E-GOVERNANCE IN ARAB COUNTRIES: STATUS AND CHALLENGES

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ABSTRACT

The objective of E-governance is to support and simplify governance for government, citizens and businesses. The achievement of this goal depends on the cooperation of government as well as citizens and other stakeholders. This paper reviews data published by Division of Public Economics & Public Administration of the United Nations to assess Arab countries global ranking on two dimensions: Online Service Index (OSI) and E-participation Index (EPI) of e-governance. We analyze data obtained from semi-structured, face-to-face interviews with 60 participants on challenges faced by Arab countries. The data reveals discrepancies in performance among Arab countries on the two indices used in this study. On both indices, with exception of countries from GCC, including Bahrain, UAE, Saudi Arabia and Qatar, the performance of Arab countries is below the satisfactory level. The average OSI score is less than 0.3500 out of perfect score of 1.0000. On the e-participation index, with exception of a few countries such as Bahrain, Egypt and UAE, the average score is only 0.10 out of the maximum score of 1.0000. The low score in e-participation reflects a gap in the mindset of policy makers and stakeholders as well as the absence of effective application of the principles of good governance. The study further finds that different human, organizational and technical challenges faced by these countries require focused attention from policy makers to address. The interviewees identified the most critical factors affecting the likely adoption of good e-governance practices.

JEL: H1, H4, H7

KEYWORDS: E-governance, Arab Countries

INTRODUCTION

E-government is an institutional approach which focuses on carrying out decisions related to the use of information and communication technology (ICT) and to transform relations with citizens, businesses and other parts of government. It represents a paradigm shift where governments and policy makers realize the importance of e-government as a mechanism to serve both the governors and the governed. It uses internet technology to transform the traditional public sector by making it more accessible, transparent, effective and accountable. The end result of the adoption of e-government is to create a more satisfied picture of government business processes. E-government is not only putting a computer on the desk of bureaucrats, but also changes the mentality of bureaucrats and treats stakeholders whether they are recipients or providers of government services as a valued customers or an important participants in decision-making (Shakya & Sigdel, 2007).

E-governance is a wider concept which reflects the relationships between government employees, elected or appointed, and the wider society. As interpreted by Heeks (2003), e-governance goes beyond the provision of simple service and builds an external interaction with diverse stakeholders of government. It creates a positive relationship between the governing and the governed to achieve governance objectives. Successful implementation of e-governance requires the movement from a passive information society to an active engagement of citizens.

The strategic objective of e-governance is to create better information regimes, inform citizens, and engage citizens through emails lists, discussion forums, government consultation portals, and online

mediation. Thus, the role of e-governance is to bridge the gap between the governed and the governors by enabling better informed and creating an empowered community. According to the UN (e-government survey, 2010), the most important elements of e-governance in developing countries include features such as accountability, transparency, participation, equity, promotion of the rule of law and decentralization. E-governance is intended to make public administration more transparent, speedy and accountable through addressing the society's needs for information and services and enabling effective interaction between the people, businesses and government (Farooquie, 2011). To this end, governance in the majority of developing countries is a challenge, because the majority of governed are not clear and informed on various rules and procedures and because governors are not aware of the implications of the advancement in ICTs (Singh, 2010).

While the definitions of e-government and e-governance overlap (UN Global E-Readiness Reports, 2005; Gartner Group, 2003; Adeyemo, 2011; Fraga, 2002), there is a significant differences between the two terms. E-government involves the adoption of ICT to enable the deployment of new channels of service delivery, and make interactions between public servants and citizens and civil society more convenient. E-governance is a wider concept which goes beyond the simple provision of services. It refers to the use of ICT by government institutions to transform relations with citizens, businesses, and various arms of government resulting in better delivery of services to citizens, improved interface with business and industry, citizens' empowerment, and enabling greater transparency and accountability. The end product is creating more effective government (Singh, 2010). E-governance has similar objectives. Good governance strives to build a positive link with the wider environment (political, economic, and social systems) to better manage affairs of a country at all levels. E-governance involves the usage of ICTs at various levels of government and public sector organizations for the purpose of enhancing governance (Heeks, 2003; Bin Salamat, Bin Hassan & Bin Muhammad, 2011). E-governance comprises three basic elements: e-government, e-regulation and e-democracy (Adeyemo, 2011). The e-government as stated above refers to the use of information technologies for the purpose of providing better services, often in partnership with citizens, businesses and other public sector organizations. E-regulation refers to the establishment of participative electronic mechanisms for purposes of organizational development. E-democracy involves the use of electronic means to encourage public participation in decision making.

This study examines the state of readiness among the Arab countries with particular reference to two basic elements of e-governance namely the Online Service index (OSI) and E-participation Index (EPI). The paper focuses on the term e-Governance development – i.e. how far governments of Arab countries have actually advanced in this field instead of how ready or able they might be to do so. The paper provides insight into the challenges of e-governance implementation in those countries. The paper is organized as follows: Section 2 provides the background and the context of e-government in Arab countries and its implementation. Section 3 introduces methods and data collection used to explore the status and the challenges that restrain the adoption of e-governance in Arab countries. Section 4 discusses the connection between e-governance and good governance. The results obtained are reported and discussed in section 5, and finally section 6 covers the conclusion and future research implications.

LITERATURE REVIEW

There is a paucity of research exploring E-Governance in Arab countries. Many authors point out a digital divide (Chatfield & Alhujran, 2009), and also underline various others impediments such as highly bureaucratic nature of government agencies and a rarely trained human resource (Al-Nuaim, 2008). Al-Nuaim (2009) also found that Arab municipal Web sites were not citizen centered, suffered from fundamental problems and had limited interactive services. Ciborra and Navarra (2005) examined the early design of e-government solutions in Jordan and found that implementing a general standardized ICT portfolio to support good governance proved to be a difficult task. Awan (2007) studied the government-

to-business (G2B) aspect of Dubai e-government and found that businesses often didn't use e-government services for business transactions. One reason included slow online responses to business queries.

Chatfield and Alhujran (2009) conducted a cross-country comparison of e-government websites and portals in 16 Arab countries. It was revealed that Arab countries lag behind more developed nations in terms of e-government service delivery capability. A wide digital divide was found among Arab countries in terms of advanced e-government services. Zaied, Khairalla, and Al-Rashed (2007) investigated the perceptions of towards the IT environment in public organizations in Kuwait and found that less than half of participants agreed that their organizations had adequate appropriate connectivity, infrastructure, and IT human skills to implement the e-government system. Belwal and Al-Zoubi (2008) assessed the public centric e-governance in Jordan and highlighted many impeding forces such as digital divide, corruption, social bottlenecks, lack of marketing to stakeholders and citizen's lack of adoption of technology.

E-governance is a way to describe links between government and its wider environment: political, social, and administrative. The most important utilities of e-governance in developing countries include features such as accountability, transparency, participation, equity, promotion of the rule of law and decentralization. To this end, e-governance in the majority of developing countries is a challenge, because a majority of those governed are not clear and informed on various rules and procedures and because governors are not aware of the implication of the advancement in ICTs (Singh, 2010). A case study on India, entitled "promoting e-governance through right to information", Singh (2010, p 8) concluded that "E-government hype is not e-government reality…… the central lesson which emerges out of e-government practice for the last more than a decade is that public service delivery continues to be unsatisfactory…..and unrealized".

E-government is not merely the computerization of a government, but using technology to transfer the business of government to effect relations with businesses, citizens and other users of technology. The transformation of the nature of politics and the relationship require coordination and collaboration of all users of e-government project. Cecchini and Raina (2004) stated to establish service and information needs of the community, e-government should be developed in collaboration with local staff, including administrators and political actors. Ndou (2004) studied 15 case studies in e-government initiatives in developing countries and concluded that " the ability of developing countries to reap the full benefits of e-government is limited and is largely hampered by the existence of many political, social and economic hindrances" (p.16). Gianluca, Alfano and Viscusi (2011) proposed and discussed an interpretative framework for assessing ICT-enabled governance with a specific focus on analyzing government openness. The authors attempted to find a link between ICT and governance and outline the various challenges that this poses. Despite the many e-government initiatives and projects that have been carried out for the past decade, the complexity and volume of resulting project outcomes represent a challenge for effective exploitation of the results in other initiatives and intervention contexts (p. 152). The study adds that cultural administrative tradition differences and cross-border and city level objectives influence the critical governance value drivers and characteristics of interoperability systems deployed.

The e-government readiness index for two United Nations Surveys (2010, 2012) released by the Division of Public Economics & Public Administration of the United Nation, which included 191 countries, shows that most Arab countries have not fared well in e-government readiness. Only a few Arab countries from Gulf Cooperation Council are among the top 50 for the same period. This index is on a 0 to 1 scale, with higher values representing higher readiness. This index is an indicator of progress the UN member countries have made in implementing e-government services. This index is measured by several parameters including online service, telecommunication infrastructure & human capital components (UN E-government Survey 2012). This index can be viewed as a backbone for others indices associated with e-governance such as the Web Measure Index, Online Transactions Index, and E-participation Index. Table 1 show that the only Arab countries in the 2010 top 50 counties on the e-government index are

Bahrain, United Arab Emirates and Kuwait. For the 2012 United Nations survey, two Arab countries moved achieved standing in the e-government index, namely Saudi Arabia and Qatar while Kuwait declined 13 positions to 65th.

Table 1: E-government Readiness Index (2010, 2012): Top 50 Countries

Country	Index 2010	Index 2012	Global Ranking		Country	Index 2010	Index 2012	Global Ranking	
			2010	2012				2010	2012
Republic of Korea	0.8785	0.9283	1	1	Israel	0.6552	0.8100	26	16
USA	0.8510	0.8687	2	5	Hungary	0.6315	0.7201	27	31
Canada	0.8448	0.8430	3	11	Lithuania	0.6295	0.7333	28	29
UK	0.8147	0.8960	4	3	Slovenia	0.6242	0.7492	29	25
Netherlands	0.8097	0.9125	5	2	Malta	0.6129	0.7131	30	35
Norway	0.8020	0.8593	6	8	Columbia	0.6125	0.6572	31	43
Denmark	0.8772	0.8889	7	4	Malaysia	0.6101	0.6703	32	40
Australia	0.7863	0.8390	8	12	Czech Republic	0.6060	0.6491	33	46
Spain	0.7516	0.7770	9	23	Chile	0.6014	0.6769	34	39
France	0.7510	0.8635	10	6	Croatia	0.5858	0.7328	35	30
Singapore	0.7476	0.8474	11	10	Uruguay	0.5848	0.6315	36	50
Sweden	0.7474	0.8599	12	7	Latvia	0.5826	0.6604	37	42
Bahrain	0.7363	0.6946	13	36	Italy	0.5800	0.7190	38	32
New Zealand	0.7311	0.8381	14	13	Portugal	0..5787	0.7165	39	33
Germany	0.7309	0.8079	15	17	Barbados	0.5714	0.6566	40	44
Belgium	0.7225	0.7718	16	24	Greece	0.5708	0.6872	41	37
Japan	0.7152	0.8019	17	18	Cyprus	0.5705	0.6508	42	45
Switzerland	0.7136	0.8134	18	15	Slovakia	0.5639	0.6292	43	53
Finland	0.6967	0.8505	19	9	Bulgaria	0.5590	0.6132	44	60
Estonia	0.6965	0.7987	20	20	Poland	0.5582	0.6441	45	47
Ireland	0.6866	0.7149	21	34	Kazakhstan	0.5778	0.6844	46	38
Iceland	0.6697	0.7835	22	22	Romania	0.5479	0.6060	47	62
Liechtenstein	0.6694	0.8264	23	14	Argentina	0.5467	0.6228	48	56
Austria	0.6679	0.7840	24	21	UAE	0.5349	0.7344	49	28
Luxembourg	0.6672	0.8014	25	19	Kuwait	0.5290	0.5960	50	63

This table shows the E-government readiness Index for 2010 and 2012 for the top 50 ranked countries.

OBJECTIVES AND METHODOLOGY

The present study reviews the status of Arab countries e-governance practices and highlights the challenges facing them toward full realization of e-governance. The study comprises two objectives:

The first objective is to explore the status of E-government in Arab countries by using two indices of the United Nations e-government global surveys namely the OSI and e-participation index (EPI) to shed light on the state of readiness among the Arab countries to disseminate information and service delivery and encouraging citizen participation in the public policy process. These indices were assumed to capture the backbone of the e-governance practices. The study is based on secondary data released by United Nations global surveys for the years (2010 and 2012). Data on these two indices published by United Nations Department of Economic and Social Affairs/Division for Public Administration and Development Management, UNPAN/2005/14, New York are freely available at http://www.un.unpan.org/dpag/

The second objective is to explore areas of challenges which contributed to lack of e-governance practices in Arab countries. This study adopted a semi-structured face-to-face interview as the key tool for collecting primary data. Interviews were administered with two types of participants, 40 professional

expatriates, working in local universities and 20 adults from the fourth year classes of a local university. The participants are users of e-government services and the internet has constitutes the main part in their daily routine. Each interview lasted on an average of one and half hour. The data were collected over the period of six months during April through September, 2012. During the interview, detailed notes were taken. An interview protocol was developed by exploring challenges that affect the realization of good benefits of e-governance services in Arab countries, for example, the right of citizens to acquire information from government institutions and use them to make their government more effective, the level of awareness among them and the role of public sector marketing to enhance the level of understanding about e-governance benefits, and the perceived advantages of having such services. Based on extensive readings of the relevant literature including: Ndou, 2004; Bhatnagar, S., 2002; Heeks, 2003; Dada, 2006; Bwalya, 2009; Salem & Jarrar, 2011, the author synthesized some common challenges.

INDEX RESULTS

Online Service Index (OSI)

The strategic objective of OSI is to measure the online presence of government national websites. It is intended to provide a government with a comparative ranking on its abilities to deliver e-services to the public and other sources of information such as policies, regulations, laws, reports and any downloadable databases deemed essential for good governance. Several models have been proposed to capture the evolution of e-government services (Benchmarking e-government, 2002; Matthias and Gaelle, 2003; Kaaya, 2004; Okot-Uma and Rogers 2004). In order to demonstrate the ability by which national Arab States provide online services and other information to their citizens, this study has adopted the four stages of e-government model of the United Nations e-government survey 2010. The four stages are: emerging presence; enhanced presence; transactional presence; and connected presence. The first stage is concerned with the provision of limited and basic information. The second stage provides greater public policy and governance sources of information. The third stage is allowing two-way interaction between government and the public. The fourth stage relate to forward and reverse integration with citizens, businesses and government to government.

This surveys provides a comparative assessment of the performance and ranking of 192 United Nations Member States on how the public sector has responded to the demands of citizens and businesses for excellent services and products through the adoption of innovative tool such as ICTs (Kerby, 2008). To assess the online presence of national websites and to meet the growing needs of citizens and other stakeholders for different types of information and services, the author examined data on OSI. The United Nation e-government surveys 2010 and 2012 are used to show the progress made by Arab countries on this index. The highest score in this index is 1.0000. Countries which have achieved a perfect score of 1.0000 in 2010 and 2012 are USA, Republic of Korea and Singapore. Bahrain is the only Arab country in the top 20 in 2010 with score of 0.7302 and in 2012. Beside Bahrain two other Arab countries are added to the list of top 20, namely United Arab Emirates and Saudi Arabia whose scores respectively are 0.8627 and 0.7974. Others Arab countries which maintained a good standing on UN e-government survey 2012 compared to 2010 survey are Morocco, Qatar and Oman. The last two countries among top 50 in global rankings and scored respectively 0.7386 and 0.6667. Morocco improved its global ranking on OSI by 48 positions to achieve score of 0.5425 in 2012 compared to 0.2381 in 2010. Jordan was the largest loser in 2012 compared to 2010. Jordan scored 0.5333 in 2010 and was ranked 22nd in OSI globally and it slipped down to rank 100 in 2012 losing 78 positions.

Table 2 reveals that the majority of Arab countries still lag globally in OSI and great efforts need to done for enhancing their national portals websites. For example, the performance of countries such as Lebanon, Jordan, and Tunisia on OSI is less than satisfactory and achieved scores 0.4771; 0.3922; and 0.4771 respectively. The OSI scores (see Table 2) of other Arab countries such as Mauritania, Somalia, Sudan,

Iraq, Syria… reveal that the national portal of those countries is still in the development stage and there is greater need to invest more in infrastructure, education, and online applications.

Table 2: Online Service Index

No.	Country	2010		2012	
		Index Value	Global Rank	Index Value	Global Rank
1	Bahrain	0.7302	8	0.8627	10
2	United Arab Emirates	0.2508	99	0.8627	12
3	Jordan	0.5333	22	0.3922	100
4	Qatar	0.2794	90	0.7386	27
5	Kuwait	0.4603	36	0.5817	48
6	Saudi Arabia	0.3111	75	0.7974	19
7	Lebanon	0.2667	93	0.4771	77
8	Oman	0.3683	55	0.6667	35
9	Syria	0.0413	170	0.2288	156
10	Iraq	0.1524	131	0.2876	146
11	Yemen	0.0476	167	0.1765	175
12	Egypt	0.5302	23	0.6013	42
13	Tunisia	0.4825	30	0.4771	78
14	Libya	0.1365	135	0.0000	---
15	Algeria	0.0984	148	0.2549	149
16	Morocco	0.2381	104	0.5425	56
17	Sudan	0.1556	129	0.2549	151
18	Somalia	---	---	0.1830	173
19	Djibouti	0.0476	167	0.1961	165
20	Mauritania	0.0889	150	0.0784	194

This table shows the online service index for the top 20 ranked countries.

Our interpretation of the good performance of some Arab countries, namely countries from Gulf Cooperating Council (GCC) such as Bahrain, UAE, Saudi Arabia, Qatar and Oman on OSI is due to efforts made in investing in infrastructure, education, citizen-friendly portals and online applications. Although the data in Table 2 shows some modest progress of some Arab States, overall Arab States are still lagging behind the world trend toward more and better interaction with their citizens.

Table 2 reveals some good progress made by few Arab countries in OSI, but this does not commensurate with the performance of Western democratic countries and a handful developing countries such as the Republic of Korea, Singapore and Malaysia. Table 2 shows that Bahrain remained at the top on OSI despite losing two positions in global ranking. Of the 20 Arab countries identified in this study, 5 showed a remarkable achievement and managed to move their positions upwards, while the majority (14 countries) recorded either a decline or no improvement in their online presence performance. In terms of online transactions, Bahrain was cited by UN E-government survey of 2010 among the seven countries in which citizens can pay registration fees, fines, etc. via transactional e-services that cater to many segments of its society. Other cited examples of online payments were the e-dirham initiative in UAE and e-payment gateway in Jordan (Sha'ban, 2006). A country strength in online service provision correlates positively with its use of e-participation or what some literature call e-dormancy, e-consultation or online public engagement (Whyte & Macintosh, 2002; Coleman & Gotze, 2001; Bin Salamat, Bin Hassan and Bin Muhammed,2011). The next section explores the status of Arab countries in e-participation index for the years 2008 till 2012.

E – Participation Index (EPI)

E-participation opens the gate toward knowledge sharing attitude on the part of government employees and greater involvement of the citizens, businesses and other civil society organization in government affairs. E-participation opens the opportunity for all stakeholders to assess the quality of the connected presence stage of e-government. E-participation is meant to assess the quality, usefulness and relevancy of the information and the willingness of governments to involve citizens in public policy making process. It is not only to locate service centers and to carry out decisions related to service provisions but to simplify governance for government, citizens and businesses. While the online service index assesses the availability of information and services to the public, e-participation measures the usefulness of these services to fulfill the public's needs and expectations and to facilitate a speedy, transparent and accountable government administration. E-participation index contains three benchmarks, namely E-information, E-consultation, and E-decision making. Taken together, these benchmarks measure the degree of the country strength in e-participation. E-information measures the extent to which national governments provide information on the internet to be used as the basis of citizens' participation. E-consultation is the back and forth interaction between the government and its citizens. The focus is on the stakeholder interaction. E-decision making provides evidence of real changes in public policies as resulted from citizens' inputs and feedback (Kerby, 2008; Adeyemo, 2011). This section uses the UN e-participation index for the three years: 2008, 2010 and 2012 as an important and valuable means to provide an overview of the current performance of Arab countries in e-participation. Breakdown of data on each component of e-participation are only available for selected, primarily western, countries. Therefore, data on e-participation is shown only as a single score in the e-participation index. The author uses UN, EPI (E-Participation Index) for the above period to gauge the best performing Arab countries on this index with the reference to the best practices found in other countries.

Table 3 shows the performance of Arab countries on EPI for the years 2012, 2010 and 2008. The highest value of EPI is 1.0000, earned by Netherlands in 2012 and the top 20 are from Western countries and two Arab countries: UAE and Egypt. By looking across the data in Table 3, we note there is steady progress of some Arab countries on e-participation in 2012 compared to 2008 and 2010. Countries such as UAE, Bahrain, Saudi Arabia, Qatar, Oman, Egypt, Tunisia, and Morocco have maintained good standing on global basis. For example, the index value of Arab States within the GCC sub region on e-participation range between 0.4474 (Oman) to 0.7368 (UAE) indicating that the quality of information deployed by those countries are useful compared to other Arab States. In 2012, Saudi Arabia, Qatar, UAE, and Oman appeared to be winners in EPI among the rest of Arab countries surveyed in global rankings. They improve their global ranking by 79, 64, 62, and 39 positions respectively compared to 2010. Countries Such as Jordan and Kuwait suffered declines on EPI losing 71 and 37 positions respectively.

As can be seen in Table 3, about 65% of the Arab countries surveyed in this study had scores in the range between 0.00 and 0.20 in 2010 and 2012. In 2008, the highest score in EPI was recorded by countries such as Jordan, Lebanon, and Egypt. In 2008 and 2010 almost all Arab States were showing a poor EPI scores. This poor showing could be attributed to lack of incorporating online services tools to promote an acceptable level of participation and engagement of their citizens in the public policy process (See Table 3). The number of the Arab countries in the range 0.20 – 0.29 has dropped by 7 countries in 2010 compared to 2008. In 2012 more than 50% of Arab countries achieved scores ranging from 0.0000 to less than 0.2000. The data in Table 3 reveals that performance of some countries on EPI such as UAE, Saudi Arabia, Qatar, Egypt and Morocco have improved. The performance scores of other countries such as Jordan, Lebanon and Kuwait have fluctuated. The remaining Arab States have shown no improvement on the index value of e-participation.

Eight Arab countries show strong performance for the year 2012 compared to 2010 are 8. For example countries such as Saudi Arabia, UAE, Morocco and Qatar have shown an outstanding jump and have climbed 79 positions in the case of Saudi and 37 positions in the case of Egypt. Those four countries beside Bahrain and Oman are in the top six performers for the same period. Among the aforementioned countries, the most attractive-attention performance came from Saudi Arabia by rising 79 positions from 102nd place in 2010 to 23rd place in 2012, followed by UAE which climbed 64 positions from 86th place in 2010 to 14th in 2012. The fluctuation in performance on EPI for some countries such as Jordan, Lebanon, Kuwait, and Tunisia and continuing decline for others such Yemen, Algeria, Iraq, Syria, Sudan…etc can be attributed to so many factors such as funds issue, lack of openness, the bureaucratic nature of government institutions, lack of awareness, lack of trust in the national Website Portal, administrative cultures, absence of check and balance among the three branches of the political system, and rules and procedures defined in the constitution becoming an obstacle in the path of full interaction between the governed (citizens, businesses) and the government.

Table 3: E-participation Index in Arab Countries

No.	Country	2008		2010		2012	
		Index Value	Global Rank	Index Value	Global Rank	Index Value	Global Rank
1	UAE	0.2955	41	0.1286	86	0.7368	14
2	Bahrain	0.3409	36	0.6714	11	0.6579	21
3	Jordan	0.5455	15	0.2857	42	0.1053	103
4	Qatar	0.1818	71	0.1286	86	0.6316	22
5	Kuwait	0.0682	116	0.2286	53	0.1842	90
6	Saudi Arabia	0.3182	38	0.1000	102	0.6316	23
7	Lebanon	0.4091	28	0.2714	45	0.3158	49
8	Oman	0.2045	60	0.1571	76	0.4474	37
9	Syria	0.0455	135	0.0143	157	0.0263	153
10	Iraq	0.2045	60	0.0429	135	0.1053	106
11	Yemen	0.0000	170	0.0429	135	0.0000	193
12	Egypt	0.2500	49	0.2857	42	0.6842	15
13	Tunisia	0.0227	152	0.3000	39	0.3684	44
14	Libya	0.2045	60	0.1714	68	0.0000	176
15	Algeria	0.0227	152	0.0143	157	0.0526	122
16	Morocco	0.0000	170	0.1286	86	0.3947	39
17	Sudan	0.2045	60	0.1000	102	0.0789	121
18	Somalia	0.0000	170	---	---	0.0789	120
19	Djibouti	0.0227	152	0.0286	141	0.0000	168
20	Mauritania	0.1136	87	0.1143	97	0.0000	180

This table shows the e-participation index for Arab countries.

With the exception of a few countries noticed above, the global United Nation reports of 2008, 2010, and 2012 indicate the majority of Arab countries show a static to low achievement in EPI. In 2008, the top 5 Arab countries (Bahrain, UAE, Jordan, Lebanon and Saudi Arabia) achieved on average 0.3818 on EPI while the remaining 15 countries achieved an average score of 0.0757. The highest score in EPI was 0.12. The average score in 2010 of more than 65% of Arab Countries was only 0.10. In 2012, the top 5 countries for EPI are UAE, Bahrain, Qatar, Saudi Arabia and Egypt. They show good improvements on EPI and achieved an average of 0.6684. The next top 5 countries (Oman, Lebanon, Morocco, Tunisia, and Kuwait) achieved an average score of 0.2526. The remaining 10 Arab states achieved an average of 0.0341 on EPI. These data on EPI could be interpreted to indicate a lack of online consultation and citizens' feedback on decision-making in most of Arab countries has contributed to their low scores in e-

participation. In addition, a low level of trust between employees of government and citizens create a negative perception of sharing knowledge and information and confidence in e-governance initiative.

INTERVIEW RESULTS

E-Governance Challenges

This section examines the challenges that are likely to influence the adoption of e-governance in Arab countries. The specific aim of this section is to gain insight into the factors that affect the adoption of e-governance services in these states. It is expected that the findings will help policy makers gain a better understanding of the citizens and businesses involvement in supporting and simplifying good governance through using the ICT as a medium of connection and thus enabling them legislate laws and regulations to promote an active participation of citizens and businesses in the political process. The following challenges are the result of the extensive face-to-face interview with participants of this study:

First is the Lack of Access to Government Information: Public access to information is now a universally recognized right. In developed nations, this right to information is the basic element to realize the goal of transparent government. Transparent governance is build around the notion for free debate and accountability that encourage citizens to engage with public officials and to make the state a more effective (Murad, 2010). It is the right established by legislation to grant everyone a freedom of opinion and expression by using internet technology as a tool of governance. When asked about their knowledge of law or mandate which requires public agencies to provide whatever information demanded by the public, "the majority of interviewees, about 73% show no awareness of such law". The researcher has shared and discussed with the interviewees the secondary data shown above in the tables and whether these data has any meaning to them. "Most agreed that most Arab countries have taken steps to put information on the types of services provided to the public but some other information which is vital to the citizens and other stakeholders do not exist in the national websites". Only information which does not create any harm to the concerned authority is found. They contend that the discretion to release or withhold information usually is not based on reasonable grounds. Arab governments, "according to most interviewers operate as a closed bureaucracy". Information is created by an agency, put in place by the generating ministry/department, classified as secret and held by the ministry/department which created it. The public's access to this information is determined by the creating agency. The high centralization of the governments' bureaucracy and the pressure to avoid making any errors by following rules and procedures are major factors which contribute to the secrecy and confidentiality of information.

The second issue is awareness and public sector marketing. Connected with right of the public to access to information is the lack of awareness and role of public sector marketing. Few interviewees show disagreement toward this challenge, while the majority agreed there is acute lack of awareness among the public about their role as an opinion providers and valuable participant in decision making process. The few Arab countries which offer citizens various channels to engage in policy masking are Bahrain, UAE, and Tunisia, and Saudi Arabia (Moore, 2011). UAE and Bahrain have developed and launched recently, Government 2.0 which encourages the utilization of participatory technologies or social marketing in governance (Moore, 2011). Our interpretation to this lack of awareness and disappointing involvement of the citizens in decision making are attributed to the imbalance in power between the executive and legislative body and between the government and their citizens.

Despite the growing internet penetration rates among the young in Arab countries (Moore, 2011), but our interpretation to lack of citizens' awareness of their roles in better governance might be attributed to apathy factor or some other political and social factors. For example, "Some Arab countries have undertaken steps to put information and data concerning the organization of exhibitions, conferences, seminars, and press interview. However, the majority of interviewees about 83% complained about a lack

of awareness of the meaning of e-governance". They further blamed their governments for not appropriating enough advertisement budget for this purpose and the absence role of the public sector marketing. According to one interviewee, "There is no awareness of such terms such as transparency, empowerment, and right to acquire electronic information from government. If you ask individuals on the street about these terms, they likely have not heard of them or even understand their meaning". Abdulrahman Saif Al Khaddar, Head of online Services Section attributed this low level to lack of awareness among the users of online services, the low level of trust in government information and low advertisement budget for promoting the online services (Salem & Jarrar, 2010;UAEINteract, 29 May 2008).

The third issue is lack of coordination and collaboration within and between governments of Arab countries. The customer focus is an essential element of any e-government project. When developing and designing, and implementing an e-government, governments should consider citizens and businesses needs of information and why they need this information. Information should be classified based on themes not institutional fashion. When interviewees were asked about this issue, "they all agree that customer needs for information are incorporated in e-government strategy but are not found in reality". The main reason for such negligence of customers needs is "the absence of coordination and collaboration within the government and between governments". When interviewees are asked about whether there is a necessity to establish a central coordinated office to facilitate such needs, "the majority agreed that the creation of such a unit can facilitate promoting sharing of information and good practices. The majority further contended there is absence of clear plan for the coordinated implementation of e-governance services within each country and between countries. This creates difficulty in interoperability, vast duplication of efforts, and concern about security and privacy issues of information. Interviewees contended that uniform standards and architecture for e-government applications is almost absent and even if present, is not practiced. Thus, to build electronic services and cater to customers' needs, cross agencies and governments coordination and collaboration is needed for better service to the customers and to achieve efficiency and interoperability in government.

The fourth challenge mentioned by interviewers is the nonexistence of critical evaluation of an e-government plan in the majority of Arab countries. As we know, the purpose of e-government is sharing knowledge, information and building confidence in e-government projects. Evaluation of e-government plans means taking measures to respond to customers' demand for e-government services and therefore, governments should work closely with citizens and businesses to provide them with useful services and information. The majority of interviewers (90%) noted the absence of critical examination of the present state of any e-government strategy. The majority of interviewees noted that critical assessment of any public sector program, including e-government is seldom done and usually is found in government documents but not practiced. Factors such as the lack of competent personnel, the unavailability of current data, the absence of customers' feedback and inputs, and less value given to evaluation outcomes are some reasons cited by interviewees for the absence of critical evaluation. Interviewees added additional reasons for improper assessment of e-government projects.

Governments in Arab countries, with exception of some countries within the GCC region, there is absence of external assessment of the project, no considerations were given to stakeholders needs and feedback, assessment is done as part of some mandatory requirement and once it is completed is shelved and forgotten, and agencies usually perform assessment just to show an interest in keeping the project by showing a positive outcome. Thus, proper assessment of e-government can boost the learning process by showing the kind of changes needed to be successful (Cupta, 2007). They indicate that in most of Arab countries e-governance means computerizing existing government functions and there is a total absence for the appreciation of the information systems in streamlining the government process and molding the mindset of key politicians, ICT professional and mainstream staff

Fifth, the adoption of e-government in both developed and developing countries is often heralded as new way of bringing a structural change in the system of public sector. The success of e-government initiatives depends to a large extent on the match between internal organizational factors and external factors. If there is a match between the two environments, this form of initiative could lead to successful attainment of e-government goals in terms of better transformation of the internal operations of government as well as of fruitful interaction with civil society (Dada, 2006; Noor, AbdelRahman, Fadlalla, 2007). Literature on e-government adoption in developing countries in general and specifically in Arab countries cite frustrating stories of systems failure. The incompatibility between social, political, and economic values and e-government goals, the continuing traditional bureaucratic nature of public sector, the existing of detailed rules and procedures, lack of clarification on what is required from government agencies responsible for implementing e-government, not treating citizens as a single customer, the traditional way of responding to citizens complaints, are some factors which contribute to the failure of e-government initiatives in Arab countries. The United Nations Department and social affairs (UNDESA) estimated that more than 70% of e-government projects in developing countries fail for the same reasons noted above (Salem, 2006). The majority of interviewees were optimistic about the promised change in term of reducing bureaucracy. A typical response was this new line of channels will be open between bureaucrats of government and the public and the traditional rules, procedures and processes which unnecessarily complicated government services will replaced with an open-oriented and result-based bureaucracy."

About 88% of the interviewees expressed negative perception towards government bureaucracy in Arab countries. They indicate most e-government users still involve unnecessarily detailed and complicated procedures when completing government transactions. Interviewees raised concerns that employees in government bureaucracy still follow routine processes and use plenty of paperwork in delivering services to the public. Barriers to e-government are not only structural and procedural but also include value barriers of public administrators. The majority of interviewees are skeptical that e-government adoption in Arab countries would bring radical change such as speedy services and efficient processes. While leaders of Arab countries might be aware of the importance of restructuring organizations and processes in order to maximize value to users, they must overcome internal resistance when implementing change. Using proper incentive systems and other organizational carrots such recognition, active participation and more progressive appraisal systems might ensure good co-ordination and promote a sense of ownership and accountability for decentralized initiatives.

Because there is a high level of bureaucratization in most Arab countries, one would expect a limited role of e-government in providing information to stakeholders (Noor,AbdelRahman, Fadlalla, 2008; Al-Nuaim, 2008). Interviewees described government bureaucracy in Arab countries as rule-driven, centralized, top-driven hierarchy and oriented only to a cost-efficient objective. Being aware of these traditional cultural values is a big step towards successful organizational change (Ndou, 2004). The interviewee perceptions are consistent with findings of some literature which suggest that ICT has been used most often to reinforce existing organizational arrangements and power distributions rather than to change them (Holden, 2003; Fountain, 2002; Kraemer & King, 2005). Under this kind of environment, bureaucracy will be replicated in the government national portal and the bureaucracy will grasp a new hat with a different name.

The sixth issue is infrastructure and Technical Issues: Facilitating conditions such as ICT infrastructure such as e-readiness, computer literacy, and telecommunication equipment can be an important determinant of e-government use and adoption (Barua, 2012). The technical issue refers to the functioning of the organizational networks to allow citizens and businesses the possibility to search and use of information to consult, participate in forums and decision-making process (Ndou,2004). Shared, proper ICT infrastructure and a good interoperability governance system cannot materialize without

collaboration between the various stakeholders (Government agencies, citizens, businesses, employees and governments). The lack of adequate ICT infrastructure, the poor integration of the back-office information system with the online access to customers, and the continuation of a legacy systems are some among other barriers shared by the majority of interviewees. The lack of knowledge and skills required for successful e-government implementation, the malfunctioning of network, and server and the lack of collaboration are some key barriers which contribute to the stagnations of most Arab countries (with exception of some countries within the GCC such as UAE, Bahrain and Qatar) in the emerging and enhance stages of online presence.

ICT infrastructure and internet penetration vary across the Arab world, with GCC generally being more advanced compared to the rest of Arab world (Moore, 2011). The majority of interviewees (85%) casted doubt on the abilities of government institutions to successfully design, develop and implement their own e-government initiatives. To realize the potential benefits from technology, Arab countries should first demonstrate good practices of good governance before start any move toward a higher level of Web-enabled citizen participation in public policy discourse. According to one interviewee, governments in Arab countries are far behind a normative framework of good governance. Lack of stable politics, unclear macro-economic policy, dominance of personalized leadership and the marginalization of legislative and judicial branches are among obstacles cited for full realization of e-governance goals such as better service delivery, ushering in transparency & accountability, empowering people through information, improved efficiency within governments and enhancing interaction with business and non-profit organizations (Singh, 2010). Recent events demonstrate the challenge facing some Arab countries in governance and e-governance. Recent riots in some Arab countries demonstrate that the public is far from active engaged in policy formulation and decision making processes. There is a need for most Arab countries to adopt government 2.0 which can help those countries supplant the traditional role of governments to one which fosters better collaboration between governments and citizens, enhancing citizens' engagement in public policy making and lifting the status of governance into a new platform of e-participation (Moore, 2011). Few Arab countries utilize e-participation as integral part of e-government encouraging a transparent and an open public administration systems. According to A. Fadi Salem, the Director of the Governance and Innovation Program at Dubai School of Government, only two countries namely, Bahrain and UAE are utilizing participatory technologies or social networking in governance.

Seventh is the lack of back-office capability in most Arab public sector organizations. Most interviewees agreed that a lack of back-office competency remains a big hurdle toward modernizing public administration and adopting an effective e-governance system. Most senior officers whether elected or appointed members of parliaments do not possess the required merit to make them appreciate the essential benefits of e-government adoption. Most are hired based on favoritisms, social and personal networks. This problem created a gap of knowledge between senior officers, IT professionals and mainstream users of technology. This renders the whole of governance practices weak and ineffective (based on interview). The support of back-office and creation of agile and adaptable workforces were recognized as a precondition for developing online services and e-participation (Sardi & Mlikota, 2002; Janowski, 2005).

Examining the design of e-government solutions in Kuwait, Zaied, Khairlla & Al-Rashed cited lack of the necessary IT skills among other obstacles in implementing effective e-government system. Finding a common understanding of e-governance requirements between the front-Office and back-office would help the latter respond efficiently to the needs of the public and other stakeholders and to make the job easy for the former to addressing key changes required for effective implementation of e-government. For example some such changes are: integrated human resources and payroll system, integrated financial management systems, web-based data resources to improve decision making and intranet system to improve information flows within governmental institutions. Al-Hiram reported the slow pace of e-government transformation (UAEInteract, 2009) "…. With the exception of high performing nations, on average less than 50 per cent of all internet users access eGovernment data and less than 20 per cent

undertake online transactions….." Such slow pace can also be inferred in Humaidan's statement that "…. We aim to include more government departments and agencies in Dubai and achieve integration in the delivery of services through a unified platform, which we believe will contribute significantly to realizing the Dubai Strategic Plan 2015." This is a problem that can and must be addressed, in our view, by extensive skilling of public sector marketing in the UAE in particular and the region at large.

The eighth issue is stakeholders involvement. E-government projects should be established to reflect the needs of stakeholders (Staff, public managers, business community, citizens) that it serving and technology should be developed through active involvement of those affected by these projects. In Arab countries, according to most interviewees(77%), such culture does not exist. If it exists, it does not give the required weight due to political and economic factors. In most Arab countries, decisions to adopt e-government initiative are taken without consideration to the adaptation to local realities (based on Interview). The absence of collaboration with local community and others who are closely related to the e-government project increase the hard-soft gap and reduce sense of ownership and awareness of the implemented project. Information, according to interviewees, is stored in the websites by the government institutions and the bulk of the decisions affecting citizens' life are made by such institutions far beyond citizens' influence and involvement (based on Interview). Information systems should be designed within the context of the law to make top-level decision-making processes rely on the online environment and to leave space to change these systems in years later. Thus, it is important to involve the people most closely related to e-government projects by improving local awareness and taking an active role of educating the public about the value of e-government project (Ciboora, 2005; Jaeger and Thompson, 2003)

The ninth issue is whether in a developed or developing country, e-government should viewed as a supplementary tool to governance. E-government projects involve long-term commitment and require collaboration across agencies. The instability of political systems and change in economic circumstances in some Arab countries (Salem, 2006) and the high competitive environment in other countries, might contribute to the lack meritocracy and the level of trust for sharing information and knowledge (Salem & Jarrar (2010). More than 80% of interviewees agreed that most government employees perceive information and skills in ICT as a source of power. The others agreed and shared challenge among the interviewees to e-governance practices is the lack of trust in a national online portal of government.

In most Arab countries, e-government focused only on providing limited online interaction and citizens and businesses have little trust of online services (based on Interview). Interviewees casted trust in the internet of some Arab countries such as those located within GCC region due to advanced and capable security solutions. For the rest of Arab countries, interviewees have thought that e-government services is not trusted for reasons such as instability of political and economic systems and the absence of legislations protecting the personal data provided by the citizens and businesses. The study conducted by Al-Nuaim (2009) found that Arab municipal Web sites were not citizen centered, suffered from fundamental problems and had limited interactive services Other factors that have been attributed to low trust in utilization of e-government services for business transactions might be attributed to the ignorance of governments' leaders to their responsibility about what e-government is and what its benefits to community. Concerns such as data quality, security, slow operational processes, and complicated procedures are other factors which highlighted among the interviewees for low trust between government and the public. These findings are consistent with Ranaivomanana (2006) and Al Awadhi & morris (2009). Engaging the public and others beneficiaries of e-government project in public policy issues requires educating both government employees and the stakeholders' users of e-government systems (Lin et al., 2001).

The tenth issues is agreed upon challenges facing e-government in Arab countries. Interviewees agreed on the issue of the failure to create the right culture within the organization. Intranet, internet and sharing information represents a direct challenge in most of Arab countries where prevailing bureaucratic culture

remains an obstacle toward sharing information. According to most interviewees, "the right attitudes to service orientation and adaptability to change do not exist in most of Arab countries". More than 75% of interviewees said that the culture of information and knowledge sharing does not exist. When asked about factors that contributed to this problem, they said in Arab countries such Iraq, Sudan, Yemen, Syria, Algeria…etc, inadequate human resource capacity is a major problem to the lack of customer-orientation. For countries located within the GCC, the main problem is that the prevailing competitive environment might negatively impact the flow and sharing of information and knowledge. ICT as distinguished by its network could provide vast opportunities internally among different units with organizations and between organizations and externally of enhancing the transparency and accountability for governments in Arab countries. These findings are similar to those of Ranaivomanana (2006) and Salem and Jarrar (2010).

The other challenge which associated with management change is the employee resistance to change. Although this phenomenon is felt by many countries it needs careful attention in Arab countries. In most Arab countries, the public sector remains the largest employer and change might bring fearless for job losses and power reduction for employees. Active participation of staff at the developmental stages of IT deployment, active demonstration of the potential benefits of ICT system and creating incentives for employees to learn and accept change are among other strategies for dealing successfully with resistance. The adoption of e-government raises the expected roles and responsibilities of the officials in responding to enquiries from the citizens. Based on interviews, employees are still not ready to assume the new tasks and are not computer literate. The existence of traditional technological illiteracy in most developing countries makes it hard for people to interact with changes needed in an information society (Nagi 2009). Resistance to change or the full implementation of e-government is attributed to cultural and religious aspects, according to some interviewees. Computer illiterate see the technology as black art while those who are computer literate are guarded and speak another language. Therefore, understanding organizational culture is crucial to having a practical change management plan. These findings are in consistent Salem & Jarrar, 2010; Dada, 2006 ; Ciborra, 2005; Al Awadhi & Morris, 2009).

Lack of e-participation represents another issue. E-participation is build around the concept of transparency and both concepts contribute to the objective of good governance. The strategic objective is to support and simplify governance for stakeholders (government, government employees, citizens and businesses). To conduct their business with government, all stakeholders use online services as an alternative way to traditional approaches such as calling the officials or meeting them on face-to-face basis. The culture in Arab countries is characterized is collective and people highly value face-to-face relationships and most of their daily matters are solve through this traditional conduct. When asked whether they prefer using emails or traditional communication such as telephone or face-to-face interaction, the majority, about 92%, said we use the traditional way. Interviewees said the majority of government employees use email and internet in their official duties but the tradition here is that people who use emails and internet do not use them to have an impact on public policy but rather to gather information to serve their own interest and satisfy their needs of information. Comments and proposals made as part of e-participation do not exist in Arab countries, as commented by some interviewees. Responding to citizens comments and complaints through emails is uncommon in Arab countries (based on Interview). Respondents said in Arab countries, relationships should be live and informal face-to-face judgment was important to understand the various views. In Arab countries, capacity to direct information flows into decision making is nonexistent (based on Interview). This lack of participation contributes to the narrow involvement of people in public policy and to less responsive government. The low level performance of most Arab countries on EPI and OSL confirms these findings. Other scholarly writings such as Ranaivomanana (2006); Al Awadhi & Morris, 2009 are consistent with our findings.

Table 4 summarizes these challenges and indicates the number and percentage of interviewees who have agreed on each of these challenges. Table 4 reveals a lack of e-participation, lack of critical assessment of e-government initiatives and reforming bureaucracy receive a higher ranking and policy makers need to

take the appropriate actions to reduce their impact and increases the chances for better and more fruitful interaction between the government in one side and citizens and businesses in other side.

Table 4: Key Challenges by Themes

No.	Challenges by themes	Agree	%	Disagree	%	Rank
1	Public access to agency information mandated	44	73	14	23	11
2	Lack of public awareness	50	83	10	17	6
3	Lack of collaboration and coordination within and between government agencies	49	82	11	18	7
4	Lack of critical evaluation of e-government plan.	54	90	6	10	2
5	Reforming Bureaucracy	53	88	7	12	3
6	Infrastructure and Technical Issues	51	85	9	15	5
7	Incompetent back-office management	48	80	12	20	8
8	Lack of Stakeholders involvement	46	77	14	23	10
9	Lack of Trust	52	87	8	13	4
10	Cultural Issues	47	78	13	22	9
11	Internal Resistance to Change	42	70	18	30	12
12	Lack of e-participation	55	92	5	12	1

This table shows key challenges associated with implementation of E-government.

CONCLUDING COMMENTS

This paper focuses on the term e-Governance development – i.e. how far governments of Arab countries have actually advanced in this field instead of how ready or able they might be to do so. The paper is also intended to gain insight into the challenges toward the implementation of e-governance in those countries. The author relies on two types of data to accomplish the objectives of this study, secondary and primary data. The secondary data on two indices (OSI & EPI) published by United Nations Department of Economic and Social Affairs/Division for Public Administration and Development Management, UNPAN/2005/14, New York which are freely available at http://www.un.unpan.org/dpag/ and some related literature on e-government and e-governance. The primary data involves face-to-face interviews with professional expatriates and fourth year university students who are the main users of e-government internets. With the exception of some countries such as UAE, Bahrain, Qatar, Saudi Arabia and Egypt, the findings reveal low and discrepancies in performance among the rest of Arab countries on OSI and EPI. The study further identifies key challenges facing those countries in e-governance practices, among them is the lack of critical assessment and monitoring of e-government implementation, the need for more engagement of people in government affairs, better responsive government, and for more appropriate structure and process of public bureaucracy.

For policy makers in Arab governments to get people use and adopt e-government services, these services must be useful and at quality level to the intended users. For an effective use of information, widespread attractive government marketing campaigns should be conducted targeting users properly to inform them about various benefits they would gain from information and services provided by government. The governments of Arab countries should treat all stakeholders as a single customer allowing them to search and consult government information and to e-mails their representatives about various problems facing them, making suggestions and getting feedback from this interaction. This continuing interaction and communication between users and the government contribute further to the decision making process. This will lead to building trust in government and improving relationships between the government and the governed.

Despite the similarities shared by the majority of Arab countries on social, political and cultural aspects and e-government barriers, each country has its own unique combination of political, economic and social constrains that affect the development of good practices in e-governance. Therefore, there must be the right fit between what the e-governance requires (proposed assumptions) and challenges to policy makers

to change. Accepting this reality, there is no single correct approach to e-government and analysis of the contextual feature of each country might produce somewhat acceptable prescription to deal with these challenges.

The results of this paper inform us that Arab countries, as the case of most developing countries, need to counter the main challenges of e-government. The absence of a coordinated plan, lack of trust in sharing information and knowledge, the incapability of back-office, the absence of good governance, and the inexistence of critical evaluation of the present state of e-government systems have all contributed to poor realization of e-governance objectives. A coordinated implementation plan of e-governance within each country and between Arab countries is needed and should be supervised and enforced by e-government leaders.

A critical examination of the present state and identifying those areas which need improvement will benefit the country. For most Arab countries, e-governance means computerizing existing government functions. There is lesser appreciation for the role of information systems in modernizing the government process, systems, structure and molding the mindset of politicians, ICT professionals and mainstream' staff. More efforts should be incorporated into a national e-government plan to introduce real changes in the way services & information are produced and delivered, enhancing online transactions and the inclusion of e-consultation and e-decision making which allow vital two way interaction between the government and people in secure manner.

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