

Utilizing Mobile Applications In Smart E-Government In Jordan

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Abstract: now days more and more services are provided to citizens through web sites. These services are improving from the beginning of the application submission to get the product right up, to the stage of electronic payment and receipt of the product by delivery companies to homes. Electronic services led to a growing and high satisfaction from citizens about e-government services.

Index Terms: Smart Mobile Phones; Mobile government applications; Citizen; Maturity; Readiness; E-government; M-government; Jordan.

1 INTRODUCTION

IN the past decade, the biggest demand was registered for the use of computers to access the e-government and all the Internet services. The current decade has seen a shift to the use of tools such as mobile phones and tablet to access the Internet and take advantage of e-government services. This shift caused a great demand for the existence of applications to help citizen to access these services, such as checking for violations (car tickets) provided by the Greater Amman Municipality. Therefore, for various reasons, including technology licenses, providing easy access, and frequent spread between levels (such as income, age, culture, education level) and the provision of services through a variety of channels led to a wider spread of the beneficiaries to the citizens. [1]. The provision of services through electronic means such as access to the Internet through personal computers, tablets and smart mobile phones now are going to use applications for mobile phones to enter a new phase of access to the sub-scriber. "The future government is a government that does not sleep and provides 24/7 services, and works 365 days a year. A government is hospitable like hotels, fast in its transactions and strong in its procedures. A creative government responds quickly to changes and innovates solutions to all challenges. The smart government model works to fulfil ambitions and looks forward confidently to satisfying the public." [2]

2 THE CONCEPT OF E-SERVICES

Electronic services are a new form of self-service by the citizen in which interactions with a desktop computer, a tablet, a smart phone or the use of public electronic network devices (Internet) to get the best service at anytime and anywhere aims to facilitate and accelerate the services. [3]

3 CHALLENGES OF E-GOVERNMENT SERVICES AND EFFECTIVENESS

In 2014, the study showed that all United Nations Member States (193) are present in some way on the Internet, compared to eight years ago; the 18 states did not have a presence on the Internet in 2003. [4]

Governments face three key challenges:

- The most comprehensive services and the highest quality with few resources increase the overall potential of the government.
- Public governance have more openness, transparency, accountability and effectiveness.
- Respond to the growing demands for enhanced citizen participation and build more confidence in the government. [4]

4 INFRASTRUCTURE

Countries need infrastructure for ICT development to increase competitiveness, there is need for comprehensive strategy that leads to the creation of innovation and increase business. A suitable environment to enable the community to evolve along with the infrastructure is needed as well. Network readiness for 2014; index between the improvement of the Hashemite Kingdom of Jordan to 3 degrees between years 2013 and 2014. Took the 44th rank globally and the sixth on Arab world, Jordan's arrangement about the general environment (political, regulatory, business and innovation). Ranked 41 globally and six on the Arab world. As for the readiness (infrastructure and digital content, affordability and skills) Jordan ranked 48 globally and the fourth on the Arab World. [5] The need for standards to be applied rises here; different areas should be covered during the shift towards e-government. These areas are usability, information quality, and reliable performance, responsiveness, reassuring the customer and customer service, and tools of social networking service. [6]

5 M-GOVERNMENT

M-government is defined as the use of mobile and wireless communication technology in providing government services [7] Research indicated that M-government refers to "the use of mobile and wireless communication technology within the government administration and in its delivery of services and information to citizens and firms". Mobile applications in "AppStore" and "Google play" contains a number of specialized applications of smart government, most of these applications are free. In addition, the purpose is to assist the public in following-up transactions and benefit from the easily

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provided services and flexible application. [8] The move to run a device on a mobile phone is to get the concept of mobile government's future strategy; Taking care from planners to the future strategies. Planning and rethinking to take advantage of these services and begin to apply them in the public sector. Increase the number of services through these applications to include a larger population number (including citizens in remote areas inaccessible). [8] The Obama administration has ordered all federal agencies to begin work in two applications at least part of the digital government's plan, which called for an "attribution and the twentieth century program to serve the American people." [4] Dubai Government realized that "the Government of smart Dubai outweighs the number of subscribers by mobile phone on the Internet subscribers. Mobile phones making is an important tool to gain access to many services including smart mobile phone applications, Payment gateways, and SMS text messaging gateway". An example of an implementation for payment via smart mobile phones. - mPay in Dubai, a free application available on the Apple store for the users of iPhone, Google Play store Android devices." [9] Transform Dubai into a "Smart City" by linking the emirate's government services and the public using smart devices accessed freely using high-speed wireless internet connections. To use the latest advances in technology to create a model for providing government services that are easily accessible, quick and efficient by using smart devices. Smart City's main aim is to provide better connections and increase cooperation between the emirate and its residents. It promotes the use of government facilities by using the largest possible number of smart applications. [10] The surveys carried out by the Department of Statistics also noted in 2012 Fig.1, the existence of smart phones in 42.4% of households compared with 79.1% of households that have one available an ordinary cell phone. This study as it expected that the figure in Table.1 has doubled. In addition, while the availability of the real information currently is estimated at 80% of households own a smart mobile phone, and 30% of individuals aged 15 years and over have heard about e-government, and 74.5% of them had heard of it through the audio-visual media. [11] As for the lack of ability for users to acquire, smart mobile phones in developing countries. The technology to produce such phones may become available and cheap. The announcement in India about the presence of a smart phone running a low-cost Android system can fetch up to less than 4 \$. Which is very suitable in terms of screen and connection to Internet. Thus, the acquisition opportunities for citizens to own smart mobile phones are possible. Governments should begin now to plan effectively and strategically to activate the mobile applications and increase the number of services available through these applications in various fields.

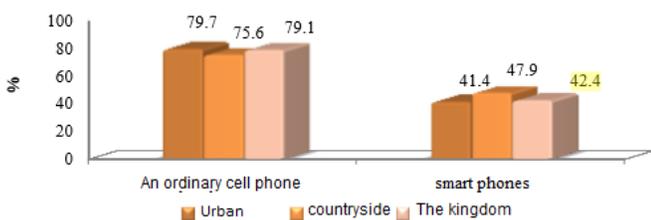


Fig. 1. Department of Statistics also noted in 2012

Government officials in the Hashemite Kingdom of Jordan have estimated the number of actual contributions to serve approximately 14 million subscriptions to mobile network. The figures in Table 1 show the high prevalence of the service to about 145% of the population in Jordan, estimated by the Department of Statistics recently according to the new census by about 9.5 million people. [12]

Table 1: e-readiness in Jordan to apply e-government and m-government [12]

Indicator	2005	2012	2015
Number of landline telephone lines per 100 inhabitants	11.6	6.8	4
Number of mobile telephone lines per 100 inhabitant	57	120	145
Home internet penetration per 100 inhabitant (users)	13.2	50.5	83
Mobile operator and technology	Zain, Orange	Zain Orange Umniah	Zain Orange Umniah Friendi

"Jordan won the award for the best mobile government service application during the World Government Summit. The award for best government service application in the tourism industry across the Arab world conferred upon the Jordan Tourism Board represented by Dr. Arabiyat, today the 10th of February 2016 during the events of the last day of the 4th annual World Government Summit. Delegates attended the event, held in Dubai between the 8th and the 10th of February 2016, from the international government and private sectors. " , "The best government service application aims to incentivize and motivate governmental parties to continue to provide innovative solutions in the field of smart phone applications including making 24-hour government services easy, simple and available. This will in turn reflect positively on the competence, transparency and effective-ness of all governmental agencies.", "The Jordan Tourism Board is currently working on following up this win with new creative and innovative ideas to better accommodate tourists, Jordanian and international tour operators. The mobile application is currently available in English and French for Android and iOS with new languages launching soon. "[13] "A tender was announced by the Ministry of Communications and Information Technology last year to develop applications for mobile phones turning direction to smart mobile phone applications. It included the following themes: 1-collecting business requirements of relevant government institutions (lands and Survey Department, Land Transport Regulatory Commission, the Social Security Corporation, and the Ministry of Justice), 2-analysis design and development 4 applications for the mobile phone operating system (IOS), and the operating system (Android). "[14] [15]

Table 2: Subscribers to telecoms services 2013-2016 [16]

Sector	2013 million	2016 million
Internet users	5.30	5.95
Fixed-line telephony	0.38	0.35
Mobile phone	10.31	14.20

6 MOBILE APPLICATIONS IN JORDAN

Mobile penetration in Jordan is considered to be one of the highest in the region, reaching 64% in 2006 [17], 86% of the Jordanian families are using mobile phones and some users may have more than one line. Comparing this with only 16% of Jordanian families who have Internet in their homes [18], the Internet penetration in Jordan is still behind the de-sired level and needs to be alleviated substantially.

Table 3: Mobile services provided by the Jordanian e-government [19] [20]

Mobile Service	app include e services
Greater Amman Municipality – GAM	vehicle tickets
	real state
	vocational license
	Complain
	Amman Explorer
	GAM press center
	listening to Hawa Amman radio
Ministry of Industry, Trade and Supply	News, make suggestions and inquiries
	Tawasol
	Complaint about the markets
	Access to data on trade names
	Viewing trademark data through the organization or company brand name
Jordan Customs	Customs Tariffs, Mobile CITS
Jordan Knights	Communicate emergencies, report crimes, and police violations directly to the Special Branch.
	The ability to make direct distress calls to the 911 Emergency Center
	identify traffic congested areas
	Download images, and view the latest news.
Jordan Tourism Board	Visit Jordan (short description of the many historic, religious, cultural, natural, adventure, and leisure sites in Jordan, accompanied by incredible pictures, helpful tips and useful maps)
Department of Lands & Survey	Find a piece of land by entering their information
Ministry of Justice	Query for unforeseen claims service (criminal and civil) in the courts and the right of registered trader
Social Security Corporation	Basic data
Royal Jordanian	Managing your Royal Jordanian flight
Jordan Water Company	Query Value water bill
	Inquire about the company's offices with roadmap
	Inquire about the roles of water distribution by region
	Follow-up transactions submitted to the company
	Register a complaint

Zain Jordan and Ministry of Information and Communications Technology and Palma sign MoU to achieve e-transformation of Governmental Transactions. Zain's contribution throughout the program constitutes of leveraging its communication and media channels in addition to engagement with Zain subscribers' base and placing those at the disposal of the Government of Jordan. In a program that aims to listening to the voices of Jordanians to identify the priorities of their needs. Palma as a management-consulting firm will support mapping the priorities of users against the readiness level of different governmental entities. The next step of the program is the M-government accelerator, where series of hackathons and competitions will take place at Zain Innovation Campus to

work with startups, developer communities of Jordan, and well established ICT companies to compete against building the best government public service smart phone applications.[21]

7 CONCLUSION

Although In all the local Past experiences in Jordan or that have implemented and applied in the United Arab Emirates, the government institutions and services can be affordable and based on successful experiences in government institutions transfer and programmed to run on smart devices. The use of applications in smart devices helps to reach people in remote areas with the capital services. Thus reduces the transportation costs to the capital in order complete government transactions and helps protect the environment from pollution. Although the global trend is toward more use of mobile devices from smartphones and Tablets. Ease of use, speed of access to applications and licenses and cost reasons not necessarily claim a provider of government services move to use applications for the citizen the right of access government services, which should be ready to meet the requests of

1. Quality,
2. Efficiency and
3. Effectiveness.

FUTURE WORK & RECOMMENDATIONS

To do a study to inventory existing applications in government institutions, which provide services to the citizens.

- Action plan for the transfer of all government services that launched recently and the 100 complete services from the beginning to the receipt of the product to work through smart applications.
- Take advantage of the current outstanding expertise in the Tourism Promotion Authority and the Greater Amman Municipality and circulated to the rest of the service institutions.
- Promote the current government services to increase the dependability and reliability, by increasing the spread between the citizens.
- Adopt the government to examine security applications such as the National Information Technology Center.

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