ADOPTION OF E-BANKING IN ISLAMIC BANKING INSTITUTIONS AMONG MUSLIM CUSTOMERS IN KEDAH

By NUR FARRAH AIN BINTI ZAINUDDIN

Research Paper Submitted to
Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
in Partial Fulfillment of the Requirement for the
Master in Islamic Finance and Banking

PERMISSION TO USE

In presenting this research paper in partial fulfillment of the requirements for a Post Graduate degree from Universiti Utara Malaysia, I agree that the University Library makes a freely available for inspection. I further agree that permission for copying of this project paper in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor or, in their absence, by the Dean of Othman Yeop Abdullah Graduate School of Business. It is understood that any copying or publication or use of this research paper or parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition given to me and to the Universiti Utara Malaysia in any scholarly use which may be made of any material for my research paper.

Request for permission to copy or to make other use of materials in this research paper, in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

ABSTRACT

Electronic banking or known as e-banking is not a new phenomenon to the people

nowadays. Developments in information technology and telecommunications have

set in motion an electronic revolution in the Malaysian banking sector. Starting with

the Automated Teller Machines (ATM) in 1970s till the introduction of Internet

banking in the year 2000s, electronic banking has become an important product and

services provided by the banking institutions including Islamic banks in Malaysia.

This study aims to explore the determinants which influence the adoption of e-

banking services provided by Islamic banks in Malaysia among Muslim customers.

The determinants obtained by the researcher from the previous studies are perceived

usefulness, perceived ease of use, security, trust and cost and charges. Findings show

that all the determinants have a positive relationship with the e-banking adoption

while in term of effects, there are three variables influence the adoption. Out of the

three determinants, perceived usefulness is found to give the most influence towards

e-banking adoption. Recommendation for the future research is religiosity to be

added as one of the determinants to predict adoption of e-banking in Islamic banks.

Keywords: electronic banking, Islamic banking institutions, adoption

iv

ABSTRAK

Perbankan elektronik atau lebih dikenali sebagai e-perbankan bukanlah suatu

fenomena yang baru pada masa kini. Dengan perkembangan teknologi maklumat dan

telekomunikasi telah mencetus suatu evolusi dalam industri perbankan di Malaysia.

Bermula dengan Automated Teller Machines (ATM) pada tahun 1970an sehinggalah

kepada pengenalan perbankan internet pada tahun 2000, perbankan elektronik telah

menjadi salah satu produk dan perkhidmatan terpenting yang disediakan oleh

institusi perbankan termasuklah institusi perbankan Islam di Malaysia. Kajian ini

adalah bertujuan untuk menyelidik faktor-faktor yang mempengaruhi penggunaan

perbankan elektronik di bank-bank Islam di Malaysia dalam kalangan pelanggan

beragama Islam. Faktor-faktor yang diperoleh hasil daripada kajian terdahulu adalah

tanggapan kepenggunaan, tanggapan kemudahan, Keselamatan, Kepercayaan dan

Cas bayaran. Hasil kajian menunjukkan kesemua faktor yang dikaji mempunyai

hubungan yang positif dengan penggunaan perbankan elektronik dalam kalangan

pelanggan, tetapi hanya tiga daripada faktor tersebut yang mempengaruhi

penggunaan perkhidmatan perbankan elektronik tersebut. Cadangan untuk kajian

akan datang agar faktor keagamaan ditambah sebagai salah satu faktor penting dalam

menjangkakan kepenggunaan dalam perbankan elektronik di bank-bank Islam.

Kata Kunci: Perbankan elektronik, institusi perbankan Islam, kepenggunaan

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious, the Most Merciful.

All praises and thanks are due to Allah, the Lord of the Worlds, for all His bounties and blessings. May peace and blessings be unto the Holy Prophet Muḥammad, his Progeny, and his Companions.

First of all, I would like to thank to Allah for the blessing and giving me strength of mind, spirit, ability and guidance for me to go through all the journeys in completing this research paper. With the help and permission of Allah, I succeeded in finishing this research paper. Working for this Master's degree is a journey towards accomplishing one of my lifetime objectives, which has been made possible by direct and indirect assistance from various parties.

Many thanks must first go to my supervisor, Dr. Mohammad Azmi Othman for giving me the invaluable guidance, insights, moral support and the direction throughout the whole process of completing this research paper. Secondly, my special appreciation is also due to my respectable advisor, Assoc. Prof. Dr. Abu Bakar Hamed for his professional and untiring guidance from the beginning of the study until the end of this report. His valuable comments, suggestions, academic support and his advice have been instrumental guidance in finalizing this report. I am very indebted to their patience and invaluable advices that inspired me to think positively to finish my research paper. Without their understanding, consideration and untiring advice, this research paper would not have been completed successfully. May Allah compensates both of them for sacrificing time and sharing their knowledge.

Special dedicated to my beloved parents, Mr Zainuddin Che Ya and Mrs Jamaliah Yaacob for their endless supports, loves and cares. To the best brother in the world Hasif, the one who understands my passion, financially supports my study from the starts till the end, thank you ya akhi. Not forgotten my little brother and sister, Hamizan and Hana, thank you for the cheers and smiles. Special appreciation also goes to my dearest committed sisters; Syima, Hanim and Sis Nik Safiah for their encouragements and motivations all the way through the journey. To my dearest devoted sisters; Fatin Syazwani, Faezah Basary and Diana Jamry, thank you for always been there for me, through thick and thin, tears and laugh together. Last but not least to all my dearest fellow friends who never give up giving me support, information and assistance to settle up this research paper. Thank you very much for all and best of luck. A word of thanks also extends to those who have indirectly provided comments and helpful suggestion especially to all respondents of this study. Any other individual whom I have not recognized by name but who gave their support and cooperation, I give my sincere thanks.

May Allah S.W.T reward the kindness of everyone that I mentioned above.

Nur Farrah Ain Zainuddin Islamic Business School Universiti Utara Malaysia

TABLE OF CONTENT

TITLEi				
CERTIFICATION OF RESEARCH PAPERii				
PERM	MISSION TO USEiii			
ABS	TRACTiv			
ABS	TRAKv			
ACK	NOWLEDGEMENTvi			
TABI	LE OF CONTENTvii			
LIST	OF TABLESx			
LIST	OF FIGURExi			
LIST	OF ABBREVIATIONSxii			
CHA	PTER ONE1			
1.1	Introduction			
1.2	Background of The Study			
1.2	.1 Electronic Banking in Malaysia			
1.2.2 Electronic banking services				
1.3	Problem Statement			
1.4	Research Questions			
1.5	Research Objectives			
1.6	Significance of Study			
1.7	Scope of Study			
1.8	Limitation of the Study			
1.9	Organization of Chapters			
1.10	Conclusion			
CHA	PTER TWO			
2.1	Introduction 19			
2.2	E-banking adoption			
2.3	Technology Acceptance Model (TAM)			
2.4	Discussion of Variables			
2.4.1 Demographic Factors				
2.4	.2 Perceived Usefulness and Perceived Ease Of Use			

2.4	1.3	Security	. 24
2.4	1.4	Trust	. 25
2.4	4.5	Cost and Charges	.26
2.5	Ov	rerall review of variables	.27
2.6	Cor	nclusion	.32
CHA	PTE	R THREE	.33
3.1	Intr	oduction	.33
3.2	Res	search Design	.33
3.3	The	Research Framework	.35
3.4	Hyj	potheses Development	.37
3.5	Inst	rument of Measurement	.40
3.6	Rel	iability Analysis	.43
3.7	Dat	a collection and research procedures	.44
3.7	7.1	Population and Sample of The Study	.44
3.7	7.2	The Sampling Method	.45
3.7	7.3	Data Collection	.45
3.8	Dat	a Analysis	.46
3.8	3.1	Normality of the Data	.46
3.9	De	scriptive Statistic Analysis	.49
3.10	Infe	erential Statistic	.49
3.1	10.1	Independent T-test	.49
3.1	10.2	Assumption testing of Independent T-test	.50
3.1	10.3	One-way ANOVA	.50
3.1	10.4	Assumption testing on ANOVA	.50
3.1	10.5	Correlation	.51
3.1	10.6	Assumption testing on Correlation	.51
3.1	10.7	Multiple Regression	.52
3.1	10.8	Assumption on Multiple Regression	.52
3.11	Cor	nclusion	.57
CHA	PTE	R FOUR	.58
4.1	Int	roduction	.58
4.2	Ove	erview of Data Collected	.59

4	.2.1	Response Rate	59
4	.2.2	Descriptive Statistic Analysis	59
	4.2.2	1 Profile of the Respondents	59
	4.2.2	2 Observation of the variables	63
4.3	The	e Differences Between Demographic Factors and E-Banking Adoption	n . 65
4.4	The	e Relationship Between The Determinants and E-Banking Adoption	68
4.5	The	e Influence of The Determinants Towards E-Banking Adoption	70
4.6	Vie	ws and Suggestions of Respondents	73
4.7	Coı	nclusion	74
CH	APTE	R FIVE	75
5.1	Intr	oduction	75
5.2	Res	spondent Profile	76
5.3	Rel	ationship between the determinants and e-banking adoption	78
5.4	Infl	uence between the determinants and e-banking adoption	79
5.5	Imp	olications of the study	80
5	.5.1	Theoretical Implications	80
5	.5.2	Practical Implications	81
5.6	Red	commendations	83
5.7	Coı	nclusion	84
REI	FEREN	NCES	85
API	PENDI	X A : QUESTIONNAIRE	88
API	PENDI	X B : NORMALITY TEST	96
API	PENDI	X C : RELIABILITY TEST	. 109
API	PENDI	X D : DESCRIPTIVE TEST	.113
API	PENDI	X E : INFERENTIAL TEST	.115

LIST OF TABLES

Table 1.1	Summary of e-banking services offered by Islamic Banks	5
Table 2.1	Summary of past studies on e-banking adoption	27
Table 3.1	Summary of measurement of variables	42
Table 3.2	Reliability test	43
Table 3.3	Summary of Skewness and Kurtosis values	48
Table 3.4	Critical value for Mahalanobis	53
Table 3.5	Summary of data analysis technique	56
Table 4.1	Profile of the respondents	60
Table 4.2	Level of adoption and factors of respondents to adopt e-banking	63
Table 4.3	Differences between gender and e-banking adoption	65
Table 4.4	Differences between educational level and e-banking adoption	66
Table 4.5	Differences between occupation and e-banking adoption	67
Table 4.6	Correlation between e-banking adoption and the determinants	69
Table 4.7	Result of Regression Linear	70

LIST OF FIGURE

Figure 3.1 Theoretical Framework	35
Figure 4.1 Users of e-banking services	62

LIST OF ABBREVIATIONS

ATM Automated Teller Machines
BNM Bank Negara Malaysia
E-banking Electronic Banking
GDP Gross Domestic Product
IBI Islamic Banking Institutions
TAM Technology Acceptance Model
TPB Theory of Planned Behavior

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This section briefly give the overview of electronic banking in Malaysia and also the services offered to the customers. This section also will highlight the problem statement of the study, the objectives, the research questions and also the definition of terms used in this research paper.

1.2 Background of The Study

Electronic banking is not a new phenomenon in these modern days. Utilization of the internet with the electronic services such as in banking transaction has widely spread among the people. Payment system in Malaysian banking industry has become more efficient with the utilization of the available technology. It was revealed that Malaysia is one of the countries that has evolved from the evolution of currency notes and coins to the cashless and also paperless payment systems of the digital era. (Bank Negara Malaysia, 2013)

However, it remains a high user of cheque and cash despite the progress that has been achieved in the electronic payment infrastructure and the increasing sophistication of the Malaysian economy. (Deputy Governor BNM, 2013)

The contents of the thesis is for internal user only

REFERENCES

- Alghamdi, R., Nguyen, J., Nguyen, A., & Drew, S. (2012). Factors Influencing E-Commerce Adoption By Retailers in Saudi Arabia: A Quantitative Analysis. *International Journal of Electronic Commerce Studies*, 3(1), 83–100.
- Al-Madi, F. (n.d.). The effects of E-banking on The Jordan Islamic Bank clients Satisfaction, 1–21.
- Bank Negara Malaysia. (2013). Payment systems in malaysia.
- Charlotte Chong. (2013). Electronic banking transactions close to RM15 trillion in 2012. Retrieved December 15, 2013, from http://www.theedgemalaysia.com/business-news/229344-electronic-banking-transactions-close-to-rm15-trillion-in-2012.html
- Cheng, T. C. E., Lam, D. Y. C., & Yeung, A. C. L. (2006). Adoption of internet banking: An empirical study in Hong Kong. *Decision Support Systems*, 42(3), 1558–1572. doi:10.1016/j.dss.2006.01.002
- Chong, A. Y.-L., Ooi, K.-B., Lin, B., & Tan, B.-I. (2010). Online Banking Adoption: An Empirical Analysis. *International Journal of Bank Marketing*, 28(4), 267–287. doi:10.1108/02652321011054963
- Dixit, N. (2010). Journal of Internet Banking and Commerce. *Journal of Internet Banking and Commerce*, 15(2).
- Hassan, Y., Yahya, F., Amin, M., & Arshad, U. F. (2011). Awareness of Electronic Banking In Pakistan. *Global Journal of Computer Science and Technology*, 11(17), 13–22.
- Ismail, M. (2012). Factors Influencing the Adoption of E-banking in Sudan: Perceptions of Retail Banking Clients. *Journal of Internet Banking and Commerce*, 17(3).
- Jabatan Perangkaan Malaysia. (2010). Taburan Penduduk dan Ciri-ciri Asas demografi.
- Jamshidi, D., & Hussin, N. (2013). Determining a Conceptual Framework for Adoption of Islamic Credit Card in Context of Malaysia, *3*(1), 188–196.
- Kazi, A. K. (2013). An empirical study of factors influencing adoption of Internet banking among students of higher education: Evidence from Pakistan. *International Journal of Finance & Banking Studies*, 2(2), 87–99.

- Keivani, F. S., Jouzbarkand, M., Khodadadi, M., & Sourkouhi, Z. K. (n.d.). A General View on the E-banking, 62–65.
- Krishnan Guru, B., Vaithilingam, S., Ismail, N., & Prasad, R. (2000). Electronic Banking in Malaysia: A Note on Evolution of Services and Consumer Reactions. *Journal of Internet Banking and Commerce*.
- Lee, M.-C. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 8(3), 130–141. doi:10.1016/j.elerap.2008.11.006
- Mansor, N., Shariff, A., & Abdul Manap, N. R. (2012). Determinants of Awareness on Islamic Financial Institution E-Banking among Malaysian SMEs. *International Journal of Business and Social Science*, *3*(5), 93–101.
- Munusamy, J. (2012). Adoption of Retail Internet Banking: A Study of Demographic Factors. *Journal of Internet Banking and Commerce*, 17(3).
- Musa, R., & Hassan, F. (2009). Corporate Customers 'Adoption of Internet Banking: Case of Klang Valley Business Firm in Malaysia. *International Journal of Business and Management*, 4(June 2000), 13–21.
- Nathan, R. J. (n.d.). Electronic Commerce Adoption in the Arab Countries An Empirical Study.
- Onyia, O. P., & Tagg, S. K. (2012). Effects of demographic factors on bank customers' attitudes and intention toward Internet banking adoption in a major developing African country. *Journal of Financial Services Marketing*, 16(3-4), 294–315. doi:10.1057/fsm.2011.28
- Pawar, J. (2013). Awareness among the people about E-Banking Services with Special reference to the cosmos co- operative Bank Ltd., Pune (Maharashtra). *Research Journal of Science & IT Management*, 2(3), 35–43.
- Poon, W.-C. (2008). Users' adoption of e-banking services: the Malaysian perspective. *Journal of Business & Industrial Marketing*, 23(1), 59–69. doi:10.1108/08858620810841498
- Riyadh, A. N., Akter, S., & Islam, N. (2009). The Adoption of E-banking in Developing Countries: A Theoretical Model for SMEs. *International Review of Business Research Papers*, 5(6), 212–230.
- Sekaran, U. (n.d.). No Title.

- Sohail, M. S., & Shanmugham, B. (2003). E-banking and customer preferences in Malaysia: An empirical investigation. *Information Sciences*, 150(150), 207–217.
- Sohrabi, M., Yee, J. Y. M., & Nathan, R. J. (2013). Critical Success Factors for the Adoption of e-Banking in Malaysia. *International Arab Journal of e-Technology*, 3(2), 1–7.
- Sulaiman, A., C.H, L., & Wee, A. (2005). Prospects and Challenges of E-Banking in Malaysia. *The Electronic Journal on Information Systems in Developing Countries*, 22(1), 1–11.
- Tan, M., & Thompson, S. H. T. (2000). Factors Influencing the Adoption of Internet Banking. *Journal of the Associaton for Information Systems*, *I*(July).
- Yiu, C. S., Grant, K., & Edgar, D. (2007). Factors affecting the adoption of Internet Banking in Hong Kong—implications for the banking sector. *International Journal of Information Management*, 27(5), 336–351. doi:10.1016/j.ijinfomgt.2007.03.002
- Gay, L., & Diehl, P. (1996). *Research Methods For Business and Management*. Singapore: Prentice Hall.
- Hair, J., Babin, b., Money, A., & Samouel, P. (2003). *Essentials of Business Research Methods*. United States of America: Leyh Publishing.
- Kondabagil, J. (2007). Risk Management in Electronic Banking: Concepts and Best Practices. Singapore: John Wiley & Sons (Asia) Pte Ltd.
- Lipis, A. H., Marschall, T. R., & Linker, J. H. (1985). *Electronic Banking*. Canada: John Wiley & Sons.
- Ravi, V. (2008). Advances in Banking Technology and Management: Impacts of ICT and CRM. United States of America: Information Science Reference.
- Shah, M., & Clarke, S. (2009). *E-BANKING MANAGEMENT : Issues, Solutions, and Strategies*. London: Information Science Reference.