

Factors Moderating Students Adoption Decisions of Mobile Commerce

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Abstract

This research employs the TAM to examine student's perceived benefits and perceived barriers of using m-commerce in relation to student demographic factors such as gender, age, year of study, and college of study that moderate students adoption decisions of m-commerce. The study adopts a quantitative approach based on questionnaire development and distribution that resulted in a total sample of 1000 students. Empirical data was analyzed using SPSS-20 software program. First, in relation to gender results indicate that overall male students perceive more benefits in dealing with m-commerce than the female student feel. Second, concerning age, results show that students who are in the age group of '17~19' feel more benefits in dealing with m-commerce than the students who are in the age group of '20~more' feel. Third, concerning year of study, findings show that students who are in the year of study of 'freshman or sophomore' feel more benefits in dealing with m-commerce than the students who are in the later years of study 'junior or senior'. Fourth, concerning the college of study, results show that students who are studying in Public Universities feel more benefits in dealing with m-commerce than the students who are studying in the private universities feel.

Keywords: Mobile commerce; Perceived usefulness; Perceived ease of use; Gender; Age

Introduction

This research explores the phenomenon of mobile commerce using the technology acceptance model (TAM), perceived benefits and perceived barriers in relation various demographic factors. Mobile commerce (m-commerce) is any transaction-based activity that involves monetary value performed directly or indirectly through a wireless telecommunication network [1,2]. Nowadays smartphones are not just used as mediums for direct purchases; they are also considered an important tool for online product comparison from actual store showrooms. Consumers worldwide are finding it more convenient to browse and purchase products through their smart phones especially when using digital coupons and reward cards (Wireless week). At the heart of this growing trend is Starbucks recent coffee policy. It allows customers to take advantage of the holiday season by pushing them towards online purchases and pick up from desired location, in an effort to lessen the foot traffic and speed the ordering process and pick up of its products [3,4].

This study aims to contribute to literature by exploring the factors that affect university student's use of m-commerce in relation to their demographics: gender, age, year of study, and college of study in Kuwait. No studies have previously examined the moderating role of gender, age, students' year of study, and college of study in relation to m-commerce adoption. A recent study examined the relationship of gender differences on m-commerce adoption in Jordan using the TAM3 perspective [5]. As technology adoption is rising on all scales there's an increasing need to identify the moderating role of demographics and its effect on m-commerce adoption especially in the growing student population. Therefore, to fill this gap in and contribute to the m-commerce literature in developing countries this research aims to explore the moderating role of demographics and its effect on the adoption of m-commerce. First, the TAM model is used to understand the relationship of user's perceived ease of use and perceived usefulness in relation to student's demographic factors. Second, the study aims at exploring student's perceived benefits and perceived barriers of m-commerce in relation to demographic factor that either encourage or inhibit m-commerce usage.

Review of Literature

In an effort to understand user acceptance and adoption of m-commerce this research explores two important relationships. First, using the TAM model to examine the relationship of user demographics with perceived usefulness and ease of use. Second, to study the influence of student's demographics on the perceived benefits and perceived barriers of m-commerce when making the decision to adopt the technology.

Theoretical background

The TAM model was adapted from the theory of reasoned action (TRA) [6] and developed further by Davis [7,8]. The TAM is now a widely accepted model that consists of two main factors that determine a person's intention to use a technology, perceived ease of use (PEOU) and perceived usefulness (PU). The TAM constructs perceived ease of use and perceived usefulness were tested in relation to a user's behavioral intention (BI) to adopt a technology by undergoing three main experiments to uncover any biases that may occur when using the TAM [9,10].

Perceived usefulness and perceived ease of use

According to the TAM model perceived usefulness (PU) and perceived ease of use (PEOU) of a certain technology affects a user's decision in adopting or rejecting to adopt a technology [7,8]. Perceived ease of use is the degree to which "a person believes that using the system will be free of effort [8]." Perceived usefulness is the degree to which "a person believes that using a particular system would enhance his or

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her job performance [8].” Plenty of studies over time have used the TAM model to examine user acceptance of technology. Among them is a study that examined perceived ease of use and perceived usefulness of m-commerce to understand use acceptance of it [11], while other studies focused on the TAM in relation to gender and age [12].

Perceived benefits and perceived barriers

Previous studies indicated perceived benefits and perceived barriers of a certain technology are considered important predictors of a person intention to adopt and use technology [13,14]. These studies claim that a person’s perceived benefits and perceived barriers of a certain technology affect their adoption decisions and intentions to use the technology. A hierarchical model was developed to identify all the barriers affecting the growth of m-commerce in developing countries leading to a main concern that mobile usage is increasing at a very high rate while m-commerce services remain basic [15].

User demographics

The UTAUT states that user demographic factors such as gender and age are important moderators between the relationship of user acceptance, the dependent and independent variables [16]. Other studies found that the adoption of m-commerce is influenced by gender, age, income, work, family structure and marital status [17]. While a study found an important relationship between user demographics and user acceptance of m-commerce [18].

Gender

In relation to gender, previous studies used the TAM to examine gender difference between men and women to understand the adoption and use of technology in an organizational context. Evidence indicates women were affected more by technologies ease of use more than men [19]. Other studies have indicated that females are less likely to adopt and use technology than males. The reason behind these finding indicate that females are usually more hesitant than males to engage and adopt new technologies and even choose a future career that is related to technology [20-23]. In addition, the theory of trying was used to study the work environment, gender, and user’s ability to innovate with information technology [24]. However, other studies have conflicting findings. Studies indicate that with time females are adopting and accepting new technologies more than the past, where they are embracing technology usage such as personal computers and its applications at work and home [25]. Concerning e-commerce and gender differences studies show that men are more prone to purchase products online than women [26,27]. While other studies performed a detailed review of gender and e-commerce [28], activities that also resulted in mixed findings [29]. Given the contradictory finding stated above it is important to investigate gender differences and its relationship with new technology adoption, specifically m-commerce, as it is the new trend of wireless technology that is rapidly growing. Therefore, the following research hypothesis is examined:

H1a: Male students are positively influenced by perceived usefulness of m-commerce more than female students.

H1b: Male students are positively influenced by perceived ease of use of m-commerce more than female students.

H1c: Male students are positively influenced by the key benefits more than the key barriers of m-commerce than female students.

Age

In relation to age, it was found that young women positively

accept m-commerce more than older women [17]. Other studies also examined the age factor among users to understand user acceptance and adoption of m-commerce [11]. Age was also examined as an important predictor of user use of m-commerce [12]. Among several demographic factors age was found to be the most important predictor of m-commerce adoption [30]. Age was also examined in relation to the intention to shop online, and the study showed mixed findings [29]. In addition, studies that examine the relationship of age to the adoption of m-commerce among university students are somewhat rare. Therefore, the following research hypotheses are proposed:

H2a: Younger students are positively influenced by perceived usefulness of m-commerce more than older students.

H2b: Younger students are positively influenced by perceived ease of use of m-commerce more than older students.

H2c: Younger students are positively influenced by the key benefits than the key barriers of m-commerce more than older students.

Year of study and college of study

In relation to students Year of study and College of study there are not any studies that I am aware of that have previously addressed these factors. Other than gender and age most studies focus on demographic factors such as income, marital status, and profession [18]. No studies to my knowledge have studied student’s year of study (freshman, sophomore, junior, or senior) and college of study (public university, or private university) in relation to the adoption and use of m-commerce.

The following research hypotheses examine student’s Year of study:

H3a: Students in the first or second year of study are positively influenced by perceived usefulness of m-commerce more than students in the third or fourth year of study.

H3b: Students in the first or second year of study are positively influenced by perceived ease of use of m-commerce more than students in the third or fourth year of study.

H3c: Students in the first or second year of study are positively influenced by perceived benefits than perceived barriers of m-commerce more than students in the third or fourth year of study.

The following research hypotheses examine student’s College of study:

H4a: Private University students are positively influenced by perceived usefulness of m-commerce more than Public university students.

H4b: Private University students are positively influenced by perceived ease of use of m-commerce more than Public university students.

H4c: Private University students are influenced more by perceived benefits than perceived barriers of m-commerce more than Public university students.

Because, m-commerce is a rapidly emerging technology that is gaining wide acceptance in developing countries it is still restricted in the extant literature. For that reason, the present study tries to fill this gap by investigating user’s demographic variables in relation to the TAM model and perceived benefits that encourage m-commerce use and perceived barriers that inhibit m-commerce use.

Methodology

This study adopts a quantitative approach to explore the factors

that affect student’s adoption decisions of m-commerce. In that regard, mobile commerce key benefits and key barriers have been examined and considered as antecedents that either encourage or inhibit the adoption decision of m-commerce. The study was performed in the country of Kuwait. Data collection was performed through questionnaire distribution that was pretested and adjusted before full distribution. The questionnaire was designed and circulated to university students who are studying in public and private universities. The aim was to see if there are any adoption differences in public and private universities and examine student’s perceptions of m-commerce. In Kuwait, private universities are quite pricy requiring high tuition fees, and thus, students attending such universities are mostly from a higher social class that are also most likely are able to purchase adopt the latest technologies more than others. For that reason, this study wanted to explore if there was a relationship between college students in private and public universities and if that has an effect in how they perceive and adopt m-commerce. The basic objective of the research was to explore user’s perceived usefulness and perceived ease of use of the m-commerce that leads users to adopt the technology. In addition, to identify the key benefits and barriers affecting adoption of m-commerce in relation to various demographic factors. The demographic factors examined in this study are gender, age, year of study, and college of study. Year of study refers to the current year of study the student was in when filling the questionnaire: “Freshman,” or “Sophomore,” or “Junior,” or “Senior.” College of study identifies if the studies is undergoing the program of study in a public or private university. The demographic factors student’s year of study and college of study were selected because to my knowledge no research has yet studied the relationship of student’s adoption of m-commerce in relation to the year of study or the type of university the student is attending, therefore there’s interest in explore this field. Concerning gender and age, several studies have examined such variables, however with mixed findings [29].

The validity and reliability of the questionnaire was measured. To measure the validity of the questionnaire was given to two professors in different universities to measure its validity. According to their feedback, the questionnaire was amended and randomly distributed to 1100 students attending public and private universities. About 100 questionnaires were rejected because the students left some parts of the questionnaire unanswered leaving the final research sample of 1000 students. It was measured using the five level ‘Likert Scales’, where 1 represents ‘strongly disagree’, 2 represents ‘disagree’, 3 represents ‘undecided’ 4 represents ‘agree’ and 5 represents ‘strongly agree’. Reliability of the questionnaire measurement used Cronbach’s Alpha of SPSS-20 software program, showed very strong reliability at 0.812.

Findings

The study resulted in important findings. The following Table 1 shows the experience of students in their ‘mobile online payments use’ in the following categories. Students were free to choose more than one

category depending on their use.

Table 1 shows that the category where highest number of students (54.7%) uses their mobile for the on-line payment is for ‘purchasing products and services’. The next category where second highest number of students (53.3%) uses their mobile for the on-line payment is for ‘food ordering’. The next category where third highest number of students (45.1%) uses their mobile for the on-line payment is for ‘cinema booking’. The category where the lowest number of students (12.4%) uses their mobile for the on-line payment is for ‘selling products and services’. The all other categories along with the percentage of students who use their mobile for online payments, shown in the Table 1.

The following tables show the mean and standard deviation of all the variables that show the benefits of using m-commerce. The variables are sorted in the descending order of their mean values. Table 2 shows the variables with the highest benefits to lowest benefits of using m-commerce.

The Table 2 shows all the variables that represent the benefits of using m-commerce in the descending order of their benefits. The mean value (M=4.53, SD=0.728) shows that the highest benefits of m-commerce is ‘Using the mobile for online payments is faster’. The mean value (M=3.35, SD=1.248) shows that and the lowest benefit of using m-commerce is ‘Using the mobile for online payments is cheaper’.

The Table 3 shows all the variables that represent the barriers of using m-commerce in their descending order of their disadvantages. The mean value (M=4.21, SD=0.841) shows that the highest barrier of m-commerce is ‘Slow mobile connection and/or data transfer is a problem when using the mobile for online payments’. The mean value (M=3.30, SD=1.414) shows that and the lowest barrier of using m-commerce is ‘Small mobile screen is a disadvantage when using online payments’.

Analysis and Discussion

This study highlights several important contributions to literature. First, it contributes largely to the existing literature on m-commerce by shedding knowledge on the use of m-commerce in developing countries taking into consideration the moderating role of gender, age, and year of study and college of study. Secondly, by adopting the TAM as a theoretical grounding for this research it has been evident that the application of the TAM is a good indicator of technology adoption in the context of developing countries keeping in mind the difference in usage and adoption patterns between users in western and developing countries. Third, this study highlights that age and gender differences have a significant impact on the adoption and usage of m-commerce, which has not been investigated before in developing countries. Fourth, investigating the moderating effect of year of study and college of study to m-commerce adoption is of high importance because it highlights varying students’ competences in technology knowledge in which

Number of students who use ‘mobile online payment’ in the following categories	Do not use (0)	Use (1)
Purchasing products and services	453 (45.3%)	547 (54.7%)
Food ordering	467 (46.7%)	533 (53.3%)
Cinema booking	549 (54.9%)	451 (45.1%)
Bill payments	614 (61.4%)	386 (38.6%)
Banking	695 (69.5%)	306 (30.6%)
Travel booking	744 (74.4%)	256 (25.6%)
Investing	847 (84.7%)	153 (15.3%)
Selling products and services	876 (87.6%)	124 (12.4%)

Table 1: Use of Mobile for On-Line Payment in the Following Categories: The Table is sorted in the Descending Order as per their use

leads to adoption in private and public universities. Such differences are important predictors for policy makers for identifying students' weaknesses and strengths that are especially important for the new emerging generations in such developing countries.

Results show that student demographics such as gender, age, year of study and college of study have an effect on their perceived benefits and perceived barriers when adopting m-commerce. In addition, students' demographic factors also have an effect on the perceived ease of use and perceived usefulness of m-commerce.

T-test with respect to gender

T-test is applied with respect to gender on various newly created variables as shown in the following Table 4. The results from the Table 4 show that significant difference exists between male students and female students for each of the four dependent variables at 95% confidence interval.

The Table 4 shows that there is a statistical significant difference at (.05) with respect to "gender (male, female) on 'overall perceived usefulness (PU) of m-commerce', $t(924.59)=4.11, p<.001 (p=0.000)$. The mean values show that male students as an average feel significantly more 'perceived usefulness (PU) of m-commerce' ($M=4.19, SD=0.62$) than the female students feel about it ($M=4.03, SD=0.61$). Therefore, the result support the hypothesis "Male students are positively influenced by perceived usefulness of m-commerce more than female students."

The results from the Table 4 also show that for the variables 'overall perceived ease of use (PEOU) of m-commerce' and for 'overall key benefits of m-commerce', the male students mean is significantly more than the female students mean.

Therefore, the result support the hypothesis "Male students are positively influenced by perceived ease of use of m-commerce more than female students."

The results from the Table 4 also show for the variable 'overall key barriers of m-commerce' the female students mean is significantly more than the mean of male students.

This means the female students feel more barriers in dealing with 'm-commerce' than male students feel. Therefore, the result support the hypothesis "Male students are positively influenced by the key benefits than the key barriers of m-commerce than female students".

T-test with respect to age (17~19, 20~more)

T-test is applied with respect to age on various variables as shown in the following Table 5. The two groups of students with respect to their age are as follows. The first group of students are in the age group of (17~19) years old and the second group of students who are in the age group of (20~more) years old. The results from the Table 5 show that significant difference exists between the two groups of students with respect to their age for each of the four dependent variables at 95% confidence interval.

Variables	Variable Labels	Mean	Standard Deviation
Q4	Using the mobile for online payments is faster	4.53	.728
Q1	Using the mobile for online payments saves time	4.38	.727
Q5	Using the mobile for online payments is useful	4.35	.862
Q2	Using the mobile for online payments is convenient	4.28	.745
Q11	Using the mobile for online payments is easy to use	4.20	.862
Q6	Using the mobile for online payments is handy in respect to all locations	4.16	.892
Q10	Using the mobile for online payments does not require a lot of effort	4.15	.803
Q9	Using the mobile for online payments is clear and understandable	4.04	.908
Q8	Using the mobile for online payments increases the business performance	3.98	1.006
Q7	Using the mobile for online payments play an important role in daily life	3.75	.940
Q3	Using the mobile for online payments is cheaper	3.35	1.248

Table 2: The Table shows the variables with the highest benefits to lowest benefits of using M-commerce

Variables	Variables Labels	Mean	Standard Deviation
Q14	Slow mobile connection and/or data transfer is a problem when using the mobile for online payments	4.21	.841
Q15	Poor network coverage is a problem when using the mobile for online payments	4.14	.876
Q16	Fear of privacy invasion to personal information is a disadvantage when using the mobile for online payments	3.90	1.106
Q12	Using the mobile for online payments has security risks	3.77	1.032
Q13	Using the mobile for online payments is difficult in some websites	3.57	1.207
Q17	Small mobile screen is a disadvantage when using online payments	3.30	1.414

Table 3: The Table shows the variables with the highest barriers to lowest barriers of using M-commerce

Variables	Gender	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Overall perceived usefulness (PU) of m-commerce	Male	436	4.19	0.62	4.11	924.59	.000
	Female	564	4.03	0.61			
Overall perceived ease of use (PEOU) of m-commerce	Male	436	4.33	0.72	7.63	938.58	.000
	Female	564	3.98	0.73			
Overall key benefits of m-commerce	Male	436	4.23	0.62	5.68	873.57	.000
	Female	564	4.01	0.55			
Overall key barriers of m-commerce	Male	436	3.72	0.63	-3.97	961.11	.000
	Female	564	3.89	0.67			

Table 4: T-Test with respect to "Gender"

The Table 5 shows that there is a statistical significant difference at (.05) with respect to “age on ‘overall perceived usefulness (PU) of m-commerce’, $t(998)=10.69, p<0.001 (p=0.000)$. The mean values show that students with age group of ‘17~19’ as an average feel significantly more ‘perceived usefulness (PU) of m-commerce’ ($M=4.33, SD=0.54$) than the students with age group of ‘20~more’ feel about it ($M=3.93, SD=0.62$). Therefore, the result support the hypothesis “Younger students are positively influenced by perceived usefulness of m-commerce more than older students.”

The results from the Table 5 also show that for the variables ‘overall perceived ease of use (PEOU) of m-commerce’ and for ‘overall key benefits of m-commerce’, the mean of the students of age group of ‘17~19’ is significantly more than the mean of the students of age group of ‘20~ more’. Therefore, the result support the hypothesis “Younger students are positively influenced by perceived ease of use of m-commerce more than older students.”

The results from the Table 5 also show for the variable ‘overall key barriers of m-commerce’, the mean of the students of age group of ‘17~19’ is significantly less than the mean of the students of age group of ‘20~ more’ is.

This means the students of higher age groups feels more barriers in dealing with ‘m-commerce’ than the students of lower age group feels. Therefore, the result support the hypothesis “Younger students are positively influenced by the key benefits than the key barriers of m-commerce more than older students”.

T-test with respect to year of study (freshman and sophomore, junior and senior)

T-test is applied with respect to ‘year of study’ on various variables as shown in the following Table 6. The two groups of students with respect to their ‘year of study’ are as follows. The first group of students represents for those students who are studying either in first year (called freshman) or in the second year (called sophomore) and the second first group of students represents for those students who are studying either in third year (called junior) or in the fourth year (called senior). The results from the Table 6 show that significant difference exists between the two groups of students with respect to their year

of study for each of the four dependent variables at 95% confidence interval.

The Table 6 shows that there is a statistical significant difference at (.05) with respect to “year of study on ‘overall perceived usefulness (PU) of m-commerce’, $t(993)=4.15, p <0.001 (p=0.000)$. The mean values show that students who are studying ‘in first year or in the second year’ as an average feel significantly more ‘perceived usefulness (PU) of m-commerce’ ($M=4.16, SD=0.67$) than the students ‘who are studying in third year or in the fourth year’ ($M=4.00, SD=0.54$) feels about it. Therefore, the result support the hypothesis “Students in the first or second year of study are positively influenced by perceived usefulness of m-commerce more than students in the third or fourth year of study.”

The results from the Table 6 also show that for the variables ‘overall perceived ease of use (PEOU) of m-commerce’ and for ‘overall key benefits of m-commerce’, the mean of the students ‘who are studying either in first year or in the second year’ is significantly more than the mean of the students ‘who are studying in third year or in the fourth year’. Therefore, the result support the hypothesis “Students in the first or second year of study are positively influenced by perceived ease of use of m-commerce more than students in the third or fourth year of study.”

The results from the Table 6 also show that for the variables ‘overall key barriers of m-commerce’, the mean of the students who are studying in ‘third year or in the fourth year’ is significantly more than the mean of the students who are studying in ‘first year or in the second year’. This means the students who are studying in ‘third or fourth year’ feel more barriers in dealing with ‘m-commerce’ than the students who are studying in ‘first or second year’ feel about it. Therefore, the result support the hypothesis “Students in the first or second year of study are positively influenced by perceived benefits than perceived barriers of m-commerce more than students in the third or fourth year of study.”

T-test with respect to college of study (public university, private universities)

T-test is applied with respect to ‘College of study’ on various variables as shown in the following Table 7. The two groups of students

Variables	Age	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Overall perceived usefulness (PU) of m-commerce	17~19	412	4.33	0.54	10.69	998	.000
	20~more	588	3.93	0.62			
Overall perceived ease of use (PEOU) of m-commerce	17~19	412	4.39	0.71	9.52	895.59	.000
	20~more	588	3.95	0.72			
Overall key benefits of m-commerce	17~19	412	4.35	0.56	11.55	881	.000
	20~more	588	3.94	0.55			
Overall key barriers of m-commerce	17~19	412	3.68	0.64	-5.60	998	.000
	20~more	588	3.91	0.66			

Table 5: T-Test with respect to “Age (17~19, 20~more)”

Variables	Age	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Overall perceived usefulness (PU) of m-commerce	17~19	412	4.33	0.54	10.69	998	.000
	20~more	588	3.93	0.62			
Overall perceived ease of use (PEOU) of m-commerce	17~19	412	4.39	0.71	9.52	895.59	.000
	20~more	588	3.95	0.72			
Overall key benefits of m-commerce	17~19	412	4.35	0.56	11.55	881	.000
	20~more	588	3.94	0.55			
Overall key barriers of m-commerce	17~19	412	3.68	0.64	-5.60	998	.000
	20~more	588	3.91	0.66			

Table 6: T-Test with respect to “Year of Study (first or second, third or fourth)”

Variables	College of study	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Overall perceived usefulness (PU) of m-commerce	Public University	380	4.19	0.61	3.70	806.95	.000
	Private Universities	620	4.04	0.62			
Overall perceived ease of use (PEOU) of m-commerce	Public University	380	4.23	0.80	3.17	727.51	.002
	Private Universities	620	4.07	0.71			
Overall key benefits of m-commerce	Public University	380	4.20	0.63	3.84	733.50	.000
	Private Universities	620	4.05	0.56			
Overall key barriers of m-commerce	Public University	380	3.74	0.67	-2.77	998.00	.006
	Private Universities	620	3.86	0.65			

Table 7: T-Test with respect to “College of Study (Public University, Private Universities)”

with respect to their ‘College of study’ are as follows. The first group of students represents for those students who are studying in a ‘Public University’ and the second first group of students represents for those students who are studying in ‘Private Universities’.

The results from the Table 7 show that significant difference exists between the two groups of students with respect to their College of study for each of the four dependent variables at 95% confidence interval. The Table 7 shows that there is a statistical significant difference at (.05) with respect to “College of study on ‘overall perceived usefulness (PU) of m-commerce’, $t(806.85)=3.697, p<.001 (p=0.000)$.”

The mean values show that students who are studying in Public Universities as an average feel significantly more ‘perceived usefulness (PU) of m-commerce’ ($M=4.19, SD=0.61$) than the students ‘who are studying in Private Universities’ ($M=4.04, SD=0.62$) feels about it. Therefore, the result does not support the hypothesis “Private University students are positively influenced by perceived usefulness of m-commerce more than Public University students.”

The results from the Table 7 also show that for the variables ‘overall perceived ease of use (PEOU) of m-commerce’ and for ‘overall key benefits of m-commerce’, the mean of the students, who are studying in Public University, is significantly more than the mean of the students who are studying in Private Universities. Therefore, the result does not support the hypothesis “Private University students are positively influenced by perceived ease of use of m-commerce more than Public University students.”

The results from the Table 7 show that for the variables ‘overall key barriers of m-commerce’, the mean of the students, who are studying in Private Universities, is significantly more than the mean of the students who are studying in Public University. This means the students who are studying in Private Universities feel more barriers in dealing with ‘m-commerce’ than the students who are studying in Public University feel about it. Therefore, the result does not support the hypothesis “Private University students are influenced more by perceived benefits than perceived barriers of m-commerce more than Public University students”.

Conclusion

This study highlights important managerial implications. It has been evident that there is a growing number of m-commerce users. However, there is a growing concern that although the numbers of mobile subscribers are increasing at a very fast pace, actual m-commerce services offered by telecommunication companies are still limited. Findings highlighted important m-commerce usage preferences among users in terms of perceived usefulness and ease of use of the m-commerce technology. Such findings can be used to understand user preferences and adoption characteristics of m-commerce services in an effort to develop them further and increase usage. This study has

resulted in several important findings that are especially important in developing countries. First concerning gender and the adoption of m-commerce, results show that overall male students feel more benefits in dealing with m-commerce than the female student feel. Female students feel more barriers in dealing with m-commerce than male students feel.

Second concerning age and the adoption of m-commerce, results show that students who are in the age group of ‘17~19’ feel more benefits in dealing with m-commerce than the students who are in the age group of ‘20~more’ feel. The students who are in the age group of ‘20~more’ feel more barriers in dealing with m-commerce than students who are in the age group of ‘17~19’ feel.

Third concerning year of study and the adoption of m-commerce, results show that students who are in the year of study of ‘freshman or sophomore’ feel more benefits in dealing with m-commerce than the students who are in the in the year of study of ‘junior or senior’ feel. Results show that students who are in the year of study of ‘junior or senior’ feel more barriers in dealing with m-commerce than the students who are in the in the year of study of ‘freshman or sophomore’ feel.

Fourth concerning the college of study, results show that students who are studying in Public University feel more benefits in dealing with m-commerce than the students who are studying in the private universities feel. Results show that students who are studying in private universities feel more barriers in dealing with m-commerce than the students who are studying in Public university feel.

As this study is limited to, university students in Kuwait future research should examine demographic factors in other countries. It can also be performed to the general users not limited solely to students. Other future research can also examine user demographics using the TAM2 through incorporating user’s social influence towards technology adoption and cognitive processes. In addition, other demographic variables would be interesting to test, such as comparing m-commerce adoption in different cultures, and occupations.

References

- Barnes SJ (2002) The mobile commerce value chain: analysis and future developments. *International Journal of Information Management* 22: 91-108.
- Yang Kenneth CC, Gerald Ng Soon Chye, Jeannie Chan Su Fern and Yowei Kang (2015) Understanding the Adoption of Mobile Commerce in Singapore with the Technology Acceptance Model (TAM). In: Spotts HE (eds) *Assessing the Different Roles of Marketing Theory and Practice in the Jaws of Economic Uncertainty. Proceedings of the 2004 Academy of Marketing Science (AMS) Annual Conference*, Springer, Newyork.
- Kim Stuart (2014) Starbucks Aims To Drive In-Store Traffic Via Mobile: Mobile Marketing and Commerce Strategies: Yankee Group. Atlas Rewards.
- Yankee Group Research (2002) Mobile User Survey Results Part 1: Will Next Generation Data Services Close the Value Gap? Yankee group.
- Faqih KM, Jaradat MIRM (2015) Assessing the moderating effect of gender

- differences and individualism-collectivism at individual-level on the adoption of mobile commerce technology: TAM3 perspective. *Journal of Retailing and Consumer Services* 22: 37-52.
6. Ajzen I, Heilbroner RL, Fishbein M, Thurrow LC (1980) Understanding attitudes and predicting social behaviour. Prentice Hall PTR, New Jersey.
 7. Davis FD (1986) A technology acceptance model for empirically testing new end-user information systems: Theory and results. Doctoral dissertation, Massachusetts Institute of Technology.
 8. Davis FD (1989) Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly* 13: 319-340.
 9. Davis FD, Venkatesh V (1996) A critical assessment of potential measurement biases in the technology acceptance model: three experiments. *International journal of human-computer studies* 45: 19-46.
 10. Venkatesh V, Davis FD (1996) A model of the antecedents of perceived ease of use: Development and test*. *Decision sciences* 27: 451-481.
 11. Wu JH, Wang SC (2005) What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information and management* 42: 719-729.
 12. Li S, Glass R, Records H (2008) The influence of gender on new technology adoption and use—mobile commerce. *Journal of Internet Commerce* 7: 270-289.
 13. Anckar B, Walden P (2003) Factors affecting consumer adoption decisions and intents in mobile commerce: Empirical insights. *BLED 2003 Proceedings*: 28.
 14. Christer C, Hyvonen K, Repo P, Walden P (2005) Asynchronous Adoption Patterns of Mobile Services. *Proceedings of the 38th Hawaii International Conference on System Sciences*.
 15. Khan H, Talib F, Faisal MN (2015) An analysis of the barriers to the proliferation of M-commerce in Qatar: A relationship modeling approach. *Journal of Systems and Information Technology* 17: 54-81.
 16. Venkatesh V, Morris MG, Davis GB, Davis FD (2003) User Acceptance of Information Technology: Toward a Unified View. *Management Information Systems Quarterly* 27: 5.
 17. Okazaki S (2006) What do we know about mobile Internet adopters? A cluster analysis. *Information and Management* 43: 127-141.
 18. Min Q, Ji S, Qu G (2008) Mobile commerce user acceptance study in China: a revised UTAUT model. *Tsinghua Science and Technology* 13: 257-264.
 19. Venkatesh V, Morris MG (2000) Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior. *MIS quarterly* 115-139.
 20. Michie S, Nelson DL (2006) Barriers women face in information technology Careers: Self-efficacy, passion and gender biases. *Women in Management Review* 21: 10-27.
 21. Reinen IJ, Plomp T (1993) Some gender issues in educational computer use: Results of international comparative survey. *Computers in Education* 20: 353-365.
 22. Shuttleworth T (1992) Women and computer technology: Have the promises of equal Opportunities been fulfilled? *Women in Management Review* 7(7): 26-30.
 23. Wood WA, Li S (2005) An empirical analysis of the technology camel. *Issues in Information Systems* 6: 154-160.
 24. Ahuja MK, Thatcher JB (2005) Moving Beyond Intentions and Toward the Theory of Trying: Effects of Work Environment and Gender on Post-Adoption Information Technology Use. *Management Information Systems Quarterly* 29.
 25. Rainer RK, Laosethakul K, Astone MK (2003) Are gender perceptions of computing changing over time. *Journal of Computer Information Systems* 43: 108-114.
 26. Rodgers S, Harris M (2003) Gender and e-Commerce: An exploratory study. *Journal of Advertising Research* 43: 322-329.
 27. Yang B, Lester D (2005) Gender differences in e-Commerce. *Applied Economics* 37: 2077-2089.
 28. Agarwal D (2014) Getting mobile right for E-commerce retailing. *Wireless week*
 29. Zhou L, Dai L, Zhang D (2007) On-line shopping acceptance model - A critical survey of consumer factors in on-line shopping. *Journal of Electronic Commerce Research* 8: 41-62.
 30. Bigne E, Ruiz-Mafe C, Sanz-Balz S (2007) Key Drivers of Mobile Commerce Adoption. An Exploratory Study of Spanish Mobile Users. *JTAER* 2: 48-60.

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