E-government in selected Arab Countries: Analysis & Challenges

Hoda A. Abdelhafez[1], Abeer A. Amer[2]

[1]Faculty of Computers & Informatics, Suez Canal University, Ismailia – Egypt
[2]Sadat Academy for management and Sciences, Alexandria – Egypt
hodaabdelhafez@gmail.com, abamer_2000@yahoo.com

Abstract

The spread of information and communication technology ("ICT") brings hope to governments to use technology to improve their services. The aim of this paper is to demonstrate the experiences and challenges of applying e-government in selected Arab countries through analysis their e-government readiness and portals. The selected countries are United Arab Emirates, Kuwait, Saudi Arabia and Egypt. This paper covers the following topics: The information and communication technology (ICT), e-government portal in the selected countries, analysis and analysis e-government readiness and e-participation as well as the challenges and lessons learnt from these case studies.

Keywords: *e-government; Information Technology; UAE, Kuwait; Saudi Arabia; Egypt; e-participation; e- readiness*

1. Introduction

E-government can also be defined broadly as the use of all information and communication technologies, to facilitate the daily administration of government, exclusively as an internet-driven activity that improves citizen's access to government information services, and enterprise to ensure citizen's participation in, and satisfaction with government process (UN and ASPA, 2001). Another definition by World Bank is "e-government refers to the use by government agencies of information technologies that have the ability to transform relations with citizens, businesses, and other arms of government" (World Bank, 2011). E-government in the developing countries must accommodate certain unique conditions, needs and obstacles. These may include lack of infrastructure, corruption, weak educational systems and unequal access to technology; the lack of resources and technology is compounded by a lack of access to expertise and information (Pacific Council, 2002).

E-government not only provides benefits such as inexpensive and reliable services to citizen and business but also offers the potential to reshape the public sector, and remark the relationships between citizen, business, and the government by allowing for open-communication, participation and public dialogs in formulating national regulations (Tan and Subramanian, 2005; Ke and Wei, 2004).

E-government can improve the performance of the government in the following areas. (1) Delivery of services to citizens: Services can be made convenient, and easy to access, (2) Delays can be reduced. The rules governing service can be made transparent, and consistent across different branches of the same department, Many departments have been able to reduce corruption through e-government, (3) Increased Efficiency of Departments/ Government

Enterprises: E-government may lead to lower cost of operations with the resulting higher productivity, and (4) Delivery of Services to Business and Industry: Business and industry are concerned with the cost of setting up a business. A significant component of this cost is the administrative permissions and license that must be obtained to establish and operate a business. Electronic delivery can lead to quick turnaround of license applications and lead to an overall reduction in costs (Bhatmagar S., 2002).

The selected countries are United Arab Emirates (UAE), Saudi Arabia, Kuwait and Egypt. The reasons for selecting these countries are (1) illustrating the impact of implementing e-government among different density population, (2) the interlinkage between e-government and human development [education, health, and income], and (3) strong relation between e-government and income per capita. These four Arab countries implement successful e-government projects according to the literature review (Al-Zuabi and Mahmud, 2011). The human development is very high in UAE, high in Kuwait and Saudi Arabia and Medium in Egypt which represents the disparities in access to, and use of ICTs (Malik, 2013). Moreover, the availability of resources is critical factor for e-government initiatives, which represent e-readiness in these Arab countries (UN report, 2005).

2. The Information and Communication Technology

Information and communication technology (ICT) infrastructure plays an important role in a success of e-government in any country; therefore we will discuss in this section the ICT in Kuwait and Egypt.

United Arab Emirates, Saudi Arabia and Kuwait are three members of Gulf Cooperation Council (GCC) in middle eastern. The United Arab Emirates (UAE) is a federation of seven emirates; its population was 8.75 million people in 2012. The UAE has a strong economy supported by an ideal investment climate and modern investment policies, based on global variables (Moabi et al., 2013a)**.** The Saudi Arabia is the world's largest oil producer and has the largest oil Reserves in the world. It has large population (29.2 million in 2012) and a strong economic performance. Its real GDP growth depends on higher oil production and a dynamic non-oil economy (Moabi et al., 2013b)**.** Kuwait is a small and oil-rich country in Gulf. It is the second wealthiest country in the GCC because of its substantial oil resources. Its population is 3.82 million in 2012 but 32% of the population is Kuwaiti nationals (Moabi et al., 2013c).

On the other hand, Egypt is one of the world's oldest nations located in the North Africa region and it is part of the Arab world. The population in Egypt is 83 million which is very large comparing with population other GCC countries (Golia, 2013). United Arab Emirates, Saudi Arabia, Kuwait and Egypt had a well-established telephone network covering the whole country; cellular phone services and Internet access are also available in most centers as shown below.

A. United Arab Emirates (UAE)

The government spending and the investment in cloud computing and business analytics support the IT market in UAE. IT spending is expected to increase from US$3.9 billion in

2012 to US$4.7 billion in 2013. The growth of PC market increases the total hardware sales from US$ 2.2 billion in 2012 to US$ 2.4 billion in 2013. United Arab Emirates is one of the region's fastest enterprise resource planning (ERP) markets, therefore its software spending is estimated to reach US$ 843 million in 2013 with increasing 10% compared to the previous year (Business Monitor International-UAE, 2013a). UAE is the third highest rate of internet users in the Middle East. UAE has 5.859 million Internet users, which represent the internet penetration rate at 70.9% of the UAE population. The UAE has one of the highest mobile penetration rates in the world, which is 166.9% at the end of 2012 and the total number of mobile subscribers reached 13.775 million. The UAE has two operators investing in the development of their network infrastructure, using 4G LTE network (Business Monitor International-UAE, 2013b; TRA, 2012).

TABLE 1: ICT in UAE

Computer Hardware Sales	US$ 2.4 billion (2013)
Software Sales	US$ 843 million (2013)
IT Services Sales	US$ 1.4 billion (2013)
Telephones – main lines in use:	1.967 million (2012)
Mobile phones:	13.775 million (2012)
Internet country code:	.ae
Internet hosts:	337,804 (2012)
Internet users:	5.859 million (2012)

B. ICT in Kuwait

Kuwait is the third largest computer market in the Gulf region and the total size of the domestic IT spending is expected to increase from US$ 917 million in 2012 to around US$ 978 million in 2013. Although Kuwait is a small country, it is one of the faster-growing IT markets in the region, because of technology literate and wealthy population. The overall hardware sales were US$ 401 million in 2013 as shown in table 2, up from US$ 393 million the previous year, making Kuwait the third largest market in the region after Saudi Arabia and the UAE. Moreover the total spending on software in 2013 is estimated to have reached US$ 268 million, up from US$ 253 million the previous year (Business Monitor International-Kuwait, 2013). Kuwait is one of the most advanced technological markets in the Gulf, with most homes now covered by DSL or wireless internet access. The number of internet users in Kuwait is 1.963 million as of June, 2012, which represents 74.2% of the population. The three Kuwait's mobile operators take advantage of their 4G concessions to offer services for new 4G-enabled devices such as the Apple iPhone 5. The mobile market in Kuwait reached 4.962 million in 2011 compared to 5.526 million in 2012 (Business Monitor International-Kuwait, 2012; Internet World Stats, 2013)

TABLE 2: ICT in KUWAIT

Computer Hardware Sales	US$ 401 million (2013)
Software Sales	US$ 268 million (2013)
IT Services Sales	US$ 309 million (2013)
Telephones – main lines in use:	510,000 (2012)
Mobile phones:	5.526 million (2012)
Internet country code:	.kw
Internet hosts:	2,771 (2012)
Internet users:	1.963 million (2012)

C. ICT in Saudi Arabia

Saudi Arabia has the biggest IT market in the Gulf region. The government invests to upgrade its IT infrastructure in different sectors and also the growing population increases the IT market. The IT spending is expected to reach US$ 4.2 billion in 2013, up 3% in US dollar terms compared to the previous year. The computer hardware spending is expected to increase from US$ 2.1 billion in 2012 to US$ 2.2 billion in 2013. Software sales are expected to increase 5% in 2013 compared to the previous year because of the growth of software-as-a-service business models. The growth in IT services investment is also increased because of the spending on ICT infrastructure (Business Monitor International-SA, 2013). The number of internet users was 15.8 million at the end of year 2012 and the demand of internet services is expected to growth significantly in the next few years due to the availability of fiber-optic networks (FTTx) at very high speeds. The number of fixed telephone lines was 4.8 million by the end of 2012 because of rapid spread of mobile telecom services, the decrease in prices and ease of subscription (Communications & IT Commission, 2013; CIA World Factbook, 2013a).

TABLE 3: ICT in Saudi Arabia

Computer Hardware Sales	US$ 2.2 billion (2013)
Software Sales	US$ 807 million (2012)
IT Services Sales	US$ 1.3 billion (2012)
Telephones – main lines in use:	4.8 million (2012)
Mobile phones:	53 million (2012)
Internet country code:	.sa
Internet hosts:	145,941 (2012)
Internet users:	15.8 million (2009)

D. ICT in Egypt

The growth of IT spending in government, telecoms and financial sectors in Egypt, IT market size is expected to increase from US$ 1.7 billion in 2012 to around US$ 1.9 billion in 2013. In 2013 Egypt spent US$ 1.1 billion of its IT budget on hardware for initiatives like the "Computer for Every Student" and "PC for Every Home" projects. Spending is expected to increase above 20% by 2017. Desktops still represent over 95% of the PC market and, although a government laptop initiative aimed at business executives; desktops are likely to remain the mainstay of the market. Overall spending on software is expected to increase from

US$ 236 million in 2012 to US$ 277 million in 2013 (see table 4) because software investments are so important for SMEs (Business Monitor International-Egypt, 2012; Business Monitor International-Egypt, 2013). The ministry of ICT provides 3G licenses to three mobile telecoms service providers that are expected to provide 98% of users by 2015. The penetration rate is increased in both mobile use and internet use. The number of mobile phone users reached 96.8 million users at the end of 2012 and also the annual growth rates of the mobile subscriptions are high. The internet usage has grown from 20.136 million in 2009 to 32.62 million in 2012. More than one household sharing fixed internet lines might reduce the potential benefits of broadband access (OECD, 2013; MCIT, 2013; CIA World Factbook, 2013b).

TABLE 4: ICT in EGYPT

Computer Hardware Sales	US$ 1.1 billion (2013)
Software Sales	US$ 277 million (2013)
IT Services sales	US$ 415 million (2012)
Telephones – main lines in use:	8.557 million (2012)
Mobile phones:	96.8 million (2012)
Internet country code:	.eg
Internet hosts:	200,430 (2012)
Internet users:	32.62 million (2012)

3. E-Government Portal in the Selected Case Studies

A. E-Government in UAE

Transformation towards a knowledge-based economy was the vision of the UAE through developing eGovernment. In 2001, it is started some of its eServices such as eDirham initiated by the Ministry of Finance to replace the traditional way of paying and collecting fees for government services. In 2002, the Ministry of Finance formed a coordinating committee for eGovernment Programme in the UAE. In 2003 an agreement signed between IBM Middle East and the UAE Ministry of Finance. IBM assisted the Ministry of Finance with the implementation of the first phase of the country's federal e-government project. IBM was responsible for evaluating the e-government readiness of various ministries covering people, process and technology, as well as studying the functions of these ministries and develop an executive plan. The UAE federal eGovernment strategy depended on a framework consisting of three dimensions, the environment, the readiness and the usage. The Environment Dimension covers factors that affect the growth of ICT sector in the UAE. The Readiness Dimension measures the ability of federal government agencies to use ICT outputs and their ability to transform towards eGovernment. The Usage Dimension concerns with the federal agencies to provide their services to the various customers through electronic channels. In March 2005, the Ministry of Finance launched a pilot of the eGovernment Portal.

In 2008, the Telecommunications Regulatory Authority (TRA) passed a resolution to develop a strategy for information systems in the federal government (AlKhouri, 2012; UAE-eGov, 2014).

eGovernment in the UAE has been launched in six official portals for six emirates: Abu Dhabi, Dubai, Sharjah, Ras Al Khaimah, Ajman and Fujairah. The portals offer many transactional and interactive services such as bill payments, license renewals etc. Moreover, Abu Dhabi and Dubai government portals provide information and advice to residents, businesses and visitors such as how to apply for health care, how to apply for visa or how to obtain drivers' license. The local portals are also active on social media such as Facebook and Twitter; providing the public with easy access to government entities. According to eTransformation strategy in UAE, the number of Emirates eGovernment services on offer will increase from 500 to 1,000 by the first half of 2013. These e-services will enhance the effectiveness and efficiency of governmental work in the UAE Federal. The new e-services website also access to social networking sites and is available on iPhone, BlackBerry and Android smart phones (Bitar, 2012; Enzer, 2011). UAE provides one-stop-shop portal with information services and participation services integrated on one site as shown in figure 1. The portal provides e-payment by credit card, the submission of online forms, time frame for responding to e-mail as well as electronic signature (UN report, 2012; UN report, 2008).

Figure 1: E-government in the UAE

B. E-Government in Kuwait

Initially, the state of Kuwait established a National Higher Committee to assess the e-readiness and management of ICT and in 2000 this committee became responsible for the supervision of implementing the E-Government Project and approving all matters related to the implementation of the Project such as setting general policies, planning E-Government Strategies, and removing all obstacles during the implementation phase of the E-Government Project. . Under the direction of this Committee, a Central Technical Body (CTB) was

established to coordinate the work of the National Higher Committee and government sectors. The CTB prepared the technical specifications document for the project and the general framework for the work program. It created the electronic site as a gate for the government works in the State of Kuwait, and an entrance to all the government sites in the country. Furthermore it prepared a comprehensive poll containing the inquiries on the technical specifications of mainframes, servers, LANs, databases, development tools, applied systems and others (Kuwait e-government, 2003). In 2004, e-government partnership was signed between Kuwait and Singapore named a Memorandum of Understanding (MOU) to facilitate cooperation in e-government. Singapore provided support to Kuwait in the establishment of Central Agency for Information Technology (CAIT) and the development of an e-government blueprint for Kuwait. The second MOU signed in 2005 for supporting in two e-government projects—the Kuwait Information Network and the Kuwait Government Online (Kok, 2008).

The official site (portal) for Kuwait's e-government provides governmental information and services to all citizens, residents, and visitors in addition to the governmental and business sectors in the state of Kuwait. E-government portal is divided into three main sectors as shown in figure 2. First, citizens & residents use many services such as traffic offenses for individuals and transfer of residence; Second, Business sector uses other services such as request a license declarations and tenders & awards; and third, online services for visitors like information about the climate in Kuwait and Hotels & resort. Also, the portal provides its visitors with the opportunity to learn about laws and regulations regarding the State of Kuwait. You can find in the portal general information about Kuwait news agency (KUNA), newspapers, weather, sea status, specific GCC sites and Kuwait government directory. Moreover, the portal provides ePayment system (Tasdeed) to facilitate the electronic payment of governmental invoices and fees at any time in a fast and secure way (CAIT, 2014).

Figure 2 E-government in the state of Kuwait

C. E-Government in Egypt

Since 2001, Egyptian government has developed an e-government infrastructure to revolutionize services for citizens and businesses. The government wanted a bilingual Arabic-English portal accessible to citizens, foreigners, businesses, and investors. Its purpose is to enable all stakeholders to browse the government's recent announcements, search for information related to particular government services, and access online services to submit requests and transactions electronically, all at a single 'one stop shop' (Microsoft case study, 2007). In 2004, The Egyptian Ministry of State for Administrative Development (MSAD) initiated the development plan of E-government Programs. This plan covers for approximately 54% of government services to be available by telephone and Internet services by the close of year 2007. Both Ministry of State for Administrative Development (MSAD) and Ministry of Communications and Information Technology (MCIT), is responsible for leading the country's E-government program to have most services for citizens and businesses online. The commercial partners assisting in the implementation of these efforts include Oracle and Microsoft (UN- ESCWA, 2005; Microsoft customer solution case study, 2004).

The e-Government solution using Microsoft technology was officially launched in January 2004 by the Egyptian Prime Minister and Microsoft Chairman Bill Gates. It is based on three different tiers. The front-end user interface is the upper tier. This is the Portal (www.egypt.gov.eg), which has a bilingual Arabic-English interface and acts as the entry point for all government-related services. The middle tier is the Portal Gateway, which was developed by LINKdotNET. It acts as a bridge between the upper tier and the lower tier. The Gateway is responsible for central authentication, registration, and service routing. It uses Extended Mark-up Language (XML), Single Object Access Protocol (SOAP), and Web services to integrate seamlessly with any ministry's back end to deliver cross-platform application integration. The last tier involves the development and integration of multiple government-to-business online services at several ministries (Microsoft, 2004). Another part of e-government initiative, is the partnership between Oracle and MCIT/MSAD/MOF to link up to 5000 financial units throughout the country. MCIT selected the Oracle Database, Oracle Application Server, and Oracle Internet Developer Suite as the backbone of its government resource planning (GRP) system. The software's inherent business intelligence capabilities enable ministries in Egypt to create data warehouses and perform data mining functions. The Oracle Database provides continuous data availability in order to deal with the critical nature of the information that being shared between ministries (McBride, 2005).

Figure 3: E-government in the Egypt

The e-government portal in figure 3 offers content in both Arabic and English to provide services for individuals, businesses, and foreigners. The website provides e-payment facility and the availability to download the necessary documents for accomplishing government services. The services provided by the e-government include digital assets repository, land transportation services, traffic attorney and vehicle licenses services, as well as online services for businesses such as qualified Industrial zone services and environmental services. Moreover the e-government offers online services to foreigners such as Egypt airline ticketing services and cultural services (UN- ESCWA, 2011).

D. E-Government in Saudi Arabia

The e-government initiatives in Saudi Arabia started in 2001 as a part of overall country information technology plans in order to help speed up the operations of public sector (Al-Ahmary, 2010). In 2003 the Saudi government created the e-government program named Yesser to achieve sustained growth and develop all aspects of e-government, although the Saudi e-government program did not actually start until 2005. The main objectives of this program are: enhancing the productivity and efficiency of the public sector; providing better and efficient services to citizens and business in a timely manner and enhancing the integrity and readily access of government data. . The Yesser program includes 150 main services and more than 1,000 subsidiary services by 40 government agencies (MICT, 2004; Sahraoui et al., 2006). The Ministry of Communications and Information Technology (MCIT) has initiated the e-Government Program. Ministry of Finance and the Communication & Information Technology Commission (CITC) are also working in conjunction with MCIT (Yesser, 2013). The partnership with IBM helps Saudi Arabia to handle the large majority of government processes that are being delivered manually. These processes are now using a system that supports online, voice and mobile device access. The Power System and System x servers, as well as DataPower devices hosting IBM SOA middleware products, installed at eight different sites in the country (Menon, 2009).

The Saudi e-Government portal has been launched to provide information and services to the citizens, residents, businesses, visitors and other government agencies as shown in figure 4. The eServices are accessed via the portal either by integrating with other government agencies or through links to their websites. The portal also provides links to Saudi regulations, laws, plans and initiatives. A separate e-payment portal has been developed to help citizens handling all online transaction. Moreover, the portal is also available for smartphone users (Saudi eGovernment Portal, 2013).

Figure 4: E-government in the Saudi Arabia

4. E-Government Development and E-participation

A. E-government Development

The e-Government development or readiness according to United Nations survey includes online services, human capital and telecommunication infrastructure as shown in table 5. According to the UN survey 2012 UAE becomes one of the 25 top world leaders in e-Government development and its value index is 0.7344. In the global ranking UAE advanced 21 points from 49th in 2010 to 28th in 2012. UAE also made progress in its online services; the index value is 0.8627 in 2012 compared with 0.2503 in 2010. The United Arab Emirates' e-government strategy is delivering high quality, customer-centric and integrated government services. It focused on infrastructure readiness, network readiness, service availability, citizen inclusion, and development of a national identity management infrastructure. Furthermore, the aim of the e-government portal is to provide better services to the customers and involve them in the government's policies, laws, and public interest initiatives. UAE provides delivery of services through various channels such as free access to public service through kiosks or Wi-Fi and mobile based channels such as mobile web application (Alkhouri, 2013; UN report, 2012; UN report, 2010).

Kuwait dropped lower ranking position into 13 points in the global ranking from 50th in 2010 to 63th in 2012 but it was 57th in the 2008 survey. The Kuwait support multichannel service delivery including traditional channels (face to face contact, telephone and postal mail) and digital channels although it needs to focus on citizens' awareness about significance of online services provided (UN Report, 2012). The Ministry of Social Welfare of Kuwait http://www.mosal.gov.kw is excellent example of a progressive website. The site offers e-mail notification to citizens' requests, allows online submission of forms and payment, and allows the creation of personal accounts online (UN report, 2008).

TABLE 5: E-GOVERNMENT Development

Country	Online Service Index (2012)	Human Capital Index (2012)	Telecommunication Infrastructure Index (2012)	E-Government Development index (2010)	E-Government Development Index (2012)	2010 Global Ranking	2012 Global Ranking
UAE	0.8627	0.7837	0.5568	0.5349	0.7344	49	28
Kuwait	0.5817	0.7885	0.4179	0.5290	0.5960	50	63
Egypt	0.6013	0.5588	0.2232	0.4518	o.4611	86	107
Saudi Arabia	0.7974	0.7677	0.4323	0.5142	0.6658	58	41

Egypt did not improve its e-government readiness ranking and its e-government development index became 0.4611. Its global ranking declined to 107 in 2012 because its improvements did not keep pace with those of other countries around the globe. Egypt has developed one-stop shop portal; its national website has downloadable forms, and allows the online submission of forms and payment by credit card, all on a secured link. The national website also provides interaction with wireless application protocol. Egypt has also invested in multimedia with video and audio links on its website. Egypt has three mobile operators and has made more initiatives IT skills and computer-based education, but it appeared far behind other Arab countries in e-government readiness according to the UN survey 2012 (UN report, 2012; UN report, 2008; Gebba and Zakaria, 2012).

The e-government development index in Saudi Arabia is 0.6658. In the global ranking Saudi Arabia advanced 17 points from 58th in 2010 to 41th in 2012. Saudi Arabia also made progress in its online services; the index value is 0.7974 in 2012 compared with 0.3111 in 2010. SA offers innovative e-services. The development in Saudi e-services is the e-Dashboard portal that utilizes digital verification and serves as single sign-on-portal. The Saudi government offers an open data to provide citizens with documents and reports from government agencies and ministries. Furthermore, SA ranks high in multichannel service delivery because of using various channels. SA is utilized mobile based channels including SMS notification service, mobile applications, payment using mobile phones and separate m-government site (UN report, 2010; UN report, 2012).

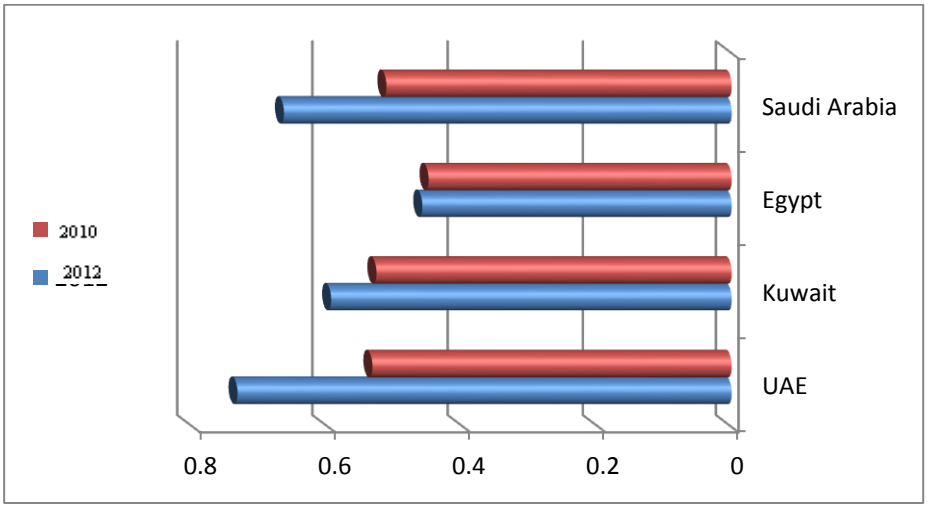

Figure 5: e-Government Development Index

In figure 5, the e-government readiness in UAE, Saudi Arabia and Kuwait show remarkable advancement in the e-government programmes. The government portals of these countries enable many citizen transactional services online as well as using multi-channels to provide the services. On the other hand, Egypt shows little progress in its e-government readiness/development.

B. E-Participation

E-participation is a tool that enables governments to dialogue with their citizens. To enhance government's ability to request, receive and incorporate feedback from citizens, government websites have polls or surveys or feedback bottom for engaging citizens. Therefor e-participation assesses how governments interacting with citizens using web2.0 tools (such as blogs, SMS and chat rooms), communication technologies (such as Facebook and twitter) and other social network tools. UAE, Saudi Arabia and Egypt made remarkable progress in e-participation according to UN survey 2012 as shown in figure 6. On the other hand, the e-participation index in Kuwait decreased in 2012 compared with the index in 2010 (UN report, 2010, UN report, 2012).

UAE is one of the best countries performing e-participation and its global position is 6 th as shown in table 6. The Emirates federal portal has engaged multiple platforms like forums, blogs, chat, surveys and polls to facilitate effective communication between the government and the public. This portal has an updated list of important contact numbers, feedback channels for federal services and social networking accounts of the federal entities. Egypt got position 7th (0.6842) as one of the best performing countries in the e-participation in 2012. Egypt uses the consultation tools including social media. It also provides citizens with an updated calendar of events to allow citizen to plan ahead of time if they want to participate. Moreover, the Saudi Arabia raised its global ranking to 9th (0.6316); it encourages e-participation through gathering public opinion using surveys, blogs and public consultations. Finally, Kuwait increased its global ranking position into 28 points from 53 in 2010 to 25 in 2012 as shown in table 6. The Kuwait's portal can receive feedback from the citizen and provides e-participation features (UN report, 2010; UN report, 2012).

TABLE 6: E-PARTICIPATION INDEX

Country	Index 2012	Index 2010	Ranking 2012	Ranking 2010
UAE	0.7368	0.1286	6	86
Kuwait	0.1842	0.2286	25	53
Egypt	0.6842	0.2857	7	42
Saudi Arabia	0.6316	0.1000	9	102

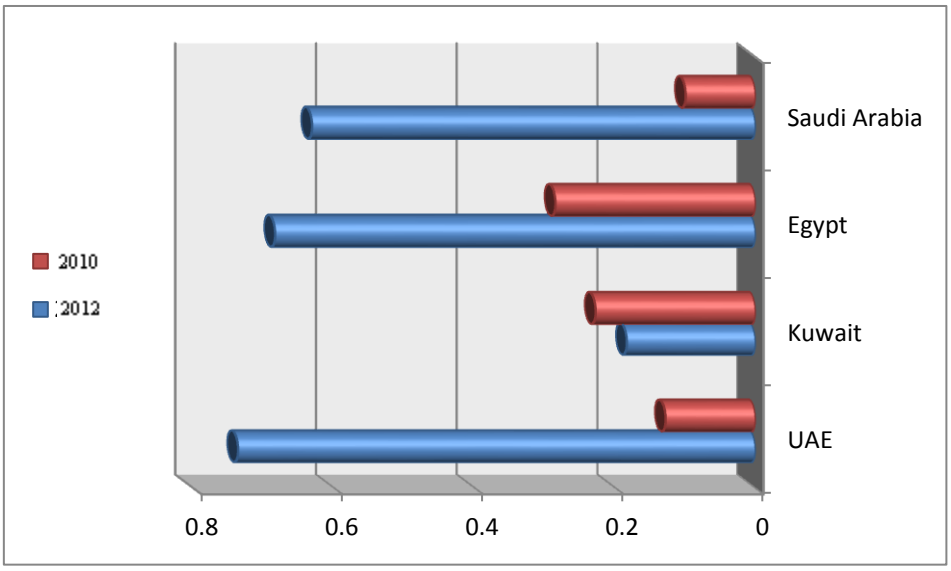

Figure 6: E-participation Index

5. Challenges and Lesson learnt

This section will focus on lessons learnt and the challenges of the selected Arab countries as the following.

A. United Arab Emirates

1. UAE puts the citizen first and provides sustainable e government development, which lead to competitive economy
2. To accelerate the development, each government department was developed its own e-services and the emirates of Dubai controlled and monitored the overall e-services development.
3. ETISALAT Telecommunication Company in emirates converged telecommunication services using 3G and 4G services on mobile phones, and fibre-optic networks to provide more reliable internet connections.
4. Using identity management infrastructure to standardize how citizens will access the e-services and be authenticated across the Emirates is a significant achievement.

B. In Kuwait,

1- Reengineering some processes of the government activities according to the requirement of the e-government
2- Reviewing technical and administrative experiences of some countries in order to benefit from their experience in the field of implementing the e-government project.
3- Unifying the Home page working policies on the internet and the general standards which will be followed at government authorities to create their pages for easy linking in the future.
4- Mobile telecommunications enables Kuwait government to deliver services through various channels.

Kuwait still has challenges in its e-government program. Its portal adds awareness section including information about Microsoft, viruses and password, but the citizens' awareness about the significance of online service provided needs to be increased addition to providing more transactional services for individuals, organizations and business.

C. In Egypt,

1- It makes the vision citizen-centered: Egypt's e-government vision focuses on redefining the relationship between government and citizens.
2- Egypt eliminates the traditional ad hoc way in which officials dealt with citizens. The e-services are categorized based on a logical grouping that makes the portal user-friendly for the citizen and it is not organized vertically ministry by ministry.
3- Egypt launched three mobile operators' licenses. The mobile and internet penetration are also increased as well as the computer-based education.

Egypt still faces many challenges in its e-government programme. Egypt needs to focusing on issues related to security, privacy and trust of using e-service, providing IT skills and computer or internet programs will increase the citizens awareness of using online services, transforming the traditional government processes to fully online services as well as improving the efficiency of the public sector.

D. In Saudi Arabia

1. The main objectives of Saudi e-government project (yesser) are increasing productivity and efficiency of public sector, providing easy to use services and increasing the return on investment in ICT.
2. STC, Mobily, and Zain telecom companies pay an important role for enhancing the telecommunication infrastructure through providing converged telecommunication services mobile phones and fibre-optic networks.
3. Saudi E-government portal has e-Dashboard to verify the identity of the citizens and a separate e-payment system linked to all channels of the Kingdom's banks to handle all online transactions.

The citizens in Saudi Arabia still need to be familiar with how to use the e-services. The citizens need also to be awareness of trust, privacy and security as important issues for e-government. On the other hand, the information and services are linked together in Saudi portal, which might cause some difficulties for the users.

6. Conclusion

E-government success requires: (1) changing how government works, (2) how it deals with information, how officials view their jobs and interacts with the citizens, and (3) active partnerships between government, citizens and the private sector. Moreover, the e-government process needs continuous input and feedback from the citizens, businesses and officials who use e-government services. Their voices and ideas are essential to making e-government work. The increasing use of communication technologies, internet, social networking and the fast-growing educated population helped United Arab Emirates to become the best practice in e-government in Arab countries and one of the leaders worldwide. Saudi Arabia is also made a remarkable progress in e-government readiness and has a notable performance in e-services. Kuwait is also made progress in its e-government readiness. Process reengineering and unifying home page working policies are the key success for e-government in Kuwait. On the other hand, e-government vision in Egypt is focused on citizen-centered and provides citizen centric presentation of services. Egypt made growth in its e-government project and did remarkable improvement in e-participation but it still facing some challenges.

References

[1]. Al-Zuabi H. & Mahmud M. (2011), "Implementation of e-Government in Arab countries: A literature review", International Conference on Research and Innovation in Information Systems (ICRIIS), pp. 1 – 5.

[2]. AlKhouri A. (2013), "e-Government in Arab Countries: A 6-Staged Roadmap to Develop the Public Sector", Journal of Management and Strategy, 4(1), pp. 80-107.

[3]. Al-Ahmary A., (2010), "E-government services integration in the Kingdom of Saudi Arabia", Boctoral Symposium – Brunel University, UK.

[4]. AlKhouri A., (2012), "eGovernment Strategies the Case of the United Arab Emirates (UAE) ", European Journal of ePractice, pp. 126-150.

[5]. Bhatmagar S., (2002) "E-government: Lessons from Implementation in Developing Countries", Published in Regional Development Dialogue, Vol. 24, UNCRD, Autumn Issue.

[6]. Bitar Z., (2012), "UAE paves way for eTransformation", Gulfnews.com. http://gulfnews.com/news/gulf/uae/government/uae-paves-way-for-etransformation-1.1098227

[7]. Business Monitor International-Egypt (2012), "Egypt Information Technology Report", Business Monitor International, second quarter, http://www.marketresearch.com/Business-Monitor-International-v304/Egypt-Information-Technology-Q2-7011189/

[8]. Business Monitor International-Egypt (2013). "Egypt Information Technology Report", Business Monitor International, First quarter, http://www.marketresearch.com/Business-Monitor-International-v304/Egypt-Information-Technology-Q1-7350759/

[9]. Business Monitor International-Kuwait (2013), "Kuwait Information Technology Report", Business Monitor International, First quarter, http://www.marketresearch.com/Business-Monitor-International-v304/Kuwait-Information-Technology-Q1-7297708/

[10]. Business Monitor International-Kuwait (2012), "Kuwait Telecommunications Report", Business Monitor International, Third quarter, http://www.marketresearch.com/Business-Monitor-International-v304/Kuwait-Telecommunications-Q3-7043885/

[11]. Business Monitor International-SA (2013), "Saudi Arabia Information Technology Report", Business Monitor International, First quarter, http://www.sbwire.com/press-releases/just-released-saudi-arabia-information-technology-report-q1-2013-217309.htm

[12]. CAIT [Central Agency for Information Technology], (2014) "Kuwait Government Online Portal"

[13]. http://www.cait.gov.kw/National-Projects/Official-portal-for-the-State-of-Kuwait.aspx?lang=en-US

[14]. CIA World Factbook (2013) a, "Saudi Arabia Economy", CIA WORLD FACTBOOK, http://www.theodora.com/wfbcurrent/saudi_arabia/saudi_arabia_economy.html

[15]. CIA World Factbook (2013) b, "Egypt Economy", CIA WORLD FACTBOOK, https://www.cia.gov/library/publications/the-world-factbook/geos/eg.html

[16]. Communications & IT Commission (2013), "ICT Indicators Report End of 2012", Communications and Information Technology Commission, http://www.citc.gov.sa/English/Reportsandstudies/Indicators/Indicators%20of%20Communications%20and%20Information%20Techn/ICT%20Indicators%20in%20the%20Kingdom%20of%20Saudi%20Arabia%20(2012).pdf

[17]. Enzer G., (2011), "UAE launches new e-government portal", ITP.net http://www.itp.net/584912-uae-launches-new-e-government-portal#.U0gRVLCKB-E

[18]. Gebba T. and Zakaria M., (2012). "E-Government in Egypt: An Analysis of Practices and Challenges", International Journal of Technology and Management, 1(1), pp. 11-25.

[19]. Golia M. (2013), "Country Profile: Egypt", New Internationalist Magazine, http://newint.org/columns/country/2013/03/01/country-profile-egypt/

[20]. Internet World Stats (2013), "Kuwait Internet Usage and Telecommunications", Internet Usage Stats and Population Statistics, http://www.internetworldstats.com/me/kw.htm

[21]. Ke, W. and Wei K. (2004). "Successful E-government in Singapore", Communication of the ACM, 47(6), pp. 95-99.

[22]. Kok A., (2008), "Singapore and Kuwait strengthen e-gov", Asia Pacific Futuregov, http://www.futuregov.asia/articles/2008/nov/07/singapore-and-kuwait-strengthen-egov-cooperation/

[23]. Kuwait e-government (2003), "The Central Agency for Information Technology", http://www.e.gov.kw/Default.aspx?pageId=5

[24]. Malik K. (2013), "The rise of the south: Human progress in a diverse world", Human Development Report, United Nations Development Programme.

[25]. McBride S., (2005), "Egypt's e-government initiative: Egypt's Ministry of Communications and Information Technology aims to link more than 5000 units to Oracle software as part of its e-services scheme.", ITP.net, the middle east's leading technology website, http://www.itp.net/482494#.Uyg5RLCKBy2

[26]. MCIT (2013), ", Information and communications technology indicators bulletin", Ministry of Communications and Information Technology, June quarterly issue.

[27]. Menon V., (2009) "IBM infrastructure boosts Saudi e-government drive", ITP.net. http://www.itp.net/558102-ibm-infrastructure-boosts-saudi-e-government-drive#.U0wps7CKAmx

[28]. Microsoft Customer Solution Case Study, (2004), "Egypt saves 900,000 working hours a year with E-government portal for online services to citizens", Microsoft Windows Server2003, Microsoft Corporation, October.

[29]. Microsoft Case Study, (2007), "Egypt Establishes E-Government Infrastructure", Microsoft Corporation, August. http://www.microsoft.com/casestudies/Microsoft-Enterprise-Strategy-Consulting-Services/Ministry-of-State-for-Administrative-Development-Egypt/Egypt-Establishes-E-Government-Infrastructure/4000000619

[30]. MICT, 2004, "Ministry of Communication and Information Technology", available at: www.mcit.gov.sa

[31]. Moabi M., Mongardini J., Alexander J., Thomas R., Fyfe R., Khoman E. & Al-Thani (2013) a, "UAE Economic Insight", QNB Group, http://www.qnb.com.qa/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1355486404313&ssbinary=true.

[32]. Moabi M., Mongardini J., Alexander J., Thomas R., Fyfe R., Khoman E. & Al-Thani (2013) b, "The Kingdom of Saudi Arabia Economic Insight", QNB Group, http://www.qnb.com.qa/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1355488703946&ssbinary=true.

[33]. Moabi M., Mongardini J., Alexander J., Thomas R., Fyfe R., Khoman E. & Al-Thani (2013) c, "Kuwait Economic Insight", QNB Group, http://www.qnb.com.qa/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1355483857442&ssbinary=true.

[34]. OECD (2013), "OECD e-Government Studies: Egypt 2012", Organization for Economic Co-operation Development publications.

[35]. Pacific Council, (2002), "Roadmap for E-government in the Developing World: 10 Questions E-Government leaders should ask themselves", Pacific Council on International Policy, http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan005030.pdf

[36]. Sahraoui, P., Gharaibeh G., and Al-Jboori A., 2006, "E-government in Saudi Arabia: can it overcome its challenges", E-government workshop, Brunel University, UK.

[37]. Saudi eGovernment Portal, (2013) "About Portal", http://www.saudi.gov.sa/wps/portal/!ut/p/b0/04_Sj9CPykssy0xPLMnMz0vMAfGjzOId3Z2dgj1NjAz8zUMMDTxNzZ2NHU0NDQ0cTfQLsh0VATqijRg!/

[38]. TRA: Telecommunication Regularity Authority (2012), "ICT in the UAE Household Survey", ICT in the United Arab Emirates, www.tra.gov.ae/download.php?filename=Household%20Survey-2012

[39]. Tan W. and Subramanian R. (2005), "E-government: Implementation policies and best practices from Singapore", Electronic Government strategies and implementation, pp. 305-324.

[40]. UN and ASPA, (2001), United Nations and American Society for Public Administration, "Global Survey of E-government", available at: www.unpan.org/egovernment2.asp.

[41]. UN report (2005), "United Nation Global E-government Readiness Report 2005: From E-government to E-inclusion", United Nations publication, New York. http://unpan1.un.org/intradoc/groups/public/documents/un/unpan021888.pdf

[42]. UAE-eGov (2014), "UAE Federal eGovernment Strategy 2012-2014", Emirates eGovernment www.egov.government.ae/c/document_library/get_file?uuid...3bd8.

[43]. UN- ESCWA (2011), Economic and Social Commission for Western Asia (ESCWA), "National Profile for the Information Society in Egypt", United Nations-New York. http://www.escwa.un.org/wsis/reports/docs/Egypt-11-E.pdf

[44]. UN Report (2008), "United Nations e-Government Survey 2008: From e-Government to Connected Governance", United Nations Publications, New York, http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN028607.pdf

[45]. UN Report (2010), "United Nations e-Government Survey: Leveraging e-Government at a Time of Financial and Economic Crises", United Nations Publications, New York, http://unpan1.un.org/intradoc/groups/public/documents/un/unpan038851.pdf

[46]. UN Report (2012), "United Nations e-Government Survey 2012: E-government for people", United Nations Publication, New York, http://unpan1.un.org/intradoc/groups/public/documents/un/unpan048065.pdf

[47]. World Bank (2011), "Definition of E-Government" available at: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/EXTEGOVERNMENT/0,,contentMDK:20507153~menuPK:702592~pagePK:148956~piPK:216618~theSitePK:702586,00.html

[48]. Yesser, (2013), "e-Government program Yesser: Overview", available at: http://www.yesser.gov.sa/en/ProgramDefinition/Pages/Overview.aspx