CHALLENGES OF MOBILE BANKING TOWARDS PRODUCT IMPROVEMENT

TEO SIN YEE

This Report Submitted In Partial Fulfillment of The Requirements For The Award Bachelor of Technology Management (High Technology Marketing) With Honors

Faculty of Technology Management and Technopreneurship Universiti Teknikal Malaysia Melaka

JUNE 2019



SUPERVISOR'S AND PANEL APPROVAL

'I hereby admit which I have peruse these works as well as I believe that even in terms of content and reliability for these projects are appropriate for the submission and grant of the Bachelor of Technology Management (High Technology Marketing) with Honours.'

Supervisor name	: Dr. Nor Azah Binti Abdul Aziz
Date	:
Signature	:
Panel name	: Puan Hartini Binti Azman
Date	:
Signature	:
Panel name	: Dr. Atirah Binti Sufian
Date	:

Signature

:

DECLARATION

"I hereby declare that this undergraduate research project entitle "Challenges Of Mobile Banking Towards Product Improvement" is my own work with the exception of summaries of citations recognized as responsibility"

Signature:Name:TEO SIN YEEDate:

ACKNOWLEDGEMENT

First of all, I want to express my greatest acknowledgement to the Universiti Teknikal Malaysia Melaka (UTeM) for giving me a chance to undertake this research throughout my period of studying. I have learnt a lot of knowledge and experience throughout the period of performing this study which can assist me in my future commitments. In addition, UTeM facilities including library and computer lab offered me with the relevant data and documentation to enable me to initiate my study efficiently.

Big thanks as well to my respectful supervisor, Dr. Nor Azah Binti Abdul Aziz, who has often contributed me as well as empowered me to complete this project. I am heavily indebted to Dr for her guidance and proper supervision and that for providing proper project details. I would also want to thank Puan Hartini Binti Azman and Dr. Atirah Binti Sufian for her replies and concerns that will help me to complete my research paper.

In addition, I would also want to thank all of the survey participants who took part in my online survey and give their thoughts to my research effectively. Last but not least, my family and friends are warmly appreciated for their comprehension, inspiration and endless support throughout my ongoing research.

ABSTRACT

Mobile banking seems to be a vital network of allocation in a developing nation's finance sector. The concerned in this studies is to determine why there is a small mobile banking adoption frequency in Malaysia. The primary objective of the whole research study is indeed to identify the connection among product improvement for mobile banking and other such independent variables, including trust, security, social influence and technology risk. Informative literary works studies are done by past scientists along with the dependent variable (product improvement for mobile banking) and also the independent variables (trust, security, social influence and technology risk). In addition, a total of 385 identity-administered online surveys have been performed by all those internet users who have been 18 years old and older in Malaysia. By using the Social Sciences Statistical Package (SPSS), the findings of the analysis are evaluated and several analyzes have been undertaken like Analysis of Pearson's Correlation and Analysis of Multi-regression. Lastly, the discussion shows the main results of the study. This could be indicated that four determinants (trust, security, social influence and technology risk) with dependent variables (product improvement for mobile banking) have a major impact. This study can make a positive contribution to perspectives of financiers and customers there so they can identify a better approach for financiers to strengthen competitive edge, and users can try to know such different types of challenges. The study's also results may improve the overall level of understanding for ongoing study intended to undertake further study on same fields.

Keywords: trust, security, social influence, technology risk, product improvement

TABLE OF CONTENT

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	ACKNOWLEDGEMENT	iii
	ABSTRACT	iv
	TABLE OF CONTENT	V
	LIST OF TABLES	xi
	LIST OF FIGURES	xiii
	LIST OF ABBREVIATIONS	xiv
	LIST OF APPENDIX	XV
CHAPTER 1	INTRODUCTION	1
	1.0 Introduction	1
	1.1 Research Background	1
	1.2 Problem Statement	3
	1.3 Research Objectives	4
	1.4 Research Questions	4
	1.5 Scope and Limitations	5
	1.5.1 Scope and Key Assumption	5
	1.5.2 Limitation of the Study	5
	1.6 Significance of Study	6

	1.6.1 Theoretical Significance	6
	1.6.2 Practical Significance	7
	1.7 Operational Definition	7
	1.7.1 Mobile Banking	7
	1.7.2 Trust	8
	1.7.3 Security	8
	1.7.4 Social Influence	8
	1.7.5 Technology Risk	8
	1.7.6 Product Improvement	9
	1.8 Chapter Layout	9
	1.9 Chapter Summary	10
CHAPTER 2	LITERATURE REVIEW	11
	2.0 Introduction	11
	2.1 Mobile Banking	11
	2.2 Trust	12
	2.3 Security	13
	2.4 Social Influence	14
	2.5 Technology Risk	15
	2.6 Theoretical Background	16
	2.6.1 Technology Acceptance Mo (TAM)	odel 16
	2.6.2 Task-Technology Fit Model	(TTF) 18
	2.7 Conceptual Framework	19
	2.7.1 Trust	20
	2.7.2 Security	21
	2.7.3 Social Influence	21
	2.7.4 Technology Risk	21
	2.8 Hypothesis Development	21

vi

	2.8.4 Technology Risk	23
	2.9 Chapter Summary	24
CHAPTER 3	RESEARCH METHODOLOGY	25
	3.0 Introduction	25
	3.1 Research Design	25
	3.2 Sampling Frame and Sampling Location	27
	3.3 Sample Design	27
	3.3.1 Target Population	28
	3.3.2 Sample Size	28
	3.3.3 Sampling Element	29
	3.3.4 Sampling Techniques	30
	3.4 Research Instrument	30
	3.4.1 Questionnaire Design	30
	3.5 Data Analysis	31
	3.5.1 Descriptive Analysis	31
	3.5.2 Reliability Test	31
	3.5.3 Pearson's Correlation Analysis	32
	3.5.4 Multiple Regressions Analysis	33
	3.6 Constructs Measurement	34
	3.6.1 Nominal Scale	35
	3.6.2 Likert Scale	35
	3.7 Pre-Testing of Questionnaire	40
	3.8 Pilot Test	40
	3.9 Data Collection Method	41

2.8.1 Trust

2.8.2 Security

2.8.3 Social Influence

21

22

23

	3.9.1	Primary Data	42
	3.10 Data Pro	ocessing	42
	3.10.1	Data Checking	43
	3.10.2	2 Data Editing	43
	3.10.3	B Data Coding	44
	3.10.4	Data Transcribing	44
	3.11 Chapter	Summary	44
CHAPTER 4	RESULT AN	ND DISCUSSION	45
	4.0 Introducti	ion	45
	4.1 Reliabilit	y Analysis	45
	4.1.1	Reliability Test of the Study	46
	4.2 Descriptiv	ve Analysis	46
	4.2.1	Respondent's Demographic Profile	47
		4.2.1.1 Gender	47
		4.2.1.2 Age	48
		4.2.1.3 Race	49
		4.2.1.4 Highest Education Level	50
		4.2.1.5 Employment Status	51
	4.2.2	General Information	52
		4.2.2.1 Q1	52
		4.2.2.2 Q2	53
	4.2.3	Descriptive Statistics	54
	4.3 Inferentia	l Analysis	55
	4.3.1	Pearson Correlation Analysis	55
	4.3.2	Multiple Regression Analysis	57
		4.3.2.1 Model Summary	57
		4.3.2.2 Anova Test	58

		4.3.2.3 Regression Coefficients	58
		4.3.2.3.1 Hypothesis Verification	59
	4.4 Chapter S	Summary	61
CHAPTER 5	CONCLUSI	ON AND RECOMMENDATION	62
	5.0 Introduct	ion	62
	5.1 Summary	of Statistical Analysis	62
	5.1.1	Descriptive Analysis	62
		5.1.1.1 Demographic Profile	63
		5.1.1.2 General Information	64
		5.1.1.3 Summary of Descriptive Statistic	65
	5.1.2	Scale Measurement	66
	5.1.3	Inferential Analysis	66
		5.1.3.1 Summary of Pearson Correlation Analysis	66
		5.1.3.2 Summary of Multiple Regression Analysis	67
	5.2 Discussio	on of Major Findings	68
	5.2.1	The Relationship between Trust and Product Improvement for Mobile Banking	69
	5.2.2	The Relationship between Security and Product Improvement for Mobile Banking	70
	5.2.3	The Relationship between Social Influence and Product Improvement for Mobile Banking	71
	5.2.4.	The Relationship between Technology Risk and Product Improvement for Mobile Banking	72
	5.3 Implication	on of the Study	72
	5.3.1	Theoretical Implication	72
	5.3.2	Practical Implication	73
	5.4 Recomm	endation of Future Research	73

5.5 Conclusion	74
REFERENCE	76
APPENDIX	82

LIST OF TABLES

TABLES	TITLE	PAGES
3.1	Research Design	26
3.5.2	Rules of Thumb	32
3.5.3	Pearson Correlation Range Interpretation	33
3.6	Constructs of Measurement	35
3.8	Pilot Test (Reliability Result)	41
4.1.1	Reliability Test of the Study	46
4.2.1.1	Respondent's Gender	47
4.2.1.2	Respondent's Age	48
4.2.1.3	Respondent's Race	49
4.2.1.4	Respondent's Highest Education Level	50
4.2.1.5	Respondent's Employment Status	51
4.2.2.1	Q1	52
4.2.2.2	Q2	53
4.2.3	Descriptive Statistics	54
4.3.1	Pearson Correlation Analysis	56
4.3.2.1	Model Summary	57
4.3.2.2	Anova Test	58
4.3.2.3	Regression Coefficients	58
5.1.1.1	Summary of Demographic Profile	63
5.1.1.2	Summary of General Information	64
5.1.1.3	Summary of Descriptive Statistic	65

5.1.2	Summary of Reliability Test	66
5.1.3.1	Summary of correlation between each variables	66
5.1.3.2	Summary of Multiple Regression Analysis	67
5.2	Summary of the results of Hypothesis Testing	68

xii

LIST OF FIGURES

FIGURES	TITLE	PAGES
2.6.1	TAM Model	18
2.6.2	TTF Model	19
3.3.2	Sample Sizes for Different Population Sizes	29
4.2.1.1	Respondent's Gender	47
4.2.1.2	Respondent's Age	48
4.2.1.3	Respondent's Race	49
4.2.1.4	Respondent's Highest Education Level	50
4.2.1.5	Respondent's Employment Status	51
4.2.2.1	Q1	53
4.2.2.2	Q2	54

LIST OF ABBREVIATIONS

ABBREVIATIONS	TITLE
MB	Mobile Banking
ТАМ	Technology Acceptance Model
TTF	Task-Technology Fit Model
ICT	Information and Communications Technology
SMS	Short Message Service
WAP	Wireless Application Protocol
GPRS	General Packet Radio Service
SPSS	Statistic Package For Social Science
IT	Information Technology
PU	Perceived Usefulness
PEOU	Perceived Ease Of Use
TRA	Theory of Reasoned Action
PC	Personal Computer
UTeM	Universiti Teknikal Malaysia Melaka
SPM	Sijil Pelajaran Malaysia
STPM	Sijil Tinggi Persekolahan Malaysia
PhD	Doctor of Philosophy

LIST OF APPENDIX

APPENDIX	TITLE	PAGES
А	Questionnaire	82
В	Gantt Chart PSM 1	90
С	Gantt Chart PSM 2	90
D	Turnitin Report	91

xv

CHAPTER 1

INTRODUCTION

1.0 Introduction

Chapter 1 begins with the background of the research to fully understand the general environment and trends of mobile banking in the banking industry. Next section is a problem statement that identified the challenges affects the user's intent to use the mobile banking services. This chapter will then continue with the study's research objectives, research questions, scope and limitations, the significance of study and meaning. Finally, the layout of the chapter is formed and a conclusion is followed to summarize the entire chapter.

1.1 Research Background

Today, mobile banking is well known abroad. In countries such as China, South Korea and the United States, the use of mobile banking services has become increasingly popular. Mobile banking in Malaysia has the opportunity to grow as it can bring many benefits to the public. With the rapid spread of receipts to a large number of users, even the banking industry cannot afford to release development.

In just a few years, the mobile options available to customers have been expanded for only a long time. Banks are facing challenges in managing and building critical relationships with their customer base in the transition from traditional branch operations and first web-based solutions to mobile and mobile apps. Electronic services, for example, are essentially a self-service technology that overrides human interaction through dialog between human and computer systems (Hoffman and Novak, 1996; Sang and Rono, 2015). On the other hand, mobile banking has significantly increased flexibility, universality and connectivity (Ha, K.-H., Canedoli, A., Baur, A.W. and Bick, M., 2012) and provides preventative capabilities for customized quotes and arrests Turn on social platforms. With mobile banking, new insights are needed to fully realize the complex aspects of customer / bank relations (Lin, J., Wang, B., Wang, N. and Lu, Y., 2014).

The relationship between banks and customers can also be enhanced by mobile banking. This is because at anytime, anywhere, customers can express their opinion to the bank. Riquelme and Rios (2010) pointed out that mobile banking is capable of motivating and enhancing stronger bank-customer relations. Moreover, mobile banking enables users to review banks ' latest products or services. About half of mobile users continue to have no bank account and limited access to traditional financial services. This trend shows a significant opportunity for growth, leading to a significant increase in the number of users of mobile banking. Mobile banking penetration is lower than online banking despite exponential growth in index growth.

The aim of this study is therefore to highlight the mobile banking problems and challenges and to identify some product improvements, particularly in Malaysia. To support exploration research, these challenges and issues are being investigated in quantitative research by Malaysian citizens. In doing so, it can integrate and synthesize various research processes into the more well-known knowledge base and identify and discuss the methods, frameworks and models used in the field. Finally, this study summarizes key findings and identifies gaps that need to be investigated further. For this test, the term "participant" is used in this study to refer to an analytical unit used in any evaluation study. Only problems or challenges faced by mobile banking users and their future improvements will appear in this study.

1.2 Problem Statement

This study explores and examines customer challenges while using mobile banking. This is because banks need to understand consumers ' needs in order to make some improvements to the weaknesses and lack of service. This can also increase the intent of the user to use the services of mobile banking. Using mobile banking can cause some problems. Some users have argued that it is hard to use banking and that the procedure is complicated (Sang and Rono, 2015). Mobile banking services, as they are new technology services, can be difficult for users to use.

Besides, some users will consider that mobile banking is unsafe and has no privacy, and they will be at risk. They are worried that hackers will copy their information and withdraw funds without notifying users. Sometimes, when using mobile banking services, users feel helpless as there may be some transaction process errors. According to Kiran, K. V. D., Srivatsava, M. V. R. and Devi, K.G. (2014), m-banking is an online banking extension, which enhances technology capabilities to support users at convenient times and locations. Inability to open the door to risk. Mobile banking faces threats like unsafe systems, mobile malware, third-party software and customer behavior at high risk.

Researchers are therefore able to understand the challenges of mobile banking towards product improvement in this study. Banks can also solve the mobile banking problem and lack and increase customer satisfaction.

1.3 Research Objectives

Research objectives are the goals that we aim to achieve by the research. A research objective is a simplicity, concise, declarative sentences which provides ways to analyze the variables in a research. The research objective of this research were:

- 1. To study the challenges (trust, security, social influence and technology risk) faced by the mobile banking services users.
- 2. To study the biggest challenge faced by the mobile banking users.
- 3. To investigate the relationship between the challenges (trust, security, social influence and technology risk) faced by the mobile banking users and the product improvement.

1.4 Research Question

One of the important steps in the research process is the development of research questions. A research question is an answerable inquiry that summarizes the problems that the researcher will study. It is the fundamental core of a research which guides all stages of research process from identify problem to reporting the results. The research questions of this research were:

- 1. What are the challenges (trust, security, social influence and technology risk) faced when using mobile banking services?
- 2. What is the biggest challenge faced when using mobile banking services?
- 3. Is there any significant relationship between the challenges of mobile banking and product improvement?

1.5 Scope and limitations

1.5.1 Scope and Key Assumptions

The scope and key assumptions are focused solely on consumer and mobile banking users ' challenges. In this study, the questionnaire will be answered by 385 people. This study will focus on those with bank accounts and using mobile banking services. In addition, some people, especially those between the ages of 18 and 30, prefer to shop online. This is because they like spending money on fashion products, including online clothing and accessories. Customers had previously had to pay through online banking. However, by enhancing banking services, many customers choose to make payments via mobile banking. From their responses, we are able to identify the challenges they face when using mobile banking services. Banks can solve customer dissatisfaction through this report and add new features to attract them to use mobile banking.

Moreover, people can use m-banking to perform transactions because it is very fast, saving time and effort. Also, without going to a traditional bank, they can make bill payments, transfer funds and others between their companies. In addition, some parents use mobile banking to transfer money to the account of their child without visiting the tradition bank as it helps them save time. We can understand the challenges and lifting of customers in the mobile banking business through this research to facilitate the improvement of mobile banking services.

1.5.2 Limitation of the Study

One of the limitations of this research is that many people still do not understand mobile banking. This is because mobile banking is not familiar to them. Some customers prefer visiting traditional banks as they are able to communicate with bank employees and tell them what they need. Some clients trust bank employees ' ability. Respondents can only answer questionnaires as they have limited knowledge about mobile banking.

Another aspect that makes this research difficult is that the development of mobile banking in Malaysia is still underway. Although mobile banking is popular abroad, in Malaysia it is still a new product, and not everyone loves it. It's also easy to use mobile banking, but most of them still prefer online banking, mainly for the younger generation. This can also affect the wrong choice of the respondents when answering the questionnaire as it is used to use online banking.

1.6 Significance of study

1.6.1 Theoretical Significance

The theoretical significance of this study is to offer better justifications of the intention of customers to accept an improvement by applying different adoption and diffusion theories in developed countries to study the major significant challenges of MB adoption. Technology Acceptance Model (TAM) and the technology fit task are the leading models for studying the adoption of MB. Remarkably, the normal thought among these reception and dispersion hypotheses, observationally upheld in numerous ongoing examinations on MB selection, is the accentuation on the noteworthy effect on clients' use aim and practices in the dissemination procedure. The suggestion is a key base for the present investigation which looks at the impacts of various sorts of media on banking clients' choices on MB reception.

1.6.2 Practical Significance

Study on this research has practical significance in providing a better understanding of mobile banking to customers. Mobile banking services are very popular in foreign countries today. But there are still many people in Malaysia who do not like the services of mobile banking. This study is vital because we can identify the challenges faced by users of mobile banking through this study. Additionally, this research will help banks and marketers understand mobile banking. From that survey, marketers will better understand the problems faced by mobile banking users today. They will also learn about improvements which will improve the functionality of the services of mobile banking. For example, customers prefer to enjoy payments by accessing traditional banks instead of using mobile banking services. Furthermore, we can also recognize the lack of mobile banking services so as to the banks can develop current services in order to meet customer requirements through this research. The bank can also find a vulnerability in mobile banking through this research that can solve problems and increase customer satisfaction and demand. This can also increase the client's intent to use the mobile banking business.

1.7 Operational Definition

1.7.1 Mobile Banking

Mobile banking can be characterized as directing various money related exchanges through a cell phone, for example, a cell phone or individual advanced colleague.

1.7.2 Trust

Trust can be well-defined as the readiness to make one helpless to a trusted party based on the sense of trust or assurance. Trust in mobile banking as "the conviction that enables people to readily end up defenseless against the bank, the media transmission supplier, and the portable innovation in the wake of having the banks, and the characteristic of the telecommunications provider embedded in the artifact of technology.

1.7.3 Security

This can be characterized as the security / privacy considered to be involved in transmitting data via mobile devices. In other words, users must consider it safe before using mobile banking services.

1.7.4 Social Influence

Social influence can be defined as the individual recognitions that a great many people who are essential to them believe that they ought to or ought not to carry on appropriately.

1.7.5 Technology Risk

Technology risk can be characterized as the losses resulting from deficiencies or blunders of banking administrations such as systems letdowns, processing mistakes, software shortcomings and so on.

1.7.6 Product Improvement