

Determinants of e-government adoption: An
empirical investigation in the Kurdistan region of
Iraq

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Abstract

Governments worldwide are increasingly becoming aware of the benefits of using the Internet to provide public services to their citizens. This phenomenon, referred to as electronic government (e-government), is said to generate substantial benefits such as accountability, transparency, convenience, cost saving, efficiency to both the government and citizens alike. However, despite the increase in e-government investments globally, low level citizens' adoption of these services has been identified as a serious impediment to their success in both developed and developing countries.

Researchers in various countries have tried to understand citizens' perception towards e-government services, and to identify the factors that encourage citizens to adopt e-government services. Despite the existence of several studies, no such study has yet been conducted in the Kurdistan region of Iraq where government has planned to implement e-government in the region. Thus, the current study was the first to explore Kurdish citizens' behavioural intentions towards e-government services to provide government authorities with information that could assist them to increase citizen acceptance of e-government services in the region.

In addition to its practical significance, this study seeks to make theoretical and methodological contributions to the existing e-government literature. The current study distinguished between intention to use e-government for accessing information and intention to use e-government for conducting transactions, and separate models were developed for each comprised of several variables adapted from the technology adoption and e-government adoption literature. This distinction is lacking in the majority of e-government studies despite the empirical evidence that these two services are different in that transactional e-government is considered to be more

complicated and more risky since it requires users to provide personal and financial information to government agencies. Consequently, empirical evidence shows that citizens are more likely to use e-government for obtaining information rather than conducting transactions. Therefore, it is both practically and theoretically important to distinguish between these two types of e-government services. This study also improves on the statistical approach used in other studies, employing a more robust approach in order to more accurately identify the relationships between the research variables prior to testing them.

The data were collected through a survey questionnaire administered by the researcher to two groups of participants; undergraduate university students and non-academic staff at the University of Salahaddin in Erbil. The data were analysed using multiple logistic regressions in SPSS and path analysis in AMOS19. The results revealed that all the variables that were hypothesized in this study to be associated with the intention to use e-government services were indeed associated with the intention to use. For some the association was direct and for some it was only indirect through their relationship with other independent variables. The results also revealed that the strength of the association for those variables that were tested on both informational and transactional e-government on the intention to use was more significant for transactional e-government. This supported the argument that informational and transactional e-government should be distinguished when investigating citizens' e-government adoption behaviour for both theoretical and practical purposes. Finally, the hypothesized relationship between the intention to use informational e-government with the intention to use transactional e-government was confirmed. This suggested that, higher intentions to use government websites to seek information are associated with higher intentions to use government websites to transact with government.

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Table of Contents

Abstract	iii
Acknowledgement	vii
List of Tables	xv
List of Figures	xix
List of Abbreviations	xxi
Chapter 1: Introduction	1
Research Problem and Background.....	1
Research Questions.....	6
Research Objectives	7
Contributions and Significance	7
Research Methodology	9
Overview of the Thesis Chapters.....	12
Chapter 2: Review of E-Government Literature	13
E-government Definitions	13
Stages of E-government Growth	15
Types of E-government Services.....	20
E-government Categories According to its Stakeholders.....	22
Advantages of and Challenges for E-government Initiatives	25
Advantages.....	25
Challenges.....	26
E-government Adoption Definition.....	29
Two Streams of E-government Studies.....	30
E-government in Arab countries and the Kurdistan region.....	31
Chapter Summary	36
Chapter 3: Technology Acceptance Theories & Models	39
Overview of Technology Adoption Models.....	39
Innovation Diffusion Theory (IDT).....	40

Theory of Reasoned Action (TRA).....	44
Theory of Planned Behaviour (TPB)	46
Decomposed Theory of Planned Behaviour (DTPB)	48
Technology Acceptance Model (TAM).....	51
Extension of Technology Acceptance Model (TAM2)	55
TAM vs. TPB and DTPB.....	57
Combined TAM and TPB (C-TAM-TPB).....	59
Social Cognitive Theory (SCT)	60
Model of PC Utilization (MPCU).....	63
Motivational Model (MM).....	66
Unified Theory of Acceptance and Use of Technology (UTAUT)	67
E-government Adoption Literature from the Demand Side	71
Chapter Summary	75
Chapter 4: Research Model and Hypotheses Development	77
Research Model	77
Perceived Usefulness (PU)	78
Perceived Ease of Use (PEOU).....	79
Facilitating Conditions (FC)	79
Social Influence (SI)	80
Compatibility (COMPT).....	81
Trustworthiness.....	82
Perceived Risk (PR).....	85
Perceived Information Quality (IQ).....	86
Behavioural Intention (BI).....	86
Chapter Summary	89
Chapter 5: Research Methodology and Design	91
Research Approach.....	91
Specifying the Survey Method	93
Defining the Target Population	94
Sample Selection	95
Probability Sampling	96

Non-probability Sampling	97
Questionnaire Design	103
Ethical Considerations	104
Data Collection	104
Chapter Summary	107
Chapter 6: Data Preparation for Statistical Analysis	109
Data Screening, Missing Data and Univariate Outliers	109
Instrument Validation	110
Reliability	110
Validity	112
Univariate Normality	119
Transforming the Data into Dichotomous Variables	120
Transforming five-point Likert scale	121
Computing the recoded items for each variable	123
Transforming the computed scores	124
Selecting one index for those variables that had been recoded into two indices	124
An Overview of Participants' Demographic Profile	128
Demographic profile of the whole sample	129
Demographic profile of the students	130
Demographic profile of the staff	131
The proportion of participants who 'agreed' with the questionnaire statements	133
Chapter Summary	136
Chapter 7: Hypothesis Testing	139
Multiple Regression Analysis	139
Testing the Assumptions of Multiple Regressions	140
Multicollinearity	140
Multivariate outliers	141
Testing the direct relationship between demographic characteristics with the intention to use informational and transactional e-government	142
Relationship between demographic characteristics with the 'intention to use' informational e-government	142

Relationship between demographic characteristics with the ‘intention to use’ transactional e-government	143
Hypothesis Testing	145
Testing the relationship between predictor variables with the ‘intention to use’ informational e-government	146
Testing the relationship between predictor variables with the ‘intention to use’ transactional e-government	148
Sensitivity Testing	151
Sensitivity testing for informational e-government	151
Sensitivity testing for transactional e-government	154
Comparing the results of hypotheses testing between students and staff.....	157
Hierarchical Multiple Logistic Regression.....	159
Hierarchical multiple logistic regression for informational e-government.....	162
Hierarchical multiple logistic regression for transactional e-government.....	166
Path Analysis	171
Procedures for modifying models.....	174
Model fitting in the present study.....	175
Model fitting for informational e-government.....	176
Model fitting for Transactional e-government.....	180
Testing the relationship between the intention to use informational e-government with the intention to use transactional e-government	185
Chapter Summary	190
Chapter 8: Discussion and Implications of the results.....	193
Reiterating the research problem.....	193
Discussion of the Findings	198
Theoretical Implications	206
Practical Implications	207
Methodological Contribution	212
Limitations of the Study	213
Recommendations for Future Research.....	213
Conclusion.....	214
References	217

Appendices 231

Appendix 1: Survey questionnaire- English version 231

Appendix 2: Survey questionnaire-Kurdish version 245

Appendix 3: Ethics approval 259

Appendix 4: Approval letter from Salahaddin University to conduct the study 261

Appendix 5: KMO and Bartlett’s test for informational e-government 263

Appendix 6: KMO and Bartlett’s test for transactional e-government 265

List of Tables

Table 2.1: Top 20 countries in e-government in 2008	33
Table 2.2: Top 20 countries in e-government in 2010	34
Table 2.3: Top 20 countries in e-government in 2012	34
Table 2.4: E-government development in western Asia 2008-2010-2012.....	35
Table 4.1: Proposed research hypotheses.....	88
Table 5.1: Selected faculties and courses for data collection.....	102
Table 6.1: Reliability of the scales	111
Table 6.2: The correlation matrix for the research variables	113
Table 6.3: Factor loadings for variables in informational e-government.....	117
Table 6.4: Factor loadings for variables in transactional e-government.....	118
Table 6.5: Variables for which scale 3(‘neutral’) was recoded as ‘agree’ vs. variables for which scale 3 was recoded as both ‘agree’ and ‘disagree’	122
Table 6.6: An example of the results of computing the recoded scales (Perceived information quality)	123
Table 6.7: Correlation coefficients between independent variables and the ‘intention to use’ informational e-government.....	126
Table 6.8: Correlation coefficients between independent variables and the ‘intention to use’ transactional e-government	126
Table 6.9: Correlation coefficients between the selected indices for informational e-government	127
Table 6.10: Correlation coefficients between the selected indices for transactional e-government	127
Table 6.11: Final indices for statistical analyses.....	128
Table 6.12: Demographic profile of the whole sample.....	129
Table 6.13: Demographic profile of the students	131
Table 6.14: Demographic profile of the staff	132
Table 6.15: Proportion of participants who ‘agreed’ with the research statements	134
Table 7.1: Collinearity statistics for informational variables	141
Table 7.2: Collinearity statistics for transactional variables	141
Table 7.3: Omnibus tests of model coefficients for demographics predicting the intention to use informational e-government.....	142
Table 7.4: Model Summary for demographics predicting the intention to use informational e-government.....	142

Table 7.5: Results of multiple logistic regressions for the relationship between demographic characteristics and the intention to use informational e-government.....	143
Table 7.6: Omnibus tests of model coefficients for demographics predicting the intention to use transactional e-government	144
Table 7.7: Model Summary for demographics predicting the intention to use transactional e-government.....	144
Table 7.8: Results of multiple logistic regressions for the relationship between demographic characteristics and the intention to use transactional e-government	144
Table 7.9: Omnibus tests of model coefficients for PU, PEOU, SI, FC, PIQ, TG and PR predicting the intention to use informational e-government	146
Table 7.10: Model Summary for PU, PEOU, SI, FC, PIQ, TG and PR predicting the intention to use informational e-government.....	146
Table 7.11: Multiple Logistic regressions testing the relationship between PU, PEOU, SI, FC, PIQ, TG and PR with the intention to use informational e-government.....	147
Table 7.12: Summary of the results of hypotheses testing for informational e-government	148
Table 7.13: Omnibus tests of model coefficients for PU, PEOU, SI, FC, COMPT, TG, TI and PR predicting the intention to use transactional e-government	149
Table 7.14 Model Summary for PU, PEOU, SI, FC, COMPT, TG, TI and PR predicting the intention to use transactional e-government	149
Table 7.15: Multiple Logistic regressions testing the relationship between PU, PEOU, SI, FC, COMPT, TG, TI and PR with the intention to use transactional e-government.....	150
Table 7.16: Summary of the results of hypotheses testing for transactional e-government	151
Table 7.17: Omnibus tests of model coefficients for PU, PEOU, SI, FC, PIQ, TG and PR predicting the intention to use informational e-government all index1	152
Table 7.18: Model Summary for PU, PEOU, SI, FC, PIQ, TG and PR predicting the intention to use informational e-government all index1.....	152
Table 7.19: Multiple Logistic regressions testing the relationship between PU, PEOU, SI, FC, PIQ, TG and PR with the intention to use informational e-government all index1	153
Table 7.20: Omnibus tests of model coefficients for PU, PEOU, SI, FC, PIQ, TG and PR predicting the intention to use informational e-government all index2	153
Table 7.21: Model Summary for PU, PEOU, SI, FC, PIQ, TG and PR predicting the intention to use informational e-government all index2.....	153
Table 7.22: Multiple Logistic regressions testing the relationship between PU, PEOU, SI, FC, PIQ, TG and PR with intention to use informational e-government all index2.....	154
Table 7.23: Omnibus tests of model coefficients for PU, PEOU, SI, FC, COMPT, TG, TI and PR predicting the intention to use transactional e-government all index1.....	155
Table 7.24: Model Summary for PU, PEOU, SI, FC, COMPT, TG, TI and PR predicting the intention to use transactional e-government all index1.....	155

Table 7.25: Multiple Logistic regressions testing the relationship between PU, PEOU, SI, FC, COMPT, TG, TI and PR with the intention to use transactional e-government all index1	155
Table 7.26: Omnibus tests of model coefficients for PU, PEOU, SI, FC, COMPT, TG, TI and PR predicting the intention to use transactional e-government all index2.....	156
Table 7.27: Model Summary for PU, PEOU, SI, FC, COMPT, TG, TI and PR predicting the intention to use transactional e-government all index2.....	156
Table 7.28: Multiple Logistic regressions testing the relationship between PU, PEOU, SI, FC, COMPT, TG, TI and PR with the intention to use transactional e-government all index2	157
Table 7.29: Factors Associated with the intention to use informational e-government: students vs. staff.....	158
Table 7.30: Factors Associated with the intention to use transactional e-government: students vs. staff.....	159
Table 7.31: Results of the hierarchical multiple logistic regressions for informational e-government.....	164
Table 7.32: Results of hierarchical multiple logistic regressions for transactional e-government	169
Table 7.33: Commonly reported goodness-of-fit indices for structural equation models	173
Table 7.34: Summary of fit indices for the hypothesized model (Model A) and the fitted model (Model B) for informational e-government	177
Table 7.35: Summary of fit indices for the hypothesized model (Model A) and the fitted model (Model B) for transactional e-government.....	181
Table 7.36: Summary of fit indices for the informational e-government model predicting intention to use transactional e-government.....	187
Table 7. 37: Summary of the results of study’s hypothesis testing.....	189

List of Figures

Figure 1.1: Geographical map of Kurdistan.....	5
Figure 2. 1: E-government maturity model.....	16
Figure 3.1: A model of stages in the innovation-decision process.....	43
Figure 3.2: Theory of Reasoned Action	46
Figure 3.3: Theory of Planned Behaviour.....	48
Figure 3.4: Decomposed Theory of Planned Behaviour	51
Figure 3.5: Technology Acceptance Model	54
Figure 3.6: Extension of the Technology Acceptance Model.....	57
Figure 3.7: Combined Technology Acceptance Model and Theory of Planned Behaviour	60
Figure 3.8: Social Cognitive Theory	61
Figure 3.9: Social Cognitive Theory in the Context of Computer Usage	63
Figure 3.10: Model of PC Utilization.....	65
Figure 3.11: Motivational Model	67
Figure 3.12: Unified Theory of Acceptance and Use of Technology	70
Figure 4.1: Hypothesized research model.....	87
Figure 6.1: Examples of the skewed and bimodal distribution	120
Figure 7.1: Proposed mediating relationship by Baron and Kenny (1986).....	160
Figure 7.2: The order of entry of variables in the hierarchical multiple logistic regression equation for informational model	162
Figure 7.3: Modified research model for informational e-government	166
Figure 7.4: The order of entry of variables in the hierarchical multiple logistic regression regression equation for transactional model.....	166
Figure 7.5: Modified research model for transactional e-government.....	171
Figure 7.6: Path model for informational e-government.....	180
Figure 7.7: Path model for transactional e-government.....	183
Figure 7. 8: Path model for the intention to use informational e-government predicting the intention to use transactional e-government.....	188

List of Abbreviations

A	Attitude
AGFI	Adjusted Goodness-Of-Fit Index
AIC	Akaike information criterion
AMOS	Analysis of Moment Structures
BI	Behavioural Intention
CAIC	Consistent Akaike information criterion
CB	Control Belief
CEHR	Committee for Ethics in Human Research
CFI	Comparative Fit Index
C-TAM-TPB	Combined TAM and TPB
COMPT	Compatibility
DTPB	Decomposed Theory of Planned Behaviour
DV	Dependent Variable
EE	Effort Expectancy
FC	Facilitating Conditions
GFI	Goodness- of- Fit Index
G2C	Government to Citizen
G2B	Government to Business
G2E	Government to Employee
G2G	Government to Government

IT	Information Technology
ICT	Information and Communication Technology
IDT	Innovation Diffusion Theory
IS	Information System
IV	Independent Variable
KMO	Kaiser-Meyer-Olkin
KRG	Kurdistan Regional Government
MM	Motivational Model
MPCU	Model of PC utilization
NFI	Normed Fit Index
PBC	Perceived Behaviour Control
PEOU	Perceived Ease of Use
PE	Performance Expectancy
PC	Personal Computer
PF	Perceived Facilitation
PIQ	Perceived Information Quality
PPR	Public Sector Process Rebuilding
PR	Perceived Risk
PU	Perceived Usefulness
PwC	PriceWaterhouseCoopers
RMSEA	Root Mean Square Error of Approximation
RMR	Root mean square residual

SCT	Social Cognitive Theory
SE	Self-efficacy
SI	Social Influence
SN	Subjective Norms
SPSS	Statistical Package for Social Science
TAM	Technology Acceptance Model
TAM2	Technology Acceptance Model 2
TLI	Tucker Lewis Index
TRA	Theory of Reasoned Action
TG	Trust in Government
TI	Trust in the Internet
TPB	Theory of Planned Behaviour
UTAUT	Unified Theory of Acceptance and Use of Technology
UN	United Nations
UNPA	United Nations Public Administrations Network

Chapter 1: Introduction

This chapter provides a brief overview of what this thesis is about. The chapter begins by describing the problem for which the current study was undertaken. Following this, research questions and objectives are outlined. The chapter then explains the theoretical and practical contributions that this study sought to make by answering these questions. Research methodology and data analysis procedures are explained next. The chapter concludes by outlining the structure of the thesis.

Research Problem and Background

Information communication technologies (ICT) are one of the most significant characteristics of our age which have dramatically changed our societies and the way that we interact with each other (Alshehri & Drew, 2010). In recent years, these technologies, particularly the Internet, have revolutionized societies and have enabled individuals and businesses alike to communicate and interact with each other more effectively at a lower cost, regardless of their physical locations (Kumar et al., 2007). Businesses in the commercial sector for years have embraced the Internet to communicate with their customers all over the globe (Shih, 2004). This phenomena, which is also referred to as electronic commerce (e-commerce), has generated significant advantages for both businesses and customers, such as convenience, cost reduction, faster transactions and the availability of services 24/7 (Lu et al., 2011).

The use of the Internet to communicate with customers has not been limited to the commercial sector only. Organizations in the public sector have also been increasingly aware of the significant advantages of using the Internet and thereby have employed it to support government activities and to communicate with their stakeholders (Kumar et al., 2007). The use of the Internet by the public sector to deliver government services is referred to as