Review Article

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. Eroglu, 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)				
SSQ1	0.896			
SSQ 2	0.902	0.901	0.773	0.931
SSQ 3	0.911			
SSQ 4	0.803			
Utilitarian shopping orientation (USO)				
USO1	0.911			
USO2	0.899			
USO3	0.91	0.91	0.788	0.937
USO4	0.828			
Hedonic shopping orientation (HSO)				

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	0.8	0.816	0.644	0.879
PU4	0.816		
Perceived Ease of Use (PEU)			
PEU1	0.91		
PEU2	0.913		
PEU3	0.903	0.901	0.774	0.932
PEU4	0.788		
Perceived enjoyment (PE)			
PE1	0.895		
PE2	0.91	0.916	0.75	0.937
PE3	0.863		
PE4	0.876		
Shopping intentions (SI)			
SI1	0.916		
SI2	0.92	0.911	0.849	0.944
SI3	0.976		

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] (, 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).

Table 2: Descriptive statistics of respondents' characteristics.

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

	<2 Years	127	41.9
Experience	2-5 Years	113	37.3
	>5 Years	**63**	**20.8**

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) fulfil 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

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.

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