

**FACTORS INFLUENCING CONSUMER'S ATTITUDES TO
CONTINUOUSLY USE THE MOBILE SHOPPING APPLICATIONS**

LING HUNG ZIN

**The thesis is submitted in partial fulfilment of the requirements for the award of
Bachelor of Technology Management and Technopreneurship
(Hons In Technopreneurship)**

**Faculty of Technology Management and Technopreneurship
Universiti Teknikal Malaysia Melaka**

JUNE 2019

APPROVAL

I / We declare that I / we have read this report and in my / our opinion, this report is sufficient in terms of quality and scope to qualify for academic award of Bachelor of Technology Management and Technopreneurship (Hons In Technopreneurship)

Signature :

Name of Supervisor: DR. NOR AZAH BINTI ABDUL AZIZ

Date : 24 JUNE 2019

Signature :

Name of Panel : MADAM HARTINI BINTI AZMAN

Date : 24 JUNE 2019

Signature :

Name of Panel : DR. ATIRAH BINTI SUFIAN

Date : 24 JUNE 2019

DECLARATION

I hereby, declared this report entitled “Factors Influencing Consumer’s Attitudes to Continuously Use the Mobile Shopping Applications” is the result of my own research except as cited in reference.

Signature:

Name : LING HUNG ZIN

Date : 24 JUNE 2019

DEDICATION

To my beloved father, Ling Nai Seng
my appreciated mother, Chieng Liong Kii
my adored sister, Ling Hung Lin and Ling Hung Yee
my brother Ling Hung Kit and Ling Hung Khin
for giving me moral support, money, cooperation, encouragement and understandings
Thank You So Much and Love You All Forever

To my supervisor, Dr Nor Azah Binti Abdul Aziz
for all the helps, supports and guidance

ACKNOWLEDGEMENT

I would like to take this opportunity to acknowledge all the people who have guiding me in completing my research. Firstly to my respected supervisor Dr. Nor Azah Binti Abdul Aziz for the great mentoring and advising that was given to me throughout the period of the final year project. I would like to thanks for her patience, kind supervision, motivation and willingness to sacrifice their time on checking and giving advice on my report.

I'm also not to forget to express my sincere appreciation to my course mates as well as my friend who are under the supervision of Dr. Nor Azah Binti Abdul Aziz. I am able to learn extra knowledge via discussion among them which always providing me with cheers and cooperation during the period of this project

Besides that, I want give my thanks to all the lecturers and staffs in the Faculty of Technology Management and Technopreneurship, UTeM for their contribution in providing support to me to complete this project. Last but not least, I would like to express my deepest thank to my family who always give me support and encouragement throughout the whole studies of my final year report as well as expressing my apology that I couldn't mention personally each one of you.

ABSTRAK

Dengan Internet, membeli-belah mudah alih semakin pesat apabila lebih banyak orang menggunakan peranti mudah alih sebagai alat utama untuk membeli produk dalam talian. Kajian ini bertujuan untuk mengenal pasti faktor-faktor yang mempengaruhi sikap pengguna untuk terus menggunakan aplikasi membeli-belah mudah alih dan untuk menentukan hubungan antara pembolehubah bebas (kebolehgunaan, privasi dan keselamatan, kata-kata mulut elektronik, estetika reka bentuk dan penggunaan mudah dilihat) dan pembolehubah bergantung (sikap pengguna untuk terus menggunakan aplikasi membeli-belah mudah alih). Data utama dikumpulkan melalui responden yang mempunyai pengalaman sebelumnya menggunakan aplikasi membeli-belah mudah alih untuk membeli produk dengan menggunakan soal selidik. 384 set soal selidik diedarkan untuk mendapatkan maklum balas daripada responden dan data yang dikumpulkan dianalisis dengan menggunakan perisian SPSS versi 23.0. Ujian perintis akan dijalankan untuk memastikan kebolehpercayaan dan kesahihan penyelidikan. Data dianalisis dan hasilnya ditafsirkan dalam bentuk jadual dan carta. Akhir sekali, implikasi pengurusan dibincangkan untuk memberi saran berguna kepada pengurus. Cadangan untuk penyelidikan masa depan telah dibincangkan untuk memberikan cadangan penyelidikan masa depan yang bersedia untuk mengkaji penyelidikan yang sama.

Kata kunci: Kebolehgunaan, privasi dan keselamatan, kata-kata mulut elektronik, estetika reka bentuk dan penggunaan mudah dilihat, sikap pengguna terhadap penggunaan berterusan aplikasi membeli-belah mudah alih

ABSTRACT

With the Internet, the mobile shopping become growing rapidly as more people are using the mobile devices as the primary tools for purchasing the products online. This research aims to identify the factors influencing consumer's attitudes to continuously use the mobile shopping applications and to determine the relationship between the independent variables (perceived usefulness, privacy and security, electronic word of mouth, design aesthetics and perceived ease of use) and dependent variable (consumer's attitudes to continuously use the mobile shopping applications). The primary data is collected through the respondents who had previous experience on using mobile shopping applications to purchase the products by using the questionnaire. 384 sets of the questionnaires are distributed to gain the feedback from the respondents and the data collected are analyzed by using SPSS software version 23.0. The pilot test will be conducted to ensure the reliability and validity of the research. The data are analyzed and results are interpreted in the form of table and chart. Lastly, the managerial implications are discussed to provide the useful suggestion to the managers. The recommendation for the future research has been discussed in order to provide the recommendation for the future researchers who are willing to study the similar research.

Keywords: perceived usefulness, privacy and security, electronic word of mouth, design aesthetics and perceived ease of use, consumer's attitudes toward continuous use of mobile shopping applications

TABLE OF CONTENT

CHAPTER	CONTENT	PAGES
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRAK	v
	ABSTRACT	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLES	xiii
	LIST OF FIGURES	xv
	LIST OF ABBREVIATIONS	xvi
	LIST OF APPENDICES	xvii
 CHAPTER 1	 INTRODUCTION	
	1.0 Introduction	1
	1.1 Background Study	2
	1.2 Problem Statement	4
	1.3 Research Questions	6
	1.4 Research Objectives	7
	1.5 Scope and Limitations	7
	1.6 Key Assumptions	8
	1.7 Significance of Study	9

1.7.1 Theoretical Significance	9
1.7.2 Practical Significance	10
1.8 Operational Definition of the Variables	10
1.9 Organizations of the Thesis	11
1.10 Summary	13
CHAPTER 2 LITERATURE REVIEW	
2.0 Introduction	14
2.1 Mobile Commerce	15
2.2 Mobile Shopping Applications	16
2.3 Expectation-Confirmation Model	18
2.4 Technology Acceptance Model	20
2.5 Continuous Usage	22
2.6 Factors Influencing Consumer's Attitudes to Continuously Use the Mobile Shopping Applications	24
2.6.1 Perceived Usefulness	24
2.6.2 Privacy and Security	25
2.6.3 Electronic Word of Mouth	26
2.6.4 Design Aesthetics	27
2.6.5 Perceived Ease of Use	29
2.7 Conceptual Framework	30
2.8 Hypothesis Development	31
2.8.1 Perceived Usefulness	31
2.8.2 Privacy and Security	32
2.8.3 Electronic Word of Mouth	33
2.8.4 Design Aesthetics	35
2.8.5 Perceived Ease of Use	36
2.9 Summary	37

CHAPTER 3 RESEARCH METHODOLOGY

3.0	Introduction	38
3.1	Research Design	39
3.1.1	Exploratory Research Design	40
3.1.2	Conclusive Research Design	41
3.2	Sampling Design	43
3.2.1	Target Population	44
3.2.2	Sampling Frame and Location	44
3.2.3	Sampling Elements	45
3.2.4	Sampling Technique	45
3.2.5	Sampling Size	46
3.3	Research Instrument	47
3.3.1	Purpose of Using Questionnaire	48
3.3.2	Questionnaire Design	48
3.3.3	Survey Method	50
3.3.4	Pre-Testing of Questionnaire	50
3.3.5	Pilot Testing	51
3.4	Construct Measurement	52
3.4.1	Origins of Construct	52
3.4.2	Measurement Scale	60
3.4.2.1	Nominal Scale	60
3.4.2.2	Interval Scale	61
3.5	Data Collection Methods	62
3.5.1	Primary Data Collection	62
3.6	Data Preparation	64
3.6.1	Questionnaire Checking	64
3.6.2	Data Editing	65
3.6.3	Data Coding	66
3.6.4	Data Transcribing	66
3.6.5	Data Cleaning	67

3.7	Data Analysis	68
3.7.1	Descriptive Analysis	68
3.7.2	Reliability and Validity Test	69
3.7.3	Pearson's Correlation Analysis	71
3.7.4	Multiple Regression Analysis	73
3.8	Summary	74

CHAPTER 4 DATA ANALYSIS AND DISCUSSION

4.0	Introduction	76
4.1	Reliability Test	77
4.2	Descriptive Analysis	78
4.2.1	Frequency of Respondents Based on Gender	78
4.2.2	Frequency of Respondents Based on Age	79
4.2.3	Frequency of Respondents Based on Education Qualification	80
4.2.4	Frequency of Respondents Based on Races	81
4.2.5	Frequency of Respondents Based on Employment Status	83
4.2.6	Frequency of Respondents Based on Current Household Income	84
4.3	Descriptive Statistics	85
4.4	Pearson Correlation Analysis	86
4.5	Multiple Regression Analysis	88
4.6	Summary	91

CHAPTER 5 CONCLUSION AND RECOMMENDATION

5.0	Introduction	92
5.1	Summary of Statistical Analysis	92
	5.1.1 Descriptive Analysis	93
	5.1.2 Descriptive Statistics	93
	5.1.3 Scale Measurement	94
	5.1.4 Pearson Correlation Analysis	95
	5.1.5 Multiple Regression Analysis	95
5.2	Discussion on Major Findings	96
	5.2.1 Perceived Usefulness and Consumer's Attitudes to Continuously Use the Mobile Shopping Applications	98
	5.2.2 Privacy and Security and Consumer's Attitudes to Continuously Use the Mobile Shopping Applications	99
	5.2.3 Electronic Word of Mouth and Consumer's Attitudes to Continuously Use the Mobile Shopping Applications	100
	5.2.4 Design Aesthetics and Consumer's Attitudes to Continuously Use the Mobile Shopping Applications	101
	5.2.5 Perceived Ease of Use and Consumer's Attitudes to Continuously Use the Mobile Shopping Applications	102
5.3	Implications of the Study	103
	5.3.1 Theoretical Implications	103

5.3.2 Managerial Implications	104
5.4 Recommendation for Future Research	105
5.5 Conclusion	106
REFERENCES	107
APPENDICES	112-123

LIST OF TABLE

TABLE 1.1	Operational Definition of Variables	10-11
TABLE 3.1	Research Design of the Study	42-43
TABLE 3.2	Reliability Test for the Pilot Testing	51-52
TABLE 3.3	Perceived Usefulness Construct and Measurement Items	52-54
TABLE 3.4	Privacy and Security Construct and Measurement Items	54-55
TABLE 3.5	Electronic Word of Mouth Construct and Measurement Items	55-56
TABLE 3.6	Design Aesthetics Construct and Measurement Item	57
TABLE 3.7	Perceived Ease of Use Construct and Measurement Items	58-59
TABLE 3.8	Continuous Usage Construct and Measurement Items	59-60
TABLE 3.9	Summary of Likert-type Scale Used to Measure Variables	61-62
TABLE 3.10	Rules of Thumb about Cronbach's Alpha Coefficient Size	70-71
TABLE 4.1	Reliability Test for the Survey	77
TABLE 4.2	Gender of the Respondents	78
TABLE 4.3	Age of the Respondents	79

TABLE 4.4	Education Qualification of the Respondents	80
TABLE 4.5	Races of the Respondents	81-82
TABLE 4.6	Employment Status of the Respondents	83
TABLE 4.7	Current Household Income of the Respondents	84
TABLE 4.8	Descriptive Statistics	85
TABLE 4.9	Pearson Correlation Analysis	86-87
TABLE 4.10	Model Summary of the Multiple Regression Analysis	88
TABLE 4.11	ANOVA	88-89
TABLE 4.12	Coefficients of the Multiple Regression Analysis	89
TABLE 5.1	Mean and Standard Deviation of the Variables	93
TABLE 5.2	Reliability Test for the Survey	94
TABLE 5.3	Summary of Results for Hypothesis Testing	96-98

LIST OF FIGURE

FIGURE 2.1	The Expectation-Confirmation Theory by Richard L. Oliver in 1977 and 1980.	20
FIGURE 2.2	The Expectation-Confirmation Model by Anol Bhattacharjee in 2001.	20
FIGURE 2.3	The Technology Acceptance Model (TAM) by Davis in 1989	22
FIGURE 2.4	Conceptual Framework	30
FIGURE 3.1	Sample Sizes for Different Population Sizes at a 95 Confidence level.	47
FIGURE 3.2	Values of the Pearson Correlation Coefficient	72
FIGURE 4.1	Gender of the Respondents	78
FIGURE 4.2	Age of the Respondents	79
FIGURE 4.3	Education Qualification of the Respondents	81
FIGURE 4.4	Races of the Respondents	82
FIGURE 4.5	Employment Status of the Respondents	83
FIGURE 4.6	Current Household Income of the Respondents	84

LIST OF ABBREVIATIONS

ECM	=	Expectation-confirmation Model
TAM	=	Technology Acceptance Model
SPSS	=	Statistical Package for the Social Science
WAP	=	Wireless Application Protocol
TRA	=	Theory of Reasoned Action
E-commerce	=	Electronic Commerce
M-commerce	=	Mobile Commerce
H ₀	=	Null Hypothesis
H ₁	=	Alternative Hypothesis
PU	=	Perceived Usefulness
PAS	=	Privacy and Security
EWOM	=	Electronic Word of Mouth
DA	=	Design Aesthetics
PEOU	=	Perceived Ease of Use
PMR	=	Penilaian Menengah Rendah
SPM	=	Sijil Pelajaran Malaysia
STPM	=	Sijil Tinggi Persekolahan Malaysia
PhD	=	Doctor of Philosophy

LIST OF APPENDICES

APPENDICES	CONTENT	PAGES
A	Turnitin Report	112
B	Gantt Chart for FYP 1	113
C	Gantt Chart for FYP 2	114
D	Questionnaire	115-122

CHAPTER 1

INTRODUCTION

1.0 Introduction

With the rapid explosion of smartphone, almost all of the people around the world have the mobile devices and have become the integral part of their lives. With the Internet, the smartphones are not only use to searching for information but it also can be use to enable the people to shop online by using the mobile apps. The mobile shopping applications can enable the consumer to purchasing and do the payment online. This research is to identify the factors influencing consumer's attitudes to continuously use the mobile shopping applications. In this chapter, the background study, problem statement, research questions, research objectives, scope and limitations, key assumption and significance of study and operational definition of the variables will be explain briefly. Lastly, the organization of the thesis which includes the overview of the chapter in this research and the summary of this chapter will be presented.

1.1 Background Study

Mobile applications are the software that was developed to run the mobile devices. All the mobile devices will have the pre-installed software like the calendar, email, map, web browser and weather information as the original equipment manufacturer already installed and licensed when sold the mobile devices. The applications that are not pre-installed can be downloaded from the distribution platform known as the app stores. The app stores such as Apple App Store, Google Play, Window Phone Store and Blackberry App World are operated by the owner of the of the mobile operating system. Every mobile device will have the operating system such as Android and IOS.

In this 21st century, the smartphones are not only use for text and calling. The portability and programmability make the smartphones become the devices with the limitless application. There are many apps that are available in the app stores such as shopping apps, social media apps, gaming apps, communication and messaging apps and the health and fitness apps. The mobile apps make the life more easy and convenience. The mobile shopping applications have become increasingly popular in the recent year due to the wide acceptance of the mobile devices in the life of the people (Gandhi, 2016; Kanaanm, 2017). The users are likely to shop online through the mobile shopping apps such as Lazada, Zalora, Shopee, 11 Street, Hermo, and Taobao. According to Bang et al. (2013), the companies which have the online sites of their business will usually launch the mobile sites similar to their online sites when they expand their business to the mobile platform. The mobile apps are better than mobile website as the mobile users are likely to spend more time on the apps rather than the website.

Through the mobile shopping application, the consumers can save the time for shopping and the apps can fulfill the consumer's need as they can gain the updated

information of the products and the promotion according to the companies. Based on the study Forrester's 2018 Retail Best Practices: Mobile Web, the smartphones are be used over one-third or more than \$1 trillion of total U.S retailer sales at some point in the process of buying something which include research and the price comparison. Shopping through the mobile applications can bring the convenience to the consumers as the online stores are operates 24 hours. The consumers can save the transportation costs, parking fees and they do not worry about the traffic jam problem during the peak hours. The mobile shopping apps also can enable the consumers to read the reviews and compare the price before they purchase the products by using the mobile devices. Though the mobile shopping is rapidly gaining in popularity but the consumers still love to buy the products through the physical stores as they can know the quality of the products and they can interact with the products that they want to purchase.

Even though shopping online can brings convenience to the consumer's lifestyle however it will also bring many problems to the consumers. Past studies from Chen, Wang, Zheng & Luo (2013) and Cheng & Huang (2013) have shown that retaining the existing consumers and finding the new consumers are the two most important challenges that faced by the companies. Most of the problems faced by the consumers are the identity theft, faulty products and accumulation of spyware. When buying the products through the mobile shopping apps, the consumers may face the problems such as the items are not function well, it may be defects, or the products are not same with the picture that show in the online sites. Besides that, when the consumers make the payment for the products that they bought from the mobile shopping applications, they will need to provide their debit or credit card information and the personal information. If the website was not secure, the privacy of the consumers will be disclosure to the third party. This factor will make the consumers avoid making the online payment and most of them will quit the website before make the payment. Many online retailers will find out the ways to overcome the problem that faced by the consumers when using the mobile shopping applications to encourage more consumers to continue use the mobile shopping application to buy the products.

1.2 Problem Statement

With the rapid growth of technology, the people can purchase the products through the online shops with the access of Internet. According to McGrath and McCormick (2013), with the development of the mobile commerce, the mobile applications can allow the consumers to purchase the products online and carry out transaction online through the mobile devices. The products will deliver to their home in the agreed period. Mobile shopping can allow the consumers to purchase the products from the comfort of their home and they can search and buy the right products after work.

Many stores are adapting to the digital ways, however the online sellers are still fail to optimize shopping experience with the great mobile apps. According to Wong (2014), the Malaysians is still reluctant to shop online because they lack of trust especially in term of reliability and process security as they cannot touch and feel the products when purchasing through online. Along with the growth of the online shopping, the problems such as cheating will also arise and this will cause the fear in the mind of the consumers which make them refuse to buy the products through the apps. The people are more likely using the mobile apps for searching the information, accessing the social media but less as a buying tool. The online consumers are more demanding for the service quality as they cannot touch the products and the online sellers need to deliver the good service quality such as delivering the goods on time, ensure the consumers receive the goods in good condition. This can cause the high trust from the consumers. So it is important for the online marketers to improve their service quality in order to attract more people to purchase from the online sites.

According to Mamonov & Benbunan-Fich (2015), the consumers who shopping online will more concern about the privacy and security of the online stores as they

perceived more uncertainties and risks if compare to the traditional physical stores. This is because they need to provide their personal information and the detail of their debit or credit card when purchase through the online shop. The increase of security threats in the mobile shopping applications make the consumers afraid to buy the things through online shops. The consumers are actively taking the protective actions in order to protect their personal information to be disclosure to the third party (Li, 2012; Taylor, Ferguson, Ellen & Biswas, 2015). In order to protect their personal information, the consumers will refuse to provide their personal information to the online stores or removing their information from the websites. The privacy and the security issues on the mobile phone become one of the factors why the users quit without paying although they already put the items in the shopping cart.

Although the shopping through the mobile devices was popular but the phenomenon of shopping cart abandonment is much higher than the desktop-based online shopping. The consumers often leave before complete the purchase because there are many hidden cost such as shipping fees, taxes and other additional fees. The order amount that is not enough to qualify for free shipping causes the many consumers quit the page before they empty the shopping carts. According to Nielsen (2016), the online users usually use the mobile devices to research the items and to make the price comparison. They are not keen to complete the purchase because of the ambivalent feeling among themselves and they are hesitant to proceeds to checkout process. They are more likely to place the items in the shopping carts to enable them to compare the prices with the others online sites.

The design of the online stores will also influence the consumer's decision for using the apps for purchasing. The online store's interface plays an important role as the storefront which enables the communication between the consumers and sellers. According to Al-Qeisi, Dennis, Alamanos and Jayawardhena (2014), the companies apply the Internet technology to improve the design of the websites to ensure the quality

in consumer's interaction experience. The consumers are more likely to visit and repurchase from the well-designed online stores. The consumers are unlikely to purchase from the website where the process of buying is complex. Designing the pages which enables the consumers to see the image of products clearly can encourage the consumers to continue use the mobile devices for shopping. When designing the mobile shopping apps, it is important for retailer to pay attention on navigation, wording and color. The apps that are simple and easy can encourage the consumers to use the apps for shopping.

This research is conducted to understand the consumer's behavior for the mobile shopping applications and how the mobile shopping applications can be improved to fulfill the needs of the consumers. Many users are still resistant and refuse to buy through the mobile shopping apps. This problem can be solved if the marketers can improve their services. So it is important to understand the factors influencing consumer's attitudes to continuously use the mobile shopping applications. Furthermore, there are limited researches being done on the attitudes of the consumers toward the mobile shopping applications especially in Malaysia context.

1.3 Research Questions

- a)** What are the factors influencing consumer's attitudes to continuously use the mobile shopping applications?
- b)** What is the most important factor that influencing consumer's attitudes to continuously use the mobile shopping applications?
- c)** Is there any significant relationship between the factors of mobile shopping applications and consumer's attitudes to continuously use the mobile shopping applications?