

An Assessment for Jordan's E-Government Initiative

Projects: A Conceptual Framework

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Abstract

In recent years there has been an increasing focus in many countries on the concept of electronic government. Many countries see it as a central component of efforts to “modernize” or “reinvent” government. In Jordan, there has been discussion around using an E-Government initiative to move government from what is best described as a manual model to a networked model.

The aim of this study is to describe the government of Jordan Initiative toward E-Government and to explain the blue print and roadmaps provided to the government of Jordan. Recent studies indicate that E-Government initiatives have not held their promise of improving government services. This study investigate all the necessary information technology requirements that are vital to build an E-Government in Jordan and assess the status of E-Government initiative achievements in Jordan from many aspects; E-Connectivity and Infrastructure, E-Human Resources, E-payment, E-leadership and Information Technology Industry to determine the problem and challenges that faces this project. A comprehensive questionnaire is designed to help us to put our hands on the existing problems and take it directly from people who directly interact with E-Government. Those people are public, government, and business. Many recommendations resulted as a consequence of this thesis; the expected resulting recommendations eventually will serve various sectors (public, government, and business). Regardless of great challenges, Jordan is certain to move up the ladder towards reaching the developed countries of the digital world.

Keywords: e-government, conceptual framework, e-government initiatives, Jordan e-government

1. Introduction

The Hashemite Kingdom of Jordan, with the strong vision and leadership of His Majesty King Abdullah II that inspired and guided the Jordanian citizens to make faster progress towards becoming an information society. So far the strategies and the complementary actions have been revolutionary, but due to some implementation bottlenecks, all efforts have not paid off and have prevented certain targets from being met. The aim of this chapter is to present the achievements of Jordan with regard to certain conditions in building E-Government since the first initiative, and then identify areas that still remain underdeveloped and require further action to be taken.

2. Background

His Majesty King Abdullah II has selected the ICT sector as having the greatest potential for contributing positively to Jordan's future success and growth. Jordan has achieved progress in ICT with the liberalization of the telecommunications market and information technology.

Here in this chapter we would like to focus on Jordan's E-Government strengths, successes, opportunities and identify potential ICT-related challenges that could serve as obstacles to Jordan's E-Government and economic and social sector development, taking into consideration some successful ICT country.

This chapter underlining the ongoing initiatives in Jordan and proposed actions that would serve as quick solutions and by making further directional recommendations to close the gap between Jordan's current level and the desired state in terms of E-Government. This will help in developing modern ICT policies and consequently strategies that will address issues having an impact on the private and public sectors.

Jordan has moved very firmly and fast in setting the strategies, establishing the necessary institutions and enacting the laws to enable Jordan to move forward rapidly. The pace of the progress in some areas has been far above that of developed countries' and Jordan's regional counterparts. Valuable achievements have been accomplished in connectivity and infrastructure as well as in other aspects of society Information ,*Technology Association-Jordan (2007)*.

The Mobile and ISP (Internet Service Provider) markets in Jordan are highly advanced and moving quickly towards becoming fully competitive for accomplishing future success and growth. His Majesty not only prioritized infrastructural and policy developments, but also recognized the vitality of the fact that these changes need to be implemented at all levels of the society. Therefore, great emphasis has been given to enhancing human resources, the macroeconomic conditions, the business environment and the government itself. Regarding human resources, a great deal has been accomplished so far including the high speed fiber connection of public universities and public schools through the National Broadband Network with more schools scheduled in the near future. Knowledge stations have been established nationwide and training has been provided to more than 70,000 people since 2001 ,*National Information Center, (2012)* Improvements in student teacher ratios and student computer ratios along with better Internet access in schools have been attained to achieve a superior quality of education. The number of people graduating in ICT related fields has substantially increased.

With respect to leadership and vision, it would not be an exaggeration to say that the Jordan is far beyond the other regional countries if not one of the world's best. Substantial advancement with respect to shared services, such as the establishment of the Secured Government Network, has been accomplished. Computer literacy training and technical courses for government employees have been conducted. E-Government has been a highly prioritized area of action and some e-Services have become operational with the E-Government portal due to be launched soon. Although not much progress has been accomplished in this area, the E-Government Program within the Ministry of Information and Communication Technologies has formed a detailed E-Government strategy addressing the current problems and possible solutions and the strategy will be presented soon, *Achievement of Market-Friendly Initiatives and Results Program (AMIR) ,(2010)*

The progress in the IT Industry in Jordan is remarkable as the growth rate in the sector since 2001 is well above world average *Achievement of Market-Friendly Initiatives and Results Program (AMIR)* ,(2010).

The growth of the IT industry is a good signal and is a net result of all of the initiatives that have been put into action. This started with the REACH initiative, further emphasis on developing IT exports will improve the sector competitiveness and strengthen the sector positioning within the Middle East.

As has been indicated as a challenge faced regarding the human resources in Jordan the brain drain is a factor that affects the IT sector as well. The highly qualified human resource in Jordan is being lost to gulf countries and others. Moreover, with its qualified human resources and developed ICT infrastructure and the patent laws and regulations in place, it is believed in Jordan that innovation and Research and Development activities in the academic and private sector are extremely underdeveloped. Rather, the main challenges with respect to the development of Research and Development activities are insufficient funding and lack of organized efforts.

Jordan has thrived in many aspects of its society, although there are still challenges that need to be overcome to complete the transition to an information society. So far Jordan has performed well in establishing of the regulatory framework in the ICT Sector, enhancement of human resources, e-Leadership and the IT Industry.

Nonetheless, further development of the legal and regulatory environment, better coordination and implementation of current initiatives and efforts and resolution of affordability bottlenecks are identified as issues that need to be immediately addressed in Jordan, *Peppers & Rogers Group*,(2006).

3. What has been accomplished?

E-Government in Jordan is dedicated to delivering services to people across society, irrespective of location, economic status, education or ICT ability. With its commitment to a customer-centric approach, E-Government will transform government and contribute to the knowledge Kingdom's economic and social development.

To answer the question "What has been accomplished?" In this section we will focus on five attributes; E-Connectivity and Infrastructure, E-Human Resources, E-payment, E-leadership and IT Industry and Innovation Capacity. A comparison of the sample of 18 countries including Jordan and Singapore and Canada and other successful E-Government stories are presented with respect to these five attributes according to the ranking criteria described below.

Table (1.) Rating scheme

High 5	Indicates that the country is highly advanced in most components of the attribute
High/Medium 4	Indicates that the country is advanced in some components of the attribute
Medium 3	Indicates that the country meets basic requirements of the attribute with potential areas of improvement required
Medium/Low 2	Indicates that the country lacks some basic requirements of the attribute with vital areas of improvement required
Low 1	Indicates that the country lacks numerous basic requirements of the attribute with major needs for improvement

The five ranked attributes of An Assessment have been evaluated according to the rating scheme mentioned in the table above (1). The results for the 18 countries are summarized in the table below (2).

Table (2) Assessment scores for the 18 countries

Attribut Country	E-Connectivity and infrastructure	E-Human Resources	E- payment	e-leadership	IT industry
USA	5	5	5	5	5
UK	5	5	5	5	5
Singapore	5	5	5	5	5
Canada	5	5	5	5	4
Ireland	4	5	5	4	4
Israel	5	5	5	4	5
Czech Republic	4	4	3	3	3
United Arab Emirates	4	3	3	4	2
Turkey	3	3	3	3	3
India	2	3	2	3	4
Mexico	3	2	2	4	2
China	3	2	3	3	2
Jordan	3	3	1	2	3
South Africa	1	1	3	3	3
Egypt	3	2	1	3	1

Kuwait	3	2	2	1	1
Lebanon	1	3	1	1	1
Morocco	2	2	1	2	1

Table(2) illustrates that many countries have Integrated E-Government these include Singapore, where the government of Singapore was an early visionary of One-Stop “portal” E-Government and established a strategic approach to the concept that recognized the importance of an integrated approach to electronic service delivery that sometimes referred to as a single window . It offers multiple services and therefore provides more convenient dealing with government areas for the community, including business sector. The portal offers citizens more than 80 interactive services ranging from ordering birth certificate to registering on the electoral roll. Although Singapore is similarly to Jordan in that it is short on natural resources and long on human talent.

4.The sample

Data of this research have been collected using a questionnaire and observation on E-Government initiative conducted for three different groups, dealing with E-Government: the public sector, E-Government project employee and business people. Here in this section there is a full discussion of the sample.

A questionnaire containing about 50 questions was distributed by the researcher from 11th July 2007 to 10th September 2007; it's also structured as follows:

- Understanding of E-Government initiative.
- E-Government initiative strengths, weaknesses and Limitations.
- The main factors affecting the success of E-Government initiative.
- General information.

4.1 E-Government usage

The respondent of the sample were asked to indicate the extent to which they use E-Government services 79.7 percent indicate that they use this service whereas 17.3 per cent they don't.

4.2 Government services

The respondents who indicated that they use the E-Government services, were asked to determine which E-Government service is the most commonly used. The results are shown in figure (1). The figure shows that:

- 0.7 percent of the respondent used it to Apply for a passport service.
- 17.9 percent used it to obtain drivers and vehicles licensing.
- 23.2 percent used it to search by subject area for public information and services.
- 19.8 percent used it for on job training.
- 14.4 percent used it to communicate with land and survey department.
- 17.2 percent were using it to know more about E-applications.
- 6.7 percent used it to communicate with Ministry of Industry and Trade.

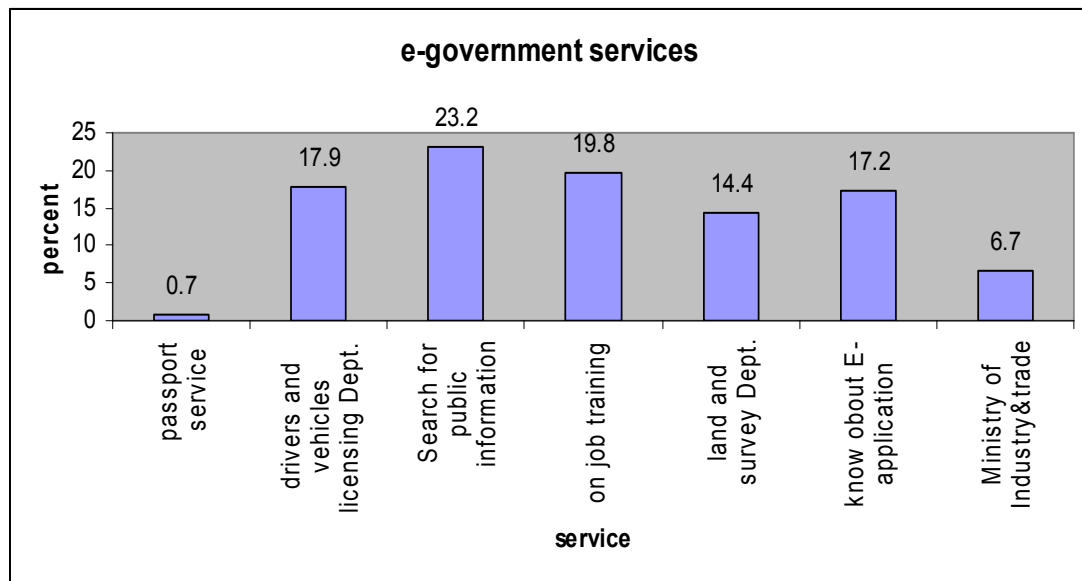


Figure (1) E-Government service.

4.3 The sample descriptive

Table (3) the sample distribution according to gender.

Gender	Frequency	Percent
male	133	65.8
female	68	33.7
Total	202	100.0

From the table above the sample of study contain 133 male with percent 65.8 % and 68 female with percent 33.7%.

Table (4) the sample distribution according to age.

AGE	Frequency	Percent
less than 24	16	7.9
25-29	73	36.1
30-34	54	26.7
35-39	32	15.8
40-49	20	9.9
missing	7	3.5
Total	202	100.0

From the table above the sample of study contain 16 people their age is less than 24 year with percent 7.9% and 73 between 25-29 year with percent 36.1% and 54 person between 30-34 year with percent 26.7% and 32 person between 35-39 year with percent 15.8% and 20 person between 40-49 with percent 9.9%.

Table (5.) the sample distribution according to household income?

Salary	Frequency	Percent
less 150	1	.5
between150-299	31	15.3
between300-449	81	40.1
above 450	84	41.6
missing	5	2.5
Total	202	100.0

From the table above the sample of the study contain 1 person his/her salary is less than 150JD with percent 0.5%, 31 persons their salary between 150 and 299 JD with percent 15.3 %, 81 persons there is between 300 and 449 JD with percent 40.1% and 84 persons their salary is more above 450JD with percent 41.6%.

Table (5) the sample distribution according to education?

Education	Frequency	Percent
Bachlore	114	56.4
Master	44	21.8
Diploma	13	6.4
Ph.D	15	7.4
Missing	16	7.9
Total	202	100.0

From the table above the sample of the study contain 114 person have the bachlore degree with percent 56.4%, 44 persons have the master degree with percent 21.8 %, 13 persons have the diploma degree with percent 6.4.% and 15 persons have the Ph.D degree with percent

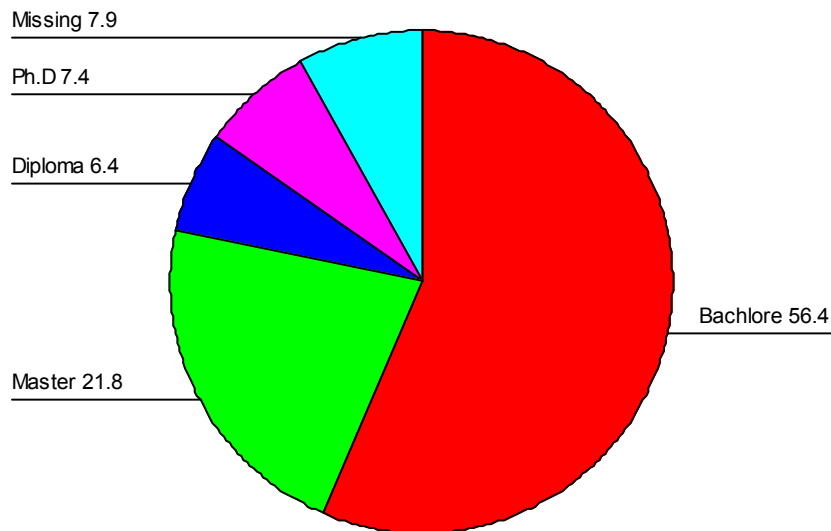


Figure (2) level of education.

5. Understanding of E-Government initiative

5.1 The Hypotheses

H1: The expected benefits from using E-Government did not reach the desired Level.

Variable	Mean	S.D	T.Value	Sig
benefit	3.5734	.43428	18.764	0.000

From the table above the mean of the responses regarding the expected benefits from using E-Government did not reach the desired level equals 3.5734 with S.D equals .43428. To test these hypotheses we use one sample T.test. From the table above the T value equals 18.764 with sig equals 0.000 so we accept the hypotheses.

H2: E-Government initiative participates in saving money, effort and time.

Variable	Mean	S.D	T.Value	Sig
saving	3.9320	.74186	17.811	0.000

From the table above the mean of the responses regarding E-Government initiative participate in save money, effort and time equals 3.9320 with S.D equals .74186. To test these hypotheses we use one sample T.test. From the table above the T value equals 17.811 with sig equals 0.000 so we accept the hypotheses.

H3: The E-Government initiative aims to help in transparency and reducing the Effect of the personal relationships on accomplishing the work.

Variable	Mean	S.D	T.Value	Sig
transparency	3.9502	.82916	16.248	0.000

From the table above the mean of the responses regarding the E-Government initiative aims to help in transparency and reducing the Effect of the personal relationships on accomplishing the work equals 3.9502 with S.D equals .82916. To test these hypotheses we use one sample T.test. From the table above the T value equals 16.248 with sig equals 0.000 so we accept the hypotheses.

H4: The E-Government initiative participates in providing trust.

Variable	Mean	S.D	T.Value	Sig
trust	3.3563	.46243	10.895	0.000

From the table above the mean of the responses regarding The E-Government initiative participate in providing trust equals 3.3563 with S.D equals .46243. To test these hypotheses we use one sample T.test. From the table above the T value equals 10.895 with sig equals 0.000 so we accept the hypotheses.

H5: The E-Government employees have the right qualifications regardless of sex.

Variable	Mean	S.D	T.Value	Sig
Male	3.1624	.36619	-.999	0.319
Female	3.2195	.40209		

From the table above and according to sex there is no difference between male and female the mean of male equals 3.1624 and female equals 3.2195 with S.D equals .36619 for male and with S.D equals .40209 for female. To test these hypotheses we use independent sample test, from the table above the T value equals -0.999 with sig equals 0.319 so we accept the hypotheses.

H6: The following factors influence the success in building E-Government:

- Human Resource
- Leadership

Variable	Mean	S.D	T.Value	Sig
Human resource	3.1206	.87359	15.811	0.000
Leadership	3.9055	.96230	16.021	0.000

From the table above the mean of the responses regarding human resource equals 3.1206 with S.D equals .87359 also the mean of the responses regarding leadership equals 3.9055 with S.D equals .96230. To test these hypotheses we use one sample T.test with T value equals 15.811 and Sig equals 0.000 for human resource and T value equals 16.021 and Sig equals 0.000 for leadership then we accept the hypotheses.

H7: The following factors negatively influence the success in building E-Government:

- Security
- E-payment

Variable	Mean	S.D	T.Value	Sig
Security	3.9158	.92683	14.662	0.000
E-payment	2.6188	.96622	15.238	0.000

From the table above the mean of the responses regarding security equals 3.9158 with S.D equals .92683 also the mean of the responses regarding E-payment equals 2.6188 with S.D equals .96622 to test these hypotheses we use one sample T.test with T value equals 14.662 and Sig equals 0.000 for security and T value equals 15.238 and Sig equals 0.000 for E-payment then we accept the hypotheses.

Conclusions

Jordan is on the road to becoming an E-Government success story. The following results were obtained from evaluating the E-Government initiative:

- Jordanian citizens and employee are very keen on pursuing E-Government, and thus, it could be concluded that an emphasis should be placed on accelerating the adoption of E-Government in Jordan, and therefore, this result should motivate the Jordanian government to strongly speed up the E-Government initiative.
- E-Government helps in saving time, money and effort.
- The internet plays a major role in making life easier for the citizens when obtaining government service.

- There are many important factors helping the E-Government initiative such as human resource and leadership.
- Security and privacy play a major role in encouraging citizens to trust E-Government.
- Jordanian citizens perceived high risk when using the internet and the high cost of the telecommunication through the internet reduces the desire in using the E-Government.
- Risk associated with providing financial transaction on the internet is very high.
- The E-Government initiative met the expectations and requirements in relation to a better government service.
- The E-Government initiative helps in reducing the effect of the personal relationships on accomplishing the work.

- Although competition in the ISP sector is at a satisfactory level with respect to comparable countries, the market is dominated by two players; Wanadoo and Batelco with 43% and 40% market shares respectively. This structure is not expected to change unless the use of the infrastructure is regulated more effectively.

- PC penetration and Internet usage growth rates are slower than desired to catch up with the developed countries.
- The Jordanian community is highly educated.
- Often, the employee within the ministries still lack in communication skills in English language.

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