RESEARCH ARTICLE   OPEN ACCESS

Mobile Government: Kuwait Ascase Study

Mariam Almie
Information Studies Department, Basic Education Collage,PAAET

ABSTRACT
The advances in Information and Communication Technology (ICT) have a great impact on our lifestyle. The improvement of tablet PC's, mobile phones, PDAs and the smart phone connected people any time anywhere.
The private sector noticed the importance of mobile technology and they use it in their service. All services provided on-line are now available to people through mobile. As people enjoy using the private sector mobile services, they expected the same level of servicesfrom their government.
While the government applying e-government (e-gov), the mobile technology arises as powerful connectivity tool. Anew horizon has been explored and mobile government (m-gov) becomes vital.
The purpose of this research was to indicate the feasibility of m-gov in Kuwait. Literature reviews , questionnaires and unstructured interviews has been used in this study. The population of this study consist of random selected IT users, employees and managers. Based on the results, there is a necessity to provide m-gov services whenever applicable.
Categories and Subject Descriptors
J.1 [**Computer Applications**]: Administrative data processing – Government.
General Terms:Management, Measurement, Documentation.
Keywords:mobile government, m-gov, Kuwait.

I.   INTRODUCTION

Mobile technology is adding the reality of any time anywhere services. The cellular subscribers increased by 83 times in the last 12 years. While increase in the world internet users was a whopping 15 times (United Nations [UN], 2008).According to UN (2010) there are presently 4 billion to 5 billion mobile phones in the world . Using this fact, the m-gov is not a replacement of e-gov, instead it is complementary to it. M-gov can be thought as another delivery channel for e-gov services. Thus m-gov will not delete or cancel the e-gov services but it will enhance them.

M-gov refers to a strategy and its implementation involving the utilization of all kinds of wireless, mobile technologies, services, applications and devices for improving benefits to the parties involved in e-gov. The parties include citizens, businesses and all government units(Kushchu& Kuscu, 2003; Kushchu, 2007; Song & Cornford, 2005).

Due to the uniqueness of user per mobile, the m-gov services have   better precision and personalization. Also m-gov services are more convenient   accessibility   and   availability. Furthermore , the application wake up the device if it is switch off, which providing instant help in emergencies. In addition m-gov have a wider and larger user base including people with no computer experience . M-gov increase service acceptance,

since it reach people through a more personal familiar and friendly device. In addition m-gov allows various government services to be globalized. M-gov will support economic development, especially for rural areas of developing countries. M-gov will increase efficiency,   effectiveness, and reduce cost of services. According to UN (2010) mobile technology will become an affordable tool to fill in the digital gap between developed and developing countries. Finally m-gov will promote democracy, participation, and transparency(Kushchu & Brouki, 2004; Kushchu & Kuscu, 2003; Kushchu, 2007; Betty & Kushchu, 2004).

A perspective matrix developed by IBM shown in table1(Chang & Kannan, 2002).This matrix is used as an approach to evaluate mobile applications in government(Goldstuck, 2003). Allowing citizen, employee, and government to communicate and collaborate with systems through mobile devices in a trusted environment .

Table 1. **A Prescriptive Matrix for Wireless Adoption**

		Degree of Sophistication of Technology	
		High	**Low**
Technology Readiness of Target Segment	**High**	**Stars** High-impact projects Mission-critical applications of high strategic advantage should be undertaken; high-level commitment needed for success	**Low-Hanging Fruit** Go for immediate wireless deployment High probability of successful adoption
	Low	**Future Potentials** Wait and see Applications more complex; go forward with pilots; educate/train employees; wait for mature technology	**Near Harvests** Educate/train target segment Wireless deployment with extensive training; significant chance of success.

There are various challenges facing m-gov such as developing wireless, mobile networks, and related infrastructure. This including variety of platforms, standards and protocols. Further interoperability and roaming challenges. Inaddition communication, content, payment, location, and revenue sharing should be considered. There is devices and mobile communication limitations. M-gov is facing the service delivery challenge to ensure it is concise, to-the-point, and location based. The most concerned challenge on m-gov is protecting privacy, and providing security for the data and interactions. The last challenge is regulating and developing legal aspects of mobile applications and use of the services.(Kushchu & Kuscu, 2003; Kushchu, 2007; Moon, 2004;Goldstuck, 2003).

II. STATE OF KUWAIT TOWARD MOBILITY:

The State of Kuwait is one of the Western Asian countries with ahigh income according to the World Bank classifications of countries with 1.58 million populations. In order to follow up with the globe and transfer Kuwait into digital society. There is endless list of actions that are and will be taken by the State of Kuwait to promote e-services to its citizens in a consistent and more efficient manner.

There were many actions that have been taken by the Kuwait government to accelerate the reach of the country's e-government vision. One of these was to sign an agreement between the government of Kuwait and Microsoft on 25 April 2007 .Under this strategic partnership agreement , Microsoft will provide direct consult , resources and direct assistance in many essential areas. These areas include national capacity, education and technology. Another action to reach the e-gov vision, Kuwait's Health Ministry has completed implementing electronic systems. Some of these electronic systems include health care, insurance, births and deaths registration. The Ministry of Health has clear health plans that are applied on a strategic basis to be serially implemented. In addition, the state's Ministry of Communication (MOC) has replaced the copper network telephone exchange lines by a gigabit passive optical fibre infrastructure network. This network has enabled the delivery of high internet speed, voice, voice and multimedia over IP, and IPTV (including high definition TV, video on demand, and home entertainment).

Although many national e-gov conferences have been held directed to both governmental authorities and private sector. The real accomplishments were made individually by government authorities. Ministry of Interior, Public Authority of Civil Information and many others. Which have made an important shift from ordinary paper work flow to a high level of e-gov services and putting the citizen online instead of in lines.

According to the Kuwait official web site of the Central Agency for Information Technology, the Council of Ministers have issued a Decree number 759 during 2000 which established the National Higher Committee. This committee is responsible for the supervision of implementing the e-gov project in the State of Kuwait. With the participation of members from the Ministerial Committees, Minister of Planning & Administration Development and a number of specialists. As a result of this , Kuwait e-gov has improved significantly moving up 18 positions in the UN- e-government survey 2010, as table (2) shows (UN, 2010).

Table 2.E-government development in Western Asia

Country	E-government development index value		World e-government development ranking	
	2010	**2008**	**2010**	**2008**
Bahrain	0.7363	0.5723	13	42
Israel	0.6552	0.7393	26	17
Cyprus	0.5705	0.6019	42	35
United Arab Emirates	0.5349	0.6301	49	32
Kuwait	0.5290	0.5202	50	57
Jordan	0.5278	0.5480	51	50
Saudi Arabia	0.5142	0.4935	58	70
Qatar	0.4928	0.5314	62	53
Turkey	0.4780	0.4834	69	76
Oman	0.4576	0.4691	82	84
Azerbaijan	0.4571	0.4609	83	89
Lebanon	0.4388	0.4840	93	74
Georgia	0.4248	0.4598	100	90
Armenia	0.4025	0.4182	110	103
Syrian Arab Republic	0.3103	0.3614	133	119
Iraq	0.2996	0.2690	136	151
Yemen	0.2154	0.2142	164	164
Sub-regional average	0.4732	0.4857		
World average	0.4406	0.4514		

Where in this UN (2008) survey State of Kuwait get the position 75 in the e-government readiness index. According to UN(2008) the Ministry of Social Welfare of Kuwait is another excellent example of a progressive website (http://www.mosal.gov.kw). The site offers e-mail notification to citizens' requests, allows online submission of forms and payment, and allows the creation of personal accounts online.

Although Kuwait 2010 e-government development index value increased to 0.5290, which was 0.5202 in 2008 ,and its rank changed from 57 to 50. Due to the economic crisis Kuwait dropped to lower positions (UN, 2010)

1.1 Mobile government in Kuwait

The purposes of conducting this research are to evaluate the impact of mobility on government services, to determine feasibility of mobile services and to set recommendations. Two questionnaires were designed , implemented with open and closed questions , and distributed on a selected random sample of IT users, employees, and IT managers. Additional unstructured personal interviews with selected random mangers from IT centers.

The survey started with a series of demographic questions concerning age, gender, and educational level. Next the participants were asked to answer scaled questions with Likert Scaling parameters. The participants were finally asked if they have any further suggestion . In order to collect any additional information from the participants. The collected data was analyzed using Statistical Package for Social Science (SPSS), and appropriate statistical procedure were adopted. The author selects 8 factors out of 18 m-government success factors mentioned in (Al-khamayseh, Lawrence and Zmijewska ; 2007).

1.2 Demographic Data

Thestatistics depicted in Figure 1 show 38% female participates to 62% male respondents. Figure 2 shows the educational level of the participates and it is noted that the largest sample come from holders of bachelor degree.
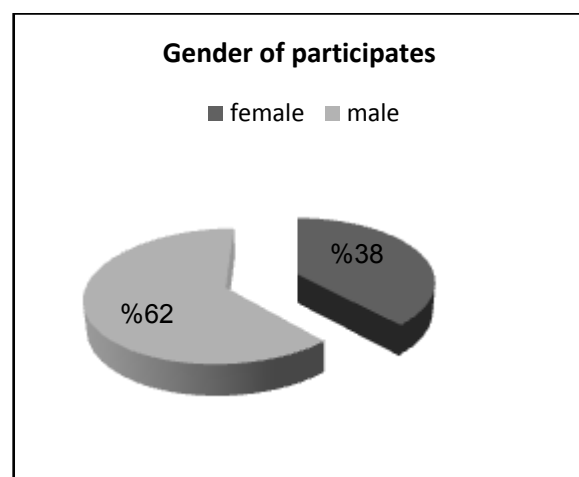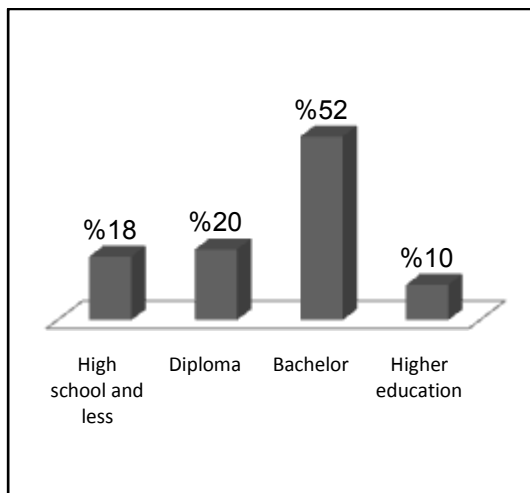

Figure 1. Gender of participates

Figure 2. Educational level of participates

The survey results found that 46% of respondents were in the 20-29 age range, 34% were in the 29-30, 10% 40-49, and 10% 50 years old and over (Figure 3).
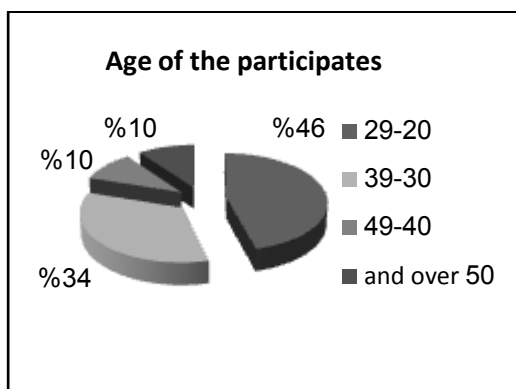

Figure 3. Age of the participates

III. RESULTS

As a result of an extensive review of journal articles, web sites, conference papers and book, the (Al-khamayseh & Lawrence, 2006; Al-khamayseh , Lawrence & Zmijewska, 2007) identified interactive m-gov success factors. The author selects 8 factors out of the 18 m-gov success factors .Two questionnaires were established one for IT users andemployees, other for IT managers. The questions of IT users and employees included in IT managers questions. The result of this questionnaires are shown in table 3 .

Table 3. responses percentages

M-gov success factors	% Frequency	
	IT users& employees	IT mangers
Privacy and Security	92	97.9
User needs and preferences	92	84
Quality applications	74	76
user friendly applications	90	88
Acceptance	86	88
Cost	42	46
High mobile penetration	96	96
IT literacy	90	89.8
Strategy	69.4	69.4

People are concerned with quality, security and privacy . Mobile services are widely accepted because they meet the user needs preference , and user friendly. In Kuwait there are three mobile private companies ZAIN, MTC and the new one VIVA.Due to competition between these companies the cost of the m-services is reduced. In some cases the services are free because governmental support offered, such as in high school results . In addition to these factors the IT managers have been asked 5 more questions:

- Does state of Kuwait facilitate the mobile services through infrastructure management ?,90% of IT managers agreed.
- Is e-gov services is the base for m-gov services?,76% agreed.
- 73.5 of IT mangers agreed on m-gov portal and exclusive gate way.
- 79.6% of them agreed on partnership with private sector is success factor since State of Kuwait is encouraging their participating .
- 65.3% agreed on the importance of legal issues about liberalization of telecommunication sector.

Due to the privacy and security issue IT mangers were unable to co-operate, whereas users and employees were very co-operative.
Regarding any other suggestion ?, the participants suggested a regular improvement on the wireless technology usage . Others suggested to add more m-services. One interesting recommendation was to educate children about the side effects using

mobile for long time. This is insuring the fact that even children are familiar with the mobile. In addition one suggested to put services that fits different ages.

IV. CONCLUSION

This research has lead to more investigations to mobile technology application available to mobile government. Due to the reduction of costs for both users and service providers, the mobile government will increase the service convenience and efficiency.

Mobile became a regular life day activity in all over the world including Kuwait.The State of Kuwait is one of the promising countries in providing m-gov services. People are looking forward to having more easy , efficient and convenient m-gov services.

Legal issues regarding mobility, telecommunication and many other factors should be discussed and explored in future papers .

ACKNOWLEDGMENTS

REFERENCES

[1]. Al-khamayseh, S. , Lawrence, E.& Zmijewska, A. (2007). Towards Understanding Success Factorsin Interactive Mobile Government,University of Technology, Australia.
[2]. Chang, A., & Kannan, P. (2002). Preparing for Wireless and MobileTechnologies in Government.IBM cooperation: E-government series.
[3]. Davy, A., Mahon, F., Doolin, K., Jennings, B., & Foghlú, M. (2005). Secure mobile services infrastructures for m-Government: Personalized, context-aware composition of pervasive mobile services, EURO mGOV 2005, Brighton, UK, pp. 98-109.
[4]. Goldstuck, A. (2003). Government Unplugged - Mobile and wireless technologies in the public sector, Centre of Public Service Innovation, Tshwane, South Africa.
[5]. Gouscos, D., Drossos, D.,& Marias, G. (2005). A proposed architecture for mobile government transactions, EURO mGOV 2005, Brighton, UK, pp. 221-233.
[6]. Kushchu, I., & Kuscu, H. (2003). From E-government to M-government: Facing the Inevitable, Proceeding of the 4th European Conference on E-Government (ECEG 2003), Trinity College, Dublin.
[7]. Kushchu, I., & Brouki, C. (2004). Impact of mobile technologies on government, proceeding of the 4th European Conference on E-Government (ECEG 2004), Trinity College, Dublin.
[8]. Kushchu, I. (2007).Mobile government: An emerging direction in e-Government. New York: IGI Publishing.
[9]. Moon, M. (2004). From e-Government to m-Government? Emerging practices in the use of mobile technology by state governments. IBM cooperation: E-government series.
[10]. Song, G., & Cornford, T. (2005). Towards a Service Paradigm: Transcending E-government, China.
[11]. Yu, B., & Kushchu, I. (2004). The Value of Mobility for e- Government , Proceeding of the 4th European Conference on E-Government (ECEG 2004), Trinity College, Dublin.
[12]. United Nations. (2008). UN e-government survey 2008: From E-Government to connected governance: Author.
[13]. United Nations. (2010). United NationsE-GovernmentSurvey 2010Leveraging e-governmentat a time of financialand economic crisis: Author.