
Influencing Mechanism of Openness to Experience Personality Trait on Online Purchase Intention of Pakistani Customers

Iqbal, M.K.^a Raza, A.^b and Farhan, M.^c

^{a,b,c} Knowledge Unit of Business, Economic, Accountancy and Commerce, University of Management and Technology, Sialkot, Pakistan

^aKhalid.iqbal@skt.umt.edu.pk

^baliraza@skt.umt.edu.pk

^cmuhammad_farhan@skt.umt.edu.pk

Abstract

Online shopping is growing rapidly in 21st century, as compared to brick and mortar stores, electronic stores are offering more diverse products to the customers. Customers have more product choices, information and convenience for purchasing online. Studies on customer's personality variables have not been extensively done. Personality traits variable in context of online purchase intention is under investigation. Therefore, the aim of current study is to formulate and test a comprehensive research model to explain the influence of openness to experience personality trait on customers' acceptance of electronic commerce (online purchase intention) with the mediating effect of perceived usefulness and trust. The study analyzes the hypotheses employing Structural Equation Modeling (SEM) in Partial Least Square (PLS) software with data of 525 customers. Findings of the study revealed that openness personality trait has not only direct effect on OPI but have also indirect effect through PU and TRU as mediators. PU and TRU partially mediate the relationship between openness to experience and online purchase intention. Further, results of the current study suggest that personality traits of the Pakistani customers influence the online purchase intention. Moreover, study found that perceived usefulness and trust effect the online purchase intention of the customers. Trust is most important factor in purchasing online because uncertainty exists in the e-commerce industry of Pakistan.

Keywords: Openness to experience, Online Purchase Intention, Perceived Usefulness, E-Commerce, Trust

1. Introduction

Information technology becomes important aspect of our daily lives for previous few years. Increasing use of information technology in business environment significantly changed the society and business life, while the emergence and development of internet have contributed to the new approaches in business field. Due to the advancement of information technology, online shopping is increasing. The incessant sales growth showed that electronic commerce has tremendous market potential. This phenomenon acquires the same attention in both industry and as well as academia. Even though Pakistan is a small developing country in Asian region with internet penetration of 21% of the total population (Farooq, 2018) and it's increasing significantly. Pakistan is in developing phase of e-commerce and according to Sheikh (2018) Pakistan's e-commerce market will cross 1 billion dollar this year. It has been more than a decade as e-commerce first evolved. Practitioners and researchers in the e-commerce constantly struggle to find better insight in the consumer behavior in internet (Nazir, Tayyab, Sajid, ur Rashid, & Javed, 2012). With the increasing trend of online shopping, researchers have focused their contemplation on explaining and understanding the new development.

Technology acceptance model (TAM) is regarded the most significant and functional model in the technological acceptance research (Venkatesh & Davis, 2000). TAM is extensively applied to predict how individuals accept and use the new Information Technology (IT). According to TAM, Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) are two beliefs which anticipate the intention to use IT (Venkatesh & Bala, 2008). Current study aims to predict individuals 'acceptance of e-commerce through integrating TAM with consumer's trust in online service providers. Trust is essential where uncertainty exist in the technology driven e-commerce environment. However, the researcher extended TAM by incorporating the trust construct to explain the phenomenon. Prior studies also integrated trust in the model and argue that trust is related to the PU and PEOU. There is empirical and theoretical support for incorporating trust with TAM.

Many studies have investigated the factors affecting the intention and acceptance of customer online purchases. Various factors influence the online purchase intention of individuals. With others, personality traits have also significant effect on individual behavior (Deniz & Erciş, 2008). Agarwal and Prasad (1999) stated that Fishbein and Ajzen (1975) clearly affirmed that they found personality construct as a external component of TRA. Personality factors are highly applicable in determining the customer behavior on the internet Amichai-Hamburger (2002). Studies on customer's personality variables have not been extensively done. Previous studies have inquired the effect of personality traits on the adoption of technology, for instance, internet use (Landers & Lounsbury, 2006), collaborative technology (Devaraj, Easley, & Crant, 2008) and social networking sites (Moore & McElroy, 2012). Previous scholars Moslehpour,

Pham, Wong, and Bilgiçli (2018) only examined the effect of conscientiousness personality trait on consumer's e-purchase intention. Previous study also suggested in their future research to check the impact of personality traits on online purchase intention (Law, Kwok, & Ng, 2016). The aim of this study is to examine the influence of openness to experience personality trait (OPE) in determining the customers Online Purchase Intention (OPI) while using the Perceived Usefulness (PU) and Trust (TRU) as mediators. This is the first study that is going to check the effect of OPE on OPI along with PU and TRU.

2. Literature Review

2.1. Openness to Experience and Online Purchase Intention

Openness to new experience persons are curious, imaginative, interested to the new ideas and have variety of interest (Barrick & Mount, 1991). Researchers such as Keeton (2008) indicated that individual with high degree of openness would have high level of the technology acceptance. Openness to experience individuals like to buy online for the learning of new trends (Arnold & Reynolds, 2003). In another study Dobre and Milovan-Ciuta (2015) examined that openness to experience has small but significant effect on willing to buy online. According to the study of Özbek, Almaçık, Koc, Akkılıç, and Kaş (2014) openness to experience has significant effect on PEOU and has insignificant effect on PU. Keeton (2008) also found that there is significant relationship between openness to experience and PEOU. Researchers such as Zhou and Lu (2011) revealed that openness to experience has significant effect on trust. Openness to experience individuals will probably trust more to online retailers because they will enjoy purchasing from online sites which provide variety of products. So, study proposes the following hypothesis.

H1: Openness to experience positively related to online purchase intention.

H2: Openness to experience personality trait significantly affect perceived usefulness of online purchase intention.

H4: Openness to experience personality trait significantly affect customers trust in service providers.

2.2. Perceived Usefulness of Online Purchase Intention

Davis (1989) defined PU as "the degree to which a person believes that using a specific system would improve his job performance". Hernández, Jiménez, and José Martín (2011) unveiled that perceived usefulness has substantial consequence for online purchase intention in Spain.

Previous study revealed that internal and external both similarities have significant affect on perceived usefulness which turns exerted fundamental affect on customer's online purchasing behavior (Fu, Yan, & Feng, 2018). Previous study on technology acceptance revealed that perceived usefulness positively influence the online purchase of airlines tickets in Indonesia (Zhou, 2013). Researchers such as H. Kim and Song (2010) revealed that it was proved that perceived usefulness have a significant impact on online purchase intention. Another studies (J. B. Kim, 2012; Porter & Donthu, 2006) analyzed that perceived usefulness is an important element of purchase intention. Hence, study will propose the following hypothesis.

H3: Perceived usefulness is positively related to online purchase intention.

H3.1: Effect of openness to experience on online purchase intention is mediated by perceived usefulness.

2.3. Trust in Perspective of Online Purchase Intention

Previous study on e-commerce examined the effect of trust on the repurchase intention. Findings of the study indicate that trust factor is critical in influencing the customers repurchase intention (Sullivan & Kim, 2018). A study on customers trust towards online buying behavior was conducted. The findings indicate that online purchase intention is influenced through e-channel customers trust (Pappas, 2016). Literature also examined the antecedents & effects of trust on online purchase intention and determinations proved that online purchase intention is positively determined by the online trust (Mansour, Kooli, & Utama, 2014). Customers trust, the element of the electronic marketplace not only affect their trust in others retailers but also influence the customer's online purchase intention (Hong & Cho, 2011). An empirical study found a significant & positive relationship among online trust & online purchase intention (Chang, Cheung, & Lai, 2005). Various studies have been conveyed to analyze the effect of trust on online purchase intention and resulted that online trust is an influential mediator of online purchase intention. Hence, trust formation has a positive and direct affect on online purchase intention. This study proposes the following hypotheses.

H5: Trust significantly affects customer's online purchase intention.

H5.1: Effect of openness to experience on online purchase intention is mediated by trust.

3. Methodology

3.1. Sample and Data Collection:

For the hypothesis testing, self-administered survey was conducted by shopping mall survey method in four big cities of Pakistan: Islamabad/Rawalpindi, Karachi, Lahore and Faisalabad. The mall intercept technique is supposed to present in-depth response regarding the particular research purpose (Bush & Hair Jr, 1985). Random sampling technique was used to choose the survey respondents. In this survey ask respondents to answer the questions regarding their behavior towards online purchasing. To check the non-response bias, early & late respondents (determined as the early 82% and late 18% to return the questionnaire) were equated on all the main variables standards of theoretical model (Armstrong & Overton, 1977). No substantial differences were found among the early and late respondents. Common bias method was examined by the application of exploratory factor analysis. The results showed that data did not have the common bias method.

3.2. Theoretical Model

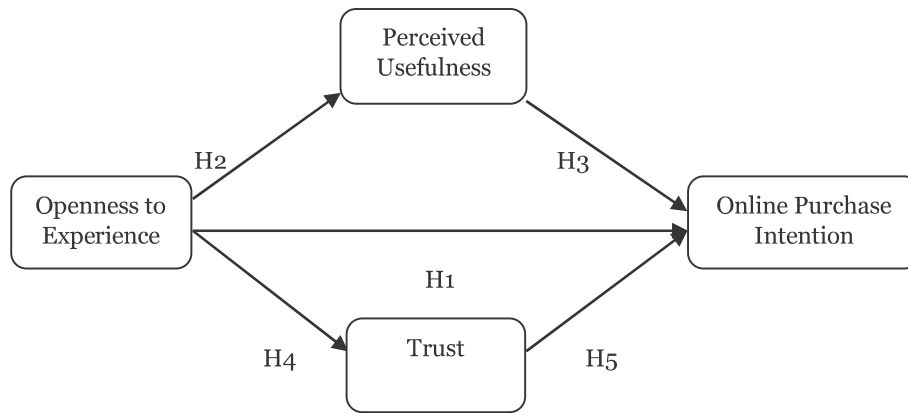


Figure1: Theoretical Model

3.3. Measurement Scale

Seven point likert scale (1= Strongly Disagree; 2= Disagree; 3= Somewhat Disagree; 4= Neutral; 5= Somewhat Agree; 6= Agree and 7= Strongly Agree) was used to evaluate the theoretical model concepts (Appendix 1). Online purchase intention was evaluated using the scale adopted from (Ajzen & Fishbein, 1980) with three items. Openness to experience construct was

measured using the scale adopted from Goldberg et al. (2006) consist of five items, assessing the individual behavior. Trust construct was measured using the scale adopted from Doney and Cannon (1997) with three items. PU was measured with five items scale adopted from (Davis, 1989).

4. Results

The study follows the two step approach for data analysis recommended by (Anderson & Gerbing, 1988). Measurement model was tested first to analyze reliability and validity. After that, structural model was tested to confirm the research hypothesis. First, confirmatory factor analysis was conducted to analyze validity and reliability of measurement model. Factor loadings, cronbach's alpha, composite reliability, average variance extracted and R² values are shown in the Table 1. To analyze the acceptability of model, it was executed an individual assessment of items. All factor loadings are higher than 0.50 and assuring the convergent validity (Bagozzi & Yi, 1988). Composite reliability of every variable is greater than the reference value (0.7) (Bagozzi & Yi, 1988). AVE in every variable is greater to the urged value of 0.5 (Fornell & Larcker, 1981), which suggests the convergent validity of variables (Chin, 2010). Confirmation of the discriminant validity is insured the reality that common variance between any two variables was lesser than standard variance explicated in items through the variables (Fornell & Larcker, 1981). Standardized root mean square residual (SRMR) was used to check the model fit, that defines the difference among the experimental correlation and model entailed correlation matrix. Henseler et al. (2014) Present that SRMR measure the goodness of the fit for PLS-SEM which can be employed to prevent the model misspecification. A value < .10 is conceived a good fit (Hu & Bentler, 1998). The value of SRMR= .065 suggests that model demonstrates a good fit.

Table 1: Measurement Items and Validity Assessment

Construct	Items	Factor Loadings	Cronbach Alpha	Composite Reliability	AVE	R2
Openness to experience	OPE1	0.678	0.765	0.841	0.520	-
	OPE2	0.698				
	OPE3	0.884				
	OPE4	0.723				
	OPE5	0.590				
Perceived Usefulness			0.746	0.832	0.501	0.467
	PU1	0.712				
	PU2	0.783				

	PU3	0.735				
	PU4	0.554				
	PU5	0.733				
Trust			0.733	0.847	0.651	0.249
	TRU1	0.755				
	TRU2	0.910				
	TRU3	0.842				
Online			0.803	0.885	0.720	0.552
Purchase	OPI1	0.795				
Intention	OPI2	0.911				
	OPI3	0.835				

Note. AGR = agreeableness; CON = conscientiousness; EXT = extroversion; NEU = neuroticism; OPI = online purchase intention; OPE = openness to new experience; TRU = trust. AVE= Average variance extracted

Table 2: Square Root of Average Variance Extracted HTMT Values for Each Construct

	OPE	OPI	PU	TRU
OPE	0.541			
OPI	0.646			
PU	0.761	0.882	0.759	
TR	0.405	0.322	0.291	0.352

Second, structural model was tested to confirm the research hypothesis with structural equation modeling (SEM) using the partial least square (PLS) technique. PLS is suitable for the explorative study as compared to covariance based LISREL (Chin, Marcolin, & Newsted, 2003). Conceiving that our research is exploratory and has average sized sample, the study applied smart PLS as data scrutiny instrument.

Table 3. Coefficients of The Structural Model and Hypotheses Testing Results

Hypothesis	Relationship	Path Coefficient	T Statistics	P Values	Hypothesis Results
H1	OPE -> OPI	0.171	4.339	0.000	Supported
H2	OPE -> PU	0.243	5.647	0.000	Supported
H4	OPE -> TR	0.278	5.088	0.000	Supported
H3	PU -> OPI	0.517	14.552	0.000	Supported
H5	TR -> OPI	0.068	1.915	0.028	Supported

* Significant at 5% for the one-tailed test (>1.65).

Table 3 shows that all path coefficients are significant at 95% confidence interval.

4.1. Mediation Analysis

The study also carried post-hoc examination and analyzed the mediating effect of PU and TR on relationship among the OPE and online purchase intention. Mediation effect of the construct can be accomplished through following (Preacher & Hayes, 2008) procedure because this method does not have the strict distributional assumptions (Hair, Ringle, & Sarstedt, 2013).

Table 4 shows the mediating effects of PU and TRU between the openness to experience and online purchase intention. The direct effect among OPE and online purchase intention was significant before introducing the PU as mediator. After introducing the mediator PU direct effect of OPE (path coefficient 0.200, T-value 4.882 >1.65) on OPI remain significant after including the mediators. VAF value of OPE is $0.3449/0.545 = 0.632$ and value of VAF is $0.1601/0.550 = 0.291$ which means that 63.2% and 29.1% of OPE's effect on OPI can be explained by the PU and TRU respectively. VAF values of OPE trait exceed then 0.2 so, partial mediation exists between OPE and OPI.

Table 4: Mediation Result Effect of PU and TRU

Total Effect of OPE on OPI							
Trait on OPE				Trait on OPI			
Trait	Coefficient	T Value	Coefficient	T value	Percentile Estimate	Bootstrap 95% confidence Interval	
						Lower	Upper
OPE	0.545	18.902	0.200	4.882	H2.3= a1b1 0.3449	0.130	0.266
OPE	0.550	19.019	0.523	16.203	H4.3= a1b1 0.1601	0.470	0.575

4.2. Practical Implications and Recommendations

The findings of the current study will allow both e-commerce retailers and e-commerce companies to think differently in e-commerce platform. Customers are changing their way of shopping from offline to online shopping but the rate of increasing the online users does not perfectly correlate with the rate of increasing in online shopping, still customers are relying on

traditional shopping method. The results of current study suggest that e-commerce retailers should provide effort less system to the customers and motivate them towards e-commerce adoption. E-commerce service providers should also require to give variety of services to their customers to enhance the usefulness of e-commerce, which ultimately accelerate the adoption rate of e-commerce in Pakistan. One of the implication from current study is that it's unlikely that "one size will fit all" in terms of the e-commerce technology related change retailers or companies' policies and initiatives. Personality traits of the users are among one of the aspect that affect the equation. Therefore, e-retailers or companies' awareness regarding the different personality traits and how they consider the new technology can lead to design better strategies overall.

The diverse effect of the openness to experience on customer acceptance of electronic commerce suggests that e-retailers need to carry market segmentation on the basis of customer's personalities. Incentive systems can be planned to target those individuals with a natural tendency to avoid system using. Researcher suggests that in cases where personality of the customers may inhibit them from utilizing the system extensively, appropriate reward systems may need to be placed to encourage those individuals to initiate the adoption of e-commerce and experience its usefulness. Incentives are influential tool for changing the behavior of individuals and can induce them to engage in the tasks that they might resist without incentive system (Steers & Porter, 1991). The significant effects of PU and trust also indicate that online retailers still can consider measures to encourage customers online purchase intention; though they cannot alter the customer's personality traits.

5. Discussion and Conclusion

The results of analysis support the hypotheses showing that there is a positive relationship between openness to experience on online purchase intention among Pakistani customers. All the hypotheses are accepted. The finding of the current study is consistent with Svendsen, Johnsen, Almås-Sørensen, and Vittersø (2013) that openness to experience has significant and positive effect on behavioral intention to use the new technology. As Keeton (2008) also indicated that individual with high degree of openness would have high level of the technology acceptance. The results are consistent with (Bosnjak, Galesic, & Tuten, 2007; Dobre & Milovan-Ciuta, 2015; Hamburger & Ben-Artzi, 2000; McElroy, Hendrickson, Townsend, & DeMarie, 2007) that openness to experience has significant positive effect on intention to use or buying through internet. This can be due to the reason that individuals who have high level of openness to experience accept the technology more easily (Özbek et al., 2014). Through adding to existing literature, the findings of current study support the previous findings (Zhou & Lu, 2011).

The current study proposed a model to predict the influence of openness to experience on online purchase intention of Pakistani customers. Research model was developed through integrating the trust with Technology Acceptance Model (TAM). To validate the conceptual model, data was gathered from Pakistani students and customers of the shopping mall. Data was analyzed through using PLS-SEM. This is the first study, which develops the comprehensive model to explain the e-commerce acceptance. As discussed earlier, past studies has concentrated on effect of the technology perception on the customer's behavior and neglected the personality traits effect on e-commerce. Present study fills this gap through investigating the influence of openness to experience personality trait on online purchase intention. The results of this study suggest that openness to experience trait of the Pakistani customers have significant effect on online purchase intention. This is an important contribution of this study.

The results of the current study propose that openness to experience trait customers of the Pakistan have more effect on online purchase intention. Results of the study provide guideline for the Pakistan's e-commerce service providers, Government and managers of the companies that how to improve the purchasing process of their customers. The results of current study suggest that E-commerce service providers should require to give services to their customers to enhance the usefulness of e-commerce, they need to provide easy and safe payment method to their customers. Which ultimately accelerate the adoption rate of e-commerce in Pakistan. Researcher suggests that in cases where personality of the customers may inhibit them from utilizing the system extensively, appropriate reward systems may need to be placed to encourage those individuals to initiate the adoption of e-commerce and experience its usefulness. Incentives are influential tool for changing the behavior of individuals and can induce them to engage in the tasks that they might resist without incentive system. The significant effects of PU and trust also indicate that online retailers still can consider measures to encourage customers online purchase intention; though they cannot alter the customer's personality traits. The findings of this study suggest that Government of Pakistan should also need to provide safe infrastructure to the telecommunication companies, and online service providers to enhance their online purchasing of airlines and train tickets.

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