

# **INTI INTERNATIONAL UNIVERSITY**

## **MASTER OF BUSINESS ADMINISTRATION**

**A case on the determinants that drive the utilization of mobile commerce in  
Malaysia**

**Author: Gu Yongxiang**

**Student No: I12000438**

**Supervisor: Mr. Ponusamy Sinnasamy**

**Submission Date: 15<sup>th</sup> April 2013**

**Ethics Number:**

**Final Word Count: 15,070 words**

### **Abstract**

Based on the development of wireless communication technology and the popularization of mobile devices, mobile commerce becomes the meaningful business all around the world (Barnes 2002). In spite of many studies undertaken, few investigators had explored the driving force of mobile commerce in Malaysia. The aim of this study was to examine the crucial determinants of mobile commerce utilization on the basis of technology acceptance model (TAM) and the theory of reasoned action (TRA). Moreover, this study adopted the quantitative approach and conducted surveys among the public in Malaysia. Data were analyzed by employing factor analysis and multiple regression analysis by means of IBM SPSS software version 20. Service quality (SQ) and social influence (SI) were inquired whether the determinants driving the usage of Malaysian mobile commerce in this study. The findings indicated that perceived usefulness (PU), perceived ease of use (PEOU), cost and social influence (SI) were the fundamental determinants affecting consumers to adopt mobile commerce in Malaysia. In addition, the contributions to research and suggestions for future studies were discussed.

**Keywords:** Mobile commerce; Technology acceptance model; Theory of reasoned action; Cost; Security; Social influence; Malaysia

## Acknowledgement

INTI International University provides a good opportunity to conduct this research with regard to what determinants drive the utilization of Mobile Commerce in Malaysia. Here, I would like to thank all those people who made this thesis possible and an unforgettable experience for me.

First of all, I would like to express my sincere gratitude and appreciation to my supervisor Mr. Ponusamy Sinnasamy who offered his valuable advice and encouragement throughout the process of completing this dissertation. I thank him for the systematic guidance and great effort to push forward the process of this research.

Furthermore, I would like to dedicate my deepest thanks to the lecturer of Business Research Methods, Dr. Mudiarsan Vasu Kuppusamy, who taught me the business research methods and made this thesis possible.

Besides, I would like to thank to Dr. Chin Sze Kim who managed the whole MBA program. She always motivates me to improve the study and language skills. I would like to thank to all my friends who had given me their full support and guided me in using of SPSS, and distributing the questionnaires during this research.

Last but not least, I would like to extend my appreciation to all that have participated and contributed their time and efforts in this survey.

Gu Yongxiang

April 2013

### **Declaration**

I hereby declare that this research project is on my own effort except for the information that has been used by various authors that have been cited accordingly and ethically.

10<sup>th</sup> April 2013

Gu Yongxiang

## Table of Contents

Abstract.....	i
Acknowledgment.....	ii
Declaration.....	iii
Table of Contents.....	1
List of Figures & Tables.....	4
List of Appendices.....	5
Chapter 1 .....	6
1.0 Introduction .....	7
1.1 Background of Research.....	12
1.2 Problem Statement .....	14
1.3 Research Questions .....	16
1.4 Research Objectives.....	17
1.5 Research Significance.....	18
1.6 Limitations .....	20
1.7 Scope of Study .....	21
1.8 Operational Definitions .....	21
Chapter 2.....	23
2.0 Introduction .....	24
2.1 Mobile Commerce.....	24
2.2 Theory of Reasoned Action.....	28
2.3 Technology Acceptance Model.....	29
2.4 Perceived Usefulness.....	30

2.5 Perceived Ease of Use.....	30
2.6 Service Quality.....	31
2.7 Cost.....	32
2.8 Security.....	33
2.9 Social Influence.....	34
2.10 Behavioral Intention to Use.....	35
2.11 Theoretical Framework.....	36
Chapter 3.....	37
3.0 Introduction .....	38
3.1 Research Design .....	39
3.2 Measuring Instrument .....	41
3.3 Validity and Reliability Tests.....	47
3.4 Study Population.....	47
3.5 Unit of Analysis.....	48
3.6 Sample Selection.....	48
3.7 Sampling Techniques .....	48
3.8 Data Collection .....	49
3.9 Analysis Techniques .....	51
3.10 Ethical Considerations.....	51
Chapter 4.....	54
4.0 Introduction .....	55
4.1 Response Rate .....	55
4.2 Demographic Analysis .....	55

4.3 Factor Analysis.....	60
4.4 Reliability Analysis.....	64
4.5 Multiple Regression.....	66
4.6 Discussions.....	69
Chapter 5.....	73
5.0 Introduction .....	74
5.1 Conclusions.....	74
5.2 Recommendations.....	75
5.3 Personal Reflections .....	76
References.....	78
Appendices.....	85

## List of Figures & Tables

Table 1 Malaysia's Mobile Activities in 2011.....	15
Table 2 Speed of download between 3G to 4G.....	27
Figure 1 Proposed Research Framework.....	36
Figure 2 Research Design Framework.....	39
Table 3 Measurement Instruments.....	42
Table 4 Study Population's Locations.....	47
Table 5 Source of this Questionnaire.....	50
Table 6 Demographic Characteristics of Respondents.....	56
Table 7 Mobile Devices and Services.....	59
Table 8 (a) Assumption in Factor Analysis (KMO).....	60
Table 8 (b) Assumption in Factor Analysis (Communalities).....	61
Table 9 (a) Factor Analysis ( IV).....	63
Table 9 (b) Factor Analysis (DV).....	64
Table 10 Reliability Statistics.....	64
Table 11 Item-Total Statistics.....	65
Table 12 Model Summary.....	66
Table 13 ANOVA.....	67
Table 14 Coefficients.....	67
Table 15 Multiple Regression Analysis.....	69



## List of Appendices

<b>Appendix 1: Questionnaire.....</b>	<b>86</b>
<b>Appendix 2: Initial Research Proposal Paper.....</b>	<b>88</b>
<b>Appendix 3: MBA Project Log.....</b>	<b>101</b>
<b>Appendix 4: MBA Project Ethic Form.....</b>	<b>105</b>
<b>Appendix 5: SPSS Outputs.....</b>	<b>112</b>
<b>Appendix 6: Turnitin Result.....</b>	<b>130</b>

# **Chapter 1**

## **Introduction**

## 1.0 Introduction

Electronic commerce, or e-commerce, is a type of industry where buying and selling of goods is conducted over electronic systems such as the internet and other computer networks (Liang and Wei 2004). King et al. (2010) mentioned that electronic commerce could also be described in several perspectives, including business process, service, learning, cooperation and community. Firstly, from the business process perspective, electronic commerce is running business electronically by means of carrying out business processes through electronic networks. Hence, it can get the information from the electronic business processes instead of the physical business processes. Secondly, from the service perspective, electronic commerce is a method that drives the aspiration of government, enterprises, customers, and to cut service costs although enhancing the quality of customer service and speeding out the speed of service delivery. Next, from the learning perspective, electronic commerce can accelerate the development of online training and education. Moreover, from the collaborative perspective, electronic commerce can offer the framework for the cooperative organizations both internal and external. Eventually, from the community perspective, electronic commerce can provide the assembly place to study and transact in terms of community groups. However, with the change of people's needs, information technology is appealing for the integration information no matter what the time, place and equipment in recent years. Therefore, electronic commerce is poised to witness an extraordinary explosion of mobility, creating a new field of mobile commerce. Mobile commerce, or m-commerce, is the ability to purchase products and services anywhere by wireless internet device and ignore the limitation of time (Shuk 2012). Mobile commerce is to involve with the transaction which

has monetary value and to conduct by a wireless network. It will permit customers to buy goods through the internet without using a personal computer (PC). According to Clarke (2008), he mentioned that mobile commerce would be mainly delivered by means of wireless and the wireless terminal would become an important choice in terms of the electronic world transaction in recent years. Thanks to the wireless technology as it is increasing sharply. It will create a good opportunity for e-commerce business in order to expand beyond the traditional limitations of the stationary personal computer (PC).

Mobile commerce has several characteristics that are different from electronic commerce, including ubiquity, convenience, localization and personalization. Furthermore, mobile commerce also has its own new values.

- Ubiquity

Mobile devices provide consumers the opportunity to receive the information and carry out the transactions from virtually any location on a real-time basis. Mobile commerce consumers will have a presence everywhere, or in many places at the same time, with a similar level of access available through the mobile technology. Communication can take place without regard to the consumer's location. Actually, mobile commerce business is gradually becoming one of the most important parts of personal belonging which provides emergency notifications, like news, stock price volatility and list of exchange rate quotations. Likewise, the real-time, and access everywhere to of m-commerce will provide capabilities uniquely beneficial to consumers. Industries that are time and location sensitive,

such as financial services and travel, are likely to benefit from businesses exploiting this value-added feature of mobile commerce.

- Convenience

Wireless devices provided two major advantages which are quickness and accessibility. That means mobile commerce will contribute to differentiate its attributes from e-commerce. Consumers will no longer consider the time and place when they are entering e-commerce activities. Moreover, m-commerce could simplify the procedure and handle the emergency. For example, when waiting in line or getting caught in a traffic jam, consumers will deal with the daily work by means of mobile commerce applications. Therefore, consumers will recognize the benefits of mobile commerce which can help to improve the quality of life. In addition, mobile commerce provides many opportunities to increase the number of customers relying on offering the value-added businesses to attract customers. In order to keep customer loyalty, mobile commerce should make the services more convenient.

- Localization

One of the vital benefits for mobile commerce is to understand the location of internet users. Service providers can identify the users' locations exactly by the technology of global positioning system (GPS). Mobile commerce providers will send the related information to the current or potential customers in terms of the specific location. Thence, real time discounting will be useful to prompt the growth of mobile commerce. For instance, when visiting the local supermarket, the

customers will receive the made-to-order promotional information through the mobile devices.

- Personalization

In terms of the concept of marketing, personalization is not a new one. However, it is a key factor which can contribute to the success of mobile commerce (Kats 2012). In fact, marketers should understand the customers' wants and needs accurately. After that, they can make the personalized services for their customers. At present, customers are looking forward to the relevant consumption of information. Furthermore, customers always take along their mobile devices everywhere they go. That will help the marketers who can consider the next sale is related to personalize their services to deliver their customers.

In line with of ubiquity and convenience in mobile commerce, marketers can take advantage of mobile devices to pass on the connected offers that are based on personal preferences, location, and other very personal real-time data, as well as link responses to actual transactions.

Nevertheless, mobile commerce is still having the limitations. The problems it must overcome include: uniform standards, ease of operation, security for transactions, minimum screen size, display type and bandwidth, billing services, and the relatively impoverished web sites.

It is well known that mobile commerce is first introduced during late 1990s. Simultaneously, as many marketers had put their efforts in

developing e-commerce business through the internet, an emerging technology innovation has been introduced that is mobile-commerce (Yang 2005). In the Malaysian context, the third Generation of mobile telecommunications technology (3G) was emerging in 2002. That same year, the Malaysian Communications and Multimedia Commissions (MCMC) assigned two of the three available 3G spectrum blocks to telecommunication players in Malaysia (Liang & Wei 2004). They also stated that the usage of mobile commerce in Malaysia has not advanced as expected.

Hence, this study is to investigate the factors affecting the adaptation of mobile commerce in Malaysia. This paper contains five chapters. Chapter 1 is the introduction of this study, including the background, problem statement, significance of study, and the research objectives. Second chapter involves the literature review, hypothesis and theoretical framework of this study. The third chapter is research methodology which can be thought as a guideline system for solving the problems depending on the specific components, such as methods, techniques and tools etc. The chapter four will be the findings and discussions of this study. After analyzing the variables, the findings were interpreted. Furthermore, it will also cover the discussion of the findings. Ultimately, chapter five will be the conclusion of this study. Additionally, the recommendations and personal reflections will be mentioned in the paper. It will not only benefit to popularize the development of mobile commerce in Malaysia, but also useful to investigate the further research.