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Digital Government in Jordan

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ID number : 232121

Academic year

2019/2020

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CHAPTER ONE

GENERAL FRAMEWORK

1.1 Introduction

This chapter sets out the purpose of the thesis, the main concepts in relation with the research area, the scope of the study, starting with a background of the e-government and the main motives behind this thesis. In the end, the outline of the study will be presented.

This research highlights the e-government websites' quality problem, and discusses methods and frameworks for optimizing their evaluation.

1.2 Background:

Innovations in Internet, Information, and Communication Technology (ICT) have provided the basis to the progress of e-commerce applications and e-business. Business sector growth has brought pressure to bear on the public sector to catch up. These developments affect not only the daily lives of people, but also the characteristics of interaction between government and the people (Wong and Welch, 2004). These shifts, successively, are rapidly turning into an innovational type of government, including E- government (Akman, et al., 2005), and implementing new applications, varying from static sites which give basic information at one side to transaction-oriented application sites at the other side that simplify and enforce administrative processes and facilitate interaction with people.

The definition of the e-government term is not widely agreed. (Yildiz 2007), though it has evolved quickly as a research topic (Gronlund and Horan 2004). When analyzing the relevant literature, references can be made to other terms such as "digital government" and "electronic government," which are often used as e-government synonyms. Yet some methods that describe e-government by its developmental stages (Layne and Lee 2001; UN & APSA 2002), and others are referring to government connections with various stakeholders: residents, companies and other governments (Means and Schneider 2000).

Consequently, e-government is not uniformly established, even if the common emphasis is on the application of information and communication technologies (ICT) to enhance the government's internal management and provide the public with accessible and efficient services (Fountain 2001).

In the late 1990s, the word e-Government originated. However, the history of state department computers goes back to the beginnings of history of computers, where emphasis was centered on internal automation by adding data processing machines to make internal procedures and processes more effective. Some developed nations have sought to make use of ICT developments not only to improve internal processes but also to redevelop public services that fulfill the requirements of individuals so that companies and communities are linked with authorities of government at a quicker speed, more efficiently and at a cheaper price in what is known as New Public Management (NPM). On the local level, several organizations began designing strategies for e-governments between 1994 and 1999 (Ho, 2002). Yet e-government is a fundamental transition within a country, and it also influences a government's relationship with its people.

These days, many governments across the world embrace e-government for a number of purposes, such as: building their citizens' trust, enhancing the standard of public sector services with a view to reducing costs and effort, and expanding government performance and accountability (OECD, 2004; World Bank, 2003). Because e-government implementation involves changing the approaches in which government entities conduct their work, they face challenges like overcoming change resistance, privacy, security, and the support of top management (World Bank, 2003). Other issues are linked to the environmental technological, political, social, and cultural dimensions.

Despite these obstacles, there are many advantages related to e-government, such as lower costs and higher revenues, economic growth, decreased redundancy, improved transparency and accountability, and better services for people (Al-Shehry, 2006).

According to the United Nations Survey (2008), 179 out of 192 UN members have been found to have built framework for implementing e-government programs, so e-government has been identified as one of the primary concerns for governments worldwide. The use of e-government websites allows for better and more convenient services that are also faster than face-to-face services since the former are delivered anywhere and anytime. Furthermore, the more these services are used from the government's side, the greater the cost of operation and management may be minimized.

E-government Interaction

These three key sections are included in the aim of e-government: individuals, companies, and governments (other public and government agencies). The e-government network of relations and the corresponding three sections of e-government are electronic transactions and interactions between the government and each group, which are:

- Government to Citizens (G2C): Most government initiatives in e-government are focused on citizen, meaning that the services are developed to fulfill the citizens' demands and expectations (Horan, et al., 2006). From the delivery of services and the provision of welfare and health benefits to online licensing for renewal, a broad range of interactions can be created.

- Government to Business (G2B): It consists of electronic interactions between government entities and private companies to provide governments with an electronic marketplace to effectively regulate a range of activities such as e-transaction initiatives (Fang, 2002). Ndou (2004) argues that this opportunity to establish online transactions between private businesses and government reduces the red tape or excessive bureaucracy and streamlines regulatory processes, hence helping businesses to increase their competitiveness.

- Government to Government (G2G): It indicates the relation between governmental organizations, agencies, and departments. Ndou (2004) points out to those Governments as actual layers of other governments so that they can effectively allocate responsibilities and deliver services. Since some of the e-government objectives are to reduce costs, time, and bureaucracy, adopting G2G will help in achieving such objectives by allowing government agencies and departments to share databases, resources, skills, and capabilities.

Some other researchers (Seifert and Petersen, 2002) identify the fourth category, Government-to-Employee (G2E) to indicate the relationship between governments and their employees. They comprise the internal customers whose needs should be addressed. Ndou (2004) sees it as a technical and operational mechanisms for facilitating the completion of government objectives, programs and HR management. It brings together workers, facilitates exchange of knowledge among them, and provides them with the ability to reach related information about compensation and benefits policies, training and learning, etc. irrespective of the number of categories. They are all extensions or subsets of the three previous main categories. Table 1.1 below identifies and explains the objectives of the different categories of e-Government.

Table 1.1: The objectives of the four e-government interactions

G2C	• Provides users with more effective, efficient, and versatile e-services. • Improves interactive communication between government and remote users. • Creates premium personalized and integrated e-services. • Enhances user involvement, participation, and contribution to e-service.
G2B	• Enhances the potential to search, access and comment on rules and regulations for users and companies. • Reduces company burden by allowing online tax filling • Reduces the time to fill out export forms and identify information. • Reduces time to register and comply with laws for companies.
G2G	• Increases the share of knowledge and information across governmental entities. • Reduces processing through common standards for data and processes. • Reduces security breaches through integrated systems.

G2E	• Enhances the opportunities of government staff's training programs. • Saves the average time needed in the processing of administrative and managerial processes • Reduces error rates, re-work, and provide more flexible working hours.

Source: Jordan MOICT, 2013. *E-Government Program Objectives.* Amman: MOICT

Jordan.gov.jo, 2013. Jordan: The Jordanian Government. (Available at www.jordan.gov.jo). [Accessed: 08 April 2013].

The current study's primary emphasis is on the form of E-Government operations in the G2C. Except as otherwise stated, every reference in the thesis to E-Government is a reference to the E-Government form of service in the G2C. That being said, the purpose of this research is based primarily on the software quality behind these applications. The results reported in this research could be applicable to all of the above forms.

1.3 Evaluation of E-Government Website

1.3.1 Success Definition

The overall purpose of any activity is success. Performance means to what degree project priorities and goals are achieved. Some researchers consider a project successful if it has some criteria including, for example, the right time, price, and quality and also provides the customers with a high level of satisfaction (Chen, et al., 2002). Since it is difficult to measure the system's success in a direct way, using satisfaction as indirect measures sounds good.

Several models were developed in the 1980s to examine the performance of the information system and the overall performance of the website. Nevertheless, limited studies considered the combination of quality of information systems and quality variables of online service as elements of website performance, Updated Delone and McLean IS Success Model (2003) is one of the widely cited models relating to both IS and Service quality as a backdrop to website performance. They defined six standards in this model for assessing a system's performance, which are: system quality, information quality , information use, user satisfaction , individual impact and organizational impact.

In this thesis, the Quality of the e-Government website will be used as an indicator for website success.

1.3.2 Need for evaluation

The Website of e-government is a major part of a country's government system. It is a key platform providing services to people in the sense of IT growth and new public administration. This need for quality assurance through evaluating websites stems from not only the basis that e-government sites have been one of the most popular sources for the provision of government services and engagement between people and government, but also because of the need to justify government investment that enables delivery of web-based services.

Some researchers (Rogers, 2007) reveal that assessment of the website depends on several qualitative and quantitative variables. Online testing tools may be used to calculate quantitative factors such as errors in pages, download delay, links that are broken and the time until the server responds etc. (Jati and Dhanapal, 2009).

1.3.3 Quality Perspective of E-Government

Since websites such as electronic commerce, government websites, etc. are becoming highly complicated, it is also a complex problem to provide an essential quantitative assessment process with regard to all related quality characteristics. This is induced by a large number of characteristics that interfere, and by the complicated logic relations between attributes and characteristics. Furthermore, it is difficult to objectively measure any specific characteristics to be assessed So that only after a subjective measurements taken by skilled evaluators can they be included.

Many official government websites only offer general information to visitors, instead of just paying much attention to the efficiency, accessibility and content management of the website. For instance, getting government information and services on e-government websites is not equivalent to the effective access of users , particularly for people with disabilities (Garzotto, et al., 1995). It is always the case that people visit a poorly designed website that is hard to navigate and unfriendly to readers. It takes too long for certain websites to download content that makes users grow and leave impatiently. Individuals who feel that a quality site is one that shows the latest effects of multimedia and animation also create these sites.

1.4 Aims and Objectives

The research aims to:

- Offer a framework for evaluating E-Government website quality factors and their interrelation.
- Build an engine that helps in assessing the quality levels of the E-Government website along with the parts that is required to be improved.

To achieve this aim, the next objectives must be achieved:

- Study the relevant published literature, case studies, and models.
- Determine the quality factors required to assess the website, based on the expert opinion , in order to deduce its interrelationships and their significance.
- Build an engine to measure factors of such nature.
- Evaluate the engine against existing e-government websites.
- Specify a set of guidelines to apply the engine in the form of a framework.

1.5 Research Structure

The research is made of four chapters. Each chapter takes part in the building of the whole picture in understanding the research problem. The following summarizes these chapters:

Chapter One: General Framework

This chapter consists of the general framework of the study.

Chapter Two: Literature Review

This chapter presents an outline of the research, analyses the relevant literature, and identifies the benefits and challenges facing e-government. It also gives an assessment of the quality model and tools in the e-government discipline. This chapter provides the theoretical foundation of the thesis.

Chapter Three: Methodology

This part describes the methodology used in developing the model along with its statistical justification.

Chapter Four: Conclusions and Recommendations

This chapter includes the results and recommendations made by the researcher.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The last decade has undergone an ICT (Information and Communication Technologies) revolution. Along with to the characteristics of the relationship between governments and clients, this change has altered people's everyday lives. Such changes are rapidly evolving into new patterns of government, e-government in particular (Akman, et al., 2005).

E-Government is the key element of public service reconstruction applied by many countries in the 21st century. Government websites have become an essential medium for the provision of public services and customer-government transaction in light of the several promising benefits offered by web-based service delivery, such as increased efficiencies, cost reduction, faster and access to government services in a more convenient way, and better customer service for the government.

Before going further in any relevant research, it is important to look at the subject of e-Government. Thus, this chapter introduces a background on e-government, its definition, how it developed, different types of e-Government, and its benefits. It also discusses particularly the quality measures and models adopted in assessing e-government websites.

2.2 Evolution E-Government Concept

There are many arguments in the literature, which explain the appearance of the concept of e-government. Mofleh (2008) provides numerous viewpoints on the advent of the word 'e-government', which are:

1. ICT and the Public sector:

The term was found to represent the use of electronic communications technologies in the public sector due to this rapid growth of high-tech technology. It is believed that the word itself was first used at the time of the Clinton administration in 1993. Under the leadership of Vice-President Al Gore, the Clinton administration launched a key government reform initiative by introducing ICT in the public sector; at the beginning, it was named the National Performance Review (NPR) with the goal of establishing a government, which works more efficiently, and have less expenses.

2. E-Government driven from E-Commerce:

The second argument says that e-government evolved from e-commerce; therefore, it is a public sector version of e-commerce. In the early 1990s, the private sector had already embraced ICT in what was dubbed e-business and e-commerce. It may be the performance of the private sector, which inspired the public sector to embrace e-commerce and its applications.

3. Reaching a Verdict on the Origins of the e-Government:

According to Mofleh (2008), the most reasonable statement about the basis of the idea of e-government is a balance between all earlier arguments. E-government has emerged as a natural extension of ICT and public sector use of the Internet, influenced by the public sector of e-commerce. Both have motivated governments to create the "e-government" term that defines the fast introduction of ICT by the public sector in tandem with the implementation of e-commerce by the private sector.

2.3 E-Government Definition

Despite the word e-Government becoming a global phenomenon for quite some time, there is no common definition of this word. Various governments and organizations have defined this concept to fit their own targets and goals. Ndou (2004) stated that some e-government initiatives fail because of narrow concept and poor understanding of its processes, concepts, and functions.

The World Bank (2011) defined e-government as:

"The use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that can transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions."

In addition, some studies centered on the relations between government and its citizens when describing e-government. Layne and Lee (2001), For instance, described e-government as the use of technology by the government, like the Internet, to facilitate the provision of information and services to people, personnel, business partners, other entities and other governmental organizations. Norris and Moon (2005) state:

"E-Government is thought of the minimum, to enlarge and lengthen the reach of the government organizations and agencies to serve their constituencies in a way which will benefit both government and its citizens"(pp.: 1).

Large numbers of researchers have focused on defining e-government from a specific perspective. For instance, the United Nations (2003) defined e-government from a technological perspective as “utilizing the internet and the world-wide-web for delivering government information and services to citizens. It may also include the use of other ICTs in addition to the Internet and the Web, such as (database, networking, discussion support, multimedia, automation, tracking and tracing, and personal identification technologies)” (Jaeger, 2003).

Mofleh (2008) found three main dimensions when reviewing the existing e-Government definitions. The first considered e-government platforms for delivering service and information to people, where the government's attempts are to provide citizens with the information and services that are necessary for them. The second dimension concentrated on improving the public sector by providing more easy access to government information and services for citizens and corporations. Others considered it a process-reengineering tool where the government can simplify, optimize, and recombine governmental management functions and services to raise efficiency and provide uncorrupted service to the public.

Using ICT tools to reform the public sector by changing its internal and external way of operating and its interrelationships with customers and the business community are the core elements of all these principles.

2.4 E-Government Benefits

Each state using e-government desires to gain most of its expected benefits. Many researchers have studied the various motives for the government to move towards adopting e-government (OECD, 2004; Jeager, 2003; Layne and Lee, 2001); and according to Al-Shehry et al. (2006) the reasons were grouped into four classes; economics, social, political and managerial. A list of these classes is found in Table 2-1:

Table 2-1: Motives for adopting E-Government

Political	Greater society engagement in political life Developing trust between government and its people
Economic	Cost reduction. Internet services are quicker and more conveniently accessible.
Social	Better delivery of service. Reaching all citizens in the country. Offering citizen empowerment through access to information through a single portal 24/7.
Managerial	Sharing information and knowledge among government agencies. Reengineer the processes and the operations of the agency by Utilizing the advances in ICT. Greater convenience and efficiency. Increasing transparency.

Sources: Layne and Lee model. Government Information Quarterly. Vol. 23 (236-248).

In the United Nation Global E-Government Survey (2003), it was found that e-governments had yet to fulfill those potentials, Since the average government only exceeds 25.5 percent of the highest-ranking government index ratings, and just 7 governments surpass 75 percent, for instance, the United Kingdom, the

United States, Singapore, and Canada. The used index is a normalized 'Web Measure Index' used to assess the efficiency of 191 governments in adopting e-government as a tool to educated, communicate and transform (United Nations, 2003; OCED, 2004).

2.5 Models of E-Government Development

The E-Government literature contains many models in relation to the development and growth of e-government. Some of the most known models are shown in Table 2-3. These models forecast that e-Government will transition to become completely transformational and unified beyond knowledge provision and interactivity.

There are many parallels between these phases, notwithstanding their variations with regard to the number of phases suggested. They all work with linear e-Government growth and/or evolution from simple online presence to complete incorporation, seamlessness and transformation. For instance, showing government information is widely observed as a first step towards the implementation of e-government, despite the various names given to it (i.e. publishing, cataloging, presence, information, and publishing information).

A typical later stage is also the two-way contact between government and other parties, as observed in the classifications of World Bank (2002), ESCWA (2003), Deloitte Research (2000), and Hiller and Belanger (2001). Layne and Lee (2001) also point to this, although indirectly, when they mention that people can communicate with government electronically during their transaction process.

Table 2-3: E-government stages

Source	Stages	Definition
World Bank (2002)	1. Publish	Presenting government information online to citizens.
	2. Interact	Two-way communication between government and citizens and their involvement in government processes
	3. Transact	Conducting all transactions online.
The United Nations and American Society for Public Administration (UNASPA, 2001)	1. Emerging presence	A single or a few independent official websites that provide limited, basic, and static information to the user
	2. Enhanced presence	As data becomes more complex with consumers having more ways to access information, the number of government web pages increases.
	3. Interactive presence	

	4. Transactional presence 5. Fully integrated presence	There is a more structured transaction between a customer and a service provider from the government, that is, applications submitted online can be downloaded; Users can conduct a complete and secure transaction through a single government website, such as updating birth and death records Complete integration of all online government services through a one-stop-shop portal
Layne & Lee (2001)	1. Cataloging 2. Transaction 3. Vertical integration 4. Horizontal integration	Presenting information from the Government online through websites. People communicate electronically with the Government Local systems connected to higher-level systems Systems integrated through different functions
Deloitte research (2000)	1. Publish of Information 2. Official two-way transactions 3. Multi-purpose portals 4. Postal personalization 5. Clustering of common services 6. Full integration and enterprise transformation	Each Department of Government establishes a website Citizens make electronic transactions such as tax payments and the purchase of TV licenses. Creation of a single point (portal) for people to access and receive information and services from the Government People have the ability to tailor the portals to their needs When the portals get stronger, government offices will vanish. Shift in government departments completely better
ESCWA (2003)	1. Presence 2. Interaction 3. Transaction	Presenting websites and offering departmental details Download of electronic forms One way communication

	4. Transformation	Two-way communication, streamlining of procedures.
Hiller & Belanger (2001)	1. Information dissemination 2. Two-way communication 3. Transaction 4. Integration 5. Participation	Government posts information on its web sites Citizens connect with the government electronically, where they may fill out forms where request service information. All transactions conducted online The public may access all programs through a single portal Political engagement, such as voting online and taking part in decision making by sharing comments and suggestions

Source: Basu, S. (2004) "E-government and Developing Countries: an Overview". International Review of Law Computers and Technology, Volume 18, No.1

On the one hand, these models are used as benchmarks to help in the process of development and identifying the maturity of e-government service. On the other hand, they all predict that e-government services go through a linear pattern, but this not always the case. E-government can start from any stage without the need to go through all the stages from the beginning.

2.6 Successful E-Government Implementation

Jordan is designing strategies to close the gap between design and practice to take advantage of e-government opportunities (Alkhaleefah et. Al, 2010).

(Al-Lozi 2010) found in his study with the title (Difficulties Facing the Application of Electronic Services As Perceived by The Employees of The Civil Service Institutions in Jordan), that management was the main difficulty facing employees in implementing E-Services, followed by financial resources and the legislative and organizational policies . He also found out that information security and privacy as well as public awareness and infrastructure have played a major role in the implementation of E-Services in Jordan.

The government has started to develop an e-government strategy to draw up proposals on how the government will meet the targets set for it within the national strategic framework. The following characteristics are common features for countries that successfully introduced e-government projects worldwide (Fang, 2002):

1. Comprehensive: Through a single e-government platform, people should be able to do anything they have to do or want to do with their Government.

2. Integrated: All programs for e-government must be integrated, so that people can eliminate the necessity to submit the same information again and again and governments can spare energy / cost by preventing re-entry.

3. Ubiquitous: Users / citizens should have access to the e-government portal of a jurisdiction and its linked websites and applications from any Internet-capable connection, Internet appliances.

4. Transparent / Easy to Use: E-government sites should be structured and run to allow the most beginners of computer users to quickly locate the details that are necessary to them, and to offer the necessary information by the government entities they interact with.

5. Accessible: e-government systems design and operation should consider the specific needs of the disabled and allow them to use these systems as conveniently as non-disabled citizens.

6. Secure: E-government systems need to secure the confidentiality of citizens' data, government-created and stored information, and the nature and presence of citizens-government transactions conducted on the Internet.

7. Private: Data on transactions between individuals and government, and the nature of those transactions, must be strongly protected by government.

8. Re-engineered: The overarching task of the authority needs to be thoroughly re-evaluated and then a digital system designed to create a government-citizen interface that facilitates and streamlines each transaction individually and the entire government administration process in general.

9. Interoperable: All e-government sites should operate seamlessly together. An excellent e-government platform is one that offers relevant and up-to - date connections to other e-government pages, at the government hierarchy's own and at other levels.

10. Be developed to E-governance Systems: Not only does e-government function as a medium of governance, but also as a key instrument for collective and democratic decision-making and involvement in society.

2.7 Challenges for a successful implementation of e-Government Initiatives

There can be numerous problems that can obstruct any country's successful implementation of e-government.

Technical challenges:

One of the major technical barriers is the lack of architecture interoperability between the governmental agencies; that is the inability to exchange and use information between different governmental agencies which limits efficiency and effectiveness (Eyon and Dutton, 2007).

Besides, the lack of technical infrastructure is a major challenge including the existence of a well-developed public key infrastructure and reliable internet connection (Vassilakis, et al., 2005).

Economic challenges:

The transformation of traditional services to e-services needs huge funding that would cause a financial burden on the government's budget but in fact, this would reduce the operation costs eventually (Edmiston; 2003, Heeks; 2003). These costs include the cost of hardware, software, networks, and training (Norris et al.; 2001).

Ebrahim and Irani (2005) identify the main expected expenditure requirement for the government that is considered as an operational cost includes: the high cost of IT professionals and expertise, cost of installation, operation, development, training, and maintenance, if these costs were not met, they can slow down the implementation of e-government(West,2004).

Skill challenges

Chen and Gant (2001) and Ho (2003) consider the skill barriers as an important challenge to e-service acceptance and use. Ho (2002) states that the citizens' different socioeconomic backgrounds affect the extent to which they use the internet and computers. The elderly, people with disabilities, and people with low incomes usually do not have an access to e-service due to the lack of technical skills and financial resources this can lead to what is known as the digital divide. OECD (2001) defines the digital divide as:

"The gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard both to their opportunities to access information and communication technologies (ICTs) and to their use of the internet for a wide variety of activities".

Policy Challenge

The electronic environment needs to be addressed clearly through a suitable legal framework of laws, regulations, and directives to facilitate the services' provisions and use in a safe and secure electronic environment (Faisal and Rahman,2008; Vassilakis, et al., 2005).

Ebrahim and Irani (2005) say that many users are not interested in using electronic service because of the shortage of trust especially when making financial transaction or providing sensitive information like

personal ones, so there is a need to establish privacy and security policies to avoid losing users' confidence in using e-service.

In addition, when different agencies with different legislations are involved in the provision of an e-service this could slow down the progress of e-government.

Organizational Challenge

Most governmental agencies' policies are oriented towards organization benefits rather than citizen benefits, which means that the lack of integration and coordination between these agencies forces the user to fill the same information in many documents for different agencies (Vassilakis, et al.,2005; Ebrahim and Irani, 2005).

Moreover, fear of job loose and privileges' diminishment is considered a major barrier when introducing e-service (Themistocleous and Irani, 2001) or sometimes employees could find it hard to deal with the dramatic changes that take place in their agencies in what is known as "cultural shock" (Lam, 2005).

2.8 Quality

Our research is concerned with the key issue of quality. Quality is one of the industry's most significant problems over the last several years. It has different meanings relative to different contexts and people. How good or bad it is, is the nature of something. The quality of a product or service shall be dependent on its ability to meet specified or implied requirements (Bhatti, 2005).

Larsson (2004) states that quality attributes are properties, non-functional, or extra-functional attributes because they relate to the quality of the software and not explicitly to its functionality. Quality is an inherent and multifaceted feature of a commodity according to Albuquerque (2002). As individuals can change their opinions and update their references in relation to an object or a subject, the importance of each aspect can differ with the context and over time. It is also not ultimate, but it builds on the viewpoint of the appraiser. Any quality metric should therefore be subjective, outlining the experiences of a specific type of individuals engaged with the product.

The general feature of meaning is that a product or service's quality refers to the perception of the degree to which it meets the customer's expectations. Value has no special significance unless it applies to a particular function and/or item. The meanings of quality have evolved as years passed. Different explanations are given in Table 2-4:

Table 2-4: Definitions of Quality

Poksinska, et. al. (2002)	ISO 9000: "Degree to which a set of inherent characteristics fulfills requirements."—The standard defines requirements as needs or expectations.
Hahn et. al (1999)	Six Sigma: "Number of defects per million opportunities."
Chowdhury (2005)	Subir Chowdhury: "Quality combines people power and process power."
Crosby (1979)	Philip Crosby: "Conformance to requirements." The requirements may not fully represent customer expectations; Crosby treats this as a separate problem

In reality, for a website, there can be as many viewpoints of its quality as there are usages. The definition can consist of several criteria: the perspective of service quality, a customer perspective, a material perspective, or indeed a perspective of usability.

Many e-government websites strive to provide end-users with high-quality services, and for this purpose, they provide certain applications to satisfy specific end-user requirements. Essentially, the program behind every E-Government website is the site's government departments and business operations. Thus, it is fair to assume that E-government websites' consistency and evaluation approaches will often rely on the consistency of the applications they include and on their capacity to fulfill end-user requirements.

Because of its prospective instant worldwide audience, the quality and reliability of a website are important to fulfill government demands by the use of (ICT). It must facilitate better administration and public services. Web apps and websites are very special in nature and face particular software testing challenges.

2.9 Overview of Website Evaluation

All types of public entities of government across the globe are trying to adopt the digital revolution and placing a wide variety of content on the internet, from pure knowledge to real online services for the accessibility of people, standards of the degree of efficiency that e-government websites can provide have been raised in a great way, increasing the issue of their quality assessment.

Different website assessment methods have been adopted in the last decade. Those deal with, for instance, website usability and design, content, efficiency, user acceptance and user satisfaction being the most common results measured for website evaluation (Pearrow, 2000; Nielsen, 2000; Holzer and Kim, 2004). Chiou et al. (2010) saw that, from a tactical point of view, these methods were successful for evaluating the user's attitude towards the website and could be viewed as an external user's view. From a strategic point of view, however, little consideration has been paid to assessing the continuity of web

strategy and web presence, which from the company's point of view can be considered an internal assessment. Even though there is already a rich literature on website assessment (Bauer and Scharl, 2000), limited efforts have been recently made to propose and use precise metrics for evaluating the websites of public agencies. Though many different standards and metrics are used, it is evident that the authors generally agree on a basic set of principles such as usability, content, technical features, online services and the participation of citizens (Bauer and Scharl, 2000; Peters, et al., 2004).

2.10 Evaluating E-Government Websites

Furthermore, new studies notes that assessing the quality of an e-government website is a process of arranging several criteria in a hierarchical system (Fei, et.al, 2008) that serve as surrogates in order to deduce and measure the total output appropriately; that what differs is the evaluation approach adopted. However, the approaches used to describe the amounts of the chosen criteria are generally not explained or the weights are clearly calculated based on the opinion of the researchers themselves (Markaki, et al., 2010). In many other situations, the schemes proposed depend on citizens to define certain weights through questionnaires (Barnes and Vidgen, 2004).

Mofleh and Wanous (2009) listed five different ways for evaluating websites of e-government, which are:

- Visibility Analysis:

It mirrors the degree of adoption and the requirement from its users on government websites. This could be achieved by typing a search engine in the government name and then evaluating the visibility result through putting the search results on a scale on the search engine to 10 various grades from (100-10) percent. If it happens to be the first result, it will rank 100%. It would score 90 percent if it came second. If it were 10th, it would rate 10%. The more higher the level, the better the visibility.

- Stage Analysis:

A measurement to signify the degree of e-government service delivery that represents the progress of the e-government project across government entities.

Mofleh and Wanous (2009) suggest that the most common stages of e-government website development are the following: web presence, interaction, transaction, and integration. Firstly, the web presence in which the agencies built a website to provide general information about them. Interaction implies the interaction with users in one way. For example, the users could participate in the activities launched by the government, e.g. email. Furthermore, the transaction stage enables users to transact online in two way simultaneous interactions, such as paying tax. The integration stage is to combine a series of services even if they are provided by different public agencies. The higher the stage of service delivery the e-

government achieves, the higher is the extent to which it is well developed and effective in the structure and process of government.

- Usability Analysis

The usability of the e-government website relates to its findings regarding the fulfillment of the requirements of diverse users. It consists of six dimensions, each with different variables; dimensions are determined by summarizing the cumulative scores of their intended variables and then summarizing the dimensional scores in order to acquire the website's usability result. The six dimensions are illustrated in Table 2-5:

Table 2-5: Dimensions Definitions

Dimension	Definition
Online Service	Providing something needed by users when they contact the website.
User-help	Mechanisms to facilitate satisfactory website interaction.
Navigation	Helping users to browse websites easily and quickly.
Information Architecture	Devices that illustrate the organization and presentation of a website.
Legitimacy	Features to reassure that a website is authentic and ready to conduct service transactions.
Accessibility accommodation	Mechanisms to address the needs of people with special needs.

Source: Alkhaleefah, M., Alkhawaldeh, M., Venkatraman, S., Alazab, M., 2010. Towards Understanding and Improving E-Government Strategies in Jordan. *World Academy of Science, Engineering and Technology*. Vol 66 (1871 – 1877)

- E-Government User Replication

This approach uses third-party internet users and replicates their experience. The researcher could replicate the differences of users, which are valuable to evaluate a website.

- Specialized Websites' analysis

This method uses a specialized website supplied by an independent organization that provides an analytical tool to measure features within the e-government websites.

Alexa.com is one of the most such websites that monitors and surveys the information on a website. It offers information about the website's traffic and a diagram to illustrate the volume of traffic within a long period to examine the adaptation level of the website.

2.11 Applying Bayesian Belief Network

This thesis is built on the use of the Bayesian Network to build a framework for evaluating the quality of the E-Government website. The major question we have in our mind is "Is it possible to use the Bayesian Belief Network to anticipate the website quality level and determine the factors behind that level of quality?"

The Bayesian Belief Network Is a special type of a directed graph where denotes variables and the directed arrows show the interrelationships. So, it is a graphical network to reflect the relationships of probabilities between the variables (Agena, 2006).

2.12 Summary

E-government is about reinventing how governments communicate with people, government entities, companies, workers and other interested parties. It is about improving the mechanism of democracy, and also using new concepts to make life easier for people. It is about improving the mechanism of democracy, and also using new concepts to make life easier for people. Not only is the word e-government new but it is also under-researched. The e-Government research area is very wide and young, and many researchers are interested in a number of different research projects in various area topics.

Quality is needed as a way to assess the E-Government website. This chapter provides some definitions of it and reviewed some methods related to assessing the e-government website. No tools have been developed yet to allow quality estimation and forecasting that meets the requirements of quality standards. Production of such an instrument is a daunting task. We propose a model where the quality attributes are of dynamic features. This model is focused on the development of a Bayesian Belief Network, which is found to be useful in providing a clear and realistic method for assessing the quality of a website with a root cause analysis that could lead to corrective steps to enhance the quality of the E-Government websites. The results obtained from the implementation of the proposed model are used to forecast the quality of the E-Government website and to guide the creation of a website to improve the quality steps, creating a website that offers high quality service and user satisfaction to an E-Government experience. Furthermore, the derived results are used for continual development of the model, thereby leading to a continuous evolution and upgrade.

This chapter's literature review has described the need for this research project as there is no completely comprehensive assessment methodology and no realistic, reliable means of evaluating the

efficiency of an E-Government website prior to completion. This study has also established a method for achieving the aims of this analysis. The proposed model, which is based on the Bayesian Belief Network, will provide the requisite predictions for the quality of the E-Government website and help recognize attributes that require more improvement to enhance the overall quality of the website.

CHAPTER THREE

METHODOLOGY

Research model:

The study was designed according to a pretest-posttest single study group pattern from experimental research methods.

Aim of the study:

The current study aimed to evaluate E-Government website quality factors and their interrelation**.**

Research subjects:

Our representative sample will include 120 customers (client) to the municipality of Amman in Jordan, particularly in Jubaiha Area. They will be selected randomly at that time will be offered to take place in our research and will sign a written consent.

Exclusion criteria:

1- employee
2- Those who are not interested

Inclusion criteria;

1- Women above the age of 18 years
2- Men above the age of 18 years

Sample size:

Our sample size will be estimated from the following equation (Municipality of Amman/ **Jubaiha** Aria)

N=(Z^2*P*q/d^2)

N= sample size

Z=standard normal deviation corresponding to 95% confidence interval (1.96)

P= 0.5

Q=1-p=0.5

d=precision level (0.05)

The number of the representative sample will be rounded to 120 to decrease the margin of error and to get more useful measurable results.

Ethical issues

Ethical consideration :

1. Approval will be taken Municipality of Amman/ Jubaiha Area administrations.
2. Written consent will be taken from the respondents before filling the questionnaire.
3. Voluntary participation.
4. All obtained data will be confidential.
5. The name of the participants will not be included in the study.

Research setting:

A cross-sectional study will be conducted in the Municipality of Amman/ Jubaiha Area from the participants after getting written consent from the authorized department, then the participants will be given the questionnaires by the volunteers to complete.

Study instruments

The structured questionnaire will be our main instrument in the research, it will include some socio-demographic questions such as gender, age, that will be correlated with the customer (clients)

Data Collection:

A self-administered questionnaire was used to collect the data needed for this study. The survey will contain mainly multiple-choice questions. Some of them were related directly to the topic of our research such as age, education, gender, and their opinions on the reality of electronic services at the Amman Municipality and its benefits.

Data Entry & Analysis

Data was entered and analyzed using a computer where the data entry and statistical analysis will be performed using the statistical package for social science (SPSS) program, (version 17 SPSS Inc, Chicago, Illinois). The ratios of the multiple-choice questions will be computed, and by using Chi squares, the existence of correlations between demographic factors and answers to questions, and knowledge will be deduced. The significance threshold was set at .05.

CHAPTER FOUR

DATA ANALYSIS

Introduction:

The current research aims to Evaluation of E-Government website quality factors and their interrelation Therefore, the researcher designed a questionnaire distributed to the members of the study sample consisting of 120 individuals, and only 110 questionnaires were retrieved, and the rest of the questionnaires were excluded because they lacked validity for statistical analysis.

Methodology:

1. The Alpha Cronbach test was used to find out the search tool's reliability.
2. An iterative test of personal information was performed.
3. A linear regression test was conducted to test the hypotheses.
4. The study results were written based on the test results.

First: The reliability test of the study tool.

The Alpha Cronbach test was conducted, as the value of the Alpha Cronbach was 95.5%, and this percentage points out to a high reliability of the study tool being higher than the acceptable percentage of 70%.

Reliability Statistics

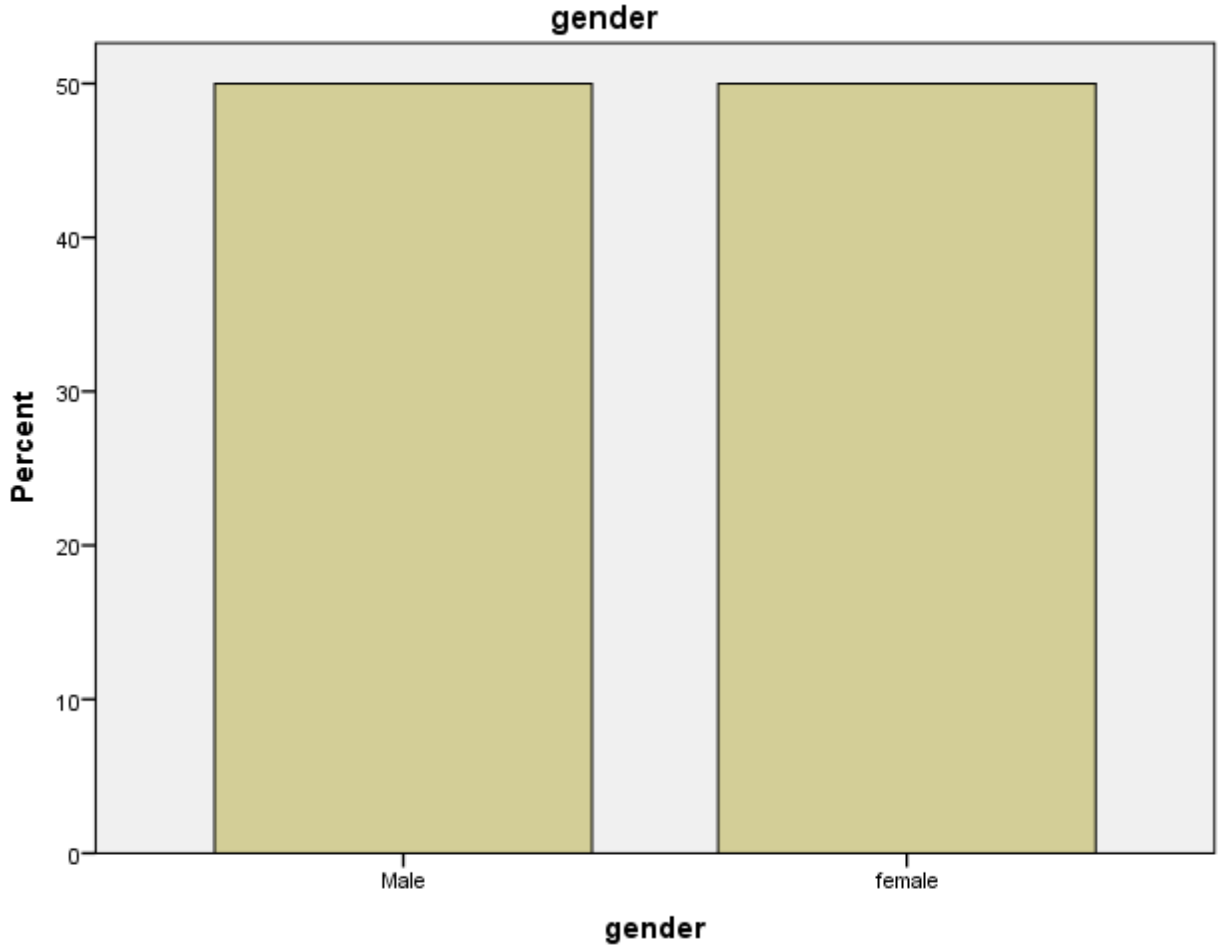
Cronbach's Alpha	N of Items
.955	76

Second: Frequency distribution test

1- Gender: A repetitive distribution test was used to find out the frequencies and percentages of the respondents 'answers to the gender question.

Gender	Frequency	Percentage
Male	55	50%
female	55	50%
Total	110	100%

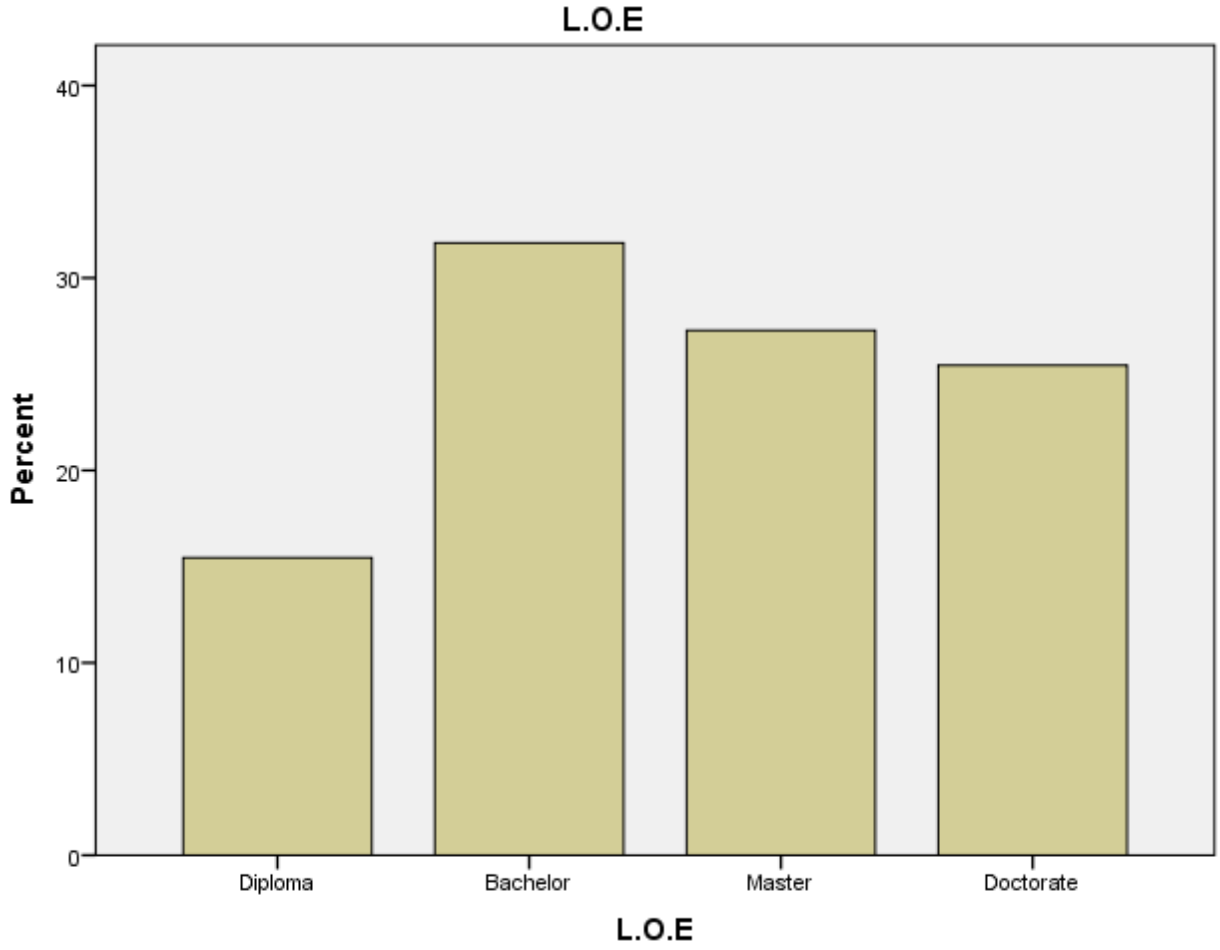
The above table indicates that the percentages of the study sample according to the gender variable were equal



2- **Level of Education:** A Frequency distribution test was used to find out the frequencies and percentages of the respondents ’answers to the **Level of Education** question

Level of Education	**Frequency**	**Percentage**
Diploma	17	15.4%
Bachelor	35	31.8%
Master	30	27.2%
Doctorate	28	25.4%
Total	110	100%

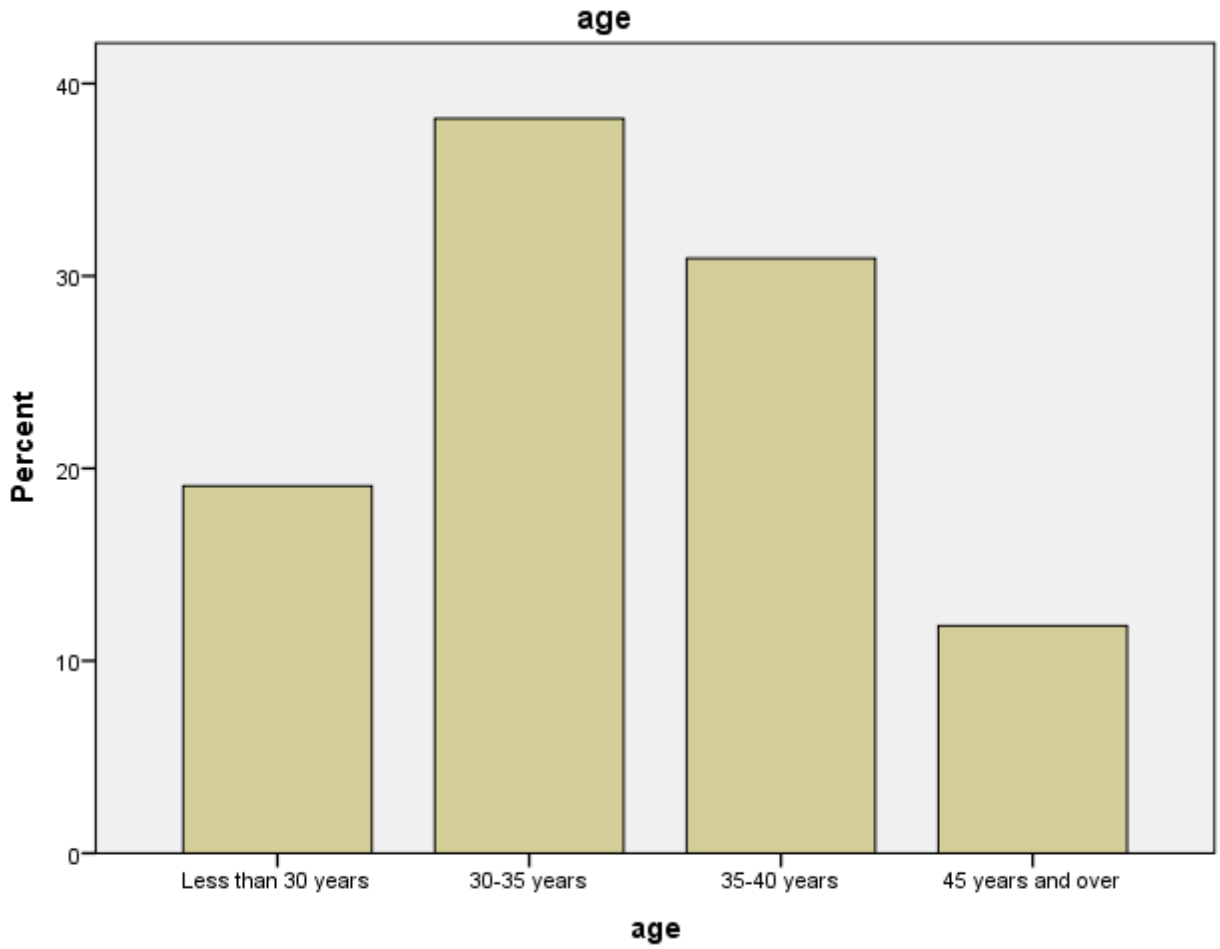
The above table reveals that the highest percentage was for research sample participants with a bachelor's degree, where they reached (31.8%) of the total study sample participants, whereas the lowest percentage of individuals for the study sample came from diploma holders, where they reached (15.4%) of the total study sample members.



3- Age: A Frequency distribution test was used to find out the frequencies and percentages of the respondents 'answers to the age question

age	**Frequency**	**Percentage**
Less than 30 years	21	19%
30-35 years	42	38.1%
35-40 years	34	30%
45 years and over	13	11.9%
Total	110	100%

The above table reveals that as they reached (38.1 percent) of the total number of the study sample, the highest percentage was for members of the study sample from a group (30-35 years), while the lowest percentage of respondents was from a group (45 years and over) as they reached (11.9 percent) of the total number of the study sample.



Third: testing the study hypotheses

A linear regression test was used to test all hypotheses

H0.1: There is no statistically significant effect of the awareness mechanisms on citizen awareness of the concept of e-government

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.597	1	1.597	.043	.000[b]
	Residual	487.336	13	37.487		
	Total	488.933	14			

a. Dependent Variable: T.T

b. Predictors: (Constant), Profitability

The above table indicates that the value of the significance level reached (0.00) which is less than the specified value (0.05), thus, the null hypothesis (There is no statistically significant effect of the awareness mechanisms on citizen awareness of the concept of e-government) is rejected and the alternative hypothesis (There is a statistically significant effect of the awareness mechanisms on citizen awareness of the concept of e-government) is accepted.

H0.2: There is no statistical effect of good awareness on the advantages of using e-government

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.499	1	7.499	.319	.015
	Residual	305.834	13	23.526		
	Total	313.333	14			

a. Dependent Variable: T.A

b. Predictors: (Constant), Profitability

The above table indicates that the value of the significance level reached (0.015) which is less than the specified value (0.05), thus, the null hypothesis (There is no statistical effect of good awareness on the advantages of using e-government) is rejected and the alternative hypothesis (There is a statistical effect of good awareness on the advantages of using e-government) is accepted.

H0.3: There is no statistical significance for the infrastructure of computers and communications, the Internet, on the services provided through e-government.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	.000	.000[b]
	Residual	187.733	13	14.441		
	Total	187.733	14			

a. Dependent Variable: T.B

b. Predictors: (Constant), Profitability

The above table indicates that the value of the significance level reached (0.00) which is less than the specified value (0.05), thus, the null hypothesis (There is no statistical significance for the infrastructure of computers and communications, the Internet, on the services provided through e-government) is rejected and the alternative hypothesis (There is statistical significance for the infrastructure of computers and communications, the Internet, on the services provided through e-government) is accepted.

H0.4: There is no statistically significant effect to provide confidence between beneficiaries and workers on e-government services

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.143	1	2.143	.159	.000[b]
	Residual	174.790	13	13.445		
	Total	176.933	14			

a. Dependent Variable: T.C

b. Predictors: (Constant), Profitability

The above table indicates that the value of the significance level reached (0.00) which is less than the specified value (0.05), thus, the null hypothesis (There is no statistically significant effect to provide confidence between beneficiaries and workers on e-government services) is rejected and the alternative

hypothesis (There is statistically significant effect to provide confidence between beneficiaries and workers on e-government services) is accepted.

H0.5: There is no statistically significant effect of the intent to use and methods of encouraging e-government services on the extent of their use.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.153	1	2.143	.219	.025[b]
	Residual	197.734	13	13.445		
	Total	176.933	14			

a. Dependent Variable: T.C

b. Predictors: (Constant), Profitability

The above table indicates that the value of the significance level reached (0.00) which is less than the specified value (0.05), therefore the null hypothesis (There is no statistically significant effect of the intent to use and methods of encouraging e-government services on the extent of their use) is rejected and the alternative hypothesis (There is a statistically significant effect of the intent to use and methods of encouraging e-government services on the extent of their use) is accepted.

Conclusion:

E-government is likely to significantly improve the way the government works internally and how it can serve its clients. E-government is more than just a tool for enhancing the relationship between quality and public service costs. It is a tool of reform and an instrument of government reform. E-government, therefore, does not mainly aim to automate existing processes (which may or may not be effective) but to change the way governments do business and provide services.

Jordan differs from the rest of the world in terms of e-government. However, this fact has not been given enough attention. E-government development in Jordan is characterized by a substantial investment in the early stages of infrastructure construction. All of the privatized countries, for a certain period, have focused on the government rather than citizens, information websites, and some traditional e-government applications such as administration Services (especially tax), and other services with a wide variety of countries, and services provided in large amounts between technology investments.

This discussion of e-government in front of Latin America, especially in the field of e-government anomalies and innovative applications, as well as e-government points for the development of e-government in Jordan in the development of four key messages:

It must be passed on to this method of making citizens at the heart of the government. This is a fundamental shift in any government unit that simply provides information on the site and wants citizens to know how the government is organized.

- Continue to focus on improving services focused on efficiency, effectiveness, and accountability while also using information innovatively in the areas of human rights, the rule of law and justice, transparency, openness, participatory/inclusive, and coherent and independent support, and communication technology. Examples in this article focus on areas such as discussion of transparency and access to information, social inclusion (or bridging the digital divide), e-democracy, and participatory budgeting.
- Private sector involvement in e-government initiatives. This will help to reduce costs and government risks and, at the same time, enable the private sector partners in e-government. However, the conditions for greater public-private partnerships should be covered by adequate guarantees of clarity of arrangement and expansion of legal safeguards and guarantees.
- The global nature of today's society, including the latest technological developments and their innovative application of governance issues.

E-Government Models

The UK and the US have been implementing a model called the E-Government Maturity Model. The E-Government Maturity Model is an evolutionary process. The Model is divided into 5 main levels: Independent Websites, Common Website, Online Government, Integrated Government, and Transformed Government.

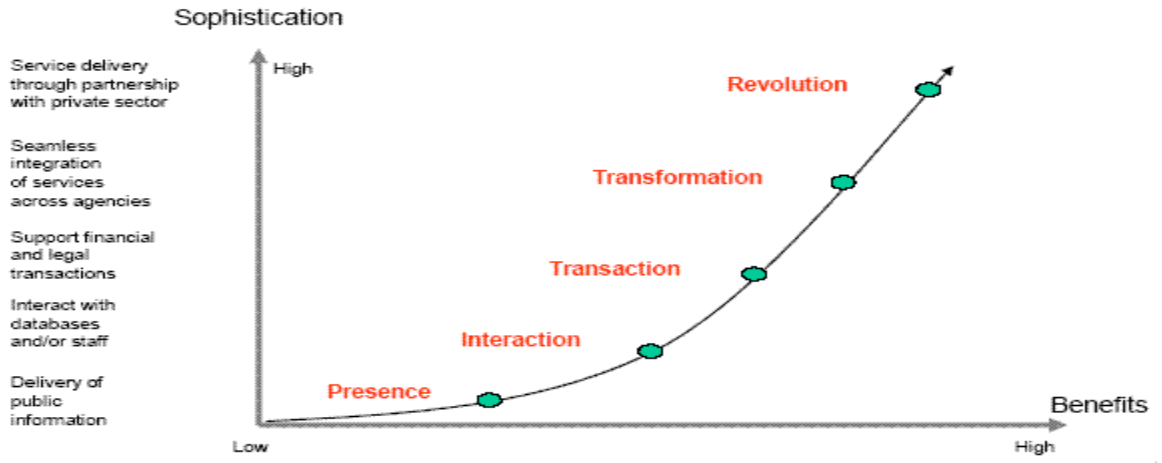


Figure 1: The E-Government Maturity Model.

(**Source:** National Electronics and Computer Technology Center 2013).

As depicted in Figure 1, the model shows the development from level one (Independent Website) and up to level 5 (Transformed Government) which is believed to be the result of the Jordanian E-Government program. According (MOICT, 2013) these levels are the following:

Level 1- Independent Websites: This level contains knowledge that is simple, static and minimal and there is little contact with people. The Jordanian E-Government online presence includes an official website [30], although it is not currently connected to other departments within the government.

Level 2- Common Website: The government offers more detail on public policy and governance such as legislation, laws, regulations, and services. The interaction occurs at a more active level with the website connecting to other departments within the government

Level 3- Online Government: Digital Government: The government provides online services like interactive forms for tax payments and applications for license renewals. People may contact the government officials by telephone, fax, mobile, and post.

Level 4- Integrated Government: At this stage, the interaction between users and the back-end processes that produce services takes place. Users are able to perform full and secure transactions, such as

renewing visas, acquiring passports, and reviewing records of birth and death. In this point, people can access all these services online.

Level 5- Transformed Government: This stage is the most sophisticated level in online E-Government initiatives. By developing an integrated back-office infrastructure, the government becomes a well-connected entity which responds to the needs of its people. In order to provide a one-stop platform where users can access all manner of public services easily and efficiently, the government uses a single, unified website.

E-Government application in Jordan:

(Elsheikh et.al 2008) "Study has found that the Jordanian government has 95% of its national ministries online, with full provision of information about services, but limited interaction with the government except via emails. However, Alkhaleefah et.al, 2010" study has found that Jordan could be situated between stage two and stage three of the E-Government Maturity Model, as according to their study, the following services are currently on offer from the Jordanian Government:

E-Government Applications	Example E-Services
General payment information	Information about utility bills collection
List of government entities in Jordan	Addresses, telephones numbers, their own websites addresses
Information about Jordanian Embassies	Addresses, services, contact details
News services	Politics, sport, weather
Information about issuing Documents	Driving license, passport, visas
Downloadable forms	Tax payments forms and applications for license renewals
Ask us services	Q&A about E-Government services
Tourism Information	Tourism places, currency converter, Journey route generator and planner
Government tenders department Services	Classification of construction contractors application forms, classification of construction contractors information
Income and sales tax department	Documents for acquiring tax statement, deductions from incomes of residents, tax

Services	payment procedures
Jordanian customs services	Application for refund of general/special guarantee, exemptions process contents from fees, transit goods information
Information about education services	Foreign student credentials, the establishment of a kindergarten or a private educational institute, transcript of grades
Industry and trade services	Export and import licenses, trademark registrations, quality and price control complaints
National information technology center services	Domain name registration, Internet and e-mail services, web hosting
Land and survey services	Property rights transfer certificates, name correction, plan or index requests
Housing and urban development Services	Zoning blueprints for urban development projects, letters of occupancy permits for urban development projects

(**Source**: Alkhaleefah et.al, 2010)

Results:

1- There is a statistically significant effect of the intent to use and methods of encouraging e-government services on the extent of their use.

2- There is a statistically significant effect to provide confidence between beneficiaries and workers on e-government services.

3- There is statistical significance for the infrastructure of computers and communications, the Internet, on the services provided through e-government.

4- There is a statistical effect of good awareness on the advantages of using e-government.

5- There is a statistically significant effect of the awareness mechanisms on citizen awareness of the concept of e-government.

6- The percentages of the study sample according to the gender variable were equal

7- The highest percentage was for study sample participants holding a bachelor's degree, where they reached (31.8%) of the total study sample participants, while the lowest percentage of individuals for the study sample came from diploma holders, where they reached (15.4%) of the total study sample members.

8- The highest percentage was for participants of the study sample from a group (30-35 years), as they reached (38.1 percent) of the total number of the study sample, while the lowest percentage of respondents was from a group (45 years and over) as they reached (11.9 percent) of the total number of the study sample.

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Appendix

Questionnaire

Dear Sirs,

Greetings

This is a questionnaire designed to study the evaluation of e-government website quality factors and their interrelation, so I hope you will read the statements contained in the questionnaire and answer them with objectivity and accuracy, note that the information will be treated confidentially.

With fully respect,

Researcher: Mohammad Daghles

Part 1: The demographic profile of the respondents

1. Gender:

☐ Male ☐ Female

2. Level of Education:

☐ Diploma ☐ Bachelor ☐ Master ☐ Doctorate

3. Age:

☐ Less than 30 years ☐ 30-35 years ☐ 35-40 years ☐ 45 years and over

Part 2: the measurement of the variables

First: awareness mechanisms on the concept of e-government

No	Statement	Strongly disagree	disagree	neutral	agree	Strongly agree
1	The presence of advertisements in newspapers and television explaining the concept of e-government increases the demand for its services					
2	The presence of explanatory brochures explaining the concept of e-government in the headquarters of government departments and their websites on the Internet increases the demand for their services					
3	The presence of explanatory bulletins in local councils to explain the concept of e-government increases the demand for its services.					
4	Holding seminars in NGOs to explain the concept of e-government that increases the demand for its services.					
5	The presence of explanatory brochures explaining the concept of e-government in the headquarters of private sector companies and their websites on the Internet increases the demand for their services.					
6	Clarifying the concept of e-government in educational institutions increases the demand for its services.					
7	The awareness mechanisms currently in use are sufficient and serve the purpose required to educate citizens.					

Second: A good awareness of the advantages of using e-government

No	Statement	Strongly disagree	disagree	neutral	agree	Strongly agree
1	Through e-services, you will not have to go to governmental and non-governmental departments					
2	Benefiting from online services will save a lot of your time and effort.					
3	Benefiting from the electronic services will save a lot of your money that you use in transportation.					
4	The trend towards electronic services will reduce traffic congestion					
5	On the trend towards electronic services, it will reduce the percentage of pollution caused by car exhaust.					
6	E-services cancel mediation and favoritism					
7	Access to electronic services is characterized by speed, accuracy, and transparency					
8	Working through electronic services will reduce friction with governmental and non-governmental employees, and thus not to have any potential problems.					

Third: The availability of infrastructure from computers and Internet connections to obtain the services provided through e-government

No	Statement	Strongly disagree	disagree	neutral	agree	Strongly agree
1	I can buy a computer at any time due to the presence of many hardware stores and the low price of the devices.					
2	There are many computer hardware stores that provide fast and good maintenance service					
3	It's easy to get an internet subscription at an affordable price					
4	There are a large number of Internet companies that offer subscription and maintenance services					
5	I can work on the Internet in more than one place, such as home, work, and universities.					
6	I can use the internet from my mobile device.					
7	I can use the internet anywhere through wireless internet.					
8	The country offers many places to use the Internet, such as kiosks or facilities attached to governmental and non-governmental institutions					

Fourth: Provides confidence among the public beneficiaries in the e-government services

No	Statement	Strongly disagree	disagree	neutral	agree	Strongly agree
1	I deal with the electronic services currently available.					
2	I am concerned about technical skills regarding information security in dealing with electronic services					
3	I am comfortable working with e-services.					
4	I trust working through e-services regarding my credit card information.					
5	I am concerned about breaching my privacy if I get something through online services.					
6	Online e-services are not credible					
7	Online services cannot be trusted					
8	E-services take my most important interests into consideration.					
9	I can trust that the problems of traditional services are solved through electronic services.					
10	Traditional services are more reliable than online services.					

Fifth: The intention to use e-government services and ways to encourage them

No	Statement	Strongly disagree	disagree	neutral	agree	Strongly agree
1	I intend to provide business requirements through electronic services such as a computer and an Internet subscription.					
2	I intend to increase my use of electronic services in the future.					
3	I will use all services through e-government when it is launched.					
4	I intend to use e-government services if the service fees are reduced.					
5	I intend to use e-government services if the value of taxes on services is reduced.					

Sixth: Obstacles to citizens accepting e-government services

No	Statement	Strongly disagree	disagree	neutral	agree	Strongly agree
1	The difficulty of online services websites does not encourage me to work through them.					
2	It is difficult to find a computer and internet service at any time to access electronic service.					
3	Am not good at using computers and the internet to access electronic services.					
4	It is difficult to understand the mechanisms of electronic services					
5	I do not find that electronic services meet my desires and aspirations.					
6	I do not know what the legal limits are for working with e-services, such as signature and payment.					
7	The low value of my income does not allow me to buy a computer and provide internet.					
8	I am afraid of the low level of security and confidentiality in electronic services.					