# THE DETERMINANTS OF CUSTOMER INTERNET BANKING RESISTANCE AND THE ROLE OF MEDIATING VARIABLES IN YEMENI UNIVERSITIES

### WAIL ABDULALEM MOHAMMED ALASWADI



DOCTOR OF PHILOSOPHY UNIVERSITI UTARA MALAYSIA June 2015

# THE DETERMINANTS OF CUSTOMER INTERNET BANKING RESISTANCE AND THE ROLE OF MEDIATING VARIABLES IN YEMENI UNIVERSITIES.

# By WAIL ABDULALEM MOHAMMED ALASWADI



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### Kolej Perniagaan

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Universiti Utara Malaysia

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Pemeriksa Luar (External Examiner)

Prof. Dr. Mahadzirah Mohamad

Tandatangan (Signature)

Pemeriksa Dalam (Internal Examiner)

Prof. Dr. Shahizan Hassan

Tandatangan (Signature)

Tarikh: 25 Jun 2015

(Date)

Nama Pelajar (Name of Student) WAIL ABDULALEM MOHAMMED AL-ASWADI

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Nama Penyelia/Penyelia-penyelia (Name of Supervisor/Supervisors)

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### **ABSTRACT**

Although internet banking has been widely adopted in developed countries, there is still a low percentage of internet banking adoption in Yemen, indicating a probable high resistance to internet banking. Hence, the objective of this research was to determine the direct predictors (attitude, subjective norm, perceived behavior control (PBC), credibility, trust, compatibility, self-efficacy and government support) of customer resistance, attitude, subjective norm, PBC and credibility towards internet banking. Additionally, this study examined the mediating effects of attitude, subjective norm, PBC, and credibility on the relationship between predictors and customer resistance to internet-banking behavior using Decomposed Theory of Planned Behavior (DTPB). A quantitative research survey was used whereby 900 questionnaires were distributed randomly to University employees. 451questionnaires were returned, representing a 50% response rate. After screening, 372 useable data sets were analyzed using the Structural Equation Modeling (SEM). The study found five significant predictors of customer resistance (attitude, credibility, compatibility, selfefficacy, and government support); three significant factors predicting attitude (government support, subjective norm and PBC); two significant predictors of SN (government support and self-efficacy); two significant predictors of PBC (compatibility and self-efficacy); and three predictors of credibility (trust, government support and PBC). It was also found that attitude fully mediated the relationship between subjective norm and customer resistance as well as between PBC and customer resistance. Contrastingly, attitude was a partial mediator between the relationship of government support and customer resistance. Likewise, credibility is a full mediator on the relationship between trust and customer resistance; PBC and customer resistance. Credibility also partially mediated the relationship between government support and customer resistance. Finally, the study contributes empirically by validating DTBP as an effective underpinning theory in explaining the internet banking resistance and that government should enact more stringent laws and policies to control the internet banking in Yemen.

**Keywords:** customer resistance, internet banking, credibility, government support, trust.

### **ABSTRAK**

Walaupun perbankan internet telah diterima pakai secara meluas di negara-negara maju, namun peratusan penggunaan perbankan internet di Yemen masih berada pada tahap yang rendah, menggambarkan satu kemungkinan kekangan yang tinggi bagi perbankan internet. Oleh itu, objektif kajian ini adalah untuk menentukan peramal langsung (sikap, norma subjektif, kawalan tingkah laku tanggapan atau perceived behavior control (PBC), kredibiliti, amanah, keserasian, efikasi kendiri dan sokongan kerajaan) terhadap kekangan pelanggan, sikap, norma subjektif, PBC dan kredibiliti perbankan internet. Selain itu, kajian ini turut menyelidik kesan-kesan pengantara sikap, norma subjektif, PBC, dan kredibiliti terhadap hubungan antara peramal dan kekangan pelanggan ke atas tingkah laku internet-perbankan menggunakan 'Decomposed Theory of Planned Behavior' (DTPB). Bancian kajian kuantitatif telah digunakan di mana 900 soal selidik telah diedarkan secara rawak kepada pekerja universiti. 451 soal selidik yang mewakili kadar tindak balas sebanyak 50% telah dikembalikan. Selepas saringan dibuat, hanya 372 set data yang boleh digunakan. Data ini telah dianalisis dengan menggunakan Permodelan Persamaan Berstruktur. Kajian mendapati lima peramal kekangan pelanggan yang signifikan (sikap, kredibiliti, keserasian, efikasi kendiri, dan sokongan kerajaan); tiga faktor signifikan yang meramalkan sikap (sokongan kerajaan, norma subjektif dan PBC); dua peramal SN yang signifikan (sokongan kerajaan dan efikasi kendiri); dua peramal PBC yang signifikan (keserasian dan efikasi kendiri); dan tiga peramal kredibiliti (kepercayaan, sokongan kerajaan dan PBC). Dapatan kajian juga mendapati sikap menjadi pengantara penuh dalam hubungan antara norma subjektif dan kekangan pelanggan serta hubungan antara PBC dan kekangan pelanggan, sebaliknya, menjadi pengantara separa dalam hubungan antara sokongan kerajaan dan kekangan pelanggan. Kredibiliti pula didapati menjadi pengantara penuh dalam hubungan antara kepercayaan dan kekangan pelanggan serta PBC dan kekangan pelanggan, tetapi menjadi pengantara separa dalam hubungan antara sokongan kerajaan dan kekangan pelanggan. Akhir sekali, kajian ini menyumbang secara empirikal dengan mengesahkan DTPB sebagai suatu tiori asas yang efektif bagi menerangkan kekangan pelanggan internet dan kerajaan perlu merangka undang-undang dan polisi yang lebih ketat untuk mengawal perbankan internet di Yemen.

**Kata kunci:** rintangan pelanggan, perbankan internet, kredibiliti, sokongan kerajaan, amanah.

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### LIST OF ABBREVIATIONS

AGFI Adjusted Goodness-of-Fit Index

AMOS Analysis of Moment Structures

ATT Attitude

AVE Average Variance Extracted

CBY Central Bank of Yemen

CFA Confirmatory Factor Analysis

CFI Comparative Fit Index

COM Compatibility

CR Critical Ratio

CRD Credibility

CRS Customer Resistance

DOI Diffusion of Innovation

DTPB Decomposed Theory of Planned Behavior

EFA Exploratory Factor Analysis

GFI Goodness-of-Fit Index

GM Generated Model

GOF Goodness-of-Fit

GS Government Support

IBS Internet Banking Service

ICT Information Communication Technology

IFI Incremental Fit Index

IS Information System

IT Information Technology

ML Maximum Likelihood

NFI Normed Fit Index

NP Number of employee in each region

NS Number of sample to be distributed

PBC Perceived Behavior Control

RMSEA Root Mean Square Error of Approximation

SE Self-Efficacy

SEM Structural Equation Modeling

SMC Squared Multiple Correlation

SN Subjective Norm

SPSS Statistical Package for Social Science

SRMR Standardized Root Mean Residual

SSC Social Security Corporation

TAM Technology Acceptance Model

TLI Tucker-Lewis Index

TPB Theory of Planned Behavior

TR Trust

TRA Theory of Reasoned Action

TAM Technology Acceptance Model

UK United Kingdom

USA United States of America

 $\chi^2$  Chi-square

 $\chi^2$ / df Chi-square per degree of freedom ratio

### **CHAPTER ONE**

### INTRODUCTION

### 1.1 Introduction

This chapter presents the background of the study, problem statement, research questions and research objectives. This is followed by a discussion on the significance and scope of the study. Finally, the organization of the study is provided.

### 1.2 Background of the Study

The main aim of this research is to investigate the antecedents of internet banking resistance that may be hindering the adoption of internet banking in Yemen. Records show only 5% have adopted internet banking (Al-Hariry, 2007), as supported by Al-Ajam & Nor (2013); and Zolait (2014). They found internet banking adoption to be very low in Yemen. Despite the increasing usage of internet services in Yemen, many bank customers are still not willing to use or adopt internet banking services (Zolait, Sulaiman & Alwi, 2008a; Al-Ajam & Nor, 2013a, 2013b). Further, a review of extant literature shows that empirical studies in Yemen on internet banking are scarce (Zolait, 2010; Al-Ajam & Nor, 2013a, 2013b). This study intends to look at eight antecedents of customer resistance to internet banking and employs the Decomposed Theory of Planned Behavior in order to enhance the empirical research findings via the Structural Equation Modeling (SEM).

By way of definition, innovation resistance is a situation whereby customers resist new technology because of the fact that it presents potential changes to their satisfactory

# The contents of the thesis is for internal user only

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