



An Empirical Investigation of Relationship between M-Commerce and Online Repurchase Intention. The Moderating Role of Brand Image

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Abstract

Every research begins solving a problem or improving a system. In recent years, the intention to repurchase has become relevant in the digital market. Loyal customers provide corporations with long-term profits and are considered to be valuable assets. However, Industries are losing their customers on the Internet in a competitive environment due to brand image and other factors. This research demonstrates that how M-commerce and brand image effects the customer repurchase intention. Based on the literature review, a conceptual framework was developed. Information was gathered through experienced m-commerce consumers in Multan. After illumination of the information, Confirmatory factor analysis has been carried out. The analysis of the structural equation was used to check the hypotheses. For this reason, IBM SPSS was used. Research consequences demonstrate that quality of M-commerce and brand image has a major influence on the online repurchase intention. This can, of course, be used as the basis for better management of m-commerce services, so that the intention of an individual to make a re-purchase which can be increased until that person makes the first purchase. Brand image enhances M-commerce's impact to make an online re-purchase intention. The brand image plays a strong role in increasing an individual's desires in buying behavior, often someone is an impressionist of the behavior of the brand image. The brand image is used as a place for someone, especially adolescents (generation x) to find identity for their buying behavior and can even improve their social status.

Keywords: M-commerce, Brand image, Online Re-purchase Intention

1 Introduction

Smartphone use has grown explosively in recent years and has been highlighted in M-commerce.

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M-commerce is wide, which is scattered in different fields including services like, e-commerce, e-banking, location base services like Food panda, Careem, Banking apps, Daraz and Elo etc. Explosive consumption growth and market penetration of Smartphone enhances the customer purchase intention toward online shopping. The quality of M-commerce services is important to be able to provide information and interest to customers making purchases and repurchases because of good experience on Brands (goods & services). Pakistan is currently one of the world's fastest growing economies and has now begun to be one of the mobile industry's hottest destinations and regional retail and e-tail giants. Pakistan is expected to become one of the most Smartphone -savvy countries in the world with 125 million cellular users in 2015. According to GFK (growth from knowledge), a German market research institute ranked Pakistan as 2nd in the list of top Smartphone market in July 2017. Pakistan is among one of South Asia's highest countries with cellular subscribers which has 72% mobile phone penetration. This noticeable growth, together with 400 laces internet subscribers and 200 laces Facebook users, is customer assets and allow other operators to operate their own websites or option to sell their products online. Pakistan's e-commerce market is expected to surpass \$1 billion a year ago. Pakistan's e-commerce market nearly doubled in fiscal years 2017-18 as digitalization set the stage for the service industry to raise its gross domestic product (GDP) contribution from 52% to 60%, according to the State Bank of Pakistan (SBP). In fiscal year 2018, revenues of local and international e-commerce retailers exceeded Rs.40.1 billion compared to Rs. 20.7 billion in fiscal year 2017, driving growth of 93.7%. Although mobile phones and other apps can be created for mob-commerce quickly and easily, It is important to have a deeper understanding into consumer preferences and adoption of M-commerce (Chong et al., 2013). Users of mobile commerce are unpredictable in their acts and if they leave, they may not return to the action (Lin et al., 2004). It is, therefore, very important to maintain the loyalty of users to M-commerce's growth (Chong., 2013). Therefore, loyalty to brand which is offering perceived values that will increase repurchase intention in the minds of customers. Different experts have discussed M-commerce from various perspectives. But, in this research, we will define the relation and impacts of brand image on online repurchase through M-commerce. The company brand identity is a precious; it is hard-to-imitate intangible resource that can help an organization achieve consistent and superior financial performance (Roberts et al., 2002). Previous studies (Kuo et al., 2009; Wang et al., 2004) show that brand image, apparent quality and customer happiness are key factors in the success of companies and the creation of competitive advantages. Therefore, the whole study aims to understand the relationship between M-commerce, Online Repurchase Intention, and the brand image. The analysis is structured as follows literature on M-commerce and online repurchase intention has been reviewed with moderating role of brand image. After the literature review and hypotheses are proposed, a theoretical framework and methodology and Modeling of structural equations was performed as the statistical analysis methodology applied to the data collected. Finally, research is findings, conclusions implications limitations and future research discussed.

2 Literature Review

2.1 M-commerce impact on Online Re-purchase Intention;

Mobile commerce (m-commerce) is the use of portable devices (e.g. cell phones, PDAs and tablet computers) to perform new types of e-commerce transactions using wireless networks and other wired e-commerce technologies (Siau et al., 2003). In order to improve the behavior of customers for online buying, it is important that organizations understand better not only the preferences of consumers for the automation but also the technological factors that are best suited for online shopping throughout addition to these two significant viewpoints, faith plays an important role in the continuity of the intention to buy back online (Baptista et al., 2015). Therefore, M-commerce is technological factor that enhance online re-purchase intention. Enjoyment is also an important

factor in the sustained usage of technology. When a person engages him in an activity and he experiences joy after acting, this feeling of enjoyment is called pleasure (Moon et al., 2001). A user who believes pleasure and enjoyment can be derived from using a service is likely to use it extensively (Fan et al. 2005). The confidence in e-commerce is based on the process's consumer confidence. Trust is recognized as the key factor in e-commerce success and its impact on customer loyalty (Lin et al., 2005). When the online platform is easier to use, the customer will be given more trust and confidence. The limited display of mobile phones should be understood in terms of navigation and visual design, in order to provide a user experience that is comfortable and easy to use. Intention to re-purchase is the ongoing method of purchasing goods and services from a particular store or vendor (Hellier et al., 2003) and Shopping experiences are the main reason. Companies can hold previous customers with lower costs instead of attracting new customers (Zeithaml et al., 1996). The desire to repurchase is a positive attitude of customers towards e-retailers (Repeat buying behavior) (Zhou et al, 2009; Kim et al, 2012). The purpose of the repurchase is that customers are active in shopping online; consumers are going to rethink shopping online in the future and are interested in supporting online shopping as they do. Therefore, the first hypothesis is recommended as follows:

H1: M-commerce has a positive effect on Online Re-purchase Intention.

2.2 Strengthening effect of Brand Image on M-commerce & Re-purchase Intention;

Customers keep in mind a variety of business reflections. The brand image of the product is a powerful intangible resource that is difficult to replicate and can help an organization achieve consistent and superior financial performance (Roberts & Dowling, 2002). Consumers with greater brand recognition are more likely to engage in brand-friendly practices such as endorsing client goals, maintaining their image, promoting their brands and brand loyalty (Bhattacharya & Sen, 2003). A conceptual model associated with Store Brand Image is that a good brand attitude will have a positive impact on consumer preferences, for example better selling options for controlling premium prices, more trustworthy customers, and more constructive verbal ads. According to (Bagozi, 1989) in retail market dealing with the image of the store, store satisfaction. And as per (Clotty et al., 2008) Store loyalty Research has shown a strong and good relationship between Store Brand Image and customer satisfaction. The chances of a brand re-purchase would also increase by increasing consumer satisfaction. The findings of current studies in e-commerce and online shopping have been identical and (Collier & Bienstock, 2006) also endorsed it. (Kotler, et al, 2013) describe the brand image as a brand perception reflected in the brand association in customer's memory, where the brand affiliation is knowledge linked to them memory of an individual implying a brand available online in M-commerce. According to Peter et al. (1990), brand image is a description of customers' association & trust in a brand. Therefore, it reveals that the brand image is the perception and confidence of consumers in a brand that is reflected in the memory of customers. Customers with a positive brand image tend to repurchase online, so building a good brand image is valuable for a business. Then it will promote the usage of M-commerce. According to Peter, et al. (1990), a decision on repurchase, if customers are faced with choices such as brand name, price and other product attributes, customers tend to choose brands first, and the consideration on price will follow according to the results of research conducted bapista et al. (2015), brand image has a significant effect on repurchase intention. This research shows a strong image of the brand attached to products will impact consumers repurchase intention. Another research conducted by Lee et al. (2014) stated that brand image has a significant effect on customers' repurchase intention. Next, Kuo et al. (2019) stated that brand image has a significant effect on repurchase intention. Previous researches shows that the brand is the first factor when buying online on m-commerce costumers feel satisfied and shows trust in a brand.

H2: Brand image strengthens the relationship between M-commerce and Online Re-purchase Intention.

3 Theoretical Framework

The research model used in this study is shown in Figure 1:

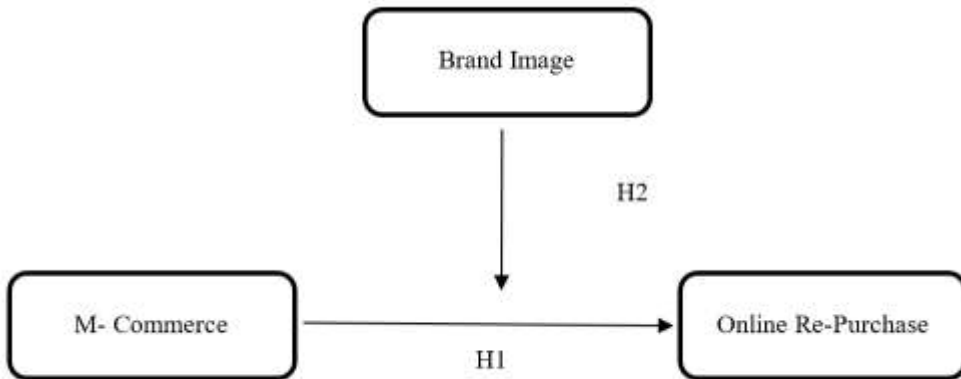


Figure 1: Research Model

Each of the model components is defined as follows:

Mobile Commerce. This reflects the use of mobile devices (e.g. cell phones, PDAs, and tablet computers) to perform modern e-commerce transactions using wireless networks and other wired e-commerce technologies. (Siau & Shen, 2003). Mobile devices like smart phones and certain apps which can be used to incur such transactions.

Repurchase Intention. According to Moon et al. (2001), repurchase intention is defined as A true activity of the purchaser in the purchase or reuse of the manufactured goods. It means that formerly a thing is purchased by a customer conceivably always have equal chances of repurchase. Once, a buyer buy a certain thing, he will potentially goes for a repeated purchase (Peyrot & Doren, 1994).

Brand image. Brand Image is the interpretation of customers and trust of a trade name that is reflected in customer understanding and believes embodied in their memory associations.

In diagram 1 research model show the relationship between the variables. Model shows that the M-commerce increases customer's online re-purchase intention because mobile & handheld computers are convenience way for shopping. Therefore, in current time mobile phone users increase explosively & online shopping trend has also enhanced due to convenient shopping & variety of products. When customer gets satisfaction from brand they purchase product and services again. Customer's portrait, the brand image on their perceptions and beliefs derived from the usage of products and services of brand that's why brand image act as catalyst between the m-commerce and online re-purchase intention.

4 Methodology

4.1 Research Design

In this research quantitative method and cross sectional time horizon was used. This study uses explanatory approach and the purpose for this research was basic which was conducted through a assessment The theoretical framework of research as in the diagram 1.

4.2 Sampling and Data Collection

The research questionnaire was reviewed by the M-commerce experienced customers. According to details of the inquiry by (Kuo & Yen, 2009) the questionnaire filled by the customers in this age range are predominantly university students and are spread throughout the entire institution. The sample was 90 percent of students collected from Bahauddin Zakariya University of Multan Pakistan. Sample in this study was collected using non-probability sampling method with purposive sampling technique. The research sample size contains 230 people. The questionnaire was sent online to 100 respondents together with team members, students of the university, faculty members, workers and remaining questionnaires were filled from students personally.

4.3 Measurement

The measures of Mobile commerce were taken from (Chong, 2013) and online re-purchase intention measures were adopted from (Zhou et al., 2009; Kim et al., 2012), while brand image measurement was adopted from the (Siau et al., 2003). All objects were calculated using 5-point Likert-scale where (1 is strongly agree to 5 is strongly disagree).

5 Analysis and Result

5.1 Demographic Characteristics of Samples

The results of demographic analysis are presented in Tables which are given below. Gender is relatively equal between (44.8%) women and (55.2%) men. The largest age group was 18 to 25 (73.5%), followed by 26-35(8.3%), 36-45(12.2%), 46-45(5.2%) and above age 55 (.9%). Respondent's academic performance was comparatively high. Many of the survey respondents had two online shopping experiences per month. The largest education group was graduates (43%) and then Master (38.7%), remaining are Matric (0.9%), M.phill (7.8%), and PH.D (1.7%). The demographic samples display diversity with almost equal gender representation in terms of age, income, and M-commerce experience.

5.2 Demographic statistics Tables

Table 1: Gender

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
Male	127	55.2	55.2	55.2
Female	103	44.8	44.8	100.0
Total	230	100.0	100.0	

Table 2: Age

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
18-25	169	73.5	73.5	73.5
26-35	19	8.3	8.3	81.7
36-45	28	12.2	12.2	93.9
46-55	12	5.2	5.2	99.1
Above 55	2	.9	.9	100.0
Total	230	100.0	100.0	

Table 3: Education

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
Matric	2	.9	.9	.9
Inter	18	7.8	7.8	8.7
Graduate	99	43.0	43.0	51.7
Master	89	38.7	38.7	90.4
M.phil	18	7.8	7.8	98.3
PHD	4	1.7	1.7	100.0
Total	230	100.0	100.0	

5.3 Descriptive Statistics

Cronbach’s α has been used to analyze all design scales first, to assess the appropriate level of reliability of the scales. Table which is given below shows that in all three constructs, Cronbach’s α values reached 0.7, suggesting acceptable reliability. The reliability can also be tested if the CR value is 0.70 or higher. Using confirmatory factor analysis (CFA), convergent and discriminating validity is evaluated. Through analyzing the factor loadings from the confirmatory factor analysis, convergent validity can be tested.

Table 4: Descriptive Statistics

Construct	Items	Mean	Std. Deviation	N	Cronbach's Alpha
Mobile Commerce (MC)	MC1	1.7739	.93043	230	0.755
	MC2	1.8522	.81732	230	
	MC3	1.8130	.86907	230	
	MC4	1.9565	1.00123	230	
Online Re-purchase Intention (ORI)	ORI1	2.2739	1.09334	230	0.803
	ORI2	2.2391	.89112	230	
	ORI3	2.3870	.97694	230	
Brand Image (BI)	BI1	1.9043	.89612	230	0.708
	BI2	2.0348	.82463	230	
	BI3	2.2391	.97981	230	

5.4 Hypothesis Testing

Tables indicate fit indices, acceptable values and empirical results focused on the suggested values for the overall model.

Table 5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.366	.126		10.811	.000
	M-commerce					

.370	.086	.275	4.317	.000
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Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.275a	.076	.072	.66956

H1: M-commerce has a positive effect on Online Re-purchase Intention;

The hypothesis is accepted as P-value 0.00, which is significantly lower than the level of 0.05. The value of standardized coefficient beta is 0.275, which tells us that increase in one unit of independent variable M-commerce leads to an increase in 0.275 units of dependent variable Online Re-purchase Intention. The value of R-square is 7.6%, which shows that independent variable M-commerce producing 7.6% change in dependent variable Online Re-purchase Intention. 92.4% change in Online Re-purchase Intention is still unexplained. Overall it is proven that M-commerce has positive relationship with Online Re-purchase Intention.

Table 7: Coefficients

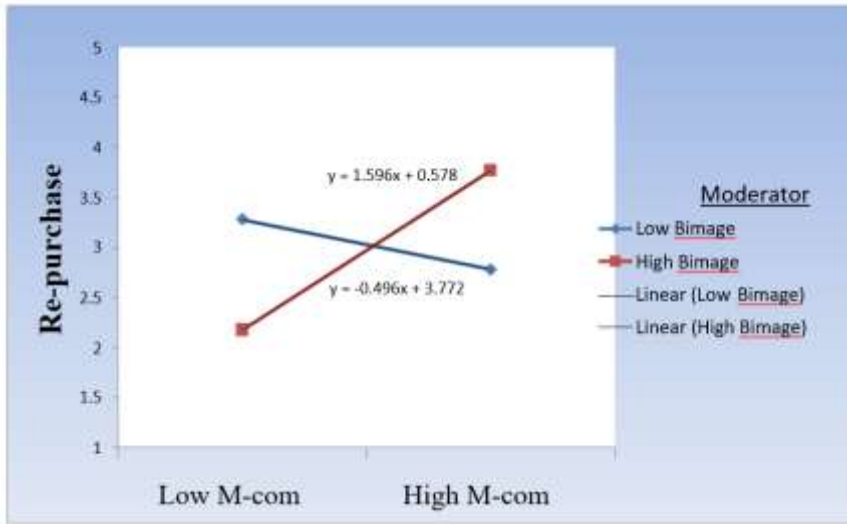
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.366	.126		10.811	.000
	M-commerce	.370	.086	.275	4.317	.000
2	(Constant)	1.373	.129		10.611	.000
	M-commerce	.398	.135	.296	2.946	.004
	Brand Image	-.033	.118	-.028	-.275	.783
3	(Constant)	1.560	.129		12.076	.000
	M-commerce	-.184	.176	-.137	-1.048	.296
	Brand Image	-.029	.113	-.025	-.260	.795
	Interaction term	.271	.055	.523	4.876	.000

a. Dependent Variable: online repurchase

Table 7: Moderation

	1	2	3
R Square	.076	.076	.164
Adjusted R Square	.072	.068	.153
M-commerce	0.275***		
M-commerce		0.296**	
Brand Image		-.028	
M-commerce			-.137
Brand Image			-.025
Interaction Term			0.523***

***values less than 0.00, **values between 0.01 – 0.05, *values less than= 0.10



6 Discussion:

Table 5 shows that the results of this study support hypotheses. Hypothesis is accepted as beta coefficient of interaction term is 0.523 significant at 0.00 levels. This means that increase in one unit of interaction term increases the dependent variable Online Re- purchase Intention by 0.523 units. The beta coefficient of independent variable M-commerce is 0.275 significant at 0.00 levels and it means that increase in one unit of independent variable leads to increase in .275 units of dependent variable. As there is an increase in the value of beta-coefficient from 0.275 before moderation is 0.523. After moderation, we can confidently state that moderation Brand Image strengthen the positive relationship between M-commerce and online Re-purchase Intention. The value of R-square increases from 0.76 to 0.164 which shows that there is an increase in explanatory power of the model after induction of moderating variable. Thus, we can conclude that moderating variable is strengthening the relationship between independent and dependent variable.

6.1 Conclusion

Research results demonstrate that the quality of M-commerce and Brand Image has major influence on Online Re-purchase Intention. This can, of course, be used as the basis for better management of M-commerce services, so that the intention of an individual to make a re- purchase which can be increased until that person makes the first purchase. Brand Image enhances M-commerce's impact to make an Online Re-purchase Intention. The brand image plays a strong role in increasing an individual's desires in buying behavior, often someone is an impressionist of the behavior of the Brand Image. The Brand Image is used as a place for someone, especially adolescents (generation x) to find identity for their buying behavior and can even improve their social status (Ranjbarian et al., 2012). Similar results had also been obtained in their study, except that the effect of M-commerce on the Re-purchase Intention was rated as very low. Therefore, it is advised to periodically evaluate the needs, desires, tastes and expectations of customers in order to update the purchase intention. Managers must also be more vigilant with regard to the quality of goods in shops and the speed of service. Some results suggest that the brand image influences customer satisfaction. In other words, a better image of the brand will result in customers being more satisfied. However, the results of the research show that M-commerce and Brand Image affect Online Re-purchase Intention. This research has important implications for action as well.

Our findings help M-commerce companies to understand important factors that affect online shopping continuity. Such understanding would help them improve their retention strategy for their clients.

6.2 Limitations and Future implications

This research refers to literature by incorporating M-commerce, Brand Image to predict Online Re-purchase Intention. The validity of the measuring model and the structural model's fitness is checked. Nonetheless, there are several drawbacks that need to be discussed further. In this study, the model accounts for 17% of the variation in the intention to buy back online which means that there are other considerations that need to be taken into account. Future research can identify other factors affecting Online Re-purchase Intention. Our sample demographics indicate that 43% of our samples are students and 38.7% are Masters and PhDs, and samples were obtained from Bahauddin Zakariya University Multan Pakistan. Educational level can affect the expectations and confidence of the consumers. Individuals with less experience may have different perceptions of a particular technology. Further studies can examine the effects on the intention to continue different levels of education. This research did not take into account the moderating impact of age, gender and experience. This limitation may be resolved by future research. The study was carried out by collecting data on the time horizon of the cross section. The behavior of consumers is unpredictable. A longitudinal study may be performed by researchers to compare and analyze the behaviors of consumers at different times and achieving more accurate results on the intention to re-purchase online. Further, the model of this study can be checked for the distinct types of relationships that occurred in the sample in different regions and cultures.

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