

UNIVERSITI TEKNOLOGI MARA (UITM)

FORMATION OF E-TRUST THROUGH SOCIAL DIMENSION EVALUATION ON SECURITY AND PRIVACY MECHANISM OF E-BANKING USER INTERFACE

SITI NORHAFIZA BINTI MOHARAM

MASTER OF SCIENCE IN INFORMATION TECHNOLOGY FACULTY OF MATHEMATICAL AND COMPUTER SCIENCES

JULY 2014

ABSTRACT

This project discusses about the user evaluation of the MAYBANK and CEVIB e-banking website which are local bank in Malaysia to form e-trust through social dimension evaluation on security and privacy mechanism of e-banking user interfaces. The purpose of conducting the user evaluation is to identify problems that should be addressed and examine the e-banking user interface through soft trust which involve social dimension in security and privacy mechanism. This e-banking website needs to be tested its user interface usability through social dimension evaluation on security and privacy mechanism. The lack of soft trust of non-functional requirement in e-banking user interface need to be identified to cater the design requirement. To point out the usability problem, the usability of this e-banking website has been tested using think aloud protocol. An experiment has been conducted and tested on the seven potential ebanking users, which the results were analyzed using quantitative data analysis. This project is intended to identify the usability level of the system and improve the website design in order to make this website is usable and the usability problem is resolved. The usability is tested based on its features, the user interface and also the performance and effectiveness. Through this project, many usability problems have been pointed out and the recommended solutions have been suggested at the end of this project. The usability problems and the recommendations have been analyzed based on its interface design review.

Keywords: Social dimension elements, user evaluation, think aloud protocol, e-banking, e-trust

ACKNOWLEDGEMENT

Praise be to Allah SWT Most Gracious, Most Beneficent

First and foremost, praise to Allah for giving me courage, strength, good health and determination to complete this thesis. Without Her blessing and permission, this thesis could not have been completed.

First of all I would like to address my deepest appreciation to my supervisor Dr. Emma Nuraihan Mior Ibrahim for her concern, guidance, advices, ideas, support and encouragement throughout this thesis progress. All the advice, criticism, guidance and brilliant ideas during the preparation of this study will certainly never be forgotten.

1 would also like to express my gratitude to family for their constant support and prayers during my study. Last but not least, I also would like to thank to all of my friends that give me an ideas directly or indirectly during the completion of this project. Thanks for inspiring me in such a means that could not be written in words.

Thank you, may ALLAH bless all of you.

TABLE OF CONTENTS

				Page
STUDENT'S D	ECLARATION			
ABSTRACT				i
ACKNOWLEDGEMENT				ii
TABLE OF CONTENT				iii
LIST OF FIGURES				iv
LIST OF TABI	LES			vii
CHAPTER 1: I	INTRODUCTIO	ON		1
1.0 Introduction				1
1.1 Project Background				1
1.2 Problem Statement				13
1.3 Research Question				15
1.4 Project Aim				16
1.5 Proj	ect	Obj	ectives	16
1.6 Project Scop	e			16
1.7 Project Significance				17
1.8 Research Design Summary				17
1.9 Organization of Thesis				19
1.10 Summary				20
CHAPTER 2: I	LITERATURE I	REVIEW		
2.0 Introduction				21
2.1 E-Trust				21
2.2 Design for Trust				22
2.3 Usability of E-banking				24
2.4 Factor Impacting on Trust				30
2.5 Characteristics of security elements in E-banking				34
2.6 Social Dimension elements in E-banking				36
2.7 Think aloud protocol analysis				39
2.8 Summary				41

CHAPTER 3: RESEARCH METHODOLOGY		
3.0 Introduction	42	
3.1 Project Phase	42	
3.2 Problem Identification Phase	44	
3.3 Knowledge Acquisition Phase	45	
3.4 Design of Instrument Phase	46	
3.5 Conduct Experiment and Data Collection Phase	46	
3.6 Analysis and Findings Phase	60	
3.7 Documentation	61	
3.8 Summary	62	
CHAPTER 4: RESULT AND ANALYSIS		
4.0 Introduction	63	
4.1 User Evaluation	63	
4.2 User Background Analysis	64	
4.3 Recommended Modification	74	
4.4 General Guidelines for Website to Improve Usability		
4.5 Summary	78	
CHAPTER 5: CONCLUSION AND THE FUTURE WORK		
5.0 Introduction	79	
5.1 Project Objectives Reviewed	79	
5.2 Conclusion	80	
5.3 The Strengths	82	
5.4 The Limitations	82	
5.5 Recommendations		