Role of Device Features towards Intention to Use of M-Commerce

Shamsudin, M.F. [1]*, Khairul Shahida Shabi. [2], Hussain, H.I. [3], Salem, M.A. [4]

[1,2] Universiti Kuala Lumpur Business School
[3] Taylor's University

Abstract

Community College of QatarInformation Communication and Technology has undergone the spectacular development across the region, which has contributed to the world involvement of information and innovation together with the expansion of massive business growth. The advancement of technology and communication exposed people to vary option of device and facilities experience better daily life. Nowadays, people are becoming familiar with the rapid growth of technology through the usage of Internet and mobile device with better infrastructure. Device feature (DF) also was found to be one of the strongest predictors to use m- commerce among respondents. Device feature is referring to the device technology design characteristics which imply the user intention to adopt m- commerce. It might be because; the users are more concern to use the mobile device with user- friendly specification which allows them to view and experience the m- commerce to the optimum level. The well performed device anticipated to offer a better experience in using m- commerce to the users. As mentioned earlier, the respondents involved are among youngsters or to be specific students where it is anticipated that this group of people who are more exposed to the technology advancement compared to earlier generations. Most of the respondents can be classified as generation Y which might explain to this finding where they concern to have better and suitable device to use m- commerce, which covers on the screen quality, the speed of the device also in term of access quality.

Keywords: Device Features, Information Communication and Technology, M-Commerce

1. Introduction

Information Communication and Technology has undergone the spectacular development across the region, which has contributed to the world involvement of information and innovation together with the expansion of massive business growth. The advancement of technology and communication exposed people to vary option of device and facilities experience better daily life. Nowadays, people are becoming familiar with the rapid growth of technology through the usage of Internet and mobile device with better infrastructure.

Mobile technology is rapidly growing with some features embedded in each innovation, especially the usage of smartphones and tablets [1]. Besides, the well infrastructure of the network became a major factor contributing to the mobile service performance. Well development of mobile technologies has provided bright future of business opportunity besides, enhanced user business activities [2]. M-commerce has established alternatives in business industries with integration of internet and mobile technology.

This study targeted to provide extensive information on the business organization that recently focusing on developing mobile or internet purchase methods which indicate the behavioral and technical issue involving the consumers and providers.

2. Mobile Commerce (M- Commerce)

The recent combination of mobile application and e-commerce has delivered new trends of conducting business transaction called m-commerce [3]. It can be defined as a transaction conducted through wireless devices (mobile) with the integrate of the internet. Term wise m-commerce defined any transaction conducted through a variety of mobile equipment over a wireless telecommunication network in a wireless environment [4].

The mobile subscribers have already surpassed 5 billion users worldwide [5]. This presented the growth of this new trend towards commerce industries. This new trend of business influenced by the rapid growth of personal computers and the Internet created opportunities for e-commerce, which lead to introduction of m- commerce [6]. Moreover, the development of e- commerce in the countries is differs compared to each other due to the different stage of internet and mobile technology maturity, network provider and user perspective.

3. Device Features (DF)

Previous studies have perception towards hardware and software features which highlighted the potential usage [7]. DF representing the hardware features that being built for the user which foresee to encourage the user intention to adopt the m-commerce [8]. Device feature considered as the value which might consist of the screen and display features, screen resolution,

device speed performance and functional fit keypad which match with the m- commerce platform [9]. This variable should establish new indicator where it perceived inclination among the user to adopt m-commerce. This study posits that:

H1: Device features have a positive and significant relationship with m-commerce adoption.

4. Methodology

Data was collected through online survey [10]. Questionnaire was developed using survey monkey as the tool to administer [11]. Questionnaire were distributed through social media. An invitation notes was posted in the page inviting viewer to participate in the survey [12]. 240 questionnaires received after 7 days and 233 was usable. The response rate is 97%.

5. Findings

Internal reliability and consistency of the items has been tested using a Cronbach alpha technique which has been set if the value retrieved is greater than 0.7, the result of the analysis can be accepted and considered as reliable.

Device features is one of the independent variables which consist of seven items. The scale produced an alpha 0. 786 satisfy the minimum requirement of the scale in determining the reliability of the instrument.

Table 1: Reliability statistics for Device features

Cronbach's Alpha	N of Items
.786	7

Table 2: Item statistics for Device features

Item Code	Item	Mean	Std. Deviation	N
DF1	Display quality motivates me to adopt m-commerce websites	3.391	.781	233
DF2	I have not had any limitations or problems in watching information displayed by m- commerce services	3.382	.812	233
DF3	The size of mobile device screen encouraged me to use m-commerce services	3.391	.824	233
DF4	Device performance speed motivates me to view information provided in m- commerce websites	3.416	.779	233
DF5	Device' s memory storage affects my interest to use m- commerce	3.519	.856	233
DF6	Device keypad design motivates me to use and access m- commerce websites	3.455	.787	233
DF7	The device design encourages me to use m- commerce	3.537	.866	233

Based on analysis, average mean scores by these items allocate under device features indicate the acceptable value which is 3.441. This also reflects the efficiency of instruments in getting a reliable understanding among respondents in order to test this variable whether it affects the dependent variable or not. It is also shown that, the respondents agree with the characteristics of the variable. Item DF7 scores the highest mean value with a score of 3.537 while item DF4 scores the lowest mean value which is 3.416.

Relationship: Device Features (DF) VS Intention to Use (IU)

The Pearson correlation coefficient value between VOS and Intention to Use indicates the significant relationship between these two variables which is 0.515. According to [13], this value shows the strong relationship between the two variables. Table 4, depicts the detail output related to these two variables. This result is accepted and supports the hypothesis as below:

H1: Device features have a positive and significant relationship with m-commerce adoption

6. Conclusion

Device feature (DF) also was found to be one of the strongest predictors to use m- commerce among respondents. Device feature is referring to the device technology design characteristics which imply the user intention to adopt m- commerce. It might be because; the users are more concern to use the mobile device with user- friendly specification which allows them to view and experience the m- commerce to the optimum level. The well performed device anticipated to offer a better experience in using m- commerce to the users. As mentioned earlier, the respondents involved are among youngsters or to be specific students where it is anticipated that this group of people who are more exposed to the technology advancement compared to earlier generations. Most of the respondents can be classified as generation Y which might explain to this finding where they concern to have better

and suitable device to use m- commerce, which covers on the screen quality, the speed of the device also in term of access quality. This highlight if the user is able to have or use a suitable device with some features and specification, it will enhance their intention to use m- commerce. The results somehow is consistent with [14] who conduct almost the same research in India.

Device features (DF) will totally provide input to developer to enhance the device design idea which suits with the user expectation. It is suggested to have more research industries to enhance their roles in gaining special specifications of device design to cater user needs in the future. Compared to the e-commerce application, m- commerce is mobility and should be able to support by any kind of suitable portable device. This might increase the industry performance while promoting the application of m- commerce.

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Table 3: Descriptive Statistic on Device features

Item Code	Item	N Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Variance Statistic
DF1	Display quality motivates me to adopt m-commerce websites	233	3.390	.051	.781	.610
DF2	I have not had any limitations or problems in watching information displayed by m- commerce services	233	3.382	.053	.812	.660
DF3	The size of mobile device screen encouraged me to use m-commerce services	233	3.391	.054	.824	.679
DF4	Device performance speed motivates me to view information provided in m-commerce websites	233	3.416	.051	.779	.606
DF5	Device's memory storage affects my interest to use m-commerce	233	3.519	.056	.856	.733
DF6	Device keypad design motivates me to use and access m- commerce websites	233	3.455	.052	.787	.620
DF7	The device design encourage me to use m- commerce	233	3.537	.057	.866	.750

Table 5: Correlation table of DF

		Device Features	Intention to Use
Device Features	Pearson Correlation	1	.515**
	Sig. (2-tailed)		.000
	N	233	233
Intention to Use	Pearson Correlation	.515**	1
	Sig. (2-tailed)	.000	
	N	233	233
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 6: Coefficients table

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.595	.239		2.485	.014
	Device Features (DF)	.165	.074	.153	2.211	.028
a. Dependent Variable: overall_INTENTION USE						