Sarmad Sameer Factors Influencing the Consumers of Electronic Government: A Case study of Northern Iraq NEU 2016

FACTORS INFLUENCING THE CITIZENS' ACCEPTANCE OF ELECTRONIC GOVERNMENT: A CASE STUDY IN NORTHERN IRAQ

A THESIS SUBMITTED TO THE GRADUATE SCHOOL OF APPLIED SCIENCES OF NEAR EAST UNIVERSITY

BY

SARMAD SAMEER

In Partial Fulfillment of the Requirements for the Degree of Master of Science in Computer Information Systems

NICOSIA, 2016

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Approval of Director of Graduate School of
Applied Sciences

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name:

Signature:

Date

To my parents...

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ÖZET

Bu araştırma Kuzey İrak'taki vatandaşların elektronik devleti kabul etmelerindeki önemli faktörleri bulmak için yapılmıştır. Araştırmacı altı hipotez geliştirmiştir. Kuzey Irak'taki çalışmayı yapmak için sayısal bir regresyon metodu kullanılmıştır. Bu çalışma için 256 İrak vatandaşı seçilmiştir. Araştırmacı, Teknoloji Kabul Metodunu kullanmış ve bu metodun Kuzey İrak'taki e-devlet ilişkisini bulmak için tek regresyon analiz metodunu uygun bulup incelemiştir. Araştırmada,kullanış kolaylığı algısında olan artışın e-devlet kullanımını da artırdığı bulunmuştur. E-devlet kullanımının kolay olması, bu sistemin kullanımınıolumlu bir şekilde etkilediği bulunmuştur. Ayrıca, kullanım kolaylığının bu sistemi benimseme prensibini de artırdığı gözlemlenmiştir. Son olarak, e-devlete olan olumlu algının bu sistemin kullanımını artırdığı sonucuna varılmıştır. Bu tez, enformasyon sistemleri uzmanları için ve vatandaşların e-devlet sistemini kabul etmelerinde önemli olan faktörleri araştıran uzmanlar için ilgi çekeceğidüşünülmektedir.Ayrıca, akademisyenler için ve vatandaşların e-devlet sistemini kabul etmelerindeki faktörleri araştıran araştırmacılar yol gösterici olacaktır.

Anahtar Kelimeler: TAM; elektronikdevlet; vatandaş; e-devlet kabulü; Irak

ABSTRACT

The research aimed to analyse the factors influencing citizens' acceptance of electronic government in Northern Iraq. The researcher developed six research hypotheses. A quantitative method used in order to analyse this study in Northern Iraq. The present study was confined to 256 units from Iraqi citizens were selected. A focus method sampling used to analyse this research by focusing on students' perceptions. The researcher used single regression analysis to investigate the technology acceptance model and its relationship with e-government in Northern Iraq. It was found that increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government. It was found that increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government, and finally, it was found that the positive attitude toward an electronic government will lead to increases behavioural intention to use electronic government.This thesis is expected to be interesting to the information systems consultants, experts and specialists who provide and study the factors influencing consumers' acceptance of electronic government services. Also, it could be interesting to academics and researchers who research on the factors that influence citizens' in implementing electronic government.

Keywords: TAM; electronic government; citizens; acceptance of e-government; Iraq

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LIST OF ABBREVIATIONS

ATT:	Attitude
BI:	Behavioural Intention
E-GOV:	Electronic Government
G2B:	Government to Business
G2C:	Government to Citizen
G2E:	Government to Employee
PEOU:	Perceived Ease of Use
PU:	Perceived Usefulness
TAM:	Technology Acceptance Model

CHAPTER ONE
INTRODUCTION

1.1 Overview

This research aims to analyse the factors influencing consumer's acceptance of electronic government. The term electronic government is defined as the employment of the Internet and the www technologies for distributing the services and information of the government to the business, employees and citizens, in order to enhance the effectiveness and efficiency of distribution of the service in the public sector(Johnston et al., 2015). The field includes delivery methods and approaches diverging from government services to employees, business, other governments and citizens.Electronic government is defined as the use of communication technologies and information in government in order to be able to offer public services in order to enhance administrative efficiency and effectiveness, also to endorse the value of democratic(Dwivedi & Bharti, 2010).

Due to the fact is government serve multiple roles therefore electronic government has become widely defined. Throughout utilizing electronic government, the government is expecting to enhance the quality of service provided by the government and eliminate the costs of services distribution. Also, the purpose of electronic government is to enhance the use of scarce sources, improve transparency and accountability, develop the market and improve citizen's life and gain their faith and trust in government (Yadav and Singh, 2012). In many developed countries, governments give options to pursue public administration reforms, most of them are using information communication technology in order to offer electronic government services. Electronic government is the centerpiece of information systems-supported improvements to digitize the services distribution and the development of governance taking place through all stages of government. Electronic government uses the Internet and the World Wide Web for both information distribution and services distribution (Shareef et al., 2011). In this research two factors discussed that will have impact on consumer's acceptance of electronic government. One of these factors perceived usefulness (PU), according to Davis (1989) perceived usefulness is the degree to which an individual believes that the term of technology, under exploration, will improve her/his efficiency or outcome, and perceived ease of use (PEOU) according to to Davis

(1989) PEOU is the degree to which an individual believes that using a technology will be easy, clear and simple. The researcher used two independent variable (perceived usefulness and perceived ease of use) to measure the dependent variable which is Factors influencing consumers' acceptance. Northern Iraq has huge economic abilities and which is flowing on a lake of oil and other minerals like sulphur, phosphate. Also, Northern Iraq has huge capacities in the field of service trade particularly in tourism where civilization and geography diversity exist. The Northern Iraq region has its local ruling within the federal State of Iraq where national privacy is been expressed by the Kurdish history and despite its historical attachment with the People of Iraq by multiple aspects, it is characterized by wide tourist and investment features, mainly the political stability which created a legislative and executive environment that helped a quick achievement of the economic and modern renaissance. The Northern Iraq region in its first stage, relied on regulations previously issued by the Iraq Government during its different stages, but the years 1992-2003are considered as years of prevention and change in the life of Iraq and Northern Iraq as well due to different political circumstances, while the years 2004-2008 were active and important years where the region of Northern Iraq could issue many different decrees and legislations that helped to create a modern and investment environment which reduced the years of weakness and prevention. The population is estimated approximately 5 Million people.

1.2 Research Problem

Electronic government will offer advantages to Iraqis' citizens and will simplify their everyday life, communication and information exchange between the citizens and the government offices. The advantage of implementing electronic government will be to enhance the efficiency of the existing government's system which is based on paper work. This would result in saving time as well as saving money. Perhaps one of the disadvantages of implementing electronic government will be the lack of access to the internet by the general public in Northern Iraq. This thesis attempts to investigate the factors influencing the acceptance of electronic government by the general public in Northern Iraq.

1.3 The Aim of the Thesis

The study aims to find out the factors influencing citizens' acceptance of electronic government in Northern Iraq.

1.4 Importance of the Thesis

The study is significant to the field of technology, government and business strategies, and project and technology studies. Implementing electronic government has experienced and continues to experience enormous challenges. This research will go a long way to assist government offices to implement electronic government in Northern of Iraq. The outcome of the research will help in many aspects; firstly, it will assist stakeholders such as employees, citizens, government agencies, government offices and political. Secondly, will create the awareness to government about the most determinant variables that will have an impact on electronic government implementation, thirdly, the outcome of this research will add to the wealth of knowledge in other technology studies. In the meantime, the research will be useful for other researchers who want to conduct more research in similar topics. The results of the study will serve as a source of policy guidance to the study of analysis of implementing electronic government.

1.5 Overview of the Study

The thesis is consisted of six chapters, which are introduced below:

Chapter One: In this chapter an introduction to the research area in which the researcher have selected to carry out the study is discussed. This chapter consisted of research problem, research aim and the importance of the study.

Chapter Two: In this chapter related studies are discussed.

Chapter Three: In this chapter literature review regarding e-government and theory of the technology acceptance model are discussed.

Chapter Four: In this chapter, the researcher explained the research method, sample size, target population and research population and research instruments.

Chapter Five: In this chapter the researchers analyzed the gathered data and interpreted the results through charts and tables and discussion of the findings are discussed.

Chapter Six: It contained conclusions, recommendations, contribution and future works.

CHAPTER TWO
RELATED RESEARCH

The followings are related studies to the present research, that have been done in another countries to measure the impact of political factor, economic factor, social factor and technological factor on implementing electronic government, as follow:

2.1 Related Research

A study was carried out byRichard and Irani (2014) in Iran. The study offered a vision into the conception of electronic government and its execution factors. Endeavours have been made to evaluate present literatures and theories of electronic government and to progress a theoretical framework for assessing aspects influencing electronic government executing in both developing and developed countries. This is essential to shape trust amongst stakeholders, to inspire working, cooperative, and to guarantee that transparent and normally acceptable systems are in place. It is estimated that the planned conceptual model would be confirmed by scholars and academicians in upcoming, meanwhile it would be related for examining those wider economic and social factors that have an influence on electronic government and other information and communication technologies

A study was carried out by Al-Shbou et al. (2014) in Jordan. Electronic government in its simplest form could mean using ICT methods to offer services to citizens. Still with the vast welfares and interactions that electronic Government endowments to societies and governments, it looks numerous problems and challenges; consequently, there are continuously an amount of serious achievement features and risks related with electronic Government. This study highlights certain of the important ones; it critically measures important factors that affect electronic Government services acceptance and dispersal. Therefore, the purpose of this research is to study and classify the factors that effect and affect the use of electronic Government in the developing countries, precisely in Jordan. Moreover, this study examines the barriers and challenges that should be overawed to positively and effectively implement electronic Government in Jordan. A qualitative method used in order to analyze the current study. Interviews were conducted in this research in order to gather the data. The findings of this

research reveal that the greatest important challenges and factors effecting the implementation of electronic Government services in Jordan are connected to human resource, technological aspects, financial costs, budgeting and human expertise, social and privacy and security.

A study was carried out by Singh and Aggrawal (2013) the study provides an opportunity for the mutual nation's opinions based on mobile commerce to be studied and likewise, result the essential factors in consumer's perception towards mobile commerce in e-Governance implementation. Electronic commerce mechanism and services are increasing at a much quicker pace in this digitized world. The competitive market places between the numerous mobile corporations and the goods that they make, suggestion much competitive services and price to the people in their daily lives. Nonetheless the mutual man and the Government in every nation are all disordered and abandoned with this dynamic state of the mobile technology.

A study was carried out by Andoh-Baido et al. (2012) in Ghana. The researchers stated that electronic Government has transmuted how governments offer and deliver effective and efficient services to other government agencies, business and citizens. The paper investigated the readiness of electronic government of Ghana. The researchers implemented attempted to find out whether implementing electronic government project will be a viable project, in their study social factor was measured as factor influencing consumers' acceptance of technology. On the other hand, the researchers' implemented SWOT analysis as well to measure the feasibility study for implementing electronic government in Ghana, the researchers measured the strength and weakness as internal factor of implementing electronic government and threat and opportunities as external factors of implementing electronic government in Ghana.

A study was carried out by Magro (2012) investigating the key success of implementing ICT project in Government. A government considers a complex and large organization, which strategic and operations concentrates can be significantly improved by the well concentrated application of ICT to maintenance enhancements in administrative, management effectiveness, productivity and eventually, the quality of services provided to citizens. Though the advantages of ICT in government could not be uncertain, there are numerous concerns about its and accomplishment and achievement as well as the strategies to be accepted in implementation of systems in numerous nations. In this study, the specific challenges that emerging countries face, which make ICT implementation in government fail to succeed are recognized and synthesized. The study provides findings of literature review of case studies from both developing and

developed countries. The findings of the study in a rich picture of ICT implementation experience that aids to recognize potential clarifications. A descriptive study for categorizing key factors in ICT implementation in government demonstrated with situations to the literature is proposed. The contribution variables are categorized into factors for success, and factors for failure. A study was carried out by Ifinedo (2012) in Sub-Saharan Africa and Latin America. The study concentrated on the drivers of electronic government mainly in two equivalent developing regions of the world. Electronic government mainly indicates the development stages in a regions' online service and other application to service its citizens. The researchers stated that not so many academic scholars concentrated on the drivers of electronic government in Sub-Saharan Africa and Latin America. The researchers implemented a PEST analysis in order to find out whether implementing electronic government project will be a viable project, in their study political, social, technological factors were measured as PEST analysis. On the other hand, the researchers' implemented SWOT analysis as well to measure the feasibility study for implementing electronic government in Ghana, the researchers measured the strength and weakness as internal factor of implementing electronic government and threat and opportunities as external factors of implementing electronic government in Sub-Saharan Africa and Latin America.

A study was carried out by Nkwe (2012) at Botswana. The aim of the study was to investigate the challenges of implementing electronic government in Botswana. A quantitative method was used in order to analyze the study. The main research findings indicated that Botswana's government should update their current government's mission and strategies in execution of new technology. Recognizing the current Botswana's government situation will assist the policy makers in order to pursue the expansion and developing governmental bodies.

A study was carried out by Qamar et al. (2012) at Pakistan. According to them stated that most of developing countries showed the significant of the electronic government in offering and delivering services to business, government sectors and citizens. However, many issues and challenges governments have faced during excusing electronic government. In his paper, the author relied on a certain survey for united nation in order to analyze electronic government implementation in Pakistan. Moreover, the author conducted social factor to find out and measure the impact of mentioned factors on executing electronic government in Pakistan.

A study was carried out by Rezazadeh et al. (2011) in Iran. The researchers, defined electronic government generally states to the communications and the information technology practice to adjust procedures and structure of government agencies. The study aimed to measure the goals and strategic framework and vision of electronic government in Iran. Moreover, in their study, they stated that customer orientation, rapidity, cost effectiveness, efficiency, accessibility and reliability are considered the essential guidelines for implementing electronic government in Iran. The electronic government development consisted of three essential associations: Government to Employees/Public Servants (G2E), Government to Business (G2B) and Government to Citizen (G2C). The study conducted two analysis, PEST analysis and SWOT analysis, in terms of PEST analysis which comprised of economic factor, technological factor, social factor and political factor. While, SWOT analysis compromised of the theatres, opportunities on the other hand the weaknesses and the strengths. Recognizing the essential of exploiting the new communication, electronic and, and technologies, the movement to execution of electronic government in Iran has lately expected the attention of establishments and policy makers. Numerous opportunities and strengths fuel the growth of electronic Government in Iran for instance, robust educational system, political willingness, and sound economic policies, in order to produce and create tech-savvy future staffs and low cost of phone calls.

A study carried out by Mishra (2011) regarding of the challenges of implementation electronic government. The study investigated several dimensions of electronic government important Challenges, success factors and issues. The main aim of the study was is to highpoint the present research and practice course in these significant areas of electronic government. The findings were limited to journal articles and academic conferences published starting from 2001 and till up to 2011. The analysis exposed that most study has been done in barriers and challenges of electronic government implementation, formulating electronic government, readiness for electronic government, success factors, and security and process. This means the need for future research in both either qualitative or quantitative studies in mentioned areas.

A study was carried out by Bwalya (2009) at Zambia. In past three years Zambia executed electronic government. Due to electronic government has been adopted and determined as one of the main key success for the government. The adoption of electronic governance possibilities a shrill paradigm change and move where public institutions will be more receptive and promote efficient and transparent Public Private Partnerships, and permit citizens by making information

and other resources more straight available. This study has investigated two different cases from Zambia where information communication technology has been used in support of electronic government initiatives. It has also measured the issues, challenges, and opportunities composed with e-government implementation principles regarding effective encapsulation of electronic government into the Zambian background environment.

A study was carried out by Suha and Morris (2009) in Kuwait. Electronic government advantages are in their beginning in numerous developing countries. The achievement of these creativities is reliant on government support as well as citizens' acceptance of electronic government services. This study recognized the awareness and attitudes of the citizens of Kuwait, a developing country, towards the acceptance of electronic government services. According to earlier study discovering the causes of the acceptance of electronic government services utilizing an edited version of the UTAUT model, the research reported here investigates the factors that influence the take-up of such services. These factors are related to practicality, ease of utilize, technology issues and lack of awareness, cultural and social influences.

A study was carried out by Kumar et al. (2007) in Canada. Canada considers as the world's leader in electronic Government development for the last five years. It looks that the degree of acceptance of e-Government has internationally fallen below outlooks although some countries are doing better than others. Obviously, a better accepting of how and why citizens use government websites and their overall characters to electronic Government is a significant research issue. This study starts argument of this issue by suggesting a theoretical model of electronic Government acceptance that places consumers as the principal opinion for electronic Government acceptance strategy.

CHAPTER THREE
THEORETICAL FRAMEWORK

3.1 E-Government

In many developed countries, governments give options to pursue public administration reforms, most of them are using ICT in order to offer electronic government services. Electronic government is the centerpiece of information systems-supported improvements to digitize the services distribution and the development of governance taking place through all stages of government. Electronic government uses the Internet and the World Wide Web for both information distribution and services distribution. Electronic government is defined as the use of communication technologies and information in government in order to be able to offer public services in order to enhance administrative efficiency and effectiveness, also to endorse the value of democratic (Shareef et al., 2011).

Due to the fact is government serve multiple roles therefore electronic government has become widely defined. Throughout utilizing electronic government, the government is expecting to enhance the quality of service provided by the government and eliminate the costs of services distribution. Also, the purpose of electronic government is to enhance the use of scarce sources, improve transparency and accountability, develop the market and improve citizen's life and gain their faith and trust in government (Yadav & Singh, 2012).

3.1.1 Goals of E-Government

Electronic governments' goals differ from country to country. Generally, Electronic governments' goals are defined locally according to the political leadership of every government. Furthermore, key recognized stakeholders affect these electronic governments' goals among numerous countries. Moreover, every government should be able to support an international cooperation initiative in terms of electronic government, to be able to improve efficiency, accountability and transparency at all stages of government. For instance, those methods reintroduce governments in order to treat and deal their citizens as clients, also enhance daily administrative of monetary and financial systems. Several of these electronic government platforms are organizational fundamentals of economic growth and public sector improvements

to address human expansion subjects in emerging countries (Mistry & Su, 2012). At the present time increasing more shared for governments in order to practice websites to enable visitors/ citizens in order to go online and attain any information needed, register vehicles, access records, communicate with agencies and government offices, voting and taxes.

By electronic government, the governments are projected to enhance outcomes and governments' performance (Kumar, 2011):

- The collection of online data to eliminate the cost of data entrance and mechanise error inspection;
- Eliminate the cost of communication with citizens
- Superior data sharing between governments and other primary stakeholders such us citizens, private sectors, NGO's and international agencies.
- Superior of re-utilize of data, and
- Eliminate the cost of distributions and publications of the government by using online data.

3.1.2 Types of E-Government

There are many sorts of electronic Government according to utilizing ICT to enable associations between government and other stakeholders. The kinds of associations are with business (Government-to-Business-G2B), employees (Government-to-Employees-G2E), other governments (Government-to-Government-G2G and citizens (Government-to-Citizen-G2C). previous scholars modified these groups into smaller sub-groups. This research will apply these four groups to illustrate the types of electronic Government services (Mbale, 2013):

Table 3.1: Characteristics of classifications of e-govenment

Classifications	Information	Communication	Transaction
G2C	Information about taxes, driver's license, fees, and different types of bills.	Talk, listen, support and communicate with government, encourage citizens to involve in a local community life through email.	Online discussion forum, e-voting, online service delivery.
G2B	Information about business permits, safety, employment, environment and tax rules.	Communicate with government, involve in decision making process.	E-procurement, e-transaction, e-market, online service delivery.
G2E	Information about compensation policy, benefits, career management and employee's development	Communicate with government, involve in decision making process regarding work and performance.	Share data, information, e-learning, e-office, online participation.

3.1.2.1 Government-to-Business (G2B)

This approach concentrates on strategies utilizing ICTs to ease government communications with the private sector to obtain services and goods and to organize transactions from private sectors. One method is recognized as electronic procurement. Because of the great number of procurements that governments purchase goods and services from the private companies, it is

essential to improve and expand quicker and more cost-effective procedures to handle the certain processes for procurement. The certain tasks and responsibilities comprise: contract management, purchasing, sourcing and material planning. Electronic procurement methods modernize the procedure of buying and acquiring services and goods from the private companies through utilizing ICTs. Electronic procurement method offer electronic marketplaces or catalogues to modernize online payment and ordering publicize calls for sellers through electronic offering clarifications. Governments establish electronic procurement method in order to eliminate processing times, enhance document management, improve transparency of public decision-making and enhance access to markets for services and goods (Kumar, 2011).

3.1.2.2 Government-to-Employee (G2E)

This approach concentrates on associations within government among employees to organize internal processes and enhance the internal effectiveness of business (Kumar, 2011).

3.1.2.3 Government-to-Government (G2G)

Government-to-Government, this approach concentrates on offering and presenting services to governments by intergovernmental associations. This comprises actions to organize stakeholders from local government state and the national as in the case of humanitarian or crisis response (Albert, 2009).

3.1.2.4 Government-to-Citizen (G2C)

This method concentrates on making information available to citizens online. This is mentioned to as a citizen-centric electronic government, particularly any steps are taken by the government in order to enhance the online services for its citizens and meet their needs and requirements. Numerous primary projects of electronic government web sites prearranged the contented, mostly the hyperlinks to government services, everywhere the structure of the ministry and its bureaucratic systems. This showed to confuse citizens. Citizens would use much more time searching in order to discover information by a labyrinth of web pages that reflected the structure of the ministry. Meanwhile most citizens do not recognize the way that an internal processes of a government ministry works, the bureau centric system of a government web site affected

superior stages of dissatisfaction with early electronic government sites. Citizens who visit government web page should utilize experimental and error approaches to circumnavigate from page to page on the government's web site and not distinguish for assured if the next click might lead them to the information they needed. According to the previous established electronic commerce sites, designers of electronic government services approved client-centric methods to aid citizens become more satisfied with their online experience at government web sites Kumar (2011).

3.2 Theory of the Technology Acceptance Model

The Technology Acceptance Model (TAM) is an information-theoretic model. It enables researchers to make statements about possible acceptance or rejection of a new technology by a designated user group. This theory and described as a consequent development – under the limitation of a technological scope – of the Theory of planned Behavior and the Theory of reasoned Action. This section describes the three fundamental theories and the dependencies among each other. It gives reasons for the selection of the Technology Acceptance Model for the research on contactless payment instruments, and how concepts of future payment instruments can benefit. With a growing demand for technology and the starting computerization, difficulties increase in system integration. As a consequence, the acceptance of specific technologies by their designated operators became a field of research to diminish the effects of possible rejection. Davis describes in his paper in 1989 that many studies fail to explain acceptance or rejection on scientific level Davis (1989). Therefore he adjusted the Theory of planned Behavior by adding a technical scope, with the intention to give recommended procedure for the search of acceptance of technical products. His aim is to identify and neutralize reasons of rejection for these technical items. A positive consequence, from an economic point of view, is the increased productivity and secured investment by appropriate adjustment.

Davis analyzes the process behind human reasonable action and developed a model of stimulus, organism and response in his doctoral thesis at the MIT Davis (1989). The following model in Figure 1 describes dependencies and points out the decision of actual use as a result of motivation and capabilities.

This model was refined in Venkatesh's and Davis' work and results in the Technology. The main idea behind the TAM is that two major factors influence the acceptance of technology and behavior towards this specific technology. The Perceived Usefulness (PU) and the 'Perceived Ease of Use' (PEOU) result in the Attitude toward using and lead to the factor of 'Behavioral Intention to Use (BI).

The BI and the dependency on the actual use of a system have already been known from the theories that the TAM is based on.

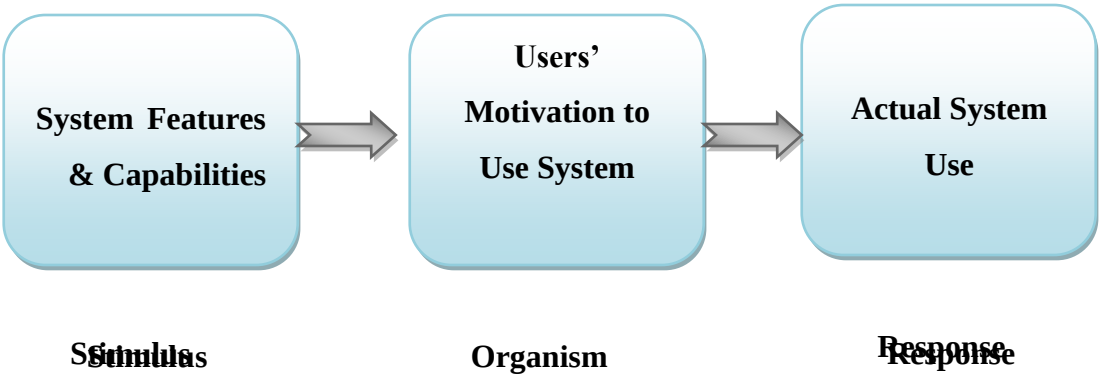

Figure 3.1: Stimulus – organism – response theory (Davis, 1989)

The new concept integrates the usefulness and the ease of use of a specific technology into acceptance dependencies, as to be seen from the diagram in Figure 3.2.

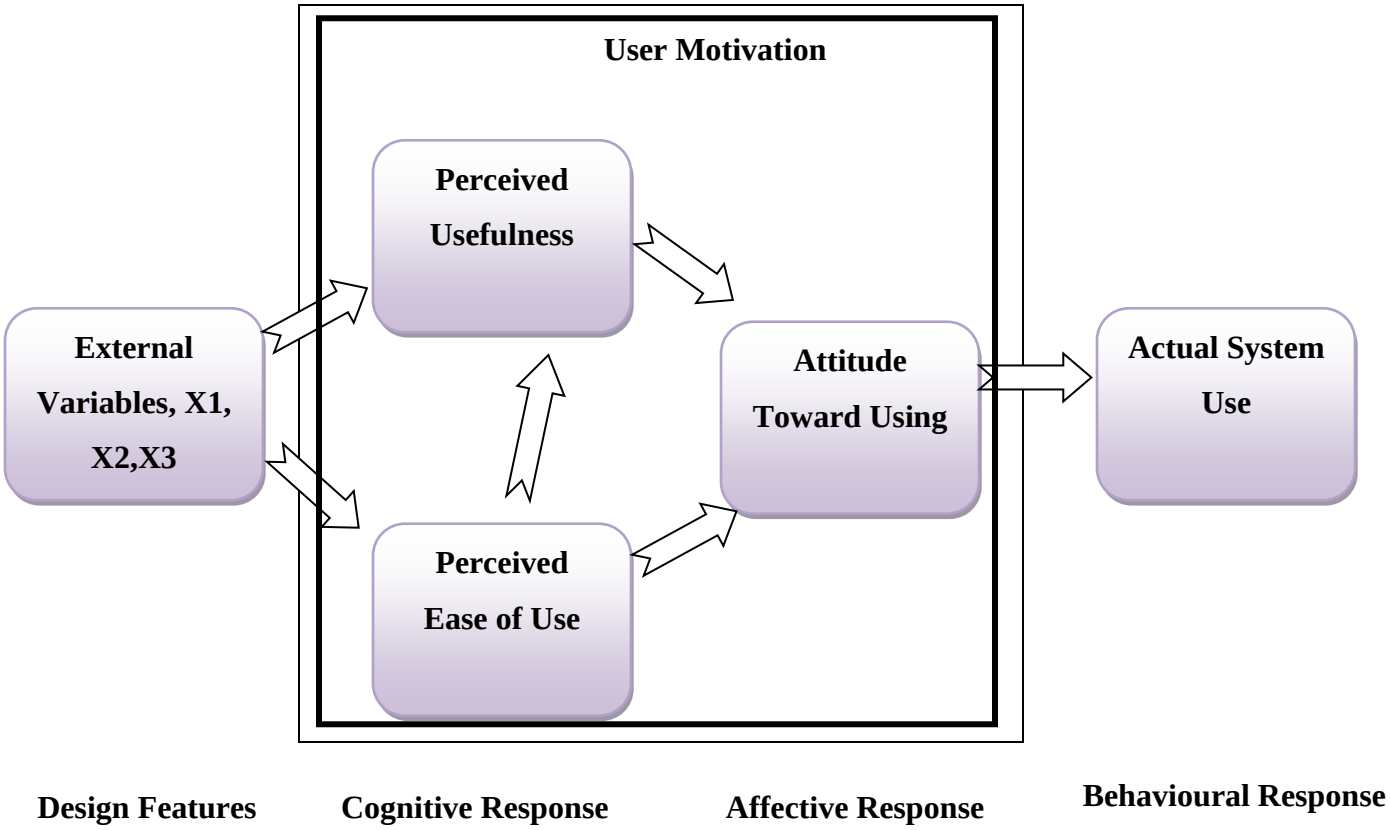

Figure 3.2: Technology Acceptance Model, response elements (Davis, 1989)

In Davis' thesis, the external variables were at the beginning drawn as X1, X2 and X3 (Fred, 1986); later he referred to them only as a set of ''design features''. In this thesis about contactless payment, the factor of design is of special interest, as it gives evidence of the dependency between system design and system use. The link between these two parameters is the behavioral intention influenced by PU and PEOU, as there is no direct dependency. Davis states in his early work about design that since design features fall into the category of external variables (Chen et al., 2011). Davis refined his TAM by adding one more factor between the 'Attitude toward Using' and the 'Actual System Use', as to be seen from the model in Figure 3. This step is the 'Behavioral Intention to Use' (BI), a mixture of Ajzens factors of behavior and intention. This refined model was published in 1989.A major change from the model of 1989 to the one of 1996 is the exclusion of the element of attitude towards using, as this factor proved to

have unexplainable direct influence from a system design perspective. Further, examples of the external variables were given in the new model by Venkatesh and Davis, such as “user training”, “user participation in design” and the “implementation process” (Nyoro et al., 2015).

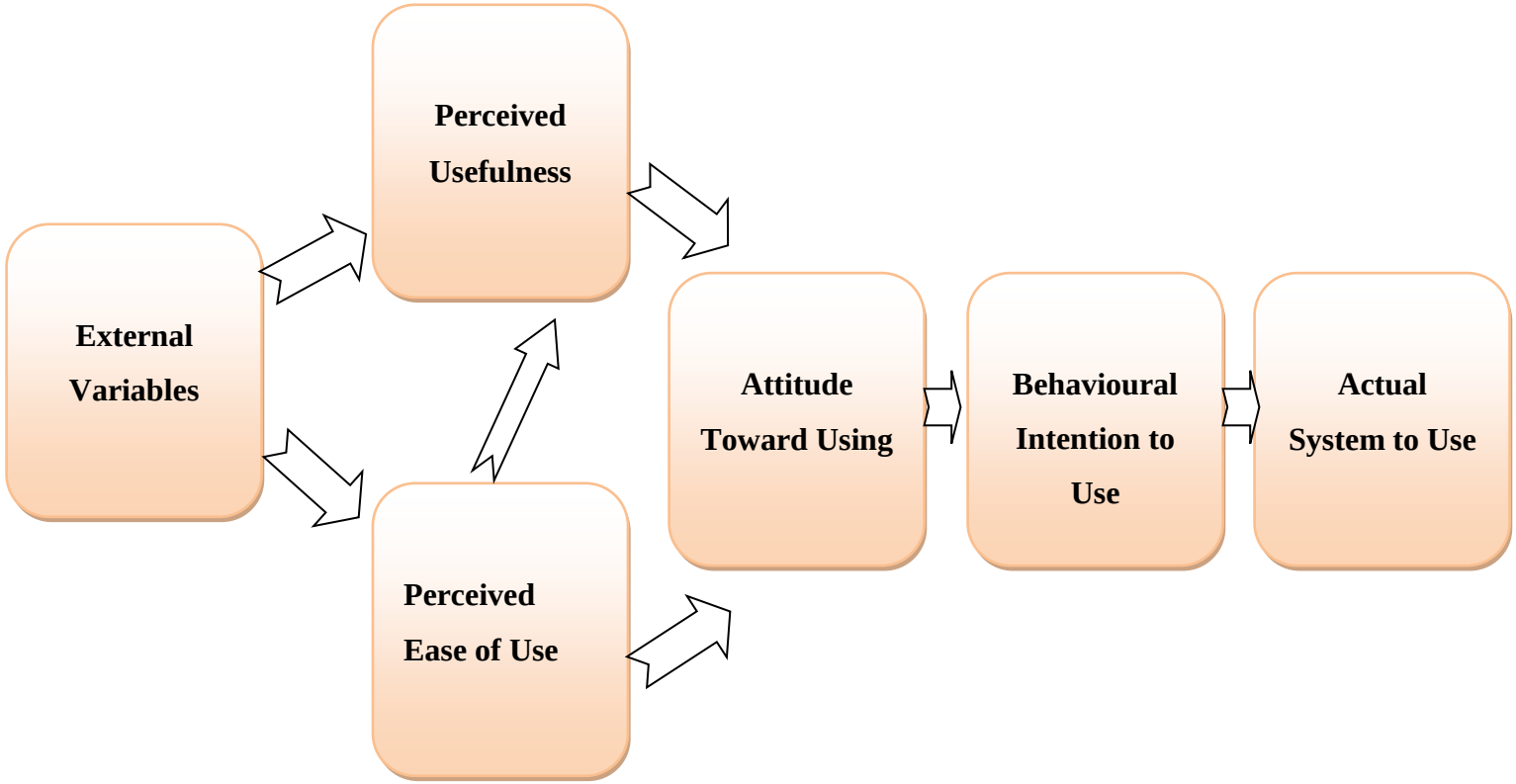

Figure 3.3: Technology Acceptance Model incl. attitude towards using (Davis, 1989)

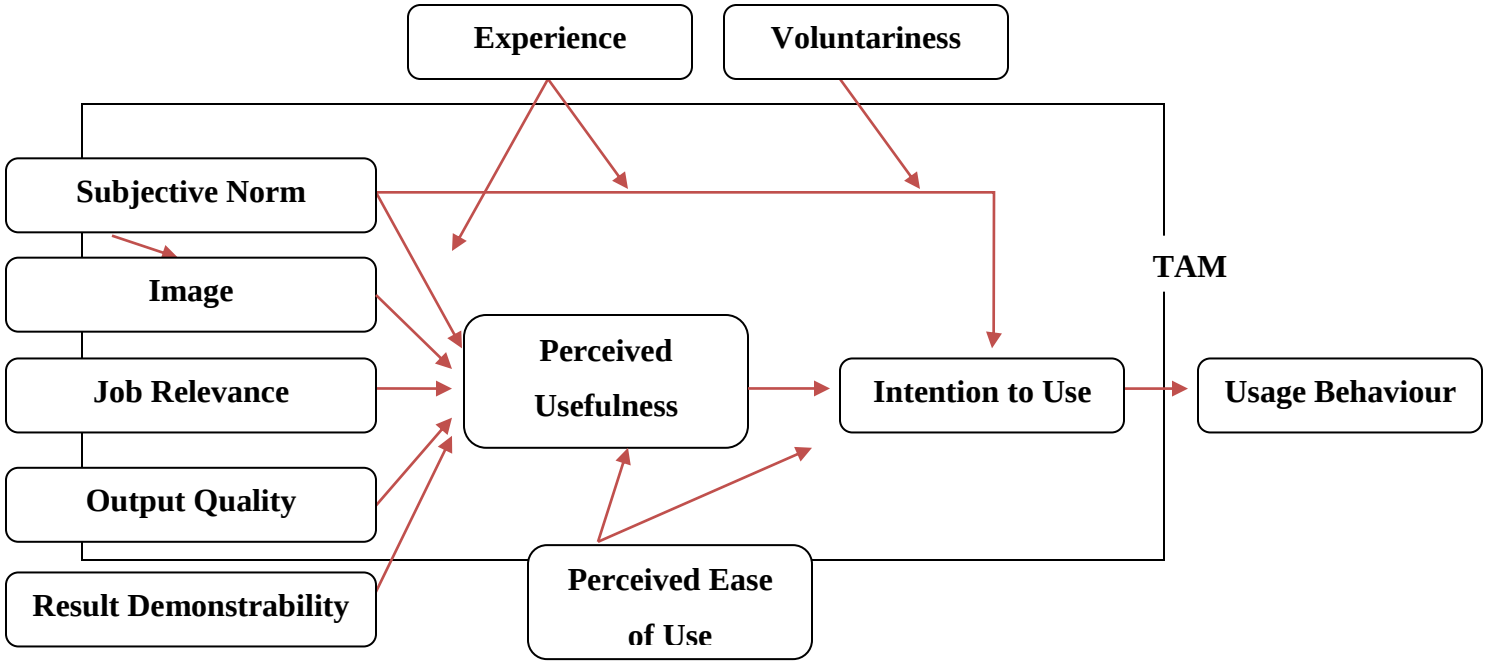

Figure 3.4: Technology Acceptance Model, extended version (Davis, 1989)

An open approach to external variables of the TAM results in a more detailed research to investigate the internals of this factor. A new and more defined model, named TAM II, has been developed (Johnston et al., 2015).

TAM II is an improvement of TAM: more detailed variables were added, the TAM as core model remain, however, untouched at the same time. The TAM II with its normative variables and dependencies is shown in Figure 4 (TAM section is represented in the green frame).

3.2.1Criticism and Limitations of the TAM

According to (Johnston et al., 2015), on the "Theory of Technology Acceptance" developed from the three major categories:

- ***Methodology used for testing:***The data set for analysis is based on a self-reported exploitation instead of using data out of real time environment. Due to subjective measures, this extraction of data includes an unreliable factor in coherence to the data set. In addition to that, the selection of students as main study unit for the TAM focus could have an impact on the results, as students are dependent on their university and face tests. This dependency on the researching individual could influence their answers(Erasmus, et al., 2015).
- ***Variables and relationship within the TAM:***The removal of the factor "attitude" is seen ascritical by a few researchers, such as Yang and Yoo (2004). In their model, two more variableswere added instead,based on an affective and cognitive approach. Further criticism wasannounced by a group of researchers performing a study where the technology in question wasmandatory. The decision to use the specific technology was more a question of quality of thedelivered service than of acceptance or rejection. The results displayed that PEOU may have astronger impact on acceptance than the PU Brown et al. (2002).Burton-Jones et al. (2006)show that PU and PEOU may not cover all factors, they add'experience', 'level of education' and 'age' to the influencing factors.
- ***Theoretical foundation:***Bagozzi (2007) states that the TAM model itself leaves too many gaps.He describes one gap as the time between the intention to use and the actual adoption. The timeframe is a factor of uncertainty and might result in a change of mind. This change could eveninfluence other possible users in their decision for adoption.

All three TAM elements result in a large variety of different models similar to, or even integrating the TAM. There are numerous elements influencing the two core factors for acceptance, ‘Perceived Usefulness’ and ‘Perceived Ease of Use’. Finally, many current studies base on TAM or TAM II, proving that this model is still valid and accepted in research as a basis for further refinement. Numerous presences in research and a large number of studies approve the TAM as appreciated theory in behavioral science (Bagozzi, 2007).

CHPTER FOUR
METHODOLOGY

This chapter introduces the design of the study, duration of the study, sampling size, duration of the study, target population and data collection.

4.1Research Model of the Thesis

Quantitative method used to analyse this study, the researcher designed a questionnaire regarding factors influencing consumer acceptance of implementing electronic governance in northern of Iraq.

The random sampling method from Iraqi citizens been used. The researcher used five different factors. In terms of the first research hypothesis the researcher used PEOU factor as an independent variable and PU as the dependent variable. In terms of second research hypothesis; the researcher used PEOU factor as independent variable and Attitude towards using electronic government (ATT) as dependent variable. In terms of third research hypothesis; the researcher used PEOU factor as independent variable and behavioural intention to use e-government (BI) as dependent variable. In terms of fourth research hypothesis; the researcher used PU factor as independent variable and Attitude towards using electronic government (ATT) as dependent variable. In terms of fifth research hypothesis; the researcher used PU factor as independent variable and behavioural intention to use e-government (BI) as dependent variable and in terms of sixth research hypothesis; the researcher used Attitude towards using electronic government (ATT) factor as independent variable and behavioural intention to use e-government (BI) as dependent variable.

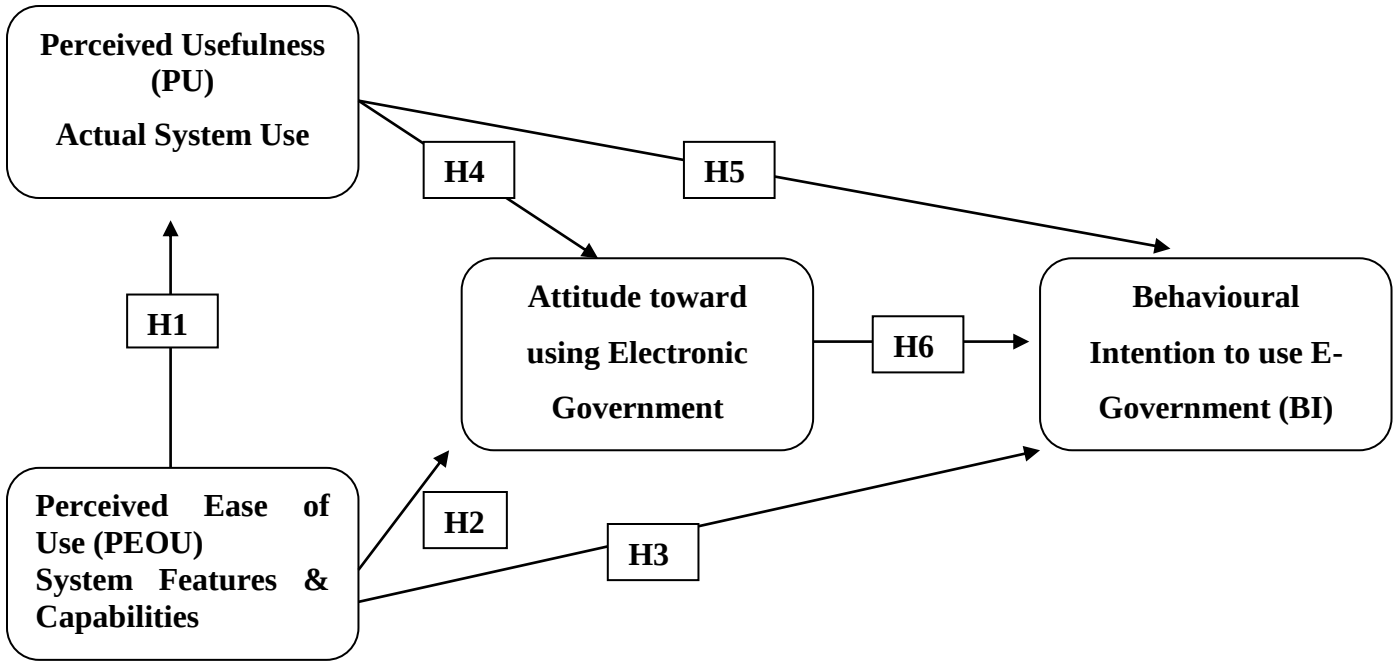

Figure 4.5: Research model

4.2 Research Hypotheses

According to the above research model, the researcher developed the following research hypothesis:

H1: Increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government.

H2: Increases in the perceived ease of use of an electronic government will lead to an increasingly positive attitude toward an electronic government

H3: Increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government.

H4: Increases in the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government.

H5: Increases in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government.

H6: Increases in the positive attitude toward an electronic government will lead to increases behavioural intention to use electronic government.

4.3 Participants

256 respondents involved in completing the questionnaire. Demographic analysis for participants involved in this research can be seen as follows:

4.3.1 Age

As seen in Table 4.2, the percentage and frequency of the age of participants participated in this study. 84 (32.8%) of participants fall into group of 20-29 years old, 102 (39.8%) of participants fall into group of 30-39 years old, 474 (17.2%) of participants fall into group of 40-49 years old, 24 (9.4%) of participants fall into group of 50-59 years old and only 2 (.8%) of participants fall into group of 60 years old and above.

Table 4.2: Age of participants

Items	Frequency	Percent
20-29	84	32.8
30-39	102	39.8
40-49	44	17.2
50-59	24	9.4
60 and above	2	.8
Total	256	100

4.3.2 Gender

Table 4.3 shows the percentage and frequency of participants' gender participated in this study. 168 (65.6%) of participants were male and 88 (34.4%) of participants were female.

Table 4.3: Gender of participants

Items	Frequency	Percent
Male	168	65.6
Female	88	34.4
Total	256	100

4.3.3 Education Level

As seen in Table 4.4 the percentage and frequency of participants' level of education participated in this study. 93 (36.3%) of participants had less than high school, 85 (33.2%) of participants obtained high school, 34 (13.3) of participants obtained undergraduate degree and 44 (17.2%) participants obtained post graduate degree.

Table 4.4: Level of participants' education

Items	Frequency	Percent
Less than High School	93	36.3
High School	85	33.2
Undergraduate	34	13.3
Post Graduate	44	17.2
Total	256	100

4.4 Data Collection Tools

The survey was used to collect data by the form of a questionnaire related to participants' perceptions and opinions regarding to the factors influencing the citizens' acceptance of electronic government in the Northern of Iraq.

The researcher distributed 270 questionnaires by hand, 256 questionnaires were received and being completed properly and 14 questionnaires were missing. A focus method sampling used to analyse this research by focusing on students' perceptions. 256 respondents involved in completing the questionnaire. The questionnaire consisted of two sections: First section consisted of demographic questions. Because each of respondents had different background concerning. The second section of questionnaire consisted of four factors:

4.4.1 Demographic Information

The first section is regarding demographic analysis for each respondents including age, gender, level of education, experience and position.

4.4.2 The Questionnaire

In the study, further of the information gathered from previous studies and searching literature, a questionnaire was conducted to find out the factors influencing the consumers' acceptance of electronic government in the Northern of Iraq. The survey was prepared by the researcher in the form of a questionnaire related to participants' perceptions and opinions regarding to the factors influencing the consumers' acceptance of electronic government in the Northern of Iraq. The questionnaire was validated from pervious researchers and adapted from (Ronnie et al., 2011) and (Davis , 1989).

The questionnaire consisted of four factors and each factor had different questions. The first factor was *perceived usefulness* which consisted of 11 questions, the second factor was *perceived ease of use* which consisted of 8 questions, the third factor was *attitude* towards using electronic government which consisted of 3 questions and the last factor was *behavioural intention to use electronic government* which consisted of 3 questions.

The researcher used five point likert scales ranging from (1) strongly disagree to (5) strongly agree. The researcher used reliability to test in order to find out whether all items used to analyse the current study are reliable or not. In terms of *Perceived Usefulness* factor, the Cronbach's

Alpha = .829 for 11 items, since (.829<.6) therefore 11 questions of perceived usefulness were reliable. In terms of *Perceived Ease of Use* as independent factor, the Cronbach's Alpha = .872 for 8 items, since (.872<.6) therefore 8 questions of perceived ease of use were reliable. In terms of *Behavioural Intention to Use E-Government* factor, the Cronbach's Alpha = .862 for 3 items, since (.862<.6) therefore 3 questions of behavioural intention to use e-government were reliable, and in terms of *Attitudes* towards using e-government factor, the Cronbach's Alpha = .798 for 3 items, since (.798<.6) therefore 3 questions of Attitudes towards using e-government were reliable.

Table 4.5: Reliability statistics

Dimensions	**Cronbach's Alpha**	**Number of items**	**References**
Perceived usefulness (PU)	.829	11	Shroff et al., 2011
Perceived ease of use (PEOU)	.872	8	Shroff et al., 2011 & Davis, 1989
Behavioral intention to use e-government	.862	3	Shroff et al., 2011
Attitudes towards using e-government	.798	3	Shroff et al., 2011 & Davis, 1989
Total	.840	25	

4.5 Implementation

The researcher used primary and secondary data in order to measure citizens' acceptance factor affecting implementation of e-government. In terms of primary data, the researcher referred to quantitative research method by distributing questionnaire, and in terms of secondary data, the researcher used several books, academic articles, and university's library in order to gather information regarding to the factors affecting citizens' acceptance of e-government. The researcher distributed questionnaire randomly in Sulaymaniah city. The researcher distributed questionnaire in five private universities. Also, the researcher distributed the questionnaire to whom has enough knowledge and information regarding of e-government to make sure the validation and reliability of the responses.

The duration of the current study was 44 weeks in total, such us (8 weeks for literature review, 2 weeks for preparation of research proposal, 2 weeks for preparation of data collection tools, 10 weeks for data collection, 4 weeks for data entry, a week for data quality inspections, 4 weeks for data analysis, 9 weeks for writing the thesis and 6 weeks for reading, discussion and correction based on the feedback of supervisor.

A random sampling method used by distributing questionnaires in some private universities' students in Northern Iraq, The researcher distributed 270 questionnaires by hand, 256 questionnaires were received and being completed properly and 14 questionnaires were missing.

4.6 Duration of the Study

The below table is the duration of the current study from the start point till end of thesis:

Table 4.6: Duration of the study

Work done	Duration
Literature Search	8 Weeks
Preparation of research proposal	2 Weeks
Preparation of Data Collection Tools	2 Weeks
Data Collection	10 Weeks
Data Entry	4 Weeks
Data Quality Inspections	1 Week
Data Analysis	4 Weeks
Writing Thesis	9 Weeks
Reading, discussion and correction based on the feedback of supervisor	6 Weeks

CHAPTER FIVE
RESULTS AND DISCUSSION

5.1 Citizens' Opinions

Table 5.7 shows the summary of the descriptive analysis' results; according to descriptive analysis; it was found that the mean of Iraqi citizens' perceived usefulness was (M = 4.02, SD = 1.04) this indicates that Iraqi citizens' believed that implementing electronic governance will had positive impact on their daily life, workplace, effectiveness in learning, willingness to use e-government system, enables cosnumers to accomplish their tasks more quickly and effecively, enables citizens' to accomplish tasks more quickly. The majority of participants were strongly agreed that electronic government system will enhance citizens'' effectiveness in learning. The majority of participants were strongly willing to use e-government system. the majority of participants reported as strongly agree regarding of the usage of electronic government enables cosnumers to accomplish their tasks more quickly and effecively. The majority of participants reported as strongly agree in regard of using electronic government will be useful. The majority of participatns reported as strongly agree regarding of the using e-government System in consumers' job would enable consumer to accomplish tasks more quickly. The majority of participants reported as strongly agree regarding of the consumers' performance improvement through implementing electronic government. The majority of participants reported as strongly agree that increasing productivity through using and implementing electronic government.

Furthermore, it was found that the mean of Iraqi citizens' perceived ease of use of electronic government was (M = 4.01, SD = 0.94) this indicates that Iraqi citizens' believed that implementing electronic governance will be ease to use. The majority of participants reported as strongly agree regarding of the improvement of consumers' effectiveness through using and implementing electronic government. The majority of participants reported as strongly agree regarding of using and implementing electronic government will make consumers' job easier. The majority of participants were strongly agreed regarding of the usefulness of using and implementing electronic government in consumers' job. The majority of participants were strongly agreed regarding of learning to use electronic government system. The majority of participants were strongly agreed regarding of the overall of easiness of using electronic

government system. The majority of participants reported as strongly agree regarding of the the concumers' perceptiong of learning to use electronic systems. The majority of participants reported as strongly agree in regard of the consumers' perception whether they will become skillful in electronic government service usage. The majorities of participants reported as agree and strongly agree in regard of consumers' perception whether it is easy to get electronic government system to do what they want and be flexible. The majority of participants reported as agree and strongly agree in regard of the consumers' interaction with e-government System would be clear and understandable. The majority of participants reported as strongly agree regarding whether the consumers would find electronic government to be flexible to interact with it. The majority of participants reported as strongly agree regarding of whether it would be easy for consumers in order to be able to use electronic system.

Moreover, it was found that the mean of Iraqi citizens' attitudes towards the use of electronic government was (M = 4.12, SD = 0.911) this represents that Iraqi citizens' positive attitudes towards the use of electronic government. It was found that the majority of participants reported as strongly agree in terms of the consumers' opinion regarding of using electronic government service. The majority of participants reported as strongly agree regarding the consumers' interaction with using electronic government whether will be clear. The majority of participants reported as strongly agree regarding consumers have planned to use electronic government in the future in Northern Iraq.

Another, important finding of this study was Iraqi citizens' intention behaviour towards using electronic government, it was found to be a positive behaviour with the (M = 4.38, SD = 0.823) it was found that the majority of participants reported as strongly agree regarding consumers' expectation of using electronic government services to be pursued in the future. The majority of participants reported as strongly agree regarding of the old generation in Northern Iraq is having lack of awareness regarding of the technology usage. The majority of participants reported as strongly agree regarding of the consumers in Northern Iraq is having a favorable attitude toward the using of electronic government system.

Finally it was found the overall Iraqi citizens' opinion towards implementing electronic government seemed to be positive (M = 4.13, SD = 0.928). Generally it was found that the four variables to be positive and will influence significantly and positively on implementing

electronic government. However, the highest value was for Iraqi citizens' intention behaviour towards the use of electronic government.

Table 5.7: Citizens' opinions

Items (N=256)	**Mean**	**SD**
Perceived Usefulness		
I believe it is a good idea to use the e-government system	4.68	.678
Using the e-government service will enhance my effectiveness in learning	4.22	.966
I will be using the e-government service as often as possible	4.35	.933
Using the e-government enabled me to accomplish tasks more quickly	4.28	1.005
I think using e-government service will be useful	4.38	.872
Using e-government system in my job would enable me to accomplish tasks more quickly	4.23	.958
Using e-government system would improve my job performance	3.45	.879
Using e-government system in my job would increase my productivity	3.59	1.354
Using e-government system would enhance my effectiveness on the job	3.71	1.378
Using e-government system would make it easier to do my job	3.83	1.311
I would find e-government system useful in my job	3.51	1.286
Sub-Total	***4.02***	***1.04***
Perceived Ease of Use		
Learning to operate e-government system would be easy for me	3.66	1.191
Overall, I found the e-government system is easy to use	4.22	.876
I think learning to use e-government system will be easy	4.2	.895

I think it will be easy for me to become skilful at using the e-government service	3.95	.952
I would find it easy to get e-government system to do what I want to do	3.81	.935
My interaction with e-government system would be clear and understandable	3.98	.907
I would find e-government system to be flexible to interact with	4.31	.833
It would be easy for me to become skilful at using e-government system	4	.931
Sub-Total	***4.01***	***.94***
Attitudes		
I like idea of using e-government service	4.06	.95
My interaction with the using e-government will be clear	4.02	.952
I plan to use the e-government services in the future	4.28	.833
Sub-Total	***4.12***	***.911***
Behavioural Intention		
I expect my use of the e-government services to continue in the future.	4.41	.791
Older generation have lack of awareness of using computer	4.35	.84
I have generally a favourable attitude toward using the e-government	4.4	.839
Sub-Total	***4.38***	***.823***
Total	**4.13**	**.928**

5.2 Interrelated Factors

Table 5.8, shows the correlation analysis. According to the correlation analysis as it can be seen in the above table, the Pearson correlation between behavioural intention (BI) and perceived ease of use PEOU = .729 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between perceived ease of use and behavioural intention. The Pearson correlation between behavioural intention (BI) and perceived usefulness PU = .673 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between perceived usefulness and behavioural intention. The Pearson correlation between behavioural intention (BI) and attitude towards using e-government ATT = .821 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between attitude towards using e-government and behavioural intention. The Pearson correlation between perceived usefulness (PU) and perceived ease of use PEOU = .622 (Correlation is significant at the 0.01 level, 2-tailed); therefore there is a strong positive correlation between perceived ease of use and perceived usefulness. Therefore, the researcher came to conclude that all factors are positively and significantly correlated.

Table 5.8: Correlation analysis

		BI	**PEOU**	**PU**	**ATTITUDE**
BI	Pearson Correlation	1	.729**	.673**	.821**
	Sig. (2-tailed)		.000	.000	.000
	N	256	256	256	256
PEOU	Pearson Correlation	.729**	1	.662**	.564**
	Sig. (2-tailed)	.000		.000	.000
	N	256	256	256	256
PU	Pearson Correlation	.673**	.662**	1	.412**
	Sig. (2-tailed)	.000	.000		.000
	N	256	256	256	256
ATTITUDE	Pearson Correlation	.821**	.564**	.412**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	256	256	256	256

**. Correlation is significant at the 0.01 level (2-tailed).

5.3 The Effect of the PEOU to the PU

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived ease of use (PEOU). The value of R square = .643, which indicates that 64% of the variables have been explained.

Table 5.9: The relationship between PU and PEOU

Dependent Variable : Perceived Ease of Use						
	B	**Std. Error**	**Beta**	**t**	**P**	**Decision**
(Constant)	.821	.151		5.423	.000	
PEOU	.797	.037	.803	21.465	.000	Supported
Model F	460.765					
R^2	.645					

P<0.05

Table 5.9, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 460.765>0.01 this means there is positive relationship between variables. The value of R^2 = .645 this means that 65% of the variables have been explained, and the value B for perceived ease of use PEOU = .797 (.797>0.01) which indicates that increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government, accordingly the first research hypothesis was supported.

5.4 The Effect of the PEOU to the ATT

The researcher used single regression analysis to investigate the relationship between perceived ease of use (PEOU) and perceived attitude towards using e-government (ATT).

Table 5.10: The relationship between PEOU and ATTITUDE

	Dependent Variable: ATTITUDE					
	B	**Std. Error**	**Beta**	**T**	**P**	**Decision**
(Constant)	.879	.213		4.132	.000	Supported
PEOU	.780	.054	.564	14.364	.000	
Model F	206.313					
R^2	.564					

P<0.05

Table 5.10, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 206.313>0.01 this means there is positive relationship between variables. The value of R^2 = .564 this means that 56% of the variables have been explained, and the value B for perceived ease of use PEOU = .780 (.780>0.01) which indicates that increases in the perceived ease of use of an electronic government will lead to an increasingly positive attitude toward an electronic government, accordingly the second research hypothesis was supported.

5.5 The Effect of the PEOU to the BI

The researcher used single regression analysis to investigate the relationship between perceived ease of use (PEOU) and perceived behavioural intention towards using e-government (BI).

Table 5.11: The relationship between PEOU and BI

	Dependent Variable : BI					
	B	**Std. Error**	**Beta**	**T**	**p**	**Decision**
(Constant)	.728	.140		5.211	.000	Supported
PEOU	.799	.036	.729	22.415	.000	
Model F	502.445					
R^2	.729					

P<0.05

Table 5.11, shows a single regression analysis. As seen the results of single regression analysis, the value of F= 502.44>0.01 this means there is positive relationship between variables. The value of R^2 = .729 this means that 73% of the variables have been explained, and the value B for perceived ease of use PEOU= .799 (.799>0.01) which indicates that increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government, accordingly the third research hypothesis was supported.

5.6 The Effect of the PU to the ATT

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived attitude towards using e-government (ATT).

Table 5.12: The relationship between PU and ATTITUDE

	Dependent Variable :ATTITUDE					
	B	**Std. Error**	**Beta**	**t**	**p**	**Decision**
(Constant)	.471	.174		2.703	.000	Supported
PU	.907	.043	.800	21.236	.000	
Model F	450.963					
R^2	.800[a]					

P<0.05

Table 5.12, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 450.963>0.01 this means there is positive relationship between variables. The value of R^2 = .800 this means that 80% of the variables have been explained, and the value B for perceived usefulness PU= .907 (.907>0.01) which indicates that in the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government; accordingly the fourth research hypothesis was supported.

5.7 The Effect of the PU to the BI

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived behavioural intention towards using e-government (BI).

Table 5.13: The relationship between PU and BI

Dependent Variable :BI

	B	**Std. Error**	**Beta**	**T**	**P**	**Decision**
(Constant)	.766	.148		5.171	.000	
PU	.900	.036	.841	24.771	.000	Supported
Model F	613.620					
R^2	.841					

P<0.05

Table 5.13, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 613.620>0.01 this means there is positive relationship between variables. The value of R^2 = .841 this means that 84% of the variables have been explained, and the value B for perceived usefulness PU = .900 (.900>0.01) which indicates that in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government; accordingly the fifth research hypothesis was supported.

5.8 The Effect of the ATT to the BI

The researcher used single regression analysis to investigate the relationship between perceived attitude towards using e-government (ATT) and perceived behavioural intention towards using e-government (BI).

Table 5.14: The relationship between Attitude and BI

	Dependent Variable : BI					
	B	**Std. Error**	**Beta**	**T**	**p**	**Decision**
(Constant)	1.289	.086		15.059	.000	Supported
ATTITUDE	.651	.022	.821	30.223	.000	
Model F	913.415					
R^2	.821					

P<0.05

Table 5.14, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 913.415>0.01 this means there is positive relationship between variables. The value of R^2= .821 this means that 82% of the variables have been explained, and the value B for perceived attitude towards an electronic government ATT = .651 (.651>0.01) which indicates that in the positive attitude toward an electronic government will lead to increases behavioural intention to use electronic government; accordingly the sixth research hypothesis was supported.

5.9 Discussion

Influencing factors towards the acceptance of implementing electronic government in the customer segment of Northern Iraq could be identified. The impact of the factors could be measured by involving the Technology Acceptance Model of Venkatesh and Davis (1996). The consumer segment of online government system understands the benefits of the new process in its usefulness, and it is ease of use. These consumers should be targeted with online government systems campaigns to increase the level of understanding of the simplicity of the process as PEOU increases the PU additionally. Furthermore, the participation in a social online network is noticeably influencing the perceived usefulness and the understanding of the ease of use of the technology. These citizens need to be addressed via their preferred channels of communication. Followers in social online networks need to be attracted and their potential has to be used to develop a viral effect among other network participants. Incentives and bundles have to be offered to this specific citizens segment, as direct measure to increase the utilization and acceptance within the diffusion stage. Citizens will gain experience and communicate their perceived results via the network channels to other users of the same kind and these trusted sources have a positive impact on other users. The decision towards the acceptance of implementing electronic government in Northern Iraq is dependent on its usefulness and the simplicity in the process, as the survey for this thesis proved. Moreover the question is, if the belief in the institutions or stake holders involved is sufficient enough to use the technology. Technology is 'dumb' and reflects the ethical measures of its designers. Joseph Weizenbaum (1923-2008), one of the pioneers in computation and later one of its greatest critics, developed his own point of view towards the interface of human being – machine. He describes the technological insights of computers out of his experience in working at the development of machines and programs. In 1966, Weizenbaum created the computer software ELIZA, ELIZA simulates a dialog partner and answers in non-directive patterns via a computer chat. Weizenbaum was shocked how much personal information users disclosed to the computer program. More than 40 years after ELIZA was designed, he states: "[Computer] cannot understand, as they cannot establish a semantic connection to the world. Within a computer, everything is abstract, bits or electrons are rushing around but their meaning is unknown to the computer. The computer doesn't care. That is carrying things too far, as a computer cannot even care" (Translated from Weizenbaum and Wendt (2006). Consumers care is the main difference

between an online service and traditional services. The researcher used reliability to test in order to find out whether all items used to analyse the current study are reliable or not, in terms of perceived usefulness factor, the Cronbach's Alpha =.829 for 11 items, since (.829<.6) therefore 11 questions of perceived usefulness were reliable. In terms of Perceived ease of use as independent factor, the Cronbach's Alpha =.872 for 8 items, since (.872<.6) therefore 8 questions of Perceived ease of use were reliable. In terms of behavioural intention to use e-government factor, the Cronbach's Alpha =.862 for 3 items, since (.862<.6) therefore 3 questions of behavioural intention to use e-government were reliable, and in terms of Attitudes towards using e-government factor, the Cronbach's Alpha =.798 for 3 items, since (.798<.6) therefore 3 questions of Attitudes towards using e-government were reliable. As mentioned previously, single regression analysis used to analyse the current study. In terms of the second research hypothesis a single regression used, with PEOU as an independent variable and PU as the dependent variable as seen in the below figure. The researcher analysed each factor separately, in terms of the correlation between perceived ease of use as independent factor and perceived usefulness as dependent factor. As seen in the above table According to the correlation analysis, the Pearson correlation between behavioural intention (BI) and perceived ease of use PEOU= .729 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between perceived ease of use and behavioural intention. The Pearson correlation between behavioural intention (BI) and perceived usefulness PU = .673 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between perceived usefulness and behavioural intention. The Pearson correlation between behavioural intention (BI) and attitude towards using e-government ATT = .821 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between attitude towards using e-government and behavioural intention. The Pearson correlation between perceived usefulness (PU) and perceived ease of use PEOU = .622 (Correlation is significant at the 0.01 level, 2-tailed); therefore there is a strong positive correlation between perceived ease of use and perceived usefulness. Therefore, the researcher came to conclude that all factors are positively and significantly correlated.

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived ease of use (PEOU). The results of single regression analysis, the value of F= 460.765>0.01 this means there is positive relationship between variables. The value

of R^2= .645 this means that 65% of the variables have been explained, and the value B for perceived ease of use PEOU = .797 (.797>0.01) which indicates that increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government, accordingly the first research hypothesis was supported. Previous studies such as (Lee et al. 2003; Silva & Dia, 2007; Park, 2009), supported my result, they found that increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government. The researcher used single regression analysis to investigate the relationship between perceived ease of use (PEOU) and perceived attitude towards using e-government (ATT). The value B for perceived ease of use PEOU = .780 (.780>0.01) which indicates that increases in the perceived ease of use of an electronic government will lead to an increasingly positive attitude toward an electronic government, accordingly the second research hypothesis was supported. Previous studies such as (Abduljalil & Zainuddin, 2015; Chen et al., 2011; Neo, et al. 2015), supported my result, they found that increases in the perceived ease of use of an electronic government will lead to an increasingly positive attitude toward an electronic government.

The researcher used single regression analysis to investigate the relationship between perceived ease of use (PEOU) and perceived behavioural intention towards using e-government (BI).The value B for perceived ease of use PEOU = .799 (.799>0.01) which indicates that increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government, accordingly the third research hypothesis was supported. Previous studies such as (Lim& Ting, 2012; Alharbi & Drew, 2014; Ghazizadehet al., 2012), supported my result, they found that that increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government.

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived attitude towards using e-government (ATT). The value B for perceived usefulness PU= .907 (.907>0.01) which indicates that in the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government; accordingly the fourth research hypothesis was supported. Previous studies such as Nyoro et al., 2015; Sun & Zhang, 2006; Koh et al., 2010), supported my result, they found that the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government.

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived behavioural intention towards using e-government (BI). The value B for perceived ease of use PU= .900 (.900>0.01) which indicates that in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government; accordingly the fifth research hypothesis was supported. Previous studies such as (Halawi & McCarthy, 2008; Sharma & Chandel, 2013), supported my result, they found that the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government.

The researcher used single regression analysis to investigate the relationship between perceived attitude towards using e-government (ATT) and perceived behavioural intention towards using e-government (BI). The value B for perceived attitude towards using e-government ATT = .651 (.651>0.01) which indicates that in the positive attitude toward an electronic government will lead to increases behavioural intention to use electronic government; accordingly the sixth research hypothesis was supported. Previous studies such as (Lee et al., 2003; Chen et al., 2011; Neo et al. 2015; Silva & Dia, 2007; Park, 2009), supported my result, they found that the positive attitude toward an electronic government will lead to increases behavioural intention to use electronic government.

CHAPTER SIX
CONCLUSION AND FUTURE WORKS

6.1 Conclusion

Many developing countries have implemented e-Government applications to deliver services and information to the citizens through the Internet. As the population grows, several developing countries try to facilitate sophisticated web sites by providing many features to perform in better way to help citizens, other governments, businesses, and other web visitors. The researcher came to conclude that most of Iraqis' citizens had positive attitude toward using and implementing electronic government, the finding revealed that an increase in perceptions of ease of use an electronic government should lead to increase in the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government. Also, Iraqis' citizens found that ease to use an electronic government since most of them are currently familiar with ease of technology accordingly the finding revealed that an increase in perceptions of ease of use an electronic government should lead to increase in the perceived in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government, and finally the finding of this study revealed that increases in perceptions of ease of use an electronic government should lead to increase in the perceived in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government. One of the e-government challenges is how to create government capabilities to link it with local citizens. Government leaders should be able to recognize how to tie-together the whole network based on technologies and taking into consideration other businesses as well. Important information barriers might happen due to the lack of managerial knowledge and technological infrastructures. Managers and leaders in government should take into their consideration many aspects such us legal, political, organizational, policy, human capital factors and technological that are important to implement electronic governance. Transformations and electronic government initiatives are the most helpful and essential channel for public organizations and citizens. Implementing electronic government will enhance service to citizens; leads to better performance for both public and private sector organizations facilitate operations and enhancing their performance. It is very

essential to understand and recognize the importance of successfully implementing electronic government project. Although most of electronic government implementation projects fail either partially or totally but some e-government implementation projects are successful.

This thesis is expected to be interesting to the information systems consultants, experts and specialists who provide and study the factors influencing citizens' acceptance of electronic government services. Also, it could be interesting to academics and researchers who research on the factors that influence citizens' in implementing electronic government.

6.2 Future Works

The study focuses on factors influencing consumers' acceptance of implementing electronic governance in Northern Iraq. There was a limitation to the current study that should be highlighted so as to avoid any over generalizations and misinterpretations of the results. Limitation was due to time concerns; the present study was confined to 256 units from Iraqi citizens were selected in Northern Iraq. For future studies it is recommended to have bigger sample size in order to obtain more effective and efficient results. The main limitation of this research is sample size used. However, it is known that small samples are supportive for rich description in quantitative research; in this case it would be exciting to observe how the consequences extend to the broader. However, another limitation of this study was focusing on citizens' with English knowledge and e-government knowledge.

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APPENDIX

QUESTIONNAIRE

Factors Influencing the Citizens Acceptance of Electronic Government

Dear Sir/Madam

I am student of Masters in Computer Information System at the Near East University. I am preparing my research study regarding the Factors influencing the consumer acceptance of electronic government: Case study in Northern Iraq. This survey is only for academic purpose, please fill in the square or circle that stands for your opinion.

Kindly take the time to answer the following questions as honestly and accurately as you can.

Your time and help are highly appreciated it.

Sarmad Sameer (Master student)

DEMOGRAPHIC INFORMATION

Age

18-29 ◯

30-39 ◯

40-49 ◯

50-59 ◯

60 + ◯

Gender

Male ◯

Female ◯

Level of education

Less High School ◯

High School ◯

Undergraduate ◯

Post Graduate ◯

Questions

Please tick (√) one cell for each statement that most closely describes your overall opinion of each item.

1= Strongly Disagree; 2= Disagree; 3= Neutral; 4= Agree; 5= Strongly Agree

Items	**1**	**2**	**3**	**4**	**5**
Perceived usefulness					
I believe it is a good idea to use the e-government system					
Using the e-government service will enhance my effectiveness in learning					
I will be using the e-government service as often as possible					
Using the e-government enabled me to accomplish tasks more quickly					
I think using e-government service will be useful					
Using e-government system in my job would enable me to accomplish tasks more quickly					
Using e-government system would improve my job performance					
Using e-government system in my job would increase my productivity					
Using e-government system would enhance my effectiveness on the job					
Using e-government system would make it easier to do my job					
I would find e-government system useful in my job					
Perceived Ease of Use					
Learning to operate e-government system would be easy for me					
Overall, I found the e-government system is easy to use					
I think learning to use e-government system will be easy					
I think it will be easy for me to become skilful at using the e-government service					

I would find it easy to get e-government system to do what I want to do					
My interaction with e-government system would be clear and understandable					
I would find e-government system to be flexible to interact with					
It would be easy for me to become skilful at using e-government system					
Attitudes					
I like idea of using e-government service					
My interaction with the using e-government will be clear					
I plan to use the e-government services in the future					
Behavioural Intention					
I expect my use of the e-government services to continue in the future.					
Older generation have lack of awareness of using computer					
I have generally a favourable attitude toward using the e-government					