

THE RELATIVE IMPORTANCE OF INFORMATION
SYSTEM SUCCESS IN BUILDING CUSTOMERS'
INTENTION TO USE MOBILE-COMMERCE IN
TOURISM INDUSTRY

BY

CORLINA ONG KHE SHIN
LEE YEE SEN
LIM WEI LIONG
RICHARD MA SEE HUA
TEOH YUE YEN

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DECLARATION

We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
- (4) The word count of this research project is 9,580.

Name of Student:	Student ID:	Signature:
1. Corlina Ong Khe Shin	09ABB03259	
2. Lee Yee Sen	09ABB05763	
3. Lim Wei Liong	09ABB02553	
4. Richard Ma See Hua	09ABB03257	
5. Teoh Yue Yen	09ABB03595	

Date:

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TABLE OF CONTENTS

	Page
Copyright Page	ii
Declaration	iii
Acknowledgements	iv
Dedication	v
Table of Contents	vi
List of Tables	ix
List of Figures	x
List of Appendices	xi
List of Abbreviations	xii
Preface	xiv
Abstract	xv
CHAPTER 1 RESEARCH OVERVIEW.....	1
1.0 Introduction	1
1.1 Research Background.....	1
1.2 Problem Statement.....	2
1.3 Research Objectives.....	4
1.4 Research Questions.....	5
1.5 Significance of Study.....	6
1.6 Outline of Study.....	7
1.7 Conclusion.....	8

CHAPTER 2	LITERATURE REVIEW.....	9
2.0	Introduction	9
2.1	Theoretical / Conceptual Foundation.....	9
2.2	Review of The Prior Empirical Studies.....	13
2.3	Proposed Conceptual Framework / Research Model.....	17
2.4	Hypothesis Development.....	17
2.5	Conclusion.....	18
CHAPTER 3	RESEARCH METHODOLOGY.....	19
3.0	Introduction	19
3.1	Research Design.....	19
3.2	Data Collection Method	20
3.2.1	Primary Data.....	20
3.2.2	Secondary Data.....	20
3.3	Sampling Design.....	20
3.3.1	Target Population.....	20
3.3.2	Sampling Location.....	21
3.3.3	Sampling Elements.....	21
3.3.4	Sampling Frame, Sampling Technique and Procedures.....	21
3.3.5	Sample Size.....	22
3.4	Research Instrument	22
3.5	Construct Measurement.....	23
3.6	Data Processing.....	24
3.6.1	Data Checking.....	24
3.6.2	Data Editing.....	25
3.6.3	Data Coding.....	25
3.7	Data Analysis Techniques.....	25
3.8	Conclusion.....	27
CHAPTER 4	DATA ANALYSIS.....	28
4.0	Introduction	28
4.1	Pilot Test Analysis.....	28

4.1.1	Reliability Test.....	28
4.1.2	Normality Test.....	29
4.2	Descriptive Analysis.....	33
4.2.1	Demographic Profile of The Respondents.....	33
4.2.2	Central Tendencies Measurement of Constructs....	35
4.3	Scale Measurement.....	38
4.3.1	Reliability Test	38
4.3.2	Normality Test.....	40
4.4	Inferential Analysis.....	44
4.4.1	Pearson Correlation Analysis	44
4.4.2	Multicollinearity Test	45
4.4.3	Multiple Regression Analysis	45
4.5	Conclusion.....	47
CHAPTER 5		DISCUSSION, CONCLUSION AND IMPLICATIONS..48
5.0	Introduction	48
5.1	Summary of Statistical Analysis.....	48
5.2	Discussions of Major Findings.....	49
5.3	Implications of the Study.....	51
5.3.1	Managerial Implications.....	51
5.4	Limitations and Recommendations of the Study.....	52
5.5	Conclusion.....	53
References.....		55
Appendices.....		65

LIST OF TABLES

	Page
Table 1.1: General Objectives.....	4
Table 1.2 : Specific Objectives.....	4
Table 1.3 : General Research Questions.....	5
Table 1.4 : Specific Research Question.....	5
Table 2.1: Hypotheses Between Independent Variables and Dependent Variable.....	17
Table 3.1: Measurement of Each Variable.....	23
Table 3.2: Abbreviation for the Multiple Linear Regressions.....	27
Table 4.1: Reliability Test of the Pilot Study.....	29
Table 4.2: Skewness and Kurtosis of the Pilot Study.....	30
Table 4.3: Survey Respondents' Demographic Profile and Information.....	33
Table 4.4: Mean and Standard Deviation of the Study	35
Table 4.5: Reliability Test of the Study.....	39
Table 4.6: Skewness and Kurtosis of the Study.....	40
Table 4.7: Correlation Between Variables.....	44
Table 4.8: Multiple Regression Analysis ^a	46
Table 4.9: Multiple Regression Analysis ^b	47

LIST OF FIGURES

	Page
Figure 2.1: Research Model Showing the Relationship of Information System Success and Customers' Intention to Use.....	17

LIST OF APPENDICES

	Page
Appendix 2.1: Summary of Past Empirical Studies on the Relative Importance of Information System Success in Building Customers' Intention to Use Mobile Commerce in Tourism Industry.....	65
Appendix 3.1: Operationalization of Model Variables.....	67
Appendix 3.2: Questionnaire.....	71
Appendix 4.1: Pie Chart of Respondents' Gender.....	78
Appendix 4.2: Pie Chart of Respondents' Age.....	78
Appendix 4.3: Pie Chart of Respondents' Marital Status.....	79
Appendix 4.4: Pie Chart of Respondents' Highest Education Completed.....	79
Appendix 4.5: Pie Chart of Respondents' Occupation.....	80
Appendix 4.6: Pie Chart of Respondents' Travel Experience.....	80
Appendix 4.7: Pie Chart of Respondents' Experience in Using Mobile Commerce.....	81

LIST OF ABBREVIATIONS

B2C	Business- to- Consumer
CP	Completeness
D&M	DeLone and McLean
DV	Dependent Variable
EM	Empathy
INF	Information
InQ	Information Quality
IS	Information Systems
IT	Information Technology
IU	Customers' Intention to Use
IV	Independent Variable
NV	Navigation
RP	Responsiveness
RT	Response Time
SC	Security
SeQ	Service Quality
SER	Service
SyQ	System Quality
SYS	System

TL	Timeliness
VIF	Variance Inflation Factor
WD	Web-Design

PREFACE

In recent years, technological devices have becoming more advanced due to the rapid development on e-commerce. A new type of e-commerce which is by using mobile devices to perform transaction as well as payment is known as mobile commerce (m-commerce). M-commerce has been implemented in industries such as banking, tourism and online purchasing in different countries.

Considering the innovation of e-commerce, Malaysia is also one of the countries which implemented m-commerce. As tourism industry are mainly concern and focus in Malaysia, travel industry has started implementing mobile commerce in their transaction and payment in order to attract more consumers. Consumers may use mobile devices for accessing to the company's websites for more information.

As society demands for higher quality of system, companies are facing crucial challenge in developing and enhancing information system success for the company's websites. The aim of this research is to find out the information system qualities which are influencing the customers' intention to use mobile commerce in tourism industry.

ABSTRACT

The DeLone and McLean (D&M) model of Information Systems (IS) Success had been a commonly utilized and significant model to be used to measure the organizational success in IS field. This empirical paper evaluates the relative importance of IS success in building customers' intention to use mobile commerce in tourism industry. Furthermore, this paper also acts as a platform to investigate the relationship between DeLone and McLean model and customers' intention to use on mobile tourism. The elements identified in the model are consists of service quality, information quality and system quality. To examine the vital role of IS success in building customers' intention to use in mobile tourism, 500 questionnaire surveys will be distributed to customers who have experience in using mobile commerce on travel website. In this research, descriptive statistics and inferential analysis will be conducted on the data. The managers in tourism industry will be able to identify the key elements in IS success to achieve the organizational success by implementing the correct and suitable IS in the development process of company's website.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

In Chapter 1, we aim to discuss the background of this study, the problem statement of the past studies, determine the objectives and questions of this study and identify the significant of this study.

1.1 Research Background

Quality, as it incorporates into information system (IS) is a key issue that being consistently paying attention to (Vidgen, Wood-Harper, & Wood, 1993). Recent years, many companies have reached a consensus in trying the best to reduce budgets and cut costs in order to survive in the competitive business world. Yet, Gartner (2012) stated that 3.8 trillion dollars will be invested in worldwide information technology spending during 2012, which increase 3.7 percent from 2011.

IS is becoming a key success factor in companies; especially those that are heavily rely on information (Petter, DeLone, & McLean, 2008). Since companies are striving for success, IS success has been a significant issue in the field of IS, in which IS from a functional perspective is defined as a technologically implemented medium for the purpose of recording, storing, and disseminating linguistic expressions as well as for the supporting of inference making (Perez-Mira, 2010; Taniar & Rahayu, 2004). In the field of IS, DeLone and McLean (D&M) model had been a significance model for the IS success where it first proposed by DeLone and McLean in 1992 where it was further studied and modified by others researchers.

As stated by DeLone and McLean (2004), an updated version of the IS success model can be applied to electronic commerce (e-commerce) success measurement. E-commerce is understood as the purchasing and selling products or services through computer telecommunications media, such as the Internet (Grandon & Pearson, 2004). However, mobile-commerce (m-commerce) has made the extension of e-commerce as it has created another era of innovation in business and offer new applications to business and consumers (Coursaris & Hassanein, 2002; Kumar & Zahn, 2003) and eventually enhance the relationships between companies, customers, suppliers and partners (Keen & Macintosh, 2001). According to Clemens, Cata and Hackbarth (2012), m-commerce refers to any transaction taking place, either directly or indirectly, through the use of a mobile or handheld computing device, using wireless technologies and telecommunication networks.

In recent years, tourism has been a well-known application area for mobile IS as mobile devices becoming more advanced (Brown & Chalmers, 2003). The mobile technologies tend to become more crucial in helping travellers to plan their activities while travelling with the provision of real time information (Corigliano & Baggio, 2004). Furthermore, tourists still feel comfortable with their travelling even though they are in the foreign cities as they are able to find ways around with the use of mobile devices, as well as inquire for uninformed information about sights, accommodations, and other places of interest (Fugen, Westphal, Schneider, Schultz, & Waibel, 2001).

1.2 Problem Statement

Malaysia had been one of the 49 highly internet penetrated countries with a rate of 62.8% in March 2009. Besides, the Malaysian government has been promoting the development of information technology (IT) within the country for economic advancement purposes (Lim, Yap, & Lee, 2011). Tierney (2000) had stated that the context of tourism which is websites effectiveness and factors influencing internet usage rates are still very limited. As technologies are improving from e-

commerce to m-commerce nowadays, only a successful website will be able to attract and obtain the customers' intention to use. Yet, the factors influencing website are still very limited and needed to be identified.

The past studies which shown that IS success leading to a successful website development for customers is where Salehi, Keramati, and Didehkhani (2009) had stated that development of internet technology has intensified online competition, leading to crucial investigation and development of a success website that will decrease customer churn rate. The importance of IS success can be shown where Wang and Pho (2009) had stated that customers' intentions to use are affected by the IS quality, information quality, and service quality that comprise in the website. Wen (2009) had also concluded that a well design e-commerce website which consists of IS quality will influence the customer's intention to purchase or repurchase.

The deficiency in the past studies is where the past studies of D&M model on the m-commerce had only concentrate on other industries rather than tourism industry. For example, banking industry as such past studies had been done by Toloie-Eshlaghy and Bayanati (2012); where the study is based on DeLone and McLean's IS success model and ranking IS success factors in mobile banking systems in Iran. Lee and Chung (2009), had also done a studies on DeLone and McLean's IS success model on the mobile banking customers in Korea.

The second deficiency is where the past studies of DeLone and McLean on tourism industry have not been conducted in Malaysia. Past research had been done in Austria by Stockdale and Borovicka (2006) on the quality dimensions of the tourism website.

1.3 Research Objectives

The purpose of the study is to further investigate the IS success for mobile tourism since the existence of D&M model. There are two objectives in the study which are general objective and specific objectives:

Table 1.1 : General Objectives

General Objectives:	
•	The study is to analyze and understand the relationship of service quality and customers' intention to use.
•	The study is to analyze and understand the relationship of information quality and customers' intention to use.
•	The study is to analyze and understand the relationship of system quality and customers' intention to use.

Source: Developed for the research

Table 1.2 : Specific Objectives

Specific Objectives:	
•	The study is to analyze and understand the relationship of responsiveness and customers' intention to use.
•	The study is to analyze and understand the relationship of reliability and customers' intention to use.
•	The study is to analyze and understand the relationship of empathy and customers' intention to use.
•	The study is to analyze and understand the relationship of timeliness and customers' intention to use.
•	The study is to analyze and understand the relationship of completeness and customers' intention to use.
•	The study is to analyze and understand the relationship of relevance and customers' intention to use.

- The study is to analyze and understand the relationship of security and customers' intention to use.
- The study is to analyze and understand the relationship of navigation and customers' intention to use.
- The study is to analyze and understand the relationship of response time and customers' intention to use.
- The study is to analyze and understand the relationship of web-design and customers' intention to use.

Source: Developed for the research

1.4 Research Questions

There are two research questions in the study which are general question and specific questions:

Table 1.3 : General Research Questions

General Research Questions:	
•	What is the relationship between service quality and customers' intention to use?
•	What is the relationship between information quality and customers' intention to use?
•	What is the relationship between system quality and customers' intention to use?

Source: Developed for the research

Table 1.4 : Specific Research Question

Specific research questions:	
•	What is the relationship between responsiveness and customers' intention to use?

- What is the relationship between reliability and customers' intention to use?
- What is the relationship between empathy and customers' intention to use?
- What is the relationship between timeliness and customers' intention to use?
- What is the relationship between completeness and customers' intention to use?
- What is the relationship between relevance and customers' intention to use?
- What is the relationship between security and customers' intention to use?
- What is the relationship between navigation and customers' intention to use?
- What is the relationship between response time and customers' intention to use?
- What is the relationship between web-design and customers' intention to use?

Source: Developed for the research

1.5 Significance of Study

The Theoretical Contribution of the study is to further study D&M model to identify the elements in IS success. D&M model started with linkage to e-commerce when it's first studied. As the technologies improving, m-commerce is introduced to the study and elements in IS success has been added and improved. Therefore, further study of D&M model enables researcher to further identify and confirm the elements in the IS success.

The Practical Contribution of the study is where new knowledge may be obtained from the study as D&M model is mainly contributed in e-commerce sector for managers in the tourism industry whereas m-commerce is still a new area need to be discovered. Quantitative technique had been tested by many researchers on D&M model for further understanding of IS success. It is important for the managers to identify the key elements which will lead to a successful business by implementing the correct and suitable IS for the company website. The second Practical Contribution is the study also contributes to the management of the travel industry where they may identify the requirement which is the IS success of a good website for m-commerce for the customers. This will increase the customers' intention to use in the mobile tourism which leads to the increase of sales of profit for the tourism industry. It may also contribute to the consumer where convenience is obtained from using m-commerce in travelling.

1.6 Outline of Study

Chapter 1 of the study aims to reveal the background of this research as well as identification the research problems and objectives. The research study is followed by Chapter 2 where the literature review on the IS success and customers' intention to use are conducted via findings of the past studies. Identified theory of the study is applied and the proposed conceptual framework is reviewed. The hypothesis will be developed where the subset of quality factors affecting the success of IS are tested based on their influencing on customers' intention to use. As for Chapter 3, the research will present a methodology where it consists of research design, data collection methods, sampling design, research instrument, construct of measurement scales, and the ways the data is analysed. Chapter 4 carries out data analysis of this research which gathers all the collection data and analysed it using pilot test analysis, descriptive analysis, scale measurement and inferential analysis. The following chapter delivers the summary of whole research study, discussion on major findings, implication, limitations of this research and recommendations for the future research.

1.7 Conclusion

We had determined the problem of mobile commerce on tourism industry in this study. We also had laid out the research objectives and questions of this study. Besides, the literature review will be presented in Chapter 2.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

After listed out the research background, problem statement, research questions and objectives as well as significance of study in Chapter 1, Chapter 2 presents the literature review including theoretical framework and hypotheses development and relates the research with past studies.

2.1 Theoretical / Conceptual Foundation

One of the most significant and popular works on IS success model is the D&M model developed in 1992. DeLone and McLean (1992) stated that their model is “an attempt to reflect the interdependent, process nature of IS success”, intending to illustrate the IS success concept and the considerations for the success. It is an interactive model that conceptualized IS success through six main dimensions identified: system quality, information quality, use, user satisfaction, individual impact, and organizational impact (DeLone & McLean, 1992).

Many researchers are motivated to undertake empirical investigations on, or develop the original model, after called by DeLone and McLean for validation of their model. Some researchers focus on the application and validation of the model (Rai, Lang & Welker, 2002). For instance, both system quality and information quality are proven to have significant relationships with user satisfaction and individual impact in the first validation test conducted by Seddon and Kiew (1994). However, some researchers altered or extended the model. Seddon and Kiew (1994) tested part of the DeLone and McLean (1992) model using a structural equation model. They replaced and their results partially supported the DeLone and McLean (1992) model. Following the Seddon’s

adaption of DeLone & McLean IS success model in 1997 by replacing “use” with “usefulness” and taking into account a new variable called “user involvement”, Garrity and Sanders (1998) further extended the model by adding the organisational and sociotechnical systems. Molla and Licker (2001) also extended the model to measure e-Commerce success.

In 2003, after accepted Pitt, Watson, and Kavan (1995) recommendation to include service quality as a construct, and Baroudi, Olson, and Ives (1986) suggested that there is causal relationship between user satisfaction and system use, DeLone and McLean published a ‘10 Year update’ IS success model and assess its effectiveness in line with the impressive transforms in IS practice. The main changes addressed to a “service quality” measure added to the IS success model, and all the ‘impact’ measures are buckled into a ‘net benefit’ dimension as well as ‘intention to use’ is tied together with ‘use’ dimension (DeLone & McLean, 2003). The model depicts that a system can be evaluated in terms of information, system, and service quality; these characteristics affect the subsequent use or intention to use and user satisfaction. Certain benefits will be achieved through implementation of the system. The net benefits will (positively or negatively) influence user satisfaction and the further use of the information system.

D&M model is adapted in wide application areas to indicate the user satisfaction and their intention to use. It is used as research theory to identify whether an IS success model which contributed by information, system and service quality will affect the user satisfaction and their intention to use. Many researchers have used this model to evaluate the field of success in e-learning (Holsapple & Lee-Post, 2006), online learning system (Lin, 2007), Knowledge Management System (Wu & Wang, 2006), Business-to-Consumer (B2C) e-commerce (DeLone & McLean, 2003; Molla & Licker, 2001) and even m-commerce (Toloie-Eshlaghy & Bayanati, 2012).

There are six concepts in the D&M model. First concept is service quality where it was defined as a comparison between what customers expected to be offered and

what they actually received by Parasuraman, Zeithaml, and Berry (1985). According to Cronin, Brady, and Hult (2000); Rust, Moorman, and Dickson (2000), it was showed that service quality had significant positive impact on consumers' attitude and their behaviour intentions and it can bring competitive advantage for an organization in e-commerce (Fassnacht & Koese, 2006). Parasuraman, Zeithaml, and Berry (1988) have created and used a 45- item instrument SERVQUAL to evaluate customer expectations and perceptions of service quality in service sectors. It includes five dimensions which are tangibles, reliability, responsiveness, assurance, and assurance. Customers can use the five dimensions to measure the service quality regardless of the type of services (Parasuraman et al.1988).

However, various studies have proposed and measured other attributes of the service quality concept such as reliability, responsiveness (Parasuraman et al.1988), empathy, and follow-up service (Liu & Arnett, 2000). This is because DeLone and McLean (1992) had stated that “researchers should systematically combine individual measures from the information success categories to create a comprehensive instrument.”

The second concept is information quality where DeLone and McLean (1992) stated that it was representing as a measurement of the information system outputs such as the production of reports. As users of e-commerce system may seek transactional, customer service, marketing services from conventional information system (Molla & Licker, 2001). Jeong and Gregoire (2003) stated that the quality of online information can influence the behavioral intention of consumers significantly. Consumers' needs for the information must be met in order to solicit online transaction (Jeong & Gregoire, 2003).

However, there was many attributes of the information quality concept have been proposed and measured in various types of studies such as accuracy (Zhang, Keeling, Pavur, & Robert, 2000), timeliness, completeness, relevance (DeLone & McLean, 2003). Besides, information quality concept has been described as multi-dimensional concept in nature (Lee, Strong, Kahn & Wang, 2002).

The third concept is system quality where it refers to the measurement of the information processing system (Negasha, Ryan & Igbaria, 2003; DeLone & McLean, 1992). Based on DeLone and McLean (2003) stated that system quality was the measurement of overall support by a service provider. According to Liu Arnett and Litecky (2000) stated that travellers' online purchase intention will be effected by system quality. User dissatisfaction will arise on top of poor user support and will eventually affect the purchase intention of users.

In traditional information system, system quality was reflected by adaptability, availability, reliability, usability, and response time of the system (DeLone & McLean, 2003). Based on DeLone and McLean (1992), there was "no single variable is intrinsically better than another, so the choice of success variables is often a function of the objective of the study, the organizational context...etc". Moreover, the researchers Jiang and Klein (1999) found that types of system have significant influence to the success measurement for the users.

The following addition concept is system use which refers to the extent and manner of customers in utilizing the capabilities of an information system. The examples are amount of use, frequency of use, intention to use, and so on. However, updated D&M IS success model recognised intention to use placed alongside system use are perceived to be equally important to the IS success (DeLone & McLean, 2003). "Intention to use" is an attitude, whereas "use" is a behavior (DeLone & Mclean, 2003). Furthermore, they explained the construct as follows: 'Use must proceed "user satisfaction" in a process sense, but positive experience with "use" will lead to greater "user satisfaction" in a causal sense'. They further clarified that increased user satisfaction will lead to a higher intention to use, and eventually affect use. User satisfaction is defined as users' level of fulfilment with reports, Web sites, and support services. Kotler (2000) has illustrated "satisfaction is a person's feeling of pleasure or disappointment resulting from a product's perceived performance (or outcome) in relation to his or her expectation". Yi (1990) also stated that user satisfaction built up of users' positive perception, evaluation and psychological reaction along with their consumption experience with a product or service.

Net benefits are the degree of success of individuals, groups, organizations, industries, and nations contributed by IS and it accounts for benefits at multiple levels of analysis (DeLone & McLean, 2003). For examples, net benefits can be reflected on improved decision-making, consumer welfare, and economic development. Many researchers has found that use and user satisfaction have significant relationship with net benefit. Teng and Calhoun (1996), Devaraj and Kohli (2003), and Zhu and Kraemer (2005) have demonstrated use has a positive relationship to the net benefit. Another two researchers in the like of Gelderman (1998) and Law and Ngai (2007) also stated that there is a positive relationship between user satisfaction and net benefit.

In this research, there are total four concepts in D&M model can be applied to identify the importance of IS success in building customers' intention to use on tourism industry. Three concepts as independent variables which are system quality, information quality and service quality are tested based on their relationship with a dependent variable, user purchase intention. The dimensions for system quality are navigation (Molla & Licker, 2001), response time (DeLone and McLean, 1992) and web design (DeLone & McLean, 2003). The dimensions for information quality are timeliness, completeness, relevance (DeLone & McLean, 2003) and security. The dimensions for service quality are responsiveness, reliability (Parasuraman et al.1988), empathy and follow up service (Liu & Arnett, 2000).

2.2 Review of the Prior Empirical Studies

M-commerce is a new area to be studied in this research as the technology is still newly implemented in the society. Nowadays, more and more customers are switching from E-commerce to M-commerce; and this showed that the customer behavioral intention towards the M-commerce technology. According to Yi, Jackson, Park, and Probst (2006), behavioral intention is the perception that the person think he or she should perform the behaviour, and perceived behavioural control.

Behavioural intention is determined by two beliefs which are perceived usefulness where the extent to which a person believes that using the system will improve his or her job performance, and perceived ease of use is where the extent to which a person believes that using the system will be free of effort (Yi et al., 2006). This study had chosen behavioural intention in the form of perceived ease of use as the dependent variable, as intention has a major influence on behaviour in mediating the effect of other determinants on behaviour (Ajzen & Fishbein, 1980). Although M-commerce is existing in the market but it is still considered as an emerging technology, therefore the choice of customers' perceive ease of use in behavioural intention on the m-commerce technology as the dependent variable are desirable for the study.

There are three elements of IS success in the study which is service quality, information quality and system quality. Past studies are shown on the relationship between the elements of IS success and customers' intention to use such as:

The first study is where Ahn, Ryu, and Han (2007) had tested the relationship between factors of web quality and the user acceptance behavior. Online web based survey had been used as their measuring device and a survey of 942 web-based users for online retailing was conducted to test their model. Through the result, they had found that a high level of qualities (information, system and service) will bring a positive impact on online retailing and entice customers to revisit their website.

Wen (2009) had also stated his study is to explore the relationship between the theoretical foundations of factors influencing customers' online purchase intentions. He examined the theoretical foundations and literature review which included discussions of the theory of planned behaviour, consumer trust literature, quality of travel web site design, and consumer satisfaction literature for the study. The result showed that good e-commerce web site design which consist the elements of qualities (information, system and service) will influence customer's attitude, trust, satisfaction, and purchases intention.

Next, Chuang and Fan (2011) had done research to explore the role of trust in the relationship between e-retailer quality and customers' intention to shop online. Personal interview was being used to collect data in the study where samples were selected from those who have shopping experience with online bookstore in Taiwan. It has shown that system quality and service quality are relatively important in their effects on a consumer's trust in online shopping, while information quality is not. The results also show that trust in an online retailer is positively related to consumers' purchase intention.

In the study of Kim, Galliers, Shin, Ryoo, and Kim (2012), the effect of various internet shopping site qualities on the utilitarian and hedonic values of Internet shopping was examined. They performed a structural equation analysis with a sample of 293 observations consisting of two different income groups (workforce and student). The results shown where the qualities (information, system and service) will lead to increase of value, satisfaction and repurchase intention.

Study had also being conducted by Brown and Jayakody (2008) to re-examine the relationships between key dimensions of business to consumers' e-commerce success in the light of established theories, and to develop a revised model. A total amount of 183 sets of questionnaires were collected from postgraduate students in South Africa University. They had found that dependent variable which is the continuance intentions, was directly influenced by perceived usefulness, users' satisfaction and system quality.

According to Lin (2007), a study research model is proposed to understand the influences of website quality dimensions (information, system and service) on customer satisfaction. Data are collect from a survey of 297 customers of online bookstores while the result is where all three qualities have influence on the customer satisfaction. Lin had also stated that appropriate feedback and purchase alternatives need to be provided in order to attract and retain customer interest on online retailers.

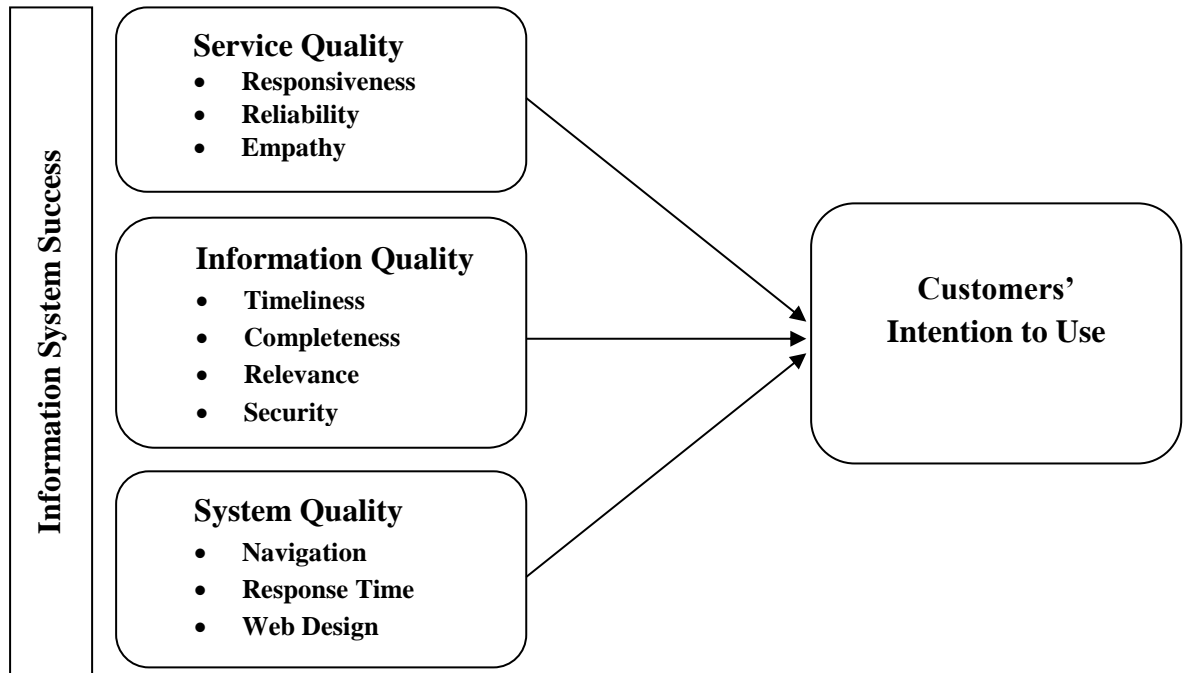
Wang and Pho (2009) stated in their study where the identification of determinants in the customer intention to use online banking. The study had been conducted on customers of the financial industry in Vietnam where 164 valid questionnaires is collected. The result shown on the elements of IS success is that qualities (information, system and service) have an influence on the customer intentions to use online banking.

According to Sharkey, Scott, and Acton (2006), the purpose of their study is to examine the influence of information and system quality on the intention to use, user satisfaction and intention to transact of e-commerce system. Researcher had use the method of distributing pre-task questionnaire to a sample of twenty-seven graduate students from a university. The result has proved that important relationships exist between information and system quality with success constructs measuring intention to use, user satisfaction and intention to transact.

The last past studies where Pai and Huang (2011) had identified the cause and effect relationships between the relevant factors affecting the intention to use IS. 23 medical centers, 70 regional hospitals, 359 district hospitals in Taiwan were given 10 questionnaires on the response to the study. The result shown service quality and system quality have a positive effect on users' perceived ease of use. Furthermore, perceived usefulness and perceived ease of use significantly influence users' intention to use. Hence, the study concludes that perceived ease of use has a positive impact on a user's intention to use.

2.3 Proposed Conceptual Framework / Research Model

Figure 2.1: Research Model Showing the Relationship of Information System Success and Customers' Intention to Use.



Adopted from: Wang & Pho (2009), Wen (2009), Chuang & Fan (2011), Lin (2007) and Elliot, Li & Choi (2012).

2.4 Hypotheses Development

Table 2.1: Hypotheses Between Independent Variables and Dependent Variable.

- H1: There is a positive relationship between service quality and customers' intention to use.
- H1a: There is a positive relationship between responsiveness and customers' intention to use.
- H1b: There is a positive relationship between reliability and customers' intention to use.

<ul style="list-style-type: none">• H1c: There is a positive relationship between empathy and customers' intention to use.
<ul style="list-style-type: none">• H2: There is a positive relationship between information quality and customers' intention to use.• H2a: There is a positive relationship between timeliness and customers' intention to use.• H2b: There is a positive relationship between completeness and customers' intention to use.• H2c: There is a positive relationship between relevance and customers' intention to use.• H2d: There is a positive relationship between security and customers' intention to use.
<ul style="list-style-type: none">• H3: There is a positive relationship between system quality and customers' intention to use.• H3a: There is a positive relationship between navigation and customers' intention to use.• H3b: There is a positive relationship between response time and customers' intention to use.• H3c: There is a positive relationship between web design and customers' intention to use.

Source: Developed for the research

2.5 Conclusion

From the past studies review, fourteen hypotheses and theoretical research model were demonstrated. The next chapter will provide the description of research methodology.

CHAPTER 3: RESEARCH METHADODOLOGY

3.0 Introduction

Research model and hypotheses had developed from the past studies review in Chapter 2, this chapter target to further elaborate the research design, data collection methods, sampling design, research instrument, variables and measurement, data processing procedure, and data analysis techniques.

3.1 Research design

A survey questionnaires were conducted in the study to investigate the influence of IS success of tourism's website on m-commerce. According to Polo and Varela (2009), the purpose of conducting a survey is to gather information about the characteristics, actions or options from a large population.

According to Kelly, Clark, Brown, and Sitzia (2003), surveys are more preferable as it produce research data based on real world observation. Surveys are relatively easy for researchers as it produce a large amount of data in a short period with low cost. Thus, researchers can set a time span for a research (Kelly et al., 2003).

The study was a cross-sectional study as the research period was only conducted for a particular time which is within one year. The method used for data collection was self- administrative questionnaire, where the questionnaires were distributed through personal delivery. Personal delivery is where target respondents will be approached and requested to fill the questionnaire with their comments.

3.2 Data Collection Method

3.2.1 Primary data

Based on the purpose of the study, primary data collection method which is self-administered questionnaire was used to collect the data. Questionnaires are designed in a form which includes closed-ended questions by using seven point Likert scale.

3.2.2 Secondary data

The secondary data was obtained from articles in journals, archives, published statistic and others. The main purpose is to provide further explanation and information for this research framework.

3.3 Sampling Design

3.3.1 Target Population

The target population is the collection of individuals possesses the information which researchers are interested in describing and making statistical inferences about (Malhotra, 2004). According to Rao (2012), Malaysia has the population of 28.7 million where there are only 10 million of the population is mobile internet users. In this research, the target population is focused on consumers in Malaysia, especially those who have experienced and exposed to mobile tourism as their valuable feedback are more useful to this research.

3.3.2 Sampling Location

Since we carried out our internship training, we have collected the data through distributing questionnaires in the area of Penang, Ipoh, Kampar, and Kuala Lumpur. Besides, we have also distributed the remaining questionnaires in University Tunku Abdul Rahman to students and lecturers.

3.3.3 Sampling Elements

In this research, the sampling elements used are the travelers who have experience in using the mobile commerce in tourism industry. The unit of analysis for this research is an individual, especially Malaysia's travelers. In other words, the target respondents in this research must have experience in accessing to travel website by using the mobile phone because they are the familiar ones who are able to rate the information system success of travel website.

3.3.4 Sampling Frame, Sampling Technique and Procedures

Normally, it is unrealistic and impossible for researchers to reach every individual in the population as the entire population is huge. Thus, the ideal sampling technique is required by the researchers in analyzing the characteristic of interest of population. Sampling is crucial in the situation when there are time and budget constraints that limited the researchers from collecting data in whole population (Saunders, Lewis, & Thornhill, 2009).

According to Saunders et al. (2009), there are a few types of sampling techniques which can be classified into probability and non-probability sampling. In this research, a non-probability sampling technique selected is convenience sampling as sampling frame is not known and questionnaires can be easily obtained through this sampling technique. The convenience

sampling will be conducted by selecting those customers who have experienced using mobile tourism. This sampling process will continue until the desired sample size has been achieved. The advantages of convenience sampling are easily accessible to participate in a study, inexpensive and less time consuming (Schonlau, Fricker, & Elliot, 2001).

3.3.5 Sample Size

Sample size is defined as the number of selected elements from the population to be included in the study (Malhotra, 2005). An ideal sample size is deemed to be factor analyzed, given that it should have responses to items ratios ranging from 5:1 to 10:1 (Hair, Anderson, Tatham, & Black, 1998). Overall, this research will measure 42 items that derived from four variables and thus our preferred sample size is between 210 and 420 respondents.

In order to collect the data, 500 sets of survey questionnaire were distributed to target respondents whom have experience in mobile tourism. Each group members has been distributing 100 sets of survey questionnaire during the internship period. 300 sets of survey questionnaire are expected to be collected back from the target respondents for the data analysis.

3.4 Research Instrument

Survey questionnaire was being used for our study because this is the most commonly and it is less costly, efficient, and may obtain large amounts of data from the respondents.

A pilot test also being conducted to obtain feedbacks on the survey to help in eliminating researchers' bias in setting the questions. 30 sets of survey

questionnaire had been distributed to the UTAR students and lecturers for the purpose of pilot test.

3.5 Constructs Measurement

Refer to Appendix 3.1 for the sources of the variables in Table 3.1.

Table 3.1: Measurement of Each Variable

Variables		Measurement	Scale of Measurement
Demographic profile	Gender	Nominal	-
	Age	Ordinal	-
	Marital status	Nominal	-
	Highest education completed	Ordinal	-
	Occupation	Nominal	-
	Have you travel before	Nominal	-
	Have you use mobile commerce before	Nominal	-
Information System Success	Responsiveness	Interval	7-point Likert scale
	Reliability	Interval	7-point Likert scale
	Empathy	Interval	7-point Likert scale
	Timeliness	Interval	7-point Likert scale
	Completeness	Interval	7-point Likert scale
	Relevance	Interval	7-point Likert scale
	Security	Interval	7-point Likert scale
	Navigation	Interval	7-point Likert scale
	Response time	Interval	7-point Likert scale
	Web-design	Interval	7-point Likert scale
Customers' Intention to Use	Customers' intention to use	Interval	7-point Likert scale

Source: Developed for the research

Independent variables in this research are made up by service quality, system quality, and information quality whereas dependent variable is made up by customers' intention to use (DeLone & McLean, 2003).

Service quality consisted of three dimensions which are responsiveness (4 items), reliability (4 items) and empathy (4 items). Information quality is built up by four dimensions which are timeliness (3 items), completeness (4 items), relevance (4 items) and security (3 items). For system quality, there are three dimensions which are navigation, response time and web-design where each dimension was measured using four items. All three independent variables were obtained from Ahn, Ryu, and Han (2004), Yang, Jun, and Peterson (2004), Wang, Wang, and Shee (2007), Landrum, Zhang, Prybutok, and Peak (2009), Wong and Yeung (2011), Wu and Wang (2006), Roca, Chiu, and Martinez (2006), Kuan, Bock, and Vathanophas (2008), Smart (2009), and Chen and Kao (2012). On the other hand, dependent variable for this construct is customers' intention to use and it is measured via the use of four items (Ahn et al., 2007).

A Likert scaling is commonly used to measure opinion, belief and attitudes when developing an instrument (DeVellis, 2003). In this research, all the items in the questionnaire are measured using 7-point Likert scale except for the demographic section. The Likert scale is ranged from "Strongly Disagree" (1) to "Strongly Agree" (7). Respondents are asked to choose number from 1 to 7 to denote their degree of agreement towards each question.

3.6 Data Processing

3.6.1 Data Checking

Data checking is where the collected data are checked to maintain the quality levels. The checking process is done by all the group members during and after the questionnaires surveys distribution to the respondents. The purpose is to ensure there is no mistake made in the questionnaire.

3.6.2 Data Editing

Data editing is done before the data is used to generate results. This is to ensure the collected data is complete and consistent among the entire questionnaire. Out of total 500 questionnaires printed, there were only 438 questionnaires had been distributed and filled up by respondents. The remaining 62 questionnaires were either found to have printing errors prior to distribution or failed to be distributed due to time limitation. Yet, there were 138 questionnaires have to be withdrawn as respondents answered the questionnaires improperly and incompletely.

300 useful questionnaires had been remained and analysed after the removal of unqualified questionnaires. Hence, the total response rate of questionnaire survey is 68.49 per cent.

3.6.3 Data Coding

This research has used SAS Enterprise Guide 5.1 for data coding as well as analysis, for example respondent were coded as “1” for male and “2” for female in the Section A. While “1” for strongly disagree; “2” for mostly disagree, “3” for partially disagree, “4” for neutral, “5” for partially agree, “6” for mostly agree and “7” for strongly agree in Section B and Section C.

3.7 Data Analysis Techniques

The questionnaire for the study will be tested by using SAS Enterprise Guide 5.1; the purpose is to obtain the descriptive statistics and inferential analytical results. The first section and the remaining two sections of the questionnaire will be tested on the descriptive statistics and inferential analytical results respectively.

Descriptive statistics is where it involves the calculation of mean, median, mode, standard deviation, variance, and ranges on the first section of the questionnaire. It will be carried out to obtain an overview of the complete data set for the demographic profile for further evaluation. The descriptive data will also be shown and interpreted by using histograms or pie-chart.

As for inferential analyses, the remaining two sections for the study will be tested by using the Multiple Linear Regression and Pearson Correlation Coefficient analysis. Independent variables which are service quality, information quality and system quality will be tested on their relationship with the customers' intention to use. There are three assumptions need to be fulfilled by the variables which are normality, reliability and multicollinearity test.

Two equations for the Multiple Linear Regression will be generated based on the results obtained from the variables. The first equation comprises the elements in the service quality, information quality and system quality while the second equation comprises the average value of three independent variables. The equation are shown as below,

$$\text{Model equation: } Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_i X_i + \epsilon$$

$$\text{First equation: } IU = \beta_0 + \beta_1 RP + \beta_2 RL + \beta_3 EM + \beta_4 TL + \beta_5 CP + \beta_6 RV + \beta_7 SC + \beta_8 NV + \beta_9 RT + \beta_{10} WD + \epsilon$$

$$\text{Second equation: } IU = \beta_0 + \beta_1 SeQ + \beta_2 InQ + \beta_3 SyQ + \epsilon$$

Where,

β_0 = a constant, the value of Y when all X are zero

β_i = the slope of the regression surface (The β represent the regression coefficient associate with each X_i).

ϵ = an error term, normally distributed about a mean of 0 (For purpose of computation, the ϵ is assumed to be 0).

Table 3.2: Abbreviation for the Multiple Linear Regressions.

RP = Responsiveness	RL = Reliability	EM = Empathy
TL = Timeliness	CP = Completeness	RV = Relevance
SC = Security	NV = Navigation	RT = Response time
WD = Web-Design	IU= Customers' Intention to Use	
SeQ = Service Quality	InQ = Information Quality	SyQ= System Quality

Source: Developed for the research

3.8 Conclusion

The data analysis techniques, variables and measurement of the variables were provided on the study in this chapter. Chapter 4 will be analysis on the survey's data by using SAS Enterprise Guide 5.1 to obtain the test values.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

In Chapter 3, we had described the research methodology and data analysing techniques while yet on the results. This chapter consists of pilot test analysis, descriptive analysis, scale measurement and inferential analysis where it's based on the results obtain from the survey. All the statistic results are generated using SAS Enterprise Guide 5.1.

4.1 Pilot Test Analysis

30 survey questionnaires had been distributed to the UTAR students and lecturers for the purpose of pilot test. Table 4.1 and 4.2 illustrate the reliability and normality test respectively where the results are generated from SAS Enterprise Guide 5.1.

4.1.1 Reliability Test

Reliability test will be conducted on the pilot test results by referring to the Cronbach's Alpha value for IVs and DV. Bassioni, Hassan and Price (2007) stated where a level of .60 was recommended to measure an acceptable level of reliability. As shown in Table 4.1, all variables fulfilled the criteria where the Cronbach's Alpha value is higher than .60.

Table 4.1: Reliability Test of the Pilot Study

Research construct and research items	Cronbach's Alpha	Number of Items
Service Quality		
<i>Responsiveness</i>	0.8951	4
<i>Reliability</i>	0.6901	4
<i>Empathy</i>	0.8479	4
Information Quality		
<i>Timeliness</i>	0.8465	3
<i>Completeness</i>	0.8943	4
<i>Relevance</i>	0.8427	4
<i>Security</i>	0.8591	3
System Quality		
<i>Navigation</i>	0.8290	4
<i>Response Time</i>	0.9054	4
<i>Web-Design</i>	0.8406	4
Customers' Intention to Use	0.7916	4

Source: Developed for the research

4.1.2 Normality Test

Normality test are also performed on the pilot test results where Skewness and Kurtosis value are generated and shown in Table 4.2. The guidelines for Skewness and Kurtosis value are < 3 and < 10 respectively as recommended by Kline (2005). The Skewness value range for the pilot test results is -1.7969 (TL 2) to 0.4798 (RV 2) while the kurtosis value range is -1.1431 (RL 1) to 5.7705 (TL 2). This shown the value range are < 3 and < 10 respectively therefore it fulfilled the normality test.

Table 4.2: Skewness and Kurtosis of the Pilot Study

Research construct and research items		Skewness	Kurtosis
Service Quality			
<i>Responsiveness</i>			
RP 1	The travel website anticipates and response promptly to user request.	-0.0958	-0.2061
RP 2	The travel website is always willing to help customers.	-0.8480	0.6214
RP 3	The travel website is always ready to response to customers' request.	-0.5328	0.2046
RP 4	The travel website quickly resolves the problem encountered by user.	-0.4111	-0.0171
<i>Reliability</i>			
RL 1	The travel website can be depended on to provide service as promised.	0.0699	-1.1431
RL 2	The travel website dependability in handling users' service problem.	-0.4328	-0.5723
RL 3	The travel website can perform service right in the first time.	-0.2087	-0.4235
RL 4	The travel website is keeping user informed about when services will be performed.	-1.1684	1.9708
<i>Empathy</i>			
EM 1	The travel website understands and adapt to the users' specific needs.	0.4318	-0.0832
EM 2	The travel website deals with users in a caring fashion.	-0.2371	0.8614
EM 3	The travel website has the users' best interest.	-0.6107	1.1592
EM 4	The travel website provides a proper level of online existence and explanation.	-0.8051	0.8358

Information Quality			
<i>Timeliness</i>			
TL 1	The travel website provides timely information.	-0.8291	1.6571
TL 2	The travel website is available at a time suitable for user's use.	-1.7969	5.7705
TL 3	The travel website is updated daily.	-0.5846	-0.6599
<i>Completeness</i>			
CP 1	The travel website provides complete information.	-0.8357	0.7867
CP 2	The travel website delivers sufficient information.	-0.3644	-0.6778
CP 3	The travel website is clear and unambiguous.	-0.1204	-0.5289
CP 4	The travel website provides enough depth of information about its service.	-0.1717	-0.9238
<i>Relevance</i>			
RV 1	The travel website provides relevant information.	0.2574	-0.8535
RV 2	The travel content of the website is logical and fit.	0.4798	-0.4031
RV 3	The travel website provides meaningful, understandable information.	0.1187	-0.2318
RV 4	The travel website provides information that seems just to be what I needed.	-0.0487	-0.7503
<i>Security</i>			
SC 1	The information will be ensuring not to be intercepted by unauthorized party.	-0.4323	-0.4415
SC 2	The travel website can effectively protect the information privacy.	-0.6600	-0.0546
SC 3	The travel website has established adequate security features.	-0.4055	-0.1431

System Quality			
<i>Navigation</i>			
NV 1	The travel website has an easy navigation to information.	-1.3622	3.5230
NV 2	The travel website is stable.	-0.5011	0.2398
NV 3	The interaction with the travel website is clear and understandable.	-0.0109	-1.0102
NV 4	It is easy to interact with the travel website.	0.4221	-0.3601
<i>Response Time</i>			
RT 1	The travel website has fast response and transaction processing.	-0.1944	0.1307
RT 2	The response time of the travel website is acceptable.	-0.6553	1.1413
RT 3	The travel website provides high-speed information access.	-0.2868	-0.2503
RT 4	The travel website response instantly.	-0.5432	-0.3124
<i>Web-Design</i>			
WD 1	The travel website has an appropriate style of design.	-0.8961	0.6812
WD 2	The organisation of information on the travel website is clear.	-0.1065	-0.6166
WD 3	The overall page layout is consistent throughout the travel website.	-0.3026	-0.7713
WD 4	The travel website has attractive features to appeal to the users.	-0.8750	-0.1173
Customers' Intention to Use			
IU 1	I will keep using the travel website in the future.	-0.3039	0.0683
IU 2	I will use the travel website on the regular basis in the future.	-0.0680	-0.1572
IU 3	I will recommend others to use the travel website.	-0.2678	-0.4485

IU 4	I will frequently use the travel website in the future.	-0.4199	-0.5146
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Source: Developed for the research

4.2 Descriptive analysis

4.2.1 Demographic Profile of the Respondents

Table 4.3: Survey Respondents' Demographic Profile and Information

n=300

Profile	Categories	Frequency	Percentage
Gender	Male	143	47.67%
	Female	157	52.33%
Age	Below 25 years	236	78.67%
	26 years-30 years	44	14.67%
	31 years-35 years	13	4.33%
	36 years and above	7	2.33%
Marital Status	Single	269	89.67%
	Married	31	10.33%
Highest Education Completed	Diploma	106	35.33%
	Bachelor Degree	150	50.00%
	Master Degree	2	0.67%
	PhD	3	1.00%
	Others	39	13.00%
Occupation	Student	204	68.00%
	Housewife	2	0.67%
	Employed	92	30.67%
	Unemployed	2	0.67%
	Others	0	0.00%

Have you travel before	Yes	300	100.00%
	No	0	0.00%
Have you use mobile commerce before	Yes	300	100.00%
	No	0	0.00%

Source: Developed for the research

Table 4.3 presents the survey respondents' demographic information. Other than questions regarding on the experience of travelling and using mobile commerce, it also include gender, age, marital status, highest education completed as well as occupation of respondents. Out of total 300 respondents, there are 147 of male respondents and 153 of female respondents. As for age range, the age of majority of respondents amounting to 236 is below 25 years old, 44 respondents' age falls between 26 to 30 years old. The age of the rest 13 and 7 respondents is between 31 to 35 years old and 36 years old and above respectively. Marital statuses of 269 respondents are single and 31 respondents are married.

The results of the survey showed that there are half of the respondents holding Bachelor Degree and 106 respondents holding Diploma. Meanwhile, there are only 2 and 3 respondents holding Master Degree and PhD respectively. The balances of 39 respondents have completed other education level such as SPM, A-Levels, Foundation and Advanced Diploma.

Moreover, the table also demonstrated that majority of respondents which is 204 are students while 92 respondents are employed. There are only 2 respondents are housewife, followed by 2 unemployed respondents. As we only focused on the target respondents who have travelled and used mobile commerce before, therefore we had only obtained the survey from target respondents which fulfilled both of the requirements.

The pie chart for respondents' demographic profile and information will be shown from Appendix 4.1 to Appendix 4.7.

4.2.2 Central Tendencies Measurement of Constructs

Mean and standard deviation results were conducted by using SAS Enterprise Guide 5.1. The results are presented as Table 4.4 where the mean's range for each of the results is listed as follows: responsiveness (4.9300 - 5.3200), reliability (4.9733 - 5.2200), empathy (5.0967 - 5.3267), timeliness (5.0700 – 5.4000), completeness (5.1533 - 5.2700), relevance (5.1733 – 5.4967), security (5.0933 – 5.1733), navigation (5.2533 – 5.4667), response time (4.8833 – 5.2333), web design (5.2200 – 5.4000), and customers' intention to use (5.0000 – 5.2367).

The results of standard deviation for all the variables are between the ranges of 0.9507 to 1.1845. The lowest standard deviation value is the variable of completeness (CP 2) while the highest standard deviation value is timeliness (TL 3). Both of the variables are sub-variables in information quality.

Table 4.4: Mean and Standard Deviation of the Study

Research construct and research items		Mean	Standard Deviation
Service Quality			
<i>Responsiveness</i>			
RP 1	The travel website anticipates and response promptly to user request	5.2067	0.9869
RP 2	The travel website is always willing to help customers.	5.3200	1.0138
RP 3	The travel website is always ready to response to customers' request.	5.2867	1.1353
RP 4	The travel website quickly resolves the problem encountered by user.	4.9300	1.1760
<i>Reliability</i>			
RL 1	The travel website can be depended on to provide service as promised.	5.2200	0.9873

RL 2	The travel website dependability in handling users' service problem.	4.9733	1.0660
RL 3	The travel website can perform service right in the first time.	5.0400	1.0904
RL 4	The travel website is keeping user informed about when services will be performed.	5.0800	1.0759
<i>Empathy</i>			
EM 1	The travel website understands and adapt to the users' specific needs.	5.2567	0.9801
EM 2	The travel website deals with users in a caring fashion.	5.3267	1.0537
EM 3	The travel website has the users' best interest.	5.0967	1.0945
EM 4	The travel website provides a proper level of online existence and explanation.	5.1100	0.9735
Information Quality			
<i>Timeliness</i>			
TL 1	The travel website provides timely information.	5.3133	1.0546
TL 2	The travel website is available at a time suitable for user's use.	5.4000	0.9780
TL 3	The travel website is updated daily.	5.0700	1.1845
<i>Completeness</i>			
CP 1	The travel website provides complete information.	5.1933	1.0228
CP 2	The travel website delivers sufficient information.	5.2500	0.9507
CP 3	The travel website is clear and unambiguous.	5.2700	1.0744
CP 4	The travel website provides enough depth of information about its service.	5.1533	1.0710

<i>Relevance</i>			
RV 1	The travel website provides relevant information.	5.4233	0.9629
RV 2	The travel content of the website is logical and fit.	5.4967	0.9831
RV 3	The travel website provides meaningful, understandable information.	5.4233	0.9801
RV 4	The travel website provides information that seems just to be what I needed.	5.1733	1.0199
<i>Security</i>			
SC 1	The information will be ensuring not to be intercepted by unauthorized party.	5.1733	1.0927
SC 2	The travel website can effectively protect the information privacy.	5.0933	1.0779
SC 3	The travel website has established adequate security features.	5.1133	1.0822
System Quality			
<i>Navigation</i>			
NV 1	The travel website has an easy navigation to information.	5.4667	1.0922
NV 2	The travel website is stable.	5.2700	1.0135
NV 3	The interaction with the travel website is clear and understandable.	5.4300	1.0207
NV 4	It is easy to interact with the travel website.	5.2533	0.9895
<i>Response Time</i>			
RT 1	The travel website has fast response and transaction processing.	5.0567	1.0183
RT 2	The response time of the travel website is acceptable.	5.2333	1.0658
RT 3	The travel website provides high-speed information access.	5.0967	1.0791
RT 4	The travel website response instantly.	4.8833	1.1287

<i>Web-Design</i>			
WD 1	The travel website has an appropriate style of design.	5.4000	0.9642
WD 2	The organisation of information on the travel website is clear.	5.3800	0.9689
WD 3	The overall page layout is consistent throughout the travel website.	5.3567	1.0097
WD 4	The travel website has attractive features to appeal to the users.	5.2200	1.1026
Customers' Intention to Use			
IU 1	I will keep using the travel website in the future.	5.2367	0.9987
IU 2	I will use the travel website on the regular basis in the future.	5.1667	1.0045
IU 3	I will recommend others to use the travel website.	5.1800	1.0414
IU 4	I will frequently use the travel website in the future.	5.0000	1.0632

Source: Developed for the research

4.3 Scale Measurement

4.3.1 Reliability test

SAS Enterprise Guide 5.1 was used to conduct the reliability test in measuring the results by referring to the coefficient alpha. The internal consistency reliability of the measures has been estimated by using Cronbach's Alpha traditionally (MacKenzie, Podsakoff, & Podsakoff, 2011).

A threshold level of .70 was recommended to measure an appropriate level of reliability by Hair et. al. (2010). The coefficient alpha estimated for each of the constructs is listed as follows: responsiveness ($\alpha = .8258$), reliability ($\alpha = .7269$), empathy ($\alpha = .7941$), timeliness ($\alpha = .7774$), completeness ($\alpha = .7821$), relevance ($\alpha = .7774$), security ($\alpha = .8460$), navigation ($\alpha = .7961$), response time ($\alpha = .8052$), web-design ($\alpha = .7815$), and customers' intention to use ($\alpha = .8063$). The Cronbach's Alpha coefficients results shown that all construct were greater than .70. Based on the suggested minimum value of .70, the eleven measures appeared to be good indicators of each construct. The Cronbach's Alpha result is presented in Table 4.5.

Table 4.5: Reliability Test of the Study

Research construct and research items	Cronbach's Alpha	Number of Items
Service Quality		
<i>Responsiveness</i>	0.8258	4
<i>Reliability</i>	0.7269	4
<i>Empathy</i>	0.7941	4
Information Quality		
<i>Timeliness</i>	0.7774	3
<i>Completeness</i>	0.7821	4
<i>Relevance</i>	0.7774	4
<i>Security</i>	0.8460	3
System Quality		
<i>Navigation</i>	0.7961	4
<i>Response Time</i>	0.8052	4
<i>Web-Design</i>	0.7815	4
Customers' Intention to Use	0.8063	4

Source: Developed for the research

4.3.2 Normality Test

According to Maiyaki and Moktar (2011), normality refers to shape of the data distribution for an individual continuous variable and its correspondence to normal distribution. Park (2008) stated that there are two ways of testing normality which is numerical methods and graphical methods; a numerical method is present summary statistics such as Skewness and Kurtosis. Skewness measures the degree of asymmetry of a distribution around its mean while Kurtosis characterizes the relative peaked-ness or flatness of a distribution compared with the normal distribution (Čisar & Čisar, 2010).

The value of Skewness and Kurtosis of all items are within the acceptable range of ± 3.0 where it indicates an acceptable range for the normal distribution (Saito, 2003). As presented in Table 4.6, the Skewness of all items is in the range of -0.8989 (NV 1) to -0.0402 (EM 1) whereas the Kurtosis is in the range of -0.4034 (IU 2) to 1.3275 (CP 1). For the normality test, all variables in the value of Skewness and Kurtosis fulfilled the range of ± 3.0 respectively.

Table 4.6: Skewness and Kurtosis of the Study

Research construct and research items		Skewness	Kurtosis
Service Quality			
<i>Responsiveness</i>			
RP 1	The travel website anticipates and response promptly to user request	-0.3405	-0.0183
RP 2	The travel website is always willing to help customers.	-0.6749	0.3212
RP 3	The travel website is always ready to response to customers' request.	-0.5119	0.0370
RP 4	The travel website quickly resolves the problem encountered by user.	-0.4100	0.5863

<i>Reliability</i>			
RL 1	The travel website can be depended on to provide service as promised.	-0.4113	0.0293
RL 2	The travel website dependability in handling users' service problem.	-0.4136	-0.2119
RL 3	The travel website can perform service right in the first time.	-0.2978	-0.2399
RL 4	The travel website is keeping user informed about when services will be performed.	-0.3548	0.0075
<i>Empathy</i>			
EM 1	The travel website understands and adapt to the users' specific needs.	-0.0402	-0.3692
EM 2	The travel website deals with users in a caring fashion.	-0.3218	-0.3895
EM 3	The travel website has the users' best interest.	-0.5781	0.2412
EM 4	The travel website provides a proper level of online existence and explanation.	-0.2223	0.2718
Information Quality			
<i>Timeliness</i>			
TL 1	The travel website provides timely information.	-0.6023	0.2970
TL 2	The travel website is available at a time suitable for user's use.	-0.6565	0.9364
TL 3	The travel website is updated daily.	-0.5129	-0.0153
<i>Completeness</i>			
CP 1	The travel website provides complete information.	-0.6029	1.3275
CP 2	The travel website delivers sufficient information.	-0.3776	0.0558

CP 3	The travel website is clear and unambiguous.	-0.4411	-0.1571
CP 4	The travel website provides enough depth of information about its service.	-0.2271	-0.2180
<i>Relevance</i>			
RV 1	The travel website provides relevant information.	-0.3011	-0.4010
RV 2	The travel content of the website is logical and fit.	-0.4265	-0.0494
RV 3	The travel website provides meaningful, understandable information.	-0.5670	0.2197
RV 4	The travel website provides information that seems just to be what I needed.	-0.0485	-0.3484
<i>Security</i>			
SC 1	The information will be ensuring not to be intercepted by unauthorized party.	-0.6277	0.2778
SC 2	The travel website can effectively protect the information privacy.	-0.4611	-0.0579
SC 3	The travel website has established adequate security features.	-0.3706	-0.0008
System Quality			
<i>Navigation</i>			
NV 1	The travel website has an easy navigation to information.	-0.8989	1.1783
NV 2	The travel website is stable.	-0.5617	0.6068
NV 3	The interaction with the travel website is clear and understandable.	-0.5595	0.3742
NV 4	It is easy to interact with the travel website.	-0.5469	0.9333

<i>Response Time</i>			
RT 1	The travel website has fast response and transaction processing.	-0.2862	0.8586
RT 2	The response time of the travel website is acceptable.	-0.2435	-0.2649
RT 3	The travel website provides high-speed information access.	-0.2257	-0.2424
RT 4	The travel website response instantly.	-0.5835	0.9003
<i>Web-Design</i>			
WD 1	The travel website has an appropriate style of design.	-0.4462	0.2440
WD 2	The organisation of information on the travel website is clear.	-0.3126	-0.0607
WD 3	The overall page layout is consistent throughout the travel website.	-0.2904	-0.2985
WD 4	The travel website has attractive features to appeal to the users.	-0.3846	-0.3185
Customers' Intention to Use			
IU 1	I will keep using the travel website in the future.	-0.2863	0.1191
IU 2	I will use the travel website on the regular basis in the future.	-0.1602	-0.4034
IU 3	I will recommend others to use the travel website.	-0.2410	-0.2313
IU 4	I will frequently use the travel website in the future.	-0.0504	-0.0450

Source: Developed for the research

4.4 Inferential Analysis

4.4.1 Pearson Correlation Analysis

By adopting Pearson correlation analysis, the results of correlation between total eleven of IVs and the customers' intention to use (IU) are illustrated in Table 4.7 below. All these associated pairs of variables have reached the significant level of 0.01. As shown in Table 4.7, there are significant relationship between eleven IVs and customers' intention to use as p-values are wholly less than 0.0001, which have fulfilled the hypothesized assumption statistically significant at level $p < 0.01$. The range of correlation coefficient between eleven IVs and IU is covered from 0.6931 to 0.5126 as RT enjoys the strongest correlation whilst the weakest correlation falls to RP.

Table 4.7: Correlation between Variables

	RP_ AVG	RL_ AVG	EM_ AVG	TL_ AVG	CP_ AVG	RV_ AVG	SC_ AVG	NV_ AVG	RT_ AVG	WD_ AVG	IU_ AVG
RP_ AVG	1										
RL_ AVG	0.7208	1									
EM_ AVG	0.6662	0.7129	1								
TL_ AVG	0.5572	0.5931	0.5673	1							
CP_ AVG	0.6104	0.6385	0.6349	0.6101	1						
RV_ AVG	0.5668	0.6066	0.6078	0.5791	0.6595	1					
SC_ AVG	0.4988	0.5372	0.5429	0.4698	0.4695	0.5225	1				
NV_ AVG	0.5688	0.5580	0.5630	0.5320	0.5529	0.6665	0.5510	1			
RT_ AVG	0.5980	0.5788	0.5695	0.5559	0.6162	0.5687	0.4822	0.5432	1		
WD_ AVG	0.5197	0.5443	0.5215	0.4689	0.5704	0.6327	0.4285	0.5742	0.5653	1	
IU_ AVG	0.5126	0.5735	0.5527	0.5554	0.5583	0.6013	0.5594	0.5342	0.6931	0.5342	1

Note: All correlation is significant at the 0.01 levels (2-tailed).

Source: Developed for the research

4.4.2 Multicollinearity Test

According to Tabachnich and Fidel (2007), the multicollinearity problem occurs when the correlation between each pair of independent variables are highly as 0.90 and above. From the results shown in the Table 4.7, the lowest value of coefficient is 0.4285 which represented by the correlation between SC and WD while the highest value of coefficient is 0.7208 represented by the correlation between RP and RL, which is less than 0.90. Therefore, the result showed that multicollinearity problem did not exist among independent variables in this study.

4.4.3 Multiple Regression Analysis

Multiple regression analysis is a statistical tool that used to evaluate the significant relationship between variables and the possible influences of multiple independent variables over dependent variable are explained (Hair et al., 2006). Throughout this research analysis, the statistical significance of coefficient, magnitude of relationship and nature of relationship between independent variables and dependent variable are tested.

Hoffmann (2010) has stated the test will be statistically significant if the p-value is 0.05 or less than. As illustrated in Table 4.8, three independent variables are significantly affecting the customers' intention to use mobile commerce in tourism industry which are RV ($p = 0.0169$), SC ($p = 0.1614$) and RT ($p < 0.001$). All other variables that established for this research are not significantly related with customers' intention to use mobile commerce.

Adjusted R^2 at 0.5775 indicated that 57.75% of the dependent variable which is customers' intention to use can be explained by all independent variables. The most influential RT ($\beta = 0.3906$) followed by SC ($\beta = 0.1614$) and lastly RV ($\beta = 0.1578$). In addition, Bae (2012) has revealed that there is no multicollinearity problem in the condition that Tolerance value and

Variance Inflation Factor (VIF) value are above 0.1 and below 10 respectively. Hence, all the Tolerance value and VIF value that stated in the Table 4.8 have proved that there is no multicollinearity problem.

The structural equation created under this model is:

$$IU = 0.4244 - 0.0768 RP + 0.0984 RL + 0.0292 EM + 0.0931 TL - 0.0043 CP + 0.1578 RV + 0.1614 SC + 0.0033 NV + 0.3906 RT + 0.0614 WD$$

Table 4.8 : Multiple Regression Analysis^a

Independent Variables	Beta	t-value	Sig.	Hypothesis	Decisions	Collinearity Statistics	
						Tolerance	VIF
(Constant)	0.4244	1.67	0.0955				
RP	-0.0768	-1.37	0.1729	H1a	Not Supported	0.3885	2.5741
RL	0.0984	1.47	0.1435	H1b	Not Supported	0.3424	2.9210
EM	0.0292	0.48	0.6342	H1c	Not Supported	0.3843	2.6025
TL	0.0931	1.92	0.0553	H2a	Not Supported	0.5031	1.9877
CP	-0.0043	-0.07	0.9435	H2b	Not Supported	0.3980	2.5129
RV	0.1578	2.40	0.0169	H2c	Supported	0.3746	2.6697
SC	0.1614	3.80	0.0002	H2d	Supported	0.5822	1.7176
NV	0.0033	0.06	0.9538	H3a	Not Supported	0.4457	2.2434
RT	0.3906	7.47	<.0001	H3b	Supported	0.4743	2.1086
WD	0.0614	1.11	0.2660	H3c	Not Supported	0.5008	1.9969
Notes:	F-value	41.86					
	Sig. of F	<.0001					
	R ²	0.5916					
	Adj. R ²	0.5775					

Source: Developed for the research

According to the Table 4.9, INF ($p < 0.001$) and SYS ($p < 0.001$) are significantly affecting the customers' intention to use mobile commerce in tourism industry while SER ($p = 0.5670$) has no significant association with customers' intention to use mobile commerce. Adjusted R² at 0.5393 indicated that 53.93% of the dependent variable which is customers' intention to use can be explained by all independent variables which include service quality, information quality as well as system quality. Besides that,

the result showed no multicollinearity problem as all Tolerance value and VIF value presented in Table 4.9 are greater than 0.1 and smaller than 10 respectively.

The structural equation created under this model is:

$$IU = 0.2997 + 0.0430 \text{ SER} + 0.4254 \text{ INF} + 0.4555 \text{ SYS}$$

Table 4.9 : Multiple Regression Analysis^b

Independent Variables	Beta	t-value	Sig.	Hypothesis	Decisions	Collinearity Statistics	
						Tolerance	VIF
(Constant)	0.2997	1.15	0.2514				
SER	0.0430	0.57	0.5670	H1	Not Supported	0.3383	2.9563
INF	0.4254	4.77	<.0001	H2	Supported	0.2692	3.7143
SYS	0.4555	5.57	<.0001	H3	Supported	0.3260	3.0672
Notes:	F-value	117.68					
	Sig. of F	<.0001					
	R ²	0.5439					
	Adj. R ²	0.5393					

Source: Developed for the research

4.5 Conclusion

This chapter provided the multiple regression equation generated from the results generated. Chapter 5 would be discussing on the major findings, implications, and limitation of the study. Recommendation will also be made for future research.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

In Chapter 4, demographic profile of target respondents and results of the data analysis are interpreted in value. In this chapter, it is to provide a major summary on all the statistical analysis as well as discussion on the hypothesis. Limitation and recommendation for future research would also be explained in this chapter.

5.1 Summary of Statistical Analysis

The pilot test has fulfilled the assumption of reliability test which Cronbach's Alpha value for all variables are higher than .60 and all these variables have passed the normality test as Skewness and Kurtosis value are < 3 and < 10 respectively.

For demographic profiles of 300 respondents, male and female respondents are held 47.67% and 52.33% respectively. Majority of the respondents belong to the age group of below 25 years old (78.67%) and they are commonly single (89.67%) and still pursuing their studies (68.00%) either in Diploma (35.33%) or Bachelor Degree (50.00%). Besides, all respondents in this survey have experienced in travelling and have used mobile commerce.

The results conducted by using SAS Enterprise Guide 5.1 have revealed that the mean for all variables are between ranges of 4.8000 to 5.5000 while the standard deviations for all variables are below 1.2000. In order to measure the correlation between total eleven of IVs and the IU, Pearson Correlation Analysis was adopted in this study. As a result, there is significant correlation coefficient between all

IVs and IU as p-value is entirely less than 0.0001 whereby Response Time and Responsiveness have enjoyed strongest and weakest correlation respectively. In fact, there is no multicollinearity problem exist in this study as the highest value of coefficient (0.7208) is still below the threshold of 0.90.

Throughout the Multiple Regression analysis, there are only three independent variables which are RV, SC, and RT significantly affecting the customers' intention to use mobile commerce in tourism industry. In general, two out of three main independent variables which refer to information quality and system quality have significantly affecting the customers' intention to use mobile commerce.

5.2 Discussions of Major Findings

In this study, there are three main independent variables which are service quality, information quality and system quality. The variables are tested on the relationship with the dependent variable which is customers' intention to use mobile commerce in tourism industry. Service quality is consisting of sub independent variables such as responsiveness, reliability, and empathy. Information quality is consisting of timeliness, completeness, relevance, and security while system quality is consisting of navigation, response time and web design.

Results generated shown that there are no significant affects between service quality and customers' intention to use mobile commerce with the value of 0.5670. This finding may be due to the service option provided by m-commerce are still a newly approach and yet to be fully understand for the Malaysian consumer. Therefore, service quality might not be a concern factors for the consumer. It is supported where Petter and McLean (2009) stated that service quality has no significant relationship with use in their research model.

On the other hand, information quality and system quality significant affects customers' intention to use with the value of < 0.001 respectively. Chuang and

Fan (2011) stated that the system quality is positively related to consumers' purchase intention. The findings implies as website are system-oriented variables, such as website design, reliability, access, convenience, and ease of use are the primary factors in measuring the customer perceptions of website performance (Lin, 2007).

Meanwhile for significant relationship of information quality, Lin (2007) had stated where high-quality information will fulfil the customer's needs enables customers to reduce the costs of information searching and processing. Several past studies also indicate positive correlation between the qualities (information and system) and customers' intention to use which are Kim et al., 2012; Wang & Pho, 2009 and Pai & Huang, 2011.

As for the sub independent variables, three variables are significantly affecting the customers' intention to use mobile commerce in tourism industry which are relevance ($p = 0.0169$), security ($p = 0.1614$) and response time ($p < 0.001$). Response time of system quality is significantly affect the customers' intention as it tend to be one of the credible factors which present the competence and expertise of websites (Chuang & Fan, 2011).

Past study such as Wang and Pho (2009) had also stated relevance of information quality is among the variables which significantly affect customers' intention to use mobile commerce. The finding may be implied where relevant information is preferable for Malaysia consumer on visiting the websites as it is not timely. Security in the information quality is also one of the variables which significantly affect the customers' intention as employing secure modes for online transactions tend to helps increase the levels of customer satisfaction, which resulting in increased customer retention (Lin,2007).

5.3 Implications of the Study

5.3.1 Managerial Implications

In this study, the result showed that two main independent variables instead of three main independent variables are significantly affecting the customers' intention to use mobile commerce in tourism industry. The two main independent variables are information quality and system quality which have significant effect on the customers' intention to use in mobile commerce. Information quality components consist of four variables but only relevance and security have significant relationship with the customers' intention to use. For system quality, it consists of three variables, however, there are only response time has significant relationship with customers' intention to use.

The analysis result in Multiple Linear Regression showing that there is significant positive relationship between information security and customers' intention to use mobile commerce dealing with travelling. This shows that the customers do take into account of the security of their personal information provided in the travel website. Customers' intention to use mobile commerce might fade if they feel insecure or lack of confidence towards the travel's website security system. Thus, the website should establish adequate security features to effectively safeguard customers' private and confidential information. Indeed, customers' information should be well protected from the unauthorization of third parties. For example, travel website should partner with VeriSign to protect information privacy by encrypting that information into human unreadable form.

Based on the results generated, the variable of relevance has a significant positive relationship with the customers' intention to use. It can be suggested that relevance is one of the component which may add value towards the information system of a company's website. As variable of relevance refers to the content and information of a website, customers

would prefer understandable, meaningful and logical information provided to them. By focusing on the content and information of a website, visitation of customers on the website of a company may increase. The travel website should avoid or eliminate in providing irrelevant and repetitive information.

The other hypothesis assuming that there is significant positive relationship between response time of travel website and customers' intention to use has been proven. This reflects that customers pay more attention on the website's response and transaction processing speed. Travel companies should have their own IT admins for the maintenance services for the webpage's network server. This may boost the response of website and allow smooth information processing even under the heavy web traffic situation. Customers will then not feel frustrate when they are browsing the travel website.

5.4 Limitations and Recommendations of the Study

Due to the constraint of financial resources and time available, the researchers were restricted to cover wider research area. The research survey has only been took part by West Malaysia respondents, regardless of the view of East Malaysia respondents. The future researchers should conduct the research in whole Malaysia in order to have clearer and more accurate indication in analysing the customers' intention to use entirely. Other than mainly focus in Malaysia tourism's website, future researchers could be conducted in different country as the result might be slightly different if this study is performed in other countries.

In addition, this study is only tested three or four sub-variables under each independent variable. As this study did not incorporate the complete information system success variables into the proposed research model, it might cause the result to be less reliable and does not significantly affect the dependent variable. Hence, future researcher could be perform further testing by including more sub-

variables under the complete information system success variables to obtain a more reliable results.

Apart from that, the time horizon of this study employed cross-sectional approach, which only provided the snapshot of respondents' characteristics confined to specific point of time. Since one's characteristic would change as time passed by, longitudinal approach which measures individual and same variables repetitively to reflect the actual situation is more suitable. In future studies, the researchers should conduct the pre-exposed and post-exposed survey in the longitudinal time horizon to test out an individual intention to use m-commerce in tourism industry before and after he or she experienced the m-commerce in tourism industry.

Besides, the target respondents of this study are lack of awareness as we do not know whether they understand the questionnaire or not. Therefore in future studies, researchers could try to choose two or more target respondents and interview with them. The questionnaires can be translated into more types of languages such as Malays, Chinese and Tamil to enhance respondents' comprehensive ability when answering the questionnaires.

Moreover, the result of survey questionnaire showed biases in this study. The result showed that the target respondents almost answer the questionnaire in "agree" or "mostly agree". Thus, future researchers should try to include positive and negative question structure in the survey questionnaires in order to eliminate the target respondents' biases.

5.5 Conclusion

This study proves that information quality and system quality are among the variables which have significant and positive relationship with customers' intention to use mobile commerce in tourism industry. Although service quality has a positive relationship with customers' intention to use but the relationship is not significant. This study also concludes that system quality is the strongest

determinant of information system success for customers' intention to use among all the IVs.

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APPENDICES

Appendix 2.1: Summary of Past Empirical Studies on The Relative Importance of Information System Success in Building Customers' Intention to Use Mobile Commerce in Tourism Industry.

<i>Study</i>	<i>Country</i>	<i>Data</i>	<i>Major Findings</i>
Ahn, Ryu, & Han (2007)	Korea	942 responses were gathered from web based users through online web based survey.	The researchers had found that a high level of qualities (information, system and service) will bring a positive impact on online retailing and entices customers to revisit their website.
Wen (2009)	USA	Examine the theoretical foundations and literature review which include discussions of the theory of planned behaviour, consumer trust literature, quality of travel web site design, and consumer satisfaction literature.	The result had shown where good e-commerce web site design which consist the elements of qualities (information, system and service) will influence customer's attitude, trust, satisfaction, and purchases intention.
Chuang & Fan (2011)	Taiwan	A total of 325 useable responses were obtained through personal interview.	The results show that system quality and service quality are relatively important in their effects on a consumer's trust in online shopping, while information quality is not. Trust in an online retailer is also positively related to consumers' purchase intention.
Kim, Galliers, Shin, Ryoo, & Kim (2012)	Korea	They perform a structural equation analysis with a sample of 293 observations consisting of two different income groups	The results shown where the qualities (information, system and service) will lead to increase of value, satisfaction and repurchase intention.

		(workforce and student).	
Brown & Jayakody (2008)	South Africa	There are 183 set of questionnaires were returned of which 166 were useable from online retail customers.	The result had shown that dependent variable which is the continuance intentions, was found to be directly influenced by perceived usefulness, users' satisfaction and system quality.
Lin (2007)	Taiwan	Personal survey of MDs/GMs of 47 small to medium-sized manufacturing firms	The result had shown that an appropriate feedback and purchase alternatives need to be provided in order to attract and retain customer interest at online retailers.
Wang & Pho (2009)	Taiwan	The study had been conducted on customers of the financial industry in Vietnam where 164 valid questionnaires is collected.	The result shown on the elements of information system success is where qualities (information, system and service) have an influence on the customer intentions to use online banking.
Sharkey, Scott, & Acton (2006)	Ireland	Researcher had use the method of distributing pre-task questionnaire to a sample of 27 graduate students from a university.	The result was shown that important relationships exist between information and system quality with success constructs measuring intention to use, user satisfaction and intention to transact.
Pai & Huang (2011)	Taiwan	There was 23 medical centers, 70 regional hospitals, 359 district hospitals in Taiwan were given 10 questionnaires on the response to the study.	The study concludes that service quality and system quality have a positive effect on users' perceived ease of use whereby perceived ease of use has a positive impact on a user's intention to use.

Source: Developed for the research

Appendix 3.1: Operationalization of Model Variables

Variables	Items	Description	References
Service Quality			
Responsiveness	RP1	The travel website anticipates and response promptly to user request.	Ahn, Ryu, & Han, 2004
	RP2	The travel website is always willing to help customers.	Wong & Yeung, 2011
	RP3	The travel website is always ready to response to customers' request.	Landrum, Prybutok, Zhang, & Peak, 2009
	RP4	The travel website quickly resolves the problem encountered by user.	Yang, Jun, & Peterson, 2004
Reliability	RL1	The travel website can be depended on to provide service as promised	Ahn, Ryu, & Han, 2004
	RL2	The travel dependability in handling users' service problem.	Landrum, Prybutok, Zhang, & Peak, 2009
	RL3	The travel website can perform service right in the first time.	Landrum, Prybutok, Zhang, & Peak, 2009
	RL4	The travel website is keeping user informed about when services will be performed.	Landrum, Prybutok, Zhang, & Peak, 2009
Empathy	EM1	The travel website understands and adapt to the users' specific needs.	Ahn, Ryu, & Han, 2004
	EM2	The travel website deals with users in a caring fashion.	Landrum, Prybutok, Zhang, & Peak, 2009
	EM3	The travel website has the users' best interest.	Landrum, Prybutok, Zhang,

			& Peak, 2009
	EM4	The travel website provides a proper level of online existence and explanation.	Wang, Wang, & Shee, 2007
Information Quality			
Timeliness	TL1	The travel website provides timely information.	Ahn, Ryu, & Han, 2004
	TL2	The travel website is available at a time suitable for user's use.	Wu & Wang, 2006
	TL3	The travel website is updated daily.	Roca, Chiu, & Jose Martinez, 2006
Completeness	CP1	The travel website provides complete information.	Ahn, Ryu, & Han, 2004
	CP2	The travel website delivers sufficient information.	Roca, Chiu, & Jose Martinez, 2006
	CP3	The travel website is clear and ambiguous.	Wu and Wang 2006
	CP4	The travel website provides enough depth of information about its service.	Kuan, Bock, & Vathanophas, 2008
Relevance	RV1	The travel website provides relevant information.	Roca, Chiu, & Jose Martinez, 2006
	RV2	The travel content of the website is logical and fit.	Wu & Wang, 2006
	RV3	The travel website provides meaningful, understandable information.	Wu & Wang, 2006
	RV4	The travel website provides information that seems just to be what I needed.	Smart, 2009

Security	SC1	The information will be ensuring not to be intercepted by unauthorized party.	Wong & Yeung, 2011
	SC2	The travel website can effectively protect the information privacy.	Wong & Yeung, 2011
	SC3	The travel website has established adequate security features.	Wong & Yeung, 2011
System Quality			
Navigation	NV1	The travel website has an easy navigation to information.	Ahn, Ryu, & Han, 2004
	NV2	The travel website is stable.	Wu & Wang, 2006
	NV3	The interaction with the travel website is clear and understandable	Kuan, Bock, & Vathanophas, 2008
	NV4	It is easy to interact with the travel website.	Kuan, Bock, & Vathanophas, 2008
Response Time	RT1	The travel website has fast response and transaction processing.	Ahn, Ryu, & Han, 2004
	RT2	The response time of the travel website is acceptable.	Wu & Wang, 2006
	RT3	The travel website provides high-speed information access.	Wang, Wang, & Shee, 2007
	RT4	The travel website response instantly.	Chen & Kao, 2012
Web-design	WD1	The travel website has an appropriate style of design.	Ahn, Ryu, & Han, 2004
	WD2	The organisation of information on the travel website is clear.	Roca, Chiu, & Jose Martinez, 2006

	WD3	The overall page layout is consistent throughout the travel website.	Kuan, Bock, & Vathanophas, 2008
	WD4	The travel website has attractive features to appeal to the users.	Wang, Wang, & Shee, 2007
Customers' Intention to Use			
Customers' Intention to Use	IU1	I will keep use the travel website in the future.	Ahn, Ryu, & Han, 2007
	IU2	I will use the travel website on the regular basis in the future.	Ahn, Ryu, & Han, 2007
	IU3	I will recommend others to use the travel website.	Ahn, Ryu, & Han, 2007
	IU4	I will frequently use the travel website in the future.	Ahn, Ryu, & Han, 2007

Source: Developed for the research

Appendix 3.2 Questionnaire



UNIVERSITI TUNKU ABDUL RAHMAN
Faculty of Business and Finance

BACHELOR OF COMMERCE (HONS) ACCOUNTING
FINAL YEAR PROJECT

**TITLE OF TOPIC: THE RELATIVE IMPORTANCE OF INFORMATION SYSTEM
SUCCESS IN BUILDING CUSTOMERS' INTENTION TO USE MOBILE
COMMERCE IN TOURISM INDUSTRY**
Survey Questionnaire

Dear respondent,

We are the final year undergraduate students of Bachelor of Commerce (HONS) Accounting, from Universiti Tunku Abdul Rahman (UTAR). The **purpose** of this survey is to investigate the relationship between information system success of travel's website for mobile commerce. Please answer all questions in **ALL** sections. All responses are completely confidential.

Thank you for your participation.

Instructions:

- 1) There are **three** (3) sections in this questionnaire. Please answer **ALL** questions in ALL sections.
- 2) Completion of this form will take you approximately 5 to 10 minutes.
- 3) Please feel free to share your comments in the space provided. The contents of this questionnaire will be kept **strictly confidential**.

Section A: Demographic Profile

Please place a tick “√” or fill in the blank for each of the following:

1. Gender:

- Male
- Female

2. Age:

- below 25 years
- 26 years – 30 years
- 31 years – 35 years
- 36 years and above

3. Marital status:

- Single
- Married

4. Highest education completed:

- Diploma
- Bachelor Degree
- Master Degree
- PHD
- Others: _____

5. Occupation:

- Student
- Housewife
- Employed
- Unemployed
- Others: _____

6. Have you travel before:

- Yes
- No

7. Have you use mobile commerce before:

- Yes
- No

Section B: Information System Success

This section is seeking your opinion regarding the importance of information system success for the travel website. Please circle your answer to each statement using 7 Likert scale [(1) = strongly disagree; (2) = mostly disagree; (3) = partially disagree; (4) = neutral; (5) = partially agree; (6) = mostly agree; (7) = strongly agree] response framework. Please circle one number per line to indicate the extent to which you agree or disagree with the following statements.

1. SERVICE QUALITY

Responsiveness

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
RP1	The travel website anticipates and response promptly to user request.	1	2	3	4	5	6	7
RP2	The travel website is always willing to help customers.	1	2	3	4	5	6	7
RP3	The travel website is always ready to response to customers' request.	1	2	3	4	5	6	7
RP4	The travel website quickly resolves the problem encountered by user.	1	2	3	4	5	6	7

Reliability

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
RL1	The travel website can be depended on to provide service as promised.	1	2	3	4	5	6	7
RL2	The travel website dependability in handling users' service problem.	1	2	3	4	5	6	7
RL3	The travel website can perform service right in the first time.	1	2	3	4	5	6	7
RL4	The travel website is keeping user informed about when services will be performed.	1	2	3	4	5	6	7

Empathy

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
EM1	The travel website understands and adapt to the users' specific needs.	1	2	3	4	5	6	7
EM2	The travel website deals with users in a caring fashion.	1	2	3	4	5	6	7
EM3	The travel website has the users' best interest.	1	2	3	4	5	6	7
EM4	The travel website provides a proper level of online existence and explanation.	1	2	3	4	5	6	7

2. INFORMATION QUALITY

Timeliness

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
TL1	The travel website provides timely information.	1	2	3	4	5	6	7
TL2	The travel website is available at a time suitable for user's use.	1	2	3	4	5	6	7
TL3	The travel website is updated daily.	1	2	3	4	5	6	7

Completeness

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
CP1	The travel website provides complete information.	1	2	3	4	5	6	7
CP2	The travel website delivers sufficient information.	1	2	3	4	5	6	7
CP3	The travel website is clear and unambiguous.	1	2	3	4	5	6	7
CP4	The travel website provides enough depth of information about its service.	1	2	3	4	5	6	7

Relevance

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
RV1	The travel website provides relevant information.	1	2	3	4	5	6	7
RV2	The travel content of the website is logical and fit.	1	2	3	4	5	6	7
RV3	The travel website provides meaningful, understandable information.	1	2	3	4	5	6	7
RV4	The travel website provides information that seems just to be what I needed.	1	2	3	4	5	6	7

Security

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
SC1	The information will be ensuring not to be intercepted by unauthorized party.	1	2	3	4	5	6	7
SC2	The travel website can effectively protect the information privacy.	1	2	3	4	5	6	7
SC3	The travel website has established adequate security features.	1	2	3	4	5	6	7

3. SYSTEM QUALITY

Navigation

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
NV1	The travel website has an easy navigation to information.	1	2	3	4	5	6	7
NV2	The travel website is stable.	1	2	3	4	5	6	7
NV3	The interaction with the travel website is clear and understandable.	1	2	3	4	5	6	7
NV4	It is easy to interact with the travel website.	1	2	3	4	5	6	7

Response Time

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
RT1	The travel website has fast response and transaction processing.	1	2	3	4	5	6	7
RT2	The response time of the travel website is acceptable.	1	2	3	4	5	6	7
RT3	The travel website provides high-speed information access.	1	2	3	4	5	6	7
RT4	The travel website response instantly.	1	2	3	4	5	6	7

Web-design

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
WD1	The travel website has an appropriate style of design.	1	2	3	4	5	6	7
WD2	The organisation of information on the travel website is clear.	1	2	3	4	5	6	7
WD3	The overall page layout is consistent throughout the travel website.	1	2	3	4	5	6	7
WD4	The travel website has attractive features to appeal to the users.	1	2	3	4	5	6	7

Section C: Customers' Intention to Use

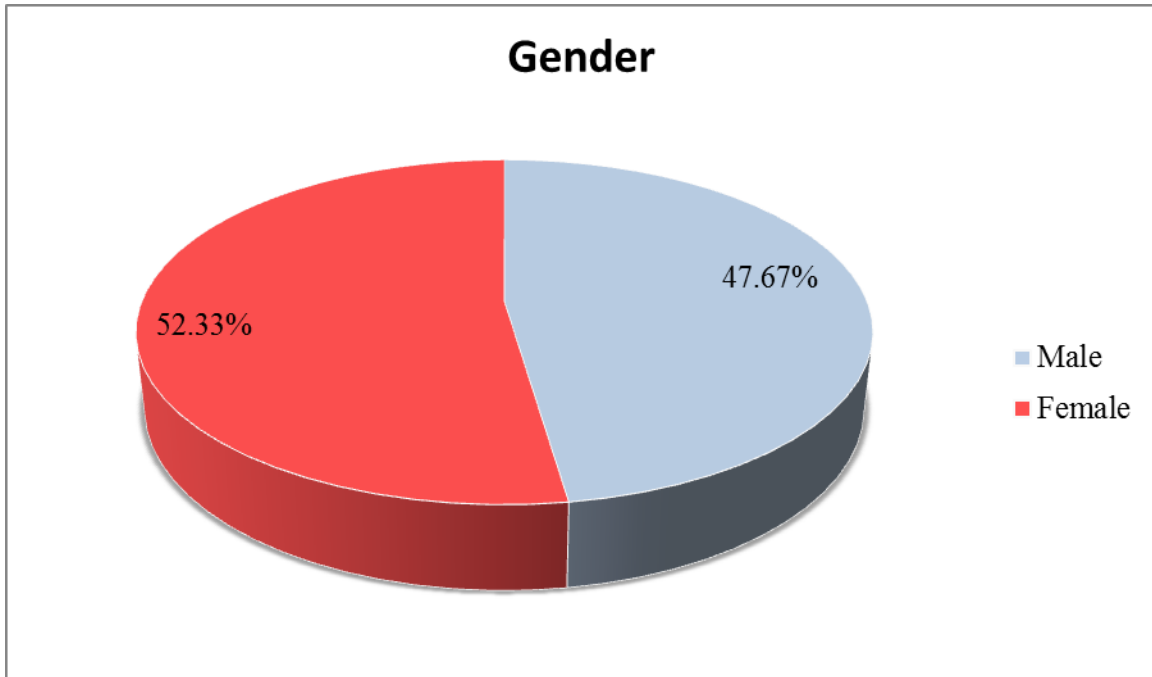
This section is seeking your opinion regarding the importance of customers' intention to use on the travel website. Please circle your answer to each statement using 7 Likert scale [(1) = strongly disagree; (2) = mostly disagree; (3) = partially disagree; (4) = neutral; (5) = partially agree; (6) = mostly agree; (7) = strongly agree] response framework. Please circle one number per line to indicate the extent to which you agree or disagree with the following statements.

CUSTOMERS' INTENTION TO USE

No.	Questions	Strongly Disagree	Mostly Disagree	Partially Disagree	Neutral	Partially Agree	Mostly Agree	Strongly Agree
IU1	I will keep using the travel website in the future.	1	2	3	4	5	6	7
IU2	I will use the travel website on the regular basis in the future.	1	2	3	4	5	6	7
IU3	I will recommend others to use the travel website.	1	2	3	4	5	6	7
IU4	I will frequently use the travel website in the future.	1	2	3	4	5	6	7

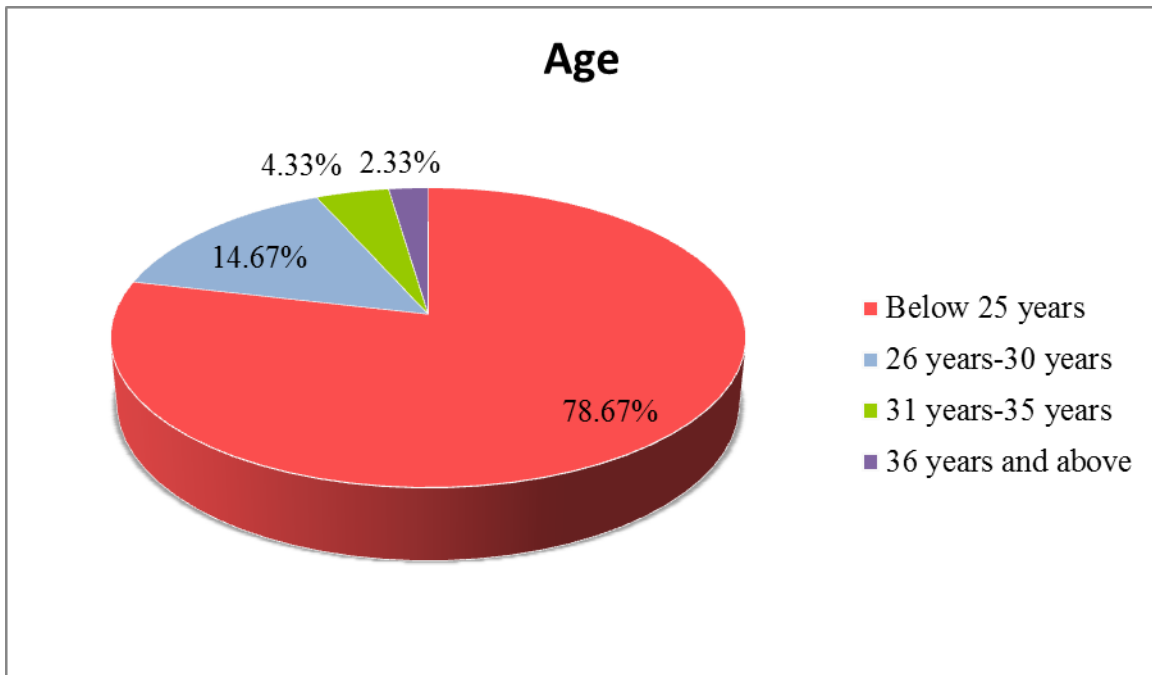
*Thank you for your time, opinion and comments.
~ The End ~*

Appendix 4.1: Pie Chart of Respondents' Gender



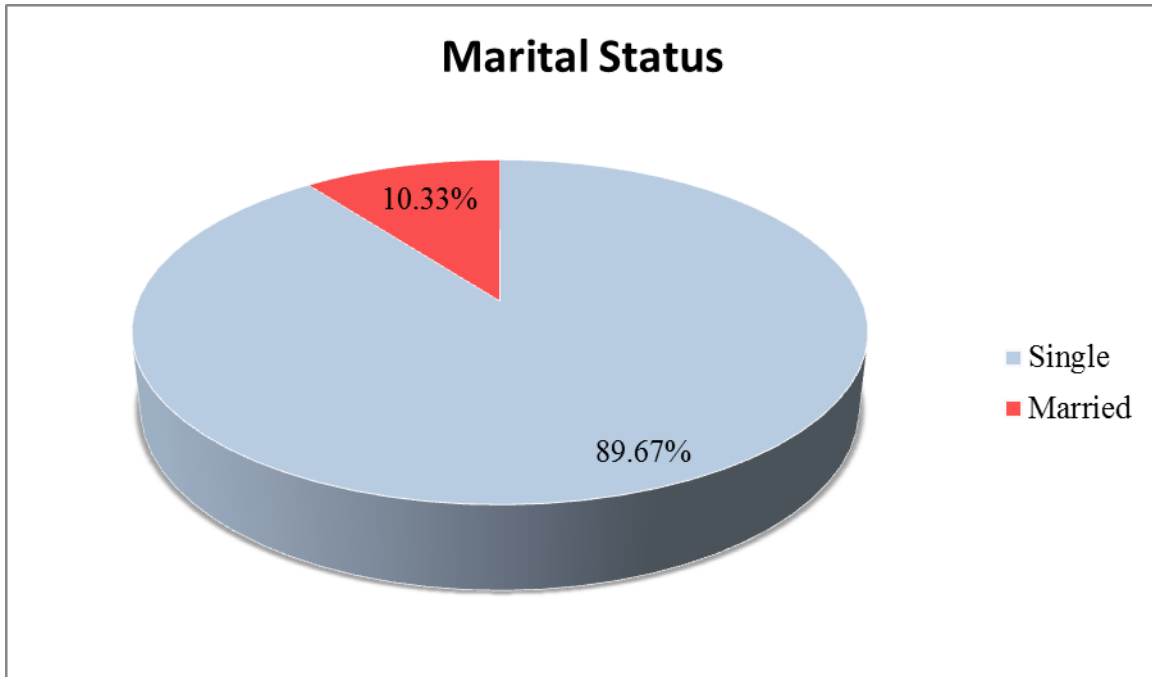
Source: Developed for the research

Appendix 4.2: Pie Chart of Respondents' Age



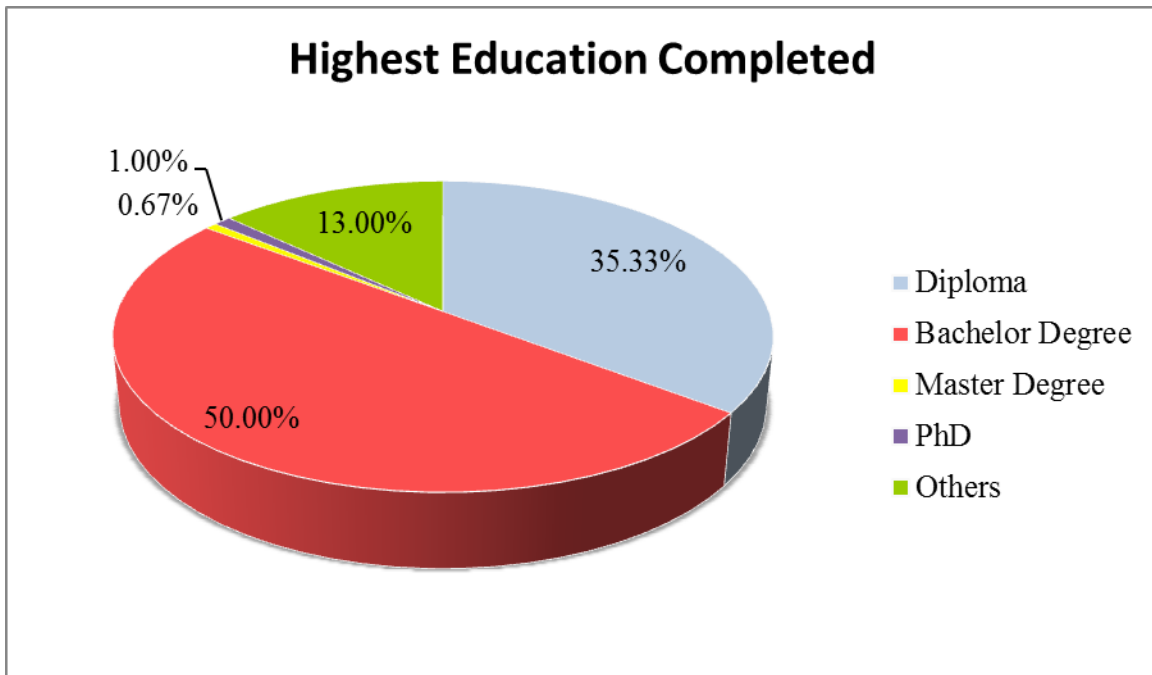
Source: Developed for the research

Appendix 4.3: Pie Chart of Respondents' Marital Status



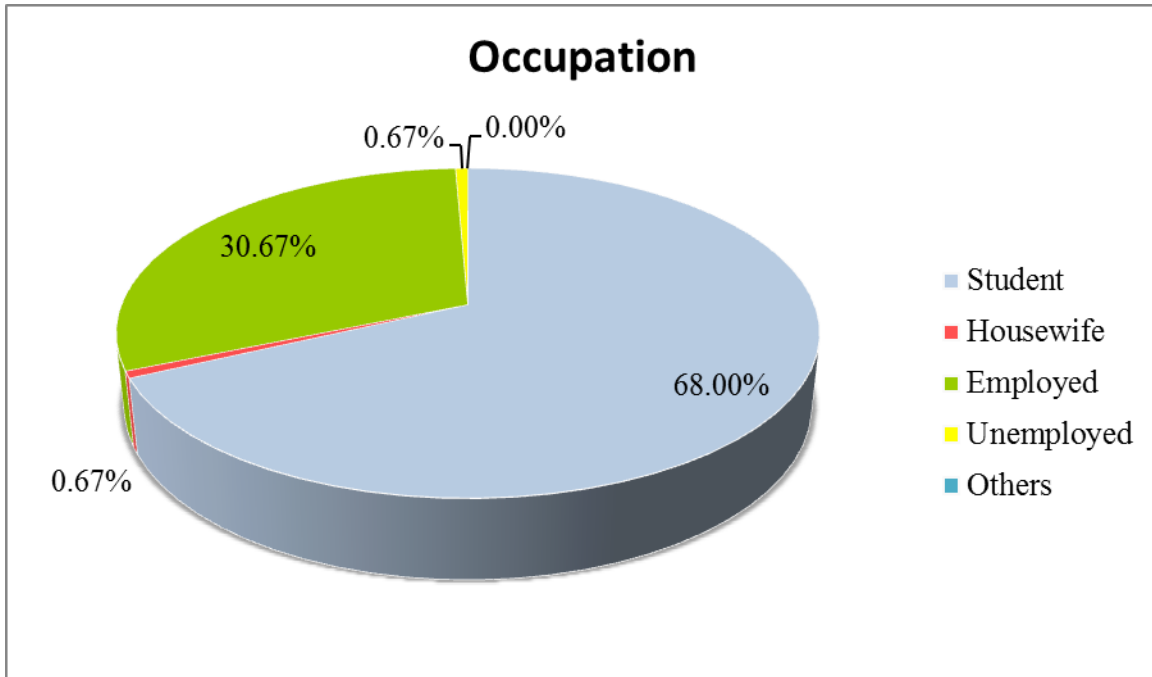
Source: Developed for the research

Appendix 4.4: Pie Chart of Respondents' Highest Education Completed



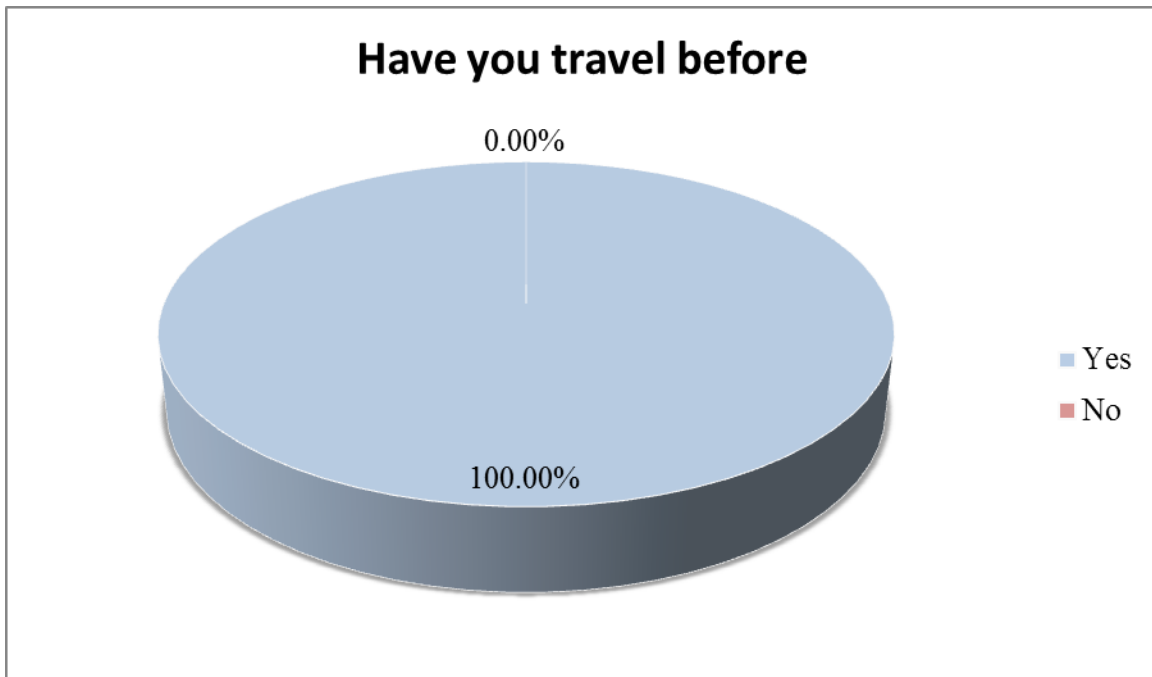
Source: Developed for the research

Appendix 4.5: Pie Chart of Respondents' Occupation



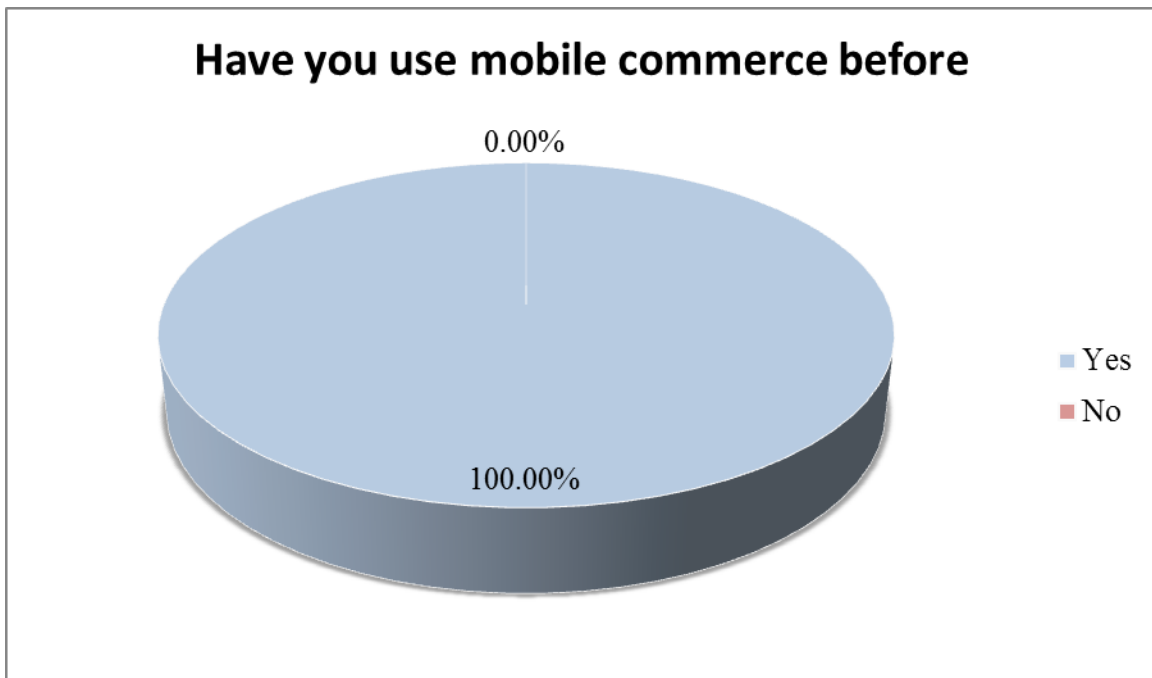
Source: Developed for the research

Appendix 4.6: Pie Chart of Respondents' Travel Experience



Source: Developed for the research

Appendix 4.7: Pie Chart of Respondents' Experience in Using Mobile Commerce



Source: Developed for the research