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Alabdallat, Wesam Ibrahaim Mohammad

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## Wesam Ibrahaim Mohammad Alabdallat |

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<sup>\*</sup>Corresponding author: Wesam Ibrahaim Mohammad Alabdallat, Department of Finance and Administration Sciences, Al-Balqa Applied University Al Salt-Jordan, As-Salt, Jordan E-mail: w.alabdallat@bau.edu.jo

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## MANAGEMENT | RESEARCH ARTICLE

# Toward a mandatory public e-services in Jordan

Wesam Ibrahaim Mohammad Alabdallat<sup>1\*</sup>

**Abstract:** With the rapid developments in utilizing the popularity of internet, the governments all over the world adopted various e-government projects to provide their services. This paper aimed to investigate how the governmental departments in Jordan can provide mandatory e-services to citizens. It sought to review the recent reality of the e-services provided to receivers especially among citizens by the governmental departments in Jordan. Moreover, it seeks to identify the obstacles that hinder achieving this goal. In order to deal with this issue, a thorough literature review was undertaken to identify the role of citizen's satisfaction as well as the potential obstacles that may influence the adoption rate of e-services and therefore imposing e-services. Moreover, an investigation was conducted by analyzing the e-services provided by three major governmental departments, based on their official WebPages, and classifying them into three categories: mandatory e-services, optional e-services, tangible-optional e-services. This paper argues that the full success of e-services can be accomplished by imposing the optional e-services along with achieving the users' satisfaction and consider it as an indicator for success. The study proposed a conceptual model that addresses the issue of imposing e-services by the governmental departments in Jordan.

Subjects: Management of IT; Information & Communication Technology; ICT; Research

Keywords: governmental departments; mandatory e-services; optional e-services; tangible-optional e-services; user satisfaction



Wesam Ibrahaim Mohammad Alabdallat

## ABOUT THE AUTHOR

Dr. Wesam Ibrahaim Mohammad Alabdallat is a full lecturer at the Faculty of Bushiness and Administration in Al Balqa Applied University, Aqaba, Jordan. He holds PhD Degree in Business Administration from Brunel University, UK. His research interests include E-government evaluation, eliminating corruption through e-services, and transforming toward integrated and effective e-government services.

## PUBLIC INTEREST STATEMENT

This paper highlights the importance of expanding in providing effective public e-services for citizens through the official websites in Jordan. In addition, the paper suggests imposing the governmental e-services on citizens with fulfilling their satisfaction. However, the challenges that may hinder this goal were addressed. The work browsed the e-services provided by three popular governmental departments in Jordan through their official websites. The findings showed that the chosen examples provide only optional e-services to citizens while other departments succeeded in imposing some e-services. This paper argues that the government departments can provide mandatory e-services with meeting the citizen's satisfaction and eliminating the relevant obstacles.





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#### 1. Introduction

Many forms of activities and services that are provided by the public sectors have been transformed during the last three decades radically. Moreover, the emergence of internet created a rich environment for introducing new services and applications. Accordingly, e-services were introduced and implemented by the governmental departments all over the world. All these e-services entailed common aim underlying reducing cost, enhancing efficiency and assuring transparency (United Nations Department of Economic and Social Affairs [UNDESA], 2016).

Governments all over the world have worked hardly to formulate development models that integrate strategy, people, processes and technology as well as effective action plans to delineate a successful implementation of nontraditional services through e-government (Ruelas & Pérez, 2006). In Jordan, e-government became a necessity as well as a mean to cope with the era's needs where digital technology is considered as major pillar for development in all life aspects (Al-Qudwa, 2010).

At worldwide level, some successful models concerning e-government were adopted in terms of their ability to fulfill citizen's satisfaction by reducing bureaucratic transactions within the public departments as well as saving costs and resources (Ekos, 2014).

Prior to the emergence of e-government's services, the government system relied on traditional forms of services. Under these forms of services, citizens used to communicate face to face with the public staffs. Apparently, e-government represents a sort of online services whereby citizens are not obligated to communicate directly with the public staffs given the availability of Internet technology. In this regard, Pieterson and Ebbers (2008) outlined that this kind of development contributed to improve the management efficiency, reduce the management cost, enhance the coordination between the different departments, and improve the services' efficiency.

With regard to e-services, the governmental agencies all over the world and especially in the developing countries yearn to increase the adoption rate of their e-services by overcoming the challenges that hinder the full adoption of such services (Oseni, Dingley, & Hart, 2015). However, the adoption of e-services in many cases appeared to be relevant to the receivers' satisfaction (Al-Kasasbeh, Dasgupta, & AL-Faouri, 2011). Furthermore, the success of e-services in terms of the rate of adoption can be assessed based on the receivers' satisfaction (Al-rawahna, Chen, & Hung, 2018; Al-Qudwa, 2010; Bayona & Morales, 2017). However, some countries, such as India, Japan and the USA commenced to adopt the so called "Smart Cities" which exploit the ICT advantages to facilitate the citizen's life conditions. These cities are featured by providing mandatory public e-services to their citizens. The policymakers in these cities addressed the participation of citizens as an important factor for adopting the mandatory e-services (Chauhan & Agarwal, 2017). The adopting of such trends stems from a notion that is relying on e-services within the smart cities contributes in improving equity, efficiency and life's quality (Albino, Berardi, & Dangelico, 2015).

The current paper addresses this issue in Jordan particularly in concordance with its aim that is represented in the question "How can the governmental departments in Jordan impose their e-services?"

This study attempts to achieve its aim by answering the three following questions:

Q1. What are the obstacles that hinder transforming toward the mandatory e-services?

Q2. What is the relationship between users' satisfaction and mandatory e-services?

Q3. What are the services with nature that hinder providing them electronically?

#### 2. Literature review

### 2.1. The conceptions of e-government and e-services

The term electronic government that is widely known as "e-Government" has emerged when the governmental agencies all over the world commenced to implement ICT in their various processes and transactions during the last three decades. Adopting e-Government has been justified by its speed, accountability, transparency as well as the potential to enhance both the efficiency of public services, and relations between governmental agencies and stakeholders (Sánchez-Torres & Miles, 2017).

The evolving of e-Government accompanied the primary use of Internet to disseminate policies, decisions, developments and so on by the various public sectors in order to improve their services in collaboration with the users of such services. By such collaboration, solutions to several problems were proposed as well as designing new public policies. Under this vision, e-Government contributes in facilitating the public value (Hui & Hayllar, 2010; Janowski, 2015). Implementing ICT under E-government appeared to be promising in terms of raising the levels of efficiency and competency among the government as well influencing its relationship with citizens. Moreover, e-government emerges through four phases starting from providing information on website. Second, facilitate the sharing of communications among the various parties. Third, communicating directly with the services' receivers. Finally, implementing integrated systems for service and sharing (Al-Qudwa, 2010).

Based on various perspectives (for example: Al-Qudwa, 2010; Amer & Al-Masry, 2017; Majdalawi, Almarabeh, Mohammad, & Quteshate, 2015), e-government is characterized with many traits, which are:

- · Linked with senior management and governmental departments,
- Virtual information system with latent components and processes but can be recognized by its results and effects,
- Based basically on the information resource,
- High level of mutual and integrated dependency,
- Allow influential sharing among its parties, which are public organizations, social and charitable organizations, professional organizations, and services' receivers.

In a significant segment of literature related to e-Government, researchers point to e-Government as implying e-services provided by the governmental agencies (e.g., Buckley, 2003; Jansen, de Vries, & van Schaik, 2010; Lindgren & Jansson, 2013).

Notably, implementing e-services by the governmental departments has affected the administrative transactions and the nature of interaction between government and citizens (Bertot & Jaeger, 2008). The increasing rate in using e-services provided by the governmental agencies is considered as crucial in reducing the operational costs among them (Reddick & Anthopoulos, 2014). For instance, some e-services provided by the governmental agencies in Denmark such as digital post and self e-service applications were imposed on users to reduce the costs.

The emergence of e-service affected a vast segment of industry sectors such as transportation, governments, healthcare, education and financial services. Many types of e-services are provided by both public and private sectors all over the world. To clarify, Khadaroo, Wong, and Abdullah (2013) categorized the various e-services to e-payment, e-licensing, e-assessment, e-submission, e-complaint, e-rental, e-compound, e-Learning, e-tax, and e-forum. Notably, the public sectors all over the world are attempting to transform as much as they can toward comprehensive and effective e-services instead of their traditional ones.

#### 2.2. User satisfaction toward e-services

Increasing the adoption rate of e-services among citizens and therefore achieving their satisfaction became a common concern among governments all over the world. User satisfaction toward e-services refers to the overall affective evaluation that is perceived by the user toward his experience in using these online services (Evanschitzky, Iyer, Hesse, & Ahlert, 2004). According to Taherdoost (2018), satisfaction is linked to the user's believe regarding the provided e-services and the extent to which they meet his needs and expectation.

Since e-services are provided to users so as to meet their transactional needs, fulfilling their satisfaction is regarded important for the success of e-governments. In addition, user satisfaction may be used to assess the quality of the provided e-services. If the governmental online system provides users with satisfying e-services, they will adopt such services and keep using them frequently (Xiao & Dasgupta, 2005). Al-Qarey (2004) outlined the role of citizen' satisfaction for the success of public e-services. Moreover, he pointed that e-government relies mainly on citizens since it exploits digital technology. In other words, the public departments posses the technology rather the e-government itself because citizen is the main actor in the participation process as well as he posses the decision to use the e-services. However, the government employs all ICT means to serve the citizen by attracting him toward participation. Accordingly, government has to meet his needs anywhere and anytime.

User satisfaction was mainly addressed in research and therefore considered as an important predictor of adopting e-services by users. Based on research, the more satisfaction achieved among the users of the provided e-services, the more likely they keep using them (Al-Kasasbeh et al., 2011; Xiao & Dasgupta, 2005). In Saudi Arabia, Zayed, Alashqar, Shoukry, and Hassan (2019) considered the user satisfaction regarding the website as one of the main determents of its success in providing the required e-services. Moreover, they classified the factors affecting the satisfaction degree to two categories: (1) factors relevant to the portal, which include the portals' features, design, and content; and (2) factors relevant to the user satisfaction will result in increasing their adoption rate of e-services. In 2010, user satisfaction was addressed and therefore used as main criterion to assess the public e-services in 10 countries that are Singapore, Norway, United Arab Emirates, South Korea, KSA, USA, UK, India, Germany, and Brazil. In this sense, user satisfaction was used to measure the extent of citizens' believe in meeting their needs and providing them with high-quality e-services (Kindilchie, 2015)

In the context of e-government in Jordan, Al-Taher (2009) outlined that fulfilling the user satisfaction is one of the main goals of e-services provided by the governmental agencies. Moreover, he assured that the level of users' satisfaction toward such services should be raised by facilitating the using of public e-services, decreasing the time needed for receiving them, providing accurate data in adequate time and supporting the economical development programs.

In the same context, Al-Kasasbeh et al. (2011) outlined the factors that affect e-service satisfaction and therefore its adoption in Jordan. They pointed to many factors that hinder providing satisfactory e-services and therefore should be addressed adequately and effectively. The main factors included personalization, navigation, and website design. Furthermore, they suggested that these factors can be used to assess e-service satisfaction. Similarly, user satisfaction was found to play a vital role in increasing the adoption rate of the

public e-services in Jordan by maintaining five factors efficiently. These factors included Trust, Security and Privacy, Awareness of public services, accessibility, and quality of public services (Alawneh, Al-Refai, & Batiha, 2013).

In more recent study, Al-rawahna et al. (2018) proposed a model for assessing the success of e-services provided by the public departments in Jordan by identifying the relevant barriers as predecessors of users' satisfaction.

#### 2.3. Challenges in imposing e-services

The full transformation toward comprehensive governmental e-services has encountered various obstacles, especially in the developing countries, despite the undertaken policies and plans. Moreover, the outcomes were not satisfied. In addition, attaining the desired goals appeared to be hindered because of various problems concerning administrative, technical, contextual and organizational factors. To clarify, these factors included corruption, lacking adequate resources and infrastructure, lacking coordination, bounded transparency, illiteracy, inefficient coordination along with deficient strategic vision (Hossain, 2005; Seo & Mehedi, 2015). Many factors were defined as determents for the success of e-services projects, as well as failure in case of absence (Gichoya, 2005). Such factors contribute in encouraging implementing the public e-services in a successful manner. These factors include understanding of the basic requirements, user's participation in the process, clarity of strategy and vision, well-defined goals along with government support and high levels of consumers' expectations (Heeks & Stanforth, 2007; Loukis & Charalabidis, 2011; Rodriguez-Bolívar, Alcaide-Muñoz, & López-Hernández, 2015).

Actually, the full participation in e-services by users can't be discussed so far since most of the governmental departments have not provided all of their services electronically or at least the most important ones. This issue seems to be confined to the developing countries, especially among the countries with very low incomes. Seo and Mehedi (2015) outlined the obstacles, which hinder adopting and lunching a variety of e-services needed for achieving full e-participation, referring to as traditional barriers. Such barriers include lacking technology, ineffective regulations, inefficient private sector, and low budget.

According to Al-Taher (2009), number of obstacles may restrict the full adoption of governmental e-services that are:

A) Speed of transformation: transformation requires passing a number of phases and usually the speed of transformation from one phase to another is slow for many reasons such as the employees' resistance for change, inefficient budget, legislations and legal issues, moral issues, and citizens concern regarding coasts, subscriptions' services, awareness, and training.

B) Implementing Government to Citizens (G2C) transactions: this category of e-services includes more complicated and sizable number of transactions compared to employees, business and government's categories.

C) Privacy and Security issues: governmental departments should adequately consider such issues that entail personal information-for example the medical history of patients- by using effective techniques such as coding, fire walls, and electronic signatures.

D) Wireless Applications: many applications such as mobile phones may be merged within E-government system in a manner that increases its efficiency, easiness and flexibility.

The transformation toward full and ambitious public e-services devoted for citizens may encounter many challenges, which require considerable amount of investigation and review for the negative; as well as the positive; effects resulted from implementing such services. Such challenges include digital divide, e-literacy, permanent availability and preservation, education and marketing, collaboration, and benchmarking (Al-Mubaydheen, 2011). Moreover, some challenges may be more related to management such as corruption, bureaucracy and lack of general strategy and awareness (Al-Qudwa, 2010). Teerling and Pieterson (2011) outlined four factors that may contribute in increasing citizen's adoption of e-services provided by the governmental departments. These factors include communication, economical incentives, legislation and the web service quality.

Based on reviewing various experiences in implementing the governmental e-services, Kindilchie (2015) pointed to number of barriers that may hinder or delay the transformation toward serious e-governments and therefore providing effective e-services. The barriers were summarized in resisting change, lack of legislations, lack of budget, lack of public awareness, lack of transparency, lack of progressive transformation. Moreover, he pointed to an important socio-economical factor that is the limited internet service spread along with the low educational and cultural levels among the citizens especially in the less advantages areas. In fact, poverty and unemployment appear to be common terms in Jordan as well as the other low-income countries. In another context, Mirchandani, Hayes, Kathawala, and Chawla (2018) identified four portal factors that might restrict the success of implementing the public e-services in Kuwait to both citizens and expatriates. The portal factors were Quality, Appeal, Control and Savings, and Personalization. However, Quality included the portal's reliability, accessibility, data quality, and security while Appeal included the portal's appearance, user friendliness, and convenience. The third factor, Control and Savings, included the savings generated in cost and time for the government. Finally, Personalization included the user identification and community features. Notably, they pointed to the language content of the public e-services' portals, which is available only in Arabic, as a determent of decreasing the adoption rate of such services especially among expatriates who consist about 68% of the population.

Recently, the success of e-services was linked to technical barriers, which in turn influence the users' satisfaction. These barriers were investigated empirically in Jordan. The findings revealed four factors that are service quality, information quality, IT infrastructures readiness, and system quality (Al-rawahna et al., 2018). Apparently, these technical factors are related to Information System.

So far, and as appears in our daily scene, traditional transactions still exist and witnessed, especially in the developing countries, in many forms such papers, stamps, seals, and mobilizing between departments. This phenomenon indicates that imposing e-services requires more intensive efforts.

To capture an actual scene, Al Ghad Newspaper, located in Jordan, conducted a limited reconnaissance with number of citizens and stakeholders in Amman toward the public e-services. The investigation revealed that the citizens hold negative views and impressions regarding the available e-services. However, number of interviewees outlined, based on their own experiences while accomplishing a given transaction both traditionally and electronically, that the government should impose all the e-services which can contribute in saving time and effort (Al-Mubaydheen, 2018).

Based on the aforementioned literature review, the obstacles that may hinder imposing the governmental e-services are summarized in Table 1.

Table 1. Summary of obstacles	s hindering imposing e-services	
Obstacles	Context	Reference
Speed of transformation; Implementing Government to Citizens (G2C) transactions; Privacy and Security issues	Jordan	Al-Taher (2009)
Corruption, bureaucracy; lack of general strategy; awareness	Jordan	Al-Qudwa (2010)
Digital divide; e-literacy; permanent availability and preservation; education and marketing; collaboration; benchmarking	Jordan	Al-Mubaydheen (2011)
Resisting change; lack of legislations; lack of budget; lack of public awareness; lack of transparency; lack of progressive transformation; limited internet service spread; low educational and cultural levels	Jordan	Kindilchie (2015)
Lack of strategic plans; Cultural difference; Trust issues; Finance; Political crisis; Lack of qualified personnel; IT infrastructure weakness; Corruption; Resistance to e-platform change; Lack of policy and regulations	Nigeria	Oseni et al. (2015)
Security risks; IT infrastructure barriers; overburdening of public administration employees; loss of personal contact to citizens	Germany	Wirtz, Weyerer, Thomas, and Möller (2017)
Service quality; information quality; IT infrastructures readiness; system quality	Jordan	Al-rawahna et al. (2018)
Language content (for expatriates); Quality; Appeal; Control and Savings; Personalization	Kuwait	Mirchandani et al. (2018)
Personal factors (Internet self- efficacy, education, income; Environmental factors (accessibility, raising awareness, security); Behavioral factors (Internet usage patterns or preferences)	UAE	Zhao, Naidu, and Wallis (2019)
Lack of specific technical; Expertise; Lack of timely support by; Stakeholders; Lack of motivation among working teams; National legislation	Bulgaria	Daskalova (2019)

### 2.4. Governmental e-services' initiatives in Jordan

#### 2.4.1. e-services' initiatives in other countries

E-services can contribute in enhancing the trust in performance of the governments all over the world where several examples of initiatives were developed in many countries by their public departments. Those departments undertook providing efficient and effective digital solutions to the citizens. In Europe, for example, Denmark's Agency for Digitisation developed the so-called "Digital Post" which enables citizens to interact electronically with the governmental departments. For example, the online transactions include pension statements, student grant applications, and letters from hospitals. Another



successful experience appears in Estonia where most of the public services can be accomplished online (Digital Single Market, 2017).

In the Arabian context, the governments sought seriously to transform toward e-services by establishing their online portals. For example, the government of Kuwait lunched its online portal at the end of 2008 which included 114 e-services of which 22 e-services provided by 17 governmental departments. The governmental portals provide various services such as general information about the official transactions, inquire about civil IDs, view personal data, and contact information. However, despite the progress in providing various public e-services, the adoption of such services by Kuwaiti citizens still limited (Mirchandani et al., 2018).

#### 2.4.2. e-services' initiatives in Jordan

In response to the growing developments all over the word in providing modern and effective e-services, the governmental agencies in Jordan commenced transforming toward providing nontraditional services and transactions. Based on such trend, e-services are considered as a main pillar of the administrative reform within the public sector as well as its performance. In Jordan, E-government projects rely mainly on ICT so as to provide both citizens and organizations with needed information and services. Moreover, increasing developments have been witnessed in Jordan since 2003 in terms of ICTs but the readiness for providing full e-services still not attainable (Majdalawi et al., 2015).

According to UN E-government Knowledgebase, Jordan ranked 98 of 193 in E-Government Development Index (EGDI) for the year 2018 compared to rank 51 in 2010 as shown in Figure 1 (United Nations [UN], 2018). Notably, these numbers may reflect serious concerns in providing effective e-services by the governmental Departments in Jordan.

In the middle of 2019, the Jordan Strategy Forum which is a Jordanian nonprofit association affiliates the Ministry of Culture, introduced a report outlining the performance of Jordan in the various axes of E-Government Development Index (EGDI) (Jordan Strategy Forum, 2019). The report pointed to a declination of Jordan rank according to EGDI which requires paying more attention toward improving the public e-services by adopting successful examples from other countries.

Recently, E-government model was established in Jordan. This model represents a program that aims to provide a variety of E-services through various communicating channels such as internet, SMS Gate, E-mail, etc. (Al-Taher, 2009).

In 2006, a national plan for E-government Program was established in Jordan officially. This plan aimed to undertake providing e-services at the national level as well as providing the required consultancies, assistance (technical, financial, etc), and training. The targeted e-services were confined in the

governmental departments. Moreover, the plan included establishing Common Services, which are the e-services developed by a central authority and serve all the governmental departments (Al-Mubaydheen, 2011). Actually, these efforts were fruitful, as a beginning, and introduced some major services such as the Jordanian E-government Portal, SMS Portal and E-payment Portal.

The governmental departments in Jordan undertook significant efforts in establishing public e-services under the e-government project for the last 10 years so as to establish and therefore deliver more effective services instead of the existed traditional ones relying on customer-centric initiatives. Upon this trend, the e-government project sought to improve its services as well as to deliver high-quality services. Moreover, the project aimed to increase the engagement and participation in e-government services (Al-Hujran, Al-dalahma, & Aloudat, 2011; Majdalawi et al., 2015).

According to Al-Mubaydheen (2011), the structure of Jordanian E-government Program is based on seven major units that are:

- Strategic Planning Unit: a department concerned with setting plans, priorities and coordination with other public and private agencies. It also undertakes monitoring the e-government projects.
- Programs Managing and Project Unit: a department concerned with running the e-government projects and programs by providing the best experiences, tools, and methodologies. It also undertakes evaluating the e-government projects as well as its progress.
- Information Security and Privacy Unit: a department concerned with defining and eliminating the risks facing the information resources.
- Information Management Unit: a department concerned with running the e-government processes by developing adequate technical environment for the relevant agencies.
- Quality, Risk and Communication Unit: a department concerned with running the three main axis relevant to the program that are Quality, Risk and Communication by developing mechanisms and methodologists pertaining monitoring and measuring the performance and progress of e-government projects. It also undertakes setting and updating the needed policies, criteria, and procedures.
- Technology Management Unit: a department concerned with constructing and developing the technical strategy, developing the relevant technical concepts, providing and developing the technical policies and criteria, providing and developing the infrastructure, and conducting the necessary research that provide the best and recent technological solutions.
- Change Management Unit: a department concerned with enhancing the skills and competencies of human resources so as to enable them to accept and adapt to the new changes. In doing so, they became able to maintain high levels of productivity, undertake responsibility, and continue in improving performance.

Figure 2 shows the structure of Jordanian E-government Program.



Khasawneh, Jalghoum, Harfoushi, and Obiedat (2011) categorized the governmental e-services in Jordan to four types based on their relationships among the various governmental departments. These e-services are:

- **Shared services**: include the services that are created once then became available for all the governmental departments such as the official portal.
- Vertical services: include the services within a given department such as passport renewal.
- **Cross services**: include the services that require the cooperation of several departments such as obtaining an occupation license for a company, which require a registration process from Ministry of Industry & Trade then obtaining the license from Amman Greater Municipality.
- **Composite services**: include the services that flow across several departments and linked to a main frame such as the human resource systems within the governmental departments which are linked to Civil Service Bureau as well as the financial systems which are linked to Ministry of Finance.

As an actual scene in Jordan, limited initiatives were undertaken by some departments whereby e-services were imposed. For example, the Ministry of Justice launched a mandatory e-service that is obtaining an official document or certificate known as "No Criminal Record", which is a necessity for joining the workplace. Recently, the Social Security Corporation, an independent governmental department in Jordan undertakes providing retirement salaries for employees, imposed the optional subscription for individuals through its official website. Moreover, Lands and Properties Department has confined the payment transactions concerning taxes via e-service relying on an electronic payment system known as "EfAWATEERcom". The targeted transactions were chosen for the overcrowding existed inside those departments. More popular mandatory e-services phenomenon is seen in the universities; both private and public ones, to reduce the overcrowding during the beginning of semesters when thousands of undergraduate students need to accomplish their registration in a very limited time. Under this initiative, the registration process were imposed electronically as well as the required fees payment. The relevant payment process was confined in many banks distributed all over the country.

#### 3. Research methodology

The current study relied on nonstatistical data analysis in order to cope with the research questions. Moreover, in the first phase, the researcher undertook a thorough review for the pertaining academic literature to outline the current status of the e-services provided by the governmental departments all over the world with focusing on Jordan particularly. This phase addressed identifying the available e-services that are provided by the governmental departments as well as the obstacles that may hinder providing such services.

The second phase included selecting three samples from the population, which represent all the governmental departments in Jordan to choose an adequate sample. This process relied on observing the content of the official web pages for the chosen departments. Three public departments were allocated by purposeful sampling for their publicity in providing various services for citizens and firms in addition to their priority in adopting e-government projects along with lunching various e-services.

Moreover, the services included within their WebPages were defined, categorized and analyzed, respectively, in order to outline the current status of the available e-services. In addition, the electronic services offered through the three departments' websites were evaluated. Data included in this process were obtained till the end of November 2019.

#### 4. Analyzing official WebPages in Jordan

This work reviewed the current status of the governmental e-services provided in Jordan. Three examples were chosen purposefully for their adequacy in achieving the study objectives. These departments are Tax Department (https://www.istd.gov.jo), Civil Status and Passport Department

# Figure 3. Screen print of tax department webpage.

Source: https://www.istd.gov. jo.



E-Government Services

(http://www.cspd.gov.jo), and Customs Department (https://www.customs.gov.jo). The screen prints of the three chosen WebPages can be shown in Figures 3–5 respectively.

The analysis process revealed three types of e-services that are mandatory e-services, optional e-services, tangible-optional e-services. First, the mandatory e-services refer to electronic transactions that were imposed by the department without any exceptions. Under mandatory e-services, the transaction is well defined and illustrated online by subsequent steps and therefore can be performed easily. The most common mandatory e-services at the beginning of semesters.

Second, the optional e-services refer to transactions that can be accomplished by the traditional manner or electronically. The optional e-services can be seen through obtaining official forms or inquiry about transactions. For example, the Ministry of Education offers online optional e-services whereby the official employee can obtain his own salary slip. Third, the tangible-optional e-services refer to transactions with a nature that require two phases; the first phase is to attend personally for the confirmation process. This process is required for assuring the security issue by obtaining passwords or confirming the official signature and so on while the second phase include completing the transaction electronically. For example, any Jordanian citizen should visit one of the offices of Civil Status and Passport Department to obtain his National ID Card for the first time since such transaction requires his fingerprints, eye prints and signature.

Figure 4. Screen print of civil status and passport department webpage.

Source: http://www.cspd.gov.jo.



The analysis process revealed the absence of mandatory e-services in the chosen WebPages while few examples were found in other less popular departments. Moreover, the number of optional e-services varied in the three cases. Furthermore, the three cases showed a number of tangible requirements for accomplishing some e-services based on the nature of the services provided by the given department. Table 2 summarizes these findings.

The number of optional services varied among the three departments. This variation depends on the nature of the provided services. Some services are required based on annual manner while others are required upon the need. However, the total number of provided e-services seems to be related to the date of lunching. It can be seen from Table 2 that 42 e-services were launched by Tax department in 2005, 38 e-services were launched in 2006 by Custom department while 8 e-services were launched in 2008 by Civil Status & Passport department. The data indicate that expanding in providing more e-services is consequent and ongoing process.

# Figure 5. Screen print of customs department webpage.

Source: https://www.customs. gov.jo.





Moreover, the three departments lacked for mandatory e-services. The tangible-optional e-services have common elements among the three departments, which are User name, Password and Signature. The Civil Status and Passport Department surpassed the other two departments by utilizing more Tangible-Optional e-services that are fingerprints, eye print and receiving documents.

The tangible phase of transactions among the three departments appeared to be needed for the first time. By completing the tangible phase, the transaction can be repeated electronically. Moreover, some citizens who seek for tangible-optional e-services especially at the final phase are required to receive their documents manually but this issue was addressed by some departments by authorizing a reputable delivery mediator to deliver the documents with confirming the receiving. Based on browsing the content of the three portals, no statistics about e-services' users were seen which indicate the need for assessing the rate of access as well as the adoption rate of e-services. Another challenge appears in the content language of the chosen WebPages, which is almost confined in Arabic.

#### 5. Findings

This work sought to investigate the e-services provided by three governmental departments in Jordan in order to pave the way for introducing public mandatory e-services. Three types of e-services were defined and categorized. The mandatory type of e-services was not available

Table 2. Results of	analyzing three pub	lic WebPages					
			E-service type		E-services	E-services	Statistics about
		Mandatory e-services	Optional e-services	Tangible-Optional e-services	Lunching date	Language Availability Content	e-services' users
Gov. Department	Tax Dep.	None	42	User name Password Signature	2005	Content is available in Arabic with moderate availability in English	Not available
	Customs Dep.	None	38	User name Password Signature	2006	Content is available in Arabic with very limited availability in English	Not available
	Civil Status & Passport Dep.	None	ø	User name Password Fingerprints Eye print Signature Receiving documents	2008	Content is available in Arabic with scarce availability in English	Not available

within the chosen websites. Moreover, such e-services were very limited and confined to a very small number of governmental departments in Jordan.

The optional type of e-services appeared to be the most common ones among the three selected departments. The tangible-optional e-services were common among the chosen departments. This type of e-services appeared to require accomplishing the tangible part of transactions such as the citizen's signature. Fortunately, this tangible part of the e-service is needed once and for the first time then the transaction can be repeated electronically.

However, the current work outlined the major obstacles that may hinder transforming toward the mandatory public e-services in Jordan. Based on the current paper viewpoint, the obstacles are more related to the government itself. Moreover, some obstacles appeared to be more relevant to administrative issues while others were more related to technical ones. Governmental departments in Jordan have promising potentials in raising the adoption rate of their e-services then reaching the level of mandatory e-services. Apparently, by addressing the issue of users' satisfaction as well as their various needs adequately, governmental departments may become able to impose their e-services. Finally, some e-services appeared to have tangible requirements. Some of these requirements may be accomplished for one time within the departments, such as signature or fingerprints, and then the e-services can be performed electronically and frequently. Other tangible phases such as receiving the documents by citizens may be accomplished by establishing partnership with professional partners. The findings of the current paper were in general consistent with the literature review as well as the analysis process that indicate the need for improving the current e-services and lunching more required ones based on the citizen's needs.



#### 6. Conclusion and suggestions

This study aimed mainly to investigate to what extent governmental departments can impose their e-services on users, especially among citizens. Moreover, it sought to explore the factors that may hinder achieving this goal. The notion of this work was build on a premise that imposing e-services may be attained by fulfilling the receivers' satisfaction toward the provided e-services. Consequently, the success of e-services may be achieved. Reviewing the literature showed that e-services' receivers, or citizens, are the main determent of e-services success so that fulfilling their satisfaction is crucial for the implementation process. However, the analysis process was directed toward the e-services providers, the public departments in the current case, who hold the responsibility in achieving the desired success.

Governments all over the world are seeking to raise the adoption rate of their e-services by excluding the potential obstacles. The current work addressed this issue in Jordan by identifying the challenges that hinder the full adoption of e-services along with linking the full adoption with the receiver's satisfaction. The work builds on the current status of the public e-services and proposes a model for attaining this goal as shown in Figure 6.

According to this model, the transformation toward mandatory e-services requires mediator between the optional E-services and the tangible-optional e-services. This mediator may be a professional delivery services partner, online payment facilitator, and supporting mobilizing units. The suggested supporting mobilizing units should be distributed all over the country and include a representative person who is able to guide citizens to accomplish their e-services. To summarize, the findings of the current study articulated on the current reality of the public e-services, which are provided by the governmental departments in Jordan. Moreover, the citizen appeared to be the main actor in assessing the level of success so that his satisfaction should be considered seriously. The governmental departments in Jordan encounter many obstacles, which may limit the adoption rate of their e-services. Consequently, identifying as well as eliminating the existed obstacles should be addressed in accordance with the nature of a given governmental department and its relevant e-services. Policy makers along with high management officials have a great potential to increase the adoption rate of the public e-services and therefore reach the desired level of success by undertaking adequate interventions.

To concise, the current study concludes that the transformation toward mandatory public e-services can be achieved by eliminating the existed obstacles and meeting the citizen's needs based on their satisfaction as an indicator. The study suggests adopting successful examples from other countries to improve the current e-services and expand on substituting the traditional transactions with online services.

#### 7. Future scope

The findings of this work may provide useful insights for government officials by understanding the importance of providing effective and efficient e-services compared to other successful examples. The findings may also guide the stakeholders to provide more satisfactory e-services by eliminating the potential obstacles relying on the receivers' needs, interests, and capabilities. For this reason, more investigation is required as well as actual legislations. Moreover, more research may extend the current work by exploring the relationship between citizens' satisfaction and the mandatory e-services in Jordan. The attitudes of citizens toward imposing the public e-services may be addressed by the researchers.

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#### Author details

Wesam Ibrahaim Mohammad Alabdallat<sup>1</sup> E-mail: w.alabdallat@bau.edu.jo

- ORCID ID: http://orcid.org/0000-0002-6202-5292 <sup>1</sup> Department of Finance and Administration Sciences, Al-
- Balqa Applied University Al Salt-Jordan, As-Salt, Jordan.

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#### References

- Alawneh, A., Al-Refai, H., & Batiha, K. (2013). Measuring user satisfaction from e-government services: Lessons from Jordan. Government Information Quarterly, 30(3), 277–288.
- Albino, V., Berardi, U., & Dangelico, R. (2015). Smart cities: Definitions, dimensions, performance, and initiatives. *Journal of Urban Technology*, 22(1), 3–21. doi:10.1080/10630732.2014.942092
- Al-Hujran, O., Al-dalahma, M., & Aloudat, A. (2011). The role of national culture on citizens adoption of e-government services: An empirical study. *Electronic Journal of e-Government*, 9(2), 93–106.
- Al-Kasasbeh, M., Dasgupta, S., & AL-Faouri, A. (2011). Factors affecting e-service satisfaction. Communications of the IBIMA. 2011, 1–12 (Article ID 547937). doi:10.5171/2011.547937
- Al-Mubaydheen, I. (2018, February 18). E-government: Long labor and difficult birth. Al Ghgad Newspaper. Retrieved from https://alghad.com/
- Al-Mubaydheen, S. (2011). E-government: Models, applications, and international experiences. Amman: Yazori Hall for Publishing.
- Al-Qarey, A. (2004, Oct21). Politicization E-government: A democratic priority. Al Ahram Newspaper, 127 (43053). Retrieved from http://www.ahram.org.eg/ Archive/2004/10/21/OPIN4.HTM.
- Al-Qudwa, M. (2010). E-government and the contemporary Adminisration. Amman: Ussamah Hall.
- Al-rawahna, A., Chen, S., & Hung, C. (2018). The barriers of e-government success: An empirical study from Jordan. International Journal of Managing Public Sector Information and Communication Technologies, 9(2), 1–18. Retrieved from http://aircconline.com/ijm pict/V9N2/9218ijmpict01.pdf
- Al-Taher, A. (2009). *E-government: Between theory and practice*. Amman: Araya Hall.
- Amer, T., & Al-Masry, E. (2017). E-government: Conception, principles, and requirements. Cairo: Arab Foundation for Science and Culture.
- Bayona, S., & Morales, V. (2017). E-government development models for municipalities. Journal of Computational Methods in Sciences and Engineering, 17, S47–S59. doi:10.3233/JCM-160679
- Bertot, J., & Jaeger, P. (2008). The e-government paradox: Better customer service doesn't necessarily cost less. Government Information Quarterly, 25(2), 149–154. doi:10.1016/j.qiq.2007.10.002
- Buckley, J. (2003). E-service quality and the public sector. Managing Service Quality, 13(6), 453–462. doi:10.1108/09604520310506513

- Chauhan, S., & Agarwal, N. (2017). How do smart cities influence governance? A descriptive literature review. In A. Kar, M. Gupta, P. Ilavarasan, & Y. Dwivedi (Eds.), Advances in smart cities: Smarter people, governance, and solutions (pp. 9–22). London: CRC Press-Chapman & Hall Book.
- Daskalova, T. (2019). E-government in Bulgaria: Strategic objectives for development and results from implementation of projects. *Trakia Journal of Sciences*, 17 (1), 76–81.
- Digital Single Market. (2017). Stories of e-government and digital public services in Europe. Brussels: European Commission. Retrieved from https://ec.europa.eu/
- Ekos, G. (2014). Electrónico + Innovación (2da ed.). Quito, Ecuador: Gestión Pública.
- Evanschitzky, H., Iyer, G., Hesse, R., & Ahlert, D. (2004). E-satisfaction: A reexamination. *Journal of Retailing*, 80, 239–247. doi:10.1016/j.jretai.2004.08.002
- Gichoya, D. (2005). Factors affecting the successful implementation of ICT projects in government. The Electronic Journal of E- Government, 3(4), 175–184.
- Heeks, R., & Stanforth, C. (2007). Understanding e-government project trajectories from an actor network perspective. European Journal of Information Systems, 16(2), 165–177. doi:10.1057/palgrave. eijs.3000676
- Hossain, F. (2005). E-governance initiatives in developing countries: Helping the rich? Or, creating opportunities for the poor? *Asian Affairs*, 27(4), 5–23.
- Hui, G., & Hayllar, M. R. (2010). Creating public value in e-government: A public-private-citizen collaboration framework in web 2.0. Australian Journal of Public Administration, 69(1), 120–131. doi:10.1111/ ajpa.2010.69.issue-s1
- Janowski, T. (2015). Digital government evolution: From transformation to contextualization. *Government Information Quarterly*, 32(3), 221–236. doi:10.1016/j. giq.2015.07.001
- Jansen, J., de Vries, S., & van Schaik, P. (2010). The contextual benchmark method: Benchmarking e-government services. Government Information Quarterly, 27(3), 213–219. doi:10.1016/j.giq.2010.02.003
- Jordan Strategy Forum. (2019). E-government in Jordan: A vision for policy makers. Amman: Author. Available at http://jsf.org
- Khadaroo, I., Wong, M., & Abdullah, A. (2013). Barriers in local e-government partnership: Evidence from Malaysia. An International Journal of Electronic Government, 10(1), 19–33. doi:10.1504/ EG.2013.051274
- Khasawneh, S., Jalghoum, Y., Harfoushi, O., & Obiedat, R. (2011). E-government program in Jordan: From inception to future plans. International Journal of Computer Science Issues (IJCSI), 8(4), 568–582.
- Kindilchie, A. (2015). *E-government*. Amman: Al-Massira Hall.
- Lindgren, I., & Jansson, G. (2013). Electronic services in the public sector: A conceptual framework. *Government Information Quarterly*, 30(2), 163–172. doi:10.1016/j.giq.2012.10.005
- Loukis, E., & Charalabidis, Y. (2011). Why do e-government projects fail? Risk factors of large information systems projects in the Greek public sector. International Journal of Electronic Government Research, 7(2), 59–77. doi:10.4018/ IJEGR
- Majdalawi, Y., Almarabeh, T., Mohammad, H., & Quteshate, W. (2015). E-government strategy and plans in Jordan. Journal of Software Engineering and Applications, 8, 211–223. doi:10.4236/ jsea.2015.84022

- Mirchandani, D., Hayes, J., Kathawala, Y. A., & Chawla, S. (2018). Preferences of Kuwait's residents for e-government services and portal factors. *The Journal of Developing Areas*, 52(1), 269–279. doi:10.1353/ jda.2018.0017
- Oseni, K., Dingley, K., & Hart, P. (2015, November 9–11). Barriers facing e-service technology in developing countries: A structured literature review with nigeria as a case study. Proceeding of the international conference on information society (i-Society), London, Uk.
- Pieterson, W., & Ebbers, W. (2008). The use of service channels by citizens in the Netherlands: Implications for multi-channel management. *International Review* of Administrative Sciences, 74(1), 95–110. doi:10.1177/0020852307085736
- Reddick, C., & Anthopoulos, L. (2014). Interactions with e-government, new digital media and traditional channel choices: Citizen-initiated factors. *Transforming Government: People, Process and Policy*, 8(3), 398–419. doi:10.1108/TG-01-2014-0001
- Rodriguez-Bolívar, M., Alcaide-Muñoz, L., & López-Hernández, A. (2015). Research and experiences in implementing e-government endeavors in emerging countries: A literature review. In K. Bwalya & S. Mutula (Eds.), Digital solutions for contemporary democracy and government (pp. 328–346). Hershey: IGI Global.
- Ruelas, A., & Pérez, P. (2006). El gobierno electrónico: Su estudioy perspectivas de desarrollo. UNIrevista, 1(3), 1–11.

Sánchez-Torres, J., & Miles, I. (2017). The role of future-oriented technology analysis in e-government: A systematic review. European Journal of Futures Research, 5(15), 1–18. doi:10.1007/ s40309-017-0131-7

- Seo, J.-W., & Mehedi, H. (2015). Where are e-governments in South Asian countries? A comparative approach. A Research Journal of South Asian Studies, 30(2), 7–24.
- Taherdoost, H. (2018). Development of an adoption model to assess user acceptance of e-service technology: E-service technology acceptance model. Behaviour & Information Technology, 37(2), 179–197. doi:10.1080/0144929X.2018.1427793
- Teerling, M., & Pieterson, W. (2011). How to improve e-government use: An empirical examination of multichannel marketing instruments. *Information Polity*, 16(2), 171–187. doi:10.3233/IP-2011-0213
- United Nations (UN). (2018). UN e-government knowledgebase. NY: Author.
- United Nations Department of Economic and Social Affairs (UNDESA). (2016). UN E-government survey 2016: E-government in support of sustainable development. New York: United Nations Publications. www.ibimapublishing.com/journals/CIBIMA/cibima
- Wirtz, B., Weyerer, J., Thomas, M., & Möller, A. (2017). E-government implementation: Theoretical aspects and empirical evidence. *Public Organization Review*, 17, 101–120. doi:10.1007/s11115-015-0330-2
- Xiao, L., & Dasgupta, S. (2005). User satisfaction with web portals: An empirical study. In Y. Gao (Ed.), Web systems design and online consumer behavior (pp. 192–204). Hershey, PA: Idea Group Publishing.
- Zayed, M., Alashqar, E., Shoukry, A., & Hassan, H. (2019). Digital insurance: A case study of saudi insurance sector. Arab Journal of Administration, 39(1), 191–211.
- Zhao, F., Naidu, S., & Wallis, J. (2019). An empirical study of e-government adoption in the United Arab Emirates: A social cognitive perspective. *Information Polity*, 24, 91–109. doi:10.3233/IP-180087



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