

**UNDERSTANDING INTERNET BANKING SERVICES  
AND CUSTOMERS' ADOPTION IN IRAQI  
PUBLIC UNIVERSITIES**

**ALAA AHMED CHYAD ALKAFAGI**

**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
2015**

**INTERNET BANKING SERVICES AND CUSTOMERS' ADOPTION IN IRAQI  
PUBLIC UNIVERSITIES USING DECOMPOSED  
THEORY OF PLANNED BEHAVIOR**

**BY  
ALAA AHMED CHYAD ALKAFAGI**

Thesis Submitted to the  
Othman Yeop Abdullah Graduate School of Business,  
Universiti Utara Malaysia,  
in fulfillment of the requirements for the degree of Doctor of Philosophy

## **PERMISSION TO USE**

In presenting this thesis in fulfillment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the University Library make a freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purpose 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 thesis or parts thereof for financial gain shall not be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my thesis.

Request for permission to copy or make other use of materials in this thesis, 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, Malaysia

## ABSTRACT

There is no doubt that internet banking services adoption represents a good opportunity for developing nations to attain greater economic development and growth, where the creation of added value is driven by information, knowledge and the adoption of information and communications technology. Although a lot of researches provide evidence on the wide adoption of internet banking in developed nations, there are only limited researches in developing nations in the Middle East, specifically in Iraq. There is definitely a need in this country to identify the factors that could encourage and improve the understanding of internet banking services adoption. There is also a paucity of empirical researches on internet banking services adoption from the perspective of customers. Taking these into cognizance, this quantitative research aims to understand internet banking services adoption, by investigating the key factors that encourage customers to adopt internet banking in the Iraqi context, using the decomposed theory of planned behavior. The research framework consists of eighteen latent variables, fourteen exogenous variables (perceived usefulness, perceived ease of use, compatibility, trust, social recommendation, prestigious media, self-efficacy, government support, technology support, internet technology literacy, resistance to technology, perceived risk of technology, anxiety about technology and information on technology); and four endogenous variables (internet banking adoption, attitude, subjective norms and perceived behavioral control). In order to test the framework, a quantitative approach using the survey method is employed consisting of eighty two items with a seven-point Likert scale. Based on proportionate stratified random sampling, 535 out of 800 employees submitted completed questionnaires suitable for analysis (a 66.8% response rate). Findings of this study reveal that all the research hypotheses are supported except three, namely subjective norms, perceived behavioral control and information on technology towards internet banking services adoption, implying that the decomposed theory of planned behavior is an applicable underpinning theory for clarifying the important antecedents of internet banking services adoption in the Iraqi context.

**Keywords:** technological change, internet banking, decomposed theory of planned behavior, structural equation modeling.

## ABSTRAK

Penggunaan perkhidmatan perbankan internet merupakan peluang yang terbaik bagi negara membangun untuk mencapai pembangunan dan pertumbuhan ekonomi yang lebih baik. Apatah lagi pembentukan nilai tambah ini didorong oleh teknologi, ilmu, serta teknologi maklumat dan komunikasi. Walaupun terdapat banyak bukti penyelidikan mengenai penggunaan perbankan internet secara meluas di negara membangun, namun penyelidikan masih terhad dalam kalangan negara-negara timur tengah terutamanya Iraq. Terdapat keperluan dalam mengkaji hal bagi memastikan faktor-faktor yang boleh menggalakkan penggunaan perkhidmatan perbankan internet. Jumlah penyelidikan empirikal adalah amat sedikit dalam bidang penggunaan perkhidmatan perbankan internet terutamanya daripada perspektif pelanggan. Oleh itu, penyelidikan kuantitatif ini bertujuan untuk memahami penggunaan perkhidmatan perbankan internet dengan menyiasat faktor-faktor utama yang menggalakkan para pelanggan untuk menggunakan perbankan internet di dalam konteks negara Iraq dengan menggunakan teori penguraian gelagat terancang. Kerangka penyelidikan ini terdiri daripada lapan belas pemboleh ubah latent, empat belas pemboleh ubah eksogen (tanggapan kebergunaan, tanggapan kesenangan kepenggunaan, keserasian, kepercayaan, cadangan sosial, media berprestij, keupayaandiri, sokongan kerajaan, sokongan teknologi, celik teknologi internet, halangan kepada teknologi, tanggapan risiko teknologi, kebimbangan terhadap teknologi dan maklumat ke atas teknologi). Selain itu, kerangka penyelidikan juga melibatkan empat pemboleh ubah endogen (penggunaan perkhidmatan perbankan internet, sikap, norma subjektif dan tanggapan kawalan gelagat). Pengujian kerangka ini menggunakan pendekatan kuantitatif secara kaedah tinjauan yang mengandungi lapan puluh dua item dengan tujuh mata skala Likert. Berdasarkan kepada pensampelan rawak berkadaran berlapis, 535 daripada 800 orang pekerja mengemukakan borang soal selidik yang lengkap untuk penganalisan (66.8% kadar maklum balas). Hasil kajian ini menunjukkan bahawa semua hipotesis disokong kecuali tiga iaitu norma subjektif, tanggapan kawalan gelagat dan maklumat terhadap teknologi ke atas penggunaan perkhidmatan perbankan internet. Ini menunjukkan bahawa teori penguraian gelagat terancang adalah sesuai sebagai teori asas untuk menerangkan latar belakang penting penggunaan perkhidmatan perbankan internet di Iraq.

**Katakunci:** perubahan teknologi, perbankan internet, teori penguraian gelagat terancang, model persamaan struktur.

## **DEDICATION**

By the grace and mercy of God, I dedicate my thesis to the memory of the departed soul of my uncle "Husain Omran", to my beloved mother and father, the greatest parents in the world. To my beloved mother and father, the greatest parents in the world. Without your unconditional love, prayers, wisdom, and encouragement, this thesis would not have been possible, and neither would there have been any joy in its completion.

To my wife, the best in the world, without your support, none of the positive things I have accomplished when we've been together would have been possible. This thesis is as much yours as it is mine.

To my wonderful children, Adyain, Rawan, and Ahmed, who are the lights of my life and inspire me every moment of every day.

To my Brothers and Sisters who have continually supported and believed in me.

To all my best friends, who have supported me through the process. I will always appreciate their continuous support. Finally, I dedicate this work to each and every one, who had a hand in my education, and helped in any way light a candle for me along the road to accomplishing my objective.

## **ACKNOWLEDGEMENT**

First and foremost, my deep thanks to Almighty Allah for enabling me to complete this research. This piece of work could not have been completed without first the help of the Almighty Allah (SWT). May the peace and blessings of Allah be upon the prophet Muhammad (SAW), his family, and his companions from whom we gain the enlightenment.

I would like to express my sincere gratitude and appreciation to the country of Malaysia for giving me the opportunity to make my higher education possible by providing all the knowledge and facilities that I required. Further, I am truly blessed and deeply grateful to have a supervisor like Dr. Ruslan Bin Romli, Dr. Ahmad Yusni Bin Bahaudin, and Dr. Jamal Alekam, who utilized their knowledge and experience to help me explore my study topic. They are always helpful, encouraging, and supportive. Without their comments and opinions, it would not have been possible for me to complete the work within the given period of time I had to complete my PhD thesis. I would also like to express my special thanks to Prof. Dr. Zulkifli Mohamed Udin, Assoc. Prof. Dr. Amlus Ibrahim, Prof. Dr. Shahizan Hassan, and Prof. Dr. Nor Azizi Esmail, Dr. Abdullah Al-Swidi, Dr. Jalal Hanayshi, Dr. Shehabaddin Abdullah Al-Dubai and Dr. Darwina Hj. Ahmad Arshad for their assistance. To my best friend, Anas from Jordan. To all the academic and administrative staff in Othman Yeop Abdullah Graduate School of Business (OYA GSB), my sincere gratitude goes to you as well. Many thanks go to my viva committee members (Prof. Dr. Zulkifli Mohamed Udin, Assoc. Prof. Dr. Selvan A/L Perumal from Universiti Utara Malaysia, and Assoc. Prof. Dr. Abd Rahman Ahlan from International Islamic University Malaysia) for their considerate comments and suggestions regarding this study.

I would like to express my special thanks to Dr. Laith Ali Al-Hakim, Dr. Abbas Muzel, Dr. Mohammed Abdullah Nasser, Dr. Wisam Salah and Dr. Jamal Hilal Assi from Iraqi public universities. I would also like to express my deepest appreciation to Mr. Haidar Ali Batah and Mr. Adnan Drweesh Saeed from Iraqi banking sectors for their assistance to collect necessary data for this research. I am also greatly indebted to those who lent me a hand, one way or the other, in my work on this my PhD thesis, and whose help did not go unnoticed, but whom I did not name, and all relatives, friends, and colleagues, who offered their help, sympathy and/or prayers.

Last but not least, I especially wish to thank the Iraqi Higher Education Ministry and Al-furat State Company for their continuous support and assistance. Finally, I would like to express my appreciation to all those who participated in evaluating, pre-testing, and piloting the questionnaires; all persons who have offered me their time when I collected necessary data for my research; and indeed all who assisted and participated in my research in whatever capacity.



## TABLE OF CONTENTS

<b>PERMISSION TO USE</b>	ii
<b>ABSTRACT</b>	iii
<b>ABSTRAK</b>	iv
<b>DEDICATION</b>	v
<b>ACKNOWLEDGEMENTS</b>	vi
<b>TABLE OF CONTENTS</b>	viii
<b>LIST OF TABLES</b>	xii
<b>LIST OF FIGURES</b>	xiv
<b>LIST OF APPENDICES</b>	xv
<b>LIST OF ABBREVIATIONS</b>	xvi
<b>CHAPTER ONE - OVERVIEW OF THE STUDY</b>	1-22
1.0 INTRODUCTION	1
1.1 BACKGROUND	1
1.2 KEY ISSUES AND MOTIVATION	3
1.3 PROBLEM STATEMENT	9
1.4 RESEARCH QUESTIONS	14
1.5 RESEARCH OBJECTIVES	14
1.6 SIGNIFICANCE OF STUDY	15
1.7 SCOPE OF STUDY	17
1.8 KEY TERMS DEFINITION	19
1.9 ORGANISATION OF THE THESIS	21
<b>CHAPTER TWO - OVERVIEW OF IRAQ</b>	23-36
2.0 INTRODUCTION	23
2.1 BACKGROUND OF IRAQ	23
2.2 INTERNET TECHNOLOGY IN IRAQ	24
2.3 THE IRAQI BANKING SECTOR	29
2.4 INTERNET BANKING SERVICES IN IRAQ	34
2.5 SUMMARY	36
<b>CHAPTER THREE - LITERATURE REVIEW</b>	37-131
3.0 INTRODUCTION	37
3.1 UNDERPINNING THEORY OF IBSA	37
3.1.1 Theory Reasoned of Action (TRA)	39
3.1.1.1 Constructs of TRA	39
3.1.1.2 TRA in IBSA	40
3.1.1.3 Limitation of TRA	41
3.1.2 Theory of Planned Behavior (TPB)	41
3.1.2.1 Constructs of TPB	42
3.1.2.2 TPB in IBSA	43
3.1.2.3 Limitations of TPB	44
3.1.3 Innovation Diffusion Theory (IDT)	45
3.1.3.1 Constructs of IDT	45

3.1.3.2	IDT in IBSA	47
3.1.3.3	Limitations of IDT	49
3.1.4	Technology Acceptance Model (TAM)	49
3.1.4.1	Constructs of TAM	50
3.1.4.2	TAM in IBSA	51
3.1.4.3	Limitations of TAM	52
3.1.5	Decomposed Theory Planned Behavior (DTPB)	53
3.1.5.1	DTPB Constructs	54
3.1.5.2	DTPB in IBSA	57
3.1.5.3	Advantages of DTPB	59
3.1.6	Unified Theory of Acceptance and Use of Technology	60
3.1.6.1	UTAUT Constructs	62
3.1.6.2	UTAUT in IBSA	64
3.2	INTERNET BANKING SERVICES ADOPTION (IBSA)	65
3.3	ANTECEDENTS OF IBSA	68
3.3.1	The Relationship between Attitude and Actual Behavior	69
3.3.2	The Relationship between Subjective Norm and Actual Behavior	72
3.3.3	The Relationship between PBC and Actual Behavior	73
3.3.4	The Relationship between (IFT) and Actual Behavior	76
3.4	DEFINITION OF ATTITUDE	88
3.5	ANTECEDENT OF ATTITUDE	89
3.5.1	The Relationship between PU and Attitude	91
3.5.2	The Relationship between PEOU and Attitude	96
3.5.3	The Relationship between Compatibility and Attitude	100
3.5.4	The relationship between Trust and Attitude	105
3.6	SUBJECTIVE NORM DEFINITION	110
3.6.1	Third Party Support	12
3.6.1.1	Social recommendations	113
3.6.1.2	Prestigious Media	117
3.7	PERCEIVED BEHAVIOR CONTROL (PBC) DEFINITION	120
3.8	ANTECEDENTS OF PBC	121
3.8.1	The Relationship between Self-efficacy and PBC	122
3.8.2	The Relationship between Government Support and PBC	125
3.8.3	The Relationship between Technology Support and PBC	127
3.9	OPERATIONAL DEFINITION	129
3.10	SUMMARY	131
<b>CHAPTER FOUR- THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT</b>		<b>132-156</b>
4.0	INTRODUCTION	132
4.1	RESEARCH FRAMEWORK	132
4.2	HYPOTHESIZED RESEARCH FRAMEWORK	140
4.2.1	Attitude →IBSA	140
4.2.2	Subjective norm → IBSA	141
4.2.3	Perceived Behavior Control→ IBSA	142
4.2.4	Perceived usefulness → Attitude	142
4.2.5	Perceived Ease of Use →Attitude	143

4.2.6	Compatibility → Attitude	144
4.2.7	Trust → Attitude	145
4.2.8	Third party support in terms of Social Recommendation → SN	146
4.2.9	Third party support in terms of prestigious media → SN	147
4.2.10	Self-Efficacy → Perceived behavior control	147
4.2.11	Government support → Perceived behavior control	148
4.2.12	Technology support → Perceived behavior control	149
4.2.13	Individual factors of technology → IBSA	149
4.3	HYPOTHESIS SUMMARY	154
4.4	SUMMARY	155
 <b>CHAPTER FIVE - METHODOLOGY</b>		 157-198
5.0	INTRODUCTION	157
5.1	RESEARCH DESIGN	157
5.2	SAMPLING METHOD	160
5.2.1	Population	160
5.2.2	Sampling Frame	161
5.2.3	Sample Size	164
5.3	QUESTIONNAIRE DESIGN	166
5.4	VARIABLES MEASUREMENTS	169
5.5	QUESTIONNAIRE SCALES	177
5.6	QUESTIONNAIRES PRE-TEST	177
5.7	PILOT STUDY	178
5.8	DATA COLLECTION PROCEDURES	181
5.9	OVERALL RESPONDENTS RATE	181
5.10	VALIDITY TEST	182
5.10.1	Content Validity	183
5.10.2	Construct Validity	183
5.10.2.1	CONVERGENT VALIDITY	184
5.10.2.2	DISCRIMINANT VALIDITY	184
5.11	ANALYSIS MOTHOD	184
5.12	STRUCTURAL EQUATION MODELING – PLS APPROACH	185
5.12.1	The PLS Path Model	186
5.12.2	The PLS Path Modeling Algorithm	188
5.12.3	Methodological Characteristics	188
5.11.3.1	Reflective and Formative Measurement Models	189
5.11.3.2	Sample Size	191
5.11.3.3	Model Complexity	192
5.11.3.4	Evaluation of the PLS Path Model	193
5.12.4	Covariance Based SEM and Variance Based SEM Approaches	193
5.13	HYPOTHESIS TESTING	197
5.12.1	Direct Effect	197
5.14	SUMMARY	198
 <b>CHAPTER SIX- DATA ANALYSIS AND FINDINGS</b>		 199-246
6.0	INTRODUCTION	199
6.1	CODING AND DATA ENTRY	199

6.2	DESCRIPTIVE STATISTICS	200
6.2.1	Descriptive Statistics of Respondents' Demographic	200
6.2.2	Descriptive Statistics of the Variables	203
6.3	DATA SCREENING	205
6.3.1	Missing Data	205
6.3.2	Outlier	206
6.3.3	Normality Assumptions	206
6.3.4	Linearity Assumptions	209
6.3.5	Homoscedasticity Assumptions	211
6.3.6	Multicollinearity Assumptions	212
6.3.7	Non-Response Bias	214
6.4	THE RATIONAL BEHIND CHOOSING PLS-SEM	216
6.5	TESTING THE MEASUREMENT MODEL	218
6.5.1	Construct Validity	219
6.5.2	Convergent Validity of the Measurements	227
6.5.3	Discriminant Validity of the Measurements	230
6.6	GOODNESS OF FIT (GOF) OF THE MODEL	233
6.7	EFFECT SIZE	234
6.8	PREDICTION RELEVANCE OF THE MODEL	235
6.9	ASSESSING THE HYPOTHESES TESTING PROCEDURES	237
6.10	SUMMARY OF THE FINDINGS	241
6.11	COMPETING MODEL HYPOTHESIS TESTING OF ORIGINAL THEORY (DTPB)	243
6.12	CHAPTER SUMMARY	245
<b>CHAPTER SEVEN- DISCUSSION OF FINDINGS , RECOMMENDATIONS AND CONCLUSION</b>		<b>247-287</b>
7.0	INTRODUCTION	247
7.1	MAIN INDICATOR OF FINDING	247
7.2	DISCUSSION OF THE RESEARCH OBJECTIVES	249
7.3	DETERMINATION of THE SIGNIFICANT and INSIGNIFICANT ANTECEDENTS	249
7.3.1	Objective One: To Identify The Most Important Factors That Determines Customers' Perception Toward IBSA In Iraq	251
7.3.1.1	The Relationship between Attitude and IBSA (H1)	251
7.3.1.2	The Relationship between Subjective Norms and IBSA (H2)	253
7.3.1.3	The Relationship between Perceived Behavioral Control and IBSA (H3)	254
7.3.1.4	The Relationship between Internet technology literacy and IBSA (H13)	256
7.3.1.5	The Relationship between Resistance to Technology and IBSA (H14)	257
7.3.1.6	The Relationship between perceived risk Technology and IBSA(H15)	258
7.3.1.7	The Relationship between Anxiety about technology and IBSA (H16)	260

	7.3.1.8	The Relationship between Information Technology and IBSA (H17)	on 261
7.3.2		Objective Two: To Investigate The Significant Factors Of Attitude Toward IBSA In Iraq	262
	7.3.2.1	The Relationship between PU and Attitude toward IBSA (H4)	262
	7.3.2.2	The Relationship between PEOU and Attitude toward IBSA (H5)	263
	7.3.2.3	The Relationship between Compatibility and Attitude (H6)	264
	7.3.2.4	The Relationship between Trust and Attitude toward IBSA (H7)	265
7.3.3		Objective Three: To Investigate The Significant Factors Of Subjective Norm Toward IBSA In Iraq	267
	7.3.3.1	The Relationship between Third party Support in terms of Social Recommendation influence and Subjective Norm (H8)	267
	7.3.3.2	The Relationship between Third party Support in terms of prestigious Media and Subjective Norm (H9)	268
7.3.4		Objective Four: To Investigate The Significant Factors Of Perceived Behavior Control Toward IBSA In Iraq	269
	7.3.4.1	The Relationship between Self Efficacy and Perceived Behavior Control toward IBSA (H10)	269
	7.3.4.2	The Relationship between Government support and Perceived Behavior Control toward IBSA	270
	7.3.4.3	The Relationship between Technology Support and Perceived Behavior Control toward IBSA	271
7.4		UNDERPINNING THEORY OF DTPB	276
	7.4.1	Objective Five: To Assess The Applicability Of DTPB (Underpinning Theory) To Explain The Antecedents Of IBSA	276
7.5		RESEARCH CONTRIBUTIONS	277
	7.5.1	Theoretical Contribution	278
	7.5.2	Practical Contributions	280
7.6		RESEARCH IMPLICATION	281
7.7		LIMITATIONS OF THE STUDY	284
7.8		FUTURE RESEARCH	284
7.9		CONCLUSION	286
		<b>REFERENCES</b>	288

## LIST OF TABLES

<b>Table 2.1</b>	<i>Regional Internet Users Penetration Rate</i>	25
<b>Table 2.2</b>	<i>Internet Penetration by Location</i>	29
<b>Table 2.3</b>	<i>Type of user for Internet technology</i>	29
<b>Table 2.4</b>	<i>Iraqi Banks</i>	31
<b>Table 2.5</b>	<i>Number of Banks (local and foreign) in Iraq</i>	33
<b>Table 3.1</b>	<i>Summary of previous studies on relationship between attitude and actual behavior</i>	71
<b>Table 3.2</b>	<i>Summary of previous studies on relationship between SN and Actual Behaviour</i>	73
<b>Table 3.3</b>	<i>Summary of previous studies on relationship between PBC and Actual Behavior</i>	75
<b>Table 3.4</b>	<i>Summary of Zmud's study</i>	78
<b>Table 3.5</b>	<i>Summary of previous studies that showed Individual differences</i>	85
<b>Table 3.6</b>	<i>Summary of Previous Research Relationship between PU and Attitude related to IBS</i>	93
<b>Table 3.7</b>	<i>Summary of Previous Research Relationship between PU and Attitude (IT field)</i>	95
<b>Table 3.8</b>	<i>Summary of Previous Research Relationship between PEOU and Attitude (IBS)</i>	98
<b>Table 3.9</b>	<i>Summary of previous Research Relationship between PEOU and Attitude( IT)</i>	100
<b>Table 3.10</b>	<i>Summary of previous research relationship between the compatibility and attitude</i>	104
<b>Table 3.11</b>	<i>Summary of previous research relationship between compatibility and attitude(IT)</i>	104
<b>Table 3.12</b>	<i>Summary of previous Research relationship between the trust and Attitude</i>	109
<b>Table 3.13:</b>	<i>Summary of previous Research on social recommendation influence in (IT)</i>	116
<b>Table 3.14</b>	<i>Summary of previous Research on Prestigious Media influence (IT)</i>	119
<b>Table 3.15</b>	<i>Summary of previous Research on Relationship between SE and PBC ( IT)</i>	124
<b>Table 3.16</b>	<i>Summary of previous Research on Relationship between GS and PBC (IT)</i>	127
<b>Table 3.17</b>	<i>Summary of previous research on relationship between TS and PBC( IT).</i>	129
<b>Table 3.18</b>	<i>Operational Definitions of the Critical Success Factors of IBA</i>	130
<b>Table 4.1</b>	<i>Research Question, Research Objective, and Hypotheses of Research</i>	153
<b>Table 4.2</b>	<i>Summary of hypotheses</i>	155
<b>Table 5.1</b>	<i>Distribution of public universities and Number of Employees for each university</i>	161
<b>Table 5.2</b>	<i>Number of university employees according to the region</i>	163
<b>Table 5.3</b>	<i>Proportions of the sampling universities and the percentage sampling</i>	163

<b>Table 5.4</b>	<i>Determining Sample Size of a Given Population</i>	164
<b>Table 5.5</b>	<i>The Probability sampling of employees for each university</i>	165
<b>Table 5.6</b>	<i>Number of questionnaire for each university</i>	166
<b>Table 5.7</b>	<i>Measurement of variables</i>	172
<b>Table 5.8</b>	<i>Reliability Test Results of the Measurement Instrument</i>	180
<b>Table 6.1</b>	<i>The Profile of the Respondents' Demographic</i>	202
<b>Table 6.2</b>	<i>The Descriptive statistics for all variables (N=535)</i>	204
<b>Table 6.3</b>	<i>Results of Skweness and Kurtosis for Normality Test</i>	208
<b>Table 6.4</b>	<i>Test of Multicollinearity</i>	213
<b>Table 6.5</b>	<i>Group Statistics of Independent Samples t-test (n=535)</i>	215
<b>Table 6.6</b>	<i>Factor Analysis and Cross Loading</i>	221
<b>Table 6.7</b>	<i>Significance Level of Factor Loadings</i>	225
<b>Table 6.8</b>	<i>Convergent Validity Analysis</i>	228
<b>Table 6.9</b>	<i>Discriminant Validity Analysis</i>	232
<b>Table 6.10</b>	<i>Goodness of Fit of the Model</i>	233
<b>Table 6.11</b>	<i>Effect Size</i>	235
<b>Table 6.12</b>	<i>Predictive Quality of the Model</i>	237
<b>Table 6.13</b>	<i>Results of the Inner Structural Model</i>	239
<b>Table 6.14</b>	<i>Summary of the Findings</i>	242
<b>Table 6.15</b>	<i>Hypotheses Testing Results of Original theory (DTPB model)</i>	243
<b>Table 6.16</b>	<i>Goodness of Fit of the DTPB Model</i>	245
<b>Table 7.1</b>	<i>Hypotheses and the Past Studies Reported with Important Reasons</i>	273

## LIST OF FIGURES

<b>Figure 3.1</b>	<i>TRA (Fishbein &amp; Ajzen, 1975)</i>	40
<b>Figure 3.2</b>	<i>TPB (Ajzen, 1991)</i>	43
<b>Figure 3.3</b>	<i>IDT (Moore &amp; Benbasat, 1991)</i>	49
<b>Figure 3.4</b>	<i>Technology Acceptance Model TAM (Davis, 1989)</i>	51
<b>Figure 3.5</b>	<i>DTPB (Taylor &amp; Todd, 1995)</i>	57
<b>Figure 3.6</b>	<i>UTAUT (Venkatesh et al., 2003)</i>	64
<b>Figure 3.7</b>	<i>Antecedents of IBSA</i>	69
<b>Figure 3.8</b>	<i>Basic concept underlying user acceptance models</i>	77
<b>Figure 3.9</b>	<i>Individual Factors Technology (IFT)</i>	87
<b>Figure 3.10</b>	<i>Antecedents of Attitude</i>	90
<b>Figure 3.11</b>	<i>Relationship between third party support and Subjective norm</i>	112
<b>Figure 3.12</b>	<i>Antecedents of Perceived behavior control</i>	122
<b>Figure 4.1</b>	<i>Research Framework</i>	139
<b>Figure 5.1</b>	<i>Example of a PLS path Model,</i>	187
<b>Figure 6.1</b>	<i>Normality Assumption</i>	209
<b>Figure 6.2</b>	<i>Linearity Assumption</i>	211
<b>Figure 6.3</b>	<i>Homoscedasticity Assumption</i>	212
<b>Figure 6.4</b>	<i>The research model</i>	219
<b>Figure 6.5</b>	<i>Path model results</i>	238
<b>Figure 6.6</b>	<i>Path Model Significance Results</i>	238
<b>Figure 6.7</b>	<i>Supported and Unsupported Paths among Construct Model</i>	250



## LIST OF APPENDIX

Appendix A	English Questionnaire	324
Appendix B	Arabic Questionnaire	330
Appendix C	Pilot Study Test	336
Appendix D	Descriptive Statistics of Respondents' Demographic Factors	357
Appendix E	Descriptive Statistics of the Variables	363
Appendix F	Normality, Linearity, And Homoscedasticity	364
Appendix G	Multicollinearity Test	370

## LIST OF ABBREVIATIONS

ATT	Attitude
AOT	Anxiety of Technology
AVE	Average Variance Extracted
CBI	Central Bank of Iraq
CBSEM	Covariance Based SEM
CMC	Communications and Media Commission
COM	Compatibility
CR	Composite Reliability
DSL	Digital Subscriber Line
DTPB	Decomposed Theory of Planned Behavior
DTPB	Decomposed Theory of Planned Behavior
EE	Effort Expectancy
FC	Facilitating Conditions
GDP	Gross Domestic Product
GS	Government support
GOF	GOODNESS OF FIT
IB	Internet banking
IRB	Iraqi Banks
IBS	Internet Banking Services
IBSA	Internet banking services adoption
ICT	Information and Communication Technology
ID	Identity
IDT	Innovation Diffusion Theory
IFT	Individual Factors Technology
IOT	Information on Technology
IT	Information Technology
ITL	Internet Technology Literacy
ITU	International Telecommunication Union
MOF	Ministry of Financial
MOI	Ministry of Interior
MOO	Ministry of Oil
NBK	National Bank of Kuwait
PBC	Perceived Behavior Control
PC	Perceived Compatibility
PE	Performance Expectancy
PEOU	Perceived ease of use
PLS	Partial least Square
PM	Prestigious Media
PU	Perceived Usefulness
QNB	Qatar National Bank
RIT	Risk Technology
RT	Resistance to Technology
SCIS	State Company for Internet Services
SE	Self Efficacy
SEM	Structural Equation Model

SI	Social Influence
SN	Subjective Norm
SCT	Social Cognitive Theory
SR	Social Recommendations
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
TRU	Trust
TS	Technology Support
USA	United States of America
USD	United States Dollar
UTAUT	Unified Theory of Acceptance and Use of Technology
VBSEM	Variance Based SEM
VOIP	Voice over Internet Protocol
VSAT	Very Small Aperture Terminal
VTC	Video Tele
WI-FI	Wireless fidelity

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 INTRODUCTION**

The aim of this chapter is to introduce the overview of the study, and is organized as follows: Section 1.1 provides the research background; Section 1.2 highlights key issues and motivations for this research; Section 1.3 states and discusses the research problem; Section 1.4 outlines the research questions, followed by research objectives in Section 1.5; Section 1.6 highlights the significance of this study; Section 1.7 identifies its scope; Section 1.8 provides definition of key terms; and Section 1.9 provides organization of the thesis.

#### **1.1 BACKGROUND**

Banking and financial services are the most IT-intensive segments of the global economy. The Internet and its rapid diffusion, have led to the financial services industry, radically changing its delivery channels. Indeed, the Internet, and its associated technologies, is the keys to the survival and growth of businesses in today's competitive environment. Web technologies have been instrumental in helping many banks to establish their presence on the Internet, so that they can provide customers with many facilities to perform interactive banking transactions (Al-Somali *et al.*, 2009). The availability and increase of new information and communication technologies (ICTs) in the financial industry has a significant impact on the way banks currently provide services to their customers (Hoehle *et al.*, 2012). Around the world, banking remains the largest consumer of IT services, and the largest spender on IT systems. Many new business standards have been

The contents of  
the thesis is for  
internal user  
only

## REFERENCES

- Aawsat, (2011). Saudi Arabia the biggest Arab world in the use of electronic banking, 9July, 2011 Issue 11 911. Retrieved on 7 March, 2012 from <http://www.aawsat.com/details.asp?section=6&article=630294&issueno=11911>.
- Aawsat. (2012). Banks primitive problems of the largest business in Iraq 11/03/2012. Retrieved on 10 October, 2012 from <http://www.aawsat.com/details.asp?section=6&article=667496&issueno=12157>.
- AbuShanab, E., & Pearson, J. M. (2007). Internet banking in Jordan: The unified theory of acceptance and use of technology (UTAUT) perspective. *Journal of Systems and Information Technology*, 9(1), 78-97.
- AbuShanab, E., Pearson, J., & Setterstrom, A. (2010). Internet banking and customers' acceptance in Jordan: The unified model's perspective. *Communications of the Association for Information Systems*, 26(23), 493-524.
- Agarwal, R., & Prasad, J. (1998). A conceptual and operational definition of personal innovativeness in the domain of information technology. *Information Systems Research*, 9(2), 204-215.
- Agarwal, R., Prasad, J., & Zanino, M. C. (1996). Training experience and usage intention: a field study of a graphical user interface. *Int. J. Human-Computer Studies*, 45(2), 215-241.
- Agarwal, R., Sambamurthy, V., & Stair, R.M. (2000). Research report: the evolving relationship between general and specific computer self-efficacy - an empirical assessment. *Information Systems Research*, 11(4), 418-430.
- Agostinelli, G., & Grube, J. (2002). Alcohol counter-advertising and the media. *Alcohol Research & Health*, 26(1), 15-21.
- Ahuja, G. (2000). Collaboration networks, structural holes, and innovation: A longitudinal study. *Administrative Science Quarterly*, 45(3), 425-455.
- Ajzen, I., & Fishbein, M. (1975). Attitudes and normative beliefs as factors influencing behavioral intentions. *Journal of personality and social psychology*, 21(1), 1-9.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*: Prentice-Hall Englewood Cliffs, NJ.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. Edited by Khul, J. & Beckmann, J. Springer-Verlag, and Berlin Heidelberg. New York Tokyo.
- Ajzen, I., & Madden, T. (1986). Prediction of goal-directed behaviour: Attitudes, intentions, and perceived behavioural control. *Journal of experimental social psychology*, 22(5), 453-474.

- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behaviour relation: Reasoned and automatic processes. *European review of social psychology*, 11(1), 1-33.
- Akinci, S., Aksoy, S. & Atilgan, E. (2004). Adoption of internet banking among sophisticated consumer segments in an advanced developing country, *International Journal of Bank Marketing*, 22(3), 212-32.
- Akter, S., D'Ambra, J., & Ray, P. (2011). An evaluation of PLS based complex models: the roles of power analysis, predictive relevance and GoF index. *AMCIS 2011 Proceedings-All Submissions*.
- Aladwani, A. (2001). Online banking: A field study of drivers, development challenges, and expectations. *International Journal of Information Management*, 2(3), 213-225.
- Alagheband, P. (2006). Adoption of electronic banking services by Iranian customers. Master's thesis, Lulea University of Technology, Sweden.
- Al-Ajam, A. & Md Nor, K. (2013). Influencing Factors on Behavioral Intention to Adopt Internet Banking Service. *World Applied Sciences Journal*, 22(11), 1652-1656.
- Al-azzawi, S. (2011). Decline of Iraqi women empowerment through education under the American occupation of Iraq 2003-2011, Ghent University, Belgium, 9-11 March, 1-29, retrieved on 3 July, 2012 from [http://www.brusselstribunal.org/pdf/IraqiWomen\\_Azzawi\\_100311.pdf](http://www.brusselstribunal.org/pdf/IraqiWomen_Azzawi_100311.pdf)
- Albaghdadia (2011). Researcher calls for private banks to develop marketing mechanisms. Retrieved on 5 October, 2012 from <http://www.albaghdadianews.com/economy/item/482-bagv-ndin-aklzhaj-akgazh%D8%A9-kbzne-oknab-akbyonnj.html>
- Albrecht, S., & Carpenter, K. (1976). Attitudes as predictors of behaviour versus behaviour intentions: A convergence of research traditions. *Sociometry*, 39(1), 1-10.
- Aldmour, F., & Shannak, R. (2009). The effective utilization of information and communication technology and its impact on competitive advantage. *European Journal of Scientific Research*, 29(3), 302-314.
- Aldridge, A., White, M., & Forcht, K. (1997). Security considerations of doing business via the Internet: cautions to be considered. *Internet Research: Electronic Networking Applications and Policy*. 7 (1), 9-15.
- Al-Gahtani, S. S. (2004). Computer technology acceptance success factors in Saudi Arabia: an exploratory study. *Journal of Global Information Technology*

*Management*, 7(1), 5-29.

- Al-Hakim, L. and Hassan, S. (2013). Knowledge management strategies, innovation, and organisational performance: an empirical study of the Iraqi MTS. *Journal of Advances in Management Research*, 10(1), 58-71.
- Al-Hammadany, F. H., & Heshmati, A. (2011a). Determinants of Internet Use in Iraq. *International Journal of Communication*, 5(2011), 1967-1989.
- Alhammadany, F. & Heshmati, A. (2011b). Analysis of the Purpose of Using Internet in Iraq: A Multinomial Logit Model. *Journal of Knowledge Management, Economics and Information Technology*, 1(6), 1-41.
- Alhudaithy, A. I., & Kitchen, P. J. (2009). Rethinking models of technology adoption for internet banking: The role of website features. *Journal of Financial Services Marketing*, 14(1), 56-69.
- Al-majali, M., & Mat, N. K. N. (2010a). Application of Decomposed Theory of Planned Behavior on Internet Banking Adoption in Jordan. *Journal of Internet Banking and Commerce*, 15(2), 1-7.
- Al-majali, M., & Mat, N. K. N. (2010b). Applications of planned behavior theory on internet banking services adoption in Jordan: Structural equation modeling approach. *China-USA Business Review*, 9(12), 1-12.
- Al-majali, M., & Mat, N. K. N. (2011). Modeling the antecedents of internet banking service adoption (IBSA) in Jordan: A structural equation modelling (SEM) approach. *Journal of Internet Banking and Commerce*, 16(1), 1-15.
- Al-majali, M. (2011). The Use of Theory Reasoned of Action to Study Information Technology in Jordan. *Journal of Internet Banking and Commerce*, 16(2), 1-11.
- Alnsour, M., & Al-Hyari, K. (2011). Internet Banking and Jordanian Corporate Customers: Issues of Security and Trust. *Journal of Internet Banking and Commerce*, 16(1), 1-14.
- Al-Qeisi, K. (2009). Analyzing the use of UTAUT model in explaining an online behaviour: internet banking adoption. Unpublished doctoral dissertation. UK, Brunei University. PhD, theses.
- Al-Rubaie S. (2012). E-Iraq E-Business, E-Government and E-Commerce Advance Information Technology for IRAQ. Retrieved on 12/12/2012 from: <http://dc273.4shared.com/doc/jKgnrih0/preview.html>
- Alsabaah (2014). Growth of electronic commerce in Iraq, 23/8/2014 12:00. Retrieved on 1 September, 2014 from <http://www.alsabaah.iq/ArticleShow.aspx?ID=76389>
- Alsabaah (2013). Banker: ways to the development of the financial sector has become more accessible, 08/7/2013. Retrieved on 8 July, 2013 from



<http://www.alsabaah.iq/ArticleShow.aspx?ID=49800>

- Alsabaah. (2012). Invitations to complete the use of Electronic Payment systems 01/03/2012. Retrieved on 3 Feb, 2013 from: <http://www.alsabaah.iq/articleshow.aspx?id=22660>.
- Alsajjan, B., & Dennis, C. (2010). Internet banking acceptance model: cross-market examination. *Journal of Business Research*, 63(9/10), 957-963.
- Alsukkar, A.& Hasan, H. (2005). Toward a model for the acceptance of internet banking in developing countries. *Information Technology for Development*, 11(4), 381-398.
- Al-Somali, S. A., Gholami, R., & Clegg, B. (2009). An investigation into the acceptance of online banking in Saudi Arabia. *Technovation*, 29(2), 130-141.
- Al-Somali, S. A. (2012). *Electronic commerce adoption: a study of business-to-business practice in Saudi Arabia* (Doctoral dissertation, Aston University).[http://eprints.aston.ac.uk/18773/1/Al\\_Somali\\_Sabah\\_A.\\_2011.pdf](http://eprints.aston.ac.uk/18773/1/Al_Somali_Sabah_A._2011.pdf)
- Al-Seyassah. (2012). QNB Group Raises its Stake to 51% in the Mansur Investment Bank of Iraq. Retrieved on 25 April, 2012 from <http://www.al-seyassah.com/ArticleView/tabid/59/smid/438/ArticleID/188094/reftab/36/Default.aspx>
- Alsumarianews. (2013). Microsoft indicated their willingness to develop electronic banking in Iraq. Retrieved on 3 Jun, 2013 from: <http://www.4.hathalyoum.net/iraqnews.php?action=sit&sid=221708>
- Amato, P. R. (1990). Personality and social network involvement as predictors of helping behavior in everyday life. *Social Psychology Quarterly*, 53(1), 31-43.
- Amoroso, D., & Hunsinger, D. (2008). Analysis of the factors that influence online purchasing. *Journal of information system applied research*, 2 (1), 1-16.
- Amoroso, D. L., & Watanabe, R. (2012). Building a research model for mobile wallet consumer adoption: the case of mobile Suica in Japan. *Journal of theoretical and applied electronic commerce research*, 7(1), 94-110.
- Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
- Armstrong, J. S., and Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 16 (3), 396-402.
- Avirutha,A.(2012).The Adoption of Social Media to Enhance Performance of Small and medium Businesses in Thailand. *Business and Information, Sapporo*, 3(5)164-182.

- Awamleh, R., & Fernandes, C. (2006). Diffusion of Internet banking amongst educated consumers in high income non-OECD country. *Journal of International Banking and Commerce*, 11(3), 2.
- Awang, Z. (2012). *Research Methodology and Data Analysis* (Second edition): Universiti Teknologi Mara.
- Baghdadchamber.(2012).The law of Iraq's accession to the WTO between the political decision and economic necessity. Retrieved on 3 March, 2013 from <http://www.baghdadchamber.com/modules.php?name=News&file=article&sid=12836>.
- Bagozzi, R.P. (1994). *Principles of marketing research*: Blackwell Cambridge, Oxford, Mass.
- Bagozzi, R. (1981). Attitudes, intentions, and behaviour: A test of some key hypotheses. *Journal of Personality and Social Psychology*, 41(4), 607-627.
- Bagozzi, R., & Yi, Y. (1989). The degree of intention formation as a moderator of the attitude-behaviour relationship. *Social Psychology Quarterly*, 52(4), 266-279.
- Bagozzi, R., & Dabholkar, P. (2000). Discursive psychology: an alternative conceptual foundation to means-end chain theory. *Psychology and Marketing*, 17(1), 535-586.
- Bambale, A. (2014). Research Methodological Techniques as a Model for Quantitative Studies in Social Sciences. *British Journal of Economics, Management & Trade*, 4(6), 862-879.
- Brown, R. (1997). Assessing specific mediational effects in complex theoretical models. *Structural Equation Modeling: A Multidisciplinary Journal*, 4(1), 142-156.
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational behaviour and human decision processes*, 50(2), 248-287.
- Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling: personal computer adoption and use as an illustration. *Technology studies*, 2(2), 285-309.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51(1), 1173-1182.
- Barczak, G., Ellen, P., & Pilling, B. (1997). Developing typologies of consumer motives for use of technologically based banking services. *Journal of Business Research*, 38(2), 131-140.

- Baron, S., & Harris, K. (2006). A new dominant logic in marketing: pedagogical logic implications. *The Marketing Review*, 6(4), 289-300.
- Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. *International Journal of Research in Marketing*, 13(2), 139-161.
- Bauer, R. A. (1960). Consumer behavior as risk-taking. In R. S. Hancock (Ed.), *Dynamic marketing for a changing world*. Chicago: American Marketing Association, 389-398.
- Bearden, W. O., Calcich, S. E., Netemeyer, R., & Teel, J. E. (1986). An exploratory investigation of consumer innovativeness and interpersonal influences. *Advances in Consumer Research*, 13(1), 77-82.
- Belanger, F., Hiller, J. and Smith, W.J. (2002). Trustworthiness in electronic commerce: the role of privacy, security, and site attributes. *Journal of Strategic Information Systems*, 11(3/4), 245-270.
- Bentler, P., & Bonett, D. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological bulletin*, 88(3), 588-606.
- Bentler, P., & Speckart, G. (1979). Models of attitude-behaviour relations. *Psychological Review*, 86(5), 452-464.
- Bhattacharjee, A. (2000). Acceptance of e-commerce services: the case of electronic brokerages. *Systems, Man and Cybernetics, Part A: Systems and Humans, IEEE Transactions on*, 30(4), 411-420.
- Blackburn, S. (1994). *Dictionary of Philosophy*. Oxford University Press: Oxford.
- Blalock, H.M. (1985). *Causal models in the social sciences*: Aldine De Gruyter
- Burke, R. J., & Weir, T. (1975). Giving and receiving help with work and non-work related problems. *Journal of Business Administration*, 6(2), 59-78.
- Bollen, K.A., & Davis, W.R. (2009). Causal indicator models: Identification, estimation, and testing. *Structural Equation Modeling: A Multidisciplinary Journal*, 16(3), 498-522.
- Bollen, K.A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Boomsma, A., & Hoogland, J. J. (2001). The robustness of LISREL modeling revisited. *Structural equation models: Present and future. A Festschrift in honor of Karl Jöreskog*, 139-168.
- Borgatti, P. (1999). *Elements of Research: Theoretical framework*. Retrieved April 5, 2012 from <http://www.analytictech.com/mb313/elements.htm>
- Bradley, L., & Stewart, K. (2003). The diffusion of online banking. *Journal of*

*Marketing Management*, 19(9-10), 1087-1109.

- Byrne, B. (2010). *Structural Equation Modeling With AMOS* (Second edition ed.): Taylor & Francis Group
- Cabinet (2012). Proposals to strengthen the credibility of the private banks .16/9/2012. Retrieved on 10 October, 2012 from <http://www.cabinet.iq/>.
- Casalo, L. V., Flavian, C., & Guinalú, M. (2007). The role of security, privacy, usability and reputation in the development of online banking. *Online Information Review*, 31(5), 583-603.
- Cassel, C., Hackl, P., & Westlund, A. H. (1999). Robustness of partial least-squares method for estimating latent variable quality structures. *Journal of applied statistics*, 26(4), 435-446.
- CBI (2012). Iraqi financial Institutions and foreign 10/2/2012. Retrieved on 10/2/2012 from <http://www.cbi.iq/index.php?pid=IraqFinancialInst>.
- CBI (2013). Payment System. Retrieved on 15 April, 2013 from <http://www.cbi.iq/index.php?pid=PaymentSystems&lang=en>
- Celik, H. (2008). What determines Turkish customers' acceptance of internet banking? *International Journal of Bank Marketing*, 26(5), 353-370.
- Chakravarty, S., & Dubinsky, A. (2005). Individual investors' reactions to decimalization: Innovation diffusion in financial markets. *Journal of Economic Psychology*, 26(1), 89-103.
- Chan, K. (1998). Mass communication and pro-environmental behaviour: waste recycling in Hong Kong. *Journal of Environmental Management*, 52(4), 317-325.
- Chan, S. C., & Lu, M. T. (2004). Understanding internet banking adoption and use behavior: a Hong Kong perspective. *Journal of Global Information Management (JGIM)*, 12(3), 21-43.
- Chan, Y. E., & Reich, B. H. (2007). IT alignment: what have we learned?. *Journal of Information technology*, 22(4), 297-315.
- Chang, E. C., & Tseng, Y. F. (2011). Research note: E-store image, perceived value and perceived risk. *Journal of Business Research*.10(6), 1-7.
- Chau, P. Y., & Lai, V. S. (2003). An empirical investigation of the determinants of user acceptance of internet banking. *Journal of Organizational Computing and Electronic Commerce*, 13(2), 123-145.
- Cheah, C. M., Teo, A. C., Sim, J. J., Oon, K. H., & Tan, B. I. (2011). Factors affecting Malaysian mobile banking adoption: An empirical analysis. *International Journal of Network and Mobile Technologies*, 2(3), 149-160.

- Chen, L., Gillenson, M., & Sherrell, D. (2002). Enticing online consumers: an extended technology acceptance perspective. *Information & Management*, 39(8), 705-719.
- Cheng, T., Lam, D., & Yeung, A. (2006). Adoption of internet banking: an empirical study in Hong Kong. *Decision Support Systems*, 42(3), 1558-1572.
- Chi, W., & Tang, T. (2008). The role of trust in customer online shopping behaviour: Perspective of technology acceptance model. *Relation*, 70(1), 6110.
- Chin, W.W., Marcolin, B.L., & Newsted, P.R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14(2), 189-217.
- Chin, W. W., & Newsted, P. R. (1999). *Structural equation modeling analysis with small samples using partial least squares*.
- Chin W.W.(1998a). *The partial least squares approach for structural equation modeling*. In George A. Marcoulides (Ed.), *Modern Methods for Business Research*, Lawrence Erlbaum Associates, Mahwah NJ.295(2),295-336
- Chin, W.,(1998b).Issues and opinion on structural equation modeling.*MIS Quarterly* 22(1), 7–16.
- Chin, W. W. (2001). *PLS-Graph user's guide*. CT Bauer College of Business, University of Houston, USA.
- Cho, V., & Cheung, I. (2003). A study of on-line legal service adoption in Hong Kong. Department of management. The Hong Kong Polytechnic University. Retrieved on Jan 20, 2012 from [http://www.sba.muohio.edu/abas/2003/vancouver/cho\\_on\\_line\\_legal\\_service\\_adoption.pdf](http://www.sba.muohio.edu/abas/2003/vancouver/cho_on_line_legal_service_adoption.pdf).
- Chou, C, & Bentler, P. (1995). Estimates and tests in structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 5(3) 247 - 266.
- Chow, W. S., & Chan, L. S. (2008). Social network, social trust and shared goals in organizational knowledge sharing. *Information & Management*, 45(7), 458-465.
- Chu, P., & Wu, T. (2004). Factors influencing tax-payer information usage behavior :Test of an integrated model. *International Journal of the Information Systems for Logistics and Management*. 1(1), 27-37.
- Churchill, G. A., & Iacobucci, D. (2004). *Marketing research: Methodological foundations Thomson Corporation*. South Western, Ohio.
- Chwelos, P., Benbasat, I., & Dexter, A. S. (2001). Research report: empirical test of an EDI adoption model. *Information systems research*, 12(3), 304-321.

- CMC (2012). Communication and Media Commotion. Retrieved on 10 October, 2012 from <http://www.cmc.iq/en/communications.html>
- Cohen J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)*. Hillsdale, NJ:Lawrence Erlbaum Associates, Inc.
- Cohen, J. (1969). *Statistical power analysis for the behavioural science*. New York: Academic press.
- Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS quarterly*, 19(2), 189-211.
- Compeau, D., Higgins, C. A., & Huff, S. (1999). Social Cognitive Theory and Individual Reactions to Computing Technology: A Longitudinal Study. *MIS quarterly*, 23(2), 145-158. Retrieved On 15 February, 2013 from <http://www.jstor.org/discover/10.2307/249749?uid=3738672&uid=2134&uid=2&uid=70&uid=4&sid=21104148191087>.
- Cooper, R. G. (1997). Examining some myths about new product winners. *The Human Side of Managing Technological Innovation*, Oxford, 550-560.
- COSIT (2010). The Central Organization for Statistics and Information Technology. Retrieved on 10/10/2012 from [http://cosit.gov.iq/AAS\\_governerates.php](http://cosit.gov.iq/AAS_governerates.php)
- Cox, D.F. & Rich, S.V. (1964). Perceived risk and consumer decision-making. The case of telephone shopping. *Journal of Marketing Research*, 1(4), 32-39.
- Creswell JW. *Research design: Qualitative & quantitative approaches*. London: SAGE Publications; 1994.
- Croog, S. H., Lipson, A., & Levine, S. (1972). Help patterns in severe illness: The roles of kin network, non-family resources, and institutions. *Journal of Marriage and the Family*, 34(1), 32-41.
- Curran, J. M., & Meuter, M. L. (2005). Self-service technology adoption: comparing three technologies. *Journal of Services Marketing*, 19(2), 103-113.
- Daniel, E. (1999). Provision of electronic banking in the UK and the Republic of Ireland. *International Journal of Bank Marketing*, 17(2), 72-83.
- Davidaviciene, V., & Tolvaišas, J. (2011). Measuring quality of e-commerce websites: case of lithuania. *Economics and Management*, 16, 723-729
- Dadayan, L., & Ferro, E. (2005). When technology meets the mind: A comparative study of the technology acceptance model. *International conference on electronic government*, 35 (91), 137-144.
- Daniel, E. (1999). Provision of electronic banking in the UK and the Republic of Ireland. *International Journal of Bank Marketing* 17(2), 72-82.
- Danziger, W. L., & Botwinick, J. (1980). Age and sex differences in sensitivity and response bias in a weight discrimination task. *Journal of gerontology*, 35(3),

388-394.

- Dauda, Y., Santhapparaj, A., Asirvatham, D., & Raman, M. (2007). The Impact of E commerce Security, and National Environment on Consumer adoption of Internet Banking in Malaysia and Singapore. *Journal of Internet Banking and Commerce*, 12(2), 1-20.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 13(3), 319-340.
- Davis, F., Bagozzi, R., & Warshaw, P. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science*, 35(8), 982-1003.
- Dewan, N. A., Lorenzi, N. M., & Zheng, S. (2004). Overcoming Resistance to New Technology. *Behavioral Health Management*, 21(1), 28-33.
- Dillon, A., & Watson, C. (1996). User analysis in HCI-the historical lessons from individual differences research. *International Journal of Human-Computer Studies*, 45(6), 619-637.
- Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of marketing research*, 38(2), 269-277
- Diamantopoulos, A. (2006). The error term in formative measurement models: interpretation and modeling implications. *Journal of Modelling in Management*, 1(1), 7-17.
- Dixit, N. & Datta, S. K. (2010). Acceptance of E-banking among adult customers: An empirical investigation in India. *Journal of Internet Banking and Commerce*, 15(2).
- Doney, P., Cannon, J., & Mullen, M. (1998). Understanding the influence of national culture on the development of trust. *Academy of management review*, 61(2), 601-620.
- Edwards, J.R. (2001). Multidimensional constructs in organizational behavior research: An integrative analytical framework. *Organizational Research Methods*, 4(2), 144-192.
- Eriksson, K., Kerem, K., & Nilsson, D. (2008). The adoption of commercial innovations in the former Central and Eastern European markets: The case of internet banking in Estonia. *International Journal of Bank Marketing*, 26(3), 154-169.
- Eriksson, K., Kerem, K., & Nilsson, D. (2005). Customer acceptance of internet banking in Estonia. *International Journal of Bank Marketing*, 23(2), 200-216.
- Eriksson, K., & Sharma, D. (2003). Modeling uncertainty in buyer-seller cooperation. *Journal of Business Research*, 56(12), 961-970.
- Eze, U. C., Gan, G. G., Ademu, J., & Tella, S. A. (2008). Modelling User Trust and

- Mobile Payment Adoption: A Conceptual Framework. *Communications of the IBIMA*, 3(8), 224-231.
- Ezzi, S. W. (2014). A theoretical Model for Internet banking: beyond perceived usefulness and ease of use, *Archives of Business Research*, 2(2), 31-46
- Faceiraq (2012). Iraq Hurries to Use the Technology in Its Banks. Retrieved on December 5, 2012 from <http://www.faceiraq.com/inews.php?id=182162>
- Falk, R.F., & Miller, N.B. (1992). *A primer for soft modeling*: University of Akron Press.
- Fararah, F. S., & Al-Swidi, A. K. (2014). Business Development Services Provided by Islamic Microfinance Institutions and Customer Satisfaction: The Mediation Role of Perceived Benefits. A Study on SMEs in Yemen. *Journal of Entrepreneurship and Business Innovation*, 1(1), 60-78.
- Farzianpour, F., Pishdar, M., Shakib, M. D., & Toloun, M. R. S. H. (2013). Consumers Perceived Risk And Its Effect On Adoption Of Online Banking Services. *American Journal of Applied Sciences*, 11(1), 47.
- Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: a perceived risk facets perspective. *International Journal of Human-Computer Studies*, 59(4), 451-474.
- Feld, S. L. (1981). The focused organization of social ties. *American journal of sociology*, 86(5), 1015-1035.
- Feldman, R. (2004). Methodological naturalism in epistemology. In J. Greco & E. Sosa, *The Blackwell Guide to Epistemology*, USA: Blackwell Publishing.
- Field, A.(2009). *Discovering statistics using SPSS*. Sage publications.Chicago
- Fishbein, M. & Ajzen, I., (1975). Attitudes and normative beliefs as factors influencing behavioral intentions. *Journal of personality and social psychology*, 21(1), 1-9.
- Fitzgerald, L. & Kiel, G. (2001). Applying a consumer acceptance of technology model to examine adoption of online purchasing. Retrieved on Feb., 2012 from <http://www.anzmac.org/conference/2001/anzmac/AUTHORS/pdfs/Fitzgerald1.pdf>
- Flags, R. (2000). *Internet Banking: Comptroller of the Currency Administrator of National Banks*. Chicago IL.
- Fogelgren, A., Andersen, K. V., & Jelbo, C. (2003). The paradox of the mobile internet: acceptance of gadgets and rejection of innovations. *In Proceedings of 16th Bled eCommerce Conference eTransformation*. 903-917. Retrived on 16 March, 2012 from [https://domino.fov.uni-mb.si/proceedings.nsf/0/603e6ee67fcfc186c1256ea2002eec91/\\$FILE/64Folg](https://domino.fov.uni-mb.si/proceedings.nsf/0/603e6ee67fcfc186c1256ea2002eec91/$FILE/64Folg)



- Foon, S. Y., & Fah, Y. C. (2011). Internet banking adoption in Kuala Lumpur: an application of UTAUT model. *International Journal of Business and Management*, 6(4), 161–167.
- Fornell, C. (1982). *A Second Generation of Multivariate Analysis: Measurement and Evaluation* (Vol. 2): Praeger Publishers.
- Fornell, C., & Bookstein, F.L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing research*, 440-452.
- Fornell, C., & Cha, J. (1994). Partial least squares. *Advanced methods of marketing research*, 407, 52-78.
- Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.
- Fornell, C., Lorange, P., & Roos, J. (1990). The cooperative venture formation process: A latent variable structural modeling approach. *Management Science*, 36(10), 1246-1255.
- Fornell, C.R., (1987). *A second generation of multivariate analysis: Classification of methods and implications for marketing research*. Review of marketing. American Marketing Association, Chicago, IL, 407-450.
- Forsythe, S., Liu, C., Shannon, D. & Gardner, L. C. (2006) Development of A Scale to Measure the Perceived Benefits and Risks of Online Shopping. *Journal of Interactive Marketing*, 20(2), 55-75.
- Fox, S. and Beier, J. (2006). Online banking 2006: surfing to the bank. Pew Internet & American Life Project, [internet]. June. Retrieved on 9/10/2012 from <http://www.pewinternet.org/Reports/2006/Online-Banking-2006.aspx>
- Frankfort-Nachmias, C. & Nachmias, D. (1996). *Research Methods in the Social Sciences*, 5th ed. St. Martin's Press: London.
- Fredricks, A., & Dossett, D. (1983). Attitude-behaviour relations: A comparison of the Fishbein-Ajzen and the Bentler-Speckart models. *Journal of Personality and Social Psychology*, 45(3), 501-512.
- Furnell, T. Karweni, (1999). Security implications of electronic commerce: a survey of consumers and businesses. *Internet Research*, 9 (5). 372 - 382.
- Fusilier, M., & Durlabhji, S. (2005). An exploration of student internet use in India: the technology acceptance model and the theory of planned behaviour. *Campus-Wide Information Systems*, 22(4), 233-246.
- Gandy, T. (1995). Banking in E-space (Banking on the Internet). *The banker*, 145(838), 74-76.

- Garland, R. (1991). The mid-point on a rating scale: Is it desirable. *Marketing Bulletin*, 2(1), 66-70.
- Gefen, D.(2000). E-commerce: The role of familiarity and trust. *Omega*. 28( 2000), 725-737. Retrieved on 5 Jan., 2012 from [http://onemvweb.com/sources/sources/ecommerce\\_role\\_familiarity\\_trust.pdf](http://onemvweb.com/sources/sources/ecommerce_role_familiarity_trust.pdf)
- Gefen, D., Karahanna, E., & Straub, D. (2003). Trust and TAM in online shopping: An integrated model. *Mis Quarterly*, 27(1), 51-90.
- Gefen, D., & Straub, D. (2004). Consumer trust in B2C e-commerce and the importance of social presence: experiments in e-products and e-services. *Omega*, 32(6), 407-424.
- Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information systems*, 16(1), 5.
- Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61(1), 101-107. Retrived on 20, March, 2014 from: <http://www.jstor.org/discover/10.2307/2334290?sid=21105934271843&uid=3738672&uid=2&uid=70&uid=4&uid=2129>
- George, J. F. (2004). The theory of planned behavior and Internet purchasing. *Internet research*, 14(3), 198-212.
- George, J. (2002). Influences on the intent to make internet purchases. *Internet Research: Electronic Networking Applications and Policy*, 12(2), 165-180.
- Gerrard, P., Cunningham, J., & Devlin, J. (2006). Why consumers are not using internet banking: a qualitative study. *Journal of Services Marketing*, 20(3), 160-168.
- Gerrard, P., & Cunningham, J. B. (2003). The diffusion of Internet banking among Singapore consumers. *International Journal of Bank Marketing*, 21(1), 16-28.
- Ghozali, H. I. Fuad, J., & Seti, M. (2005). Structural equation modelling-teori, konsep, dan aplikasi dengan program LISREL 8.54. Semarang, Indonesia: Badan Penerbit University Diponegoro.
- Goodhue, D., Lewis, W., & Thompson, R. (2006, January). PLS, small sample size, and statistical power in MIS research. In System Sciences, 2006. HICSS'06. Proceedings of the 39th Annual Hawaii International Conference on (Vol. 8, pp1-10). IEEE.
- Goh, H. P. (1995). The Diffusion of Internet in Singapore, Academic Exercise, Faculty of Business Administration, *National University of Singapore*, 1995.
- Gopi, M., & Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online: some evidence from a developing country. *International Journal of Emerging Markets*, 2(4), 348-360.

- Götz, O., Liehr-Gobbers, K., & Krafft, M. (2010). Evaluation of structural equation models using the partial least squares (PLS) approach. In Handbook of partial least squares 691-711. Springer Berlin Heidelberg. Retrieved on 20, April, 2014 from [http://link.springer.com/chapter/10.1007/978-3-540-32827-8\\_30#page-1](http://link.springer.com/chapter/10.1007/978-3-540-32827-8_30#page-1)
- Gounaris, S., & Koritos, C. (2008). Investigating the drivers of internet banking adoption decision. *International Journal of Bank Marketing*, 26(5), 282-304.
- Grabner-Kraeuter, S. & Faullant, R. (2008). Consumer acceptance of internet banking: The influence of internet trust. *International Journal of Bank Marketing*, 26(7), 483-504.
- Gravetter, F. J. Wallnau. (2000). Statistics for the behavioral sciences.
- Grazioli, S., & Jarvenpaa, S. L. (2000). Perils of Internet fraud: An empirical investigation of deception and trust with experienced Internet consumers. *Systems, Man and Cybernetics, Part A: Systems and Humans, IEEE Transactions on*, 30(4), 395-410.
- Grewal D., Gotlieb J., Marmorstein H., 1994. The Moderating Effects of Message framing and Source Credibility on the Price-perceived Risk Relationship. *Journal of Consumer Research*, 21(1), 145-53.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, 2(1), 163-194.
- Guerrero, M., Egea, J., & Gonzalez, M. (2007). Application of the latent class regression methodology to the analysis of Internet use for banking transactions in the European Union. *Journal of Business Research*, 60(2), 137-145.
- Guiltinan, J.P. and Donnelly, J.H. (1983). *The use of product portfolio analysis in bank marketing planning*, in Shanmugam and Burke (Eds), *Management Issues for Financial Institutions*, p. 50.
- Guriting, P., & Ndubisi N.O. (2006). Borneo online banking: Evaluating customer perceptions and behavioral intention. *Management Research News*, 29 (1/2), 6-15.
- Gustafsson, A., & Johnson, M. D. (2004). Determining attribute importance in a service satisfaction model. *Journal of Service Research*, 7(2), 124-141.
- Hair, J., Bush, R., & Ortinau, D. (2006). *Marketing Research within a changing environment. Revised international* (3rd ed.). New York, USA: McGraw-Hill.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. L. (2006). *Multivariate Data Analysis*. Auflage, Upper Saddle River, New Jersey: Prentice Hall.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012a). An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing

Research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.

- Hair, JF, Black, WC, Babin, BJ, & Anderson, RE. (2010). *Multivariate data analysis: a global perspective*: Pearson Education.
- Hair, J. F., Jr., Anderson, R. E., Tatham, R. L. and Black, W. C.(1995). *Multiple discriminant analysis*.*Multivariate Data Analysis*, 3rd ed, Macmillan Publishing Company, New York.
- Hair, J. F., Anderson, R. E., Tatham, R. L. and Black W. C. (1995). *Multivariate Data Analysis with readings* (4th Edition). Prentice Hall, Englewood Cliffs, New Jersey.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications, Incorporated.
- Hamade, S. N. (2009, April). Information and Communication Technology in Arab Countries: Problems and Solutions. In *Information Technology: New Generations, 2009. ITNG'09. Sixth International Conference on* (1498-1503). Las Vegas, Nevada, USA, IEEE.
- Harrison, D.A., Mykytyn, P.P. & Riemenschneider, C. K. (1997). Executive decisions about adoption of information technology in small business theory and empirical tests. *Information Systems Research*, 8(2), 171-195.
- Harrison, A.W. & Rainer, R.K. (1992). The influence of individual differences on skill in end-user computing. *Journal of Management Information Systems*, 9(1), 93-111.
- Hawkins, M. R., & Merriam, V. H. (1991). *An overmodeled world*. *Direct Marketing*, 21-24.
- Henseler, J., Ringle, C.M., & Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing. *Advances in international marketing*, 20(1), 277-319.
- Heshmati, A., and Alhammadany F., (2014). Multinomial Logit Model of Choices of Internet Modes in Iraq. *Business and Economic Research*. 2(4), 114-118.
- Hernandez, J. M. C., & Mazzon, J. A. (2007). Adoption of internet banking: proposition and implementation of an integrated methodology approach. *International Journal of Bank Marketing*, 25(2), 72-88.
- Hill, T., Smith, N., & Mann, M. (1986). Communicating innovations: Convincing computer hobbists to adopt innovative technologies. *Advances in consumer research*, 13(86), 419-422. retrieved on 10,Jan., 2012 from: <http://www.acrwebsite.org/search/view-conference-proceedings.aspx?Id=5959>
- Hinkin, T. R. (1995). A review of scale development practices in the study of

- organizations. *Journal of Management*, 21(5), 967-988.
- Ho, S. H., & Ko, Y. Y. (2008). Effects of self-service technology on customer value and customer readiness: The case of Internet banking. *Internet research*, 18(4), 427-446.
- Hoehle, H., Scornavacca, E., & Huff, S. (2012). Three decades of research on consumer adoption and utilization of electronic banking channels: A literature analysis. *Decision Support Systems*. 1-11.
- Hoffmann, A. O., & Birnbrich, C. (2012). The impact of fraud prevention on bank-customer relationships: An empirical investigation in retail banking. *International Journal of Bank Marketing*, 30(5), 390-407.
- Holmes-Smith, P. (2001). *Introduction to structural equation modeling using LISREL*. Perth: ACSPRI-Winter training Program.
- Hong, Y., Teh, B., Vinayan, G., Soh, C., Khan, N., & Ong, T.(2013). Investigating the Factors Influence Adoption of Internet Banking in Malaysia: Adopters Perspective.*International Journal of Business and Management*; 19(8), 24-31.
- Howard, J., & Moore, W. (1982). Changes in consumer behavior over the product life cycle. *Readings in the Management of Innovation*, 128.
- Howcroft, B., Hamilton, R., & Hewer, P. (2002). Consumer attitude and the usage and adoption of home-based banking in the United Kingdom.*International Journal of Bank Marketing*, 20(3), 111-121.
- Hsu, C. H., & Poole, S. W. (2011, April). Power signature analysis of the SPECpower\_ssj2008 benchmark. In *Performance Analysis of Systems and Software (ISPASS)*, 2011 IEEE International Symposium on (pp. 227-236). IEEE.
- Hu, L., Bentler, P., & Kano, Y. (1992). Can test statistics in covariance structure analysis be trusted? *Psychological bulletin*, 112(2), 351-362.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal*, 20(2), 195-204.
- Hung, S. Y., Chang, C. M., & Yu, T. J. (2006). Determinants of user acceptance of the e-Government services: The case of online tax filing and payment system. *Government Information Quarterly*, 23(1), 97-122.
- Ibrahim, H. & Ahmad, T. (2010). Distance Learning System as an Alternative to Traditional Training: A case of Jordanian Public Sector's Employees. IADIS International Conference on Internet Technologies & society (ITS 2010). 267 – 272, Perth, Australia.
- Ibrahim, I. (2012). Factors Underpinning Usage Behavior of an Electronic Filing

System: The Case of Malaysian Personal Taxpayers. *Australian Tax Teachers Association (ATTA) Conference*. Retrieved on sept.2012 from: [http://sydney.edu.au/law/parsons/ATTA/docs\\_pdfs/conference\\_papers/Ibrahim.pdf](http://sydney.edu.au/law/parsons/ATTA/docs_pdfs/conference_papers/Ibrahim.pdf)

IIER, Iraqi Institute for Economic Reform(2012). Identify problems in the banking sector and proposals for the formulation of a comprehensive strategy to overcome them. Retrieved on 10 Aug, 2012 from <http://www.iier.org/beta/uploadedfiles/file/W260512BankingRealityEkramEidi3B.pdf>

International Research and Exchanges Board. (2011). Bringing banks to the masses by phone. Retrieved on 20 Jan, 2012 from <http://www.marketresearchworld.net/content/view/4432/77/>

Investpromo.(2012). National Investment Commission. Iraq's Banking and currency. Retrieved on 12/11/2012 from <http://www.investpromo.gov.iq/index.php?id=126>.

Ipb1 (2012). Iraqi Private Bank league. Electronic banking need to make laws. Retrieved on 1/10/2012 from: <http://ipbl-iraq.org/ArticleShow.aspx?ID=111>

Iraqdirectory.(2010). Central Bank of Iraq to provide project of Internet Banking services, 1/27/2010 retrieves on 10 Feb, 2012 from <http://www.iraqdirectory.com/DisplayNews.aspx?id=11394>

Iraqdirectory (2012a). Rasheed Bank: Banking Iraqi suffering from Technological Backwardness and lack of Confidence and satisfaction of Citizens 15/01/2012. Retrieved on 7 Feb, 2012 from <http://www.iraqdirectory.com/DisplayNewsAr.aspx?id=18040>

Iraqdirectory. (2012b). Iraq to hasten the use of Technology in its Banks, 15/01/2012 Retrieved on 7 Feb, 2012 from <http://www.iraqdirectory.com/DisplayNewsAr.aspx?id=18038>

Iraqdirectory (2012c). Director of Trade Bank of Iraq warns of linking the Ministry of Finance 26/1/2012, Retrieved on 7 Feb, 2012 from <http://www.iraqdirectory.com/DisplayNewsAr.aspx?id=18161>

Iraqi\_Council\_of\_Representatives,(2010). Minutes of meeting No. (9) Saturday (12.04.2010). Retrieves on 10 Jun, 2012 from: [http://parliament.iq/Iraqi\\_Council\\_of\\_Representatives.php?name=articles\\_ajsdyawqwqdjasdba46s7a98das6dasda7das4da6sd8asdsawewqeqw465e4qweq4wq6e4qw8eqwe4qw6eqwe4sadjk&file=showdetails&sid=3743](http://parliament.iq/Iraqi_Council_of_Representatives.php?name=articles_ajsdyawqwqdjasdba46s7a98das6dasda7das4da6sd8asdsawewqeqw465e4qweq4wq6e4qw8eqwe4qw6eqwe4sadjk&file=showdetails&sid=3743).

Iraqi presidency (2012). Interior announces the arrest of an international gang of cyber crimes defrauded (12) citizen and was able to steal about two million dollars Retrieved on 4 December, 2012 from: <http://www.iraqipresidency.net/%D9%82%D8%B1%D8%A7%D8%A1%D8>

- ITU (2012). Trio of GBI developments reported (Iraq, Kuwait). Retrieved on 5 April, 2013 from <http://www.itu.int/ITU-D/ict/newslog/Trio+Of+GBI+Developments+Reported+Iraq+Kuwait.aspx>
- ITU (2011a). Insights into Arab consumers broadcast and online consumption habits. Retrieved on 5 March, 2012 from [www.itu.int/dms\\_pub/itu-t/oth/06/5B/T065B0000060043PDFE.pdf](http://www.itu.int/dms_pub/itu-t/oth/06/5B/T065B0000060043PDFE.pdf)
- ITU (2011b). Iraq eyes USD2bn for fourth wireless licence. March 16, 2011. Retrieved on 10 Feb, 2012 from <http://www.itu.int/ictnewslog/Permalink.aspx?title=IraqEyesUSD2bnForFourthWirelessLicence>
- ITU (2010). Percentage of Individuals [user in Iraq]. Retrieved on 1 Jan, 2012 from <http://www.itu.int/ITU-D/ict/statistics/>
- IQD, Investigate Question Deliver (2012). Expectations of higher economic growth in Iraq to 12% during the current year 05/16/2012. Retrieved on 1 Feb, 2013 from <http://www.theiqdteamconnection.com/3/post/2012/05/expectations-of-higher-economic-growth-in-iraq-to-12-during-the-current-year.html>.
- Ismial, M. & Osman, M. (2012). Factors influencing the Adoption of E-banking in Sudan: Perceptions of Retail Banking Clients. *Journal of Internet Banking and Commerce*, 17(3), 1-16.
- Jahangir, N., & Begum, N. (2008). The role of perceived usefulness, perceived ease of use, security and privacy, and customer attitude to engender customer adaptation in the context of electronic banking. *African Journal of Business Management*, 2(1), 032-040.
- Jalal, A., Marzooq, J., & Nabi, H. A. (2011). Evaluating the Impacts of Online Banking Factors on Motivating the Process of E-banking. *Journal of Management and Sustainability*, 1(1), 1-32.
- Jardine, D. W. (1990). Awakening from Descartes' nightmare: On the love of ambiguity in phenomenological approaches to education. *Studies in Philosophy and education*, 10(3), 211-232.
- Jaruwachirathanakul, B., & Fink, D. (2005). Internet banking adoption strategies for a developing country: the case of Thailand. *Internet Research*, 15(3), 295-311.
- Jarvis, C.B., MacKenzie, S.B., & Podsakoff, P.M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of consumer research*, 30(2), 199-218.
- Jarvenpaa, S. L., Tractinsky, N., & Saarinen, L. (1999). Consumer trust in an internet store: a cross-cultural validation. *Journal of Computer-Mediated Communication*, 5(2), 1-33.

- Jassim, N. & Mubarak, M. (2010). Obstacles to the application of e-banking Government in Iraqi banks sector. Retrieved on 20 April, 2012 from: [www.iasj.net/iasj?func=fulltext&aId=53269](http://www.iasj.net/iasj?func=fulltext&aId=53269)
- Jayawardhena, C., & Foley, P. (2000). Changes in the banking sector—the case of Internet banking in the UK. *Internet Research*, 10(1), 19-31.
- Jeevan M T. (2000). Only Banks - No Bricks, Voice and Data, November 11th, Retrieved on 10 Jan, 2012 from <http://www.voicendata.com/content/convergence/trends/100111102.asp>;
- Jie, S., Peiji, S., & Jiaming, F. (2007, June). A Model for Adoption of Online Shopping: A Perceived Characteristics of Web as a Shopping Channel View. In *Service Systems and Service Management, 2007 International Conference on* (pp. 1-5). IEEE.
- Jin, N., & Fei-Cheng, M. A. (2005). Network security risks in online banking. *Wireless Communications, Networking and Mobile Computing, 2005. Proceedings. International Conference on*, 23-26 Sept, 2005.2, 1229-1234. IEEE.
- Johns, R., & Perrott, B. (2008). The impact of internet banking on business-customer relationships (are you being self-served?). *International Journal of Bank Marketing*, 26(7), 465-482.
- Joinson, A. N., Reips, U. D., Buchanan, T., & Schofield, C. B. P. (2010). Privacy, trust, and self-disclosure online. *Human-Computer Interaction*, 25(1), 1-24.
- Joreskog, K.G., & Wold, H. (1982). The ML and PLS techniques for modeling with latent variables: historical and comparative aspects. *Systems under indirect observation: Causality, structure, prediction*, 1, 263-270. North Holland.
- Kaminer, N. (1997). Scholars and the use of the internet. *Library and Information Science Research*. 19(4), 329-345.
- Kannan, S., Slochanal, S., Subbaraj, P., & Padhy, N. P. (2004). Application of particle swarm optimization technique and its variants to generation expansion planning problem. *Electric Power Systems Research*, 70(3), 203-210.
- Karahanna, E., Straub, D. W., & Chervany, N. L. (1999). Information technology adoption across time: a cross-sectional comparison of pre-adoption and post-adoption belief. *Mis Quarterly*, 23(2), 183-213.
- Karjaluoto, H., Mattila, M., & Pento, T. (2002). Electronic banking in Finland: consumer beliefs and reactions to a new delivery channel. *Journal of Financial Services Marketing*, 6(4), 346-361.
- Karjaluoto, H., Mattila, M., & Pento, T. (2002). Factors underlying attitude formation towards online banking in Finland. *International Journal of Bank Marketing*, 20(6), 261-272.



- Kassim, N. M. (2001). Determinants of customer satisfaction and retention in the cellular phone market of Malaysia (Unpublished Doctoral dissertation, Southern Cross University, Lisbon).
- Kearns, G. S., & Lederer, A. L. (2003). A resource based view of strategic IT alignment: How knowledge sharing creates competitive advantage. *Decision Sciences*, 34(1), 1-29.
- Keen, P., Balance, C., Chan, S. & Schrupp (2000). *Electronic Commerce Relationships: Trust by Design*, Prentice-Hall, Upper Saddle River, NJ.
- Kephart, J. O., & Das, R. (2007). Achieving self-management via utility functions. *Internet Computing, IEEE*, 11(1), 40-48.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundation of Behavioral Research* (4<sup>th</sup> ed.). Holt, NY: Harcourt College Publishers.
- KIB (2012). Retrieved on 12 April, 2013 from <http://www.kiiitsc.com/ar/index.php>.
- Kim, K., & Prabhakar, B. (2000). Initial trust, perceived risk, and the adoption of internet banking. In *Proceedings of the twenty first international conference on Information systems*. Association for Information Systems, 537-543.
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision support systems*, 44(2), 544-564.
- Kim, D. J., Cho, B., & Rao, H. R. (2000). Effects of consumer lifestyles on purchasing behavior on the internet: a conceptual framework and empirical validation. In *Proceedings of the twenty first international conferences on Information systems*. Association for Information Systems, 688-695
- Kim, M. J., Chung, N., & Lee, C. K. (2011). The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. *Tourism Management*, 32(2), 256-265.
- Kline, R. (2011). *Principle and practice of structure Equation Modeling* (3<sup>rd</sup> ed.). New York: Guilford Press.
- Koch, T., & Harrington, A. (1998). Reconceptualizing rigour: the case for reflexivity. *Journal of advanced nursing*, 28(4), 882-890.
- Kolodinsky, J. M., Hogarth, J. M., & Hilgert, M. A. (2004). The adoption of electronic banking technologies by US consumers. *International Journal of Bank Marketing*, 22(4), 238-259.
- Kolsaker, A., Lee-Kelley, L., & Choy, P. C. (2004). The reluctant Hong Kong consumer: purchasing travel online. *International Journal of Consumer Studies*, 28(3), 295-304.
- Kosugi, R., Hamanaka, Y., Hori, Y., & Nakajima, Y (2007). University student and their employment-consideration from the viewpoint of supporting the

transition to work and human resource development- summary. *JILPT research report*. NO. 78 1-12.

- Kotler, P., & Armstrong, G. (2008). *Principios de marketing*. Pearson Educación.
- Krejcie, R., & Morgan, D. (1970). Determining size of the sample for research purposes. *Educational and Psychological Measurement*, 30(1), 607-610. [http://home.kku.ac.th/sompong/guest\\_speaker/KrejcieandMorgan\\_article.pdf](http://home.kku.ac.th/sompong/guest_speaker/KrejcieandMorgan_article.pdf)
- Krijnen, W.P., Dijkstra, T.K., & Gill, R.D. (1998). Conditions for factor (in) determinacy in factor analysis. *Psychometrika*, 63(4), 359-367.
- Kristensen, K., & Eskildsen, J. (2010). *Design of PLS-based satisfaction studies*. In Handbook of partial least squares, (pp. 247-277). Springer Berlin Heidelberg.
- Iacobucci, D., Saldanha, N., & Deng, X. (2007). A meditation on mediation: Evidence that structural equations models perform better than regressions. *Journal of Consumer Psychology*, 17(2), 139-153.
- Lad-mohe (2012). Finance Section. Retrieved on 10 Feb, 2013 from <http://www.lad-mohe.com/news.php?action=view&id=27>.
- Laforet, S., & Li, X. (2005). Consumers' attitudes towards online and mobile banking in China. *International Journal of Bank Marketing*, 23(5), 362-380.
- Lai, V. S., & Li, H. (2005). Technology acceptance model for internet banking: an invariance analysis. *Information & management*, 42(2), 373-386.
- Lassar, W. M., Manolis, C., & Lassar, S. S. (2005). The relationship between consumer innovativeness, personal characteristics, and online banking adoption. *International Journal of Bank Marketing*, 23(2), 176-199.
- Lau, G. T., & Ng, S. (2001). Individual and Situational Factors Influencing Negative Word-of-Mouth Behaviour. *Canadian Journal of Administrative Sciences/Revue Canadiens des Sciences de l'Administration*, 18(3), 163-178.
- Lau, A. S. (2002). Strategies to motivate brokers adopting on-line trading in Hong Kong financial market. *Review of Pacific Basin Financial Markets and Policies*, 5(04), 471-489.
- Lean, O. K., Zailani, S., Ramayah, T., & Fernando, Y. (2009). Factors influencing intention to use e-government services among citizens in Malaysia. *International Journal of Information Management*, 29(6), 458-475.
- Lee, J. L., Lee, K. T., & Eastwood, D. (2003). A two-step estimation consumer adoption or technology-based service. *Journal of Consumer Affairs*, 29(2), 256-27. <http://dx.doi.org/10.1111/j.1745-6606.2003.tb00453.x>.
- 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.

- Lee, H. H., Fiore, A. M., & Kim, J. (2006). The role of the technology acceptance model in explaining effects of image interactivity technology on consumer responses. *International Journal of Retail & Distribution Management*, 34(8), 621-644.
- Lee, J. E. R., Rao, S., Nass, C., Forssell, K., & John, J. M. (2012). When do online shoppers appreciate security enhancement efforts? Effects of financial risk and security level on evaluations of customer authentication. *International Journal of Human-Computer Studies*, 70(5), 364-376.
- Legris, P., Ingham, J., & Collette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information & Management*, 40(2003), 191-204.
- Li, Hairong, Cheng Kuo, & Martha G. Russell (1999). The impact of perceived channel utilities, shopping orientations, and demographics on the consumer's online buying behavior. *Journal of Computer-Mediated Communication*, 5(2).
- Liao, S., Shao, Y. P., Wang, H., & Chen, A. (1999). The adoption of virtual banking: an empirical study. *International Journal of Information Management*, 19(1), 63-74.
- Liao, Z., & Cheung, M. T. (2002). Internet-based e-banking and consumer attitudes: an empirical study. *Information & Management*, 39(4), 283-295.
- Lim, K. H., Aia, C. L., Lee, M. K., & Benbasat, I. (2006). Do I Trust You Online, and If So, Will I Buy? An Empirical Study of Two Trust-Building Strategies. *Journal of Management Information Systems*, 23(2), 233-266.
- Limayem, M., Khalifa, M., & Frini, A. (2000). What makes consumers buy from internet? A longitudinal study of online shopping. *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans*, 30(4), 421-432.
- Lin, S. Y. & Sneed, J. (2007). University foodservice managers' and employees' Perceptions of food safety training and managers' comparison of student and full-time employee's food safety practices. Retrieved March 28, 2013 from: [http://www.fsme.org/pdf/JFSR%26E\\_Manuscript\\_2004001.pdf](http://www.fsme.org/pdf/JFSR%26E_Manuscript_2004001.pdf)
- Littler, D., & Melanthiou, D. (2006). Consumer perceptions of risk and uncertainty and the implications for behaviour towards innovative retail services: the case of internet banking. *Journal of Retailing and Consumer Services*, 13(6), 431-443.
- Lichtenstein, S., & Williamson, K. (2006). Understanding consumer adoption of internet banking: an interpretive study in the Australian banking context. *Journal of Electronic Commerce Research*, 7(2), 50-66.
- Lu, Y., Yang, S., Chau, P. Y., & Cao, Y. (2011). Dynamics between the trust transfer process and intention to use mobile payment services: A cross-environment perspective. *Information & Management*, 48(8), 393-403.

- Lu, Y., Cao, Y., Wang, B., & Yang, S. (2011). A study on factors that affect users' behavioral intention to transfer usage from the offline to the online channel. *Computers in Human Behavior*, 27(1), 355-364.
- Luck, D., & Rubin, R. (1987). *Marketing Research*. Englewood Cliffs: NJ: Prentice-Hall International.
- Luo, X., Li, H., Zhang, J., & Shim, J. P. (2010). Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: An empirical study of mobile banking services. *Decision Support Systems*, 49(2), 222-234.
- Lohmöller, J.B. (1987). *LVPLS program manual*, version 1.8, Technical report: Zentralarchiv für Empirische Sozialforschung. Universitäts- und Landesbibliothek Bonn, Köln.
- Lohmöller, J.B. (1989). *Latent variable path modeling with partial least squares*: Physica-Verlag Heidelberg.
- Mahdi, M. O. S. (2011). Trust and security of electronic banking services in Saudi commercial banks: Saudis versus Non Saudis opinions. *African Journal of Business Management*, 5(14), 5524-5535.
- Mansor, N., Shariff, A. M., & Manap, N. R. A. (2012). Determinants of Awareness on Islamic Financial Institution E-Banking among Malaysian SMEs. *International Journal of Business and Social Science*, 3(5), 93-101.
- Malhotra, M. K., & Grover, V. (1998). An assessment of survey research in POM: from constructs to theory. *Journal of operations management*, 16(4), 407-425.
- Malhotra, V., & Stanton, S. C. (2004). *Validating Inter-Object Interaction in Object-Oriented Designs*. In: 4<sup>th</sup> IASTED International Conference on Modeling Simulation and Optimization, Kauai, Hawaii, USA
- Malhotra, N.K. (1999). *Marketing research: an applied orientation*: Prentice Hall, Upper Saddle River, New Jersey.
- Mallat, N. (2007). Exploring consumer adoption of mobile payments—a qualitative study. *The Journal of Strategic Information Systems*, 16(4), 413-432.
- Mansumittrchai, S & Chiu, C. (2012). Adoption of internet banking in UAE: Factors Underlying Adoption Characteristics. *International Journal of management and marketing Research*, 5(1), 103-115.
- Manstead, A., Proffitt, C., & Smart, J. (1983). Predicting and understanding mothers' infant-feeding intentions and behavior: Testing the theory of reasoned action. *Journal of Personality and Social Psychology*, 44(4), 657-671.
- Marcoulides, G.A., & Saunders, C. (2006). Editor's comments: PLS: a silver bullet? *Mis Quarterly*, 30(2), iii-x.
- Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to

the study of self-concept: First-and higher order factor models and their invariance across groups. *Psychological bulletin*, 97(3), 562.

- Martinez G., M., Ortega E. J., & Roman G, (2007). Application of the latent class regression methodology to the analysis of internet use for banking transactions in the European Union. *Journal of Business Research*, 60(2), 137-145.
- Mattanah, J. F., Hancock, G. R., & Brand, B. L. (2004). Parental Attachment, Separation-Individuation, and College Student Adjustment: A Structural Equation Analysis of Mediational Effects. *Journal of Counseling Psychology*, 51(2), 213.
- Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: conceptualization, measurement and application in the catalog and Internet shopping environment. *Journal of retailing*, 77(1), 39-56.
- Mattsson, J., & Helmersson, H. (2005). Internet banking: modelling the e-competence of customers with a text-analytic CIT approach. *International Journal of Bank Marketing*, 23(6), 470-483.
- Mawtani(2011).Iraqi Ministry of Communications and the evolution oftelecommunications networks and the Internet, 23/4/2011. Retrieved on 8 Feb, 2012 from <http://www.mawtani.com/cocoon/iii/xhtml/ar/features/iii/features/iraqtoday/2011/04/24/feature-03>
- Mayer, R. C, Davis, j. H., & Schoorman, F.D.(1995). An integrative model oforganizational trust. *Academy of Management Review*, 20(3), 709-734.
- McCole, P., Ramsey, E., & Williams, J. (2010). Trust considerations on attitudes towards online purchasing: The moderating effect of privacy and security concerns. *Journal of Business Research*, 63(9), 1018-1024.
- McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information systems research*, 13(3), 334-359.
- McKnight, D.H.,& Chervany, N.L.(2002). What trust means in e-commercecustomer relationships: An interdisciplinary conceptual typology. *Internationaljournal of Electronic Commerce*, 6(2), 35-59.
- McQuail, D. (2005). Book Review: Comparing media systems: Three models of media and politics. *European Journal of Communication*, 20(2), 266-281.
- Mishra, S.,&Mathew, P. (2013).Analyzing Perceived Risks and Website attributes in E-Retailing: a Study from India. *Journal of Internet Banking and Commerce*, 8(2), 1-14.
- Miyazaki, A, &Fernandez, A. (2001).Consumer Perceptions of Privacy and Security Risks for Online Shopping. *Journal of Consumer Affairs*, 35(1), 27-44

- MOC (2013). Ministry of Communication/ Information technology. Retrived on 2 Feb, 2013 from <http://www.moc.gov.iq/demo/index.php?t=ministry&m=min>.
- Mohamed, A. (2009). The reality of the mobile telecommunications companies in Iraq. *Journal the AL-Qadisiyah of the Administrative & Economic Science*, 8(4), 35-42.
- Moheer (2012). Minister of higher Education Science and Research. Public Universities. Retrieved on 10 October, 2012 from <http://www.moheer.gov.iq/PageViewer.aspx?id=16>
- Mohsen, A. (2010). Factors influencing the customer's choice of electronic banking, a study in a sample of customers Iraqi banks. Mustansiriyah University, pp.1-16, Available at: <http://www.shatharat.net/vb/showthread.php?t=11857> [accessed 3 July 2011]
- MOF (2012). The Budget Law. Retrieved on 5 May, 2012 from: <http://www.mof.gov.iq/uploads/moazna%20athadya/low%202012.pdf>
- MOI (2012). Security forces arrest an international gang of cybercrime, 5/7/2012. Retrieved on 10 October, 2012 from: <http://www.moi.gov.iq/ArticleShow.aspx?ID=4121>
- Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*, 2(3), 192-222.
- Moorman, C., Deshpande, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *The Journal of Marketing*, 57(7), 81-101.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *The journal of marketing*, 58(3), 20-38.
- Morris, M. G., & Dillon, A. (1997). How user perceptions influence software use, decision support systems. *IEEE Software*, 14(4), 58-65.
- Mukherjee, A., Nath, P., & Pal, M. (2003). Resource, service quality and performance triad: a framework for measuring efficiency of banking services. *Journal of the Operational Research Society*, 54(1), 723-735.
- Nasri, W. (2011). Factors Influencing the Adoption of Internet Banking in Tunisia. *International Journal of Business and Management* 6(8), 143-160.
- Nasri, W., & Charfeddine, L. (2012). Factors affecting the adoption of Internet banking in Tunisia: An integration theory of acceptance model and theory of planned behavior. *The Journal of High Technology Management Research*. 23(1), 1-14.

- Nath, R. Akmanligil, M., Hjelm, K., Sakag, T. & Schultz, M.(1998). Electronic commerce and the Internet: issues, problems, and perspectives. *International Journal of Information Management*, 18(2),91-101.
- Ndubisi, N. O. (2006). Factors of online learning adoption: A comparative juxtaposition of the theory of planned behavior and the technology acceptance model. *International Journal on E-Learning*, 5(4), 571–591
- Ndubisi, N.O., Sinti, Q. & Chew, T.M. (2004). Evaluating internet banking adoption in Malaysia using the decomposed theory of planned behaviour, *International Logistics Congress Proceeding*, December 2-3, 989-1004. Izmir.
- Ndubisi, N. O., & Sinti, Q. (2006). Consumer attitudes, system's characteristics and internet banking adoption in Malaysia. *Management Research News*, 29(1/2), 16-27.
- Nelson, P., & Richmond, W. (2007). Internet banking: gold mine or money pit. *Academy of Banking Studies Journal*, 6(1), 1-25.
- Nelson, R., & Winter, S., (1982). The Schumpeterian tradeoff revisited. *The American Economic Review*, 72(1), 114-132.
- Ng, B. Y. & Rahim, M. A., (2005). A socio-behavioural study of home computer users' intention to practice security. Proceedings of the Ninth Pacific Asia Conference on Information Systems, 234-247, 7 - 10 July Bangkok, Thailand, 2005. Retrived on 5 January, 2012 from <http://www.pacis-net.org/file/2005/255.pdf>
- Nickell, G. S., & Seado, P. C. (1986). The impact of attitudes and experience on small business computer use. *American Journal of Small Business*, 10, 37-48.
- Niqash(2012). Cash only: why the messy banking sector endangers Iraqi Development. Retrieved on September 8, 2012 from: <http://www.niqash.org/articles/?id=3002&lang=en>
- Nilsson, D. (2007). Internet banking and the impact of seller support and third party. *Journal of Internet Banking and Commerce*, 12(1).1-9.
- Nor, K. M., & Pearson, J. M. (2008). An exploratory study into the adoption of internet banking in a developing country: Malaysia. *Journal of Internet Commerce*, 7(1), 29-73.
- Nor, K. M., Sutanonpaiboon, J., & Mastor, N. H. (2010). Malay, Chinese, and internet banking. *Chinese Management Studies*, 4(2), 141-153.
- Nor, K. M., & Pearson, J. M. (2007). The influence of trust on internet banking acceptance. *Journal of Internet Banking and Commerce*, 12(2),1-10.
- Nov, O., & Ye, C. (2009). Resistance to change and the adoption of digital libraries: An integrative model. *Journal of the American Society for Information Science and Technology*, 60(8), 1702-1708.

- Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric theory*. McGraw, New York.
- Oilqoviq (2012). Exports of Crude Oil. Retrieved on 3 May, 2012 from <http://www.oil.gov.iq/>
- Ok, S. J., & Shon, J. H. (2006). The determinant of internet banking usage behavior in Korea: a comparison of two theoretical models.1-15. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.97.3786&rep=rep1&type=pdf>
- Oliver, R., & Berger, P. (1979). A path analysis of preventive health care decision models. *Journal of Consumer Research*, 6(2), 113-122.
- Osborne, J. W. (2010). Improving your data transformations: Applying the Box-Cox transformation. *Practical Assessment, Research & Evaluation*, 15(12), 1-9.
- Ott,R.(2000). Building trust online, *Computer Fraud and Security*. 2000 (2), 10-12.
- Ozdemir, S., Trott, P., & Hoecht, A. (2008). Segmenting internet banking adopter and non-adopters in the Turkish retail banking sector. *International Journal of Bank Marketing*, 26(4), 212-236.
- Ozkan, S., & Kanat, I. E. (2011). e-Government adoption model based on theory of planned behavior: Empirical validation. *Government Information Quarterly*, 28(4), 503-513.
- Pallant, J. (2001). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows (versions 10 and 11): SPSS Student Version 11.0 for Windows*. Open University Press.
- Pallant, J. (2005). *SPSS Survival Manual: A Step Guide to Data Analysis Using SPSS version12*, Chicago, Illinois: Open University Press.
- Pallant, J. (2007). *SPSS survival manual: A step-by-step guide to data analysis using SPSS version 15*. Nova Iorque: McGraw Hill.Chicago
- Pallant, J. (2011). *SPSS survival manual: a step by step guide to data analysis using SPSS*. Crows Nest. New South Wales: Allen & Unwin.
- Parliament (2008).Laws enacted, University Service law, No 23 for 2008. Retrieved on 1 Feb, 2013 from<http://www.parliament.iq/dirrasd/law/2008/23.pdf>.
- Park, C., & Jun, J. K. (2003). A cross-cultural comparison of Internet buying behavior: Effects of Internet usage, perceived risks, and innovativeness. *International Marketing Review*, 20(5), 534-553.
- Parthasarathy, M., & Bhattacharjee, A. (1998). Understanding post-adoption behavior in the context of online services. *Information Systems Research*, 9(4),362-379.
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: integrating trust



- and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101-134.
- Pavlou, P., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behaviour. *Mis Quarterly*, 30(1), 115-143.
- Pedersen, P., & Nysveen, H., (2004). Using the theory of planned behaviour to explain teenagers' adoption of text messaging services. *Working Paper, Agder University College, July, 14, 2005,1-36*. Retrived on 10, March, 2012 from:<http://mdfoo.s3.amazonaws.com/brijsingh/175547709709bb988bf8259830528e25/10.1.1.20.2242.pdf>
- Pennathur, A. K. (2001). Clicks and bricks: e-Risk Management for banks in the age of the Internet. *Journal of banking & finance*, 25(11), 2103-2123.
- Perry, C., Riege, A., & Brown, L. (1999). Realism's role among scientific paradigms in marketing research. *Irish Marketing Review*, 12(2), 16-23.
- Petter, S., Straub, D., & Rai, A. (2007). Specifying formative constructs in information systems research. *Mis Quarterly*, 31(4), 623-656.
- Pewinternet.(2010).Generational-differences-in-online-activities/4-Older-generations-the-internet-as-a-tool-for-research-shopping-and-banking.Retrieved on Jun,24, 2012 from:<http://www.pewinternet.org/Reports/2010/Better-off-households/Report.aspx?view=all>
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., &Pahnila, S. (2004). Consumer acceptance of online banking: an extension of the technology acceptance model. *Internet Research*, 14(3),224-235.
- Plouffe, C. R., Hulland, J. S., & Vandenbosch, M. (2001). Research report: Richness versus parsimony in modeling technology adoption decisions--understanding merchant adoption of a smart card-based payment system.*InformationSystems Research*, 12(2), 208-222.
- Polasik, M., & Wisniewski, P. T. (2009). Empirical analysis of Internet banking in Poland. *International Journal of Bank Marketing*, 27(1), 32–52.
- Prakash, A. & Malik, G. (2008). Empirical study of internet banking in India. *Curie journal*, 1(3), 83-92.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, 36(4), 717-731.
- Qicard (2012). Centers and entitlements exchange outlets to Key card. Retrieved on April 5, 2013 from: [http://www.qicard.net/index.php?option=com\\_content&view=article&id=162&Itemid=112](http://www.qicard.net/index.php?option=com_content&view=article&id=162&Itemid=112)
- Quinn, R.B. and Mueller, J.A. (1982).Transferring research results to operations. In

Tushman and Moore (Eds), Readings in the Management of Innovation, Pitman, MA, p. 62. Retrived on 4, March, 2012 from: <http://web.ebscohost.com.eserv.uum.edu.my/ehost/pdfviewer/pdfviewer?vid=12&sid=e44dfb79-f484-494e-9b1f-9bd5e87de033%40sessionmgr12&hid=1>

- Raman, M., Stephenaus, R., Alam, N., & Kuppusamy, M. (2008). Information Technology in Malaysia: E-service quality and Uptake of Internet banking. *Journal of Internet Banking and Commerce*, 13(2), 1-18.
- Ramayah, T., Jantan, M., Mohd Noor, M. N., Razak, R. C., & Koay, P. L. (2003). Receptiveness of internet banking by Malaysian consumers: The case of Penang. *Asian Academy of Management Journal*, 8(2), 1-29.
- Ratnasingham, P. (1998). Internet-based EDI Trust and Security. *Information Management & Computer Security*, 6(1), 33-39.
- Raymond, L. (1985). Organizational characteristics and MIS success in the context of small business, *Management Information System Quarterly*, 9(1), 37-52.
- Rindskopf, D., & Rose, T. (1988). Some theory and applications of confirmatory second-order factor analysis. *Multivariate Behavioral Research*, 23(1), 51-67.
- Ringle, C. M., Sarstedt, M., & Straub, D. W. (2012). A Critical Look at the Use of PLS-SEM in MIS Quarterly. *MIS Quarterly*, 36(1), iii-xiv.
- Robinson, T. (2000). Internet banking: still not a perfect marriage. *Information Week. Com, April, 17*, 104-106.
- Rogers, E. M. (2010). *Diffusion of innovations* (4<sup>th</sup> ed.). New York.: The Free Press.
- Rogers, E. M. (1995). *Diffusion of Innovations* (4thEd). The Free Press.
- Rogers, E. (1983). *Diffusion of innovations*. The Free Press, New York.
- Rotchanakitumnuai, S., & Speece, M. (2003). Barriers to internet banking adoption: a qualitative study among corporate customers in Thailand. *International Journal of Bank Marketing*, 21(6/7), 312-323.
- Rouibah, K. (2008). Social usage of instant messaging by individuals outside the workplace in Kuwait: a structural equation model. *Information Technology & People*, 21(1), 34-68.
- Rouibah, K., Ramayah, T. and May, O. (2011). Modeling user acceptance of internet banking in Malaysia: a partial least square (pls) approach. In *E-adoption and Socio-Economic Impacts: Emerging Infrastructural Effects by Sushil K. Sharma, 2011*, IGI Global Publisher; Chapter 1, 1-23.
- Rouibah, K., Abbas, H., & Rouibah, S. (2011). Factors affecting camera mobile phone adoption before e-shopping in the Arab world. *Technology in Society*, 33(3), 271-283.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different

- after all: A cross-discipline view of trust. *Academy of Management Review*, 23(3), 393–404.
- Ryan, M., & Bonfield, E. (1980). Fishbein intentions model: a test of external and pragmatic validity. *The Journal of Marketing*, 44(2), 82-95.
- Saadalha, O. S. (2012). The United States and the Democratization of Iraq after Sept. 11: Problems and Prospects. *Journal of Politics and World Affairs*, 1(1), 3-18.
- Sanchez, G. (2013) *PLS Path Modeling with R*, Trowchez Editions. Berkeley, 2013.
- Sathye, M. (1999). Adoption of internet banking by Australian consumers: an empirical investigation. *International Journal of Bank Marketing*, 17(7), 324-334.
- Sax, L. J., Gilmartin, S. K., & Bryant, A. N. (2003). Assessing response rates and nonresponse bias in web and paper surveys. *Research in higher education*, 44(4), 409-432
- Sekaran, U., & Bougie, R. (2003). *Research Methods for Business: A Skill Building Approach* (4th ed.). New York: John Wiley & Sons, New York.
- Sekaran, U. and Bougie, R. (2010). *Research Methods for Business: A Skill Building Approach*, 5th ed., John Wiley & Sons, UK.
- Schleicher, A., & Saito, M. (2005). *Data Preparation and Management: Modul 10*. Paris : International Institute for Educational Planning (UNESCO).
- Scis (2012). State company for Internet services. Retrieved on 11 October, 2012 from <http://www.scis.gov.iq/arabi/index.php?name=Pages&op=page&pid=64>
- Shareef, M. A., Kumar, V., Kumar, U., & Dwivedi, Y. K. (2011). e-Government Adoption Model (GAM): Differing service maturity levels. *Government Information Quarterly*, 28(1), 17-35.
- Sharma, D. (2009). India's Leapfrogging Steps from Bricks-and-Mortar to Virtual Banking: Prospects and Perils. *The IUP Journal of Management Research*, 8(3), 45-61.
- Sheather, S. (2009). *A modern Approach to Regression with R* (Vol. 58). Springer Science & Business Media. New York.
- Shendi, A. (2011). Patterns and electronic banking options Acceptance and rejection, College of Business and Economics - University of Wasit, Prof. Dr. Adib Qasim Shendi. Retrieved on 11 March, 2012 from [www.iasj.net/iasj?func=fulltext&aId=53361](http://www.iasj.net/iasj?func=fulltext&aId=53361).
- Sheppard, B., Hartwick, J., & Warshaw, P. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, 15(3), 302-325.
- Shi, W., Shambare, N., & Wang, J. (2008). The adoption of internet banking: An

- institutional theory perspective. *Journal of Financial Services Marketing*, 12(4), 272-286.
- Shih, Y. Y., & Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet Research*, 14(3), 213-223.
- Shih, Y. Y., & Fang, K. (2006). Effects of Network Quality Attributes on Customer Adoption Intentions of Internet Banking, *Total Quality Management* 17(1)61–77, and retrieved on 13, March, 2013 from <http://eds.a.ebscohost.com.eserv.uum.edu.my/ehost/pdfviewer/pdfviewer?vid=2&sid=4bb0a35d-2ca2-419a-9f67-8437dd465cbc%40sessionmgr4002&hid=4202>
- Shimp, T., & Kavas, A. (1984). The theory of reasoned action applied to coupon usage. *Journal of Consumer Research*, 11(1), 795-809.
- Shrivastava, P. (1987). Rigor and practical usefulness of research in strategic management. *Strategic Management Journal*, 8(1), 77-92.
- Siam, A. (2006). Role of the electronic banking services on the profits of Jordanian banks. *American Journal of Applied Sciences*, 3(9), 1999-2004.
- Singh, S. (2012). An empirical investigation of the determinants of users' acceptance of E-banking in Singapore (A Technology Acceptance Model). *International Journal of Management and Business Research*, 2(1), 69-84.
- Smith, J. K. (1983). Quantitative versus qualitative research: An attempt to clarify the issue. *Educational researcher*, 12(3), 6-13.
- Sohail, M., & Shanmugham, B. (2003). E-banking and customer preferences in Malaysia: an empirical investigation. *Information Sciences*, 150(3), 207-217.
- Sonja, G. K., & Ewald A. K. (2003). Empirical Research in Online rust : A review And Critical Assessment. *International Journal of Human-Computer Studies*, 58(6), 783-812.
- Spence, H. E., Engel, J. F. & Blackwell, R. D. (1970). Perceived risk in mail-order and retail store buying. *Journal of Marketing Research*, 7(3), 364–369.
- Stamatis, D. H. (2003). *Six Sigma and Beyond : Statistics Probability*. CRC Press.
- Stewart, K. (2003). Trust transfer on the World Wide Web. *Organization Science*, 14(1), 5-17. Retrieved on March, 2012 from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.196.8868&rep=rep1&type=pdf>
- Stone, M. (1974). Cross-validators choice and assessment of statistical predictions. *Journal of the Royal Statistical Society*, 36(2), 111–147.
- Strader, T., & Shaw, M. (1999). Consumer cost differences for traditional and Internet markets. *Internet Research*, 9(2), 82–92.
- Streubert, H. (1999). *Qualitative research in nursing: advancing the humanistic*

*imperative* (4th ed.). Philadelphia, Pa.; London: Lippincott Williams & Wilkins.

- Sudha, N., & Baboo, S. (2011). Evolution of new WARM using Likert weight measures (LWM). *International Journal of Computer Science and Network Security*, 11(5), 70-75.
- Sugathi, B., & Balachandran. (2001). Internet banking patronage: an empirical investigation of Malaysia. *Journal of Internet Banking and Commerce*, 6(1).
- Suh, B., & Han, I. (2002). Effect of trust on customer acceptance of Internet banking. *Electronic Commerce Research and Applications*, 1(2002), 247-263.
- Suh, B., & Han, I. (2003). The impact of customer trust and perception of security control on the acceptance of electronic commerce. *International Journal of electronic commerce*, 7(3), 135-161.
- Suk, H., Sherah, K., Fei, P. (2011). The impact of two-factor authentication technology on the adoption of internet Banking. 1540-1547. Retrieved on 5, March, 2012 from: <http://www.pacis-net.org/file/2010/P01-01.pdf>
- Suki, N. M., & Ramayah, T. (2010). User acceptance of the e-government services in Malaysia: structural equation modeling approach. *Interdisciplinary Journal of Information, Knowledge, and Management*, 5(10), 395-413. Retrieved on 4, March, 2012 from: <http://www.ijikm.org/Volume5/IJIKMv5p395-413Norazah437.pdf>
- Sun, H., & Zhang, P. (2006). The role of moderating factors in user technology acceptance. *International Journal of Human-Computer Studies*, 64(2), 53-78.
- Sweeny, J.C., Soutar, G.N. & Johnson, L.W. (1999) The role of perceived risk in the quality-value relationship: a study in a retail environment. *Journal of Retailing*, 75(1), 77-105.
- Tabachnick, B., & Fidell, L. (2008). *Using multivariate analysis*. California State University Northridge: Harper Collins College Publishers.
- Tabachnick, B. G., and Fidell, L. S. (2007). *Using Multivariate Statistics* (5th Edition). Allyn and Bacon, Boston.
- Tan, M., & Teo, T. (2000). Factors influencing the adoption of Internet banking. *Journal of the Association for Information Sciences*, 1(5), 1-42.
- Tan, S. (1999). Strategies for reducing consumer's risk aversion in Internet shopping. *Journal of Consumer Marketing*, 16(2), 163-180.
- Taylor, J., W. (1974). The role of risk in consumer behavior. *Journal of Marketing* 38(2), 54-60.
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information systems research*, 6(2), 144-176.

- Tenenhaus, M., Vinzi, V.E., Chatelin, Y.M., & Lauro, C. (2005). PLS path modeling. *Computational Statistics & Data Analysis*, 48(1), 159-205.
- Teo, T., & Pok, S. (2003). Adoption of the internet and WAP-enabled phones in Singapore. *Behaviour & Information Technology*, 22(4), 281-289.
- Thatcher, J. B., & Perrewe, P. L. (2002). An empirical examination of individual traits as antecedents to computer anxiety and computer self-efficacy. *Mis Quarterly*, 26(4), 381-396.
- Thong, J. Y. L, & Yap, C. S. (1995). Ceo characteristics, organizational characteristics and information technology adoption in small business. *Omega International Journal of Management Science*.23(4), 429-442.
- Thompson, Ronald L., Christopher A. Higgins, and Jane M. Howell. Personal computing: toward a conceptual model of utilization. *MIS quarterly* (1991),125-143.
- Thong, J. Y., Hong, W., & Tarn, K. (2002). Understanding user acceptance of digital libraries: what are the roles of interface characteristics, organizational context, and individual differences. *Int. J. Human-Computer Studies*, 57(3), 215-242.
- Tojib, D. R., & Sugianto, L. F. (2006). Content validity of instruments in IS research. *Journal of Information Technology Theory and Application (JITTA)*, 8(3), 5.
- Tornatzky, L., & Klein, K. (1982). Innovation characteristics and innovation adoption-implementation: A meta-analysis of findings. *IEEE Transactions on engineering management*, 29(1), 28-45.
- Tuchila, R. (2000). Servicii bancare prin Internet. *E-finance Romania*, 3.
- Turban, E., Lee, J., & King, D. y Chung, H (2000). *Electronic Commerce: A Managerial Perspective*. New York (NJ, USA): Prentice Hall.
- Turban, E., Lee, J. K., King, D., Liang, T. P., & Turban, D. (2009). *Electronic commerce 2010*. Prentice Hall Press.
- United Nations Economic and Social Commission for Western Asia (2005). National profile for the information society in Iraq. Retrieved on 5 December 2012 from: [www.escwa.un.org/wsis/reports/docs/Iraq\\_2005-E.pdf](http://www.escwa.un.org/wsis/reports/docs/Iraq_2005-E.pdf)
- United Nations Economic and Social Commission for Western Asia (2010).Regional Profile of the Information Society in Western Asia. Retrieved on 5 December 2012 from [http://www.escwa.un.org/information/publications/edit/upload/E\\_ESCW\\_A\\_ICTD\\_11\\_4\\_e.pdf](http://www.escwa.un.org/information/publications/edit/upload/E_ESCW_A_ICTD_11_4_e.pdf)
- U.S. Agency for International Development. (2009). Telecommunication Services in Iraq and gats negotiations: Recommendations and impact. Retrieved on 4 December 2012, from: [www.tijara-iraq.com/](http://www.tijara-iraq.com/)

- US Department of Defense (2010). Soldiers Bring Electronic Banking to Iraq. Jan. 11, 2010. Retrieved on 10 October, 2012 from <http://www.defense.gov/news/newsarticle.aspx?id=57446>.
- Vandenbosch, B., & Higgins, C. (1995). Executive support systems and learning: a model and empirical test. *Journal of Management Information Systems*, 12(2), 99-130.
- Van Teijlingen, E. R., Rennie, A. M., Hundley, V., & Graham, W. (2001). The importance of conducting and reporting pilot studies: the example of the Scottish Births Survey. *Journal of advanced nursing*, 34(3), 289-295.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: toward a unified view. *MIS Quarterly*, 27(3), 425-478.
- Venkatesh, V. & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: four longitudinal field studies. *Management Science*, 46(2), 186-204.
- Wallis, S. (1997). *Financial System Inquiry final report: overview*. Sydney, Australia: Australian Government Publishing Service.
- Wan, W., Luk, C., & Chow, C. (2005). Customers' adoption of banking channels in Hong Kong. *Journal of Financial Services Marketing*, 23(3), 255-272.
- Wang, T. L. (2011, June). An effect of trust and attitude in the initial adoption of online shopping: An empirical study. In *Information Society (i-Society), 2011 International Conference IEEE*, 22-26.
- Wang, Y., Wang, Y., Lin, H., & Tang, T. (2003). Determinants of user acceptance of Internet banking: an empirical study. *International Journal of Service Industry Management*, 14(5), 501-519.
- Warkentin, M., Gefen, D., Pavlou, P. & Rose, G. (2002). Encouraging citizen adoption of e-government by building trust. *Electronic Markets*, 12(3), 157-162
- Warshaw, P. R. (1980). Predicting purchase and other behaviors from general and contextually specific intentions. *Journal of Marketing Research*, XVII(1), 26-33.
- Williamson, G. D., & Money—America's, G. E. (2006). Enhanced Authentication In Online Banking. *Journal of Economic Crime Management*, 4(2), 1-42.
- Wetzels, M., Odekerken-Schroder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *Mis Quarterly*, 33(1), 177.
- Williams, L.J., Edwards, J.R., & Vandenberg, R.J. (2003). Recent advances in causal modeling methods for organizational and management research. *Journal of Management*, 29(6), 903-936.

- Wold, H. (1982). *Soft Modeling: The Basic Design and Some Extensions*,” in *Systems Under Indirect Observations: Part II*, K. G. Jöreskog and H. Wold (eds.), Amsterdam: North-Holland, pp. 1-54.
- Wold, H. (1985). *Systems analysis by partial least squares. Measuring the unmeasurable*, 221-252.
- Wold, H. (1985). *Partial least squares. Encyclopedia of statistical sciences. Chicago*
- Wold, H. (1989). *Introduction to the second generation of multivariate analysis. Theoretical empiricism*, 7-11.
- Woon, I. M., & Kankanhalli, A. (2007). Investigation of IS professionals' intention to practise secure development of applications. *International journal of human-computer studies*, 65(1), 29-41.
- WorldBank (2012).The World Bank. Retrieved on 10 October, 2012 from [http://siteresources.worldbank.org/MENAEXT/Resources/Financial\\_Sector\\_Review\\_English\\_Summary.pdf](http://siteresources.worldbank.org/MENAEXT/Resources/Financial_Sector_Review_English_Summary.pdf)
- Yaghoubi, N., & Bahmani, E. (2011). Behavioral approach to policy making of the internet banking industry: The evaluation of factors influenced on the customers' adoption of internet banking services. *African Journal of Business Management*, 5(16), 6785-6792.
- Yang, L., Yang, S. (2007).A framework of security and safety checking for internet-based control systems. *Int. J. Information and Computer Security*, 1(1/2), 185-200.
- Yang, S., Lu, Y., Gupta, S., Cao, Y., & Zhang, R. (2012). Mobile payment services adoption across time: An empirical study of the effects of behavioral beliefs, social influences, and personal traits. *Computers in Human Behavior*, 28(1), 129-142.
- 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.
- Yu, C. S., & Lo, Y. F. (2007). Factors encouraging people to adopt online banking and discouraging adopters to use online banking services. *Proceeding of Business and Information*.
- Yousafzai, S., Pallister, J., & Foxall, G. (2009). Multi-dimensional role of trust in Internet banking adoption. *The Service Industries Journal*, 29(5), 591-605.
- Zhao, A. L., Hanmer-Lloyd, S., Ward, P., & Goode, M. M. (2008). Perceived risk and Chinese consumers' internet banking services adoption. *International Journal of Bank Marketing*, 26(7), 505-525.
- Zheng, H., Li, Y., & Jiang, D. (2012). Empirical Study and Model of User's Acceptance for Mobile Commerce in China. *IJCS*, 9(6), 278-283.



- Zhou, M., & Tian, D. (2010). An integrated model of influential antecedents of online shopping initial trust: empirical evidence in a low-trust environment. *Journal of International Consumer Marketing*, 22(2), 147-167.
- Zhou, T. (2011). The impact of privacy concern on user adoption of location-based services. *Industrial Management & Data Systems*, 111(2), 212-226.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business Research Methods* (8th Ed.). Canada: South-Western Cengage Learning.
- Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2012). *Business research methods*. Cengage Learning.
- Zmud, R.W. (1979). Individual differences and MIS success: a review of the empirical literature. *Management Science*, 25(10), 966-979.