

# Institute of Technology Management and Entrepreneurship

## E-GOVERNMENT TRUST MODEL TO ENHANCE THE USAGE OF E-GOVERNMENT AMONG END-USERS IN IRAQ

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#### E-GOVERNMENT TRUST MODELTO ENHANCE THE USAGE OF E-GOVERNMENT AMONG END-USERS IN IRAQ

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A thesis submitted in fulfillment of the requirements for the degree of Doctor of Philosophy

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### UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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#### DECLARATION

I declare that this thesis entitled "E-government Trust Model to Enhance the Usage of Egovernment among End-Users in Iraq" is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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## APPROVAL

I hereby declare that I have read this thesis and in my opinion this thesis is sufficient in terms of scope and quality for the award of Doctor of Philosophy.

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Supervisor Name	:	•••••
Date	:	

#### **DEDICATION**

First and foremost, Alhamdulillah Almighty for all the blessings of health, wisdom and patience and to overcome all the difficulties that I faced in my PhD journey.

I would like to dedicate these years of hard work and to the spirit of my father, and also to the pulse of tenderness my dear mother. All my family members who supported me psychologically and emotionally Majeed, Amel, Riffat, Zaynab, Safwan, Yasser, Dania, Ruba, Kassim and Rulla for their endless supports, patient and prayers.

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#### ABSTRACT

Consistent with the development and widespread usage of Information and Communication Technologies, countries around the world, including Iraq has adopted e-government to facilitate government services to its citizens. Consequently, they have been continuously seeking ways to ensure the widespread and sustainable usage of the e-government services among the citizens. However, several challenges have been identified that limit the usage of e-government among its users. Considering trust is one of the most important determiners of the usage of e-government among users, this study aims to develop an e-government trust model (EGOV-TRUST) that enhances the usage of e-government among users. Adopting the integration of UTAUT2 and TOE, specifically the individual, technological, organizational and environmental factors (I-TOE) as the lens for developing this trust model, this study focuses on three objectives, which are firstly, to analyse the constituents of trust that influence the usage of e-government; secondly, to propose the e-government trust model; and thirdly, to validate the model based on the perspectives of the users. Unlike previous studies that use either one of the theories, the integration of the two theories provides a new perspective of understanding the trust factors that influence the use of e-government. This study adopted a survey method, in which questionnaires were analyzed from 631 respondents derived from a stratified random sampling method. Four main hypotheses have been tested and CB-SEM and PLS-SEM have been used for testing and validating the measurement and structure of the EGOV-TRUST model. The study found that there has been a positive relationship between the individual, technological, organizational, environmental dimensions of trust and these factors have positive effects on the use of e-government. It can be concluded that the EGOV-TRUST model has the potential to enhance the usage of e-government among its users. This research contributes to the knowledge of adopting e-government, focusing on deconstructing the element of trust that enhances the usage of e-government. The model can be used as guidelines for governments, especially developing countries for enhancing the usage of e-government among users.

# MODEL KEPERCAYAAN E-KERAJAAN UNTUK MENINGKATKAN PENGGUNAAN E-KERAJAAN DI KALANGAN PENGGUNA AKHIR DI IRAQ

#### ABSTRAK

Selaras dengan perkembangan dan penggunaan Teknologi Maklumat dan Komunikasi yang meluas, negara di seluruh dunia, termasuk Iraq telah menerima pakai e-kerajaan untuk memudahkan perkhidmatan kerajaan kepada rakyatnya. Mereka terus mencari jalan untuk memastikan penggunaan perkhidmatan e-kerajaan yang meluas dan lestari di kalangan rakyat. Walau bagaimanapun, beberapa cabaran telah dikenal pasti yang mengehadkan penggunaan e-kerajaan di kalangan penggunanya. Memandangkan amanah adalah salah satu penentu yang paling penting dalam penggunaan e-kerajaan di kalangan pengguna, Kajian ini bertujuan untuk membangunkan model amanah e-kerajaan (EGOV-TRUST) vang meningkatkan penggunaan e-kerajaan di kalangan pengguna. Mengguna pakai integrasi UTAUT2 dan TOE, khusus individu, teknologi, organisasi dan faktor persekitaran (I-TOE) sebagai lensa untuk membangunkan model amanah ini, Kajian ini menumpukan pada tiga objektif, yang pertama, untuk menganalisis amanah yang mempengaruhi penggunaan e-kerajaan; kedua, untuk mencadangkan model amanah ekerajaan; dan ketiga, untuk mengesahkan model berdasarkan perspektif pengguna. Tidak seperti kajian terdahulu yang menggunakan salah satu teori, pengintegrasian dua teori memberikan perspektif baru untuk memahami faktor amanah yang mempengaruhi penggunaan e-government. Kajian ini menggunakan kaedah tinjauan, di mana soal selidik dianalisis dari 631 responden yang diperoleh daripada kaedah pensampelan rawak berstrata. Empat hipotesis utama telah diuji dan CB-SEM dan PLS-SEM telah digunakan untuk menguji dan mengesahkan pengukuran dan struktur model EGOV-TRUST. Kajian mendapati terdapat hubungan positif antara individu, teknologi, dimensi organisasi, dimensi amanah dan faktor-faktor ini mempunyai kesan positif terhadap penggunaan ekerajaan. Dapat disimpulkan bahawa model EGOV-TRUST berpotensi untuk meningkatkan penggunaan e-government di kalangan penggunanya. Penyelidikan ini menyumbang kepada pengetahuan tentang penggunaan e-kerajaan, memberi tumpuan kepada mendekonstruksi elemen amanah yang meningkatkan penggunaan e-kerajaan. Model ini boleh digunakan sebagai garis panduan untuk kerajaan, terutamanya negara-negara membangun untuk meningkatkan penggunaan e-kerajaan di kalangan pengguna.

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#### **TABLE OF CONTENTS**

#### PAGE

23

24

33

	CLAR PROV	RATION	
	DICA'		
	STRA		i
	STRA		ii
		N WLEDGEMENTS	iii
		OF CONTENTS	iv
		TABLES	viii
		FIGURES	xiv
		APPENDICES	xvi
		ABBREVIATIONS AND SYMBOLS	xvii
		TION OF TERMS	xix
		PUBLICATIONS	xxii
	APTE		
1.		RODUCTION	1
	1.1	Background of the study	2
		1.1.1 Issues and challenges of e-government	2
		1.1.2 Trust and the usage of e-government	4
		1.1.3 E-government in Iraq	6
	1.2	Statements of the problem	9
	1.3	Objectives of the study	13
	1.4	Research questions	14
	1.5	Scope of the research	15
	1.6	Significance of the research	16
		1.6.1 Theoretical contributions	16
		1.6.2 Practical contributions	17
	1.7	Organization of the thesis	18
2.	LIT	ERATURE REVIEW	19
	2.1	Introduction	19
	2.2	The systematic literature review	20
	2.3	Factors affecting trust in e-government: Benefits	20
		2.3.1 Benefits to developing countries	21

	2.3.3	Benefits to policy makers and practitioners
2.4	Challe	nges of adopting e-government

Benefits to government agency

2.3.2

2.5

Challer	nges of adopting e-government	25
2.4.1	Challenges on adoption and continued usage of e-	26
	government	
2.4.2	Challenges for averting high failure rate of e-	28
	government	
2.4.3	Challenges on e-government success	29
2.4.4	Challenges on user's participation	30
Trust a	as the main factor for the usage of e-government	31
2.5.1	Definition of trust	31

2.5.2 Trust as the success factor in adopting e-government

	2.6	Studies related to the factors of trust and e-government	35
		2.6.1 Technological aspect	37
		2.6.2 Users (citizens)	40
		2.6.3 Government	42
		2.6.4 Intermediaries	43
		2.6.5 Mixed aspects	45
		2.6.6 Reviews	48
	2.7	Theoretical framework	50
		2.7.1 Theoretical perspectives	51
		2.7.1.1 Technology acceptance model (TAM)	52
		2.7.1.2 DeLone and McLean IS success model	53
		2.7.1.3 Unified theory of acceptance and use of technology (UTAUT)	54
		2.7.1.4 Theory of reasoned action (TRA)	55
		2.7.1.5 Diffusion of innovations theory (DOI)	56
		2.7.1.6 Theory of planned behavior (TPB)	56
		2.7.1.7 Technology-Organization-Environment (TOE) framework	56
		2.7.2 Theoretical framework of this study	58
	2.8	Gaps in previous literature	66
	2.9	Methodological approach for investigation	69
	2.10	Insights into the quantitative and qualitative approach	71
	2.11	Philosophical framework	72
	2.12	Structural equation modeling (SEM)	74
	2.13	SEM assumption	75
	2.14	Summary	78
3.		EARCH METHODOLOGY	80
	3.1	Introduction	80
	3.2	Research approach	80
	3.3	Research design	81
	3.4	Research process flowchart	82
	3.5	Research framework	84
	3.6	Hypothesis testing	86
		3.6.1 The determinants of trust (I-TOE) and trust in e- government	86
		3.6.2 Relationship of the four dimensions of trust to trust in e- government	90
		3.6.3 Relationship of the e-government trust model (EGOV-	92
		TRUST) and the use of e-government	
	3.7	Instrumentation and measurement: Questionnaire design	93
	3.8	Exogenous variables (Independent Variable)	98
		3.8.1 Individual factors (UTAUT2)	99
		3.8.2 Technological factors (T)	100
		3.8.3 Organizational factors (O)	101
	2 0	3.8.4 Environmental factors (E)	102
	3.9	Endogenous variables (Dependent Variable)	103
	0.40	3.9.1 Trust and usage of e-government	104
	3.10	Pre-test	104
	3.11	Pilot study	106

v

		3.11.1 The reliability of variable	107
		3.11.2 Construct validity	108
	3.12	Sample and population techniques	113
		3.12.1 Sampling size	114
	3.13	Context of the study	116
	3.14	Data collection procedure	116
	3.15	Data analysis	118
	3.16	Data screening	120
	3.17	Justification for selection CB-SEM and PLS-SEM	121
	3.18	CB-SEM and PLS-SEM used to evaluate measurement and structural models	122
		3.18.1 Measurement model	122
		3.18.2 Internal consistence	123
		3.18.3 Convergent validity	123
		3.18.4 Discriminant validity	124
	3.19	Structural model	124
		3.19.1 Goodness-of-fit assessment	126
		3.19.2 Validity	127
	3.20	Summary	128
4.	RES	ULT AND ANALYSIS	131
	4.1	Introduction	131
	4.2	Demographic characteristics of the sample	131
	4.3	The importance of factors and dimensions for trustworthiness of e-government	135
	4.4	Construct validity using Exploratory Factor Analysis (EFA)	139
	4.5	The reliability	142
	4.6	Empirical analysis using AMOS	144
		4.6.1 Measurement model: Confirmatory factor analysis (CFA)	144
		4.6.2 Convergent validity using AMOS	149
		4.6.3 Discriminant validity using AMOS	153
	4.7	The determinants of trust to trust in e-government	154
	4.8	The four dimensions of trust to trust in e-government	172
		4.8.1 H2a: Individual dimension has a positive effect on trust in e-government	172
		4.8.2 H2b: Technological dimension has a positive effect on trust in e-government	177
		4.8.3 H2c: Organizational dimension has a positive effect on	180
		<ul><li>trust in e-government</li><li>4.8.4 H2d: Environmental dimension has a positive effect on</li></ul>	183
	4.9	trust in e-government The four dimensions of trust and use of e-government	186
	4.7	4.9.1 H4a: Individual dimension has a positive effect on use	186
		of e-government	100
		4.9.2 H4b: Technological dimension has a positive effect on	191
		use of e-government	171
		4.9.3 H4c: Organizational dimension has a positive effect on	194
		use of e-government	174
		4.9.4 H4d: Environmental dimension has a positive effect on	197
		1	

	PENDI		256
REI	FEREN	NCES	238
	5.7	Future Works	237
	5.6	Limitations of the study	236
	5.5	Practical contributions	234
	5.4	Theoretical contribution	232
	5.3	The main findings of this thesis	230
	5.2	Summary of the study	228
	5.1	Introduction	227
5.	CON	CLUSION	227
	4.16	Summary	224
	4.15	Validation of the model based on data analysis by experts	217
	4.14	Comparative analysis of AMOS and SmartPLS	216
		4.13.2 Path coefficients in SmartPLS	215
		4.13.1 Coefficient of determination $(R^2)$ in SmartPLS	214
	4.13		214
		4.12.2 Discriminant validity using SmartPLS	212
		4.12.1 Convergent validity using SmartPLS	207
	4.12		206
	4.11	H3: The e-government trust model (EGOV-TRUST) has a positive effect on use of e-government	203
		government and the use of e-government	
	4.10	Relationship of e-government trust model and trust in e-	199
		use of e-government	

## LIST OF TABLES

TABLE	TITLE	PAGE
2.1	Benefit categories for factors affecting trust in e-government	21
	usage	
2.2	Challenging factors affecting trust and e-government usage	26
2.3	The categories of technology	38
2.4	The categories of users	41
2.5	The categories of government	42
2.6	Studies categorised as intermediary	44
2.7	Mixed aspects	45
2.8	Review papers	49
2.9	Root construct of UTAUT, source: (Venkatesh et. al., 2003)	61
2.10	Comparison of quantitative and qualitative approaches	71
2.11	The comparison of covariance and variance (SEM)	77
3.1	Details of the contents of the questionnaire	95
3.2	The number of items and scale of the survey	97
3.3	Measurement of the individual factors	99
3.4	Measurement for disposition of trust and beliefs	100
3.5	Measurement of technological factors	101
3.6	Measurement for organizational factor	102
3.7	Measurement environmental for factor	103
3.8	Measurement for trust and use of e-government	104
3.9	The experts opinion and suggestion	105
3.10	The reliability of pilot study	108
3.11	The internal consistency of beliefs variable if item deleted	108
3.12	Correlation between items	109
3.13	Sample size by (Krejcie and Morgan, 1970)	115
3.14	The sample size of the study	115

#### viii

3.15	Summary of analysis tool employed in this research	128
4.1	Demographic characteristics (N=694)	132
4.2	Mean score for each factors and dimension (descriptive	135
	statistics)	
4.3	KMO and Bartlett's test	141
4.4	Reliability test using Chronbach's Alpha	143
4.5	CMIN of twnty factors of trust	148
4.6	Baseline comparisons, GFI, CFI of twenty factors of trust	148
4.7	Squared multiple correlations of twenty factors of trust	148
4.8	Convergent validity using AMOS	150
4.9	Discriminant validity using AMOS	153
4.10	Coefficients and distributed T (coefficients <sup>a</sup> ) of twenty	155
	factors of trust	
4.11	A summary table of the 20 hypothesis H1	171
4.12	Regression weights for individual dimension	173
4.13	Standardized regression weights for individual dimension	174
4.14	Covariances for individual dimension	174
4.15	Correlations for individual dimension	174
4.16	Variances for individual dimension	175
4.17	Squared multiple correlations for individual dimension	175
4.18	Total effects for individual dimension	175
4.19	CMIN for individual dimension	175
4.20	Baseline comparisons and GFI, CFI, RMSEA for individual	175
	dimension	
4.21	Regression weights for technological dimension	178
4.22	Standardized regression weights for technological dimension	178
4.23	Covariances for technological dimension	178
4.24	Correlations for technological dimension	178
4.25	Variances for technological dimension	179
4.26	Squared multiple correlations for technological dimension	179
4.27	Total effects for technological dimension	179
4.28	CMIN for technological dimension	179
4.29	Baseline comparisons GFI, CFI and RMSEA for	179

technological dimension

	technological unnension	
4.30	Regression weights for organizational dimension	181
4.31	Standardized regression weights for organizational	181
	dimension	
4.32	Covariance for organizational dimension	181
4.33	Correlations for organizational dimension	181
4.34	Variances for organizational dimension	182
4.35	Squared multiple correlations for organizational dimension	182
4.36	Total effects for organizational dimension	182
4.37	CMIN for organizational dimension	182
4.38	Baseline comparisons, GFI, RMSEA for organizational	182
	dimension	
4.39	Regression weights for environmental dimension	184
4.40	Standardized regression weights for environmental	184
	dimension	
4.41	Covariance for environmental dimension	184
4.42	Correlations for environmental dimension	184
4.43	Variances for environmental dimension	184
4.44	Squared multiple correlations for environmental dimension	184
4.45	Total effects for environmental dimension	184
4.46	CMIN for environmental dimension	185
4.47	Baseline comparisons, GFI for environmental dimension	185
4.48	Summary of hypotheses H2 outcomes	186
4.49	Regression weights for individual dimension with the use of	187
	e-government	
4.50	Standardized regression weights for individual dimension	187
	with the use of e-government	
4.51	Covariances for individual dimension with the use of e-	188
	government	
4.52	Correlations for individual dimension with the use of e-	188
	government	
4.53	Variances for individual dimension with the use of e-	189
	government	

4.54	Squared multiple correlations for individual dimension with the use of e-government	189
4.55	Total effects for individual dimension with the use of e-	189
4.56	government CMIN for individual dimension with the use of e-	189
4.57	government Baseline comparisons and RMSEA, GFI, CFI for individual	189
4.58	dimension with the use of e-government Regression weights for technological dimension with the use	192
4.59	of e-government Standardized regression weights for technological dimension	192
4.60	with the use of e-government Variances for technological dimension with the use of e-	192
4.61	government Squared multiple correlations for technological dimension	192
4.62	with the use of e-government Total effects for technological dimension with the use of e-	192
4.63	government CMIN for technological dimension with the use of e-	193
4.64	government Baseline comparisons, RMSEA, and GFI for technological	193
4.65	dimension with the use of e-government Regression weights for organisational factors and use of e-	194
4.66	government Standardized regression weights for organisational factors	195
4.67	and use of e-government Covariance for organisational factors and use of e-	195
4.68	government Variances for organisational factors and use of e-government	195
4.69	Squared multiple correlations for organisational factors and use of e-government	195
4.70	Total effects for organisational factors and use of e- government	195

4.71	CMIN for organisational factors and use of e-government	196			
4.72	Baseline comparisons, GFI, RMSEA for organisational	196			
	factors and use of e-government				
4.73	Regression weights for environmental factors and use of e-	197			
	government				
4.74	Standardized regression weights for environmental factors	198			
	and use of e-government				
4,75	Squared multiple correlations for environmental factors and	198			
	use of e-government				
4.76	CMIN for environmental factors and use of e-government 198				
4.77	Baseline comparisons, GFI, CFI, RMSEA for environmental	198			
	factors and use of e-government				
4.78	Summary of hypotheses H4 outcomes	199			
4.79	Regression weights for EGOV-TRUST in trust in e-	200			
	government and use e-government				
4.80	Standardized regression weights for EGOV-TRUST in trust	200			
	in e-government and use e-government				
4.81	Covariance for EGOV-TRUST in trust in e-government and	201			
	use e-government				
4.82	Correlations for EGOV-TRUST in trust in e-government and	201			
	use e-government				
4.83	Variances for EGOV-TRUST in trust in e-government and	201			
	use e-government				
4.84	Squared multiple correlations for EGOV-TRUST in trust in	201			
	e-government and use e-government				
4.85	Total effects for EGOV-TRUST in trust in e-government and	201			
	use e-government				
4.86	CMIN for EGOV-TRUST in trust in e-government and use	202			
	e-government				
4.87	Baseline comparisons, GFI and CFI, RMSEA for EGOV-	202			
	TRUST in trust in e-government and use e-government				
4.88	CMIN for EGOV-TRUST and use of e-government	204			
4.89	Baseline comparisons, GFI, CFI, RMSEA for EGOV-	204			

	TRUST and use of e-government				
4.90	Regression weights for EGOV-TRUST and use of e-	204			
	government				
4.91	1 Standardized regression weights for EGOV-TRUST and use				
	of e-government				
4.92	Covariance for EGOV-TRUST and use of e-government 204				
4.93	Correlations for EGOV-TRUST and use of e-government 205				
4.94	Variances for EGOV-TRUST and use of e-government 205				
4.95	.95 Squared multiple correlations for EGOV-TRUST and use of 24				
	e-government				
4.96	Total effects for EGOV-TRUST and use of e-government205				
4.97	Convergent validity using SmartPLS 209				
4.98	The Fornell Larcker criterion213				
4.99	$\mathbf{R}^2$ of the endogenous latent variable 215				
4.100	Path coefficients using SmartPLS 216				
4.101	Summary of result in AMOS, SmartPLS 21				
4.102	02 Distribution of Experts for the validation of EGOV-TRUST 21				
	model				
4.103	The expert's evaluation on the statistical tools				
4.104	The expert's evaluation on the model and data analisys 220				
4.105	The experts' feedback of trust elements221				
4.106	The experts' suggestions to improve the model	223			

xiii

## LIST OF FIGURES

FIGURE	TITLE	PAGE		
1.1	The e-government citizen portal (http://www.ca.iq/)	7		
1.2	Distribution by the country in which the study was	12		
	conducted			
2.1	Taxonomy of literature on factors of trust in e-government	36		
2.2	Taxonomy of the study of trust and e-government37			
2.3	Distributions by theory/model 51			
2.4	Distributions by research approach 70			
2.5	The positioning of the research	72		
3.1	The research design	81		
3.2	The theoretical framework	85		
3.3	The determinants of trust and trust of e-government	88		
	(correlative relationship)			
3.4	The relationship between four dimensions of trust and trust	91		
	in e-government			
3.5	The relationship between four dimensions of trust and use	92		
	of e-government (causal relationship)			
3.6	The relationship between (EGOV-TRUST) and use of e-	93		
	government			
3.7	The questionnaire design process	94		
3.8	The number of student			
3.9	The process of data analysis			
4.1	Purpose of using e-government			
4.2	Factors restrict using e-government 1			
4.3	Confirmatory factor model for data collected in AMOS			
4.4	SEM for individual variables and trust in e-government	173		
4.5	SEM for technological factors and trust in e-government	177		
4.6	SEM for organisational factors and trust in e-government	181		

4.7	SEM for environmental factors and trust in e-government	183
4.8	SEM for individual factors and use of e-government	187
4.9	SEM for technological factors and use of e-government	191
4.10	SEM for organisational factors and use of e-government	194
4.11	SEM for environmental factors and use of e-government	197
4.12	SEM for EGOV-TRUST in trust in e-government and use e-	200
	government	
4.13	SEM for EGOV-TRUST and use of e-government	203
4.14	The structural model in SmartPLS	207

## LIST OF APPENDICES

APPENDIX	TITLE	PAGE
А	The included factors	256
В	The excluded factors	258
С	The development of the items of the questionnaire	259
D	The questionnaire of the study	263
E	The conduct of the systematic literature review	275
F	The content validity experts	277
G	EGOV-TRUST Model: Validation by Experts	283

## LIST OF ABBREVIATIONS AND SYMBOLS

Bel	-	Beliefs
CB-SEM	-	Covariance-based SEM
DOI	-	Diffusion of Innovation
DT	-	Disposition to Trust
EDTOT	-	Environmental Dimension
EE	-	Effort expectancy
E-government	-	Electronic Government
E-services	-	Electronic Services
FC	-	Facilitating Conditions
G2B	-	Government to Businesses
G2C	-	Government to Citizens
G2E	-	Government to Employees
G2G	-	Government to Government
Hab	-	Habit
HM	-	Hedonic Motivation
ICT	-	Information Communication Technology
IDTOT	-	Individual Dimension (UTAUT2)
IQ	-	Information Quality
IS	-	Information System
IT	-	Information Technology
I-TOE	-	Individual- Technology-Organization-Environment
ODTOT	-	Organizational Dimension
PE	-	Performance Expectancy
PLS-SEM	-	Partial Least Squares SEM
PV	-	Price Value
Rep	-	Reputation
SEM	-	Structural Equation Modeling
SEQ	-	Service Quality

xvii

SI	-	Social Influence
SL	-	Support Legislation
SP	-	Security and Privacy
SYQ	-	System Quality
TAM	-	Technology Acceptance Model
TDTOT	-	Technological Dimension
TG	-	Trust of Government
TIEG	-	Trust in e-Government
TMS	-	Top Management Support
TOE	-	Technology-Organization-Environment
TOI	-	Trust of Internet
TOIM	-	Trust of the Intermediary
TPB	-	Theory of Planned Behaviour
TRA	-	Theory of Reasoned Action
UEG	-	Use of e-Government
UTAUT	-	Unified Theory of Acceptance and use of Technology

xviii

#### **DEFINITION OF TERMS**

**Performance Expectancy:** "The degree to which using e-government will provide benefits to consumers in performing certain activities" (Venkatesh, Thong and Xu, 2012).

**Effort Expectancy:** The degree of ease associated with customers' use of e-government (Venkatesh, Thong and Xu, 2012).

**Social Influence:** The extent to which individual perceive that important others believe they should use e-government (Venkatesh, Thong and Xu, 2012).

**Facilitating Conditions:** The individual perceptions of the resources and support available to use e-government (Venkatesh, Thong and Xu, 2012).

**Price value:** The extent to which the individual believes that the benefits will gain from egovernment services is greater than the monetary cost for using them (Venkatesh, Thong and Xu, 2012).

**Hedonic Motivation:** The intrinsic motivation of an individual to obtain fun or pleasure from using e-government (Venkatesh, Thong and Xu, 2012).

**Habit:** The degree to which individual tend to develop automatic behaviors due to learning (Venkatesh, Thong and Xu, 2012).

**Disposition to trust:** The tendency of public individuals to trust and rely on the opinion of others in the use of e-government or lack of trust in others and rely on personal opinion (Alzahrani, Al-Karaghouli and Weerakkody, 2017; Nulhusna et. al., 2017; Xie et. al., 2017).

**Beliefs:** Refers to the user's beliefs that his or her self-efficacy, internet experience and knowledge enable them to trust and use e-government services.

**Trust of Internet:** The degree to which individuals trust the internet environment in terms of quality of communication and reliability of transactions for use in e-government services (Kurfalı et. al., 2017; Lallmahomed, Lallmahomed and Lallmahomed, 2017).

xix