

## Factors Influencing B2C M-Commerce Satisfaction and Trust towards M-Commerce Service Providers

Avdhesh Gupta<sup>1,\*</sup>, Dr. Pankaj Madan<sup>2</sup> and Shalini Gupta<sup>3</sup>

<sup>1,\*</sup>Assistant Professor, College of Engineering Roorkee

<sup>2</sup>Associate Professor, Gurukul Kangri Vishwavidyalaya, Haridwar

<sup>3</sup>Assistant Professor, Virendra Swarup Group of Institutions, Kanpur

*The objective of this study is to providing the factors influencing satisfaction of B2C operations and trust towards m-commerce service providers. The sample size consists of 200 respondents. The results analysis shows that customer satisfaction towards the vendor was significantly influenced by ease-of-use, responsiveness, and brand image. The customer trust towards the vendor in m-commerce is affected by responsiveness, brand image and satisfaction towards the vendor in m-commerce. Based on the analysis, m-commerce service providers should focus on those factors, which can provide more satisfaction and trust from the customers. For m-commerce service providers, the results enable them to better develop the trust in m-commerce customers.*

**Keywords:** Business to Customers (B2C), M-Commerce.

### 1. INTRODUCTIONS

The e-commerce, or the buying and selling of goods and services on the Internet, has become a part of daily life for many people. As the Internet expands to every corner of the globe, it is becoming easier and easier to access it from a wide variety of devices. E-commerce over mobile devices has now been termed Mobile-Commerce (m-commerce). The m-commerce by definition is the e-commerce that is implemented using wireless solutions such as cell phones, pocket PC's, and PDAs. It allows a user to purchase goods and services on the move, anytime, and anywhere. Mobile commerce, or e-commerce over mobile devices, has become a major topic of interest for the IS research community and a key priority for many business organizations as it is becoming increasingly evident that PC-based e-commerce has not lived up to the expectations and achieved true mass adoption[1]. One of the most recent and significant changes in the business environment has been the growing demand for mobility. This means that customers, partners and employees should be able to access information resources and services of a company wherever and whenever they want[2].

Recent research has identified trust as a research issue in both e- and m-commerce[3,4]. Another recent studies examined a variety of topics including the impact of satisfaction on loyalty in m-commerce[5], factors affecting satisfaction in m-commerce[6] and the effect of culture on satisfaction[7]. It is relevant to the studies[8] found that the level of satisfaction is a key determinant of gaining customer trust in m-commerce. Hence, this study aims to provide an explanation on the factors that build customer trust towards

m-commerce service providers.

## 2. METHODOLOGY

The questionnaire is prepared using 'Gmail' online service, and then the questionnaire was distributed to users of m-commerce. It took a month to complete the data collection. The scale items for web site quality (i.e. interactivity and customization) were adapted. The scale items for mobile technology are quality (i.e. usefulness and ease-of-use). Items for vendor quality i.e. responsiveness and brand image were adapted. The questionnaires were constructed in five-point Likert scale where it ranges from '1' (strongly disagree) to '5' (strongly agree). Data were analysed using multiple regression analysis via the Statistical Package for Social Sciences (SPSS) version 16 computer program, when the focus is on the relationship between a dependent variable with one or more independent variables.

- H01 : Interactivity affects satisfaction towards the vendor in m-commerce.
- H02 : Interactivity affects trust towards the vendor in m-commerce.
- H03 : Customization affects satisfaction towards the vendor in m-commerce.
- H04 : Customization affects trust towards the vendor in m-commerce.
- H05 : Usefulness affects satisfaction towards the vendor in m-commerce.
- H06 : Ease-of-use affects satisfaction towards the vendor in m-commerce.
- H07 : Responsiveness affects satisfaction towards the vendor in m-commerce.
- H08 : Responsiveness affects trust towards the vendor in m-commerce.
- H09 : Brand image affects satisfaction towards the vendor in m-commerce.
- H10 : Brand image affects trust towards the vendor in m-commerce.
- H11 : Satisfaction affects trust towards the vendor in m-commerce.

## 3. ANALYSIS & INTERPRETATION

Table 1 summarizes the demographic profile of the sample collected. According to the table, there were 200 customers, who had participated in the survey with 82 of them, are males and 118 are females. As 88 percent of the customers which consist of 176 of them are between the age of 19-23 and the remaining 12 percent of the customers which consist of 24 of them are from the age between 21-24 years. The data has 196 respondents are undergraduate and 4 of them are Masters Degree. Other relevant information provided is the type of wireless handheld equipment which is cell phone, PDA phone and Smart phone.

**Table 1:** Demographic Profile of Respondents

Variable		Frequency	Percent
Gender	Male	82	41.0
	Female	118	59.0
Age	19-23	176	88.0
	24-28	024	12.0
Highest Education Level	Undergraduate	196	98.0
	Masters	004	02.0

Variable		Frequency	Percent
Wireless Handheld EquipmentType	Cell Phone	156	78.0
	PDA Phone	032	16.0
	Smart Phone	012	06.0
Number of M-Commerce Experience	1-3	058	29.0
	4-6	066	33.0
	> 7	076	38.0

In order to avoid redundancy, the data have been summarizing into the number of m-commerce experiences. Respondents were given 15 choices which are SMS, buy ticket, video calls, MMS, mobile payment, ring tone, news, banking service, local map, email, weather forecast, wallpaper/screensaver, games, browsing Internet and local information. The survey shows that, 29 percent have experience 1-3 types of m-commerce experiences, 33 percent have experience 4-6 types, and 38 percent have experience more than 7 types of m-commerce.

### 3.1. Reliability Analysis

The research instrument was tested for reliability using Cronbach's coefficient alpha estimate. The degree of consistency of a measure is referred to as its reliability or internal consistency. A value of 0.70 or greater is deemed to be indicative of good scale. The Cronbach's alpha for the five factors range from 0.816 to 0.937, suggesting that the constructs measures are deemed reliable (Table 2).

**Table 2:** Reliability Test

Variable	No of Item	Cronbach's Alpha
Interactivity	3	0.873
Customization	3	0.834
Responsiveness	3	0.816
Brand image	3	0.871
Satisfaction	3	0.905
Trust	3	0.841
Easy-of-use	3	0.893
Usefulness	2	0.937

### 3.2. Correlation Analysis

The interrelationships between the seven variable measurements were examined through correlation analyses. According to Simon[9], correlation values at +0.01 and above are significant but shows little association, values that are above +0.3 and are lesser than +0.7 depicts weak positive association while values above +0.7 to +1.0 shows strong positive association. Table 3 describes that all of the Pearson's correlations between the

variables are positively significant at 0.01 level. The usefulness had the highest mean of 3.380 whereas the customization had the highest standard deviation of 0.894. The skewness of all the items ranges from -0.081 to -0.726 below  $\pm 2.0$ . Similarly, the values for kurtosis ranges from 0.135 to 1.375 well below the threshold of  $\pm 10$ . Both the skewness and kurtosis are low for the most part, indicating that the scores approximate a “normal distribution” or “bell-shaped curve”.

**Table 3: Correlation between the Factors**

	1	2	3	4	5	6	7	8
(1) Interactivity	1							
(2) Customization	.615(**)	1						
(3) Responsiveness	.561(**)	.687(**)	1					
(4) Brand image	.514(**)	.558(**)	.485(**)	1				
(5) Satisfaction	.483(**)	.594(**)	.618(**)	.631(**)	1			
(6) Trust	.530(**)	.665(**)	.638(**)	.706(**)	.759(**)	1		
(7) Easy-of-use	.340(**)	.426(**)	.373(**)	.469(**)	.549(**)	.541(**)	1	
(8) Usefulness	.379(**)	.425(**)	.361(**)	.468(**)	.516(**)	.562(**)	.742(**)	1
Mean	3.270	3.287	3.113	3.240	3.185	3.287	3.373	3.380
Std. Deviation	0.828	0.894	0.893	0.764	0.884	0.789	0.861	0.836
Skewness	-0.497	-0.573	-0.081	-0.726	-0.443	-0.616	-0.614	-0.122
Kurtosis	0.640	0.345	0.135	1.375	0.502	0.711	0.706	0.326

\*\* Correlation is significant at the 0.01 level (2-tailed).

### 3.3. Multiple Regression Analysis

To further testing the hypotheses of this study, multiple regression analysis was performed. The analysis revealed that the model significantly predicted a sizable proportion of variance in users' satisfaction towards the vendor, ' $F(3, 196) = 45.019, p < 0.05$ '.  $R^2$  for the model was 0.583, and adjusted  $R^2$  was 0.570. Table 4 displays the standardized regression coefficients ( $\beta$ ), and 't' statistics for each variable. The level of significance ( $\alpha$ ) was set at 0.05. Hypotheses 1, 3 and 5 postulate the associations between satisfaction towards the vendor in m-commerce and three antecedents of vendor's website quality: interactivity, customization and usefulness. As evident in Table 4, users' satisfaction towards the vendor in m-commerce is not significantly influenced by usefulness ( $\beta_5 = 0.081$ ), interactivity ( $\beta_1 = 0.001$ ) and customization ( $\beta_3 = 0.104$ ). Hence, the proposed hypotheses are not supported,  $p > 0.05$ .

**Table 4:** Relationship between Independent Variables and Satisfaction towards the Vendor in M-Commerce

Variable	Standardized Beta ( $\beta$ )	't'-value
Interactivity	00.001	-0.721
Customization	00.104	0.018
Responsiveness	00.300	1.444*
Brand image	00.299	4.511*
Easy-of-use	00.192	4.873*
Usefulness	00.081	2.691
F	45.019	
$R^2$	00.583	
Adjusted $R^2$	00.570	
Standard Error	00.580	

\* $p < 0.05$

Hypothesis 6, 7 and 9 explicate the associations between users' satisfaction towards the vendor in m-commerce and three antecedents of vendor's website quality: ease-of-use, responsiveness, and brand image. This study asserts that users' satisfaction towards the vendor in m-commerce includes three dimensions: ease-of-use, responsiveness, and brand image. Table 4 depicts that users' satisfaction towards the vendor in m-commerce is significantly influenced by ease-of-use, responsiveness, and brand image ( $\beta_6 = 0.192$ ,  $\beta_7 = 0.300$ ,  $\beta_9 = 0.299, p < 0.05$ ). As a result, the hypotheses are supported. 58.3 percent of variance in users' satisfaction towards the vendor in m-commerce is explained by the interactivity, customization, usefulness, ease-of-use, responsiveness, and brand image.

Hypothesis 2 and 4 explains the impacts of interactivity and customization on trust towards the vendor in m-commerce. Results in Table 5 indicate that there is a statistical significant

influence between customization and trust towards the vendor in m-commerce ( $\beta_4 = 0.175$ ,  $p < 0.05$ ), demonstrating support for H4. However, hypothesis H2 is not satisfactorily demonstrated, confirming that there is no relationship between interactivity and trust towards the vendor in m-commerce ( $\beta_2 = 0.012$ ,  $p > 0.05$ ). Hypothesis 2 and 4 explicate the associations between responsiveness, brand image and satisfaction on users' trust towards the vendor in m-commerce. This study asserts that responsiveness ( $\beta_8 = 0.131$ ), brand image ( $\beta_{10} = 0.299$ ) and satisfaction ( $\beta_{11} = 0.379$ ) significantly influences trust towards the vendor in m-commerce, supporting H8, H10, H11. Accordingly, 70.5 percent of the variance in trust towards the vendor in m-commerce is explained by these five antecedents, indicating that the explanatory power of the model may be considered satisfactory and that the model fits the data and is appropriate to test the hypotheses.

**Table 5:** Relationship between Independent Variables and Trust towards the Vendor in M-commerce

Variable	Standardized beta	't'-value
Interactivity	00.012	0.238
Customization	00.175	2.889*
Responsiveness	00.131	2.243*
Brand image	00.299	5.571*
Satisfaction	00.379	6.614*
F	92.867	
R <sup>2</sup>	00.705	
Adjusted R <sup>2</sup>	00.698	
Standard Error	0.4340	

\* $p < 0.05$

#### 4. CONCLUSION

This research examines the factors that influence customers' satisfaction and trust towards the vendor in m-commerce. This study confirms that customer satisfaction towards the vendor in m-commerce was significantly influenced by ease-of-use, responsiveness, and brand image. Meanwhile, customer trust towards the vendor in m-commerce is affected by vendor's website quality elements such as responsiveness, brand image and satisfaction towards the vendor. Reminiscent of previous findings, the results indicated that responsiveness did directly lead to trust development. This may be because m-commerce customers were more concerned with vendor service honesty (responsiveness). Surprisingly, customers' satisfaction and trust towards the vendor in m-commerce is not significantly influenced by vendor's website quality in terms of interactivity. Vendor quality such as responsiveness and brand image does influence customers' satisfaction and trust towards the vendor in m-commerce.

The findings also reveal that ease of use is the only mobile technology quality factor that

influence trust towards the vendor in m-commerce[10]. Customers should be satisfied with the product or services they use in order to gain trust on it. In this case, customers should be satisfied with m-commerce service experiences so that they would have trust to use the services without hesitation and remain loyal to it. Moreover, this study has validated the determinants of satisfaction and trust, leading the way for a detailed exploration of how to improve customer satisfaction and trust towards the vendor in m-commerce. Despite the useful findings of this study, this empirical study has several limitations that need to be acknowledged. Several factors were examined in this study. Future studies should attempt to draw profiles based on characteristics other than these factors. Next, the data were collected from a convenience sample of 200 respondents, from 'Gmail' online questionnaire. Snowball sampling approach has been used to find out the real users of m-commerce, since usage of m-commerce is still in the nascent stage in India. The questionnaire has been filled by the users, who are involved in m-commerce transaction or have shifted from manual and e-commerce activities to m-commerce activities. However, deliberate effort has been made to bring randomness in the sample chosen by selecting the respondents based on random sampling from the list of m-commerce users made with the help of snowball sampling.

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