ELECTRONIC GOVERNMENT ADOPTION SUCCESS MODEL FOR BUSINESS SECTOR IN JORDAN

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ABSTRACT

The DeLone & McLean (D&M) Information System (IS) Success model has been the definitive framework to measure (IS) effectiveness. This model has been used in many settings like education and e-commerce, but less frequently in the e-government environment particularly from a business perspective. Therefore, the specific objective of this study aims to explore the constructs that influence business user satisfaction in the e-government by using an extension of (D&M) model, which are information quality (IQ), system quality (SQ), e-service quality (E-SQ), perceived usefulness (PU), perceived ease of use (PEU) and trust on business user satisfaction (BUS). Based on existing literature, a conceptual model was developed. The model and the Information system theories were used to explicate the relationship among the variables in the conceptual model. Furthermore, this study seeks to examine the important and significant factors that influence business organizations to adopt e-government, it also seeks the relationship of business organizations satisfaction level with e-government success variables, and finally to examine the moderating role of trust from a business centric perspective. Using a survey research design, a sample of 299 business managers and staff who have experience with e-government services were drawn through simple random sampling. Combinations of inferential and descriptive statistics were performed assisted by the Statistical Package for Social Science (SPSS) and Partial Least Square (PLS). The outcomes of this study show that, the E-SQ has direct insignificant relationship toward BUS, while it has a significant relationship with PEU and PU. The IQ was found to have a direct significant relationship towards BUS and PU, but it has a direct insignificant relationship with PEU. The SQ was found to have a direct insignificant relationship with PEU and PU, but has a direct significant relationship towards BUS. A significant relationship between PEU and PU towards BUS in e-government was also found, not forgetting that the variable trust was found to have a direct significant relationship towards BUS. The findings also indicate that perceived usefulness has the most significant relationship with business user satisfaction. The outcome of this study shows that the (D&M) IS success model can be applied for measuring e-service technologies in Middle Eastern countries such as Jordan. However, this will require re-strategizing the way e-government service quality is conceptualized and eventually implemented.

Keywords: e-government, system quality, information quality, e-service quality, business user satisfaction.

ABSTRAK

Model Kejayaan Sistem Maklumat (IS) DeLone & McLean (D & M) telah menjadi rangka kerja tetap untuk mengukur keberkesanan (IS).Model ini telah digunakan dalam pelbagai situasi seperti pendidikan dan e-dagang, tetapi kurang kerap dalam persekitaran e-kerajaan terutamanya dari perspektif perniagaan. Oleh itu, objektif khusus kajian ini bertujuan untuk mengkaji konstruk yang mempengaruhi kepuasan pengguna perniagaan di e-kerajaan dengan menggunakan lanjutan (D & M) model, yang merupakan kualiti maklumat (IQ), kualiti sistem (SQ), kualiti e-perkhidmatan (E-SQ), tanggapan kegunaan (PU), tanggapan kemudahan penggunaan (PEU) dan kepercayaan terhadap kepuasan pengguna perniagaan (BUS). Berdasarkan maklumat yang sedia ada, satu model konsep telah dibangunkan.Model dan teori sistemmaklumat digunakan untuk mengutarakan hubungan antara pemboleh ubah dalam model konseptual. Tambahan pula, kajian ini bertujuan untuk mengkaji faktor-faktor penting dan signifikan yang mempengaruhi organisasi perniagaan untuk menerima pakai e-kerajaan, ia juga bertujuan mengkaji hubungan tahap kepuasan organisasi perniagaan dengan pembolehubah kejayaan e-kerajaan, dan akhirnya untuk mengkaji peranan penyederhana amanah daripada perspektif berpusatkan perniagaan. Menggunakan kaedah kajian tinjauan, sebanyak 299 sampel pengurus perniagaan dan kakitangan yang mempunyai pengalaman dengan perkhidmatan e-kerajaan telah dikenalpasti melalui persampelan rawak mudah. Gabungan statistik inferensi dan deskriptif telah dijalankan dengan dibantu oleh *Statistical Package for Social Science* (SPSS) dan *Partial Least Square (PLS)*.Hasil kajian ini menunjukkan bahawa, E-SQ mempunyai hubungan langsung yang tidak penting ke arah BUS, bagaimanapun ia mempunyai hubungan yang signifikan dengan PEU dan PU. IQ didapati mempunyai hubungan langsung yang signifikan ke arah BUS dan PU, tetapi ia mempunyai hubungan langsung yang tidak penting dengan PEU. SQ didapati mempunyai hubungan langsung yang tidak penting dengan PEU dan PU, tetapi mempunyai hubungan langsung yang signifikan lke arah BUS. Hubungan yang signifikan antara PEU dan PU terhadap BUS dalam e-kerajaan juga didapati, tidak ketinggalan pembolehubah amanah didapati mempunyai hubungan langsung yang signifikan ke arah BUS. Dapatan kajian juga menunjukkan bahawa tanggapan kegunaan mempunyai hubungan yang paling signifikan dengan kepuasan pengguna perniagaan. Hasil kajian ini menggambarkan bahawa model kejayaan (D & M) IS sem emangnya boleh diaplikasikankan untuk mengukur teknologi e-perkhidmatan di negara-negara Timur Tengah seperti Jordan. Walau bagaimanapun, ini akan memerlukan penyusunan semula strategi cara kualiti perkhidmatan e-kerajaan dikonsepsikan dan akhirnya dilaksanakan.

Kata kunci: e-kerajaan, kualiti sistem, kualiti maklumat, kualiti e-perkhidmatan, kepuasan pengguna perniagaan.

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CHAPTER ONE
INTRODUCTION

1.1 Introduction

Due to the pace of globalization, the rapid global growth of technology and the information contained on the Internet, many governments around the world have turned their services from traditional services to e-government services. Currently, rather than using traditional services, governments are serving the citizens, business organizations and other stakeholders through the internet. Serving through the internet, governments have taken several initiatives to enhance the effectiveness and efficiency of the services provided through the introduction of e-government (Alanezi, Kamil & Basri, 2010). E-government is the way for governments to use the most innovative ICT services, in some specific web-based Internet applications (Ancarani, 2005).

Information and communication technologies (ICT) have revolutionized the processes, operations and structures of public sectors in both developed and developing countries (Alshibly& Al-Dmour, 2011; Rana *et al.,* 2015). E-government applications in developing countries have not been completed successfully (Heeks, 2003; UN, 2008; Mkude & Wimmer, 2013; UN, 2012). This study thus intends to investigate the success factors of e-government application adoption for business organizations in Jordan. Background of the context of this study will be presented in next section.

1.2 Background of the Study

E-government phenomenon began in the 1990s and refers to the use of information and communication technologies (ICT) to improve the activities of public sector organizations. ICT has revolutionized the way governments, organizations and individuals used to carry out their work. The Internet has become an essential channel in the current information society, which is used for the dissemination of information, services and products. The Internet in the information society today has become an essential channel for disseminating information, products and services.ITU noted in 2010 that 84% of the 161 countries of the International Telecommunication Union (ITU) have already reached the top of the goal of the World Summit on The Information Society (WSIS) ICT strategy in place.

In the late 1990s, governments became increasingly aware of the benefits of the Information and Communication Technology to effectively serve society. Initially, ICT had limited functions and was only implemented by some governments for some reasons. Currently, e-government plays an important role in serving societies and businesses by providing them with different kinds of transactions and services anytime and anywhere using any device that is capable to be connected to the internet (Meftah, Gharleghi, & Samadi, 2015). Due to the important position of the government, ICT and information systems have been implemented for serving the citizens and businesses efficiently and effectively, thus giving rise to the concept of e-government (Meftah *et al.,* 2015). Over time, services through internet have become the primary interface between government

and stakeholders (citizens, business and with other governments), (Karkin & Janssen, 2014).

1.2.1 E-government in Jordan

Jordan is ''one of the rare countries in the Middle East with a history of commitment to good governance and ICT-related initiatives'' (Ciborra & Navarra, 2005: p.142). In recent years, Jordanian government is expending effort to provide e-government services to the public (Alomari, Sandhu, & Woods, 2010). Although e-government program in Jordan is still at the initial stages, Jordan has developed relatively advanced e-government service delivery capabilities in two-way interaction and e-democracy (Chatfield & Alhujran, 2009).

Majdalawi *et al.* (2015) mentioned that, Jordan developed a strategy involving the Government to Business (G2B) category of business sectors in Jordan in order to achieve a powerful business development by focusing on the empowerment of de-regulation and legislative reform, a national economy with flexibility and competitiveness within the global markets, skilled, IT literate, and flexible citizens for the labor market. For example, Ebrahim and Irani (2005) presented an integrated architecture framework for e-government in public sector organizations and studied potential barriers to successful e-government adoption. They examined significant barriers of e-government adoption into five dimensions; IT infrastructure, security and privacy, IT skills, organizational issues, and cost. G2B could be found in Jordan in the clearing house for cheque

clearance between central bank from one side and the other banks in the economy, the submission of tax assessment by any business establishment to the department of Taxation of the government through the Internet (Majdalawi *et al.*, 2015).

In addition, the United Nations e-government readiness reports ranked Jordan as one of the top 5 among the Arab countries (UN, 2003, 2005). According to the UN, (2008), the Jordanian e-government achieved the best improvement in 2008 and 2010. In 2008, Jordan achieved (0.1693) degree in the telecommunication infrastructure index, (0.6054) in the online services index and (0.8677) in the human capital index. The reasons for this improvement are the understanding of the importance of e-government websites and service from the society (Almarabeh & Abu Ali, 2010). However, in 2012, the ranking dropped down 47 positions. It is obvious that the drop in ranking is basically in response to the slowness in introducing e-services to the public (Majdalawi *et al.,* 2015). The lack of financial allocations for e-government services is negatively affecting the progress in this regard. The lack of necessary funds is also affecting the upgrade of infrastructure required for introducing additional e-government services (Almarabeh & Adwan, 2013).

Nonetheless, e-government in Jordan faces the problem of low usage levels of these electronic services (Al-Hujran *et al.,* 2013; Al-Jaghoub, Al-Yaseen, & Al-Hourani, 2010; Mofleh, Wanous, & Strachan, 2008; Alryalat *et al.,* 2013; Rana & Dwivedi, 2015). As of 2010, more than 85% of Jordanians had never used e-government websites and electronic services (Al-Jaghoub *et al.,* 2010).

The Government of Jordan is one of the governments that decided to implement e-government. It has introduced e-government as one of the initiatives for the creation of knowledge based society. Conceived in 2006, the Jordan e-government strategy ensures the commitment of e-government to a customer-centric approach, and considered citizens as one of the main concerns in the performance of their public services (Alomari, 2014). Delivering enhanced and faster public service through e-government became one of the Jordanian government's obligations. However, it has been demonstrated that the lack of citizen-centricity in the implementation of e-government was one of the main challenges of e-government adoption in Jordan (Alomari, 2014).

Therefore, it is necessary to ask whether or not the citizens intend to use e-government services and to accept this new form of interaction with the government. Previous research has shown that the successful adoption of e-government was dependent not only on the support of the government, but also on citizens and their willingness to adopt e-government services (Alomari, 2012; Alomari, 2014).

Thus, it is necessary to obtain and evaluate Jordanian business organizations perceptions about e-government. Business organizations in Jordan have perceived that this change in the ways of doing business has made the prospect of achieving their goals more likely than before, and therefore, to clarify its reply to the government on this new initiative of technology. This is because many researchers have indicated that the collection of information on citizens' needs and values by governments are rare at best (Van, Peters & Ebbers, 2008; Heeks

& Bailur, 2007). One of the most recent studies in this issue by (Jaeger & Bertot, 2010) emphasized, that it is necessary to systematically determine the actual government information and service needs for citizens.

E-government has been considered as one approach for changing the face of government in the eyes of the citizenry. Therefore, citizens' socialization in relation to their engagement with e-government should be explored. This study is an attempt to re-specify and extend the determinants of the DeLone and McLean 1992 (D&M 1992) model of IS success based on the business-centric perspective in the special context of e-government systems. The study has highlighted that the government in Jordan should be sensitive to the dynamics of social and cultural life in Jordan in formulating the response needed from business perspectives when introducing e-government services as a new channel of interaction with government (Alomari *et al.*, 2014).

Providing citizens with services quickly and accurately, and achieving effectiveness in government work is the purpose of constructing e-government. Citizen-centric e-government is an emerging approach in the case of designing and implementing the e-government systems with a specific focus on the effectiveness. Based on this perspective, the citizens' needs and values on e-government have to be put first to make these systems effective (Jafari *et al.*, 2011).

A number of studies have discussed the citizens' need for trust in e-government and its effect on the adoption, usage, success and satisfaction of these systems (Welch, Hinnant & Moon, 2004; Carter & Belanger, 2005; Kumar *et al.,* 2007; Rana *et al.,* 2015; Zaidi, Siva, & Marir, 2014). The main conclusion is that trust in the internet, website design, internet and computer skill confidence, perceived usefulness, relative advantage, and complexity are the main factors related to the e-government adoption in a community.

Public sector has an important focus on e-governments. National and local governments around the world have the opportunity to benefit from the effectiveness of information and communication technology through the access to information and the provision of public services, which are to be improved electronically. In addition, national and local governments have recognized the importance of the Internet and the fundamental changes that are needed to be used to provide public services, so that people can access regardless of location (Karim, 2003). People prefer most of their operations and use their services to get or request information through the Internet and see it as a tool in various fields such as business, marketing, procurement, learning and travel (Alawneh, Al-Refai, & Batiha, 2013), while e-government was described as a way for governments to use the most innovative ICT services, in some specific web-based Internet applications (Ancarani, 2005).

These applications are able to provide citizens and businesses easier entrance and access to government information and services, and improve service quality and offer more opportunities for democratic institutions and processes. Carter and

Belanger (2005) stated that the use of ICT improves efficiency and access to all government services through all actors in Government to Business, Government to Government, Government to Enterprise and Government to Customer services. It is suggested by the literature that many initiatives of the e-government have not been completed successfully, especially in the developing countries. Nearly 60% to 80% of e-government projects fail or do not reach their objectives (Heeks, 2003; UN, 2008; Mkude & Wimmer, 2013; UN, 2012; Rabaai, 2015).

Abdalla (2012) stated that some suggest that the gap between the context and the (economic, political or technical) goals and values could easily lead to failure; accordingly, there is a lack of a framework based on the context to better adopt the best developed e-government solution and identify the challenges and factors that influence the adoption process, as part of the context of key developing countries.

The context for this research is Jordan. In the late 1990s, the information technology association of Jordan (INT@J) was formed. It played a crucial role in developing a series of national strategies (REACH VERSIONS 1.0, 2.0, 3.0 etc.), and the last national strategy was developed by the sector (IntaJ, 2014). It was the first institution to start gathering meaningful sector specific data. Since the establishment of Ministry of Information and Communication Technology (MoICT) in 2003, the ministry became more involved and enhanced cooperation within the ICT sector by getting all relevant players involved and by leading the

collective development of sector policies (Al-Soud, Al-Yaseen, & Al-Jaghoub, 2014).

Jordan is an example of the overall improvement of a nation heading towards developing a strong Information and Communication Technology (ICT) in order to become a state of knowledge and the regional center of Information Technology (IT), and e-government is an important element of this strategy.

Alawneh *et al.* (2013), conducted a study in the area of e-government adoption in Jordan, and two recommendations were made for future researchers; first, researchers should focus on using more variables that they had used in their study; second, the sample size should be increased and ensure the respondents constitute a balanced demographic. These recommendations were designed to facilitate a full explanation of the factors that influence Jordanian citizens to adopt e-government services and to ensure the satisfaction of the provided services.

According to the previous literature, it was found that there is a lack of knowledge to understand the factors that can affect the citizens to adopt and use the e-government services. Based on the most recent studies carried out by Alomari *et al.* (2014) and Alawneh *et al.* (2013) and the recommendations that arose from these studies, future study should be carried out in the area of e-government adoption in Jordan.

1.3 Problem Statement

In developing countries, poor management and limited availability of resources led 50 percent of e-government projects to partially fail, 35 percent to completely fail and only 15 percent of e-government projects to be successful (Heeks, 2008; Mkude & Wimmer, 2013; UN, 2012; Rabaai, 2015). It is evident from the fact that a large number of the e-government projects failure cases belong to developing countries and there is a need to give a great deal of attention to these countries to make e-government projects successful (Rehman, Esichaikul, & Kamal, 2012).

The adoption of information and communications technology (ICT) and related practices in the commercial sectors, such as e-commerce, and the diffusion of the internet among the general population have resulted in a rising level of comfort and adoption familiarity with the technologies in many contexts (e.g. communicating with people, electronic marketing, and academic activities). This has increased the expectations of citizens that public sector organizations will provide electronic government services similar to those in the commercial sector with the same effectiveness and efficiency.

E-government has seen much potential to change the way that governments interact with their citizens (Parent, Vandebeek, & Gemino, 2005; Welch, Hinnant, & Moon, 2004). Previous studies on e-government have primarily employed theoretical models of technology adoption and diffusion to understand citizens' adoption and use of e-government services (Belanger & Carter, 2012).

For example, a number of technology adoption models including the technology acceptance model (TAM), the theory of planned behavior (TPB), the diffusion of innovation model (DOI), and the unified theory of acceptance and use of technology (UTAUT) (see Venkatesh *et al.,* 2003 for a review of these models; see also Chan *et al.,* 2011) have been used to examine factors affecting citizens' adoption and use of a variety of e-government services, such as government websites (Barnes and Vidgen, 2004; 2007), electronic tax filing (Carter and Belanger, 2005), electronic voting systems (Yao and Murphy, 2007), and general electronic public services (Gilbert *et al.,* 2004).

Although these models have provided a theoretical basis to examine citizens' adoption and use of e-government services, previous research has noted that findings concerning the general factors in these models (e.g., perceived usefulness, perceived ease of use) cannot provide specific guidance to direct design and practice (Hess *et al.,* 2014; Venkatesh, 2000; Venkatesh & Bala, 2008). Moreover, most of the research tends to focus on citizens as users (Cohen, 2006), or users of e-government projects within government (Verdegem & Verleye, 2009).

Abu-Shanab (2017) claimed, in an attempt to re-engineer the concept of open government, that e-government activities are essential for the solid establishment of accountability and good governance. E-government revolves around four major dimensions: improving public service provided for citizens and businesses, improving public sector's performance, supporting political activities like democracy and participation, and including all categories of society through

digital divide and social inclusion activities. E-government can contribute to solving administrative problems in developing countries whose public administration is characterized by inefficiency, limited capacity, and poorly-trained personnel (Schuppan, 2009; Al-Mamari *et al.,* 2013).

As indicated in the available literature, a study on the adoption of e-government within the Arab nations is still uncommon in comparison to those done in the context of Western and Far Eastern countries (Zawaideh, 2016). In fact, studies on e-government in the Arab nations are still too few in comparison to those done in the Western and Far East counterparts, and theories on acceptance are also new to these nations (Zawaideh, 2016).

Also, studies that look into the factors that impacting citizen's adoption of e-government services in the emerging nations, particularly the Arab domain, are still lacking. Most researches on e-government have focused on developed countries. Of those that are focused on e-government in developing countries, a few have highlighted several issues that need to be faced (Wagner *et al.,* 2003; Bose, 2004).

Jordan is one such developing country. Al-Shboul *et al.* (2014) declared in their research that key factors and challenges that affect e-government services adoption in Jordan can be roughly categorized under four headings; political factors, social factors, organizational factors, and technological factors (Weerakkody *et al.,* 2011; Bonham *et al.,* 2001). The organizational factors, as a successful implementation of e-government should involve restructuring the

existing organizational model, roles, responsibilities, training, and employee's needs, thus lack of employee training will be a considerable challenge (Ebrahim & Irani, 2005).

Al-Refaie and Ramadna, (2017), investigated five types of barriers, including technology, organization, strategy, policy, and end-user barriers, to examine the effects on the e-government adoption in Jordan from business perspective, which means government to business services (G2B). It was found that, the technology barriers were the main obstacle to successful e-government adoption in all organizations. Moreover, the effects of the other four barriers varied among organizations.

Multiple regression results indicated that e-government adoption is a function offinancial, technical, and human resources (Al-Refaie & Ramadna, 2017). Elsheikh and Cullen (2008) examined the challenges encountered in e-government implementation by analyzing Jordan's published e-government vision and strategy. They found that Jordan is still lagging behind in utilizing ICTs for delivering e-government services (Elsheikh & Cullen, 2008; Al-Refaie & Ramadna, 2017).Without an understanding of why citizens (G2C) or businesses (G2B) would use electronic service delivery channels over more traditional service delivery methods, government organizations cannot take the necessary strategic actions to meet their citizen adoption targets for these channels and reduce costs (Gilbert *et al.,* 2004).

Several studies have been conducted based on citizen perspectives in Jordan (Abdalla, 2012; Alomari, Sandhu & Woods, 2009; Alawneh *et al.,* 2013;

Alomari, 2014). However, there is very little research in Jordan specifically, and in other developed and developing countries, that examines what businesses use in terms of e-government and the issues and constraints that they face (Reddick & Roy, 2013). Hence, further research is needed in Jordan from the perspective of a business firm (Kanaan & Hassan, 2016).

This is especially important for any government because businesses in most economies are the main drivers of economic innovation and new job growth. Therefore, improving business satisfaction with public service delivery is very important for economic development (Ubaldi, 2011). E-government can be used as a tool to promote economic development, since it will enable businesses to have more transactions effectively achieved with governments (Badri & Alshare, 2008). Therefore, significant research attentions required to identify the barriers to e-government adoption from a business perspective (Al-Refaie & Ramadna, 2017).

Alawneh *et al.* (2013) declared that in order to increase citizen satisfaction, the Jordanian e-government authorities need to develop e-government portals with good accessibility capabilities, awareness aspects, and service quality measures; this will influence usage behavior, satisfaction evaluation and their positive feelings towards adopting the e-government portals. Komba and Ngulube (2014) asserted that in order for e-government adoption to succeed, a high level of satisfaction has to be provided for users through the online services that are provided by the government.

Alomari *et al.* (2014) mentioned that participants from their previous study declared that the "lack of IT infrastructure" could lead the Jordanian citizens to face lack of trust in the existing security systems that are used by their government, therefore doubting their ability to secure their personal information. These findings are similar and in line with previous studies that show that trust in the internet in terms of security and privacy is a significant predictor of e-government adoption in developed and developing countries (Carter & Belanger, 2005; Chang *et al.,* 2005; Gilbert *et al.,* 2004; Phang *et al.,* 2005; Kumar *et al.,* 2007; Shareef *et al.,* 2011; Alomari *et al.,* 2014).

E-government faces several issues in developing countries.In the context of this study, Jordan faces the problem of low usage levels of these electronic services (Al-Hujran *et al.,* 2013; Al-Hujran *et al.,* 2015; Al-Jaghoub, Al-Yaseen, & Al-Hourani, 2010; Mofleh, Wanous, & Strachan, 2008; Rana & Dwivedi, 2015). There, are very few studies that examine what businesses in Jordan use in terms of e-government and the issues and constraints that they face. In addition, as cases of the failure of e-government projects mostly occur in developing countries, such as Jordan, there is a need to give a great deal of attention to this problem in order to make the e-government projects successful (Kanaan, Hassan & Shahzad, 2016). Several studies have been conducted in Jordan from a citizens perspective (G2C), but very few from businesses perspective (G2B) (Kanaan & Hassan, 2016). In general, there is a lack of studies that focus on the use of e-government information and services from a business perspective (Lee, Kim, & Ahn, 2011; Tung & Rieck, 2005).

Based on the empirical MIS research studies from 1981-1987 carried out by Mason Culnan, (1987) plus the research work in communication by Shannon and Weaver (1949) and the information "influence theory", the IS success model has been proposed by DeLone and McLean (1992) that incorporates several individual dimensions of success. Later, DeLone and McLean (2003) updated their information system success model, which can be adapted to the measurement challenges of the new world of e-commerce.

Reviewing previous studies on IS success models, Molla and Licker (2001) suggested a successful model for e-commerce based on the successful model of DeLone and McLean. In their paper, they proposed a partial extension and re-specification of the successful model of DeLone and McLean to an e-commerce system. Hu (2002) developed a model for success in the context of telemedicine system success based on the IS successful model of DeLone and McLean.

Jennex and Olfman (2004) presented a successful model of knowledge management system (KMS) based on the successful model of DeLone and McLean (2003). This model is viewed as a successful improvement in organizational effectiveness based on the use and impact of KMS. Xiaowei*et al.* (2005) tried to establish a systematic framework of e-government project success relying on the IS success model presented by DeLone and Mclean in 1992. Relying on the IS success model, Wang *et al.* (2007) developed a measure of success of e-learning systems in the organizational context, to evaluate the success of telemedicine systems in clinical practice and organization. A recent

study by Ding *et al.* (2011) developed an e-self quality scale relying on the IS success model of DeLone and McLean in the context of e-commerce.

Based on the above discussion, it can be concluded that there is a lack of studies in general on e-government adoption factors among business organizations, specifically in Jordan. Previous studies did not propose specific model on e-government adoption success among business organizations, and while most of the studies applied the IS success model in different areas of study and several contexts, few studies have applied this model in the e-government context. Thus, this study intends to fill the gap from the practical and theoretical perspective.

1.4 Research Questions

Since there is a need to identify and examine the factors that lead to e-government adoption and success in the Jordanian Ministry of Information and Communication Technology, and the lack of academic research on e-government success from a business centric approach in Jordan, the following research questions are proposed:

1. What are the important factors that influence business organizations to adopt e-government in Jordan?
2. What are the significant e-government success factors that determine business organizations' satisfaction towards e-government adoption in Jordan?
3. What is the relationship of business organizations' satisfaction level with e-government success factors variables?

4. What is the moderating role of trust for the e-government adoption model in the business centric perspective in Jordan?

1.5 Research Objectives

The main objective of the research is to develop an e-government adoption success model based on a business centric perspective in Jordan. In order to accomplish the previous research questions and achieve this main objective the following sub objectives have been formulated:

1. To identify success factors that affect e-government adoption by the business organizations in Jordan.
2. To measure the significanceofthe e-government success factors that determines business organizations' satisfaction in Jordan.
3. To examine the relationship between e-government success factors and business organizations' satisfaction.
4. To determine the moderating role of trust for the e-government adoption model in the business centric perspective in Jordan.

1.6 Significance and Expected Contribution of the Study

Electronic governments extend public services beyond the walls of the government institutions to anytime anywhere applied service. Therefore, the outcome of this research provides understanding of the strengths and benefits, specifically to the Jordanian government and business organizations. This study is initiated recognizing a need for research into this area of e-government

adoption in Jordan. Moreover, this study contributes to the IS success model by extending success factors in Jordanian context.

1.6.1 Significance to Theory

This study attempted to build upon the updated IS success model of DeLone and McLean (1992) as has been applied in the arena of e-commerce. This research evaluated the applicability of the model in the context of e-government and business organization. The study extended the present theoretical model by incorporating new independent variables that may exist in its application specific context (e-government) and examine and establish new relationships that may emerge as theoretical contribution.

1.6.2 Significance to Practice

The main purpose of the study is proposing a success factors model in e-government service that leads the Jordanian business organizations to adopt the e-government services. The results would help authorities and business organizations to understand the key issues that influence business need and satisfaction with the presented services and they can use these criteria to judge their services delivery process to achieve the goal of making the business organizations' adopt the e-government technology.

At present, the smooth movement of information all over the world has become the basic aspect of our new e-life. Furthermore, electronic governments extend public services beyond the walls of the government institutions to anytime

anywhere applied service; therefore, the outcome of this research will provide understanding of the strengths and benefits, specifically to the Jordanian government and business organizations for quality of e-government services in Jordanian electronic government that affects the adoption of e-government services. This study is initiated recognizing a need for research into this area. E-government portals provide the Jordanian business organizations the ability to access its services despite location and time, and satisfy their needs by allowing them to achieve their goals. In addition e-government allows flexibility in delivering institution services.

The ability to apply such tools in the field of e-government would assist in the development and maturity of business-centric view of future e-government efforts. Understanding the determinants of e-government service quality provides valuable results to both vendors (governments) and customers (businesses). E-government vendors can benefit from this research by focusing on the factors that affect how users perceive public services and their behavioral intention to use the service in future specifically and the system generally.

Business users can benefit from this research in the selection of the e-government vendors who can provide as much e-government service quality as possible. This study proposed new determinants of e-government success based on the business centric perspective. Proposed model in this study needs to be validated through future empirical works in business user populations and e-government contexts.

1.7 Scope of the Study

This quantitative study is centered along the general analysis of current challenges of government development regarding business organizations participation in Jordan. The present status of business organizations' participation in e-government services are not fully adopted and in many cases, are in the development stage. It is necessary for the Government of Jordan and all concerned departments to become involved with serious consideration towards this dilemma of this era.

This study proposed an e-government success model for G2B perspective. Thus, this study focused in the G2B services provided in Jordan. Business organizations which are using the G2B services in Jordan were the target sample of this study. Scope of this study is within the domain of IS success model proposed by DeLone and McLean (1992). In addition, Theory of Planned Behavior (TPB) by Ajzen, (1991), and Technology Acceptance Model (TAM) by Davis *et al.* (1989) and Venkatesh *et al.*(2003), and E-Commerce Success Model by Molla and Licker (2001) have been reviewed in the process of designing the research framework of this study. Therefore, this quantitative study investigated the e-government success factors in Jordan by collecting data from the business organizations that are using e-government system.

1.8 Definition of Key Terms

The following are the definition of key terms used in the context of this research:

a) System Quality: System quality can be defined as the quality of a system's overall performance and measures the desired characteristics of a system (Vance, Elie-Dit-Cosaque & Straub, 2008).

b) Information Quality: Information Quality indicates how personalized, complete, relevant, secure and easily accessible the web content is for the user, so that the user or customer could be induced eventually to initiate a transaction and become a return customer.

c) E-service Quality: E-service quality usually refers to user's perception of the service provided through particular web site. E-government service quality can be defined as the extent to which services delivered via an e-government website assist citizens in completing their governmental transactions (Tan, Benbasat & Cenfetelli, 2010).

d) Perceived Ease of Use: Ease of use is defined as how easy the website is for users to interact with (Papadomichelaki & Mentzas, 2012). Perceived Ease of Use is defined as the degree to which a person believes that using a particular system would be free of effort (Davis, 1989).

e) Perceived Usefulness: Perceived Usefulness can be defined as the degree to which a person believes that using a particular system would improve task

performance (Davis, 1989; Zhu, Lee, O'Neal & Chen, 2009; Liaw& Huang, 2013).

f) Trust: Trust is a social connection by individuals to surmount the complexity and uncertainty in interacting with another party (Dashti, Benbasat, & Jones, 2010). Trust consists of privacy and security and is defined as the users' confidence towards the website concerning freedom from risk of danger or doubt during the e-service process (Papadomichelaki & Mentzas, 2012).

g) Business User Satisfaction: Satisfaction is related to citizens' feedback about the service, such as the convenience of the service, and the reliability of the information provided by the government and user satisfaction is considered a significant factor in measuring success (DeLone & McLean, 1992; 2004; Seddon & Kiew, 1996; Seddon, 1997; Rai *et al.,* 2002; Crowston *et al.,* 2003; Doll, Xia & Torkzadeh, 1994; McKinney *et al.,* 2002).

1.9 Structure of the Thesis

In Chapter one, the researcher discusses some background information about electronic government service in general, and service quality and business user satisfaction in Jordan specifically. This is followed by the problem statement, research questions, and research objectives. The scope of study, significant of the research, and expected contribution are also presented.

Chapter two represents an overview of literature and models that are related to the research problem presented in the previous chapter. In this chapter, we will

introduce e-government service in Jordan, the current situation of e-government and the initiatives taken by the government to make the system successful and reach the users need, plus the development stages of e-government, the theoretical perspective of IS and e-commerce success, success variables, and an e-government success evaluation.

Chapter three provides the justification for using the D&M IS success model, plus the re-specification and extension of the same model. The research questions from chapter one, the hypothesis development and the conceptual framework shall be provided with the original definition and the operational definition as identified in the research model. It also presents the steps related to the research methodology followed in the current research. Discussion began with the research flow, research framework, research design, explaining the descriptive nature of the research, and then it further discusses the research approach available, which is quantitative. Later, it proceeds with selection of the appropriate research method for this study. This is followed by the research strategy selection, sampling, data collection, data analysis and reliability, and the validity issues that affect the present investigation.

Chapter four presents the result of the analysis. Demographic information, factor analysis and the hypotheses tests results are presented. Results were presented according to meeting the objectives.

The fifth and final chapter represents the discussion of the result. Discussions were made based on the hypotheses result. Consequently, in this chapter research

contribution, limitations and recommendations are presented. Finally conclusion was drawn.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter will provide an in depth review of literature and models that are related to the research problem to achieve the objectives of this study. Research on success factors of e-government in Jordan is still at an infancy stage. Existing literature on e-government have been reviewed from different point of views such as technology, non-technology, customer centric, and government centric and business centric to conceptualize the study variables. This chapter presents ICT in Jordan, the new strategy of e-government in Jordan, issues and challenges of IT in Jordanian government and a detailed discussion of the development stages of e-government, the theoretical perspective of the current research and e-government success, success variables, and an e-government success evaluation in Jordan. Next section will begin with the ICT context in Jordan.

2.2 Information and Communication Technology in Jordan

The context for this research is the business institutions in Jordan. ICT is evolving fast in Jordan and offering the government to deliver multiple delivery services with different characteristics among e-government services, the Jordanian government has invested heavily in e-government initiatives for the last 10 years to transform from traditional service delivery to more effective and efficient service to deliver high-quality customer-centric and performance driven services to e-government stakeholders, however the global rank of e-government

readiness as well as regional rank of Jordan is still in low rank according to the global countries but it is still quite according to the Arab countries (Majdalawi *et al.,* 2015).At that time, the ministry of Post and Communications (MOPC), which changed later to MOICT, was in charge of these initiatives, and it had to establish new departments and staff, just for the purpose of IT issues including organizational restructuring and legal reform. However, the transformation process of the ministry needed highly skilled IT human resources, in addition to high technology resources.

A revolution in ICT has changed the way of interaction between government and their citizens. These changes have turned into a new form of government called e-government. E-government is defined as "the use of ICT and internet to enhance the access to and delivery of all facets of government services and operations for the benefit of its stakeholder groups which includes citizens, businesses, and government itself" (Srivastava & Teo, 2009; 2010; Rehman, Esichaikul& Kamal, 2012).

The Jordanian government has been taking notice of (ICT) since the year 2000. ICT is seen as a powerful tool to improve the quality and efficiency of the services provided to citizens. E-government has only recently emerged in Jordan and other developing countries, so many issues remain problematic. Identifying the precise problem is important in order to overcome the inherent challenges, for the e-government project in Jordan.Jordan is a developing country in the Middle East, which has a population of about 7,750,000 and limited natural resources. It

is one of the leading countries regarding national information technology infrastructure available for Internet services.

The e-Government project in Jordan is distinguished from other Arabian experiments as it is integrated at the national level over the entire kingdom which takes responsibility to form a national team working for the e-Government project so they could offer it in the rest of the government's institutions (Alawneh *et al.*, 2013).

As found in Internet Live Stats (ILS, 2017), Jordan has a total population of 7,747,800 and a total of 3,536,871 internet users. Internet users' increased by 3.2% in the year 2016, and 45.7% of Jordanians have access to the internet. Jordanians account for 0.1% of the world's total internet users. This is shown in Figure 2.1.

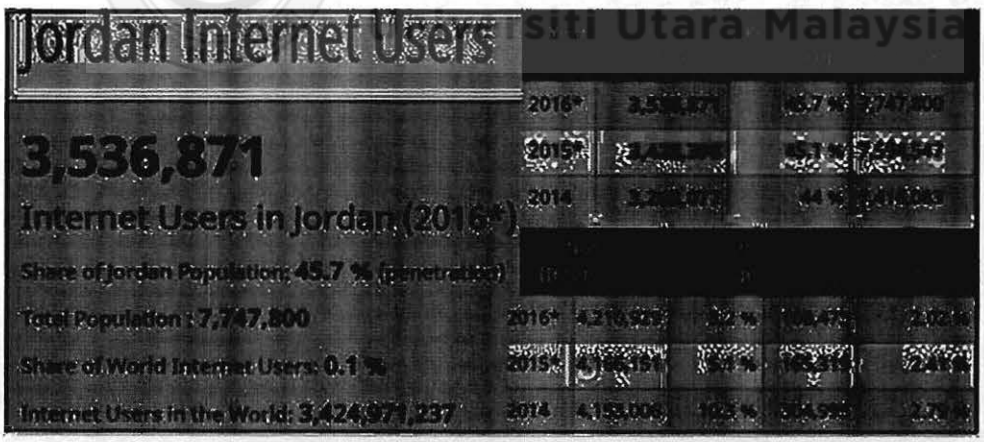

Figure 2.1
Jordan Rank for internet users
Source: ILS (2017)

2.2.1 New Strategy of E-government in Jordan covering the years (2014, 2015, 2016)

The Jordanian Ministry of Information and Communications Technology presented a new strategy of e-government in Jordan covering the years 2014-2016. For more details kindly refer to appendix A.

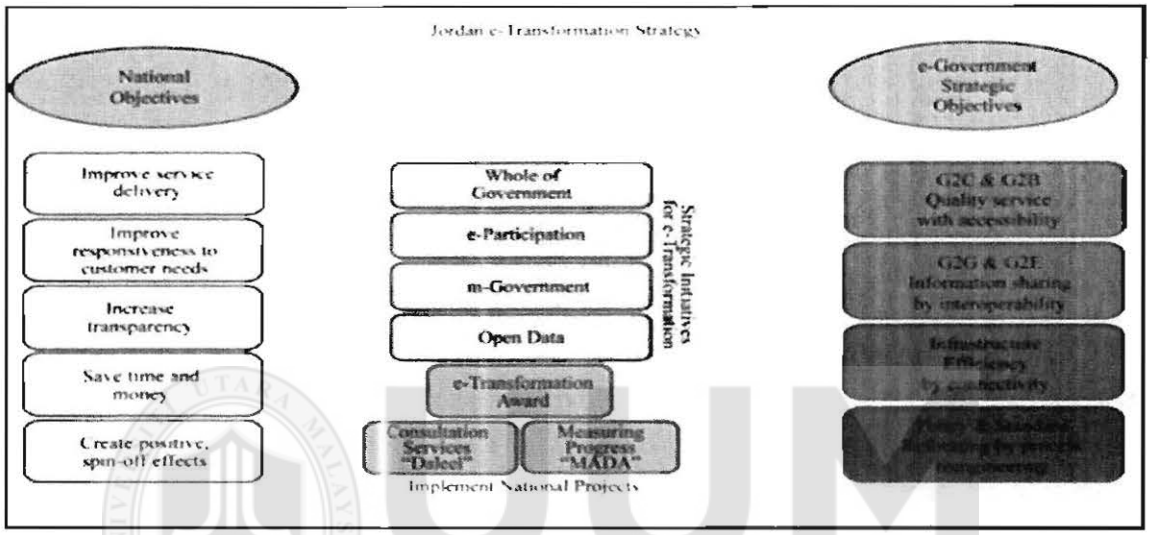

Figure 2.2
Jordan e-transformation strategy
Source: Majdalawi *et al.* (2015)

Since the establishment of Ministry of Information and Communication Technology(MoICT) in 2003, the ministry has become more involved and enhanced cooperation within the ICT sector by getting all relevant players involved and by leading the collective development of sector policies (Al-Soud *et al.*, 2014). Jordan is an example of the overall improvement of a nation heading towards developing a strong Information and Communication Technology (ICT) in order to become the regional center of Information Technology (IT), and e-government is an important element of this strategy.

2.3 Issues and Challenges of IT in Jordanian Government

With growing number of internet users, researchers stated that e-government in Jordan faces the problem of low usage levels of these electronic services (Al-Hujran *et al.,* 2013; Al-Jaghoub, *et al.,* 2010; Mofleh, Wanous, & Strachan, 2008; Rana & Dwivedi, 2015). As of 2010, more than 85% of Jordanians had never used e-government websites and electronic services (Al-Jaghoub *et al.,* 2010; Almahamid *et al.,* 2010; Abu-Doush *et al.,* 2013).

Jordan hopes to reap the benefits of e-Government by becoming more productive, accountable, and transparent. However, the lack of qualified staff and inadequate human resource training has been a problem for years in developing countries including Jordan. Jordan is facing the challenge of implementing e-Government initiatives successfully; this is due to number of factors: bureaucracy, lack of accountability and transparency, and lack of citizen participation in democratic institutions and processes (Al-Shboul, Rababah, Ghnemat & Al-Saqqa, 2014; Elsheikh, Cullen & Hobbs, 2008). However, study findings indicate Jordan is still far behind other countries in terms of utilizing ICTs in delivering government information and services online. However, this does not necessarily mean that the Jordanian e-Government program is condemned to failure.

2.4 E-Government

According to Huai (2011) e-government is the online resources of government information and services through the internet or other digital media to its people. Electronic government (e-government) refers to the use of information and communication technology (ICT) tools and applications to enhance government transparency and accountability in public administration by improving public services delivery, access to information and services and public governance (Chatfield & Alhujran, 2009; Panagiotopoulos, Al-Debei, Fitzgerald, & Elliman, 2012).

According to Santos *et al.* (2013), the function of e-government is to restructure the organization of public services, adopting mechanisms that promote communication among different entities and simplifying processes. The characteristics of good public governance include improved transparency and accountability. The promise of greater government transparency and accountability is often the reason for developing countries to take part in e-government service (Chatfield & Alanazi, 2013; 2015; Chen, Jubilado, Capistrano, & Yen, 2015).

These activities include the implementation of government activities, including the delivery of services, access to processes and government information, and citizens and organizations and government involvement (Linders, 2012). "Electronic Government" refers to the use by government agencies of information technologies (such as Wide Area Network (WAN), Internet and

mobile computing) that has the ability to transform relations with citizens, businesses and other branches of the government (Meftah *et al.*, 2015).

It can be concluded that the activities of e-government refer to all activities that are digitally led by the government or leads to the government. E-government can also be referred to as the use of information technology, including the Internet for performance and accountability of government activities. In this study, e-government is the combination of all activities of e-government to support business organizations in Jordan that are digitally led by the government.

2.4.1 Trends in E-government Initiatives

Governments all over the world are taking more innovative approaches in order to do business with citizens (Fang, 2002). According to Pardo (2000), e-government initiatives include citizens' access to government information, purchase and payment, citizens' access to personal benefits, citizen participation (voting, etc.) and others.

One of the initiatives of e-government is citizens' access to government information. This type of initiative requires the establishment of a mechanism, such as a government website. Such initiatives are beneficial for citizens and government by reducing distribution costs for the government, and to provide anytime accesses to information and materials timely updated for citizens. DeBenedictis *et al.* (2002) stated that to create a citizen-centered government, most e-government initiatives, internet technologies and web applications such as scholarships, online licenses, online voting and financial aid forums with elected

officials, should be available and presented for citizens. According to Cook*et al.* (2002), four distinct perspectives can view e-government: e-management, e-commerce, e-democracy and e-services. For this study, e-government will be viewed from the e-services perspective.

2.4.2 Types of Government E-Services

According to Wang *et al.* (2005), e-government services such as websites can be defined as "the services and information that are presented through government web sites to the public" (p.2). The main reasons for the development of government e-services are reducing the service delivery costs, improving customer satisfaction and developing strong relationships with customers and business partners. For government services to be delivered, the main strategy is to design a friendly-customer website to also increase the collaboration between government agencies for sharing information about the customer (Guo & Raban, 2002).To provide 24 hours a day government information and services, many governments are working to update and improve the services provided by the government, and by that they are opening up many possibilities for citizens. Therefore, one of the main benefits provided to the citizens is that they can access services and government information from anywhere. This result requires organizing the services based on the citizens' needs. Some of the services that users want to be done online include renewing driver's licenses, voting through the internet and ordering copies of documents (Mohammed*et al.,* 2012).

The main emphasis of e-government is not the implementation of new ICT systems to automate the traditional public service processes or add a new online service delivery channel, but rather it aims at improving transparency, accountability and governance of the public sector services and in so doing it can improve government performance and create new public value for citizens and businesses (Chatfield & Al-Hujran, 2007; Panagiotopoulos *et al.,* 2012; Wang & Wang, 2014). Emphasis of this study is on the e-government services provided to the business organizations (G2B) as well as business organizations to government (B2G) in Jordan.

2.4.3 Stakeholders of the E-government

The e-government stakeholders can be divided into two categories: the external and internal parties (Rao, 2011). The exterior consists of citizens (G2C) and businesses (G2B), while the interior consists of employees (G2E) and Government (G2G) (Rao, 2011). Next, each of these categories objective should be identified so that there will be no overlapping among the objectives of the stakeholders. Figure 2.3 clarifies the objectives required by every stakeholder in the government.

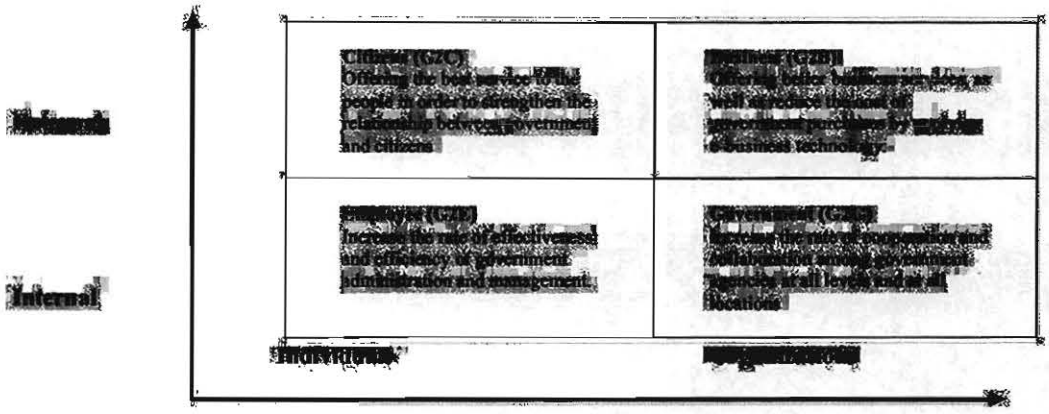

Figure 2.3
Stakeholder's objectives of e-government application
*Source:*Rao (2011)

Referring to the objectives of each of the stakeholders, it is found that each party has its own unique objectives as to meet their needs and goals (Danila & Abdullah, 2014). According to Alshibly and Chiong (2015), there are three types of e-government service and applications; Government to Government (G2G), Government to Citizen (G2C), and Government to Business (G2B). According to Danila and Abdullah (2014) each party has their own way to evaluate the level of acceptance, the level of usage, the level of providing the information and the level of maturity of the e-government application. In short, by knowing the level of acceptance, the level of usage, the level of providing the information and level of maturity, the actual success of e-government as a whole can be identified. In the e-Government context, according to the activities and the type of relationships, Al-Jaghoub *et al.* (2010) consider the following: Government-to-Citizens or Government-to-Clients, Government-to- Business/Companies, Government-to-Employees, Government-to- Government and Citizen-to-Citizen. Zaidi and Qteishat (2012), on the other hand, define only three: Government-to-Citizen, Government to Business/Companies and Government-to-Government.

For business users of e-government, there is very little research that focuses on their use of e-government information and services (Lee, Kim, & Ahn, 2011; Reddik & Roy, 2013; Tung & Rieck, 2005). Most of the research tends to focus on citizens as users (Cohen, 2006), and/or users of e-government projects within government (Verdegem & Verleye, 2009). There is very little research that examines what businesses use in terms of e-government and the issues and constraints that they face. This study thus uses the factors that affect the success of e-government application and services from business perspective in Jordan.

2.5 Adoption of Technology to Deliver Public Services

Advances in technology and Internet communications are the basis for the growth of e-business applications and e-commerce. Development in the commercial sector must also maintain the pressure on the public sector so it could stay tuned to the updates. Government agencies should consider the management process to facilitate interaction with citizens on the Web. This is achieved through the development of e-government applications, the range from simple static websites which offer information from one side, and at the other side to automate transactional applications and perform management processes and the ability to interact with citizens (D'agostino *et al.,* 2011).

The success of adopting a new technology is compatible with the governments to implement that technology and deliver it as an efficient public service to the citizen. Consequently, many e-government initiatives have been used to align

services to citizens and to build better access to public services for the citizens (Harrison *et al.*, 2012).

Through the use of e-government applications, the business users can always get the benefit of better public services in a practical way, which is better than services provided face-to-face. Anywhere, at any time, business organizations can access government information and services. In addition, from the government's point of view, as more citizens (business) use these facilities and tools, the more management cost and operation can be reduced (Wang *et al.*, 2005).

2.5.1 A Change in Focus Needed

According to Papadomichelaki and Mentzas (2012), the current focus of e-government is on using information technology and lead to try and get a greater efficiency and better quality of public service. This is attempted by the use of ICT-based methods that provide better services and distribution networks that are often available with e-features.There are many social and economic phenomena that are underway that will have an influence in the coming years, such as increasing religious and cultural diversity, an ageing population and changes in lifestyle and consumption. Therefore, the provision of public services may also face diverse challenges. At the same time, technology will play an even more pervasive role in the lives of citizens to change their expectations of the role of e-government services. We therefore need to get the paradigm of thinking in terms

of how governments are trying to find new ways to expand to provide these services (Norris & Reddick, 2013).

As Centeno, Bavel and Burgelman (2005) stated that to cope with such challenges, future shaping of e-government must address the provision of better public administration as well as to bring a more efficient and transparent participative governance. It was further stated that, such challenges can be solved by the future design of e-government, which is the provision of better public administration, leading to cope with a more efficient and transparent participatory leadership. Centeno *et al.* (2005) identified four issues in this regard:

a) Managing knowledge in governance and democratic processes
b) Examining the needs of citizens and businesses
c) Incorporating the growing number of intermediaries in both the delivery of service and democratic processes, and
d) Networking, coordination, and collaboration

Centeno *et al.* (2005) emphasized that consideration of the needs of citizens and businesses have been neglected and argue that governments better meet public demand. However, failure to meet such demands is a major weakness in the e-government program, in part because of the voluntary nature of participation of citizens.

Centeno *et al.* (2005) identified four factors that can lead to increasing citizens' interest and usage of government e-services which are:

a) The quality and usability of the service.
b) The service's ability to address the true needs of citizens.
c) Availability of help in using the service.
d) The value received by citizens in terms of time saving and flexibility.

The poor level of interest of Jordanian people towards e-government services is because the above stated facts by Centeno *et al.* (2005) were not considered; the quality and usability of the services, addressing the true needs by business organizations, supporting the users if they any need help and flexibility to save time and gain value.

2.6 Success Factors of E-government

As it is difficult to measure the systems' success in a direct way, many scholars and researchers used indirect measurements such as satisfaction (Seddon & Yip, 1992). Delone and Mclean (1992) have identified different levels appropriate to measurements of success. Six system criteria were identified for the measurement of the success of a system, which are information use, system quality, information quality, individual impact, organizational impact and user satisfaction. Next section will discuss satisfaction as an e-government success factor.

2.6.1 Satisfaction as E-government Success

There has been an increase in the number of e-government studies that discuss satisfaction that users have with e-government (Alshibly & Chiong, 2015; Carter &Belanger, 2005; Cohen, 2006; Morgeson, Vanamburg & Mithas, 2010; Teo, Srivastava, & Jiang, 2008). The focus of these studies is on the level of user (business) satisfaction with e-government. Satisfaction with e-government can be defined as the ability of citizens to get the information they desire and have a service experience that solves their problems. Essentially, when citizens are satisfied they are able to accomplish their task at hand. This is important to know because satisfaction with e-government is said to drive its use (Cohen, 2006).

An often suggested surrogate indicator of information systems (IS) success is user satisfaction. Many IS researchers have regarded user satisfaction as the most important proxy of IS success, and it is also the most employed measure (Gefen, 2002; Petter *et al.*, 2013; Zviran & Erlich 2003; Zviran, Pliskin & Levin, 2005). Cyert and March (1963) were among the first to suggest the concept of user satisfaction as a surrogate of IS success. They suggested that if an IS meets the requirements and needs of its users, then user satisfaction would increase. Since then, IS user satisfaction has been the subject of extensive research, reaching its peak in the late 1980s. According to Ives *et al.* (1983), user satisfaction is a perceptual or subjective measure of system success that provides a meaningful surrogate for criticism, but immeasurable results of an IS include, changes in organizational effectiveness and success.

Zviran and Erlich (2003) suggested that measuring user satisfaction provides businesses with information about the system itself, because IS users could be considered as sensors that measure the attributes of their IS. An IS will be considered effective in meeting user needs if the users are satisfied. In an e-commerce environment, user-satisfaction is an essential criterion for gaining customer loyalty (Kim *et al.,* 2012). Thus, it is considered a significant variable in measuring customer judgment, either positive or negative (Delone & Mclean, 2003). As a result, satisfaction in e-commerce includes the entire user experience journey, starting from searching for information through to purchasing and payment (DeLone & McLean, 2003).

User satisfaction is the most common measure of determination to succeed, and researchers have developed and tested several standardized instruments to evaluate satisfaction (DeLone & McLean, 1992, 2004; Seddon & Kiew, 1996; Seddon, 1997; Rai *et al.,* 2002; Crowston *et al.,* 2006; Doll & Torkzadeh, 1988; Bailey & Pearson, 1983; Baroudi & Orlikowski, 1988).

Although several authors have defined satisfaction, there is no single generally accepted definition (Giese & Cote, 2000). According to Oliver (2014), satisfaction is the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided a pleasurable level of consumption-related fulfillment, including levels of under or over fulfillment. DeLone and McLean (1992) define satisfaction as the recipient response to the use of the results of an information system. User satisfaction refers to the extent to which an individual in the total consumption of the system under evaluation

was satisfied (Hu, 2002).Hunt (1977) defines satisfaction as an evaluation of an emotion. Satisfaction was referred as an overall post purchase evaluation (Fornell, 1992). Consumer satisfaction/dissatisfaction (CS/D) is defined as the consumer response to the evaluation of the perceived difference between prior expectations (or standard performance) and the actual performance of the product after its perceived consumption (Tse & Wilton, 1988).

The researcher must define the concept according to the context when there are multiple definitions that exist for the construct. In addition, he/she should also define the measurement criteria for the construct relying on the chosen definition. In this study, satisfaction was considered as a citizen's evaluative judgment after the overall use of a service. Three items have been chosen from Oliver (2014) to measure satisfaction; the items signify success attribution and need fulfillment. The three items were used as an evaluative set of satisfaction in services industries by (Cronin *et al.*, 2000).

It was mentioned earlier that different tools have been developed to measure user satisfaction. In the IS research area, Bailey and Pearson (1983) developed 39 items to measure computer user satisfaction, and they mentioned that user satisfaction is correlated to system success and information system utilization. Timeliness, accuracy, relevancy, reliability and confidence in the system are the most important factors that were determined in their study. This is one of the developed scales to measure user' satisfaction.

Doll and Torkzadeh (1988) have developed 12 items and five components to measure end user computing satisfaction. For measuring the customer satisfaction with a particular website, they also developed five components: accuracy, content, ease of use, format and timeliness, which were measured with 12 items. In e-commerce success and information system success, different researchers developed antecedents of satisfaction, such as service quality, information quality, system quality, trust, perceived usefulness and perceived ease of use (DeLone & McLean, 1992, 2004; Molla & Licker, 2001; Seddon & Kiew, 1996; Seddon, 1997; McKinney *et al.,* 2002).

In their study, Luarn and Lin (2003) focused on the development of an overall measure of customer satisfaction with e-services. Therefore, they conceptualized customer satisfaction by assessing emotional reactions or feelings of customers based on their experiences with the various aspects of electronic services.

Cronin *et al.* (2000) studied the effect of satisfaction on behavioral intentions in the service industries. They used two types of measures to assess satisfaction. A package is "emotion based" as some researchers has defined satisfaction as an evaluation of an emotion. Another set of measures is an "evaluative" number of satisfaction measures, as some researchers define satisfaction as the extent to which the use of the service creates positive feelings

As mentioned earlier, there is very little research that examines business and e-government use (Lee *et al.*, 2011). This study examines the overall level of satisfaction that businesses have with e-government, both in terms of website

use, system quality and with regard to the ability to get information and services online. Existing research shows that it is not only important to understand what governments provide online, but also how satisfied individuals and groups are with e-government (Cohen, 2006). Greater satisfaction will lead to more use of e-government and increase its future development in Jordan.

2.6.2 Information Quality and System Quality as a Success Measure

Both system quality and information quality are significant determinants of user satisfaction (DeLone & McLean, 1992; 2003; 2004; Iivari, 2005; Doll & Torkzadeh, 1994; McGill *et al.,* 2003; Bharatia & Chaudhury, 2004). According to the IS success model, system quality is concerned with the measurement of the actual system that produces the output (McLean & DeLone, 1992). "System Quality" in the Internet environment measures the desired characteristics of an e-commerce system (DeLone & McLean, 2003, 2004).

According to McKinney, Yoon and Zahedi (2002), site information and system quality are the main aspects for Web client satisfaction. They define the quality of the system in terms of website success as a perception of the performance of a website to deliver and receive information. Web customers' perception of the quality of information presented on a Web site is defined as Web information quality. The system's output is measured by the information quality (DeLone & McLean, 2004). Seddon (1997) re-stated DeLone and McLean IS success model, and explained that system quality and information quality have an impact on user satisfaction and perceived usefulness.

Information and system quality are important for the adoption of an e-government web site. Several factors have been explored by them related to information quality and system quality that influence the adoption of e-government Web sites. In this case, the functionality, reliability, ease of use and efficiency were considered system quality characteristics and it was observed that efficiency is the most important factor in a government website.

Precision, completeness, accuracy, timeliness and relevancy, as information quality criteria in government web sites were identified in their study. Furthermore, they found the precision and timeliness have less importance compared with other information quality criteria (Wang *et al.,* 2005). System quality and information quality are strong antecedents of satisfaction in the area of web-based decision support systems (Bharatia & Chaudhury, 2004).

Seddon and Kiew (1996) have partially tested the DeLone and McLean's IS success model in the context of a university's Departmental Accounting System and its success factors were identified. They found that the relationship between the information quality and the system quality are factors for determining the level of satisfaction. Accuracy, timeliness, relevancy and information format are concerned with information quality. The consistency of the user interface, ease of use, the response rate in interactive systems, whether there was "bugs" in the system or not, documentation and quality and maintainability of the program code are all components of system quality.

In recent study, Qutaishat (2012) studied website quality (system quality in this study) and its effect on intention to use government service in Jordan. Qutaishat (2012) measured Website Quality from the System quality, Information quality, and service quality perspectives.

2.6.3 E-Service Quality as a Success Measure

The quality of service is of great interest to practitioners and researchers in recent years. Quality of service is determined by the difference between the expectations of services, the provider of customer service, and evaluation of services received (Parasuraman *et al.,* 1985; 1988). The definitions of service quality that this result achieved stemmed from the comparison between customer expectations on service and their perceptions of how the service has been delivered and performed (Caruana 2002; Grönroos, 1984; Parasuraman *et al.,* 1985; 1988). Along with the information quality and system quality, service quality is considered an important measure of success (Kettinger *et al.,* 1995; Pitt, Watson & Kavan, 1995; 1997; Watson *et al.,* 1998; Wilkin & Hewitt, 1999).

Quality of electronic services has been studied less in the public sector (Buckley, 2003). Saha *et al.,* (2010) highlighted the latest research in the field of e-government is focused on standards-based scenarios; in other words, the ideal scenario for service delivery. However, they note that the realities that are implemented as solutions are often different from an ideal situation; they state and explain that the rules do not provide us with sufficient understanding of the problems with certain services and functions, as they are implemented in

municipal Web sites. Based on the variables identified by Parasuraman *et al.,* (1988), empathy, responsiveness, tangibility, confidence and reliability, Bigne *et al.,* (2003) used the scale to determine the perceived quality of the basic services provided by hospitals and universities.

The SERVQUAL scales cannot be used and applied as such to e- services, but dimensions that closely resemble them can be constructed (Parasuraman *et al.,* 1991). However, other dimensions are necessary to get the full construct of e-service quality (Zeithaml *et al.,* 2002). Kaynama and Black (2000) and Zeithaml *et al.,* (2000) recently completed a series of e-quality dimensions. In a first attempt to adapt the dimensions of SERVQUAL to electronic services, Kaynama and Black (2000) subjectively rated online services of 23 travel agencies and 7 dimensions of SERVQUAL derivatives: responsiveness, content and purpose (derivative reliability), accessibility, navigation, design and layout (all from tangible assets), background (assurance) and personalization and adaptation (empathy derivative).

Li *et al.* (2002) developed a conceptual framework for measuring the quality of service on the Web SERVQUAL model. The study was conducted from the perspective of international clients and the survey was chosen for the data collection. The results of their study show that it is necessary to change SERVQUAL to fit better in the context of web-based service. "The quality of electronic services is the extent to which a website facilitates efficient and effective shopping, purchasing and delivery of products and services" (Parasuraman *et al.,* 2002).

Zeithaml *et al.* (2000) developed e-SERVQUAL to measure the quality of electronic services. Seven dimensions of e-service quality were identified by focusing on group interviews, contact, responsiveness, fulfillment, efficiency, reliability, privacy and compensation. To form the core e-SERVQUAL scale that is used for the measurement of customer perceptions of service quality delivered by online users, four dimensions were identified: privacy, reliability, efficiency and fulfillment. Efficiency refers to "the ability of customers to reach the website for their desired product and associated information, and check it out with a minimum of effort". Fulfillment incorporates accuracy of service promises, to have the product in stock and deliver the product on time as promised. Reliability is related to the technical operation of the site, in particular in so far as it is available and functioning properly. The dimension of privacy includes the guarantee that no data related to the shopping behavior will be shared, and credit card information is well secured (Zeithaml *et al.*, 2002).

They also found that three dimensions become outstanding for online customers only when they have questions or encounter any problems; compensation, specifically, responsiveness and contact. Responsiveness measures the ability of e-trailers to provide adequate information to customers in case of problems, mechanisms for managing returns and provide online warranties.

Compensation is the dimension that is related to returning shipping and receiving money back plus handling costs. Dimensions of contact of the recovery e-SERVQUAL scale point of the need for customers to be able to talk to a customer directly online or by phone. This makes the need for a multi-channel

capability on the part of e-retailers (Zeithaml *et al.,* 2002). Parasuraman *et al.* (2005) developed a scale of core messaging service quality (ES-QUAL) for examination of the quality of service site. 22 scales were developed in four dimensions to measure the quality of service Web pages. These four dimensions are efficiency, fulfillment, system availability and data protection.

Connolly and Bannister (2008) examined the dimensions of service quality of a Web site as part of filing tax returns in Ireland. They have rated these criteria by evaluating the Irish citizens who have used this service. To determine the specific dimensions of online service quality in the context of tax filling as an e-service, ES-QUAL was used as proposed from (Parasuraman *et al.,* 2005).

Their study indicates the applicability of the SERVQUAL survey instrument in the context of government e-services, and it improved the understanding of the e-government service environment.

VanRiel *et al.* (2001) suggest that the five dimensions of service quality by Parasuraman *et al.* (1988) can be used in e-commerce by replacing tangibility instead of the user interface, as it applies to a certain extent; it describes how the service is presented to customers. Responsiveness may be related to the speed rate of the reaction of the company to customers, reliability is related to timely delivery of the products, specific and correct links and information. Assurance could be the security of transactions and policy for the use of personal data by the online company to be interpreted, while empathy may be related to the degree of

adaptation of communication for personal customers. A customer's choice to use a particular Web site depends on their particular behavior.

Customers evaluate their experiences based on the service process dimension, outcome of the service, and how the company reacts when a problem occurs, and all these factors have a significant influence in determining customer satisfaction. Customers evaluate the quality of e-service, in view of the assessment of quality in the process, results and recovery experience of electronic services (Collier & Bienstock, 2006).

2.6.4 Trust as a Moderator

Another area of research that has received a lot of attention is business' use of e-government and trust and confidence in government (Morgeson, Vanamburg, &Mithas, 2010). Trust in government has long been studied in the political science literature. Trust essentially means that citizens have confidence that their government will make the right decisions.

However, this requires that citizens are willing to be told by the government, receive instructions and exchange information on the e-government system. The proper functioning of these steps can ensure the success of e-government. Thus, trust becomes one of the key components in enabling citizens to become willing to receive information and provide information to the e-government system in return (Lee *et al.*, 2003).

Trust is a social connection by individuals to surmount the complexity and uncertainty in interacting with another party (Dashti, Benbasat, & Jones, 2010). Trust has been explored extensively and defined differently in numerous research studies. Trust is a highly complex, multi-dimensional and context-specific phenomenon (Papadopoulou *et al.*, 2010). According to Ridings, Gefen, and Arinze (2002) the definition of trust in online environment is complex because people do not meet in face- to-face setting.

Trust can be regarded as a means to resolve citizens' uncertainty and may have synergistic relationships with information quality and channel characteristics in affecting citizens' intentions to use e-government. Trust is crucial to situations in which either uncertainty exists or undesirable outcomes are possible (Luhman, 1979).

Trust in a technology involves accepting vulnerability that it may or may not work (McKnight *et al.,* 2011). When an individual trusts an application, he/she will be exposed to and assume the risk of incurring negative consequences if the application fails to act as expected (Bonoma, 1976). Thus, trust increases citizens' willingness to accept the vulnerability caused by the uncertainty and increase their risk-taking propensity. As Agarwal and Prasad (1998) suggested, individuals with higher risk-taking propensity will develop stronger intentions to use an innovation at the same level of perceived benefits of a technology than individuals with lower risk-taking propensity.

According to Lee, Kim, and Ahn (2011), users might face uncertainty related to the use of the Internet technology. Individuals will have concerns about the reliability and security of online transaction especially if they did not use e-government before.

2.6.5 Satisfaction and Trust with e-government

Government has the chance to improve citizen satisfaction by its suitable way of using the communication technology and information. Citizen's use of government websites, the satisfaction with e-government service delivery, and trust are interconnected. Trust is strongly associated with satisfaction with the e-government services, and satisfaction is related to citizens' feedback about the service, such as the convenience of the service, and the reliability of the information provided by the government. Trust is the expected result of e-government service delivery (Welch *et al.*, 2004).

Lack of confidence in the government could be the reason for the poor performance of government systems, and by improving service quality, trust can be restored. Determinants of trust may vary across countries, cultures and time. To evaluate governments and determine the level of trust in governments, citizens use different evaluation criteria (Bouckaert & Walle, 2003).

Most authors agree that trust is an important determinant of public action, but the literature says little about how to define the confidence of citizens in government, and how it is gained and lost (Thomas, 1998). Several factors are applied to the development of trust in cyberspace. These are identity, confidentiality, reliability,

security, identity and authentication, and the review and competence (Welch, Hinnant & Moon, 2004).

The amount of individual trust depends on the actual performance of the government and the interpretation of the governments' performance by citizens. Interpretation of citizens can be formulated on the basis of the gap between expectations and actual performance (reality) by the government. Citizens who are dissatisfied with the service they receive will lower levels of trust in government services, and the opposite is true if the citizens are satisfied with public services (Welch *et al.,* 2004). Welch *et al.* (2004) developed a model that explained website use, e-government satisfaction, and citizen trust in government. See below Figure 2.4.

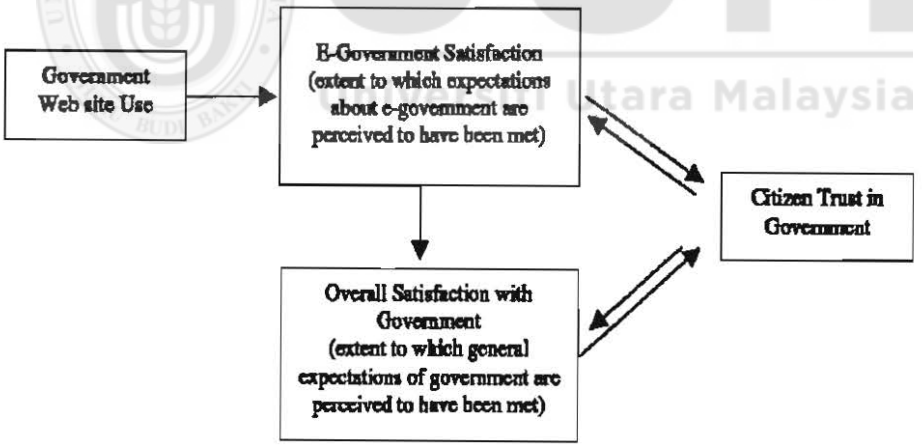

Figure 2.4
Model of Web site use, e-government satisfaction, and citizen trust in government
Source: Welch, Hinnant & Moon (2004)

The model identified that in determining the perception of e-government, website use is an important factor. Government Web site use is an important factor in determining whether it meets the expectations of citizens. This model includes two additional variables, perceived satisfaction with e-government, and perceived satisfaction with government in general. These two factors are related to citizens' trust in government. Trust leads to citizen satisfaction and citizen satisfaction affects trust, to use the government website, the overall satisfaction of e-government, the satisfaction of the government, the use of the Internet website and the degree of confidence in the government.

However, use of the government website is not only the predictor that can determine the satisfaction of users. Quality of the system is an important aspect. The above model did not include the system quality which can satisfy the users. This model did not provide the perception of the users about the information that have been provided by the government website. Therefore, integrating system quality and information quality are important factors that can lead to the user satisfaction and trust.

2.7 E-government Success Evaluation

Success of e-government depends on the existence and quality of fully transactional services (Becker *et al.,* 2004). Following a structured framework can minimize the pitfalls associated with implementing e-government projects successfully and thus lead to a higher chance of return on the immense investments often necessary for such projects. A framework for e-government

project success appraisal was proposed by Xiaowei *et al.* (2005). It was suggested that such a systematic appraisal framework must include the following:

a. A process for appraisal of system quality in e-government.

b. A process for appraisal of the match between system functionality and user needs.

c. A process for appraisal of the effectiveness of the project and its consequent impact on users as well as the organizations themselves.

This leads to four areas that should be focused on to ensure e-government projects to succeed, such as information systems in service, the environment in which e-government projects are developed, management and application of the e-government services, and user perception of the systems and how citizens, enterprises, and government are affected by the systems.

2.8 The Development Stages in e-government

The e-government revolution occurred because of two dramatic changes in e-trading and e-commerce. This affects the performance of the public sector and creates the opportunity to design the new public sector and improve the relationship between citizens and government (Fang, 2002).

According to the UN/ASPA global survey (2000), five categories have been identified to measure a country's e-government progress (Fang, 2002). A country's e-government progress should be identified as follows:

a) Emerging Web presence: In order to offer static information, the user countries often maintain a single or a few official national government Web sites. These Web sites serve as public affairs tools.

b) Enhanced Web presence: As information provided by the government becomes increasingly dynamic, the number of pages also increases. Citizens also have more options for accessing information from such sites.

c) Interactive Web presence: In this stage, increasingly formal exchanges occur between citizens and the government. Citizens can download forms and submit applications online.

d) Transactional Web presence: In this stage, citizens can conduct formal transactions online. They can access services easily according to their needs. For example, a citizen can pay taxes or registration fees online.

e) Fully integrated Web presence: This is complete integration of all online government services. Citizens can have access to all services or information from a complete Web site. For example, one-stop shop portals (Fang, 2002).

Layne and Lee (2001) proposed several other stages of the development of e-government: transaction, cataloging, horizontal integration and vertical integration, and these steps are explained in terms of complexity and levels of integration involved. In the first stage, Governments create a "state Web site" through the creation of a separate Internet department. These government sites are focused on providing information, including downloadable forms for citizens.

The emphasis is on developing a government website, where electronic documents are organized for citizens to search and download detailed and necessary information. There is no integration between the processes in the front and rear offices. In stage two, online transactional services are provided to citizens while the government has databases that can manage to deal with provided electronic services and are willing to support such operations. Examples of activities in this phase include the renewal of licenses and ability to pay fines online. For these activities, the systems state government integrated the Web interface or build online interfaces directly connected to the functional intranet. In this phase, transactions are recorded directly with government systems with minimal interaction with the inner workings of government staff. See below Figure 2.5.

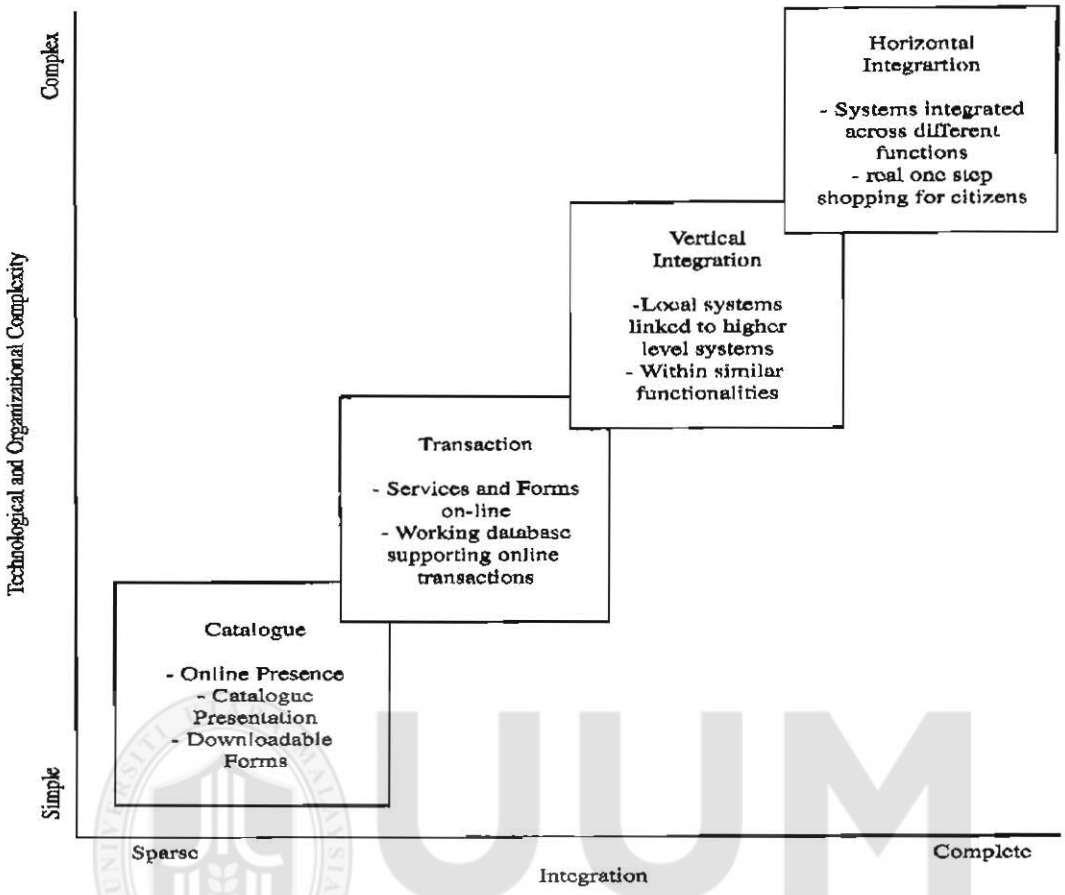

Figure 2.5
Dimensions and stages of e-government development
Source: Leyne & Lee (2001)

In the third stage, vertical integration, local, state and federal integration systems are interconnected and operate similarly. Local, provincial and federal governments are connected by different functions or utilities. An example of vertical integration is the license registration system at the state level that could be introduced into the national database for duplication.

In the fourth stage, horizontal integration, the integration between several services and functions within the same level of government gives a one- stop service center. The challenge is how to realize the full potential of information technology from the perspective of the customer. This can only be achieved

through the horizontal integration of government services in different functional walls (Peters, Janssen & Engers, 2004).

Above stages suggested that government should focus on lower simple stage to higher complex stage to adopt e-government service for the business organization. Developing e-government services for the organization will involve different managerial and technical challenges. Therefore, to overcome these stages success factors have been proposed in this study.

2.8.1 Applicability of the E-Commerce Framework to E-government

Several efforts on the part of governments aligned in the adoption of ideas and mechanical industry, particularly in the area of electronic commerce, are applied to e-government. This included promoting e-government and the increased use of information technology and communication in the work of government and administration. An example is the transformation of the idea of a customer-centric behavior to that of citizen-centric behavior, and thus a paradigm shift from e-commerce to e-government. Any successful attempt at such adaptations must be based on assimilating information systems and the benefits of ecommerce systems into government workings in order to improve e-government initiatives (Stahl, 2005).

2.8.2 E-Commerce and Government Transactions

The concept of e-commerce is often used in the context of government operations, such as payments for government services or government online purchases. Providing these electronic services leads to greater efficiency and

profitability compared to the traditional process based or paper (Cook *et al.*, 2002).

2.8.3 E-commerce vs. E-government

Literatures in e-business, e-commerce and e-government have all dealt with effects and results providing the differences and the similarities between all of them. They have also managed to highlight the different emphasis of the two sectors. Characteristics of the e-commerce private sector systems, their respective organization impacts and applications can be compared with the e-government systems, organizational impacts and applications (Scholl, 2006).

The purpose of designing internet technology is to make it easier for the exchange of services, information and goods between two or several more parties; both e-government and e-commerce are based on the use of the internet technology (Carter & Belanger, 2004). As found by Carter and Belanger (2005), trustworthiness and the diffusion of innovation both have an influence on the adoption of e-government and the effect of acceptance towards e-commerce by the user.

Four development stages occur in the progress of e-government and e-commerce which are: publishing, transaction, integration, interaction (DeBenedictis *et al.*, 2002). Four major categories have been identified in e-government: Government to Government (G2G), Government to Employee (G2E), Government to Business (G2B), and Government to Citizen (G2C) (Carter & Belanger, 2005); this can be compared to the e-commerce categories which are Business to

Consumer (B2C), Business to Business (B2B), and Consumer to Consumer (C2C) segments (Law *et al.,* 2003).

Successful services from B2C e-commerce and G2C e-government provide a chance for citizens to access necessary services and information from the web the same as (B2C): in e-commerce. As Chang *et al.* (2005) noted, citizens can view documents and receive payment, pay their bills, pay taxes and get access to other government services 24x7.

An important difference between e-commerce and e-government is that businesses have the capability of choosing their customers; however, in e-government, every citizen becomes a customer that has to be served. In addition, access to services should be created specifically for people in the lower income groups and people with disabilities or individually, along with standard modes of delivery. The private and public sector also have a structural difference (Carter & Belanger, 2005).

In e-commerce, the nature of political government agencies and its mandatory relationships makes it different (Warkentin *et al.,* 2002). In government agencies compared to other businesses, decision making authorities are less centralized (Carter & Belanger, 2004). Taking in mind the similarities between e-government and e-commerce, it is stated that the e-commerce models can be used to study e-services in the public sector (Carter & Belanger, 2004).

2.9 Theoretical Underpinning of the Study

Current empirical studies have extensively focused on the acceptance of e-government services in government agencies. Many of these researchers utilize a framework of TPB and TAM in their investigation. Only a few studies have integrated ISS model in their attempt to examine the success of the adoption of e-government application. This study intends to explore the extent to which the ISS model influences the factors which in turn influence the usage of e-government application in business organizations in Jordan. As a result, ISS developed by DeLone and McLean (1992) has been used as a base model of this study to measure the success of an IT.

However, two other models namely TAM and TPB have been used to support and explain the variables of the study. TAM developed by Davis (1989) is chosen to explain the level of acceptance of e-government services by business organizations, whereas TPB developed by Ajzen (1991) can measure the level of usage behavior (Suki & Ramayah, 2010; Yaghoubi*et al.,* 2010). In this study, the ISS developed by DeLone and McLean (1992) is used to measure the success of G2B services (DeLone & McLean, 2003). The ISS explains the factors affecting the intention and usage of e-government focusing on the acceptance level (non-technological), level of usage (non-technological) and the success of IT (technological). Moreover, e-commerce Success Model has been used in this study to explain the satisfaction of the users (business organizations).

2.9.1 Theoretical perspective of IS and E-commerce Success

The adoption of information and communications technology (ICT) and related practices in the commercial sectors, such as e-commerce, and the diffusion of the internet among the general population have resulted in a rising level of comfort and adoption familiarity with the technologies in many contexts (e.g. communicating with people, electronic marketing, and academic activities). This has increased the expectations of citizens that public sector organizations will provide e-government services similar to those in the commercial sector with the same effectiveness and efficiency.

Research into the success of information systems has been widely studied (DeLone & McLean, 1992; Seddon, 1997; Seddon & Kiew, 1994; Rai *et al.*, 2002; Roldán & Leal, 2003; Crowston *et al.*, 2003; Iivari, 2005; Wilkin & Hewett, 1999) as has e-commerce research (DeLone & McLean, 2003, 2004; Molla & Licker, 2001; Liu & Arnett, 2000; Cao, Zhang & Seydel, 2005).

Based on the empirical MIS research studies from 1981-1987 carried out by Mason Culnan, (1987) plus the research work in communication by Shannon and Weaver (1949) and the information "influence theory", a IS success model was proposed by DeLone and McLean (1992) that incorporates several individual dimensions of success. Later, on DeLone and McLean (2003) updated their model. The DeLone and McLean information system success model can be adapted to the measurement challenges of the new world of e-commerce.

Molla and Licker (2001) suggested a successful model for e-commerce based on the successful model of DeLone and McLean. In their paper, they proposed a partial extension and re-specification of the successful model of DeLone and McLean to an e-commerce system. Customer E-commerce Satisfaction (CES) has been identified as the dependent variable to e-commerce success and its relation to the quality of the e-commerce system. It defines and analyzes the quality of the content, use, support and trust.

Jennex and Olfman (2004) presented a successful model of knowledge management system (KMS) based on the successful model of DeLone and McLean (2003). This model is viewed as a successful improvement in organizational effectiveness based on the use and impact of KMS.

Xiaowei *et al.* (2005) tried to establish a systematic framework of e-government project success relying on the IS success model presented by DeLone and Mclean in 1992. Relying on the IS success model, Wang, Wang & Shee (2007) developed a measure of success of e-learning systems in the organizational context. To evaluate the success of telemedicine systems in clinical practice and organization, Hu (2002) developed a model for success based on the IS successful model of DeLone and McLean.

2.9.2 Technology Acceptance Model

TAM (Davis, 1989) focused on the relationship between the causes and consequences of system design, and demonstrated the usefulness, ease of use, attitude towards usage and the actual use behavior (Davis, Bagozzi, & Warshaw,

1989). TAM is widely used to identify and investigate the factors of user acceptance (Yaghoubi *et al.*, 2010). According to Davis *et al.* (1989), the goal of this model is to provide insights into the determinants of acceptance of computer technology by users. Furthermore, this model is able to explain user behavior across various populations and standard space for using computer technology through theoretical justification (Davis *et al.*, 1989). Use of TAM has been widely supported in empirical studies (Ajzen, 1991; Davis *et al.*, 1989; Suki & Ramayah, 2010; Yaghoubi, *et al.*, 2010), therefore, in this study; this model has been explained only as a supporting theory. In summary, this model provides information on a mechanism in which the selection of the design can affect the user acceptance and it also serves to be applied in the context of forecasting and evaluation of a user acceptance of IT. See Figure 2.6.

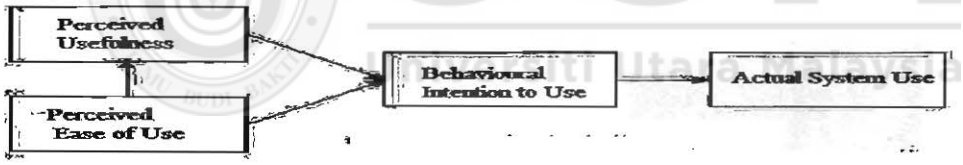

Figure 2.6
Technology Acceptance Model
Source: Davis *et al.* (1989), Venkatesh *et al.* (2003)

2.9.3 Theory of Planned Behavior

TPB (Ajzen, 1991) is developed through the extension of TRA. TRA was modified by adding the behavior construct to the existing theory (Ajzen, 1991). The addition is to explain the failure of the user to control their behavior in what they do. TPB suggests that behavior can be explained by real behavioral intention, where intention towards behavior is also influenced by attitude,

subjective norm and perceived behavioral control (Fig. 3.5). There are some studies that adopt this theory to investigate the actual usage behavior using attitudinal variables (Fishbein & Ajzen, 1977; Suki & Ramayah, 2010; Yaghoubi *et al.,* 2010). Therefore, in this study, TPB has been explained only as a supporting theory. See Figure 2.7.

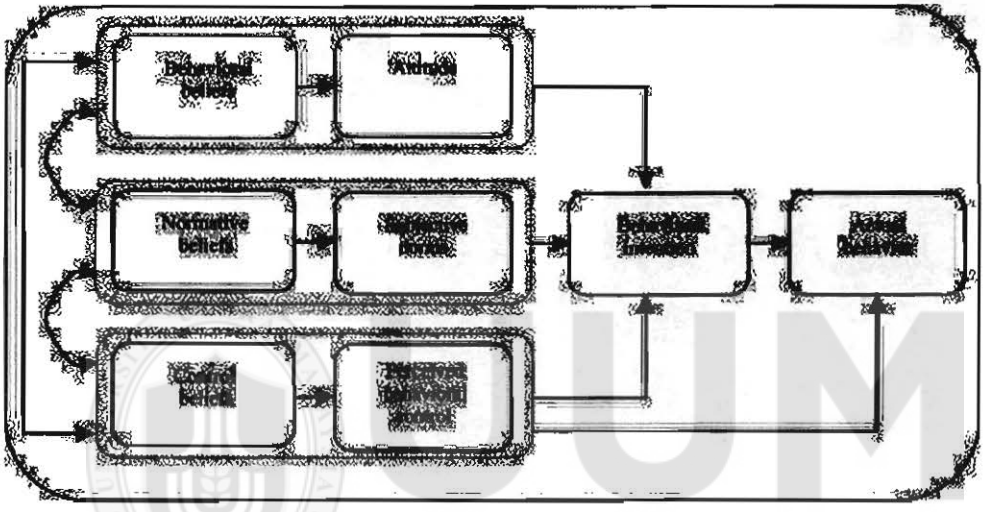

Figure 2.7
Theory of Planned Behavior
Source: Ajzen (1991)

2.9.4 The DeLone and McLean IS Success Model (1992)

The study of the IS (information system) efficiency is strongly influenced by the IS success model of DeLone and McLean (1992). The model presented six key variables for success of the information system: Information Quality, User satisfaction, System Quality, Information System use, Organizational Impact Use and Individual Impact. System quality and information quality, individually and jointly, affect both use and user satisfaction. In addition, the amount of use can affect positively or negatively the degree of User Satisfaction and the opposite is also true.

The use and user satisfaction are direct precursors of the individual effects; moreover, this influence should be based on individual performance that may affect the organization (DeLone & Mclean, 1992). In the DeLone & McLean IS Success model, "System Quality" measures technical success, "Information Quality" measures semantic success and "Use, User satisfaction, Individual Impact and Organizational Impact" measures effectiveness success. See Figure 2.8.

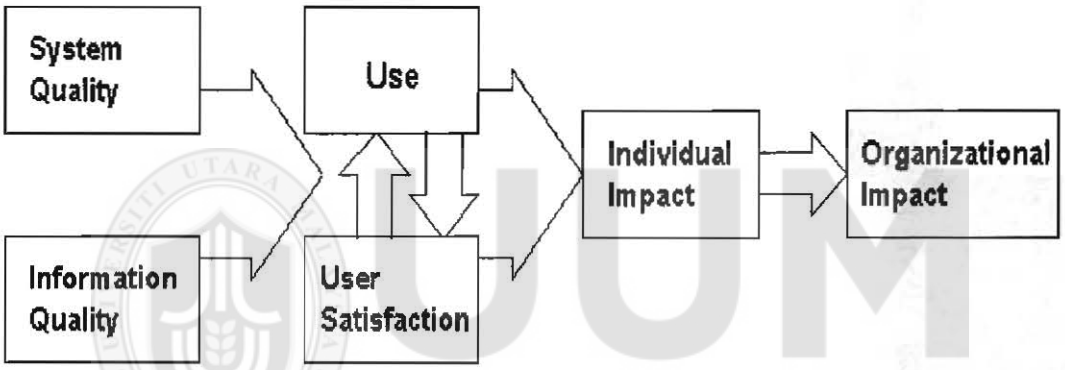

Figure 2.8
DeLone and McLean IS Success Model
Source: DeLone & McLean (1992)

2.9.5 IS Success Model Extension

Service quality is used to measure the information system effectiveness (Pitt, Watson & Kavan, 1995). Frequently used, the IS effectiveness of the product is more concentrated on the IS function rather than service function. (Pitt, Watson & Kavan, 1995) mentioned that if the service quality is not included in the IS effectiveness model, it can lead to an incorrect measurement. More researchers also recommend that the service quality should be included in the IS success

model as an element for success measurement (Kettinger *et al.,* 1997; Wilkin & Hewitt, 1999).

Twenty two SERVQUAL items were applied and tested by other researchers to IS context from marketing (Pitt *et al.,* 1995; Kettinger *et al.,* 1997). Thus, by 2003, DeLone and Mclean had extended their IS success model and added the service quality element as an important indicator for the success measurement. Concentrating on the impact variable, many researchers suggested the addition of other IS Impact measurements, such as and social impact (Seddon, 1997), industry impact (Clemons, 1993), work group impact (Ishman, 1998) and consumer impact (Brynjolfsson, 1996). Instead of adding new measures of success, DeLone and McLean (2003) combine the various measures and the impact classified as a net profit in its extended model.

Based on the contributions of research from the original work of DeLone and McLean, the successful model of the information system, the theoretical and empirical research that has examined or discussed the contributions of the original model, and is based on the evolution of the role of management systems and information, DeLone and McLean (2003) updated their original model of success.

DeLone and McLean have explained how the model of information system success can be adapted to the measurement challenges of the new world of electronic commerce. The model includes six dimensions of success, and holds that the constructs of the information quality on system quality and service

quality influence use and user satisfaction, both individually and collectively. The model further states that there is an inverse relationship between the amount of system usage and user satisfaction. User satisfaction and use jointly affect the net benefit.

Each of the constructs is discussed here in the context with an electronic commerce system. System quality is equated with the desired characteristics of an e-commerce system. Some of the measures of the system quality to users in e-commerce system are usability, availability, reliability, scalability and response time, also known as download time. Information Quality indicates how personalized, complete, relevant, secure and easily accessible the web content is for the user, so that the user or customer could be eventually induced to initiate a transaction and become a return customer. Service quality denotes the support services delivered by the e-commerce service provider. Here, the "provider" could support the services requested by the department of information or other competent authority in the organization, or even a contractor to provide support to the company systems. This support service becomes important because if the results of the service support are poor, customers and sales will be lost (DeLone & McLean, 2003).

As indicated in the model, the use may include site visits, as well as navigation in web pages and levels on the site, either to achieve the purpose of obtaining information or actual transactions. The other variable, user satisfaction, measures opinions of customers of a system of e-commerce. Measuring user satisfaction involves an examination of the entire cycle of the customer experience from

information retrieval through to purchase, payment mechanisms, receipt of the item, and subsequent communication services.

The last variable, net benefits, measures the difference between the positive and negative effects of e-commerce experience with customers, suppliers, employees, organizations, markets, industries, economies and, eventually society. The net benefit factor, earnings, is noted by the authors; but also note that this factor is not analyzed or measured directly, but only indirectly measured through the system quality, information quality and service quality measurement variables (DeLone & McLean, 2003). See Figure 2.9.

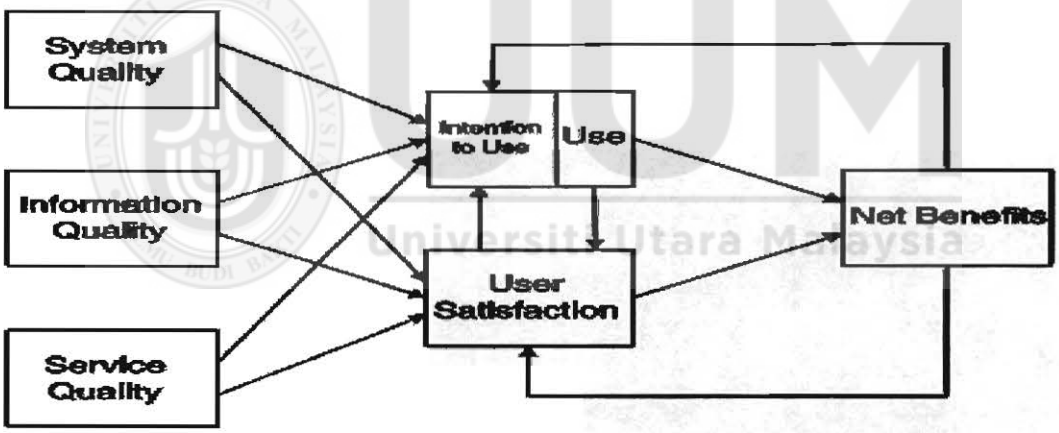

Figure 2.9
Updated Delone and Mclean IS Success Model
Source: DeLone & McLean (2003)

The Figure (2.9) shown above shows the six dimensions of the updated DeLone and McLean (2003) Information System Success model, which also can be used as an e-commerce success metric. After reviewing the articles of e-commerce, DeLone and McLean (2004) proposed new measures of success in the context of e-commerce, and they classified all the measures under the six dimensions

proposed in their updated model. They showed two case studies in their study and demonstrated how their model can be used to guide empirical and practical success studies. They also mentioned that the next step is to empirically test the metrics.

Seddon and Kiew (1996) and Seddon (1997) theoretically analyzed IS success measures by using IS success literature and proposed an extended IS success model. According to Seddon (1997), DeLone and McLean (1992) tried to do too much in their model, and therefore that is both confusing and mis-specified. To remedy the confusion, they have specified and extended the new model based on the original model proposed by DeLone and McLean (1992).

They proposed perceived usefulness and importance of the system as a success measurement, and replaced "use" with "usefulness". In their model, they mentioned system quality, information quality, perceived usefulness, and satisfaction as measures of success. Perceived usefulness was originally developed by Davis (1989) in the technology acceptance model. In their model, Seddon and Kiew (1996) identified in their model information quality and system quality as important factors to determine perceived usefulness. Seddon and Kiew (1996) also mentioned the perceived usefulness as a determinant of user satisfaction. Davis (1989) stated that perceived usefulness is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance". See Figure 2.10.

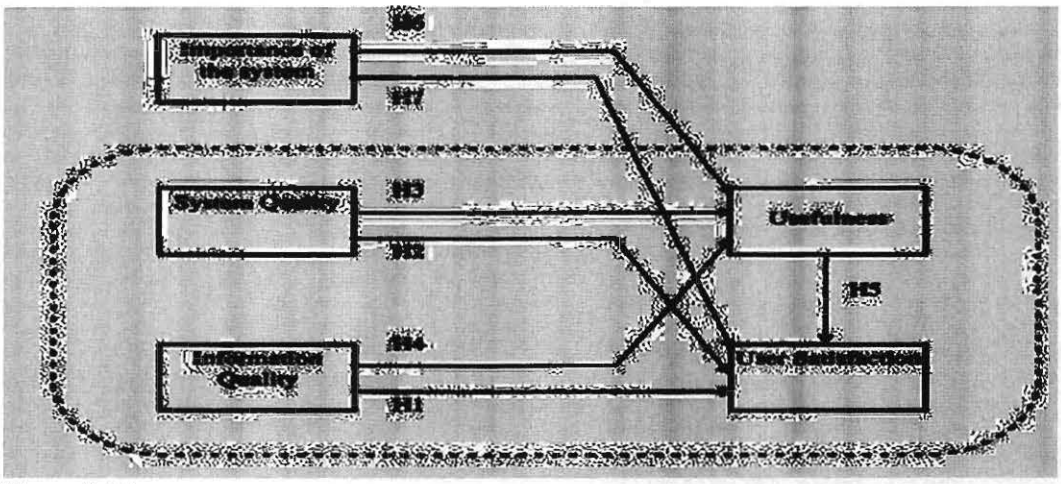

Figure 2.10
The Model of User Satisfaction Tested by Seddon & Kiew (1996)
Source: Seddon & Kiew (1996)

Rai *et al.* (2002) empirically and theoretically tested the information systems (IS) success of DeLone and McLean's (1992) and Seddon's (1997) models. They updated the model following Davis (1989) and added perceived ease of use. In their model, information quality and perceived usefulness are included as the antecedents of satisfaction. According to Davis *et al.* (1989), perceived ease of use "refers to the degree to which a person believes that using a particular system would be free of effort". They also mentioned that perceived ease of use is an antecedent of perceived usefulness.

2.9.6 E-commerce Success Model for E-commerce Customer Satisfaction

An e-commerce success model relying on the DeLone & McLean Information System Success Model was proposed by Molla and Licker (2001). See Figure 2.11.

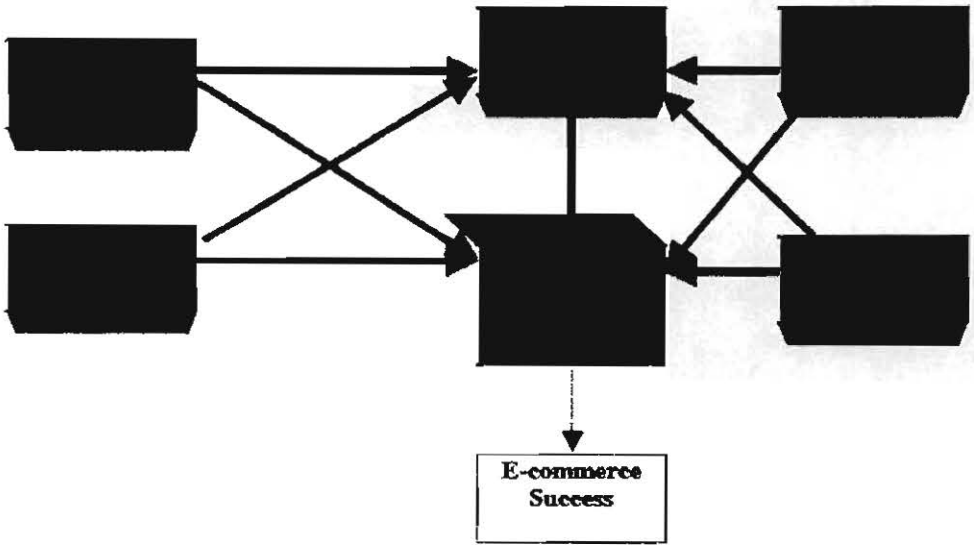

Figure 2.11
E-Commerce Success Model
Source: Molla & Licker (2001)

Molla and Licker (2001) proposed a partial extension and re-specification of the DeLone and McLean model of success measurement of an e-commerce system. They define the success of e-commerce as the dependent variable and described its relationship with e-commerce system quality, trust, support services and content quality.

They replaced e-commerce content quality and system quality rather than the information quality and system quality component. E-commerce system quality aspects are composed of system reliability, system accuracy, flexibility, online response time and ease of use. These properties of e-commerce sites influence use and customer satisfaction of e-commerce systems. These dimensions are the same as the dimensions of the system quality identified by DeLone & McLean (1992). In this model, the quality of content is one of the determinants of user

satisfaction and intention to use a particular system. The content quality dimensions are accuracy, comprehensiveness, understandability, reliability completeness, relevancy timeliness, currency, up-to-datedness, and preciseness.

To evaluate the success of a system of e-commerce, use is one of the important criteria that can be used for measurement on the sites by the number of client visiting that site. They replaced user satisfaction on customer's e-commerce satisfaction. Trust, support and services are the new variables in the model, and these components are important in understanding the relationship between the use and customer e-commerce satisfaction (Molla & Licker, 2001).

2.10 Implications of the Theories

ISS model developed by DeLone and McLean (1992) is the base model of this study. This study investigated the success factors of e-government services (G2B) in Jordan. Success of a system depends on several factors such as user satisfaction, system quality and information quality. Therefore, to investigate the e-government system success in Jordan, ISS is the relevant model (DeLone & McLean, 1992) of this study. ISS model helps to measure the user satisfaction, system quality and information quality. Two other models have been integrated in this study. This study introduces a framework that combines Information System Success (ISS), Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB) as a base to examine factors that affect the business user satisfaction towards e-government service in Jordan. Study conducted by Danila and Abdullah, (2014) combined three models ISS, TAM and TPB to measure the user's satisfaction with e-government services in Malaysia.

However, two other models namely TAM and TPB have been used to support and explain the variables of the study. TAM developed by Davis (1989) is chosen to explain the level of acceptance of e-government services by business organizations, whereas, TPB developed by Ajzen (1991) can measure the level of usage behavior (Suki & Ramayah, 2010; Yaghoubi *et al.,* 2010). Moreover, e-commerce Success Model has been used in this study to explain the satisfaction of the users (business organizations).

2.11 Chapter Summary

This chapter explains the ICT and e-government strategy in Jordan, the new strategy of Ministry of Information and Communication Technology covering the years (2014, 2015, and 2016), issues and challenges of IT in the Jordanian Government. Currently, although the number of internet users is increasing, e-government in Jordan still faces the problem of low usage levels of these electronic services. This study will help Jordanian government to implement e-government services successfully. Also the conceptual definitions of the variables in this study and the related literature review have been presented in this chapter. E-government success factors from previous studies are explained. ISS model and TAM& TPB have been explained to understand the study variables from the theoretical point of view. Moreover, implications of the theory have been discussed adequately.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

The reason of this study was to investigate the e-government adoption success factors and the e-service delivery from business perspectives. Based on the literature which has been discussed in chapter three, a framework was developed for evaluating the success factors of e-government adoption and e-service delivery in Jordan. The IS Success model of DeLone and McLean (1992) has been used in this study as a base model. Based on the proposed model, hypotheses were developed to test the relationship. Accordingly the steps related to the method of conducting this study will be discussed thoroughly.

3.2 Research Flow

There are four phases of this research as shown in the following Figure 3.2. First, phase one starts with the literature review; the goal was to study the current and previous studies that have been conducted in the area of this study and other areas. Second, phase two starts with the content analysis of the literature review to come up with the problem statement that, addresses the practical and theoretical gaps of this study, the research questions that need to be tackled and the research objectives that need to be achieved. Focusing on the theoretical gaps to develop the conceptual model, the ISS model of Delone and Mclean has been chosen as a base model of this study. A review of the TAM and TPB theories has been done; both theories were chosen to support and better explain the

relationship between the variables and for usage behavior measurement. Third, phase three started with the development of the hypothesis which led to achieve the first research objective. During the same phase, the following steps have been conducted: research design, research approach, sampling, choosing sample frame, selecting sample method, adapting the measurement of the study, data collection procedure, instrument translation, pilot test and finally reliability and data analysis. The fourth and last phase carried out the data analysis of the questionnaire data of (G2B) users in Jordan, which led to achieve objectives two, three and four. Combining the overall results of the four objectives, the main objective has been achieved.

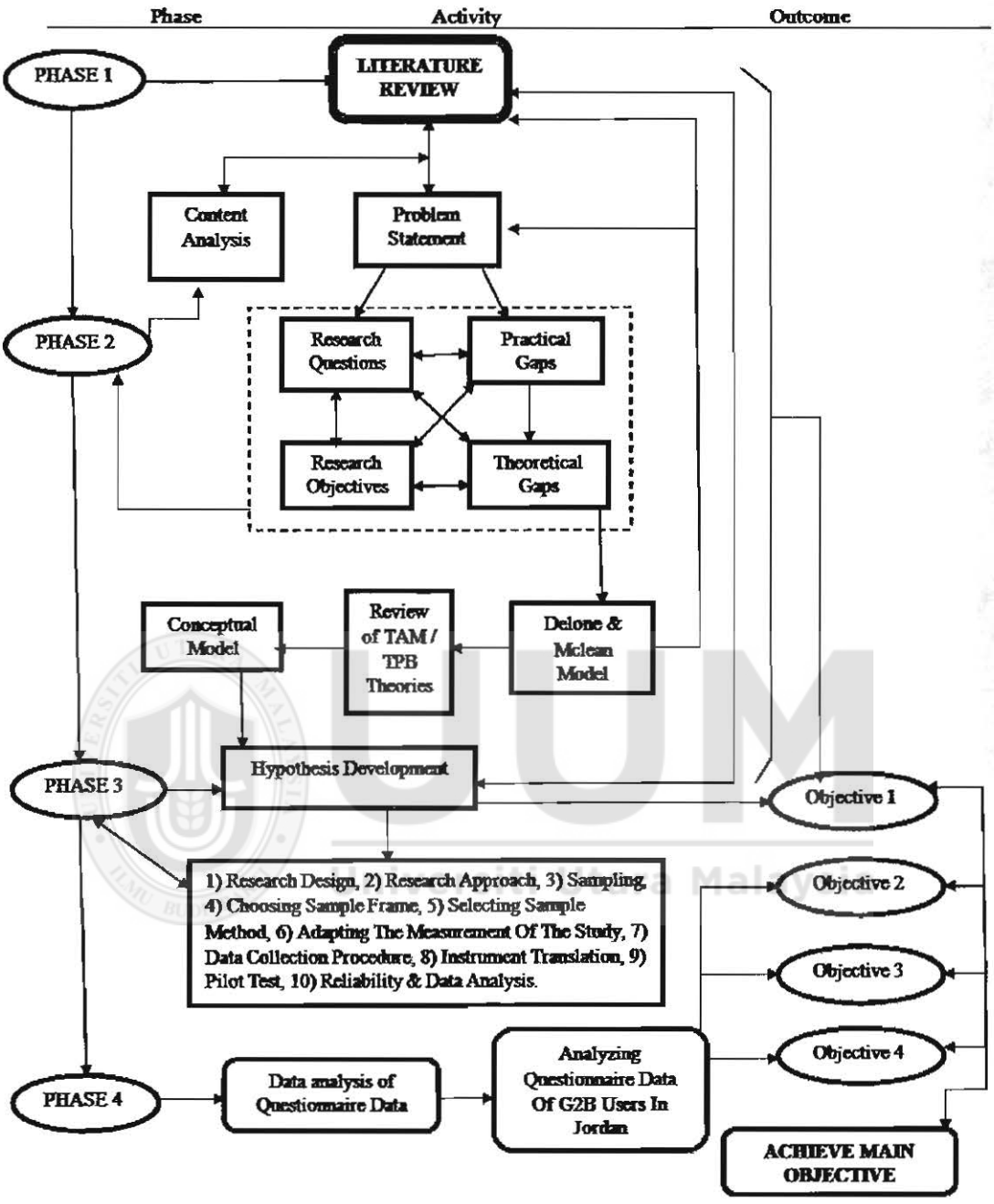

Figure 3.2
The Research Flow

3.3 Research Framework

The IS Success model of DeLone and McLean (1992) has been applied in this study as a base model. In view of previous research, it was recommended that success and its measurement may vary relative to the characteristics of the system and the organization. Thus, according to the specific context, the model should be modified (Hu, 2002). In fact, extra factors have been integrated into the model based on the literature. The point is likewise to test this model in an e-government context to decide the applicability of the model and to check the new relationships that may have significant impact with regard to the context. Measuring the performance (and success) of e-government, some previous researchers propose expansion of the existing success frameworks of DeLone and McLean (2004) (Scholl, 2006). Csetenyi (2000) clarified that e-commerce and e-business technologies could be applied in e-government to increase the efficiency of providing services to the business. Seddon and Kiew (1996) re-indicated DeLone and McLean's IS success model and replaced use with perceived usefulness. In their study, they found that usefulness, information quality and system quality have explained a large section of the difference in user satisfaction. Figure 3.1 shows the framework of this study; Figure 3.2 shows the research flow diagram.

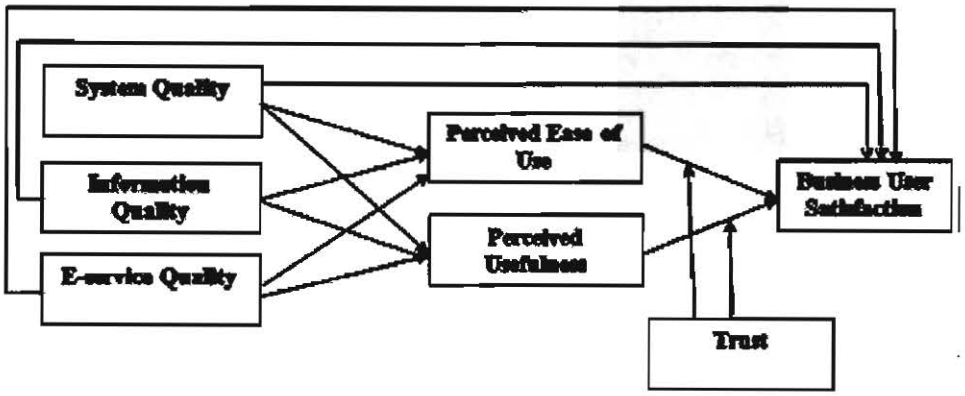

Figure 3.1
Proposed Research Model

3.4 System quality, Information Quality, E-service Quality, and User Satisfaction

For information system success measurement, DeLone and McLean (1992) developed a model known as an Information System success model. Thus, in their model, system quality, information quality and user satisfaction were identified as success criteria. Later on, they updated their model and included service quality as a success measure, in the context of electronic commerce based on the support provided by Pitt *et al.* (1995).

3.4.1 System quality, Information quality and E-service Quality as a Success Measure

In the environment of the internet, System Quality is used to measure the desired characteristics of an ecommerce system (DeLone & McLean, 2003, 2004). It is important to evaluate the functionality of a system that focuses on the online service functions it produces. It is important to assess the navigation characteristics of the system and to assess the presence of links required for

required information (Chung & Tan, 2004; Hasan & Abuelrub, 2011; Metzger, 2007).

Timeliness is one of the issues that are concerned with Information Quality also the accuracy of the information generated by an information system and the relevance (DeLone & McLean, 2003; 2004). Several quality assessment aspects are essential, the availability of the output information at a time suitable for its use, the correctness of the output information, and including the comprehensiveness of the output information content (Bailey & Pearson, 1983). It is also important to take in consideration issues such as clearness, goodness of the information and relatedness (McKinney *et al.*, 2002).

One of the important factors used for Customer satisfaction is service quality (Cronin & Taylor, 1992; Johnston, 1997; Grönroos, 1984; Caruana, 2002). Previous studies have reviewed the ISS model, whereby service quality was included as another important antecedent to user satisfaction (Koufteros *et al.*, 2014; Pitt *et al.*, 1995; Herington & Weaven, 2009; Negash *et al.*, 2003; Kettinger & Lee, 1994; Kettinger*et al.*,1997; Landrum & Prybutok, 2004; Chen& Chen, 2014;Wang& Tang, 2003).

Parasuraman *et al.* (1988) identified the SERVQUAL model, which provides five dimensions of empathy, namely tangibility responsiveness, reliability, assurance, and service quality measurement. Zeithaml *et al.* (2002) have developed e-SERVQUAL for measuring e-service quality, and they stated that satisfaction is affected by e-service quality.

They identified four dimensions, fulfillment, efficiency, reliability, and privacy, thus forming the e-SERVQUAL scale that is used to measure customer perceptions of service quality delivered by online retailers. In public sectors e-service quality is an important measure. It is included of three aspects, outcomes, user satisfaction, and user focused (Buckley, 2003). In previous research, several scholars have measured e-service quality directly with the items without dimensions (Tsang, Lai & Law, 2010; Wang *et al.,* 2007; Li, 1997; Roca *et al.,* 2006; Subramanian *et al.,* 2014).

Previous research findings suggested that user satisfaction is considered a significant factor in measuring success (DeLone & McLean, 1992; 2004; Seddon & Kiew, 1996; Seddon, 1997; Rai *et al.,* 2002; Crowston *et al.,* 2003; Torkzadeh& Doll, 1994; McKinney *et al.,* 2002). The most challenging and important aspect involved identifying whose satisfaction was being measured and finding out how to measure it. For the context of this study, the researcher's aim is to measure business user satisfaction. Welch, Hinnant, and Moon (2004) stated that citizens' satisfaction with e-government services is related to a citizens' perception of engagement with electronic communication (interactivity), online service convenience (transaction), and reliability of the information (transparency). As in the context of this research, satisfaction is a business users' evaluative judgment of overall use of the services.

The ultimate measure of success is the use and satisfaction of the whole system. Weak and poor responsiveness or usefulness can lead the customer to an unsatisfied status for the usage of an e-commerce system since the user visits a

site by his/her own free will. To determine user satisfaction, information aspects and system features were separated by DeLone and McLean (1992).

User satisfaction is affected by both information quality and system quality (DeLone & McLean, 1992; 2004; McKinney *et al.*, 2002; Seddon, 1997; Seddon & Kiew, 1996; Molla & Licker, 2001). Szymanski and Hise (2000) found that product information aspects and website design issues are important for determining customer satisfaction.

Information quality and system quality are related positively with satisfaction. That indicates that the higher information quality and system quality are perceived by users, the higher is their satisfaction is towards the system (DeLone & McLean, 2004). Several previous studies found that e-service quality is the determinant of satisfaction (DeLone & McLean, 2003; 2004; Cao *et al.*, 2005, Yang & Fang, 2004; Koufteros *et al.*, 2014; Jain & Mishra, 2011). The discussion thus far has resulted in several hypotheses first three presented in Table 3.1.

Table 3.1
Hypothesis 1 to 3

Hypothesis	References
H1. E-service quality of the e-government services has a positive effect on business user satisfaction.	DeLone & McLean (2003, 2004); Cronin & Taylor, (1992); Johnston, (1997); Grönroos, (1984); Caruana, (2002);Koufteros *et al.,* (2014);Pitt *et al.,* (1995); Herington & Weaven, (2009); Negash et al., (2003); Kettinger & Lee, (1994; 1997); Landrum & Prybutok, (2004); Chen, (2014); Wang & Tang, (2003); Parasuraman *et al.,* (1988); Zeithaml, (2002); Tsang, Lai & Law, (2010); Wang et al., (2007); Li, (1997); Roca et al., (2006); Subramanian, (2014); Cao et al., (2005); Yang & Fang, (2004); Jain & Naitham, (2015).
H2. E-service quality of the e-government services has a positive effect on perceived ease of use.	DeLone & McLean (2003, 2004); Cronin & Taylor, (1992); Johnston, (1997); Grönroos, (1984); Caruana, (2002);Koufteros *et al.,* (2014);Pitt *et al.,* (1995); Herington & Weaven, (2009); Negash et al., (2003); Kettinger & Lee, (1994; 1997); Landrum & Prybutok, (2004); Chen, (2014); Wang & Tang, (2003); Parasuraman *et al.,* (1988); Zeithaml, (2002); Tsang, Lai & Law, (2010); Wang et al., (2007); Li, (1997); Roca et al., (2006); Subramanian, (2014); Cao et al., (2005); Yang & Fang, (2004); Jain & Naitham, (2015).
H3. E-service quality of the e-government services has a positive effect on perceived usefulness.	DeLone & McLean (2003, 2004); Cronin & Taylor, (1992); Johnston, (1997); Grönroos, (1984); Caruana, (2002);Koufteros *et al.,* (2014);Pitt *et al.,* (1995); Herington & Weaven, (2009); Negash et al., (2003); Kettinger & Lee, (1994; 1997); Landrum & Prybutok, (2004); Chen, (2014); Wang & Tang, (2003); Parasuraman *et al.,* (1988); Zeithaml, (2002); Tsang, Lai & Law, (2010); Wang et al., (2007); Li, (1997).

3.5 Perceived Usefulness and Perceived Ease of Use as a Success Measure

Seddon (1997) redefined and expanded the model of DeLone and McLean IS success model, and added the perceived usefulness as an important success measure for IS success. With the information quality and system quality, perceived usefulness was included and it was found that the information quality and system quality are the most important factors in determining perceived usefulness. They also included perceived usefulness as a determinant of user satisfaction.

In the context of this study, perceived usefulness is defined as "The degree to which a business user believes that using a particular e-service is useful for him or her and meets his usage goal". It has additionally been guaranteed that system quality can impact the perceived ease of use, implying that the factors behind the system quality can decrease the effort clients need to make in their use of information technology. Similarly, higher information quality, for example, complete, precise and important information may increase user's performance in accomplishing the required service and information, and may offer help to accomplish perceived usefulness of the system (Chang *et al.,* 2005).

This view is consistent with previous studies (Seddon, 1997; DeLone & McLean, 1992; 2003; 2004), which additionally found that the information quality and advantages of a system are interrelated, and that users will see a site to be of more usefulness if it provides a higher information quality. Higher quality of information, in any case, does not really convert into a greater degree of ease of use for the user.

Accessibility is related to how the system is available if the user wants to achieve access to the required site; regardless of whether there are fewer obstacles towards the user utilizing the system as required. This results in the user perceiving system usage to be easier. Lucas and Spitler (1999) found that the system quality has an influence on the perceived usefulness and perceived ease of use. Rai *et al.* (2002) expanded the Seddon model and distinguished perceived usefulness and perceived ease of use as predecessors of satisfaction. Davis *et al.* (1989) characterized perceived ease of use as "referring to the degree to which a person believes that using a particular system would be free of effort" (Davis *et al.*, 1989, p. 320). They additionally expressed that perceived ease of use is a precursor of perceived usefulness. Other scholars have offered a similar finding that perceived usefulness is influenced by perceived ease of use (Gefen and Keil, 1998; Igbaria *et al.*, 1996; Yang *et al.*, 2014).These discussions lead to the establishment of the following hypotheses:

Table 3.2
List of proposed hypotheses, H4 –H11

Hypothesis	References
H4. Information quality has a positive effect on business user satisfaction with the e-government services.	DeLone & McLean (2003, 2004); Bailey & Pearson (1983); Mckinney, (2002); Seddon (1997); Seddon & Kiew (1996); Molla & Licker, (2001).

Table 3.2
List of proposed hypotheses, H4 –H11 (cont)

H5.Information quality has a positive effect on perceived ease of use with the e-government services.	DeLone & McLean (2003, 2004); Bailey & Pearson (1983); Mckinney, (2002); Seddon (1997); Seddon & Kiew (1996); Molla & Licker, (2001).
H6.Information quality is positively related to perceived usefulness of the e-government services.	DeLone & McLean (2003, 2004); Bailey & Pearson (1983); Mckinney, (2002); Seddon (1997); Seddon & Kiew (1996); Molla & Licker, (2001).
H7.Perceived ease of use is positively related to business user satisfaction of the e-government services.	Lucas & Spitler, (1999); Rai *et al.* (2002); Davis *et al.* (1989); Gefen& Keil, (1998); Igbaria *et al.* (1996); Yang *et al.* (2014).
H8. Perceived usefulness is positively related to business user satisfaction of the e-government services.	Lucas & Spitler, (1999); Rai *et al.* (2002); Davis *et al.* (1989); Gefen& Keil, (1998); Igbaria *et al.* (1996); Seddon (1997); Chang *et al.* (2005); DeLone & McLean (1992, 2003, 2004); Yang *et al.* (2014).
H9. System quality is positively related to business user satisfaction of the e-government services.	DeLone & McLean (2003, 2004); Mckinney, (2002); Seddon (1997); Seddon & Kiew (1996); Molla & Licker, (2001); Chung & Tan (2004); Hasan & Abuelrub (2011); Metzger, (2007).
H10. System quality is positively related to perceived ease of us of the e-government services.	DeLone & McLean (2003, 2004); Mckinney, (2002); Seddon (1997); Seddon & Kiew (1996); Molla & Licker, (2001); Chung & Tan (2004); Hasan & Abuelrub (2011); Metzger, (2007).
H11. System quality is positively related to perceived usefulness of the e-government services.	DeLone & McLean (2003, 2004); Mckinney, (2002); Seddon (1997); Seddon & Kiew (1996); Molla & Licker, (2001); Chung & Tan (2004); Hasan & Abuelrub (2011); Metzger, (2007).

3.6 Trust as a Success Measure

Within the e-government context, the absence of physical contact inherent in the online experience makes users depend significantly on information technology (IT) behind the e-government system. In the context of studying e-government

success, a basic issue has hampered empirical investigations of the effect of client trust on e-government success: the perplexity between interpersonal trust and system trust. With interpersonal trust, trust is with a person or a business, though system trust is about the reliability and security of the system (Alshibly and Chiong, 2015).

Effective utilization of (ICT) makes the chance for governments to increase citizen satisfaction through government delivery of e-services. Citizen satisfaction with e-government service is identified with the utilization of an e-government site, and citizen satisfaction is decidedly connected with trust in government. The increasing of citizens' trust in government will prompt to citizen satisfaction in government e-service delivery (Welch et al., 2004; Alshibly and Chiong, 2015).

Citizen satisfaction increases by the citizens perceived quality of public service delivery, so business users' satisfaction is highlyrelated and connected to trust in government service delivery (Bouckaert *et al.,* 2002). Perceived usefulness of a website is increased by trust. If the users have trust in a website, they will be ready to present anything for this relationship, which will add advantage to the website. It is important that when a user wants to use a website, it should be understandable and easy to use and navigate.

Trust that is invested in the website can be increased by perceived ease of use (Gefen, Karahanna, & Straub, 2003; Holsapple & Sasidharan, 2005; Yang *et al.,* 2014). In order to measure trust that measures knowledge based trust four items will be used.

Depending on the different trust classifications discussed about in the literature, it will be chosen that knowledge based trust best reflects the context of this study in the perspective of the organization. This leads the researchers to establish the following hypothesis for this study:

Table 3.3
Proposed hypothesis H12

Hypothesis	References
H12. Trust moderates the relationship between perceived usefulness; perceive ease of use and the business user satisfaction.	Alshibly and Chiong, (2015); Welch et al., (2004); Bouckaert *et al.* (2002); Gefen, Karahanna, & Straub, (2003); Holsapple & Sasidharan, (2005) Yang *et al.* (2014).

3.7 Research Design

A research design can be alluded to as the fundamental bearings or techniques for completing the project (Hair *et al.,* 2003), and it can be characterized in different ways. The most generally utilized methods recognized by Chisnall (1997) are, 1) Causal,2)Exploratory and, 3) Descriptive.Descriptive research describes a circumstance or activity created to measure an event and activity also used to test a hypothesis (Hair *et al.,* 2003).According to Cooper and Schindler (2003), the objectives of descriptive studies are descriptions of the properties of the respective population, gauge of the extent of the populace that contains these properties, and building up connections between various factors. The objective of the research is to develop an e-government adoption success model based on business centric perspective in Jordan. To this end, a successful model was created based on the literature, to test this area. In this research model, seven variables are proposed as factors of success relying on previous research, and

these factors are interdependent of each other. Twelve hypotheses were formulated on the basis of the research model. The objective is to test hypotheses and define the strength of the relationships.

Based on the purpose of the research, this study is essentially descriptive and should not be seen as an attempt at causal research. It is neither practical nor possible to detect and investigate all variables that can lead to a phenomenon; however, it must be open to the possibility of other variables that are not included in the model, which could be responsible for a strong correlation.

3.8 Research Approach

A research approach for this study followed a quantitative approach inside the post positivist claim of knowledge position. The main features are disintegrating the issue of some variables, building of hypotheses and testing theories through the use of instruments and perceptions that give statistical data (Creswell, 2013).

Quantitative research ordinarily includes the building of hypotheses on the basis of theoretical statements and variables measured for impacts. Random sampling was conducted in order to reduce errors and bias, and the selected sample size was chosen to represent the sample population (Newman and Benz, 1998).The interpretive and naturalistic approach is associated with a qualitative research approach. In the common settings, scholars are studying events which aim to bring the phenomena in terms of the meaning that people bring around to them, in which the researcher uses interviews, case studies, observational, individual

experience, historical, and visual content to gather a variety of empirical materials (Creswell, 1998).

The objective of this study was to develop a success model relying on the previous literature, and test the success model in the field of Jordanian government e-services; therefore, quantitative method was used to verify the research model developed empirically.The research process involves creating hypotheses based on theoretical approaches. The quantitative approach was used to verify the research model developed empirically, since it is more useful for testing theory (Hair *et al.,* 2007). It also allows the researcher a greater variety of structured collection techniques for use with a large representative sample in order to achieve the validity and reliability of the measures used.

3.9 Sampling

Obtaining a sample is necessary because it is virtually impossible to collect data for the entire population. For further information kindly see appendix B.

The key for the testing is to accomplish representativeness of the population. The two methodologies for testing are probability and non-probability sampling. The utilization of probability sampling more frequently used for generalize-ability and/or drawing statistical conclusions are involved (Hair *et al.,* 2003). Non-probability samples, then again, are utilized amid the exploratory stages and amid pretesting period of survey questionnaires.

Hair *et al.* (2003) pose three principal questions for determining the course of the research process:

(A) Whether a sample or census should be used, (B) in the case of sampling, which sampling approach to use, and (C) how large the sample should be.

In quantitative research, the main goal, is obtaining a representative sample. The aim of the researcher is to collect a small unit of cases from a majority of the population, where this small group will be representative of the larger group from the population, and from which scholars can deliver exact speculations about the entire group (Neuman, 2002). Therefore, the Jordanian e-government online services were viewed as the application area for this study. In perspective of that, research data was gathered from Jordan. For further information, kindly see appendix B.

3.9.1 Choosing the Sample Frame

Hair *et al.* (2003) characterize the sampling frame to be a working definition of the target population, for example, such as a directory listing of businesses or university registration lists. Hair *et al.* (2007) list a few conceivable flaws that might be available in the sampling frame. These incorporate, specifically, that it might incorporate components that don't belong in the frame, with the goal that it can contain duplicate items, and may not be up to date. Researcher confronted the first probability by asking that only potential respondents from a group of government e-services users with previous experience with e-government services should complete the questionnaire.

3.9.2 Selecting the Sample Method

The sampling method ought to be viewed based of three constraints: the nature of the study, the goals of the study, and the budget requirements (Hair *et al.*, 2007). Different sorts of sampling techniques are accessible that can be utilized to gather data for this study. They are simple random sampling, multistage sampling, cluster sampling, stratified sampling and systematic sampling. In probability sampling the aim is to deploy a strategy that permits a component a random, non-zero possibility of being chosen. As our qualifying component is experience with the site among those with the capacity to utilize e-government services, the scholars ruled out utilizing a stratified sampling technique. That approach would warrant some sort of separation in view of demographic characteristics such as age, marital status, and income.

Regardless of the possibility that stratification had been used, we would then be left with just a single stratum of users, which serves no purpose. Essentially, for sample method, the researchers ruled out the utilization of cluster and multistage cluster sampling, since there are no specific or critical qualities within the target population that can focus the identification of clusters. There was a possibility of making a random or systematic probability sampling. For this situation, random sampling should be possible, maybe with a telephone directory for every area in Jordan, and after that by utilizing it from addresses and phone numbers listed. In any case, there are a few disadvantages to this strategy. One of the fundamental weaknesses is that there is no real way to decide if the individual to whom the mail is sent fits the chose component in the target population.

This would result in a large number of questionnaires sent, with the related expenses, best case scenario; the reaction rate will be unpredictable. It is additionally conceivable that not very many locations among the random samples chosen would be internet users. Obviously, this approach is error-prone, costly and unreasonable. At last, keeping the practical requirements of gathering data within the scope of the study, and the resources available, it is then decided to adopt a random sampling method.

To reduce this problem, business organizations in Jordan were selected according to their geographic locations and experience in dealing with e-government services. In any case, they may not be taken to be illustrative of the whole population, dissimilar to a probabilistic sample. In this manner, the initial sample

frame was a mix of convenience and judgment sampling for those; organizations that were willing to participate in the survey.

For this research, the target population is users from business organizations regardless of size and sector. Business organizations in Jordan were selected according to their geographic locations and experience in dealing with e-government services. According to the Companies Control Department (2017), there were 6337 registered business organizations in Jordan in 2014. According to Krejcie and Morgan (1970), the minimum number of samples for this study will be 425. The proposed sample size met the rule outlined by Roscoe (Cavana *et al.,* 2001) which states that the characteristics of the sample should be more than 30 but less than 500 for most studies. To collect data managers in selected organizations, questionnaires were distributed. It was not an issue meeting relative representativeness as long as it meets the example sample size prerequisite, which is dependent on the number of factors and parameters in the research model.

3.10 Adapting the Measurement for the Study

The measures that were utilized as a part of this study were mainly adapted from previous studies. DeLone and McLean (1992) ISS model was utilized as the base model in this study, yet DeLone and Mclean did not test their model empirically and they didn't create scales. Different researchers have utilized this model or part of it in various contexts and empirically tested it in various contexts. In this way, the measurement item utilized as parts of the proposed model were derived from different IS and marketing literature and they were tested in the e-

government context. Accordingly, the wording was changed for some items based on this context. Scales development followed the steps suggested by Churchill (1979) which are discussed below.

3.10.1 Specifying the domain of the construct

In the first stage, the researcher aimed to define the domain of the construct. Relying on the review of the literature, all the variables defined were in this model. Some definitions have been adapted directly. For others, however, some changes have been incorporated to fit with the context.

3.10.2 Generation of item scales

The second step was the generation of item scales. At this stage, a measurement item for each variable was selected by reviewing IS success, e-commerce success, and marketing literature. In addition, some of the wording has been changed to match with government e-services. In this stage, the researcher's aim was to create an item pool to measure the variables identified in the proposed model.

3.10.3 Items scales for system quality

Seven items were selected to measure system quality, which covered the functionality and desired characteristics of the e-government portal. Items were selected and adapted from the previous studies done by Liu and Arnett (2000), McKinney *et al.* (2002), Smith (2001), Aladwani and Palvia (2002), Wang *et*

al.(2005), Stockdale, Borovicka and Innsbrck (2006), and Cao, Zhang and Seydel (2005).

Table 3.4
Measurement scale for system quality

Variable	Code	Items
System quality	Sysq1	This e-government portal provides necessary information and forms to be downloaded.
	Sysq2	This e-government portal provides helpful instruction for performing my task.
	Sysq3	This e-government portal provides fast information access.
	Sysq4	This e-government portal quickly loads all the text and graphics.
	Sysq5	It is easy to go back and forth between pages.
	Sysq6	It only takes a few clicks to locate information from e-government portal.
	Sysq7	It is easy to navigate within e-government portal

3.10.4 Item scales for Information quality

To measure information quality, seven items were selected from previous literature, which measured the characteristics of information provided by e-government portal. Items were selected and adapted from the previous study done by Aladwani and Palvia (2002), Liu and Arnett (2000),Smith (2001), Bailey and Pearson (1983),McKinney *et al.* (2002), Li (1997), Wang *et al.* (2005), Stockdale and Borovicka (2006), Rai *et al.* (2002), Seddon and Kiew (1996), Roca *et al.* (2006) and Cao, Zhang and Seydel (2005).

Table 3.5
Measurement scale for information quality

Variables	Code	Items
Information quality	Infq1	Information on e-government portal is free from errors.
	Infq2	This e-government portal provides information precisely according to my need/Precision of information.
	Infq3	Information on this e-government portal is up to date.
	Infq4	This e-government portal provides information I need at the right time.
	Infq5	Information presented in this e-government portal is related to the subject matter.
	Infq6	Information on this e-government portal is sufficient for the task at hand.
	Infq7	Information contains necessary topics to complete related task.

3.10.5 Measurement Items for e-service Quality

To measure e-service quality nine items were selected which were adapted from the previous studies done by Stockdale and Borovicka (2006),Parasuraman, Zeithaml and Malhotra (2000, 2002, 2005), Aladwani and Palvia (2002), Wang *et al.* (2005), Liu and Arnett (2000), Smith (2001), Roca *et al.* (2006) and Collier and Bienstock (2006).

Table 3.6
Measurement scale for e-service quality

Variables	Code	Items
E-service Quality	E_s1	This e-government portal makes it easy to find what I need.
	E_s2	This e-government portal makes it easy to get anywhere on the site.
	E_s3	This e-government portal is well organized.
	E_s4	This e-government portal is available at all times.
	E_s5	This e-government portal will not misuse my personal information.
	E_s6	Symbols and messages that signal the e-government portal is secure are present.
	E_s7	Automated or human email responses or serving pages provide me prompt service in e-government portal
	E_s8	It is easy to find the responsible person's contact details.
	E_s9	Various FAQs help me to solve problems myself

3.10.6 Measurement Items for Business User Satisfaction

To measure business user satisfaction three items were selected. These were derived and adapted from studies conducted by Cronin, Brady and Hult (2000) and Oliver, Rust and Varki (1997).

Table 3.7
Measurement scale for business user satisfaction

Variable	Code	Items
Business User satisfaction	Bus1	I think that I made the right choice when I started using this online service for my organization.
	Bus2	This tool is exactly what is needed for this service.
	Bus3	I am happy with the online services provided by the government.

3.10.7 Measurement Items for Perceived Ease of Use

Five items were selected to measure perceived ease of use. These were adapted from Roca, Chiu and Martinez (2006), Gefen, Karahanna and Straub (2003), Carter and Belanger (2005), Davis (1989).

Table 3.8
Measurement scale for perceived ease of use

Variable	ode	Items
Perceived ease of use	P_eu1	Learning to interact with this e-government portal is easy for me.
	P_eu2	Interacting with this e-government portal is a clear and understandable process.
	P_eu3	I find this e-government portal to be flexible to interact with.
	P_eu4	The e-government portal is easy to use.
	P_eu5	It is easy for me to become skilful at using this e-government portal

3.10.8 Measurement items for perceived usefulness

For measuring perceived usefulness five items were selected. These items were adapted from previous studies conducted by Carter and Belanger (2005) and Davis (1989).

Table 3.9
Measurement scale for perceived usefulness

Variable	Code	Items
Perceived usefulness	Per_u1	This e-government portal enhanced my effectiveness in searching for and using this service.
	Per_u2	I think this e-government portal provided a valuable service for me.
	Per_u3	I find this e-government portal useful.
	Per_u4	Using this online service enables me to accomplish tasks more quickly.
	Per_u5	Using this online service makes it easier to do my task.

3.10.9 Measurement items for Trust

To measure trust four items were selected and these items were adapted from studies by Gefen *et al.,* (2003) and Luarn and Lin (2003).

Table 3.10
Measurement scale for trust

Variable	Code	Items
Trust	Trust_1	The e-government service provides safe transactions
	Trust_2	The e-government service is trustworthy
	Trust_3	The e-government service is secured
	Trust_4	The e-government service will not misuse my personal information
	Trust_5	I believe the e-government service has a good reputation
	Trust_6	I believe my privacy is protected at this e-government service

All the items were measured by five-point Likert scale with anchors going from "strongly disagree" to "strongly agree" According to Lehmann and Hulbert (1972),"If the focus is on individual behavior, five- to seven-point scales should be used". Therefore, five-point scale was utilized rather than the seven-point scale. Increasing the number of scale points may increase non-response bias and respondent fatigue, as well increase the cost of administration. When questionnaires are long and individual scales must be analyzed, using a 5 to 6 point scale is sufficient to obtain an accurate measurement (Lehmann & Hulbert, 1972).

3.11 Data Collection Procedure

The data for the present study was collected by the researcher himself from the business organizations which use services within the e-government in Jordan. The researcher distributed the survey questionnaire to the representative organizations that were randomly selected. Explanations included how to answer the survey questions, and about the questions being asked to the respondents, clear explanation was given for proper filling of the survey. Survey questions were translated from English into Arabic for better understanding. Before distributing the questionnaire to the organizations, the researcher had scheduled an appointment with the organization. The survey requires not more than 20 minutes to complete. Therefore, respondents were highly satisfied to answer the questionnaire.

3.11.1 Instrument Translation

The original instruments are written in English, but as the study was conducted in Jordan, the instrument was translated into Arabic for better understanding by the respondents. The instrument translation was done back to back translation from experts in the English department and the Management Information System Department in Al-Yarmouk University in Jordan. To maintain the consistency suggested by Behling and Law (2000) and (Brislin, 1980), the same layout in the paper, order of questions, and the number of pages was used as in the original English version. The instruments in both versions are presented in appendix C.

3.12 Pilot Test

To conduct the pilot test, the data should be collected from a sub-set of the participants to test for the validity and reliability of the measure (Cross & Sproull, 2004). The pilot test involved respondents from the same pool of respondents of the study from which the real data was collected (Bradburn *et al.*, 2004). However, the pilot test was conducted to refine the measure before being distributed to collect the real data of the study, to rephrase the ambiguous questions, to decide the time required responding to the questionnaire, and finally to measure the reliability and validity of the measures that were used. Table 3.11 shows the pilot test of this study and it was found that all the constructs values are above the threshold value 0.70 suggested by Nunnally (1978).

3.12.1 Content Validity

Content validity of this study's instrument measures was tested before the full-face data collection. This was achieved by the careful selection of items from previous studies. To confirm the content validity, confirmatory factor analysis was conducted through SmartPLS 3.0, this was the second step after face validity.

3.12.2 Face Validity

To assess the contents of the instrument face validity was conducted for this study. After developing the instrument of the survey, it was shown to academic experts in information system in University Utara Malaysia and Al-Yarmouk University for face validity. Necessary adjustments were considered after their valuable review.

3.12.3 Reliability Analysis

To see the items' interrelationships with one another, Cronbach's Alpha was calculated by conducting reliability analysis (Sekaran & Bougie, 2010). In general, an alpha coefficient close to 1.0 provides the best result. Detailed analysis of the result of reliability analysis is presented in Chapter four. All of the variables' values achieved the minimum cutoff value suggested by Nunnally and Bernstein's (1994) for descriptive research. For more details kindly refer to appendix D.

Table 3.11
Pilot Study Result

Variables	N	α
System Quality	50	0.836
Information Quality	50	0.829
E-Service Quality	50	0.854
Business User Satisfaction	50	0.895
Perceived Ease of Use	50	0.924
Perceived Usefulness	50	0.875
Trust	50	0.884

3.13 Data Analysis

For analyzing data and testing the research hypotheses, two statistical tools and methods were used namely; SPSS (Statistical Package for the Social Sciences) and SmartPLS 3.0. To test the goodness of measures, factor and reliability analysis were done. Regarding examining the respondents' characteristics,

descriptive statistics was applied. Relationships among variables were tested through correlation analysis.

3.13.1 Confirmatory factor analysis and structural equation modeling

Structural equation modeling is chosen as a major analysis technique for this study, and the SmartPLS 3.0 software package was used to accomplish structural equation modeling. In a structural equation model, it is important to test multiple interrelated dependence relationships in a single model. Analysis was carried out in two phases. At the first phase, measurement model was assessed by conducting confirmatory factor analysis.

Convergent validity of the measures and discriminant validity of the measures were assessed to confirm the measurement model validity. The second step consisted of the hypotheses testing of this study. Regression weight was measured to test the hypothesis proposed in this study. Based on the result of the analysis, hypotheses was accepted or rejected. To confirm the success model of G2B in Jordan, structure equation modeling through SmartPLS 3.0 was performed. An array of methods for evaluating e-government success factors has been developed and SEM was used as a statistical tool for data analysis (Grigorovici *et al.,* 2009). SEM combines elements of multivariate models such as regression analysis, factor analysis and simultaneous equation modeling (Wothke *et al.,* 2010).

3.14 Chapter Summary

This chapter presented the method of this study. An explanation about the design of this study has been provided. Consequently, population and sampling technique had been determined. Questionnaire and measurements items were explained in detail. Moreover, the data collection procedure and the analysis procedures of collected data were explained. The research framework was also developed in this chapter based on the ISS success model. Twelve hypotheses were proposed to test the success factors of e-government service in Jordan. Successful use of (ICT) increases the satisfaction of business users of towards governments by getting delivery of e-services.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.1 Introduction

This chapter covers presentation of results and data analysis of the study. First, this study examined how the respondents were distributed according to the demographic variables. Additionally, the main variables of the study were described with the aid of descriptive statistics after which Partial Least Squares Structural Equation Modeling (PLS-SEM) was used with the purpose of assessing the outer measurement model as a condition for the inner structural model assessment and hypotheses testing. In particular, the goodness of the outer model as it relates to the constructs of this study was established. The constructs of the study include electronic service quality, information quality, system quality, perceived usefulness, perceived ease of use, trust and business user satisfaction. Having established the construct validity, the process was to examine the quality of the structural model. In the end, the outcomes of the hypotheses that were tested were reported while all the connectivity or relationships among the variables to use e-government in future was reported.

4.2 Response Rate

According to Hamilton (2009), response is the number of respondents who responded to the questionnaire survey and which are subsequently divided into the number of respondents in the sample size. Out of the 425 questionnaires that were randomly distributed among employees and users of the business sectors in

Jordan, a total of 315 were returned and this implies a response rate of 74.12%. However, 110 of the questionnaires representing 25.88% were not returned, out of 315 questionnaires that were returned, the researcher observed that 16 were not completed appropriately and were discarded accordingly.

This therefore implies that only 299 (70.35%) of the questionnaires were used for further analysis. Accordingly, Babbie (2007) maintained that 50% response rate is acceptable for social science research survey. This therefore implies that the rate of response for this study is appropriate and adequate. In addition, the total number of questionnaires used was regarded to be acceptable to run the statistical analyses that are required, especially a PLS analysis (Byrne& Van, 2010; Hair *et al.*, 2010; Kline, 2011).

Table 4.1
Summary of the response rate

Questionnaires Status	Count	Percentage
Distributed questionnaires	425	100%
Unreturned questionnaires	110	25.88%
Uncompleted questionnaires	16	3.76%
Returned and entered questionnaires	299	70.35 %
Response rate	315	74.12%

4.3 Testing Non-Response Bias

As mentioned earlier, survey questionnaire research design was employed for the purpose of collecting data for this research. For effective outcome, the

questionnaires were distributed in all the affected locations. However, ascertaining non-response bias was essential for some reasons. For instance, many respondents only responded to the questionnaires after several visits and reminders while the period of data collection spanned over 6 months (March - September, 2016).

Therefore, for the purpose of assessing non-response bias, the T-test was carried out in order to compare early responses with late responses with respect to the variables of the study. According to Armstrong and Overton (1977), the significant difference between early and late responses is an indication that marks underlying difference between non-respondents and respondents. In addition, Lambert and Harrington (1990) equally maintained that feature of late respondents could be akin to non-respondents. It therefore connotes that if the difference in response between the two groups is not significant, the assumption is that non-response bias exists. To therefore determine the existence of a non-response bias, Pallant (2007) suggests that the independent samples t-test can be used for the purpose of testing a non-response through comparison between the early and late responses.

There are two parts of the output of samples t-test. The first part consists of Mean, Standard Deviation, and Standard Error (SE) scores of responses which were received before and after the reminders were sent. The second part, which is Levene's test, is a statistical indicator that employed to assess the equality of differences in different samples (Landau & Everitt, 2004; Pallant, 2007). Tables 4.2 and 4.3 provide the results of the independent samples t-test.

Table 4.2
Group Statistics of Independent Sample t-test (n=299)

Constructs	Response Bias (Early/Late)	N	Mean	Std. Deviation	Std. Error Mean
System Quality	Early Response	167	3.97	.569	.044
	Late Response	132	3.82	.556	.048
Information Quality	Early Response	167	3.75	.594	.046
	Late Response	132	3.60	.565	.049
E-Service Quality	Early Response	167	3.81	.589	.046
	Late Response	132	3.69	.583	.051
Business User Satisfaction	Early Response	167	3.76	.773	.060
	Late Response	132	3.71	.686	.060
Perceived Ease of Use	Early Response	167	3.98	.568	.044
	Late Response	132	3.81	.617	.054
Perceived Usefulness	Early Response	167	3.91	.657	.051
	Late Response	132	3.86	.634	.055
Trust	Early Response	167	3.65	.623	.048
	Late Response	132	3.54	.656	.057

Using statistical software, a T-test was executed as the two groups involved were divided into early response and late response. As initially stated, early response refers to those who responded within one month after distribution of questionnaire (n= 167, 55.85%) while late response refers to those who returned the questionnaires after 2 months of distribution (n = 132, 44.15%). In this respect, all the constructs of the study were involved. Consequently, the output

from Table 4.2 above reveals that the differences between the two groups were not significant across all the constructs since the equality of the mean responses of the two groups were supported at the 0.01 level of significance. This therefore implies that respondents from the two groups (early and late response) were not biased in terms of their responses and this has earlier been confirmed by Levene's test for equality of variances (see Table 4.3).

Table 4.3
Levene's Test of Independent Samples t-test (n=299)

Variables	Levene's Test for Equality of Variances		T-test for Equality of Means		
	F-Value	Significance	T-Value	df	Significance
System Quality	.185	.668	-2.400	297	0.17
Information Quality	.205	.651	-2.192	297	.029
E-service Quality	.009	.924	-1.720	297	.086
Business User Satisfaction	.412	.522	-.541	297	.589
Perceived Ease of Use	.863	.354	-2.430	297	.016
Perceived Usefulness	.270	.604	-.638	297	.524
Trust	.030	.862	-1.537	297	.125

4.4 Common Method Bias Test

Since the data on the endogenous and exogenous variables were collected at the same time using the same instrument, common methods bias could distort the data collected. Therefore, considering the potential problem caused by common

method bias in behavioral studies, this study conducted a test to make sure that there is no variance in observed scores and correlations are not inflated because of the methods effect. Common method bias refers to the variance attributable exclusively to the measurement procedure as opposed to the actual variables the measures represent (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

There are many arguments on the extent of seriousness of common method bias on data (Bagozzi, 2011). It is therefore an important consideration in this study. There are several procedures and statistical techniques to treat common method variance. These include wording questions in reverse, clarity of questions or items, confidentiality of the respondents and statistical Harman's one-factor test (Podsakoff *et al.*, 2003). In this study, un-rotated factor analysis with forty-two items of all the variables of the study revealed that no single factor accounted for more than 50% of the variance.

The result produced 14 distinct factors and only 32.80% of the total variance was accounted by a single factor, indicating the absence of common method bias in this study. This is in line with Podsakoff *et al.* (2003) and Lowry and Gaskin (2014), who argue that common method bias is present when a single factor explains more than 50% of the variance.

4.5 Initial Data Examination, Screening and Preparation

Screening, editing and preparation of initial data are essential steps before any further multivariate analysis. It is also important to conduct data screening to identify any potential violation of the basic assumptions related to the application

of multivariate techniques (Hair *et al.*, 2010). In addition, preliminary data examination enables the researcher to gain a deeper understanding of the data collected. Therefore, missing data, normality and multicollinearity are checked and treated accordingly.

4.5.1 Missing Data

Missing data refers to the fact that all questions on the questionnaires are not fully responded to 100% by the respondents. There are a number of reasons for this. For instance, many of the respondents may refuse to respond to personal questions with respect to their age, income, marital status and so on. In addition, some of the respondents may be ignorant of the topic of the research, may not understand some questions, or are not willing to provide answer to some questions (Sekaran & Bougie, 2010).

Previous studies have indicated different methods of treating missing data such as deletion, distribution or replacement (Kline, 1998). In addition to deletion, the missing data can be replaced with the mean value, especially if the data that is missing is below 5% of the total required data (Hair *et al.*, 2010). Therefore, problem of missing data is a common phenomenon in research surveys (Hair *et al.*, 2010). However, it is highly essential that PLS is used because of its statistical proficiency since the data will not run if there is any missing data (Schumacker & Lomax, 2004).

4.5.2 Normality Assumptions

Normality assumption is a bell shape curve of the data distribution for an individual metric variable and its correspondence to a normal distribution (Hair *et al.,* 2010). A normality distribution of sample data is explained as a symmetrical bell-shaped curve that has the highest range of frequency in the middle with smaller range of frequencies towards the extremes (Gravetter & Wallnau, 2000). In fact, it is essential to check the normality distribution of a variable especially for each multivariate analysis, such as multiple regression, factor analysis, and SEM. It is regarded as a standard for assessing other statistical methods (Hair *et al.,* 2010).

It is, however, important to emphasize that non-normality distribution often bring about distortion in the relationships among variables and the significance tests of results (Hulland, 1999). It is therefore important to check for normality distribution before analysis of sample data.

According to Pallant (2007), Skewness and Kurtosis are the main or only tests that researchers use for the validation of normality assumptions. Accordingly, Skewness is used to describe the extent of the samples data distribution. It thus addresses whether it is balanced, unbalanced, shifted to the right, left, centered or symmetrical with about the same shape on both sides. On the other hand, Kurtosis refers to the measure of normality assumptions by comparing them with a "peakedness" or "flatness" of the sample data distribution (Hair *et al.,* 2010).Conservatively, Hair *et al.,* (2010) posited that if the test of Skewness values and test of Kurtosis values are between ±1.96 at the .05 significant levels

and ±2.58, at the significant level .01, the sample data is considered to be normal. Tabachink and Fiedell (2007) also support the rule of thumb by arguing that when Skewness values are within ±2.00 and the Kurtosis values are within ±7.00, the sample data is also considered to be normal. In addition, Kline (2011) also argued that Skewness values that are within ±3.00 and Kurtosis values are within ±10.00 are indications of normal distribution of data. A critical examination of the Skewness and Kurtosis, as illustrated in Table 4.4 below, shows that none of the variable items had Skewness values greater than (-0.166) and Kurtosis values greater than (1.220).

It is therefore essential to state that the outcomes indicate that the sample data is consistent with a normality assumption required for further use in multivariate analysis.

Table 4.4
Assessment of the Normality Assumption

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
System Quality	-0.199	0.141	0.302	0.281
Information Quality	-0.166	0.141	-0.064	0.281
E-Service Quality	-0.299	0.141	0.687	0.281
Business User Satisfaction	-0.714	0.141	1.125	0.281
Perceived Ease of Use	-0.476	0.141	0.703	0.281
Perceived Usefulness	-0.686	0.141	1.220	0.281
Trust	-0.545	0.141	0.796	0.281

4.5.3 Multicollinearity Assumptions

Multicollinearity happens when one or set of independent variables are closely correlated with other independent variables in a correlation matrix. When the problem of multicollinearity occurs, it is always difficult to ascertain the specific influence of each independent variable on the dependent variable (Hair *et al.,* 2010; Sekaran & Bougie, 2010). In this view, Hair *et al.,* (2010) recommend that multicollinearity among the variables should be established first before performing the hypotheses testing of the model.It is generally agreed that multicollinearity assumptions can be consummated by testing the Tolerance value and Variance Inflation Factor (VIF) value (Pallant, 2007). Tolerance value is an indicator that determines the extent in which dependent variable is predicted by other independent variables in the regression variant. On the other hand, VIF indicates the level in which other independent variables have influence on the standard error of a regression coefficient. It is tolerance's inverse (Hair *et al.,* 2010). It should be noted that multicollinearity occurs when the results reveal values of tolerance below or equal to 0.10 and VIF values that are higher or equal to 10 (Hair *et al.,* 2010; Sekaran & Bougie, 2010). Table 4.5 below presents the results of the multicollinearity test using statistical software.

Table 4.5
*Test of Multicollinearity**

IVs	DV	Collinearity Statistics	
		Tolerance	VIF
System Quality	Business User Satisfaction (BUS)	0.472	2.117
Information Quality		0.394	2.537
E-Service Quality		0.372	2.689
Perceived Ease of Use		0.508	1.967
Perceived Usefulness		0.431	2.318
Trust		0.566	1.768

*Dependent Variable: Business User Satisfaction (BUS)

The results of multicollinearity that is displayed in Table 4.5 show that the Tolerance values fall between the ranges of (0.372) to (0.566), while VIF between the range of (1.768) and (2.537). Therefore, the results confirmed that the multicollinearity was absent among the variables of this study.

4.6 Preliminary Analysis

In order to determine the suitability of sample data, further analysis was discovered in the treatment of non-response bias and response rate.

4.6.1 Descriptive Statistics

The purpose of descriptive analysis is to transform data into a form that can be used. The descriptive statistics help to describe a set of constructs with purpose

of making them simple and understood for the purpose of interpretation (Zikmund *et al.,* 2013). The primary reason for doing such analysis is to secure a useful meaning of the data through some statistical concepts such as frequency distribution, mean, and SD, which can help the researcher to discover the dissimilarities among the variables (Sekaran & Bougie, 2010). Then, full details of this analysis were given of respondents' demographic factors and variables using 299 usable questionnaires. For more details kindly refer to appendix E and F.

4.6.2 Descriptive Statistics of Respondents' Demographic Factors

The demographic variables of the respondents' were gathered with the intention of collecting information about the respondents who participated in the survey. In this respect, the respondents were asked certain questions concerning the time they have been using e-government services in their institution, their age, gender, highest level of education and his/her status in the company. The questions were deliberately designed so that the respondents will be able to choose their answers based on categories instead of providing them specific information. Table 4.6 below shows the profile of the respondents' demographic factors using SPSS v24. For more information kindly see appendix G.

Table 4.6
Profile of the Respondents' Demographic Factors

Construct	Category	Count	Percentage
Does Your Company use any of the E-government Services	Yes	299	100%
	No	0	0%
Total		299	100%
How long have you been using e-government services	Less than 1 year	16	5.4%
	Between 1 and 3 years	46	15.4%
	Between 3 and 5 years	63	21.1%
	More than 5 years	174	58.1%
Total		299	100%
Gender	Male	199	66.6%
	Female	100	33.4%
Total		299	100%
Age	Between 21 and 30 years	54	18%
	Between 31 and 40 years	142	47.5%
	Between 41 and 50 years	78	26.1%
	More than 50 years	25	8.4%
Total		299	100%
Highest level of education	Diploma	75	25.1%
	Bachelor's degree	168	56.2%
	High Diploma	14	4.7%
	Masters or Higher	39	13%
	PhD	3	1%
Total		299	100%
Status	Manager	33	11%
	Employee	266	89%
Total		299	100%

As shown in Table 4.6 above, a total of 299 respondents constitute the final sample of the research. The female respondents (33.4%) participated in the survey against (66.6%) male respondents. This therefore indicates that majority

of the participants are males. Meanwhile, the table reveals that those respondents that have less than one-year government experience constitute (5.4%) against (58.2%) respondents that have more than 5 years' experience. It can therefore be said that the respondents are well familiar with e-government usage and have carried out services through the government portals. The participants whose age category falls between 31 and 40 years had highest participation of (47.5%) while the respondents' whose age is above 50 years had the lowest percentage of participation (8.4%) in the survey. This is an indication that most of the respondents are considerably young and they have used e-government.

In addition, the highest level of education among the participants is Bachelor's degree (56.2%) against (1%) those who hold PhD certificate. In the final analysis, the category of the respondent's career status employees constitutes maximum of (89%) participation while managers only had a minimum percentage of participation (11%) in the survey. As a result, the respondents have some characteristics that may help to achieve the overall objectives of present study.

4.7 Testing the Measurement Model Outer Model Using PLS Approach

Before the hypotheses of the study were tested, outer model and the measurement model were assessed with the aid of the Partial Least Squares Structural Equation Modeling (PLS-SEM) techniques. In order to achieve this, the two step approach as suggested by Anderson and Gerbing (1988) was followed.

4.7.1 Construct Validity

For the purpose of establishing construct validity, the researcher must first ascertain convergent validity and discriminant validity (Hair *et al.,* 2010).

4.7.2 Convergent Validity of the Measures

According to Hair *et al.* (2010), convergent validity refers to the degree in which a set of variables converges while measuring a specific concept. For the purpose of establishing convergent validity, certain criteria such as composite reliability (CR), factor loadings and average variance extracted (AVE) were simultaneously used as suggested by Hair *et al.,* (2010). In achieving this, a thorough examination of the items loadings were done and the results indicate that all the variables have loadings more than (0.5) and further indicate that they are at acceptable level (Hair *et al.,* 2010). In addition, all the factors loadings were significant at the 0.01 level of significance. See Figure 4.1 for the PLS measurement model.

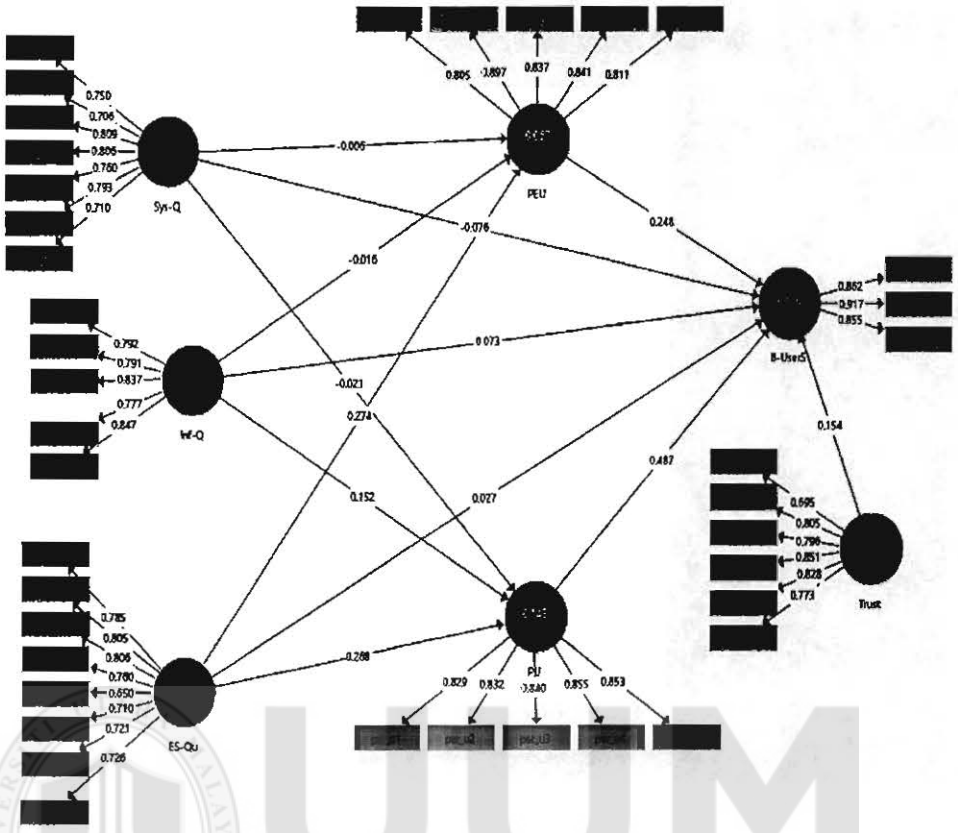

Figure 4.1
PLS measurement model

Composite reliability is the second part of the convergent validity and it indicates the extent to which a set of items repeatedly indicate the latent construct (Hair *et al.*, 2010). The procedure was then to examine the composite reliability values as depicted in Table 4.7. It can be noticed that the composite reliability values ranged from (0.905) to (0.924) which exceeds the recommended value of 0.7 (Fornell & Larker, 1981; Hair *et al.*, 2010). These results confirm the convergent validity of the outer model.

Furthermore, the values of average variance extracted (AVE) were examined with the purpose of confirming the validity of outer model. The average variance extracted (AVE) therefore shows the average of the variance that was extracted among a set of items relative to the variance shared with the measurement errors. More specifically, AVE measures the variance captured by the indicators relative to the variance assignable to the measurement errors. As suggested by Barclay *et al.* (1995), the AVE value of 0.5, indicates that these sets of items have an adequate convergence in measuring the construct of concern. For this study, the average variance extracted (AVE) values ranged between (0.558) and (0.772) indicating a good level of construct validity of the measures used (Barclay *et al.*, 1995).

Table 4.7
Convergent Validity Analysis

Variables	Item	Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Business User Satisfaction	BUS1	0.862	0.852	0.910	0.772
	BUS2	0.917			
	BUS3	0.855			
E-Service Quality	E_S1	0.784	0.887	0.909	0.558
	E_S2	0.807			
	E_S3	0.809			
	E_S4	0.761			
	E_S5	0.648			
	E_S6	0.704			
	E_S8	0.722			
	E_S9	0.721			

Table 4.7

Convergent Validity Analysis (cont.)

Information Quality	INFQ2	0.796	0.868	0.905	0.655
	INFQ3	0.794			
	INFQ 4	0.836			
	INFQ 6	0.776			
	INFQ 7	0.841			
Perceived Ease of Use	P_EU1	0.804	0.895	0.922	0.703
	P_EU 2	0.897			
	P_EU 3	0.836			
	P_EU 4	0.840			
	P_EU 5	0.810			
Perceived Usefulness	PER_U1	0.828	0.897	0.924	0.709
	PER_U2	0.832			
	PER_U 3	0.840			
	PER_U 4	0.854			
	PER_U 5	0.853			
System Quality	SYSQ1	0.754	0.880	0.907	0.582
	SYSQ 2	0.714			
	SYSQ 3	0.809			
	SYSQ 4	0.804			
	SYSQ 5	0.760			
	SYSQ 6	0.786			
	SYSQ 7	0.704			
Trust	TRUST_1	0.695	0.882	0.910	0.628
	TRUST_2	0.804			
	TRUST_3	0.795			
	TRUST_4	0.850			
	TRUST_5	0.828			
	TRUST_6	0.772			

a: Composite Reliability: CR = $(\sum$ factor loading$)^2$ /{$(\sum$ factor loading$)^2$) + $\sum$ (variance of error)}

b: Average Variance Extracted: AVE = $(\sum$ factor loading$)^2$ / {$\sum$(factor loading$)^2$ + $\sum$ variance of error)}

4.7.3 Discriminant Validity of the Measures

The purpose of discriminant validity is to confirm the construct validity of the outer model. This should be carried out before the hypotheses of the study are tested via path analysis. The discriminant validity reveals the extent to which items of the study are differentiated with respect to the constructs. Simply put, it shows that the items used different constructs and they do not overlap. In this respect, even though the constructs are correlated, they measure different concepts. This concept was clearly explained by Compeau *et al.* (1999) where he reached a conclusion that if the discriminant validity of the measures was established, it means that the shared variance between each construct and its measures should be greater than the variance shared among distinct constructs. This study employed the method of Fornell and Lanker (1981) to confirm the discriminant validity of the measures.

As illustrated in Table 4.7, the square root of average variance extracted (AVE) for all the constructs were placed at the diagonal elements of the correlation matrix. As the diagonal elements were higher than the other elements of the row and column in which they are located, this confirms the discriminant validity of the outer model. Having established the construct validity of the outer model, it is assumed that the obtained results pertaining to the hypotheses testing should be valid and reliable. For discriminant validity analysis, see the following Table 4.8.

Table 4.8
Discriminant Validity Analysis

Variables	B-Users	ES-Qu	Inf-Q	PEU	PU	Sys-Q	Trust
(1) Business User Satisfaction	0.879						
(2) E-Service Quality	0.321	0.747					
(3) Information Quality	0.293	0.740	0.809				
(4) Perceived Ease of Use	0.673	0.259	0.183	0.839			
(5) Perceived Usefulness	0.767	0.365	0.335	0.677	0.842		
(6) System Quality	0.201	0.694	0.663	0.175	0.266	0.763	
(7) Trust	0.617	0.331	0.277	0.574	0.637	0.245	0.793

Lastly, in this study outer factor loading as important criteria in assessing indicator's contribution to assigned construct was examined. Outer loadings were examined based on the threshold value of 0.50 and above (Hair *et al.*, 2010). However, Hair *et al.*, (2013) stressed that outer loading greater than 0.40 but less than 0.70 should be carefully analyzed and should be deleted only if it increases the value of CR and AVE. Based on these recommendations regarding item deletion, 3 out of 42 items were deleted.

Table 4.8 indicates that all the values of the loading exceed the suggested threshold of 0.50 and above, showing satisfactory contribution of the indicators to assigned constructs. Additionally, as argued by Hair *et al.* (2013), discriminant validity can be assessed by examining the indictors' outer loadings. They argue that discriminant validity can be established when the indicator's outer loading on a construct is higher than all its cross-loading with other constructs. Hence, Table 4.9 indicates absence of discriminant validity problem since the loadings

are greater than 0.5, and no any other indicator has loading more than the one it intends to measure.

After obtaining a good result of the evaluation of the outer model (measurement model), where only the latent variables indicate satisfactory evidence of reliability and validity, the next step was evaluation of inner model (structural model). However, because the original framework is based on what is obtained in the literature, there is a need to revise and amend it since the outer model assessment has been conducted. This is because the analysis of the outer model led to the deletion of 3 indicators out of 42. However, none of the constructs was eliminated and there are a sufficient number of indicators per construct (Hair *et al.*, 2012).

Table 4.9
Factor Loadings

Variable	Item	B-UserS	ES-Qu	Inf-Q	PEU	PU	Sys-Q	Trust
Information Quality	Infq2	0.189	0.663	0.796	0.145	0.241	0.568	0.210
	Infq3	0.242	0.555	0.794	0.160	0.286	0.547	0.245
	Infq4	0.247	0.599	0.836	0.167	0.275	0.558	0.224
	Infq6	0.195	0.551	0.777	0.118	0.230	0.532	0.192
	Infq7	0.297	0.631	0.842	0.145	0.312	0.490	0.241
Business User Satisfaction	bus1	0.862	0.268	0.263	0.594	0.668	0.168	0.555
	bus2	0.917	0.288	0.263	0.621	0.709	0.172	0.523
	bus3	0.855	0.290	0.246	0.558	0.643	0.191	0.551
E-service Quality	e_s1	0.283	0.785	0.658	0.190	0.330	0.617	0.275
	e_s2	0.246	0.808	0.614	0.244	0.292	0.579	0.252
	e_s3	0.289	0.809	0.620	0.252	0.348	0.572	0.303
	e_s4	0.191	0.761	0.468	0.157	0.232	0.499	0.182
	e_s5	0.149	0.648	0.432	0.137	0.167	0.414	0.189

Table 4.9
Factor Loadings (Cont.)

	e_s6	0.258	0.704	0.557	0.169	0.255	0.493	0.236
	e_s8	0.205	0.722	0.535	0.194	0.239	0.489	0.258
	e_s9	0.251	0.722	0.474	0.165	0.259	0.436	0.252
Perceived Ease of Use	p_eu1	0.507	0.142	0.095	0.805	0.534	0.077	0.401
	p_eu2	0.615	0.235	0.137	0.897	0.586	0.124	0.489
	p_eu3	0.631	0.240	0.160	0.837	0.592	0.170	0.573
	p_eu4	0.572	0.250	0.191	0.841	0.564	0.180	0.481
	p_eu5	0.469	0.203	0.183	0.811	0.558	0.176	0.440
Perceived Usefulness	per_u1	0.664	0.270	0.268	0.573	0.829	0.202	0.570
	per_u2	0.662	0.332	0.290	0.581	0.832	0.242	0.565
	per_u3	0.641	0.317	0.287	0.589	0.840	0.240	0.501
	per_u4	0.658	0.323	0.295	0.564	0.855	0.211	0.525
	per_u5	0.600	0.294	0.271	0.539	0.853	0.224	0.517
System Quality	sysq1	0.128	0.428	0.455	0.120	0.189	0.755	0.151
	sysq2	0.105	0.388	0.480	0.127	0.180	0.715	0.129
	sysq3	0.171	0.538	0.547	0.132	0.237	0.810	0.187
	sysq4	0.181	0.559	0.525	0.147	0.213	0.804	0.198
	sysq5	0.139	0.554	0.463	0.135	0.204	0.760	0.159
	sysq6	0.200	0.633	0.548	0.168	0.221	0.787	0.282
	sysq7	0.137	0.604	0.527	0.090	0.162	0.704	0.191
Trust	trust_1	0.380	0.214	0.221	0.333	0.404	0.177	0.695
	trust_2	0.463	0.225	0.141	0.468	0.459	0.163	0.805
	trust_3	0.528	0.278	0.195	0.535	0.527	0.187	0.796
	trust_4	0.535	0.320	0.285	0.451	0.539	0.229	0.851
	trust_5	0.577	0.272	0.244	0.537	0.611	0.232	0.828
	trust_6	0.406	0.253	0.227	0.356	0.449	0.166	0.773

INFQ=Information Quality, BUS=Business User Satisfaction, E_S=E-Service Quality, P_EU=Perceived Ease of Use, PER_U=Perceived Usefulness, SYSQ=System Quality, TRUST=Trust

4.8 Direct Relationships

In this study, a systematic model analysis of the structural model was carried out to provide a detailed picture of the results and to test Hypotheses 1 to 12 comprehensibly. The evaluation of the inner model begins with an examination of the direct relationships between the independent variables and the dependent variable. The size of the path coefficients was examined through PLS-SEM Algorithm, and the significance of the relationship was examined through PLS-SEM bootstrapping procedure in the SmartPLS 3.0. The original number of cases used was 299, and 5,000 was used as bootstrapping samples (Hair, Ringle, & Sarstedt, 2011; Hair*et al.*, 2012; Hair *et al.*, 2013; Henseler *et al.*, 2009).

The first model focused on the analysis of the direct relationship between the independent variables and the dependent variable (H1, H4 and H9), the mediator variables were introduced, and analysis of the relationship between the independent variables and the mediator (H2, H3, H5, H6, H10 and H11) was carried out. Then, the relationship between mediator variable and dependent variable was also examined. Additionally, in the first model, the mediation analysis took place, where H7 and H8 were examined. In the second model, the moderator was introduced and its relationship and interactions effect were examined, which took care of H12.

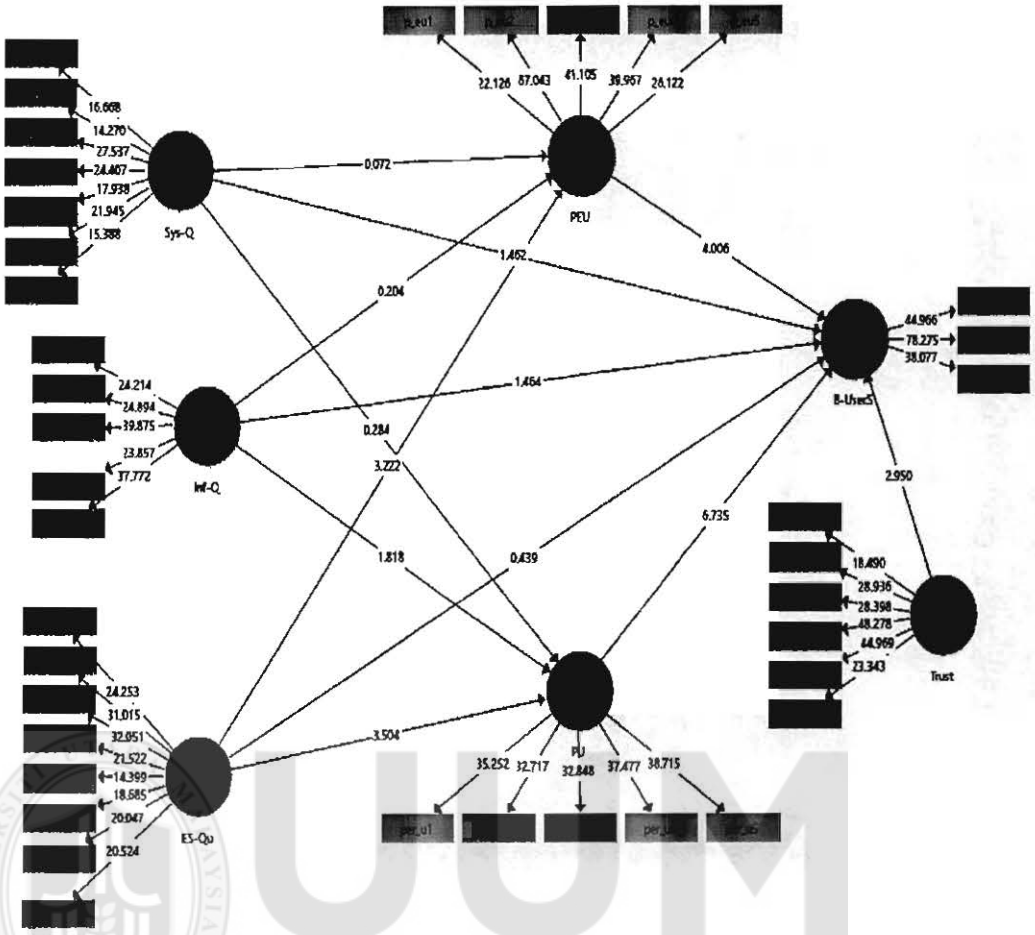

Figure 4.2
PLS Algorithm Direct Relationship

In order to reach a conclusion whether the original samples are statistically significant or not, bootstrapping techniques as contained in the SmartPls3.0 were employed. Specifically, the T-values that follow each path coefficient were generated with aid of the bootstrapping technique and eventually the P values were generated as shown in Table 4.9. The influence of Electronic Service Quality (ES-Qu) Variable on the Business User Satisfaction (B-UserS) was critically examined and the results revealed that the Electronic Service Quality (ES-Qu) has no influence on Business User Satisfaction (B-UserS) (β= 0.027, t= 0.439, p> 0.1), Information Quality (INF-Q) has no influence over Perceived

Ease of Use (PEU) (β= -0.016, t= 0.204, p> 0.1), System Quality (SYS-Q) has no influence over Perceived Ease of Use (PEU) (β= -0.006, t= 0.072, p> 0.1), and System Quality (SYS-Q) had no influence over Perceived Usefulness (PU) (β= -0.021, t= 0.284, p> 0.1). These results, however, rejected the hypothesized relationship as postulated in H_1, H_5, H_{10} and H_{11}.

On the other hand, the results revealed that the following variables have a positive and significance influence on Business User Satisfaction (BUS), Perceived Ease of Use (PEU) (β= 0.248, t= 4.006, p< 0.01), Perceived Usefulness (PU) (β= 0.487, t= 6.735, p< 0.01), System Quality (SYS-Q) (β= -0.076, t= 1.462, p< 0.01), Information Quality (INF-Q) (β= 0.073, t= 1.464, p< 0.01), However, these results supported the relationships that were hypothesized and as postulated in H_4, H_7, H_8, H_9.

Furthermore, a critical assessment of the influence of Electronic Service Quality (ES-QU) on the Perceived Usefulness (PU) (β= 0.268, t= 3.504, p< 0.01) revealed significant relationship and also a significant relationship on Perceived Ease of Use (PEU) (β= 0.274, t= 3.222, p< 0.01). In specific term, influence of Information Quality (INF-Q) on Perceived Usefulness (PU) had positive influence with parameters (β= 0.152, t= 1.818, p< 0.01). These outcomes supported hypothesized relationships as postulated in H_2, H_3 and H_6.

Lastly, having examined the impact of Trust (TRUST) on the Business User Satisfaction (BUS), the result revealed a significant positive relationship (β= 0.154, t= 2.950, p< 0.01). Importantly, H_{12} was supported by these results.

Table 4.10
Results of Inner Structure Model

No	Hypothesis	Original Sample (O)	Standard Deviation (STDEV)	T-Value	P-Value	Decision	Square	R 2	Q 2
1	ES-Qu -> B-UserS	0.027	0.062	0.439	0.330	Not-Supported	0.001	0.650	0.490
2	ES-Qu -> PEU	0.274	0.085	3.222	0.001	Supported	0.030	0.067	0.044
3	ES-Qu -> PU	0.268	0.077	3.504	0.000	Supported	0.032	0.143	0.100
4	Inf-Q -> B-UserS	0.073	0.050	1.464	0.072	Supported	0.006		
5	Inf-Q -> PEU	-0.016	0.077	0.204	0.419	Not-Supported	0.000		
6	Inf-Q -> PU	0.152	0.083	1.818	0.035	Supported	0.011		
7	PEU -> B-UserS	0.248	0.062	4.006	0.000	Supported	0.088		
8	PU -> B-UserS	0.487	0.072	6.735	0.000	Supported	0.288		
9	Sys-Q -> B-UserS	-0.076	0.052	1.462	0.072	Supported	0.008		
10	Sys-Q -> PEU	-0.006	0.082	0.072	0.471	Not-Supported	0.000		
11	Sys-Q -> PU	-0.021	0.075	0.284	0.388	Not-Supported	0.000		
12	Trust -> B-UserS	0.154	0.052	2.950	0.002	Supported	0.037		

p<0.1; **: p<0.05; ***: p<0.01

4.9 Mediation Test

As previously mentioned, the mediation analysis took place in the first model when the mediator variables were introduced. The path coefficients of the three independent variables are positive, while one of the path coefficients has a negative sign. Also, the path coefficient between the mediator and the dependent variable is positive.

Mediation analysis assesses the indirect effect of the independent variable on the dependent variable via an intervening variable. However, Preacher and Hayes (2008) observe that the techniques for assessing mediation are numerous, which include: Causal steps strategy or serial approach (Hoyle & Robinson, 2004), which also refers to the four conditions of Baron and Kenny (Baron & Kenny, 1986). Other approaches for mediation analysis include product of coefficient method or Sobel test (Sobel, 1982); distribution of the product approach (MacKinnon, Fairchild, & Fritz, 2007; MacKinnon, Fritz, Williams, & Lockwood, 2007; MacKinnon, Lockwood, & Williams, 2004); and bootstrapping approach (Hayes, 2009; Preacher & Hayes, 2004). However, the most recent mediation analysis approach is the bootstrapping method, where the bootstrapping generates an empirical representation of the distribution of the sample of the indirect effect (Hayes, 2009; Rucker, Preacher, Tormala & Petty, 2011).

Commonly, for mediation to hold in the four steps of Baron and Kenny (1986) some conditions must be met. The first condition is defining the total effect (X-Y) relationship between the independent variables and the dependent variable I.

However, it is not always necessary for total effect to be significant. Significant indirect effects can occur in its absence and mediation could happen (Hayes, 2009; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Rucker *et al.*, 2011; Shrout & Bolger, 2002; Zhao, Lynch, & Chen, 2010). The second condition is the significant effect of the indirect relationships. This is the effect of the independent variables on the dependent variable through the mediator variable (Preacher & Hayes, 2008), which is the effect of the independent variables on the mediator variable and the effect of the mediator variable on the dependent variable (a and b). Therefore, if any of the indirect effects through the mediator variable is not significant, then the mediator variable cannot mediate the effect of independent variables on the dependent variable (Preacher & Hayes, 2008).

Finally, the direct effect of independent variables on the dependent variable should be insignificant or smaller than the relationship prior the inclusion of the mediator variable (c'). However, Rucker *et al.* (2011) question the emphasis on the importance of change in the direct relationship after including the mediator variable and the use of terms, such as full versus partial mediation. The bootstrapping method starts with estimating the path model of a direct relationship between the independent variables and the dependent variable without the mediator variable. These path models include the path coefficients and t-values using PLS-SEM algorithm and bootstrapping procedure, respectively (Hair *et al.*, 2013). In the second stage, the path model is estimated with the mediator variable. The focus is on whether the independent variables

and the mediator relationship and mediator and dependent variable relationship are significant. This is necessary but not sufficient to conclude mediation effect. Lastly, the product of the two significant path coefficients is divided by the standard error of the product ((axb)/sab) to examine the significance of the indirect effect.

The justification and advantages of bootstrapping method to test mediation have been highlighted by several studies, such as (Hair *et al.*, 2013; Hayes & Preacher, 2010; Hayes, 2012; Preacher & Hayes, 2008; Zhao *et al.*, 2010). For instance, the four conditions of Baron and Kenny (1986) fail to involve the use of standard errors (Hayes & Preacher, 2010). The Sobel test requires the assumption of normal sample distribution of the indirect effect.

However, the sampling distribution of the independent variables' effect on the mediator and the mediator's effect on the dependent variable is asymmetric (Preacher, Rucker & Hayes, 2007). The distribution of the product strategy is a little difficult to use without the aid of tables and requires some assumptions of normal sampling distribution (Hayes, 2009).

Shrout and Bolger (2002) argue that bootstrapping methods could be used to take care of the aforementioned flaws as it allows the distribution of the indirect effect to be tested empirically. Furthermore, Zhao *et al.* (2010) argue that bootstrapping approach solves these problems by generating an empirical sampling distribution (a x b). In addition, Hayes and Preacher (2010) and Preacher and Hayes (2008) conclude that the main advantage of bootstrapping approach is that it does not

require any assumptions about the sampling distributions of the indirect effect or its product. In other words, the confidence interval in bootstrapping method can be asymmetrical rather than at regular confidence intervals in other methods. This is because they are based on an empirical estimation of the sampling distribution of the indirect effect, unlike other methods that assume normal sampling distribution. Similarly, bootstrapping result provides interval estimate of a population parameter that cannot be obtained by using other mediation tests (Lockwood & MacKinnon, 1998).

Knowing the advantage of bootstrapping method over other methods, Hair *et al.*, (2013), Hayes and Preacher (2010) suggest testing the significance of the mediation using bootstrapping methods. Hence, this study tested the mediating role of perceived ease of use and perceived usefulness on the positive influence of INFQ, E_S, SYSQ on BUS with SmartPLS 3.0 (Ringle *et al.*, 2014) using the bootstrapping procedure with 299 cases and 5,000 sub-samples. Figure 4.3 shows the PLS-SEM algorithm after including the perceived ease of use and perceived usefulness as mediators.

After including the mediator constructs, perceived ease of use and perceived usefulness in the model, the bootstrapping result of 5,000 samples was used to multiply path a and path b. Then the product of the two significant paths was divided by the standard error of the product of the two paths ((axb)/sab) to get the t-value. It is therefore clear from Table 4.11 that the PEU mediates the positive relationship between ES-QU and business user satisfaction (β.067; t=2.642; p<.05); and the PU mediates the positive relationship between ES-QU and

business user satisfaction (β.136; t=3.208; p<.05). However, Table 4.11 shows that PEU does not mediate the relationship between INF-Q and business user satisfaction (β-0.004; t=0.234; p<.1); SYS-Q and business user satisfaction (β-0.001; t=0.038; p<.1); and PU does not mediate the relationship between INF-Q and business user satisfaction (β0.075; t=1.648; p<.1); and SYS-Q and business user satisfaction (β-0.01; t=0.282; p<.1).

Table 4.11
Results of Mediation Test

Mediation Relationships	Original Sample (O)	Standard Deviation (STDEV)	T Statistics |O/STDEV|	P Values	2.50%	97.50%	Decision
ES-Qu -> PEU -> B-UserS	0.067	0.025	2.642	0.009	0.024	0.116	Mediation
Inf-Q -> PEU -> B-UserS	-0.004	0.018	0.234	0.815	-0.037	0.033	No Mediation
Sys-Q -> PEU -> B-UserS	-0.001	0.019	0.038	0.969	-0.037	0.039	No Mediation
ES-Qu -> PU -> B-UserS	0.136	0.042	3.208	0.001	0.061	0.223	Mediation
Inf-Q -> PU -> B-UserS	0.075	4.60%	1.648	0.1	-0.80%	0.172	No Mediation
Sys-Q -> PU -> B-UserS	-0.01	0.037	0.282	0.778	-0.083	0.059	No Mediation

*:p<0.1; **:p<0.05;***:p<0.01

4.10 Moderation Test

Esposito Vinzi *et al.* (2010) opine that to test moderation, first examine only the main effects of the independent variables on the dependent variable, then examine the main effect of the independent variables, including the moderator on the dependent variable; and lastly, include the interaction terms, i.e., the

multiplication of independent variables by the moderator variable. The product of the indicators of the variables is used to reflect the latent interaction variables (Chin *et al.*, 2003). Hence, the moderating effect holds only when these interaction terms are significant (Hair *et al.*, 2013). See figure 4.3 PLS-SEM Algorithm Moderator.

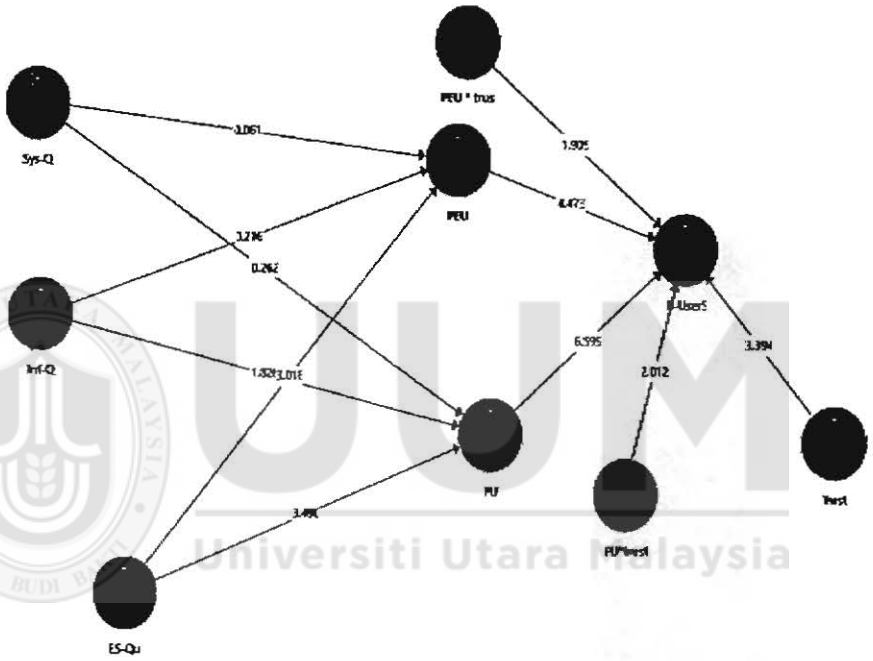

Figure 4.3
PLS-SEM Algorithm Moderator

Following the above-mentioned procedure, the results of the interacting effects between trust on the relationship between PEU, PU and business user satisfaction were examined and reported. The moderation model in Figure 4.3 tests whether the prediction of business user satisfaction, from PEU and PU can be improved when trust as a moderating variable becomes significant. Figure 4.3 presents the path assessment when the moderator variable is included as independent variable and it shows the path coefficient of trust is positive. Similarly, Table 4.12

indicates a significant relationship between PEU and business user satisfaction (β.164; t=1.905; p<.05); and PU has a significant relationship between PU and business user satisfaction (β.184; t=2.012; p<.05). Hence, it is concluded that trust has a positive influence on business user satisfaction. See Table 4.12 for PLS-SEM Moderation results.

Table 4.12
PLS-SEM Moderation results

	Original S Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Result
PEU * TRUST -> B-UserS	0.164	0.086	1.905	0.029	Supported
PU*TRUST -> B-UserS	0.184	0.091	2.012	0.022	Supported

*:p<0.1; **:p<0.05;***:p<0.01

4.11 The Goodness of Fit of the Whole Model

Unlike the CBSEM approach, PLS Structural Equation Modeling has only one measure of goodness of fit. As defined by Tenenhaus *et al.,* (2005), a global fit measure (GoF) for PLS path modeling is the geometric mean of the average community and average of R for the endogenous constructs. Therefore, the goodness of fit measure accounts for the variance extracted by both outer and inner models. In this view, the GoF values was estimated based on the procedures laid down by Wetzels, Odekerken-Schroder, and Van Oppen (2009) in order to support the validity of the PLS model as given in the following formula:

(1) $GoF = \sqrt{(R^2 * AVE)}$

For the purpose of this study, the obtained GoF value was 0.436 as calculated by the formula.

(2) $GoF = \sqrt{(0.287 * 0.632)} = 0.436$

4.12 Summary of the Findings

Partial Least Squares Structural equation modeling (PLS SEM) was employed in this research as the major analysis technique because the assumption of multivariate normality of the data was not fulfilled. Importantly, this study elaborated the mechanisms of PLS SEM analysis because it is a relatively new analysis technique.

Before the model of this of this study was tested, thorough procedures were followed with the purpose of establishing validity and reliability of the model especially as it adheres to the standard of SEM data analysis reporting. Having established that the validity and reliability of the measurement model, the hypothesized relationships were tested. Consequently, before the examination of the hypothesized relationships, effort was made to ascertain the predictive power of the model and this was reported while the overall goodness of the model was also confirmed. After that, the structural model was examined and the results were reported in detail as shown in Table 4.13.

Table 4.13
Summary of the Findings

Hypothesis	Hypothesized Path	Decision
H1	There will be a significant negative relationship between Electronic Service Quality and Business User Satisfaction.	Not Supported
H2	There will be a significant positive relationship between Electronic Service Quality and Perceived Ease of Use.	Supported
H3	There will be a significant positive relationship between Electronic Service Quality and Perceived Usefulness.	Supported
H4	There will be a significant positive relationship between Information Quality and Business User Satisfaction.	Supported
H5	There will be a significant negative relationship between Information Quality and Perceived Ease of Use.	Not Supported
H6	There will be a significant positive relationship between Information Quality and Perceived Usefulness.	Supported
H7	There will be a significant positive relationship between Perceived Ease of Use and Business User Satisfaction.	Supported
H8	There will be a significant positive relationship between Perceived Usefulness and Business User Satisfaction	Supported

H9	There will be a significant positive relationship between System Quality and Business User Satisfaction	Supported
H10	There will be a significant negative relationship between System Quality and Perceived Ease of Use.	Not Supported
H11	There will be a significant negative relationship between System Quality and Perceived Usefulness.	Not Supported
H12	There will be a significant positive relationship between Trust and Business User Satisfaction.	Supported

In the next chapter further discussion and explanation of the findings were provided in light of the underpinning theories, models, and the context of the study undertaken.

CHAPTER FIVE
DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter summarizes and discusses the outcomes of this research that were aimed to investigate the factors leading to the success of e-government services in business sectors in Jordan. The contributions of the study in theory and practice are described in this chapter. The research limitations are also mentioned and suggestions are given for future research in the same domain. At the end of this chapter conclusions of this research have been mentioned.

5.2 Determination of Relationships between Variables

Hypotheses of this study were developed in chapter three to meet the objectives and answer the research questions; chapter five contains the result of tested hypotheses that explained the relationships among the variables that have been analyzed in the study. Consequently, outcomes of quantitative analysis resulted in identification of significant hypothesized relationships and insignificant relationships among the variables.

The purpose of this section is to present, argue and justify the results of the hypotheses that were tested. This section therefore discusses the outcomes of the relationships among variables. As shown in Table 5.13 (summary of the findings), eight out of twelve hypothesized relationships were supported while four relationships were not supported. The supported relationships include

relationship between e-service quality, information quality, system quality, perceived usefulness, and perceived ease of use, trust and business user satisfaction. Moreover, the outcomes of the study also indicated that the mediation of perceived ease of use and perceived usefulness was directly influenced by e-service quality and information quality; while the mediators directly influence business user satisfaction as hypothesized, showing significant mediating impact. In contrast, the direct path of system quality to perceived usefulness and perceived ease of use were not supported, the direct paths between information quality and perceived ease of use and the direct path between e-service quality and business user satisfaction were not supported. This further strengthen that mediation is necessary in this relationship because without mediation the relationship is insignificant but after mediation the relationship becomes significant.

5.2.1 Objective one: to identify success factors which affect e-government adoption by the business organizations in Jordan

The first objective of this study is to identify success factors which affect e-government adoption by the business organizations in Jordan. The essence of this objective is to identify significant parameters that can impact the successful implementation and adoption of e-government services in business organizations. In order to achieve this objective, a number of relationships were developed on the basis of literature and paths were hypothesized to test the significance. The first path consists of e-service quality with business user satisfaction followed by the two mediators in the study as perceived ease of use and perceived usefulness.

In this path, three hypotheses (H1-H3) were tested with two (H2, H3) out of all supported. Precisely, hypothesized relationship between e-service quality (H2) and perceived ease of use was supported showing a significant impact of e-services quality over perceived ease of use. In addition, the relationship between e-service quality (H3) and perceived usefulness was supported as well, showing a significant impact of e-service quality over perceived usefulness; the third relationship between e-service quality (H1) and business user satisfaction was not supported, this further strengthen the need and justification of mediator.

The second set of relationship was between information quality and the dependent variable business user satisfaction followed by the two mediators, perceived usefulness and perceived ease of use. Based on this path, the three hypothesized relationships (i.e., information quality (H4) with business user satisfaction and information quality (H6) with perceived usefulness) were supported; the third relationship between information quality (H5) and perceived ease of use was not supported showing an insignificant mediation.

The third path hypothesized relationship between system quality (H9) and business user satisfaction was supported; the last two relationships between system quality (H10, H11) with perceived ease of use and perceived usefulness were found not supported showing an insignificant mediation between system quality and business use satisfaction.

The fourth path hypothesized relationships between the two mediators' perceived ease of use (H7) and perceived usefulness (H8) with business user satisfaction were found being supported. The final path was the hypothesized relationship between the moderator trust (H12) and the dependent variable business user satisfaction was found supported. This can be summarized that model is not fully supported with the data but partially supported.

Finally, e-government services should not just be regarded as simple services because users have strong expectations that they will necessarily be supported and will get a variety of services by utilizing e-government platforms. This implies that having developed e-government platforms, based on the finding in (H9) gives a hint that the service provider should continue to update the services with latest features to provide best value to users that use the platform. There are a number of factors found to affect the business user satisfaction, which in fact affects the e-government adoption. Relying on the hypotheses the identified factors are information quality, perceived ease of use, perceived usefulness, system quality and trust.

Based on the findings of this study there is no harm in saying that the future of e-government is very bright and much effort are required to put necessary strategies in place towards meeting and satisfying high expectation of users for enhancing the usage of e-government. Hence, in order to achieve this goal, the government should pay more attention to the abovementioned factors to ensure the success of e-government implementation. In the next paragraphs each

hypothesis has been discussed separately in detail. In addition, Figure 6.1 shows the significant and insignificant path among the model variables.

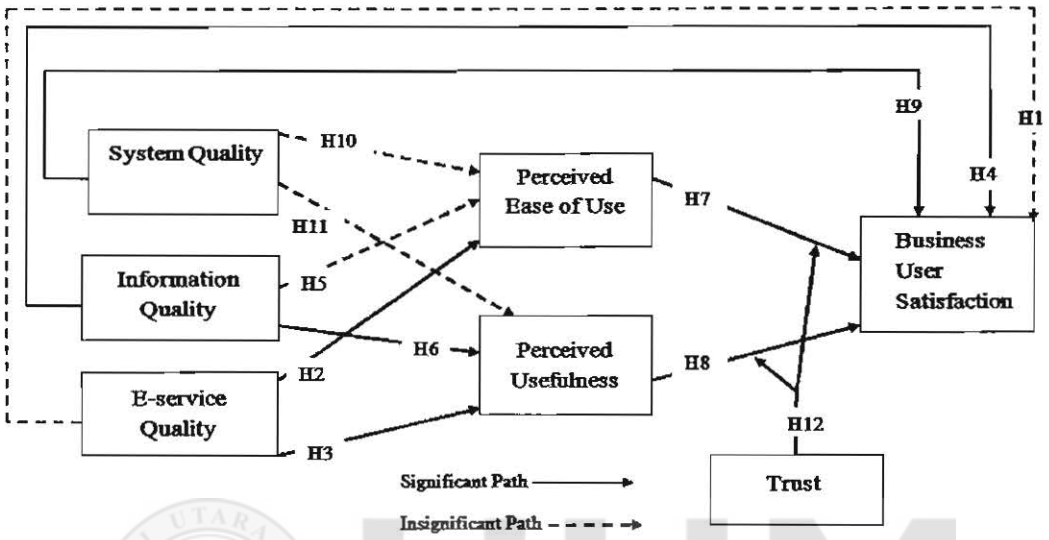

Figure 5.1
Significant and insignificant paths within the model

5.2.1.1 E-service Quality and Business User Satisfaction (H1)

The finding here revealed that e-service quality (E_S) does not determine business user satisfaction (BUS) (β= 0.027, t= 0.439, p> 0.1). Finding of this study contradicts previous researches by Cristobal, Flavián, and Guinaliu (2007), and Karunasena and Deng (2012). Therefore, Hypothesis (H1) is not supported and is in contrast with the previous studies that emphasize that e-service quality is a crucial variable as it enhances the usage and user satisfaction with the system, which, in turn, impact the net benefits produced by the system and the way the portal provides the e-services. Perhaps this is because the quality of services in Jordan is not good enough to satisfy the users. Services have been described as the heart of e-government, internet websites were chosen as the

main channel used to deliver e-government services to users (Alomari *et al.*, 2012). Despite the fact that, website and its features are essential to attract users' adoption; however, this study found that the e-service quality does not determine the business user satisfaction; the main reason is immature level of e-service quality. This result may be attributed to the fact that there is a need to enhance the quality of e-services in Jordan as the e-service quality is not based on users needs. Which came in line with a study that was carried on by Alomari *et al.* (2012) that the government in Jordan has acknowledged the importance of e-government as an initiative to develop the social life in Jordan and to create a knowledge-based society, however it tends to follow Western models and strategies of implementation. Because these strategies have been developed and designed to suit the social life of Western countries, they may not be applicable to the Jordanian context, since the social and cultural systems in Jordan are different from those of the West (Hill *et al.*, 1998; Hofstede *et al.*, 2009).

Therefore, Jordan (and other developing countries) will encounter social impediments when implementing e-government. Ciborra and Navarra (2005) mention that an e-government initiative will stand a better chance "if it acquires the scope of a truly 'regional' learning experiment aimed at evolving and integrating closely with the local economic, social, cultural, and political contexts" (p. 156).Rust and Oliver (1994) suggested that customer satisfaction or dissatisfaction a "cognitive or affective reaction" emerges as a response to a single or prolonged set of service encountered. Satisfaction is a "post consumption" experience which compares perceived quality with

expected quality, whereas, e-service quality refers to a global evaluation of a firm's service delivery system (Anderson and Fornell, 1994; Parasuraman *et al.*, 1985).

Using experimental design and qualitative techniques, in one of the few empirical studies of this relationship, Iacobucci *et al.* (1995) concluded that the key difference between service quality and customer satisfaction is that quality relates to managerial delivery of the service while satisfaction reflects customers' experiences with that service. They argue that quality improvements that are not based on customer needs will not lead to improved user satisfaction, which is the main reason behind insignificant relationship.

5.2.1.2 E-Service Quality and Perceived Ease of Use (H2)

The results of this hypothesis revealed that relationship between e-service quality (E_S) and perceived ease of use (PEU) is significant and positive. In this respect, previous studies have found similar outcomes thereby indicating that when e-service quality is responsive, high level of users' perception of ease of use about e-government will be achieved (Gilbert *et al.,* 2004; Weerakkody *et al.,* 2015; Wang, 2014; Wirtz & Piehler 2015). The variable of e-service quality affects perceived ease of use and for e-government. This finding appears because of the fact that the users are always looking to use a particular system that would be free from effort (Davis, 1989).

5.2.1.3 E-Service Quality and Perceived Usefulness (H3)

The result of this hypothesis revealed that relationship between e-service quality (E_S) and perceived usefulness (PER_U) is significant and positive. In this respect, previous studies have equally found similar outcomes thereby indicating when e-service quality is high, the level of users' perception about e-government adoption will be achieved (Osman *et al.,* 2014; Wang, 2014). Wang (2014)and Osman *et al.* (2014) found that users of e-government can complete tasks anytime and anywhere; this shows the usefulness that is expected by users.

The variable e-service quality affects perceived usefulness. The finding appeared because of the fact that users are always looking to achieve better skills from their work, as users believe that using a particular system should enhance their job performance (Davis *et al.,* 1989). Additionally, the e-service quality also indicates that e-government service providers should imbibe the design of the platform systems of promptness and accuracy while delivering their services through their website. Therefore, it is highly essential that e-government service providers apply information systems that will ensure that needs of users are met achieve their expectations of performance.

5.2.1.4 Information Quality and Business User Satisfaction (H4)

The result that is obtained here shows that information quality is most significant factor that influences business user satisfaction. Hence (H4) is accepted. This outcome is in line with the findings of previous studies (Lin *et al.,* 2011; Moon & Kim, 2001).

The findings essentially indicate that e-government information quality helps users to achieve and enhance online activities. Apart from this, the result also showed that users have positive feelings towards e-government information quality since it is helping them to accomplish their daily objectives and general job performance through e-government platform. Additionally, users also require certain strategies that will promote reliability. Accuracy of information should be incorporated into e-government system since this will enhance their perception of usefulness.

Moreover, existing literature has also shown that users who patronize e-government seem to be gaining some advantages which include cost reduction and faster service. These benefits make users to feel that e-government sites have higher level of usefulness and which influence their perception of business user satisfaction. It is therefore, essential for e-government service providers to keep communicating these features to the users in order to continue to create a positive attitude towards e-government among users.

5.2.1.5 Information Quality and Perceived Ease of Use (H5)

The finding here revealed that information quality (INFQ) does not determine perceived ease of use (PEU) (β= -0.016, t= 0.204, p> 0.1). Hypothesis (H5) is not supported and is in contradiction with the previous literature (Lucas & Spitler, 1999; Lin & Lu, 2000). They have found that information quality is a crucial variable. It refers to the quality of the information that the system is able to store,

deliver, or produce, and is one of the most common dimensions with which information systems are evaluated.

Information quality is the desirable characteristics of the system outputs. For example relevance, understandability, accuracy, conciseness, completeness, currency, timeliness, usability. This study found that the information quality does not determine the perceived ease of use, perhaps because in Jordan accurate and desired information is not provided on the website. The output of the information systems should be relevant to the purpose for which it is designed and all the required information including currency should be available. Only quality information leads users' to experience ease while using government website to achieve the required information to meet the user satisfaction.

According to Al-Mamary *et al.* (2014) a number of researchers consider information quality as important factor to management information system success in organizations. The findings of this study however be attributed to the fact that users are unable to find the required information because of navigation flow. Due to this, the hypothesis is not supported as the users in Jordan fail to find quality information. Information quality is related to the content users are retrieving. But ease of use is related to the interaction and navigation. Therefore, they are two separate things; content and interface. A website is considered as good as interface/navigation and quality information it provides.

According to Al-Mahamid *et al.* (2010) the results have revealed that Jordanian citizens consider that the e-government system is useful and easy to use but does not have a high level of information quality. In other words, the information that appears in the e-government website does not match citizens' needs. An environment like this will limit the adoption of e-government services and will delay the take up of the e-government system. Additionally, the results show that Jordanian citizens intend to use e-government for gathering information but not for conducting transactions. It then becomes impossible to obtain full usage of e-government and its expected benefits.

As a result, when the information in an e-government website is accurate, valid, up-to-date, free of error, and precisely presented, citizens will use this information to implement their tasks. As soon as the citizens are satisfied with the information quality that is presented in the e-government website, a trust-building will take place between citizens and the e-government system (Al-Mahamid *et al.*, 2010; Kumar *et al.*, 2007). Having only good interface with poor quality information is insufficient and vice versa, as is the case in Jordan. Hence, information quality in Jordanian context failed to determine ease of use.

5.2.1.6 Information Quality and Perceived Usefulness (H6)

Hypothesis 6 posits a positive relationship between information quality and perceived usefulness (PER_U) with the hypothesis being supported. The findings are in line with the outcomes of other studies that regard information quality of websites to be a significant factor in determining perceived usefulness (Moon &

Kim, 2001; Aggelidis & Chatzoglou, 2008; 2009). Importantly, users believe that e-government system that supplies them with accurate information will enhance their comprehension about services and enhance their job performance.

Furthermore, it is assumed that information quality does influence the way service quality is perceived. Importantly, the information quality is often measured by the customer using the quality and appropriateness of the amount of information, media types, mode of information presentation, types and sizes of image, all of which can influence the way customer perceive service quality of the web. For instance, Udo *et al.* (2011) also argued that e-service quality can be determined by a number of content-based factors that appeal to the customers and this includes content accuracy, attractiveness of the site, graphics and pictures and website substance.

5.2.1.7 Perceived Ease of Use and Business User Satisfaction (H7)

Theoretically, the result that is obtained here shows that perceived ease of use is a significant factor that influences e-government business user satisfaction. Hence, hypothesis seven (H7) is accepted. This outcome is in line with the findings of previous studies (Alanezi *et al.,* 2010; Papadomichelaki & Mentzas, 2009; Zaide & Qteishat, 2012).

This finding essentially indicates that perceived ease of use helps users to achieve their tasks and enhance their usage of online activities. Apart from this, the result also shows that users have positive feelings towards e-government platform since

it is helping them to accomplish their daily tasks, objectives and general job performance. Additionally, users require that certain strategies that will promote reliability, accuracy of information, currency and value should be incorporated into e-government system since this will enhance their perception of ease of use.

5.2.1.8 Perceived Usefulness and Business User Satisfaction (H8)

The result that is obtained here shows that perceived usefulness is one of the significant factors that influences e-government through business user satisfaction. Hence, hypothesis eight is accepted. This outcome is in line with the findings of previous studies (Ducoffe, 1996; Kwun, 2011; Teo, Oh, Liu, & Wei, 2003).This finding essentially indicates that e-government service helps users to achieve and enhance online task productivity and activities. Apart from this, the result also shows that users got positive feelings towards e-government platform since it is helping them to accomplish their daily online tasks, objectives and general job performance. Additionally, users require certain strategies that will promote reliability, accuracy of information and value should be incorporated into e-government system since this will enhance their perception of usefulness. Moreover, review of existing literature has shown that users who patronize e-government seem to be gaining some advantages which include cost reduction, faster service, etc. All these benefits make users to feel that e-government sites have higher level of usefulness that influence their perception of e-government system usefulness. It is therefore, essential for e-government service providers to keep addressing these features to the users in order to continue to create a positive attitude towards e-government among users.

5.2.1.9 System Quality and Business User Satisfaction (H9)

Hypothesis 9 posits a positive relationship between system quality and business user satisfaction (BUS) with the hypothesis being supported. The result is in line with outcomes of other studies that regard system quality of an online site to be a significant factor in determining business user satisfaction. The result of this study is similar to the previous studies (Byrd *et al.,* 2006; Lin & Lu, 2000, Negash *et al.,* 2003). These previous studies found positive relationship with customer satisfaction. Importantly, users believe that e-government systems that supply them with accurate information will enhance their comprehension about services, products and materials being offered.

Additionally, system quality is also measured by the ability of e-government platform to provide some supplementary services which may include the availability of other services and a list of other hyperlinks that could provide access to other options for the user to achieve his required task. In this era of technology, the need for system quality is becoming more important because of continuous advancement in technology, construction, materials of e-government services.

5.2.1.10 System Quality and Perceived Ease of Use (H10)

The finding here revealed that system quality (SYS-Q) does not determine perceived ease of use (PEU) (β= -0.006, t= 0.072, p> 0.1). In this circumstance, Hypothesis (H10) is not supported and is contrast to the previous literature (Byrd *et al.,* 2006; Lin & Lu 2000, Negash *et al.,* 2003). They have emphasized that

system quality is a crucial variable which refers overall quality of a system and is also one of the most common dimensions by which information systems are evaluated.

System quality impacts both user's satisfaction and benefit of organization (Baroudi *et al.,* 1986; Gorla *et al.,* 2010). Despite that website and its features as discussed earlier are essential to attract users' adoption; this study, however, based on data analysis found that the system quality does not determine the perceived ease of use. The quality of the system provided in Jordan is very poor and the information quality provided to the user is also poor therefore, users perceive that there is no impact of service quality on ease of use for users.

Furthermore, a study by Ramayah and Lo (2007) found that systems or technologies, which appeared to be easy to use and easy to understand, would be more useful from the user's perspective. Van and Wierenga (2005) hypothesize that ease of use will be positively related to the individual impact of customer relationship management systems. The success of the system used depends on the level of ease of use of the system. In conclusion, it can be concluded that ease of use is one of the technology factor that plays significant role in system performance.

System quality is the desirable characteristics of an information system. For example ease of use, system flexibility, system reliability, ease of learning, intuitiveness, sophistication, response time (Peter *et al.,* 2013). Ease of use is the degree to which users need less effort to use the system. In addition a quality of

IS needs to be flexible enough in order for the user to use the system. Flexible IS means the ability to customize the system based on the conditions and the internal and external changes. The lower the flexibility of the system is the lower the user's satisfaction which later impacts the user's engagement to the system. Same is the issue with Jordanian system quality, due to which people perceive that system quality has no role in determining the ease of use for users as depicted by the results. It is inferred that the system platform of the e-government service in Jordan is considerably less than what the Jordanian business users recommend as being not stable and responsive, and by that business users encounter problems when using it. Therefore, users have not found the ease of use of the e-government system in Jordan.

5.2.1.11 System Quality and Perceived Usefulness (H11)

The finding here revealed that system quality (SYS-Q) does not determine perceived usefulness (PU) (β= -0.021, t= 0.284, p> 0.1). In this circumstance, Hypothesis (H11) is not supported and is contrast to the previous literature (Dishaw & Strong, 1999; Lin, Fofanah & Liang, 2011; Lucas& Spitler 1999) which emphasized that system quality is a crucial variable that refers to the overall quality of a system and is one of the most common dimensions with which information systems are evaluated.

According to Gorla *et al.* (2010) system quality and information quality are measures of information systems quality. Gorla *et al.* (2010) assume that system quality is positively associated with information quality and organizational

impact, and information quality is positively associated with organizational impact. Likewise, according to Xu *et al.* (2013) there is significant relationship between system quality and information quality.

Since the findings of the study carried out by Moh'd Al-Adaileh (2009)proved that users' technical capabilities are an influential factor that can form their perception of IS success, formal technical education should be considered when making of recruitment and promotion decision. In addition, it was suggested by Moh'd Al-Adaileh (2009) that formal and informal training policy should be established to encourage learning and skills exchange among organizational members. Expected benefits of any proposed IS should be clearly and publicly discussed and established to improve the users' perception of the usefulness of the proposed system. Extensive users' involvement in the development of ISS might be used in this regard. Development of IS should consider the users' needs of information and the ability of the system to provide valuable information that match certain characteristics including simplicity, relevancy, accuracy, verifiability, timely, security, completeness, reliability, accessibility, and flexibility (Moh'd Al-Adaileh, 2009).The reason behind the insignificant relationship between system quality and perceived usefulness in Jordan is that there is a gap between system quality and information quality found in the Jordanian e-government system by the business users in Jordan. Previous researchers have noted that the usage of e-government in Jordan is low (Al-Hujran *et al.,* 2013; Al-Jaghoub, Al-Yaseen, & Al-Hourani, 2010; Mofleh, Wanous, & Strachan, 2008; Alryalat *et al.,* 2013; Rana & Dwivedi, 2015)

because users hardly found it useful and due to which the results are insignificant.

5.2.2 Objective Two: To measure the significance of the e-government success factors that determines business organizations' satisfaction in Jordan

In this study, the most important factor that impacts or influences the business organizations' satisfaction towards e-government adoption in Jordan is perceived usefulness with t value of 6.735 and path coefficient of 0.0.487 ($p<.001$). This implies that perceived usefulness is one of the significant factors that influence e-government through business user satisfaction. Apart from this, the result also showed that users got positive feelings towards e-government platform since it is helping them to accomplish their daily online tasks, objectives and general job performance. In fact scholars, such Kwun (2011) and Teo *et al.* (2003), found that perceived usefulness has a significant influence on business user satisfaction which essentially indicates that e-government services help users to achieve and enhance online task productivity and activities.

Additionally, users require certain strategies that will promote reliability, accuracy of information and value should be incorporated into e-governments' system since this will enhance their perception of usefulness. It is therefore essential for e-government service providers to keep communicating these features to the users in order to continue to create a positive attitude towards e-government among users. More specifically, the outcomes of this study further suggests that when website is highly interactive, customers can be induced and

be actively absorbed and involved in navigating the websites (Ghani, Supnick &Rooney, 1991) which can eventually lead to high level of satisfaction and future adoption intention.

5.2.3 Objective three: To examine the relationship between e-government success factors and business organization' satisfaction

In order to achieve this objective, a number of relationships and paths were hypothesized; eight out of twelve were accepted. (H1) for instance posits a direct relationship of e-service quality over business user satisfaction and was found to have a negative influence and dropped along with (H5) that had a direct relationship between information quality and perceived ease of use that was also found to have a negative influence. The final two hypotheses that were found insignificant were (H10) which was between system quality and perceived ease of use, and finally (H11) that was between system quality and perceived usefulness. The other hypotheses (H2, H3, H4, H6, H7, H8, H9 and H12) were supported.

Regarding the supported hypotheses, path coefficient from SEM analysis showed that the relationship between e-service quality (H2) and perceived ease of use (β= 0.274, t= 3.222, p< 0.01), e-service quality (H3) and perceived usefulness(β= 0.268, t= 3.504, p< 0.01), information quality (H4) and business user satisfaction (β= 0.073, t= 1.464, p< 0.01), information quality (H6) and perceived usefulness (β= 0.152, t= 1.818, p< 0.01), the relationship between perceived ease of use (H7) and business user satisfaction (β= 0.248, t= 4.006, p< 0.01), the relationship between perceived usefulness (H8) and business user satisfaction (β= 0.487, t=

6.735, p<0.01), the relationship between system quality (H9) and business user satisfaction (β= -0.076, t= 1.462, p< 0.01), the relationship between trust (H12) and business user satisfaction (β= 0.154, t= 2.950, p< 0.01), were all found positive and supported.

Accordingly, previous studies, results have corroborated the outcome of this study (Cristobal, Flavián, & Guinaliu, 2007; Karunasena & Deng, 2012; Wang, 2014; Wirtz & Piehler 2015; Osman *et al.,* 2015; Wang, 2014; Lin *et al.,* 2011; Lucas & Spitler, 1999; Byrd *et al.,* 2006; Negash *et al.,* 2003; Alshibly & Chiong, 2015;Coulter & Coulter, 2002; Lee & Lin, 2005). Consequently, the implication of these outcomes indicates that the rate of business user satisfaction will increase when the level of perceptions about e-government adoption and service quality increases. Importantly, the results of business user satisfaction can be manifested in the form of future adoption and usage.

5.2.4 Objective four: To determine the moderating role of trust for the e-government adoption model in the business centric perspective in Jordan.

In order to achieve this objective, a relationship and a path was hypothesized. The path consists of trust and business user satisfaction. In this path, one hypothesis (H12) was tested and it was found supported.

5.2.4.1 Trust and Business User Satisfaction (H12)

Hypothesis 12 posits a positive relationship between trust (TRUST) and business user satisfaction (BUS) with the hypothesis being supported. The result is in line with outcomes of other studies that regard trust of an online site to be a

significant factor in determining business user satisfaction (Alshibly & Chiong, 2015; Coulter & Coulter, 2002; Lee & Lin, 2005). Importantly, users believe that an e-government system that supplies them with protection of their information will enhance their comprehension about services, products and materials being offered by that system. It was suggested that trust increases customer empowerment by giving them the perception that they are in control and by making them more confident in their interactions with e-government.

Furthermore, even though evidence has shown that e-government is still somewhat new in Jordan, the findings of this study have further proved that trust is an important factor to motivate business users and employees of the business sectors in Jordan to use the e-government with respect to the business user satisfaction. This fact is coming to light since many Jordanians still believe that there is certainty in the environment of e-government in Jordan. In order to increase the trust among the users and employees of business sectors in Jordan more emphasis should be laid on features of trust by developing e-government system with valuable function and protection to the users.

5.3 Research Contributions

This research has made several contributions with regards to empirical analysis and subsequent implementation of its findings. It is important to emphasize that theories emanated from practice also form the foundation for the development of new practices. In this climate, Delone and Mclean (D&M) theory was employed in this research as an underpinning theory and this is probably the first time that

the model is used in the context of the business sectors in Jordan. Importantly, the outcome of this research reveals that D&M is very effective in predicting user intention to use e-government in the future and especially its ability to critically examine the perception of users about business user satisfaction. Furthermore, the findings of this study are equally in line with the outcomes of other studies.

Particularly, the disagreement and agreement of these studies were anchored on the premise of whether their findings can be applied in the e-government settings. In this respect, the application of D&M model in this study forms a distinct contribution to the body of knowledge. The contribution can be summarized into practical and theoretical contributions. This contribution can be clarified in the following sections:

5.3.1 Academic Contributions

Premised on the empirical analysis that has been done in the previous chapter, this study has contributed to the body of knowledge in following ways. First, this study through its model has introduced many variables such as system quality, information quality, e-service quality, perceived ease of use, perceived usefulness, trust and business user satisfaction. Theoretically, this study provides an understanding about how perception of these variables affects business user satisfaction and subsequently satisfaction and intention in Jordanian business sectors.

Generally, the present research demonstrates that the extension of D&M model can be applied to all countries and that the models are transient in nature since they can equally be used to explain IS success in different cultures. Very few previous D&M studies have been conducted in Arab countries and particularly in Jordan. In this respect, the extension of D&M as done in this study is regarded as a contribution and this thereby implies that the independent variables of this study will significantly improve D&M model in the future. Also in line with this, Bagozzi and Dabholkar (2000) asserted that addition of new variables to a model could shed more light on those factors that that can help in predicting user behavior but this can be achieved if the researcher can use external variables to explain the D&M model. Similarly, the outcomes of this study have also contributed since it helps to enhance the understanding of BUS as compared to when the model D&M was studied in isolation. Moreover, this is the first time that D&M is being extended and applied in the Arab countries with respect to how business user satisfaction in e-government can be predicted.

In addition to the above, this study has equally enhanced the knowledge about how e-government business user satisfaction can be measured theoretically. Importantly, when a new technology or service is being introduced, theoretical findings and models of this study can be built by academic scholars to predict the likely usage of new system. As noted here in this study, most of the hypotheses that have been tested showed significant relationship with business user satisfaction, where eight out of twelve hypotheses have been supported indicating

the high value of the study in predicting usage if new system such as e-government and especially in business sectors in Jordanian context is introduced.

5.3.2 Practical contribution

Apart from the theoretical contributions of this study, some insights can also be derived by e-government practitioners and policy makers. This is essential as theoretical findings may just remain purely academic and of less value if such theoretical findings cannot provide a guide(s) to practitioners. Hence, it is the belief of the researcher that this study has contributed immensely to practices and some of the contributions are discussed below.

Practically, the growth that is being witnessed in the last few years in the e-government industry can be traced to the progress being made in the internet technology and previous retail boom period. As a result, the focus of this study is on how business user satisfaction in e-government with the purpose of achieving a consequential satisfaction and intention to use e-government in the future. This is important because users are the key determinant of continued existence of any organization and retaining of existing users is less expensive than attracting new ones (Kotler & Armstrong, 2008). Therefore, the practical contributions of the finding of this study can be viewed from the impact of all the independent variables on business user satisfaction, since the outcome will be beneficial for service providers to create relevant strategies and policies. This study has contributed to the e-government services implementation practice. The outcome

of this study suggests the key dimension of how the business user satisfaction in e-government is service quality itself.

Although, the technical usability and reliability of service are considered as important aspects of e-government service quality, the primary concern in a governmental environment should be in how e-government services enhance performance and effectiveness. As a result, users will embrace the technology much more easily if that technology can enhance their daily life and make it easier and within reach.

This is an important issue given the fact that many users hold performance-oriented goals, which in turn can motivate their attitude toward new services and technology. The result of this study shows that targeting users who have a general attitude and have a general knowledge in the domain of information technology would greatly benefit the e-government services implementation process within the organization.

Furthermore, based on the outcomes of this study, the trend of usage of e-government among business users in Jordan will continue to increase since e-government users believe that their service providers are committing enough resources to maintain the service quality in e-government business sectors in Jordan. However, for this to continue, e-government service providers in Jordan must not decrease their efforts to continue to sensitize the users by creating the awareness of latest updates and how the users can benefit from such. This is important as such steps will enable the industry to meet its vision of becoming

the top ranked e-government in the Arabian sector. Therefore, the outcomes have several and implication for service providers and other establishments that are venturing into e-government in the developing countries. Additionally, organizations' decision makers can use the result of this study to forecast the role of e-government business user attitude toward BUS and can simply come up with policies to win more users.

The outcome can also be used to develop strategies through which more users can be attracted by showing them the benefits and usefulness they can be derived from the services they offer and give value through reduction of cost and time.In addition, by using the findings of this study, service providers can allow the users to have trials of their services and through this the user can develop some sort of comfort or confidence towards using the service. Importantly, the chance given to the users to try e-government service will reduce the level of fear and uncertainty that the users may be nurturing and hence the users trust will enhance and will eventually have important influence on the user's satisfaction towards business user satisfaction.

The current study brings to light the significance of service quality, information quality, system quality, perceived usefulness, perceived ease of use and trust in determining the business user satisfaction setting. Importantly, information quality has a strong impact on users toward satisfaction. Lastly, in this view, e-government providers can use the findings of this study for the purpose of caring

for their users and for updating the information, appeal, and color of their sites, which allow the customers to make right decision while surfing on the net.

5.4 Limitation of the Study

This study is not without, limitations. To the best of the researcher's knowledge, this is the first study that investigates the essence of e-government service quality. In this view, the readers and those that may be applying the findings of this study should exercise caution due to its limitation. Some of the limitations of this study include the following:

a) As initially stated, this is the first attempt to study business user satisfaction in the business sectors in Jordan using D&M extensions; additional research needs to be conducted to confirm the results of the study.

b) Additionally, some of the results of this study do not support some of the hypotheses of the study. This implies that the results are mixed. In this sense additional studies are required to resolve the inconsistencies as obtained here.

c) Limitations in unit of analysis, while the notion of e-government services appeared to be a universal regardless of industry or size, this study limited itself to the study of e-government service quality.

d) This study investigated the business user satisfaction variables while others such as the influence of features of the users of business user satisfaction or the

features of the e-government providers that provide e-government service are not considered.

e) Lack of abundant previous and relevant researches are also some of the limitations of this study.

f) In addition, generalization of this study may be limited due to the fact that the study was conducted within the geographical region of Arab (Jordan) with different population and culture. In this view, more diverse population and samples can be used by future researchers in order to verify the dimension this study has developed.

g) Finally, very few variables of business user satisfaction were discussed while others were neglected. In this sense, additional works are required to research for the purpose of adding to the variables of business user satisfaction.

5.5 Future Research

Given the limitations of this study, opportunities for future research abound and include the following:

a) Future studies can possibility consider more factors or variables that can impact BUS. These variables can be investigated on a larger scale but with special attention paid to business user satisfaction.

b) Future scholars could carry out similar studies with respect to BUS in developing countries because few such attempts have been made. Additionally, a comparative study between developing and developed countries concerning business user satisfaction can be carried out.

c) D&M model was used in this study; future studies could apply this model by extending variables and other theories in developing countries context.

d) Since this study examines the relationships between system quality, information quality, e-service quality, perceived ease of use, perceived usefulness, trust and business user satisfaction in e-government environment, future researchers can consider important variables such as reliability and personalization of e-government service.

e) The scope of this study was limited to business environment; other studies can consider university institutions and other government organizations with the purpose of finding the impact of e-government in their services enhancement.

f) Additionally, this study used only questionnaire to collect data; other researchers can use qualitative method – in-depth interview – with a view of getting more suitable variables that could impact business user satisfaction in e-government. This can be better achieved when the researcher builds a trusted relationship with them and speaks their language.

g) The era of information technology that we are living in today has made the users to be aware and mature about the type of online service quality they want. In this climate, future studies may adopt expectation-disconfirmation paradigm for the purpose of measuring service quality and user satisfaction.

h) A study on the effect of the globalization trends and the universal moiled interaction services based on geography and cultural differences of user preferences.

i) Some demographic variables in this study such as (age, qualification, and experience using e-government) have been shown to affect the overall result of hypotheses formulation; additional work includes measuring the influence of demographic variables and its mediating effect with business user satisfaction.

5.6 Conclusions

This study examines the constructs that influence business user satisfaction in e-government. Overall, the result of this study reveals eight direct significant and four insignificant relationships. First, the e-service quality variable shows that it has a direct insignificant relationship toward business user satisfaction, while it has a significant relationship with PEU and PU. Second, the information quality variable was found to have a direct significant relationship toward business user satisfaction and PU, but it has a direct insignificant relationship with PEU. Third, the system quality variable has a direct insignificant relationship with PEU and PU, but has a direct significant relationship towards business user satisfaction.

Fourth, a significant relationship between PEU and PU towards business user satisfaction in e-government was found, not forgetting that the variable trust was found to have a direct significant relationship towards business user satisfaction.

Furthermore, the research extended D&M with the purpose of ascertaining those factors that determine business user satisfaction and online behavior in e-government. As initially stated, the focus of this study is to examine how D&M can be applied to developing or non-western cultures for the e-government services. The general perception regarding most of the IS models are culturally biased since most of them are developed by western researchers and that their application to a less developed country may call for questioning because of the difference (social-cultural systems) that exists between developed and developing countries. In contrast, however, the advancement in information technology in the last one and half decades, especially with advent of internet technology its advantages, has made business to be conducted across the globe with little or no hitch using such systems.

This research has brought to light many practical and theoretical issues of e-government service quality. Importantly, the research has discovered some possible and positive factors that make the pursuit of e-government service quality to be a worthy exercise. In this respect, this research has challenged the entire field of information technology research to continue to investigate those factors that can influence e-government service quality by applying new applications that match background and preferences of users. Even though e-

government may be deemed to be costly and risky, its values and worth cannot be underestimated while its rewards for users are great.

Importantly, since e-government is a service strategy, it has become an instrument that is globally used for communication and coordination using technology that permit the combination of all IT services so that IT can effectively be used with industrial, global, organizational, and societal infrastructure. Jordan is a modern society that can boast a free market economy with an active and growing IT environment as a result of enhancement that was done to telecommunication in the year 2000. In addition, Jordan has access to modern and reliable infrastructures that are well recognized in the Middle East (MOICT, 2006) covering a broad range of the market and attracting competitors. Consequently, the state planning project and competitive pricing environment have made internet technology and smart mobile phone available for all, thereby making countries and users have a wider access to ICT. In this view, the development in the ICT arena is making transfer of service readily available. This therefore implies that the world is becoming global since internet technology and the ICT have liberally changed the Jordanians' perceptions and expectations. Therefore, where the digital divide is minimizing based on ICT distribution, it is acceptable that the D&M model can be applied for measuring e-service technologies in Middle Eastern countries such as Jordan. However, this will require re-strategizing the way e-government service quality is conceptualized and eventually implemented in other to bring about the required change in the future.

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Appendix A

Selection Talk about e-government by Ministry of Information and Communication Technology

This section talks about the e-government strategy that is followed by the Ministry of Information and Communication Technology for the years 2014-2016.

Challenges	Recommendations
1. Infrastructure Development All countries implementing E-government have struggled to develop a basic infrastructure to take advantage of new technologies and communications tools. Many developing countries, even if possessing the will, do not have the infrastructure necessary to immediately deploy E-government services throughout their territory.	❖ Develop projects that are compatible with the nation's telecom infrastructure. ❖ Use public access kiosks and mobile centres if telecommunication density is low. ❖ Introduce telecom competition and lift regulations on wireless and other digital technologies to accelerate their deployment. ❖ Build on the microenterprise model to bring connectivity to underserved areas and ensure sustainability. ❖ Consider the government's current use of technology and learn from past successes and failures. ❖ Establish an action framework at the beginning of the process to allow for rational and coordinated investment effort down the road.
2. Law and Public Policy The application of Information Technology and Communication (ICT) to government may encounter legal or policy barriers. Legislatures must ensure that laws are updated to recognize electronic documents and Transactions. Policymakers implementing E-government must consider the impact of law and public policy.	❖ Consult with stakeholders to assess how existing laws may impede the desired results. ❖ Give legal status to online publication of government information. ❖ Clarify laws and regulations to allow electronic filings with government agencies. ❖ Reform processes by simplifying regulations and procedures.

3. Digital Divide The digital divide is the gap between people who have access to the Internet and those who do not. Those without access cannot learn essential computer skills, cannot access information that can provide economic opportunities, and cannot share in the benefits of E government.	❖ Provide communal access through village computer centres or kiosks. ❖ Combine access with training. ❖ Provide incentives to the private sector to donate equipment and training. ❖ Emphasize local language and culture tailored to different communities. ❖ Use for-profit entrepreneurs to build and sustain access points in small communities.
4. E-Literacy E-Literacy refers to marginalized groups who are unable to make use of information and communication technologies because they are not computer literate. With the digital revolution there is a very real danger that the world will be divided into the "information rich" and the "information poor". E-government has the potential of either equalizing access to government and its services or increasing the barriers to participation.	❖ Ensure that content is in local languages and that interfaces are easy to use. ❖ Develop applications that use speech or pictures in addition to, or instead of, written text. ❖ Include an educational component in E-government projects. ❖ Provide aides at access points who can train citizens in basic computer skills. ❖ Create programs that include traditional media, like radio programs or newspaper columns, where citizens can learn about E-government. ❖ Special attention should be given to groups difficult to integrate (women, elderly, immigrants).
5. Accessibility Governments must serve all members of society irrespective of their physical capabilities (disabled people, those who are blind, deaf or otherwise handicapped). Online services will have to be designed with appropriate interfaces.	❖ From the outset, design applications that accommodate the disabled, such as an audio option for the blind. ❖ Establish as a legal requirement that the government must adapt technology to assist the disabled. ❖ Set performance criteria and measure progress.

6. Trust To be successful, E-government projects must build trust within agencies, between agencies, across governments, and with businesses, NGOs and citizens.	• Map key internal and external partners and build a strategy to keep open lines of communications. • Start with short-term projects that yield early results. [illegible] to areas for larger scale ventures. • Strong leadership can help build confidence in programs. •
7. Privacy Governments must be responsible custodians of the enormous amounts of personal information they hold. Governments collect vast quantities of data on their citizens through everyday transactions. Protecting the privacy of citizens' personal information, stored on these databases while making effective use of the information contained in them is a vitally important issue.	• Educate and train government officials on the importance of privacy. • Design applications that integrate privacy protections. • Follow "fair information practices." Minimize the collection and retention of personal information. • Limit access to personally identifiable information—do not automatically allow employees to tap into databases of personally identifiable information.
8. Security Security is costly, but must be addressed in the design phase, as security breaches can shatter public trust in E-government. Trust is a vitally important component of E-government projects. Without trust, citizens who may already be leery of using technology may avoid and even shun the use of online services that ask for detailed personal information.	• Designate a senior official responsible for computer security. • Continually assess systems to make sure that security precautions are being implemented. • Backup information regularly and store backups in a separate location. • When it comes to personal information, keep information collection to a minimum and do not disclose personal information without express prior consent. Provide ongoing training to employees on computer security. • Evaluate performance of system managers.

9. Transparency Citizens too rarely understand how government decisions are made. This lack of transparency prevents the public from actively participating in government and from raising questions or protesting unfair or ill-advised decisions. Alack of transparency can conceal official graft or favouritism.	• Post online rules, regulations and requirements for government services (such as requirements for obtaining A license) to minimize subjective actions by officials. • Highly-placed [illegible] transparency and accountability efforts by making their offices poshive examples of openness. • When putting services online, give citizens the ability to track the status of their applications. • Train civil servants and provide incentives for reform. • Integrate transparency and process reform to simplify regulations and procedures.
10. Interoperability Putting incompatible record formats online neithersimplifies nor reduces the workload imposed on people and government officials. Reliable E-government requires acomprehensive overhaul of legacy systems.	• Identify and reform regulatory schemes that inhibit interaction with the government online. • Use common standards throughout the government to shorten development time and ensure compatibility. • Adopt a common IT infrastructure for the government. • Map and assess existing record systems.

11. Records Management Better information management can help official's identify barriers to more efficient government. An information management framework is necessary to make sense of available data. Without this framework, policy makers could not derive useful analysis quickly enough to react to social and economic developments.	◆ Encourage data sharing and cooperation between government departments. ◆ Streamline offline record keeping processes to make the transformation to online publication easier. ◆ Creation and standardization of meta-data is critical for conducting successful data searches across institutions and networks.
12. Permanent availability and preservation Historical documentation is of special importance for governments. ICT not only allows for quick and cheap dissemination of data, but also for its compact and convenient storage.	◆ Design applications according to need. Consider relevance, usability, language compatibility and affordability. ◆ Encourage cooperation between departments and with the private sector in collecting, storing and utilizing data but proceed continuously with personally identifiable information.
13. Education and Marketing E-government services are only useful if people know about them. Education and outreach programs will be needed.	◆ Develop publicity and training campaigns that will engage the public about E-government initiatives. ◆ Conduct research to ensure that online services respond to actual needs and that the implementation suits the target audience.
14. Public/Private competition/collaboration	◆ Forge multi-sector partnerships. ◆ Review and reassess laws and policies that

Answering the question of where government controls end and the private sector takes over in E government efforts.	impede public/private cooperation. ❖ Ensure that agreements with contractors and partners are equitable and can be reviewed and revised over time. ❖ Seek assistance and involvement from organizations that already have experience in providing services and information using the same or similar technologies

15. Workforce issues Human resources must be structured and managed with E-government goals in mind. A well-trained and motivated workforce is critical to E-government success.	❖ Articulate a timeline for implementation in a step by-step manner so the reforms will not seem overwhelming to the bureaucracy. ❖ Hold regular meetings between E-government policy leaders and the affected workforce so employees are active participants in the process. ❖ Create incentives by rewarding individuals and agencies that apply the reforms rapidly.
16. Cost structures While planning and budgeting in a changing climate is difficult, governments should seek to invest in sustainable programs that can produce savings.	❖ Avoid advertising-based or fee-based services. They have generally not been sustainable. ❖ Articulate functionalities clearly and try not to add details that will push budgets into deficit. ❖ Develop projects that are achievable with resources available. ❖ Consider the government's current use of technology and study past successes and failures. ❖ Designate an officer or organizing body that will oversee cost. ❖ Create measurable goals during early planning

	◆ Make sure the office is sufficiently funded and is recognized by all relevant agencies and departments. ◆ Conduct regular audits to ensure progress is being made to achieve stated goals.
17. Benchmarking **Governments must regularly evaluate the progress and effectiveness of their E-government investments to determine whether stated goals and objectives are being met on schedule**	◆ Review benchmarks regularly to ensure that accurate measures are appropriate for rapidly changing technology. ◆ Create a data collection system to support program operations and "before and after" surveys of knowledge, skills, and applications among participating organizations to assess program impact. ◆ A common IT infrastructure and architecture standard is key to ensuring that ongoing development takes place in a coherent and integrated way. ◆ Advanced planning of common IT infrastructure standards result in shortened development time and system compatibility. ◆ Quantitative measures can be as beneficial as qualitative ones.

Source: Majdalawi et al. (2015)

Appendix B

This Section talks about the sampling phase of the study, the companies that were chosen related to the scope G2B.

الترقيم	اسم المؤسسة	نطاق الخدمات	العدد الذي تم توزيعه	العدد الذي استلم	العدد المفقود	ضابط الارتباط	رقم التواصل	الموقع	بعض الخدمات المقدمة
1	دائرة الأراضي والمساحة Department of Land and Survey	G2B	36	29	7	Engineer Joma'a Shorfat	******	الويبدة بالجهة المقابلة للجمارك Amman	Licenses for companies & e-Transactions
3	وزارة المالية Ministry of Finance	G2B	4	4	0	.	.	الويبدة مقابل مسرح عمون Amman	e-services related to Investments for local and foreign companies
5	مؤسسة الضمان الاجتماعي Social Insurance Institution	G2B	25	16	9	Hasan Ajarmah	*****	الشميساني Amman	Insurance deals for business companies

Portal with services for contract companies	مقابل وزارة الصناعة والتجارة Amman	******	Mohammed Rabah	1	7	8	G2B	Jedco	7
Responsible for the e-services related to all companies in Amman	الدوار الثاني باتجاه الاول Amman	.	Hala Atyat	0	3	3	G2B	غرفة الصناعة في عمان Amman Chamber of Industry	9
e-service for [illegible] contract	[illegible]			0	3	3		[illegible]	
Responsible for the e-services related to all companies in Irbid	اربد Irbid	.	Engineer Maher Khasawneh	5	20	25	G2B	مديرية الصناعة والتجارة Directorate of Industry and Commerce	11
e-services for	الجبلي	.	Dr.Balsam	7	18	25	G2B	وزارة التربية والتعليم	13

education contacts	Amman		Maiteh					The Ministry of Education	
Commercial registration for organizations	قريب دوار الداخلية Amman		The M[illegible]er	1	9	10		[illegible] Ministry [illegible] Commercial Registe	14
e-services for business organizations development	قريب دوار الداخلية Amman	.	Hesham	0	2	2	G2B	مديرية التطوير المؤسسي Directorate of Institutional Development	15
[illegible]									
e-transactions and translate for business companies	قريب جبل الحسين Amman	.	Maha Hiyari	5	20	25	G2B	المكتبة الوطنية National Library	17
e-servic[illegible] for business companies related to ISO	[illegible] Amman	.	Ma[illegible]	5	6	11	G2[illegible]	[illegible] Institution of Standards and Metrolo	18
e-services for justice clearance and travel documents	اربد شارع الحفاع Irbid	.	.	0	12	12	G2B	وزارة العدل Ministry of Justice	19

e-services for private education companies				4	6	0			
e-clearance and transactions for business companies	اربد Irbid	-	-	6	16	22	G2B	دائرة الأراضي Land Department	21
e-services for agent companies foreign and local	شارع الجامعة Irbid	-	-	0	7	7	G2B	A National Telecommunication Company	23
			Capt. Sami Kanaa	11	5	6			
e-services for import export companies related to licenses and tax	المنطقة الحرة الزرقاء Irbid		Mohammed Kanaan	23	27	50	G2B	شركات تخليص المنطقة الحرة Free Zone Clearance Companies	25
				Total of Not Returned Surveys	Total of Received Surveys	Total of Distributed Surveys			
				110	315	425			

Appendix C

A Questionnaire Survey on E-government Services

2016

Dear Sir/ Madam,

I am a doctoral student of Universiti Utara Malaysia (UUM) under the supervision of Professor Dr. Shahizan Hassan & Dr Arfan Shahzad and in fulfilment of the doctoral degree; I am required to conduct a research that would contribute to the development of theoretical knowledge and practice. Toward this end, I am currently working on a doctoral dissertation regarding "Electronic Government Success Model for Business Sector in Jordan".

To help me achieve my objective, you have been randomly selected to participate in this survey. Your participation is essential for me. Your participation, however, is highly appreciated and all your responses will be made confidential and your identity will remain anonymous. Furthermore, the result of the studywill be used for educational purposes only.

I expect that the attached survey will take about 20 minutes to fill up. It is very important that you personally complete the questionnaire for the results to have meaning. Select the answer that best reflects your view. Answer all questions as honestly as possible. There are no correct or best answers. Your answers will be part of the grand totals and used only for research purposes thereby assuring complete confidentiality. (Please circle the appropriate box)

Once all questions are answered, kindly put the questionnaire into the provided envelop so that I could pick it up from you personally. Should you have any questions about the survey, please do not hesitate to contact me at these contact information (*******@yahoo.com),or call me at the following number: **+962******** plus Whats-app is available at the same number.I would like to thank you in advance for assisting me in completing the survey.

Yours sincerely,

Anas Ghassan Jadou Kanaan

PhD Student

STUDY SURVEY

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? ☐ Yes ☐ No	
How long have you been using the E-government service? ☐ Less than 1 year ☐ 1-3 years ☐ 3-5 years ☐ more than 5 years	
What is your Gender? ☐ Male Female ☐	What is your Age? Below 20 ☐ ☐ 21-30 31-40 ☐ More than 50 ☐ 41-50 ☐
Your highest level of education? ☐ Diploma ☐ Bachelor's degree High Diploma ☐ Masters ☐ PhD ☐	
What is your status? ☐ Manager ☐ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1	2	3	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2	3	4	5
3. This e-government portal provides fast information access.	1	2	3	4	5
4. This e-government portal quickly loads all the text and graphics.	1	2	3	4	5
5. It is easy to go back and forth between pages.	1	2	3	4	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3	4	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3	4	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3	4	5
2. This e-government portal provides precise information according to my need	1	2	3	4	5
3. Information on this e-government portal is up to date.	1	2	3	4	5
4. This e-government portal provides the information that I need at the current time.	1	2	3	4	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3	4	5
6. Information contains necessary topics to complete related task	1	2	3	4	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic ServiceQuality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2	3	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2	3	4	5
3. This e-government portal is well organized.	1	2	3	4	5
4. This e-government portal is available at all times.	1	2	3	4	5
5. This e-government portal will not misuse my personal information	1	2	3	4	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2	3	4	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3	4	5
8. It is easy to find the responsible person's contact details.	1	2	3	4	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3	4	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2	3	4	5
2. This e-government portal is exactly what is needed for this service	1	2	3	4	5
3. I am satisfied with the online services provided by the government.	1	2	3	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service					
1. Learning to interact with this e-government portal is easy for me.	1	2	3	4	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3	4	5
3. I find this e-government portal to be flexible to interact with.	1	2	3	4	5
4. The e-government portal is easy to use.	1	2	3	4	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3	4	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3	4	5
2. This e-government portal provides accurate content.	1	2	3	4	5
3. This e-government portal provides up-to-date content.	1	2	3	4	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3	4	5
5. Using this online service makes it easier to do my tasks.	1	2	3	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2	3	4	5
2.The e-government service is trustworthy	1	2	3	4	5
3.The e-government service is secured	1	2	3	4	5

4.The e-government service will not misuse my personal information	1	2	3	4	5
5.I believe the e-government service has a good reputation	1	2	3	4	5
6.I believe my privacy is protected at this e-government service	1	2	3	4	5

THANK YOU VERY MUCH FOR YOUR COOPERATION

AND HAVE A NICE DAY

Survey (Arabic Version)

2016

عزيزي السيد / عزيزتي السيدة،

أنا طالب دكتوراه أواصل دراستي في جامعة أوتارا الماليزية(UUM) تحت إشراف الأستاذ الدكتور شاهيزان حسن والدكتور ارفان شاهزاد ولكي أقوم بإستكمال درجة الدكتوراه، فإنني مطالب بإجراء البحوث التي من شأنها أن تساهم في تطوير المعارف النظرية والممارسة. ولتحقيق هذه الغاية، انا في صدد إجراء دراسة استقصائية حول قضية((نموذج ناجح للحكومة الالكترونية لقطاع الأعمال في الأردن)).

لكي أقوم بتحقيق هدفي، سوف أقوم بإختيار المشاركين الذين هم على خبرة في الموضوع المذكور سابقا في هذا المسح. إن مشاركتكم أمر ضروري بالنسبة لي، ومشاركتكم محل تقدير كبير، وستكون كل الردود سرية والهوية الخاصة بك سوف تبقى مجهولة. بالاضافه الى انه سيتم إستخدام نتيجة هذه الدراسة للأغراض التعليمية فقط لا غير.

من المتوقع أن يستغرق تعبئة الاستبيان حوالي 20 دقيقة لاستكمال الاجابه على جميع الاسئلة المرفقة. الرجاء الإجابة عن جميع الأسئلة وفقا للتوجيهات المقدمة في كل قسم. اجابتك بشكل صادق و أمين محل تقدير. اختر الإجابة التي تعكس أفضل وجهة نظر بالنسبة لك. مع الإجابة على جميع الأسئلة بصراحة. ليست هناك إجابات صحيحة أو أفضل. إجاباتك ستكون جزءا من الإجابات الإجمالية الكلية وستستخدم فقط لأغراض البحث مما يضمن السرية التامة. (يرجى وضع اشارة الصح (√) في الخانة المناسبة).

بعد الانتهاء من الاجابه عن جميع الاسئلة الرجاء التكرم بوضع الاستبيان في الظروف المخصصه كي أتمكن من تسلمها منك شخصيا. وفي حالة وجود اي استفسار عن الاستبيان، لا تترددوا في التواصل معي عبر البريد الالكتروني، التالي: .....@yahoo.com، أو الاتصال على الرقم التالي: *****962+ ونفسه ايضا للتواصل عبر برمجية الواتساب .

وفي النهايه أود أن أشكركم مقدما على مساعدتي في استكمال الاستقصاء

تفضلوا بقبول فائق الاحترام

أنـس غـسـان جـدوع كـنـعان

طـالب دكـتـورة

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☐ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐أقل من 1 سنة ☐1-3 سنوات ☐3-5 سنوات ☐ أكثر من 5 سنوات
الجنس: ☐ ذكر ☐ انثى
العمر: ☐اقل من 20 سنة ☐21-30 ☐31-40 ☐41-50 ☐أكثر من 50
المؤهل العلمي: ☐ دبلوم ☐بكالوريوس ☐دبلوم عالي ☐ ماجستير ☐ دكتوراة
المركز: ☐ مدير ☐ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها.					
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.					
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة					
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة					
5.من السهل التصفح بين الصفحات					
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.					
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح					
2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية	5	4	3	2	1
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء					
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي					
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري					
4.توفربوابة الحكومة الإلكترونية المعلومات التي أحتاجها في الوقت الحالي					
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح					
6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة					
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة					
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات					

أو خدمات					
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع					
3.بوابة الحكومة الالكترونية منظمة بشكل جيد					
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات					
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية					
6. الرموز والرسائل التي تشيرإلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة					
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية					
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية					
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية					

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)	**5**	**4**	**3**	**2**	**1**
1.أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي					
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة					
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة					
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي					
2.التفاعل مع بوابة الحكومة الإلكترونية هي عمليّ واضحة ومفهومة					
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها					

4. بوابة الحكومة الإلكترونية سهلة الاستخدام					
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية					
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة					
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي					
3.أجد بوابة الحكومة الإلكترونية مفيدة.					
4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر					
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل					

موافق بشدة	**موافق**	**لا أوافق ولا أعارض**	**غير موافق**	**غير موافق بشدة**
5	**4**	**3**	**2**	**1**

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1. توفر خدمة الحكومة الالكترونية معاملات آمنة					
2. خدمة الحكومة الالكترونية جديرة بالثقة					
3. خدمة الحكومة الالكترونية آمنة					
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية					
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة					
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية					

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

SAMPLES OF RESPONDENTS QUESTIONNAIRE ANSWERS

STUDY SURVEY 1

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? ☐ Yes ☑ No	
How long have you been using the E-government service? ☐ Less than 1 year ☑ 1-3 years ☐ 3-5 years more than 5 years ☐	
What is your Gender? ☑ Male Female ☐	What is your Age? Below 20 ☐ ☐ 21-30 31-40 ☑ More than 50 ☐ 41-50 ☐
Your highest level of education? ☐ Diploma ☐ Bachelor's degree High Diploma ☐ Masters ☐ PhD ☑	
What is your status? ☑ Manager ☐ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1 ✓	2	3	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2 ✓	3	4	5
3. This e-government portal provides fast information access.	1	2	3 ✓	4	5
4. This e-government portal quickly loads all the text and graphics.	1	2 ✓	3	4	5
5. It is easy to go back and forth between pages.	1	2	3 ✓	4	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3	4 ✓	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3 ✓	4	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3 ✓	4	5
2. This e-government portal provides precise information according to my need	1	2	3	4 ✓	5
3. Information on this e-government portal is up to date.	1	2	3	4 ✓	5
4. This e-government portal provides the information that I need at the current time.	1	2	3 ✓	4	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2 ✓	3	4	5
6. Information contains necessary topics to complete related task	1	2	3	4 ✓	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3	4 ✓	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2	3 ✓	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1 ✓	2	3	4	5
3. This e-government portal is well organized.	1	2 ✓	3	4	5
4. This e-government portal is available at all times.	1	2	3 ✓	4	5
5. This e-government portal will not misuse my personal information	1	2	3	4 ✓	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2 ✓	3	4	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3 ✓	4	5
8. It is easy to find the responsible person's contact details.	1	2	3 ✓	4	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2 ✓	3	4	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2 ✓	3	4	5
2. This e-government portal is exactly what is needed for this service	1	2 ✓	3	4	5
3. I am satisfied with the online services provided by the government.	1	2	3 ✓	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service					
1. Learning to interact with this e-government portal is easy for me.	1	2 ✓	3	4	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3 ✓	4	5

3. I find this e-government portal to be flexible to interact with.	1	2	3✓	4	5
4. The e-government portal is easy to use.	1	2	3	4✓	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3✓	4	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2✓	3	4	5
2. This e-government portal provides accurate content.	1	2✓	3	4	5
3. This e-government portal provides up-to-date content.	1	2	3✓	4	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3	4✓	5
5. Using this online service makes it easier to do my tasks.	1	2	3	4✓	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2✓	3	4	5
2.The e-government service is trustworthy	1	2✓	3	4	5
3.The e-government service is secured	1	2	3✓	4	5
4.The e-government service will not misuse my personal information	1	2	3✓	4	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3✓	4	5

STUDY SURVEY 2

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? ☐ Yes ☑ No	
How long have you been using the E-government service? ☐ Less than 1 year ☐ 1-3 years ☐ 3-5 years more than 5 years ☑	
What is your Gender? ☑ Male Female ☐	What is your Age? Below 20 ☐ ☑ 21-30 31-40 ☐ More than 50 ☐ 41-50 ☐
Your highest level of education? ☐ Diploma ☐ Bachelor's degree ☐ High Diploma ☐ Masters ☑ PhD	
What is your status? ☐ Manager ☑ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1 ✓	2	3	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2 ✓	3	4	5
3. This e-government portal provides fast information access.	1	2	3 ✓	4	5
4. This e-government portal quickly loads all the text and graphics.	1	2	3	4 ✓	5
5. It is easy to go back and forth between pages.	1	2	3	4	5 ✓
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3	4	5 ✓
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3	4 ✓	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3 ✓	4	5
2. This e-government portal provides precise information according to my need	1	2	3 ✓	4	5
3. Information on this e-government portal is up to date.	1	2	3 ✓	4	5
4. This e-government portal provides the information that I need at the current time.	1	2	3	4 ✓	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3	4 ✓	5
6. Information contains necessary topics to complete related task	1	2	3 ✓	4	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3 ✓	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2✓	3	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2✓	3	4	5
3. This e-government portal is well organized.	1	2	3✓	4	5
4. This e-government portal is available at all times.	1	2	3✓	4	5
5. This e-government portal will not misuse my personal information	1	2	3	4✓	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2	3	4✓	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3✓	4	5
8. It is easy to find the responsible person's contact details.	1	2	3	4✓	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3	4✓	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2	3✓	4	5
2. This e-government portal is exactly what is needed for this service	1	2✓	3	4	5
3. I am satisfied with the online services provided by the government.	1	2	3✓	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service					
1. Learning to interact with this e-government portal is easy for me.	1	2	3✓	4	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3✓	4	5

3. I find this e-government portal to be flexible to interact with.	1	2	3	4✓	5
4. The e-government portal is easy to use.	1	2	3	4✓	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3	4✓	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3	4✓	5
2. This e-government portal provides accurate content.	1	2✓	3	4	5
3. This e-government portal provides up-to-date content.	1	2	3✓	4	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3	4✓	5
5. Using this online service makes it easier to do my tasks.	1	2	3	4✓	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2	3✓	4	5
2.The e-government service is trustworthy	1	2✓	3	4	5
3.The e-government service is secured	1	2	3	4✓	5
4.The e-government service will not misuse my personal information	1	2	3	4✓	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3✓	4	5

STUDY SURVEY 3

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? Yes ☑ No ☐	
How long have you been using the E-government service? ☐ Less than 1 year ☐ 1-3 years ☑ 3-5 years more than 5 years ☐	
What is your Gender? ☐ Male Female ☑	What is your Age? Below 20 ☐ ☐ 21-30 31-40 ☑ More than 50 ☐ 41-50 ☐
Your highest level of education? ☐ Diploma Bachelor's degree ☑ High Diploma ☐ Masters ☐ PhD ☐	
What is your status? ☐ Manager ☑ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1	2	3 ✓	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2	3	4 ✓	5
3. This e-government portal provides fast information access.	1	2	3	4 ✓	5
4. This e-government portal quickly loads all the text and graphics.	1	2	3	4 ✓	5
5. It is easy to go back and forth between pages.	1	2	3	4 ✓	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3 ✓	4	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3 ✓	4	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3 ✓	4	5
2. This e-government portal provides precise information according to my need	1	2 ✓	3	4	5
3. Information on this e-government portal is up to date.	1	2	3 ✓	4	5
4. This e-government portal provides the information that I need at the current time.	1	2	3 ✓	4	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3	4 ✓	5
6. Information contains necessary topics to complete related task	1	2	3 ✓	4	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3	4 ✓	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2✓	3	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2✓	3	4	5
3. This e-government portal is well organized.	1	2	3✓	4	5
4. This e-government portal is available at all times.	1	2	3✓	4	5
5. This e-government portal will not misuse my personal information	1	2	3✓	4	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2	3	4✓	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3✓	4	5
8. It is easy to find the responsible person's contact details.	1	2	3	4✓	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3✓	4	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2✓	3	4	5
2. This e-government portal is exactly what is needed for this service	1	2✓	3	4	5
3. I am satisfied with the online services provided by the government.	1	2✓	3	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service					
1. Learning to interact with this e-government portal is easy for me.	1	2✓	3	4	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3✓	4	5

3. I find this e-government portal to be flexible to interact with.	1	2	3✓	4	5
4. The e-government portal is easy to use.	1	2	3✓	4	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3	4✓	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3✓	4	5
2. This e-government portal provides accurate content.	1	2	3	4✓	5
3. This e-government portal provides up-to-date content.	1	2	3	4✓	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3✓	4	5
5. Using this online service makes it easier to do my tasks.	1	2	3	4✓	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2✓	3	4	5
2.The e-government service is trustworthy	1	2	3✓	4	5
3.The e-government service is secured	1	2	3✓	4	5
4.The e-government service will not misuse my personal information	1	2	3	4✓	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3	4	5✓

STUDY SURVEY 4

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? ☑ Yes No ☐	
How long have you been using the E-government service? Less than 1 year ☐ ☑ 1-3 years 3-5 years ☐ more than 5 years ☐	
What is your Gender? Male ☑ Female ☐	What is your Age? Below 20 ☐ ☐ 21-30 31-40 ☐ More than 50 ☐ 41-50 ☑
Your highest level of education? ☐ Diploma ☐ Bachelor's degree High Diploma ☐ Masters ☑ PhD ☐	
What is your status? ☑ Manager ☐ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1	2	3 ✓	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2 ✓	3	4	5
3. This e-government portal provides fast information access.	1	2	3 ✓	4	5
4. This e-government portal quickly loads all the text and graphics.	1	2	3	4 ✓	5
5. It is easy to go back and forth between pages.	1	2	3	4 ✓	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3	4 ✓	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3 ✓	4	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3	4 ✓	5
2. This e-government portal provides precise information according to my need	1	2	3 ✓	4	5
3. Information on this e-government portal is up to date.	1	2	3	4 ✓	5
4. This e-government portal provides the information that I need at the current time.	1	2	3	4 ✓	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3 ✓	4	5
6. Information contains necessary topics to complete related task	1	2	3	4 ✓	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3	4 ✓	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2✓	3	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2	3✓	4	5
3. This e-government portal is well organized.	1	2	3✓	4	5
4. This e-government portal is available at all times.	1	2	3	4✓	5
5. This e-government portal will not misuse my personal information	1	2	3	4✓	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2	3	4✓	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3✓	4	5
8. It is easy to find the responsible person's contact details.	1	2	3	4✓	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3✓	4	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2✓	3	4	5
2. This e-government portal is exactly what is needed for this service	1	2	3✓	4	5
3. I am satisfied with the online services provided by the government.	1	2	3✓	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service					
1. Learning to interact with this e-government portal is easy for me.	1	2	3✓	4	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3	4✓	5

3. I find this e-government portal to be flexible to interact with.	1	2	3✓	4	5
4. The e-government portal is easy to use.	1	2	3	4✓	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3	4✓	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3✓	4	5
2. This e-government portal provides accurate content.	1	2	3	4✓	5
3. This e-government portal provides up-to-date content.	1	2	3	4✓	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3	4✓	5
5. Using this online service makes it easier to do my tasks.	1	2	3✓	4	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2	3✓	4	5
2.The e-government service is trustworthy	1	2✓	3	4	5
3.The e-government service is secured	1	2	3	4✓	5
4.The e-government service will not misuse my personal information	1	2	3✓	4	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3	4✓	5

STUDY SURVEY 5

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? ☑ Yes No ☐	
How long have you been using the E-government service? ☐ Less than 1 year ☑ 1-3 years ☐ 3-5 years more than 5 years ☐	
What is your Gender? ☐ Male Female ☑	What is your Age? Below 20 ☐ ☐ 21-30 31-40 ☑ More than 50 ☐ 41-50 ☐
Your highest level of education? ☐ Diploma ☐ Bachelor's degree High Diploma ☑ Masters ☐ PhD ☐	
What is your status? ☐ Manager ☑ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1	2 ✓	3	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2 ✓	3	4	5
3. This e-government portal provides fast information access.	1	2	3 ✓	4	5
4. This e-government portal quickly loads all the text and graphics.	1	2 ✓	3	4	5
5. It is easy to go back and forth between pages.	1	2	3	4 ✓	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3	4 ✓	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3	4 ✓	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3 ✓	4	5
2. This e-government portal provides precise information according to my need	1	2	3	4 ✓	5
3. Information on this e-government portal is up to date.	1	2	3	4 ✓	5
4. This e-government portal provides the information that I need at the current time.	1	2	3	4 ✓	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3	4 ✓	5
6. Information contains necessary topics to complete related task	1	2	3 ✓	4	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3 ✓	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1✓	2	3	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2✓	3	4	5
3. This e-government portal is well organized.	1	2	3✓	4	5
4. This e-government portal is available at all times.	1	2	3✓	4	5
5. This e-government portal will not misuse my personal information	1	2	3✓	4	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2	3	4✓	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3	4✓	5
8. It is easy to find the responsible person's contact details.	1	2	3	4✓	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3✓	4	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2	3✓	4	5
2. This e-government portal is exactly what is needed for this service	1	2	3✓	4	5
3. I am satisfied with the online services provided by the government.	1	2	3	4✓	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service					
1. Learning to interact with this e-government portal is easy for me.	1	2	3✓	4	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3✓	4	5

3. I find this e-government portal to be flexible to interact with.	1	2	3	4✓	5
4. The e-government portal is easy to use.	1	2	3	4✓	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3	4✓	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3✓	4	5
2. This e-government portal provides accurate content.	1	2	3	4✓	5
3. This e-government portal provides up-to-date content.	1	2	3	4✓	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3✓	4	5
5. Using this online service makes it easier to do my tasks.	1	2	3	4✓	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2	3✓	4	5
2.The e-government service is trustworthy	1	2	3	4✓	5
3.The e-government service is secured	1	2	3	4✓	5
4.The e-government service will not misuse my personal information	1	2	3	4✓	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3	4✓	5

STUDY SURVEY 6

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? ☑ Yes No ☐	
How long have you been using the E-government service? ☐ Less than 1 year ☑ 1-3 years ☐ 3-5 years more than 5 years ☐	
What is your Gender? ☑ Male Female ☐	What is your Age? Below 20 ☐ ☑ 21-30 31-40 ☐ More than 50 ☐ 41-50 ☐
Your highest level of education? ☐ Diploma ☐ Bachelor's degree High Diploma ☐ Masters ☑ PhD ☐	
What is your status? ☐ Manager ☑ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1	2	3 ✓	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2	3	4 ✓	5
3. This e-government portal provides fast information access.	1	2	3	4 ✓	5
4. This e-government portal quickly loads all the text and graphics.	1	2	3	4 ✓	5
5. It is easy to go back and forth between pages.	1	2	3	4 ✓	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3 ✓	4	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3	4 ✓	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3	4 ✓	5
2. This e-government portal provides precise information according to my need	1	2	3	4 ✓	5
3. Information on this e-government portal is up to date.	1	2	3	4	5 ✓
4. This e-government portal provides the information that I need at the current time.	1	2	3	4	5 ✓
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3	4 ✓	5
6. Information contains necessary topics to complete related task	1	2	3	4 ✓	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3	4	5 ✓

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2✓	3	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2	3✓	4	5
3. This e-government portal is well organized.	1	2	3	4✓	5
4. This e-government portal is available at all times.	1	2	3	4✓	5
5. This e-government portal will not misuse my personal information	1	2	3✓	4	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2	3	4✓	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3	4✓	5
8. It is easy to find the responsible person's contact details.	1	2	3✓	4	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3	4✓	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2	3	4✓	5
2. This e-government portal is exactly what is needed for this service	1	2	3✓	4	5
3. I am satisfied with the online services provided by the government.	1	2	3	4✓	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service					
1. Learning to interact with this e-government portal is easy for me.	1	2	3	4✓	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3	4✓	5

3. I find this e-government portal to be flexible to interact with.	1	2	3	4✓	5
4. The e-government portal is easy to use.	1	2	3✓	4	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3✓	4	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3✓	4	5
2. This e-government portal provides accurate content.	1	2	3	4✓	5
3. This e-government portal provides up-to-date content.	1	2	3	4	5✓
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3	4	5✓
5. Using this online service makes it easier to do my tasks.	1	2	3	4✓	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2	3✓	4	5
2.The e-government service is trustworthy	1	2✓	3	4	5
3.The e-government service is secured	1	2	3✓	4	5
4.The e-government service will not misuse my personal information	1	2	3	4✓	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3✓	4	5

STUDY SURVEY 7

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? ☑ Yes No ☐	
How long have you been using the E-government service? ☐ Less than 1 year 1-3 years ☐ 3-5 years ☐ more than 5 years ☑	
What is your Gender? ☐ Male Female ☑	What is your Age? Below 20 ☐ ☐ 21-30 31-40 ☑ More than 50 ☐ 41-50 ☐
Your highest level of education? ☐ Diploma ☐ Bachelor's degree High Diploma ☐ Masters ☐ PhD ☑	
What is your status? ☑ Manager ☐ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1	2 ✓	3	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2	3 ✓	4	5
3. This e-government portal provides fast information access.	1	2	3 ✓	4	5
4. This e-government portal quickly loads all the text and graphics.	1	2	3 ✓	4	5
5. It is easy to go back and forth between pages.	1	2	3	4 ✓	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3 ✓	4	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3 ✓	4	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3 ✓	4	5
2. This e-government portal provides precise information according to my need	1	2	3 ✓	4	5
3. Information on this e-government portal is up to date.	1	2	3 ✓	4	5
4. This e-government portal provides the information that I need at the current time.	1	2 ✓	3	4	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3 ✓	4	5
6. Information contains necessary topics to complete related task	1	2	3	4 ✓	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3 ✓	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2	3✓	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2	3✓	4	5
3. This e-government portal is well organized.	1	2	3✓	4	5
4. This e-government portal is available at all times.	1	2	3	4✓	5
5. This e-government portal will not misuse my personal information	1	2	3✓	4	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2	3✓	4	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3	4✓	5
8. It is easy to find the responsible person's contact details.	1	2	3✓	4	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3✓	4	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2	3✓	4	5
2. This e-government portal is exactly what is needed for this service	1	2	3✓	4	5
3. I am satisfied with the online services provided by the government.	1	2	3✓	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5
5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service				
1. Learning to interact with this e-government portal is easy for me.	1	2	3	4✓	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3	4✓	5

3. I find this e-government portal to be flexible to interact with.	1	2	3	4✓	5
4. The e-government portal is easy to use.	1	2	3✓	4	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3✓	4	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3✓	4	5
2. This e-government portal provides accurate content.	1	2	3✓	4	5
3. This e-government portal provides up-to-date content.	1	2	3	4✓	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3	4✓	5
5. Using this online service makes it easier to do my tasks.	1	2	3✓	4	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2	3✓	4	5
2.The e-government service is trustworthy	1	2	3✓	4	5
3.The e-government service is secured	1	2	3✓	4	5
4.The e-government service will not misuse my personal information	1	2	3	4✓	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3✓	4	5

STUDY SURVEY 8

1.0 Student& Employee Background Information			
Does your company use any of the E-government services? ☑ Yes No ☐			
How long have you been using the E-government service? ☐ Less than 1 year ☑ 1-3 years ☐ 3-5 years more than 5 years ☐			
What is your Gender? ☑ Male Female ☐		What is your Age? Below 20 ☐ ☑ 21-30 31-40 ☐ More than 50 ☐ 41-50 ☐	
Your highest level of education? ☐ Diploma ☐ Bachelor's degree High Diploma ☐ Masters ☑ PhD ☐			
What is your status? ☑ Manager ☐ Employee			

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1	2	3 ✓	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2	3 ✓	4	5
3. This e-government portal provides fast information access.	1	2	3 ✓	4	5
4. This e-government portal quickly loads all the text and graphics.	1	2	3	4 ✓	5
5. It is easy to go back and forth between pages.	1	2	3	4 ✓	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3 ✓	4	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3 ✓	4	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3 ✓	4	5
2. This e-government portal provides precise information according to my need	1	2	3 ✓	4	5
3. Information on this e-government portal is up to date.	1	2	3	4 ✓	5
4. This e-government portal provides the information that I need at the current time.	1	2	3	4 ✓	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3	4 ✓	5
6. Information contains necessary topics to complete related task	1	2	3	4 ✓	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3	4	5 ✓

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2	3 ✓	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2	3 ✓	4	5
3. This e-government portal is well organized.	1	2	3	4 ✓	5
4. This e-government portal is available at all times.	1	2	3	4 ✓	5
5. This e-government portal will not misuse my personal information	1	2	3 ✓	4	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2	3 ✓	4	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3	4 ✓	5
8. It is easy to find the responsible person's contact details.	1	2	3 ✓	4	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3 ✓	4	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2	3	4 ✓	5
2. This e-government portal is exactly what is needed for this service	1	2	3 ✓	4	5
3. I am satisfied with the online services provided by the government.	1	2	3	4 ✓	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5
5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service				
1. Learning to interact with this e-government portal is easy for me.	1	2	3	4 ✓	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3	4 ✓	5

3. I find this e-government portal to be flexible to interact with.	1	2	3	4✓	5
4. The e-government portal is easy to use.	1	2	3✓	4	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3✓	4	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3✓	4	5
2. This e-government portal provides accurate content.	1	2	3	4✓	5
3. This e-government portal provides up-to-date content.	1	2	3✓	4	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3	4✓	5
5. Using this online service makes it easier to do my tasks.	1	2	3	4✓	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2	3✓	4	5
2.The e-government service is trustworthy	1	2	3✓	4	5
3.The e-government service is secured	1	2	3✓	4	5
4.The e-government service will not misuse my personal information	1	2	3	4✓	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3✓	4	5

STUDY SURVEY 9

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? Yes ☑ No ☐	
How long have you been using the E-government service? ☐ Less than 1 year ☐ 1-3 years ☑ 3-5 years more than 5 years ☐	
What is your Gender? ☐ Male Female ☑	What is your Age? Below 20 ☐ ☐ 21-30 31-40 ☑ More than 50 ☐ 41-50 ☐
Your highest level of education? ☐ Diploma Bachelor's degree ☑ High Diploma ☐ Masters ☐ PhD ☐	
What is your status? ☐ Manager ☑ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1	2	3 ✓	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2	3 ✓	4	5
3. This e-government portal provides fast information access.	1	2	3 ✓	4	5
4. This e-government portal quickly loads all the text and graphics.	1	2	3	4 ✓	5
5. It is easy to go back and forth between pages.	1	2	3	4 ✓	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3 ✓	4	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3 ✓	4	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3 ✓	4	5
2. This e-government portal provides precise information according to my need	1	2	3 ✓	4	5
3. Information on this e-government portal is up to date.	1	2	3 ✓	4	5
4. This e-government portal provides the information that I need at the current time.	1	2	3 ✓	4	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3	4 ✓	5
6. Information contains necessary topics to complete related task	1	2	3 ✓	4	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3	4 ✓	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2✓	3	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2✓	3	4	5
3. This e-government portal is well organized.	1	2	3✓	4	5
4. This e-government portal is available at all times.	1	2✓	3	4	5
5. This e-government portal will not misuse my personal information	1	2	3✓	4	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2✓	3	4	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3✓	4	5
8. It is easy to find the responsible person's contact details.	1	2	3✓	4	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3✓	4	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2✓	3	4	5
2. This e-government portal is exactly what is needed for this service	1	2✓	3	4	5
3. I am satisfied with the online services provided by the government.	1	2✓	3	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service					
1. Learning to interact with this e-government portal is easy for me.	1	2✓	3	4	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3✓	4	5

3. I find this e-government portal to be flexible to interact with.	1	2	3✓	4	5
4. The e-government portal is easy to use.	1	2	3✓	4	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3	4✓	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3✓	4	5
2. This e-government portal provides accurate content.	1	2	3	4✓	5
3. This e-government portal provides up-to-date content.	1	2	3✓	4	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3✓	4	5
5. Using this online service makes it easier to do my tasks.	1	2	3	4✓	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2✓	3	4	5
2.The e-government service is trustworthy	1	2	3✓	4	5
3.The e-government service is secured	1	2	3✓	4	5
4.The e-government service will not misuse my personal information	1	2	3✓	4	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3✓	4	5

STUDY SURVEY 10

1.0 Student& Employee Background Information	
Does your company use any of the E-government services? ☑ Yes No ☐	
How long have you been using the E-government service? Less than 1 year ☐ ☑ 1-3 years 3-5 years ☐ more than 5 years ☐	
What is your Gender? Male ☑ Female ☐	What is your Age? Below 20 ☐ ☐ 21-30 31-40 ☐ More than 50 ☐ 41-50 ☑
Your highest level of education? ☐ Diploma ☐ Bachelor's degree High Diploma ☐ Masters ☑ PhD ☐	
What is your status? ☑ Manager ☐ Employee	

SECTION A:

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.					
1. This e-government portal provides necessary information and forms to be downloaded.	1	2	3 ✓	4	5
2. This e-government portal provides helpful instructions for performing my tasks.	1	2	3 ✓	4	5
3. This e-government portal provides fast information access.	1	2	3 ✓	4	5
4. This e-government portal quickly loads all the text and graphics.	1	2 ✓	3	4	5
5. It is easy to go back and forth between pages.	1	2 ✓	3	4	5
6. It only takes a few clicks to locate the information that I need from the e-government portal.	1	2	3 ✓	4	5
7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	1	2	3 ✓	4	5

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.					
1. Information on e-government portal is free from errors.	1	2	3	4 ✓	5
2. This e-government portal provides precise information according to my need	1	2	3 ✓	4	5
3. Information on this e-government portal is up to date.	1	2	3 ✓	4	5
4. This e-government portal provides the information that I need at the current time.	1	2	3 ✓	4	5
5. Information presented in this e-government portal is useful and relevant to the subject matter.	1	2	3 ✓	4	5
6. Information contains necessary topics to complete related task	1	2	3	4 ✓	5
7.The Information that is provided in the e-government portal is correct and related to the existing sections	1	2	3	4 ✓	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

3.0 This section is aimed at understanding the *Electronic Service Quality (e-service)* of the Electronic Government					
1. This e-government portal makes it easy to find what I need.	1	2✓	3	4	5
2. This e-government portal makes it easy to navigate anywhere on the site.	1	2	3✓	4	5
3. This e-government portal is well organized.	1	2	3✓	4	5
4. This e-government portal is available at all times.	1	2	3✓	4	5
5. This e-government portal will not misuse my personal information	1	2	3	4✓	5
6. The Symbols and messages that declare the security of the e-government portal are shown.	1	2	3✓	4	5
7. Automated or human email responses are prompt in the e-government portal	1	2	3✓	4	5
8. It is easy to find the responsible person's contact details.	1	2	3	4✓	5
9. FAQs are available to help me solve problems by myself on the e-government portal	1	2	3✓	4	5

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service					
1. I think that I made the right choice when I started using this online service for my organization.	1	2✓	3	4	5
2. This e-government portal is exactly what is needed for this service	1	2	3✓	4	5
3. I am satisfied with the online services provided by the government.	1	2	3✓	4	5

Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service					
1. Learning to interact with this e-government portal is easy for me.	1	2	3✓	4	5
2. Interacting with this e-government portal is a clear and understandable process.	1	2	3	4✓	5

3. I find this e-government portal to be flexible to interact with.	1	2	3✓	4	5
4. The e-government portal is easy to use.	1	2	3✓	4	5
5. It is easy for me to become skilful at using this e-government portal	1	2	3	4✓	5

6.0 This section is aimed at understanding the *Perceived Usefulness* of the e-government Service					
1. This e-government portal enhanced my effectiveness in searching and using this service.	1	2	3✓	4	5
2. This e-government portal provides accurate content.	1	2	3	4✓	5
3. This e-government portal provides up-to-date content.	1	2	3✓	4	5
4. Using this online service enables me to accomplish tasks more quickly.	1	2	3	4✓	5
5. Using this online service makes it easier to do my tasks.	1	2	3✓	4	5

Strongly disagree	**Disagree**	**Neither agree or disagree**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

7.0 This section is aimed at understanding the *Trust* of the E-government Service.					
1.The e-government service provides safe transactions	1	2	3✓	4	5
2.The e-government service is trustworthy	1	2✓	3	4	5
3.The e-government service is secured	1	2	3	4✓	5
4.The e-government service will not misuse my personal information	1	2	3✓	4	5
5.I believe the e-government service has a good reputation	1	2	3	4✓	5
6.I believe my privacy is protected at this e-government service	1	2	3	4✓	5

STUDY SURVEY11

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☐ 1-3 سنوات ☑ 3-5 سنوات ☐ أكثر من 5 سنوات
الجنس: ☐ ذكر ☑ انثى
العمر: ☐ اقل من 20 سنة ☐ 21-30 ☑ 31-40 ☐ 41-50 ☐ اكثر من 50
المؤهل العلمي: ☐ دبلوم ☑ بكالوريوس ☐ دبلوم عالي ☐ ماجستير ☐ دكتوراة
المركز: ☐ مدير ☑ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها.	✓				
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.		✓			
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة	✓				
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة		✓			
5.من السهل التصفح بين الصفحات		✓			
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.			✓		
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح			✓		

2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية	5	4	3	2	1
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء			✓		
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي			✓		
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري			✓		
4.توفربوابة الحكومة الإلكترونية المعلومات التي أحتاجهافي الوقت الحالي		✓			
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح		✓			

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة			✓		
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة			✓		
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات			✓		
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع		✓			
3.بوابة الحكومة الالكترونية منظمة بشكل جيد				✓	
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية			✓		
6. الرموز والرسائل التي تشيرإلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة			✓		
7. خدمات الرد الآلي اوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية			✓		
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية			✓		
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية		✓			

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)					
1.أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي			✓		
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة			✓		
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة			✓		
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي			✓		
2.التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة		✓			
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها			✓		
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓		
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية		✓			
			✓		
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة			✓		
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي		✓			
3.أجد بوابة الحكومة الإلكترونية مفيدة.			✓		

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر		✓			
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل			✓		

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة		✓			
2. خدمة الحكومة الالكترونية جديرة بالثقة			✓		
3. خدمة الحكومة الالكترونية آمنة			✓		
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية		✓			
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة			✓		
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية		✓			

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 12

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☐ 1-3 سنوات ☐ 3-5 سنوات ☑ أكثر من 5 سنوات
الجنس ☑: ذكر ☐ انثى
العمر: ☐ اقل من 20 سنة ☐ 21-30 ☑ 31-40 ☐ 41-50 ☐ أكثر من 50
المؤهل العلمي: ☐ دبلوم ☐ بكالوريوس ☐ دبلوم عالي ☑ ماجستير ☐ دكتوراة
المركز: ☑ مدير ☐ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية					
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها		✓			
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.			✓		
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة		✓			
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة			✓		
5.من السهل التصفح بين الصفحات			✓		
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.		✓			
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح			✓		

	5	4	3	2	1
2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية					
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء			✓		
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي		✓			
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري			✓		
4.توفربوابة الحكومة الإلكترونية المعلومات التي أحتاجها في الوقت الحالي				✓	
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح				✓	

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة			✓		
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة			✓		
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات		✓			
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع			✓		
3.بوابة الحكومة الالكترونية منظمة بشكل جيد			✓		
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية		✓			
6. الرموز والرسائل التي تشيرإلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة			✓		
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية		✓			
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية		✓			
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية			✓		

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)					
1.أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي			✓		
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة			✓		
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة		✓			
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي			✓		
2.التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة		✓			
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها			✓		
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓		
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية				✓	
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة			✓		
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي			✓		
3.أجد بوابة الحكومة الإلكترونية مفيدة.				✓	

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر				✓	
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل			✓		

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة		✓			
2. خدمة الحكومة الالكترونية جديرة بالثقة		✓			
3. خدمة الحكومة الالكترونية آمنة		✓			
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية			✓		
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة			✓		
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية		✓			

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 13

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☐ 1-3 سنوات ☑ 3-5 سنوات ☐ اكثر من 5 سنوات
الجنس: ☐ ذكر ☑ انثى
العمر: ☐ اقل من 20 سنة ☐ 21-30 ☑ 31-40 ☐ 41-50 ☐ أكثر من 50
المؤهل العلمي: ☑ دبلوم ☐ بكالوريوس ☐ دبلوم عالي ☐ ماجستير ☐ دكتوراة
المركز: ☐ مدير ☑ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها			✓		
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.			✓		
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة			✓		
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة		✓			
5.من السهل التصفح بين الصفحات		✓			
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.		✓			
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح			✓		

2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية	5	4	3	2	1
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء			✓		
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي			✓		
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري			✓		
4.توفربوابة الحكومة الإلكترونية المعلومات التي احتاجها في الوقت الحالي			✓		
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح		✓			

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة		✓			
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة			✓		
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات		✓			
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع			✓		
3.بوابة الحكومة الالكترونية منظمة بشكل جيد		✓			
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية			✓		
6. الرموز والرسائل التي تشيرإلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة			✓		
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية		✓			
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية		✓			
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية			✓		

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)	5	4	3	2	1
1. أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي			✓		
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة			✓		
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة		✓			
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1. تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي			✓		
2. التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة			✓		
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها			✓		
4. بوابة الحكومة الإلكترونية سهلة الاستخدام		✓			
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية			✓		
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1. بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة			✓		
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي			✓		
3. أجد بوابة الحكومة الإلكترونية مفيدة.			✓		

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر		✓			
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل			✓		

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة			✓		
2. خدمة الحكومة الالكترونية جديرة بالثقة			✓		
3. خدمة الحكومة الالكترونية آمنة		✓			
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية				✓	
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة				✓	
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية				✓	

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 14

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☐ 1-3 سنوات ☐ 3-5 سنوات ☑ أكثر من 5 سنوات
الجنس: ☑ ذكر ☐ انثى
العمر: ☐ اقل من 20 سنة ☐ 21-30 ☑ 31-40 ☐ 41-50 ☐ أكثر من 50
المؤهل العلمي: ☐ دبلوم ☐ بكالوريوس ☐ دبلوم عالي ☑ ماجستير ☐ دكتوراة
المركز: ☑ مدير ☐ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة او الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية					
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها.				✓	
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.				✓	
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة				✓	
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة			✓		
5.من السهل التصفح بين الصفحات			✓		
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.				✓	
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح			✓		
2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية	5	4	3	2	1
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء			✓		
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي			✓		
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري			✓		
4.توفربوابة الحكومة الإلكترونية المعلومات التي أحتاجهافي الوقت الحالي				✓	
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح				✓	

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة			✓		
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة			✓		
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات				✓	
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع			✓		
3.بوابة الحكومة الالكترونية منظمة بشكل جيد			✓		
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية				✓	
6. الرموز والرسائل التي تشير إلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة			✓		
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية			✓		
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية				✓	
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية			✓		

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)					
1.أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي			✓		
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة			✓		
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة			✓		
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي			✓		
2.التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة			✓		
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها			✓		
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓		
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية				✓	
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة					✓
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي				✓	
3.أجد بوابة الحكومة الإلكترونية مفيدة.				✓	

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر				✓	
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل			✓		

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة			✓		
2. خدمة الحكومة الالكترونية جديرة بالثقة			✓		
3. خدمة الحكومة الالكترونية آمنة		✓			
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية			✓		
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة			✓		
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية		✓			

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 15

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☐ 1-3 سنوات ☑ 3-5 سنوات ☐ أكثر من 5 سنوات
الجنس: ☐ ذكر ☑ انثى
العمر: ☐ اقل من 20 سنة ☐ 21-30 ☐ 31-40 ☐ 41-50 ☑ أكثر من 50
المؤهل العلمي: ☐ دبلوم ☐ بكالوريوس ☐ دبلوم عالي ☐ ماجستير ☑ دكتوراة
المركز: ☑ مدير ☐ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية					
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها		✓			
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.			✓		
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة		✓			
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة		✓			
5.من السهل التصفح بين الصفحات		✓			
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.		✓			
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح			✓		

	5	4	3	2	1
2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية					
1.المعلومات على بوابةالحكومة الإلكترونيةخالية منالأخطاء			✓		
2.توفربوابة الحكومةالإلكترونيةالمعلوماتبدقةوفقا لحاجتي		✓			
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري		✓			
4.توفربوابة الحكومةالإلكترونيةالمعلومات التي أحتاجهافي الوقت لحالي			✓		
5.المعلومات الواردة فيبوابة الحكومية الإلكترونيةمفيدة ومرتبطة في الموضوع المطروح			✓		

6. معلوماتتتضمنالموضوعاتاللازمة لإتمامالمهمة			✓		
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة			✓		
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات		✓			
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع			✓		
3.بوابة الحكومة الالكترونية منظمة بشكل جيد			✓		
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية		✓			
6. الرموز والرسائل التي تشير إلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة		✓			
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية		✓			
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية		✓			
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية		✓			

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2		غير موافق بشدة 1		
4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)	5	4	3	2	1		
1. أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي		✓					
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة		✓					
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة		✓					
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1		
1. تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي		✓					
2. التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة		✓					
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها		✓					
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓				
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية		✓					
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1		
1. بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة	✓						
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي	✓						
3. أجد بوابة الحكومة الإلكترونية مفيدة.		✓					

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر	✓				
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل	✓				

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة		✓			
2. خدمة الحكومة الالكترونية جديرة بالثقة		✓			
3. خدمة الحكومة الالكترونية آمنة		✓			
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية	✓				
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة	✓				
6.أنا اؤمن ان خصوصيتي محمية من خلال خدمة الحكومة الالكترونية	✓				

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 16

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☐ 1-3 سنوات ☐ 3-5 سنوات ☑ أكثر من 5 سنوات
الجنس ☑: ذكر ☐ انثى
العمر: ☐ اقل من 20 سنة ☑ 21-30 ☐ 31-40 ☐ 41-50 ☐ اكثر من 50
المؤهل العلمي: ☐ دبلوم ☑ بكالوريوس ☐ دبلوم عالي ☐ ماجستير ☐ دكتوراة
المركز: ☐ مدير ☑ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية					
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها			✓		
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.			✓		
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة			✓		
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة			✓		
5.من السهل التصفح بين الصفحات			✓		
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.		✓			
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح		✓			
2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية	5	4	3	2	1
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء		✓			
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي		✓			
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري			✓		
4.توفربوابة الحكومة الإلكترونية المعلومات التي احتاجهافي الوقت الحالي			✓		
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح			✓		

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة			✓		
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة			✓		
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات		✓			
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع			✓		
3.بوابة الحكومة الالكترونية منظمة بشكل جيد			✓		
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية			✓		
6. الرموز والرسائل التي تشيرإلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة			✓		
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية				✓	
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية				✓	
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية			✓		

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)					
1. أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي			✓		
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة			✓		
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة		✓			
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1. تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي			✓		
2. التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة			✓		
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها			✓		
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓		
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية				✓	
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1. بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة			✓		
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي			✓		
3. أجد بوابة الحكومة الإلكترونية مفيدة.				✓	

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر				✓	
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل			✓		

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة			✓		
2. خدمة الحكومة الالكترونية جديرة بالثقة			✓		
3. خدمة الحكومة الالكترونية آمنة			✓		
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية			✓		
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة			✓		
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية		✓			

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 17

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ اقل من 1 سنة ☐ 1-3 سنوات ☐ 3-5 سنوات ☑ أكثر من 5 سنوات
الجنس: ☐ ذكر ☑ انثى
العمر: ☐ اقل من 20 سنة ☐ 21-30 ☑ 31-40 ☐ 41-50 ☐ اكثر من 50
المؤهل العلمي: ☐ دبلوم ☐ بكالوريوس ☑ دبلوم عالي ☐ ماجستير ☐ دكتوراة
المركز: ☐ مدير ☑ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها.				✓	
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.			✓		
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة				✓	
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة				✓	
5.من السهل التصفح بين الصفحات				✓	
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.			✓		
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح			✓		

2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية	5	4	3	2	1
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء			✓		
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي			✓		
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري			✓		
4.توفربوابة الحكومة الإلكترونية المعلومات التي أحتاجهافي الوقت الحالي				✓	
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح				✓	

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة			✓		
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة			✓		
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات		✓			
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع			✓		
3.بوابة الحكومة الالكترونية منظمة بشكل جيد			✓		
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية		✓			
6. الرموز والرسائل التي تشيرإلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة			✓		
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية		✓			
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية		✓			
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية			✓		

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)					
1.أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي				✓	
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة				✓	
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة				✓	
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي			✓		
2.التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة			✓		
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها			✓		
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓		
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية				✓	
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة				✓	
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي				✓	
3.أجد بوابة الحكومة الإلكترونية مفيدة.				✓	

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر				✓	
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل			✓		

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة		✓			
2. خدمة الحكومة الإلكترونية جديرة بالثقة			✓		
3. خدمة الحكومة الالكترونية أمنة		✓			
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية			✓		
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة			✓		
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية			✓		

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 18

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☐ 1-3 سنوات ☐ 3-5 سنوات ☑ أكثر من 5 سنوات
الجنس: ☐ ذكر ☑ انثى
العمر: ☐ اقل من 20 سنة ☑ 21-30 ☐ 31-40 ☐ 41-50 ☐ أكثر من 50
المؤهل العلمي: ☐ دبلوم ☑ بكالوريوس ☐ دبلوم عالي ☐ ماجستير ☐ دكتوراة
المركز: ☐ مدير ☑ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية					
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها		✓			
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.			✓		
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة		✓			
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة		✓			
5.من السهل التصفح بين الصفحات			✓		
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.			✓		
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح			✓		

	5	4	3	2	1
2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية					
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء			✓		
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي				✓	
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري		✓			
4.توفربوابة الحكومة الإلكترونية المعلومات التي أحتاجهافي الوقت الحالي			✓		
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح				✓	

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة			✓		
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة			✓		
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات			✓		
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع			✓		
3.بوابة الحكومة الالكترونية منظمة بشكل جيد			✓		
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية		✓			
6. الرموز والرسائل التي تشيرإلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة			✓		
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية				✓	
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية				✓	
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية			✓		

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)					
1.أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي			✓		
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة				✓	
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة				✓	
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي			✓		
2.التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة				✓	
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها		✓			
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓		
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية				✓	
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة		✓			
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي			✓		
3.أجد بوابة الحكومة الإلكترونية مفيدة.		✓			

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر			✓		
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل			✓		

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة		✓			
2. خدمة الحكومة الالكترونية جديرة بالثقة		✓			
3. خدمة الحكومة الالكترونية آمنة		✓			
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية			✓		
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة			✓		
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية			✓		

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 19

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☑ 1-3 سنوات ☐ 3-5 سنوات ☐ أكثر من 5 سنوات
الجنس: ☐ ذكر ☑ انثى
العمر: ☐ اقل من 20 سنة ☑ 21-30 ☐ 31-40 ☐ 41-50 ☐ أكثر من 50
المؤهل العلمي: ☐ دبلوم ☐ بكالوريوس ☑ دبلوم عالي ☐ ماجستير ☐ دكتوراة
المركز: ☐ مدير ☑ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها		✓			
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.		✓			
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة		✓			
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة			✓		
5.من السهل التصفح بين الصفحات		✓			
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.			✓		
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح			✓		

2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية	5	4	3	2	1
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء			✓		
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي			✓		
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري		✓			
4.توفربوابة الحكومة الإلكترونية المعلومات التي أحتاجها في الوقت الحالي			✓		
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح	✓				

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة		✓			
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة		✓			
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات		✓			
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع		✓			
3.بوابة الحكومة الالكترونية منظمة بشكل جيد		✓			
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية		✓			
6. الرموز والرسائل التي تشير إلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة			✓		
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية			✓		
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية			✓		
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية		✓			

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)					
1.أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي		✓			
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة		✓			
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة		✓			
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي		✓			
2.التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة			✓		
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها			✓		
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓		
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية				✓	
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة			✓		
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي			✓		
3.أجد بوابة الحكومة الإلكترونية مفيدة.		✓			

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر			✓		
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل			✓		

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة			✓		
2. خدمة الحكومة الالكترونية جديرة بالثقة			✓		
3. خدمة الحكومة الالكترونية آمنة		✓			
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية	✓				
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة	✓				
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية	✓				

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 20

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون احد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☐ 1-3 سنوات ☑ 3-5 سنوات ☐ أكثر من 5 سنوات
الجنس ☑: ذكر ☐ انثى
العمر: ☐ اقل من 20 سنة ☐ 21-30 ☐ 31-40 ☑ 41-50 ☐ أكثر من 50
المؤهل العلمي: ☐ دبلوم ☐ بكالوريوس ☑ دبلوم عالي ☐ ماجستير ☐ دكتوراة
المركز: ☐ مدير ☑ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة او الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية					
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها		✓			
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.	✓				
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة		✓			
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة	✓				
5.من السهل التصفح بين الصفحات		✓			
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.	✓				
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح		✓			

	5	4	3	2	1
2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية					
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء		✓			
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي	✓				
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري		✓			
4.توفربوابة الحكومة الإلكترونية المعلومات التي أحتاجهافي الوقت الحالي			✓		
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح	✓				

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة		✓			
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة		✓			
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات		✓			
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع	✓				
3.بوابة الحكومة الالكترونية منظمة بشكل جيد		✓			
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات		✓			
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية		✓			
6. الرموز والرسائل التي تشير إلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة		✓			
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية	✓				
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية		✓			
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية		✓			

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)	5	4	3	2	1
1.أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي		✓			
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة		✓			
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة		✓			
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي		✓			
2.التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة			✓		
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها		✓			
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓		
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية		✓			
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة		✓			
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي			✓		
3.أجد بوابة الحكومة الإلكترونية مفيدة.		✓			

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر			✓		
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل		✓			

موافق بشدة	موافق	لا أوافق ولا أعارض	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة		✓			
2. خدمة الحكومة الالكترونية جديرة بالثقة			✓		
3. خدمة الحكومة الالكترونية آمنة		✓			
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية	✓				
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة	✓				
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية	✓				

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

STUDY SURVEY 21

1. معلومات عن الموظف
هل يستخدم موقع عملك أحد الخدمات المقدمة من الحكومة الالكترونية: ☑ نعم ☐ لا
منذ متى وانتم تستخدمون أحد خدمات الحكومة الالكترونية؟ ☐ أقل من 1 سنة ☐ 1-3 سنوات ☑ 3-5 سنوات ☐ أكثر من 5 سنوات
الجنس ☑ : ذكر ☐ انثى
العمر: ☐ اقل من 20 سنة ☑ 21-30 ☐ 31-40 ☐ 41-50 ☐ أكثر من 50
المؤهل العلمي: ☐ دبلوم ☐ بكالوريوس ☐ دبلوم عالي ☑ ماجستير ☐ دكتوراة
المركز: ☑ مدير ☐ موظف

القسم الاول :

ارشادات : تتعلق مجموعة العبارات التالية باتجاهاتك نحو استخدام احد خدمات الحكومة الالكترونية في المؤسسة أو الشركة التي تعمل بها، يرجى التكرم ببيان مدى اعتقادك بان خدمة الحكومة الالكترونية لها ميزة وفقا للعبارة. يرجى القيام بذلك عن طريق اختيار أحد الأرقام الخمسة المقابلة لكل فقرة. ان وضع دائرة حول الرقم **5** يعني أنك توافق بشدة على أن خدمة الحكومة الالكترونية لها هذه الميزة، كما ان وضع دائرة حول الرقم **1** تعني أنك لا توافق بشدة. يمكنك وضع دائرة على أي من الأرقام الموجودة في الوسط لإظهار قوة اتجاهك. لا توجد إجابات صحيحة أو خاطئة وكلنا مهتمون بالرقم الذي يظهر أفضل اد راكاتك الخاصة حول خدمات الحكومة الالكترونية للشركة أو المؤسسة.

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

1. يهدف هذا القسم الى فهم جودة نظام بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر بوابة الحكومة الإلكترونية المعلومات والنماذج اللازمة ليتم تحميلها		✓			
2.توفر بوابة الحكومة الإلكترونية تعليمات مفيدة لأداء مهامي.			✓		
3.توفر بوابة الحكومة الإلكترونية سرعة في الوصول للمعلومات المطلوبة			✓		
4.تقوم بوابة الحكومة الإلكترونية بتحميل جميع النصوص والرسومات بسرعة			✓		
5.من السهل التصفح بين الصفحات			✓		
6. لا يستغرق سوى بضع نقرات لايجاد المعلومات التي أريدها في بوابة الحكومة الإلكترونية.		✓			
7. تصميم بوابة الحكومة الالكترونية بسيط وواضح ويظهر المعلومات بشكل واضح			✓		

2. يهدف هذا القسم الى قياس جودة المعلوماتفي بوابة الحكومة الالكترونية	5	4	3	2	1
1.المعلومات على بوابة الحكومة الإلكترونية خالية من الأخطاء		✓			
2.توفر بوابة الحكومة الإلكترونية المعلومات بدقة وفقا لحاجتي			✓		
3.المعلومات الواردة في بوابة الحكومة الإلكترونية يتم تحديثها بشكل دوري		✓			
4.توفربوابة الحكومة الإلكترونية المعلومات التي أحتاجها في الوقت الحالي			✓		
5.المعلومات الواردة في بوابة الحكومية الإلكترونية مفيدة ومرتبطة في الموضوع المطروح		✓			

6. معلومات تتضمن الموضوعات اللازمة لإتمام المهمة				✓	
7. المعلومات الموجودة في بوابة الحكومة الالكترونية صحيحة ومتعلقة بالأقسام الموجودة			✓		
3. يهدف هذا القسم الى فهم جودة الخدمات الالكترونية المقدمة من بوابة الحكومة الالكترونية	**5**	**4**	**3**	**2**	**1**
1.بوابة الحكومة الإلكترونية تجعل من السهل العثور على ما أحتاج من معلومات أو خدمات		✓			
2.هذه بوابة الحكومة الإلكترونية تجعل من السهل التصفح الى أي مكان على الموقع			✓		
3.بوابة الحكومة الالكترونية منظمة بشكل جيد		✓			
4.بوابة الحكومةالإلكترونية متوفرة في جميع الأوقات			✓		
5.هذه البوابة الحكومية الإلكترونية لن تسيء استخدام معلوماتي الشخصية		✓			
6. الرموز والرسائل التي تشيرإلى أن بوابة الحكومة الإلكترونية آمنة ظاهرة وموجودة			✓		
7. خدمات الرد الآلي أوالبريد الإلكتروني سريعة في بوابة الحكومة الإلكترونية		✓			
8.من السهل أن تجد المعلومات اللازمة للتواصل مع الشخص المسؤول في بوابة الحكومة الالكترونية				✓	
9.أجوبة الأسئلة الأكثر تكرارا موجودة لمساعدتي في حل المشاكل بنفسي على بوابة الحكومة الالكترونية				✓	

موافق بشدة 5	موافق 4	لا أوافق ولا أعارض 3	غير موافق 2	غير موافق بشدة 1

	5	4	3	2	1
4. يهدف هذا القسم الى فهم مدى رضا المستخدم (شركة ، مؤسسة)					
1.أعتقد أنني اتخذت القرار الصحيح عندم ابدأت باستخدام هذه الخدمة عبر الإنترنت لشركتي		✓			
2. بوابة الحكومة الالكترونية هذه هي بالضبط ما هو مطلوب لهذه الخدمة			✓		
3. أنا راض عن الخدمات الإلكترونية التي تقدمها الحكومة		✓			
5. يهدف هذا القسم الى قياس مدى سهولة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.تعلم التفاعل مع بوابة الحكومة الإلكترونية سهل بالنسبة لي			✓		
2.التفاعل مع بوابة الحكومة الإلكترونية هي عملية واضحة ومفهومة		✓			
3. أجد بوابة الحكومة الإلكترونية مرنة للتفاعل معها			✓		
4. بوابة الحكومة الإلكترونية سهلة الاستخدام			✓		
5. من السهل بالنسبة لي أن أصبح ماهرا في استخدام بوابة الحكومة الإلكترونية		✓			
6. يهدف هذا القسم الى فهم مدى فائدة استخدام بوابة الحكومة الالكترونية	5	4	3	2	1
1.بوابة الحكومة الإلكترونية عززت عندي فعالية البحث واستخدام هذه الخدمة			✓		
2. قدمت بوابة الحكومة الإلكترونية خدمة ثمينة بالنسبة لي			✓		
3.أجد بوابة الحكومة الإلكترونية مفيدة.		✓			

4.استخدام هذه الخدمةعلى الانترنت يتيح لي إنجاز المهام بسرعة أكبر			✓		
5.استخدام هذه الخدمة عبر الإنترنت تجعلني أقوم بمهامي بشكل أسهل		✓			

موافق بشدة	موافق	لا ادري	غير موافق	غير موافق بشدة
5	4	3	2	1

7. يهدف هذا القسم الى فهم الثقة في بوابة الحكومة الالكترونية	5	4	3	2	1
1. توفر خدمة الحكومة الالكترونية معاملات آمنة		✓			
2. خدمة الحكومة الالكترونية جديرة بالثقة			✓		
3. خدمة الحكومة الالكترونية آمنة			✓		
4. خدمة الحكومة الالكترونية لن تسيء استخدام معلوماتي الشخصية		✓			
5.أنا اؤمن ان خدمة الحكومة الالكترونية لديها سمعة جيدة			✓		
6.أنا اؤمن أن خصوصيتي محمية من خلال خدمة الحكومة الالكترونية		✓			

الشكر الجزيل على تعاونكم متمنيا لكم يوما سعيدا

Appendix D

Measurement Scales and Reliabilities of E-government Success Model

Section 1.0 was about the respondents' background included: gender, age, highest level of education, does his/her company use any of the e-government services, how long has he/her been using e-government services, status in company.

DIRECTIONS: The following set of statements relates to your feelings about use any of the E-government services. For each statement, please show the extent to which you believe e-government services has the feature described by the statement. Do this by picking one of the five numbers next to each statement. Circling a **5** means that you strongly agree that E-government service has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers all we are interested in is a number that best shows your perceptions about mobile commerce services.

1.0 This section is aimed at understanding the *System Quality* of the Electronic Government (e-government) service.	**Cronbach's Alpha Initial**	**Illustrative Support for Questions**
1. This e-government portal provides necessary information and forms to be downloaded. 2. This e-government portal provides helpful instructions for performing my tasks. 3. This e-government portal provides fast information access. 4. This e-government portal quickly loads all the text and graphics. 5. It is easy to go back and forth between pages. 6. It only takes a few clicks to locate the information that I need from the e-government portal. 7.The design of this e-government portal is simple and clear plus the information display on the portal is clear	**0.879**	Liu and Arnett (2000), McKinney *et al.,* (2002), Smith (2001), Aladwani and Palvia (2002), Wang *et al.,* (2005), Stockdale and Borovicka (2006) and Cao, Zhang and Seydel (2005).

2.0 This section is aimed at understanding the *Information Quality* of the Electronic Government (e-government) service.	**Cronbach's Alpha Initial**	**Illustrative Support for Questions**
1. Information on e-government portal is free from errors. (Dropped **) 2. This e-government portal provides precise information according to my need 3. Information on this e-government portal is up to date. 4. This e-government portal provides the information that I need at the current time. 5. Information presented in this e-government portal is useful and relevant to the subject matter. (Dropped **) 6. Information contains necessary topics to complete related task 7.The Information that is provided in the e-government portal is correct and related to the existing sections	**0.880**	Aladwani and Palvia (2002), Liu and Arnett (2000), Bailey and Pearson (1983), Li (1997), Smith (2001), Wang *et al.*, (2005), McKinney *et al.*, (2002), Stockdale and Borovicka (2006), Seddon and Kiew (1996), Rai *et al.*, (2002), Cao, Zhang and Seydel (2005), and Roca *et al.*, (2006).

3.0 This section is aimed at understanding the *Electronic ServiceQuality (e-service)* of the Electronic Government	**Cronbach's Alpha Initial**	**Illustrative Support for Questions**
1. This e-government portal makes it easy to find what I need. 2. This e-government portal makes it easy to navigate anywhere on the site. 3. This e-government portal is well organized. 4. This e-government portal is available at all times. 5. This e-government portal will not misuse my personal information 6. The Symbols and messages that declare the security of the e-government portal are shown. 7. Automated or human email responses are prompt in the e-government portal (Dropped **) 8. It is easy to find the responsible person's contact details. 9. FAQs are available to help me solve problems by myself on the e-government portal	**0.897**	Zeithaml, Parasuraman, and Malhotra (2000, 2002, 2005), Aladwani and Palvia (2002), Wang *et al.*, (2005), Stockdale and Borovicka (2006), Liu and Arnett (2000), Collier and Bienstock (2006), Roca *et al.*, (2006) and Smith (2001).

4.0 This section is aimed at understanding the *Business User Satisfaction* of the E-government service	**Cronbach's Alpha Initial**	**Illustrative Support for Questions**
1. I think that I made the right choice when I started using this online service for my organization. 2. This e-government portal is exactly what is needed for this service 3. I am satisfied with the online services provided by the government.	**0.850**	Oliver (1997) and Cronin, Brady and Hult (2000).

5.0 This section is aimed at understanding the *Perceived Ease of Use* of the E-government Service	**Cronbach's Alpha Initial**	**Illustrative Support for Questions**
1. Learning to interact with this e-government portal is easy for me. 2. Interacting with this e-government portal is a clear and understandable process. 3. I find this e-government portal to be flexible to interact with. 4. The e-government portal is easy to use. 5. It is easy for me to become skilful at using this e-government portal	**0.894**	Davis (1989), Gefen, Karahanna and Straub (2003), Carter and Belanger (2005), Roca, Chiu and Martinez (2006).

6.0 This section is aimed at understanding the *Perceived Usefulness* of322hee-government Service	**Cronbach's Alpha Initial**	**Illustrative Support for Questions**
1. This e-government portal enhanced my effectiveness in searching and using this service. 2. This e-government portal provides accurate content. 3. This e-government portal provides up-to-date content. 4. Using this online service enables me to accomplish tasks more quickly. 5. Using this online service makes it easier to do my tasks.	**0.897**	Davis (1989) and Carter and Belanger (2005).

7.0 This section is aimed at understanding the *Trust* of the E-government Service.	**Cronbach's Alpha Initial**	**Illustrative Support for Questions**
1. The e-government service provides safe transactions		
2. The e-government service is trustworthy		
3. The e-government service is secured	**0.879**	Luarn and Lin (2003) and Gefen *et al.*, (2003).
4.The e-government service will not misuse my personal information		
5. I believe the e-government service has a good reputation		
6. I believe my privacy is protected at this e-government service		

Appendix E

Frequency Distribution

(System Quality)

This e-government portal provides necessary information and forms to be downloaded

System Quality 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	4	1.3	1.3	1.3
	NEITHER AGREE OR DISAGREE	48	16.1	16.1	17.4
	AGREE	187	62.5	62.5	79.9
	STRONGLY AGREE	60	20.1	20.1	100.0
	Total	299	100.0	100.0	

This e-government portal provides helpful instructions for performing my tasks

System Quality 2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	10	3.3	3.3	3.3
	NEITHER AGREE OR DISAGREE	64	21.4	21.4	24.7
	AGREE	165	55.2	55.2	79.9
	STRONGLY AGREE	60	20.1	20.1	100.0
	Total	299	100.0	100.0	

This e-government portal provides fast information access

System Quality 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	11	3.7	3.7	3.7
	NEITHER AGREE OR DISAGREE	44	14.7	14.7	18.4
	AGREE	170	56.9	56.9	75.3
	STRONGLY AGREE	74	24.7	24.7	100.0
	Total	299	100.0	100.0	

This e-government portal quickly loads all the text and graphics

System Quality 4					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	17	5.7	5.7	6.0
	NEITHER AGREE OR DISAGREE	83	27.8	27.8	33.8
	AGREE	157	52.5	52.5	86.3
	STRONGLY AGREE	41	13.7	13.7	100.0
	Total	299	100.0	100.0	

It is easy to go back and forth between pages

System Quality 5					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	12	4.0	4.0	4.0
	NEITHER AGREE OR DISAGREE	62	20.7	20.7	24.7
	AGREE	165	55.2	55.2	79.9
	STRONGLY AGREE	60	20.1	20.1	100.0
	Total	299	100.0	100.0	

It only takes a few clicks to locate the information that I need from the e-government portal

System Quality 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	20	6.7	6.7	6.7
	NEITHER AGREE OR DISAGREE	70	23.4	23.4	30.1
	AGREE	152	50.8	50.8	80.9
	STRONGLY AGREE	57	19.1	19.1	100.0
	Total	299	100.0	100.0	

The design of this e-government portal is simple and clear plus the information display on the portal is clear

System Quality 7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	12	4.0	4.0	4.3
	NEITHER AGREE OR DISAGREE	58	19.4	19.4	23.7
	AGREE	174	58.2	58.2	81.9
	STRONGLY AGREE	54	18.1	18.1	100.0
	Total	299	100.0	100.0	

(Information Quality)

Information on e-government portal is free from errors

Information Quality 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	25	8.4	8.4	8.7
	NEITHER AGREE OR DISAGREE	119	39.8	39.8	48.5
	AGREE	128	42.8	42.8	91.3
	STRONGLY AGREE	26	8.7	8.7	100.0
	Total	299	100.0	100.0	

This e-government portal provides precise information according to my need

Information Quality 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	19	6.4	6.4	6.7
	NEITHER AGREE OR DISAGREE	113	37.8	37.8	44.5
	AGREE	139	46.5	46.5	91.0
	STRONGLY AGREE	27	9.0	9.0	100.0
	Total	299	100.0	100.0	

Information on this e-government portal is up to date

Information Quality 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	2	.7	.7	.7
	DISAGREE	36	12.0	12.0	12.7
	NEITHER AGREE OR DISAGREE	82	27.4	27.4	40.1
	AGREE	132	44.1	44.1	84.3
	STRONGLY AGREE	47	15.7	15.7	100.0
	Total	299	100.0	100.0	

This e-government portal provides the information that I need at the current time

Information Quality 4					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	17	5.7	5.7	5.7
	NEITHER AGREE OR DISAGREE	94	31.4	31.4	37.1
	AGREE	156	52.2	52.2	89.3
	STRONGLY AGREE	32	10.7	10.7	100.0
	Total	299	100.0	100.0	

Information presented in this e-government portal is useful and relevant to the subject matter

Information Quality 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	7	2.3	2.3	2.3
	NEITHER AGREE OR DISAGREE	89	29.8	29.8	32.1
	AGREE	165	55.2	55.2	87.3
	STRONGLY AGREE	38	12.7	12.7	100.0
	Total	299	100.0	100.0	

Information contains necessary topics to complete related task

Information Quality 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	10	3.3	3.3	3.7
	NEITHER AGREE OR DISAGREE	83	27.8	27.8	31.4
	AGREE	164	54.8	54.8	86.3
	STRONGLY AGREE	41	13.7	13.7	100.0
	Total	299	100.0	100.0	

The Information that is provided in the e-government portal is correct and related to the existing sections

Information Quality 7					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	10	3.3	3.3	3.3
	NEITHER AGREE OR DISAGREE	83	27.8	27.8	31.1
	AGREE	158	52.8	52.8	83.9
	STRONGLY AGREE	48	16.1	16.1	100.0
	Total	299	100.0	100.0	

(Electronic Service Quality)

This e-government portal makes it easy to find what I need

E-Service Quality 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	9	3.0	3.0	3.3
	NEITHER AGREE OR DISAGREE	62	20.7	20.7	24.1
	AGREE	168	56.2	56.2	80.3
	STRONGLY AGREE	59	19.7	19.7	100.0
	Total	299	100.0	100.0	

This e-government portal makes it easy to navigate anywhere on the site

E-Service Quality 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	3	1.0	1.0	1.0
	DISAGREE	8	2.7	2.7	3.7
	NEITHER AGREE OR DISAGREE	70	23.4	23.4	27.1
	AGREE	168	56.2	56.2	83.3
	STRONGLY AGREE	50	16.7	16.7	100.0
	Total	299	100.0	100.0	

This e-government portal is well organized

E-Service Quality 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	15	5.0	5.0	5.4
	NEITHER AGREE OR DISAGREE	73	24.4	24.4	29.8
	AGREE	170	56.9	56.9	86.6
	STRONGLY AGREE	40	13.4	13.4	100.0
	Total	299	100.0	100.0	

This e-government portal is available at all times

E-Service Quality 4					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	21	7.0	7.0	7.4
	NEITHER AGREE OR DISAGREE	73	24.4	24.4	31.8
	AGREE	161	53.8	53.8	85.6
	STRONGLY AGREE	43	14.4	14.4	100.0
	Total	299	100.0	100.0	

This e-government portal will not misuse my personal information

E-Service Quality 5					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	8	2.7	2.7	3.0
	NEITHER AGREE OR DISAGREE	76	25.4	25.4	28.4
	AGREE	146	48.8	48.8	77.3
	STRONGLY AGREE	68	22.7	22.7	100.0
	Total	299	100.0	100.0	

The Symbols and messages that declare the security of the e-government portal are shown

E-Service Quality 6					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	13	4.3	4.3	4.7
	NEITHER AGREE OR DISAGREE	83	27.8	27.8	32.4
	AGREE	152	50.8	50.8	83.3
	STRONGLY AGREE	50	16.7	16.7	100.0
	Total	299	100.0	100.0	

Automated or human email responses are prompt in the e-government portal

E-Service Quality 7					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	5	1.7	1.7	1.7
	DISAGREE	17	5.7	5.7	7.4
	NEITHER AGREE OR DISAGREE	113	37.8	37.8	45.2
	AGREE	124	41.5	41.5	86.6
	STRONGLY AGREE	40	13.4	13.4	100.0
	Total	299	100.0	100.0	

It is easy to find the responsible person's contact details

E-Service Quality 8					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	6	2.0	2.0	2.0
	DISAGREE	22	7.4	7.4	9.4
	NEITHER AGREE OR DISAGREE	110	36.8	36.8	46.2
	AGREE	127	42.5	42.5	88.6
	STRONGLY AGREE	34	11.4	11.4	100.0
	Total	299	100.0	100.0	

FAQs are available to help me solve problems by myself on the e-government portal

E-Service Quality 9					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	3	1.0	1.0	1.0
	DISAGREE	18	6.0	6.0	7.0
	NEITHER AGREE OR DISAGREE	93	31.1	31.1	38.1
	AGREE	145	48.5	48.5	86.6
	STRONGLY AGREE	40	13.4	13.4	100.0
	Total	299	100.0	100.0	

(Business User Satisfaction)

I think that I made the right choice when I started using this online service for my organization

Business User Satisfaction 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	13	4.3	4.3	4.7
	NEITHER AGREE OR DISAGREE	72	24.1	24.1	28.8
	AGREE	156	52.2	52.2	80.9
	STRONGLY AGREE	57	19.1	19.1	100.0
	Total	299	100.0	100.0	

This e-government portal is exactly what is needed for this service

Business User Satisfaction 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	6	2.0	2.0	2.0
	DISAGREE	14	4.7	4.7	6.7
	NEITHER AGREE OR DISAGREE	79	26.4	26.4	33.1
	AGREE	160	53.5	53.5	86.6
	STRONGLY AGREE	40	13.4	13.4	100.0
	Total	299	100.0	100.0	

I am satisfied with the online services provided by the government

Business User Satisfaction 3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	7	2.3	2.3	2.3
	DISAGREE	21	7.0	7.0	9.4
	NEITHER AGREE OR DISAGREE	87	29.1	29.1	38.5
	AGREE	140	46.8	46.8	85.3
	STRONGLY AGREE	44	14.7	14.7	100.0
	Total	299	100.0	100.0	

(Perceived Ease of Use)

Learning to interact with this e-government portal is easy for me

Perceived Ease of Use 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	7	2.3	2.3	2.3
	NEITHER AGREE OR DISAGREE	53	17.7	17.7	20.1
	AGREE	184	61.5	61.5	81.6
	STRONGLY AGREE	55	18.4	18.4	100.0
	Total	299	100.0	100.0	

Interacting with this e-government portal is a clear and understandable process

Perceived Ease of Use 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	13	4.3	4.3	4.3
	NEITHER AGREE OR DISAGREE	56	18.7	18.7	23.1
	AGREE	189	63.2	63.2	86.3
	STRONGLY AGREE	41	13.7	13.7	100.0
	Total	299	100.0	100.0	

I find this e-government portal to be flexible to interact with

Perceived Ease of Use 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	10	3.3	3.3	3.3
	NEITHER AGREE OR DISAGREE	73	24.4	24.4	27.8
	AGREE	175	58.5	58.5	86.3
	STRONGLY AGREE	41	13.7	13.7	100.0
	Total	299	100.0	100.0	

The e-government portal is easy to use

Perceived Ease of Use 4					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	10	3.3	3.3	3.7
	NEITHER AGREE OR DISAGREE	58	19.4	19.4	23.1
	AGREE	183	61.2	61.2	84.3
	STRONGLY AGREE	47	15.7	15.7	100.0
	Total	299	100.0	100.0	

It is easy for me to become skilful at using this e-government portal

Perceived Ease of Use 5					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	12	4.0	4.0	4.3
	NEITHER AGREE OR DISAGREE	50	16.7	16.7	21.1
	AGREE	166	55.5	55.5	76.6
	STRONGLY AGREE	70	23.4	23.4	100.0
	Total	299	100.0	100.0	

(Perceived Usefulness)

This e-government portal enhanced my effectiveness in searching and using this service

Perceived Usefulness 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	13	4.3	4.3	4.7
	NEITHER AGREE OR DISAGREE	75	25.1	25.1	29.8
	AGREE	159	53.2	53.2	82.9
	STRONGLY AGREE	51	17.1	17.1	100.0
	Total	299	100.0	100.0	

This e-government portal provides accurate content

Perceived Usefulness 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	2	.7	.7	.7
	DISAGREE	15	5.0	5.0	5.7
	NEITHER AGREE OR DISAGREE	83	27.8	27.8	33.4
	AGREE	158	52.8	52.8	86.3
	STRONGLY AGREE	41	13.7	13.7	100.0
	Total	299	100.0	100.0	

This e-government portal provides up-to-date content

Perceived Usefulness 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	8	2.7	2.7	3.0
	NEITHER AGREE OR DISAGREE	48	16.1	16.1	19.1
	AGREE	165	55.2	55.2	74.2
	STRONGLY AGREE	77	25.8	25.8	100.0
	Total	299	100.0	100.0	

Using this online service enables me to accomplish tasks more quickly

Perceived Usefulness 4					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	2	.7	.7	.7
	DISAGREE	8	2.7	2.7	3.3
	NEITHER AGREE OR DISAGREE	60	20.1	20.1	23.4
	AGREE	167	55.9	55.9	79.3
	STRONGLY AGREE	62	20.7	20.7	100.0
	Total	299	100.0	100.0	

Using this online service makes it easier to do my tasks

Perceived Usefulness 5					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	2	.7	.7	.7
	DISAGREE	10	3.3	3.3	4.0
	NEITHER AGREE OR DISAGREE	63	21.1	21.1	25.1
	AGREE	160	53.5	53.5	78.6
	STRONGLY AGREE	64	21.4	21.4	100.0
	Total	299	100.0	100.0	

(Trust)

The e-government service provides safe transactions

Trust 1					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	10	3.3	3.3	3.3
	DISAGREE	30	10.0	10.0	13.4
	NEITHER AGREE OR DISAGREE	128	42.8	42.8	56.2
	AGREE	105	35.1	35.1	91.3
	STRONGLY AGREE	26	8.7	8.7	100.0
	Total	299	100.0	100.0	

The e-government service is trustworthy

Trust 2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	4	1.3	1.3	1.3
	DISAGREE	23	7.7	7.7	9.0
	NEITHER AGREE OR DISAGREE	86	28.8	28.8	37.8
	AGREE	158	52.8	52.8	90.6
	STRONGLY AGREE	28	9.4	9.4	100.0
	Total	299	100.0	100.0	

The e-government service is secured

	Trust 3				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	2	.7	.7	.7
	DISAGREE	20	6.7	6.7	7.4
	NEITHER AGREE OR DISAGREE	86	28.8	28.8	36.1
	AGREE	166	55.5	55.5	91.6
	STRONGLY AGREE	25	8.4	8.4	100.0
	Total	299	100.0	100.0	

The e-government service will not misuse my personal information

	Trust 4				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	2	.7	.7	.7
	DISAGREE	15	5.0	5.0	5.7
	NEITHER AGREE OR DISAGREE	79	26.4	26.4	32.1
	AGREE	166	55.5	55.5	87.6
	STRONGLY AGREE	37	12.4	12.4	100.0
	Total	299	100.0	100.0	

I believe the e-government service has a good reputation

Trust 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	.3	.3	.3
	DISAGREE	14	4.7	4.7	5.0
	NEITHER AGREE OR DISAGREE	94	31.4	31.4	36.5
	AGREE	154	51.5	51.5	88.0
	STRONGLY AGREE	36	12.0	12.0	100.0
	Total	299	100.0	100.0	

I believe my privacy is protected at this e-government service

Trust 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	6	2.0	2.0	2.0
	DISAGREE	25	8.4	8.4	10.4
	NEITHER AGREE OR DISAGREE	98	32.8	32.8	43.1
	AGREE	139	46.5	46.5	89.6
	STRONGLY AGREE	31	10.4	10.4	100.0
	Total	299	100.0	100.0	

Appendix F

Quantitative Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error
System Quality 1	299	2	5	4.01	.037	.645	-.315	.141	.398	.281
System Quality 2	299	2	5	3.92	.043	.737	-.377	.141	.018	.281
System Quality 3	299	2	5	4.03	.043	.737	-.600	.141	.465	.281
System Quality 4	299	1	5	3.74	.045	.777	-.408	.141	.157	.281
System Quality 5	299	2	5	3.91	.043	.750	-.432	.141	.077	.281
System Quality 6	299	2	5	3.82	.047	.814	-.415	.141	-.208	.281
System Quality 7	299	1	5	3.90	.043	.746	-.611	.141	.766	.281
Information Quality 1	299	1	5	3.51	.045	.783	-.123	.141	-.176	.281
Information Quality 2	299	1	5	3.58	.044	.758	-.187	.141	-.026	.281
Information Quality 3	299	1	5	3.62	.053	.913	-.352	.141	-.425	.281

Information Quality 4	299	2	5	3.68	.043	.740	-.258	.141	-.128	.281
Information Quality 5	299	2	5	3.78	.040	.688	-.125	.141	-.151	.281
Information Quality 6	299	1	5	3.78	.042	.730	-.367	.141	.373	.281
Information Quality 7	299	2	5	3.82	.042	.735	-.207	.141	-.210	.281
E-Service Quality 1	299	1	5	3.92	.043	.742	-.515	.141	.580	.281
E-Service Quality 2	299	1	5	3.85	.044	.760	-.663	.141	1.229	.281
E-Service Quality 3	299	1	5	3.78	.043	.750	-.529	.141	.507	.281
E-Service Quality 4	299	1	5	3.75	.046	.799	-.511	.141	.186	.281
E-Service Quality 5	299	1	5	3.91	.045	.783	-.348	.141	-.054	.281
E-Service Quality 6	299	1	5	3.79	.045	.780	-.347	.141	.068	.281
E-Service Quality 7	299	1	5	3.59	.049	.852	-.323	.141	.283	.281
E-Service Quality 8	299	1	5	3.54	.050	.864	-.403	.141	.307	.281
E-Service Quality 9	299	1	5	3.67	.047	.819	-.436	.141	.308	.281
Business User Satisfaction 1	299	1	5	3.85	.045	.785	-.448	.141	.186	.281

Business User Satisfaction 2	299	1	5	3.72	.048	.829	-.779	.141	1.160	.281
Business User Satisfaction 3	299	1	5	3.65	.052	.898	-.611	.141	.453	.281
Perceived Ease of Use 1	299	2	5	3.96	.039	.674	-.415	.141	.490	.281
Perceived Ease of Use 2	299	2	5	3.86	.040	.694	-.600	.141	.759	.281
Perceived Ease of Use 3	299	2	5	3.83	.040	.697	-.347	.141	.200	.281
Perceived Ease of Use 4	299	1	5	3.89	.041	.710	-.627	.141	1.072	.281
Perceived Ease of Use 5	299	1	5	3.98	.045	.770	-.669	.141	.703	.281
Perceived Usefulness 1	299	1	5	3.82	.045	.772	-.432	.141	.242	.281
Perceived Usefulness 2	299	1	5	3.74	.045	.781	-.486	.141	.461	.281
Perceived Usefulness 3	299	1	5	4.03	.043	.746	-.641	.141	.774	.281

Perceived Usefulness 4	299	1	5	3.93	.044	.757	-.637	.141	.995	.281
Perceived Usefulness 5	299	1	5	3.92	.045	.783	-.611	.141	.716	.281
Trust 1	299	1	5	3.36	.052	.899	-.322	.141	.224	.281
Trust 2	299	1	5	3.61	.047	.813	-.649	.141	.582	.281
Trust 3	299	1	5	3.64	.044	.757	-.608	.141	.572	.281
Trust 4	299	1	5	3.74	.044	.763	-.568	.141	.677	.281
Trust 5	299	1	5	3.70	.043	.752	-.307	.141	.151	.281
Trust 6	299	1	5	3.55	.050	.863	-.529	.141	.356	.281

Appendix G

Electronic government adoption success model survey results and descriptive statistics of respondents' characteristics

In the frequency table, the frequency column summarizes the total number of variable results. The percent column displays this frequency in percentage form for all cases, including those cases that may be missing. The valid percent column is the proportion of scores only for those cases that are valid. The accumulative percent column is the summation of the percentage for that score with the percentage for all lesser scores.

Does your company use any of the E-government services?

Demographic Data 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	299	100.0	100.0	100.0
	NO	0	0	0	0

How long have you been using the E-government service?

Demographic Data 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LESS THAN 1 YEAR	16	5.4	5.4	5.4
	1 - 3 YEARS	46	15.4	15.4	20.7
	3 - 5 YEARS	63	21.1	21.1	41.8
	MORE THAN 5 YEARS	174	58.2	58.2	100.0
	Total	299	100.0	100.0	

What is your Gender?

Demographic Data 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	199	66.6	66.6	66.6
	FEMALE	100	33.4	33.4	100.0
	Total	299	100.0	100.0	

What is your Age?

Demographic Data 4					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21 - 30	54	18.1	18.1	18.1
	31 - 40	142	47.5	47.5	65.6
	41 - 50	78	26.1	26.1	91.6
	MORE THAN 50	25	8.4	8.4	100.0
	Total	299	100.0	100.0	

What is your highest level of education?

Demographic Data 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DIPLOMA	75	25.1	25.1	25.1
	BACHELOR'S DEGREE	168	56.2	56.2	81.3
	HIGH DIPLOMA	14	4.7	4.7	86.0
	MASTERS	39	13.0	13.0	99.0
	PHD	3	1.0	1.0	100.0
	Total	299	100.0	100.0	

What is your status?

Demographic Data 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MANAGER	33	11.0	11.0	11.0
	EMPLOYEE	266	89.0	89.0	100.0
	Total	299	100.0	100.0	