal of Service Industry Management 15(1): 102-121.

18. Grace D, Ross M, Shao W (2015) Examining the relationship between social media characteristics and psychological dispositions. European Journal of Marketing 49(9/10): 1366-1390.

19. Zhang B, Xu H (2016) Privacy Nudges for Mobile Applications: Effects on the Creepiness Emotion and Privacy Attitudes. ACM Conference on Computer-Supported Cooperative Work & Social Computing.

20. Parboteeah DV, Valachich JS, Wells JD (2009) The Influence of Website Characteristics on a Consumer's Urge to Buy Impulsively: INFORMS.

21. Eroglu SA, Maclellan KA, Davis LM (2001) Atmospheric qualities of online retailing: A conceptual model and implications. Journal of Business Research 54(2): 177-184.

22. Wang YY, Hernandez MD, Minor MS (2013) Web aesthetics effects on perceived online service quality and satisfaction in an e-tail environment: The moderating role of purchase task. Journal of Business Research 63(9-10): 935-942.

23. McKinney LN (2004) Creating a satisfying internet shopping experience via atmospheric variables. International Journal of Consumer Studies 28(3): 268-283.

24. Kim J, Lennon SJ (2013) Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention. Journal of Research in Interactive Marketing 7(1): 33-56.

25. Hsu CL, Chang KC, Chen MC (2012) The impact of website quality on customer satisfaction and purchase intention: perceived playfulness and perceived flow as mediators: Springer-Verlag New York, Inc, USA.

26. Delone WH, Mclean ER (2003) The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. Journal of Management Information Systems 19(4): 9-30.

27. Sang JK, Park E, Kim KJ (2014) What drives successful social networking services? A comparative analysis of user acceptance of Facebook and Twitter. Social Science Journal 51(4): 534-544.

28. Hew JJ, Leong LY, Tan WH, Lee VH, Ooi KB (2018) Mobile social tourism shopping: A dual-stage analysis of a multi-mediation model. Tourism Management 66: 121-139.

29. Hew JJ, Lee VH, Leong LY, Hew TS, Ooi KB (2016) The dawning of mobile tourism: what contributes to its system success? International Journal of Mobile Communications 14(2): 170-201.

30. Zhou T, Li H, Liu Y (2010) The effect of flow experience on mobile sns users' loyalty. Industrial Management & Data Systems 110(6): 930-946.

31. Davis FD (1989) Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. Mis Quarterly 13(3): 319-340.

32. Hong SJ, Thong JYL, Moon JY, Tam KY (2008) Understanding the behavior of mobile data services consumers. Information Systems Frontiers 10(4): 431.

33. Fu S, Yan Q, Feng GC (2018) Who will attract you? Similarity effect among users on online purchase intention of movie tickets in the social shopping context. International Journal of Information Management 40: 88-102.

34. Moslehpour M, Pham VK, Wong WK, Bilgegil (2018) e-Purchase Intention of Taiwanese Consumers: Sustainable Mediation of Perceived Usefulness and Perceived Ease of Use. Sustainability 10(1): 234.

35. Lin KY, Lu HP (2011) Why people use social networking sites: An empirical study integrating network externality and motivation theory. Computers in Human Behavior 27(3): 1152-1161.

36. Deci EL (1975) Intrinsic motivation. Plenum Press.

37. Davis FD, Bagozzi RP, Warshaw PR (1992) Extrinsic and intrinsic motivation to use computers in the workplace. Journal of Applied Social Psychology 22(14): 1111-1132.

38. Pantano E, Rase A, Bailer, D (2017) Enhancing the online decision-making process by using augmented reality: A two country comparison of youth markets. Journal of Retailing & Consumer Services 38: 81-95.

39. Ahn T, Ryu S, Han I (2007) The impact of Web quality and playfulness on user acceptance of online retailing. Information & Management 44(3): 263-275.

40. Park E, Pobil APD (2013) Modeling the user acceptance of long-term evolution (LTE) services. annals of telecommunications - Annals of telecommunications 68(5-6): 307-315.

41. Bellenger DN, Korgonkar PK (1980) Profiling the Recreational Shopper. Journal of Retailing 5(63): 77-92.

42. Li H, Daugherty T, Bocca F (2001) Characteristics of virtual experience in electronic commerce: A protocol analysis. Journal of Interactive Marketing 15(3): 13-30.

43. Sebastianelli R, Tamimi N, Rajan M (2008) Perceived Quality of Online Shopping: Does Gender Make a Difference? Journal of Internet Commerce 7(4): 445-469.

44. Li H, Daugherty T, Bocca F (2002) Impact of 3-D Advertising on Product Knowledge, Brand Attitude, and Purchase Intention: The Mediating Role of Presence. Journal of Advertising 31(3): 43-57.

45. Lee HH, Fiore AM, Kim J (2006) The role of the technology acceptance model in explaining effects of image interactivity technology on consumer responses. International Journal of Retail & Distribution Management 34(8): 621-644.

46. Zhou T, Li H, Liu Y (2015) Understanding mobile IM continuance usage from the perspectives of network externality and switching costs. International Journal of Mobile Communications 13(2): 188-203.

47. Kim S, Eastin MS (2011) Hedonic Tendencies and the Online Consumer: An Investigation of the Online Shopping Process. Journal of Internet Commerce 10(1): 68-90.

48. Childers TL, Carr CL, Peck J, Carson S (2001) Hedonic and utilitarian motivations for online retail shopping behavior. Journal of Retailing 77(4): 511-535.

49. Agarwal R, Prasad J (1998) A Conceptual and Operational Definition of Personal Innovativeness in the Domain of Information Technology. Information Systems Research 9(2): 204-215.

50. Venkatesh V, Davis FD (2000) A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science 46(2): 186-204.

51. O’Cass A, Fenech T (2003) Web retailing adoption: exploring the nature of internet users Web retailing behaviour. Journal of Retailing & Consumer Services 10(2): 81-94.

52. Chang CC, Hung SW, Cheng MJ, Wu CY (2015) Exploring the intention to continue using social networking sites: The case of Facebook. Technological Forecasting & Social Change 95: 48-56.

53. Lièbana-Cabanillas F, Sánchez-Fernández J, Muñoz-Leiva F (2014) The moderating effect of experience in the adoption of mobile payment tools in Virtual Social Networks: The m-Payment Acceptance Model in Virtual Social Networks (MMP-MSN). International Journal of Information Management 34(2): 151-166.
54. Nikou S, Bouwman H (2014) Ubiquitous use of mobile social network services: Pergamon Press, Inc, UK.

55. Rauniainen R, Raveski G, Yang J, Johnson B (2014) Technology acceptance model (TAM) and social media usage: an empirical study on Facebook. Journal of Enterprise Information Management 27(1): 6-30.

56. Dutot V (2015) Factors influencing Near Field Communication (NFC) adoption: An extended TAM approach. Journal of High Technology Management Research 26(1): 45-57.

57. Sim JJ, Tan WH, Ooi KB, Hew TS (2014) Understanding and predicting the motivators of mobile music acceptance – A multi-stage MRA-artificial neural network approach. Telematics & Informatics 31(4): 569-584.

58. Chung YJ, Totten JW (2012) Self-constructivist role in mobile TV acceptance: An extension of TAM across cultures. Journal of Business Research 65(11): 1525-1533.

59. Akhlaq A, Ahmed E (2015) Digital commerce in emerging economies. International Journal of Emerging Markets 10(4): 634-647.

60. Cho YC, Sagynov E (2015) Exploring Factors That Affect Usefulness, Ease Of Use, Trust, And Purchase Intention In The Online Environment. International Journal of Management & Information Systems 19(1): 21.

61. Hur HJ, Lee HK, Choo HJ (2017) Understanding usage intention in innovative mobile app service: Comparison between millennial and mature consumers. Computers in Human Behavior 73: 353-361.

62. Heijden HVD (2004) User Acceptance of Hedonic Information Systems. MIS Quarterly 28(4): 695-704.

63. Sun Y, Wang N, Shen X, Zhang JX (2015) Location information disclosure in location-based social network services. Computers in Human Behavior 52: 278-292.

64. Wong CH, Tan WH, Tan BI, Ooi KB (2015) Mobile advertising: The changing landscape of the advertising industry. Telematics & Informatics 32(4): 720-734.

65. Mathwick C (2002) Understanding the online consumer: A typology of online relational norms and behavior. Journal of Interactive Marketing 16(1): 40-55.

66. Juhyeon K, Kyungmo A, Namho C (2013) Examining the factors affecting perceived enjoyment and usage intention of ubiquitous tour information services: a service quality perspective. Asia Pacific Journal of Tourism Research 18(6): 598-617.

67. Liu Y, Chen Y, Zhou C (2010) Determinants of Customer Purchase Intention in Electronic Service. International Conference on E-Business and Information System Security.

68. Hair JF, Sarstedt M, Ringle CM, Mena JA (2012) An assessment of the use of partial least squares structural equation modeling in marketing research. Journal of the Academy of Marketing Science 40(3): 414-433.

69. Chin WW (1998) The partial least squares approach for structural equation modeling, 295: 295-336.

70. Ringle C, Wende S, Will A (2005) The Interaction Effect of Perceived Competence and Goal Harmony on Perceived Usefulness. Smart PLS 2.0 M3 7(8).

71. Henseler J, Ringle CM, Sinkovics RR (2009) The use of partial least squares path modeling in international marketing New challenges to international marketing. Emerald Group Publishing Limited, pp. 277-319.

72. Hair JF, Ringle CM, Sarstedt M (2011) PLS-SEM: Indeed a silver bullet. Journal of Marketing theory and Practice 19(2): 139-152.

73. Rouibah K, Lowry PB, Huang Y (2016) The effects of perceived enjoyment and perceived risks on trust formation and intentions to use online payment systems: New perspectives from an Arab country. Electronic Commerce Research and Applications 19: 33-43.

74. Sohaib O, Kang K (2015) Individual level culture influence on online consumer iTrust aspects towards purchase intention across cultures: A S-O-R model. International Journal of Electronic Business 12(2): 142.

75. Leung L, Wei RAN (1999) Who are the mobile phone have-nots? Influences and consequences. New Media & Society 1(2): 209-226.

76. Vishwanath A, Goldhaber GM (2003) An examination of the factors contributing to adoption decisions among late-diffused technology products. New Media & Society 5(4): 547-572.

77. Bagozzi RP, Yi Y (1988) On the evaluation of structural equation models. Journal of the academy of marketing science 16(1): 74-94.

78. Fornell C, Larcker DF (1981) Evaluating structural equation models with unobservable variables and measurement error. Journal of marketing research 18(1): 39-50.

79. Chan TKH, Cheung CMK, Lee ZWY (2017) The state of online impulse-buying research: Elsevier Science Publishers.

80. Henderson R, Divett MJ (2003) Perceived usefulness, ease of use and electronic supermarket use. International Journal of Human-Computer Studies 59(3): 383-395.

81. Wu JH, Wang SC, Lin LM (2007) Mobile computing acceptance factors in the healthcare industry: a structural equation model. International Journal of Medical Informatics 76(1): 66-77.

82. To PL, Liao C, Lin TH (2007) Shopping motivations on Internet: A study based on utilitarian and hedonic value. Technovation 27(12): 774-787.

83. Sikdar P, Sikdar P, Alam MM (2016) E-Retail Adoption in Emerging Markets: Applicability of an Integrated Trust and Technology Acceptance Model. IGI Global.

84. Klein LR (2003) Creating virtual product experiences: The role of telepresence. Journal of Interactive Marketing 17(1): 41-55.

85. Holbrook MB (1986) Emotion in the Consumption Experience: Toward a New Model of the Consumer.