

Drivers of E-Government and E-Business in Jordan

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Abstract— With the global emergence of e-government and its potential benefits to citizens in all its endeavors, there has been a growing need for research on drivers influencing the adoption of e-government services. This paper focuses on drivers influencing the adoption of e- government services among business organizations; hoping to have a better delivery of government services, the increased transparency and availability of information, and the improved interaction with businesses.

Jordan is currently striving to move forward in e-government. However, figures reported in the Economist Intelligence Unit's (EIU) E- Readiness Ranking Report for the year 2008, Jordan ranked 53 out of 70 among countries with respect to its business environment. Also, Jordan ranked 50 among 192 countries according to the UN Global survey of e- government readiness in 2008. This paper aims to review the relationship between e-business and e-government in general, as well as e- government and e-business readiness indicators particularly in Jordan. In addition, it examines the motivators and barriers for adopting e- government among business organizations. Jordan needs to overcome barriers for adopting e-government among businesses, and reduce the gap between e-government and e-business with a mutual effort from both parties.

Index Terms— Jordan, G2B, Motivators and Barriers, E-Government, E-Business

I. INTRODUCTION

With the vast growth of the Internet and the huge options that it gives for conducting business with customers electronically, and the low costs and great convenience it gives to customers and businesses, it is becoming inevitable to avoid engaging in e-business. This issue is not limited to businesses seeking profit, but also to all types of business and even public firms. Park [22] states that electronic commerce can be summarized in three words: paperless, timeless and borderless. On the other hand, e-government is often referred to as "The E-Business of the State." Governments are requested to provide convenient services with affordable price.

They are responsible for a large proportion of the gross national product, and it is important for the government to use electronic media in order to save cost and make processes like procurement run smoothly and more

transparently.

The Internet serves as an interface between the government and citizens in all its endeavors, and if it was utilized properly it will serve the objectives of firms in reaching a competitive advantage. Increasingly, CEOs are looking for improvements in their businesses; improvements in products, services and business processes. Researchers are asserting that the Internet has yielded new business models, where others claim that the Internet also changed existing business models to drive growth and improve overall business value. Based on that argument, and through the innovative use of technology, business transformation provides a solution for businesses to achieve their goals. Government transformation in the way government does business and serves its citizens through the review of its missions, shaping local industries and making sound recommendations as to how to shape processes to maximize the existing and new IT investments as well as to reengineer processes to enhance productivity and efficiency.

On the other hand, Jordan has been investing heavily in developing its ICT sector, aiming at enhancing the performance of its public and private sector organizations in terms of service provision, efficiency, accuracy, time and satisfaction [17]. However, businesses are also an important element of the information society, and the diffusion of ICT into businesses is essential for the achievement of productivity, growth, and the efficient functioning of the information society [12].

In this context, this paper is organized as follows: the following two sections will describe the relationship between e-business and e- government, and examine e-business and e- government readiness in Jordan. Also, this paper will identify the motivators and barriers for adopting electronic government among business organizations in Jordan. Section four will explore the government to business initiatives in Jordan, followed by conclusions and findings.

II. RELATIONSHIP BETWEEN E-BUSINESS AND E-GOVERNMENT

This section describes the relationship between e-business and e-government with definitions of terms in

the e-business arena. As described by research [24], e-government started as a subset from e-commerce or e-business, and its importance is attracting many researchers to work and try to understand the relationship between this force (e-government) and e-business.

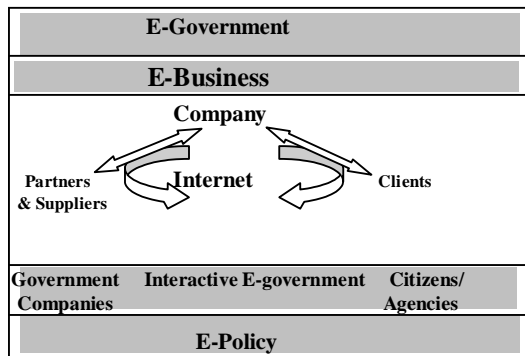


Figure 1: E-Business / E-Government

Beginning with the center of the Figure 1; e-business is defined as a business model and focuses on the support of processes, and relationships between business partners, employees and customers by means of electronic media.

The Government is confronted by new technologies in two different aspects; e-policy and interactive e-government. E-policy covers the legal framework governing the use of IT in the respective country (e.g. recognition of the digital signature), and the subsidies awarding or other means of support for the government operations. The second aspect is the interactive e-government that has to deal with defining its role as a market layer in the virtual environment, moreover, providing services and making public information available to companies and citizens over the Internet. As a result, e-government has two dimensions: (1) Endowing the economy with the necessary legal framework (making e-business possible), and (2) performing its operations and tasks in a cost effective manner. Finally, these related terms span the field of e-government in its purest sense: e-government as the governmental counterpart to e-business; the use of IT infrastructure for procurement, distribution of services and internal organizational functioning [24].

III. E-BUSINESS AND E-GOVERNMENT READINESS IN JORDAN

The World Bank concluded to a set of international indices that can describe the level of readiness in the area of e-government. The set of indices are: Network Readiness Index (NRI) by the World Economic Forum (WEF), Technology Opportunity Index (ICT-OI) by the International Telecommunication Union (ITU), the E-government Readiness Index by the United Nation Public Administration Network Methodology by the World Bank Institute (WBI) and the E-Readiness Index by the Economist Intelligence Unit (EIU). This paper discusses the details of three indices: WEF's NRI, UNPAN's e-government index and EIU's E-Readiness report.

A. WEF's NRI

The Network Readiness Index (NRI), covering a total of 127 economies in 2008-2009, measures the degree of preparation of a nation or community to participate in and benefit from ICT developments. The NRI (shown in Figure 2) has three premises: a) there are three important stakeholders to consider in the development of ICT: Individuals, businesses and governments; b) There is a general macroeconomic and regulatory environment for ICT in which the stakeholders play out their respective roles; c) The degree of usage of ICT by the three stakeholders is linked to their degrees of readiness to use and benefit from ICT (Source: <http://www.weforum.org/gitr>). Table 1 lists some measures of the NRI that are related to Jordan.

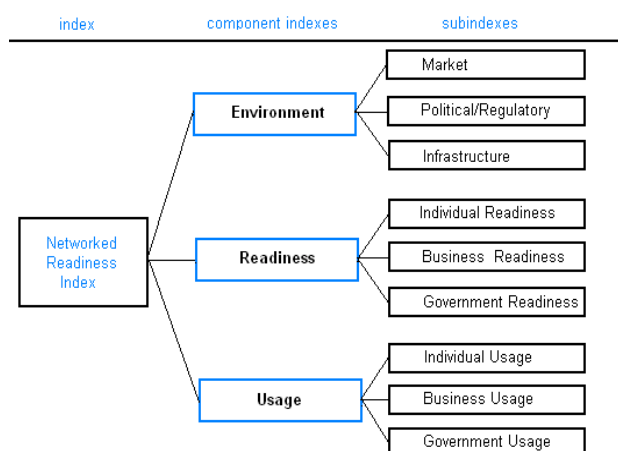


Figure 2: NRI premises (Source: <http://www.weforum.org/gitr>)

TABLE I. RELATED MEASURES OF THE NRI TO JORDAN

NRI 2008-2009	Jordan rank (out of 127)
Environment component	48
Market	51
Political	38
Infrastructure	59
Readiness Component	45
Individual readiness	53
Business readiness	76
Government readiness	29
Usage Component	45
Individual usage	73
Business usage	33
Government usage	33

We can see that Jordan scores best on government readiness and government usage, and scores least on business readiness and individual usage. Table 2 shows the top 10 strengths of Jordan position when measured in the NRI.

TABLE II. JORDAN'S TOP 10 STRENGTHS IN THE NRI

Indicator Name	Ranking
E-Participation index	15
Government prioritization of ICT	17
Burden of government regulation	18
Importance of ICT to government vision of the future	18
Government success in ICT promotion	18
Availability of new telephone lines	19
Quality of competition in the ISP sector	22
Property rights	23
Education expenditure	23
Intensity of local competition	24

The NRI index provides the ability to drill down from the overall index to component indices, sub-indices and eventually to individual indicators, to locate areas of comparative strengths or weaknesses in a country's ICT performance. It includes survey-based indicators that are unavailable in other indices or measures and have only one year lag time. However, firms surveyed are too few in number, too large in size and international.

Jordan had the greatest move upwards from the 90th position in 2005 to the 15th in 2008. The government of Jordan has put in place enhanced national portals which include features that increase citizen's engagement. The sites have a formal online consultation section, where the government receives feedback from its citizens on government policies and services.

B. EIU's E-Readiness Report

The Economist Intelligence Unit E-Readiness Ranking Index (EIU index) is a country's measure of its e-business environment. The ranking allows governments to gauge the success of their technology inhibitors against those of other countries, the ranking is produced in co-operation with the IBM Institute for Business Value and published yearly (Source: <http://www.eiu.com/siteinfo.asp?infoname>).

The EIU e-Readiness Rankings consist of six categories: 1) Connectivity and technology infrastructure (allocated weight is 20% from the overall score), which measures the extent to which individuals and businesses can access mobile networks and the Internet, and their ability to access digital services through means such as digital identity cards. 2) Business environment (allocated weight is 15% of the overall score), evaluates the general business climate, the EIU screens 70 indicators to provide a comprehensive view of each country's attractiveness as a trading economy and as a destination for business investment. 3) Social and cultural environment (allocated weight is 15% of the overall score), which measures the

population's "e-literacy"; its experience using the Internet and the technical skills of the workforce. 4) Legal environment (allocated weight is 10% of the overall score), which reflects the country's overall legal framework that e-business development depends on and directly affect the use of digital technology to inform, communicate and transact business. 5) Government policy and vision (allocated weight is 15% of the overall score), which assesses the activities of governments to adopt the technology, and their ability to lead their countries toward a digital future. 6) Consumer and business adoption (allocated weight is 25% of the overall score), which measures the amount that businesses and consumers spend on accessing ICT services and their adoption levels of e-commerce.

The EIU 2008 e-Readiness report found that Jordan in particular, is one of several Middle Eastern countries that have committed significant resources to e-government and e-business. However, Jordan ranked 53 out of 70 countries [26]. EIU 2008 e-Readiness report does not provide the exact indicators and data for assessment for each country. Such issue calls for extra work on this measure to pin point the weaknesses and strengths that lead to such ranking.

C. The UNPAN E-Government Index

The UNPAN E-Government Index is a composite measurement of the capacity and willingness of countries to use e-government for ICT-led development (Source: <http://www.unpan.org/egovernment5.asp>).

The E-government Readiness Index is composed of three indices: Web measure index, telecommunication and infrastructure index, and the human capital index. The web measure index mainly reflects the advanced services provided by the websites.

The telecommunication and infrastructure index reflects the technological infrastructure readiness for e-government application. Finally, the human capital index: reflects the degree to which citizens are prepared to participate in the networked world.

Jordan has scored a web measure index of (0.6054 out of 1.0000), a telecommunication infrastructure index of (0.1693 out of 1.0000); and a human capital index of (0.8677 out of 1.0000), which means that Jordanian citizens' readiness would not be an issue of debate. However, Jordan was ranked 50 among 192 countries according to the UN Global survey of e-government readiness in 2008.

IV. THE MOTIVATORS AND BARRIERS FOR ADOPTING GOVERNMENT TO BUSINESS E-SERVICES

Governments can play a dual role to enhance business activities within an economy. The first role is to facilitate e-business initiatives, in terms of providing the relevant infrastructure, talent/skills development initiatives, favorable policies (i.e. taxation, rules and regulations). Governments can also become active participants in e-business initiatives. For example, governments can use e-procurement solutions, when dealing with its suppliers [21].

This section explores the importance of government to small and medium enterprises (SMEs) under the umbrella of government-to-business (G2B) e-services. G2B transactions include various services exchanged between the government and the business community, including dissemination of policies, memos, rules and regulations. Business services offered include obtaining current business information, downloading application forms, renewing licenses, registering businesses, obtaining permits, payment of taxes and e-procurement [27]. In addition to services offered through G2B, transactions assist in business development, especially development of SMEs [23].

Eurochambres [10] found that the optimal framework that businesses need is result-oriented and business-centered, and should be market based. G2B services should be business centered means that they should motivate both supply and demand, as well as, should be proactive and responsive. And businesses need result-oriented e-government service, which means that services should neither overload technology, nor be bureaucracy-centered. Furthermore, it should actively promote innovation.

A. G2B E-Services Motivators

The literature proposed a large set of motivators, where they ranged from cost and tangible measures to more qualitative intangible measures [3][7]. The following is a list of the main motivators to a G2B service paradigm.

- Cost cutting of government and business operations.
- More efficient procurement process.
- Streamline and improve the consistency of personnel intensive tasks, such as: processing licenses, renewals or employee benefit changes.
- Reduction in cost associated with registration and submission of forms.
- Reduction in errors and redundant data entry at the point of submission of forms.
- Reduction in cost associated with registration and submission of returns for business and government.
- Consistent, accurate and up-to-date information for businesses on legislative requirements.
- Reduced time spent searching for forthcoming government procurement.
- Automatic notification of forthcoming procurement.

B. G2B E-Services Barriers

Lam [23] has classified the barriers to G2B services into four categories from the government point of view: strategy barriers, technology barriers, policy barriers and organizational barriers. Two other categories were added to cover the major obstacles facing governments in developing a good relationship and service towards businesses. The following is a description of the six categories.

Strategy Barriers:

The lack of common goals and objectives is an issue, where lacking collective thoughts and aims creates confusion among governmental agencies, and also becomes a part of conflict in responsibilities; it is necessary to have common thoughts for e-government initiatives between government agencies. The Jordanian government is aware of this issue and considers the e-government policy as an integral part of overall national socio-economic development and government transformation. It is not in isolation of the national set of priorities and is built around the service-oriented e-government initiatives facade.

It is imperative to setup a vision for the e-government project and spread it all through the organization. One great example of e-government vision is Dubai's e-government vision, where they emphasize serving citizens and businesses on one hand and providing the notion of becoming a global economic center on the other; and most importantly with few words to remember [8].

On the other hand, the Jordanian e-government project carries a more detailed vision that states: "E-Government in Jordan is dedicated to delivering services to people across society, irrespective of location, economic status, education or ICT ability. With its commitment to a customer-centric approach, e-Government will transform government and contribute to the Kingdom's economic and social development"[25]. It is important to realize such vision, but also to state explicitly the objectives of such huge transformation initiatives. Objectives need to be specific and comprehensive; the following are the objectives of the Jordanian e-government project:

1. Improve service delivery
2. Increase transparency
3. Improve responsiveness to citizens and businesses' needs and requirements
4. Save time and money of both the government and citizens and businesses.
5. Create positive effects on the society.

It is important to realize that businesses are not only the government customers, but also they are its partners and providers [14].

The second factor in the strategic dimension is the lack of ownership and authority: This issue regarding ownership and governance, program management requires solving this matter. Formal project responsibility or the strength of accountability is the major reason for the lack of ownership and authority. The third factor is the deficiency of implementation guidance: whereas the central government set up a vision for the e-government project, agencies and other public management parties require directions on how to transform such vision into reality. Without the proper guidance it is difficult to establish a good e-government project.

Finally, the financial issues are important, where large investment is needed to complete a successful functional e-government project. Due to the lack of financial support, e-government projects can't be successful. Financial support is needed at two stages: the first is the

facilitation of a capable infrastructure that has the capacity to serve the purposes of the project and provide support for all functionalities required. The second stage is the direct cost associated with the project which includes three major aspects: hardware needed like servers, computers, networks and other peripheral devices; software needed in the form of databases, systems and interfaces; and finally, training required that would enable the public sector staff to accommodate with this new technological area.

It is important to see that the dimensions related to the strategic category are not of a static type as they change with time and impose financial burdens on the government because of the cost of updating/upgrading and the continuous training effort.

Technology Barriers

The lack of architecture integration and capable infrastructure yields to different technological and policy problems. The under utilization of proper technologies, lack of quality application interface, and differences in frameworks applied create a barriers to architectural integration. ICT infrastructure does not consist of telecommunication and equipment only, but requires e-readiness and ICT literacy.

Having the basic needed knowledge related to IT is necessary to accept and use e-government services. The second aspect is the deficiency of data standards. The primary function in e-government is to transfer data into information and then knowledge needed in the sustained developmental efforts. The lack of data standards is a major technical barrier. Third, different security models implemented, which is described as one of the success factors in e-government adoption as it yields faith and confidence between users and governments. However, security model is identified as a major barrier in technical combination of e-government systems. The forth aspect is the lack of resources: in most cases, government does not have all the resources to complete e-government projects. Therefore, most of e-government initiatives fail to provide healthy outcomes. Finally, the technology needed to compete in e-government arena might not be available to all countries of the world, specially the developing countries, which raises digital divide between countries as an important aspect in e-government domain. One example of such issue is the differential status of the 3G technology as some developed countries lagged behind against others, where the USA implemented the technology after Japan.

Policy Barriers

Sharing of data between government agencies should be done in a controlled and proper way to protect sensitive information related to citizens. Second, data possession: many governments consider themselves as an owner of particular records and they are very concerned about sharing these records with others. The right or ownership to data must be clear in order to achieve e-government goals. Finally, e-government should be built around a national e-government policy, where policy-

execution is a major cause of conflicts and incompatibilities in implementation of the overall policy. Lack of comprehensive course of action and inappropriate step of development may delay the process of e-government program.

Researchers in the Arab world concluded to four main administrative barriers related to e-government: the complexity of the policy execution in some countries and the bureaucratic procedures adopted; the lack of flexibility in policies and procedures, the lack of proper planning, and the lack of support of top management [18].

Organizational Barriers

Lack of organizational motivation is an important issue as many agencies are not yet ready for e-government challenges, and they are not well prepared for the initiatives of e-government because many agencies are not accepting this change. Bhatnager [11] emphasized the importance of managing change when implementing e-government initiatives. Second, the slow speed of government reform; some agencies have found it difficult to run with the speed of reform. It is necessary to change the state of mind rather than Governments' focus to move towards more technology oriented environment. Third, the lack of internal management and technical ability: lack of proper training within organizations is considered as a barrier for e-government implementation. As we discussed in the technical side of this section, training on software implemented is a costly and tedious process. Several agencies don't have trained and skilled people to execute e-government projects and also lack IT training programs. Finally, change management approach within organizations and governments is considered a vital issue. Change management approach includes the procedures established within organizations towards changing existing cultures. This is considered a key issue of organizational change and a big step towards a high capacity to change.

Legal Barriers

Most research in Arab world focused on the legal side of the equation especially in a developing countries [12] [4] [1]. Abu-Shanab, Abu-Al-Rub and Md Nor [2] recommended the following in the case of Jordan and in relation to the regulations and legislations; first, one of the most difficulties that encounter the Jordanian government in its experience is the absence of needed legislations that regulate electronic payments and its related issues. There is no doubt that e-government projects can't success unless a legal framework governing electronic transactions, which secures the rights of all parties and regulates the domain. Second, government employees need some special competencies when dealing with e-government applications especially the legal side of it. Finally, transparency and fairness are vital when engaging in e-government activities, thus employees in the e-government stages need training and special programs in change management that help facilitate the management and control of the process without any legal

contradictions. The authors recommended importing other countries' experience to easily facilitate the implementation of a comprehensive legal framework.

Human Barriers

The human factor in the area of e-government is a crucial one that appears in more than one dimension. As discussed in the organization and technology barriers, change management is crucial in the process of adopting e-government initiatives. It is related to human aspects and their power distribution and their personal and professional stake. The human aspect also is vital when estimating the training cost, which is considered the largest after the initial investment. Also, it is important when switching or adopting e-government initiatives to train staff and even citizens and businesses on new skills and competencies needed for this new era. Finally, needed human capital might not be available even if we have available financial support for them. When dealing with an issue like e-government, we talk about a wide spectrum of countries where needed skills and competencies are not available.

On the other hand, it is important to take into consideration the resistance of employees for such project as it change the power status and put some jobs at risk. The cases in the literature indicate such resistance whenever an e-government initiative is considered.

Suda [6] examined the G2B challenges from the government point of view and concluded to the following list:

- Deficiency in recruiting, retraining and training of in demand technical and business skills.
- Digital divide will require service delivery via multiple channels indefinitely.
- Extremely large pool of heterogeneous data.
- Traditional budget process makes funding of cross agency projects difficult.
- Requires substantial investments and is competing for funds with "visible" missions.
- Leveraging existing IT investments by integration with legacy systems.

Mizza [13], examined the G2B e-services barriers from the business point of view and concluded that to a long list of barriers and issues like: cross border legal issues, cultural differences, language, lack of payment vehicles (like PayPal), lack of resources, cost of telecommunications, total cost of ownership (TCO) is too high, IT illiteracy among decision maker, shortage of IT skills, intellectual property rights, fear of channel conflict, resistance to change, fear of fraud, fear of identity theft, mistrust of electronic payments, and local customer base too small (critical mass threshold).

V. GOVERNMENT TO BUSINESS INITIATIVES IN JORDAN

To provide proper services and facilitate the G2B transactions, a set of fast-track projects were implemented in Jordan [8]:

- Business regulations: this service will enable businesses to register and pay fees online.

- Telecommunications licensing and regulation: this service will allow ISPs and telecommunications providers to apply for and obtain licenses online.
- Taxation and social security: would enable citizens and businesses to electronically submit tax returns and make payments to different revenue and social security institutions.
- Selling to government: this project will digitize government procurement.

However, these fast-track projects are still under implementation, but the most important issue is how to assess G2B practices. G2B Good practices are evaluated and assessed according to specific "Quality Control" check, consisting of a set of assessment criteria [15]. The assessment criteria are:

- Use of ICT: to verify successful, innovative and value-for-money use of ICT (open standards, multiple access platforms for users, open access tools, interoperability within and between government agencies, technologies and systems enabling data protection and security).
- Innovativeness: to see if there is something new or different, at least going beyond the average situation to become a forerunner in its field, thus providing new ways of successfully implementing eG2B services.
- Managing e-government implementation: the efficient and innovative coordination between initiatives and projects; the coordination and decision-making between agencies and/or different levels of government and between government and private sector and/or non-profit sector partners; and between government and private sector and/or non-profit sector partners; and management of the different aspects of the changes.
- Real practical results: evidence of impact can be given by documented economic results (i.e. time and cost savings) or other qualified results which document the extent and type of impact.
- Functionality (for users and for government agencies): for users they are enjoying upgraded services which support/improve the functioning of their business; for government agencies, they constitute significant improvements in fulfilling its functional requirements.
- Visibility: the case is visible and distinctive, i.e. it has a clear identity and is recognized, at least in the region or country of location, by users and/or government agencies as making a beneficial contribution to government, society and economy.

VI. NEW ARCHITECTURE FOR THE E-GOVERNMENT PROGRAM IN JORDAN

The Strategy for the e-government program was to deliver government information, services, and processes, using information and communication technologies (ICT) to transform the way government engage with people and businesses [20].

According to [9], the new Strategy reaffirms E-government to the goal of delivering high-quality customer centric and performance-driven services to E-government customers. The new aims are summarized below as :

- Improve service delivery, quality and speed of government's interaction with clients, businesses and organizations.
- Provide a single point of contact for all government entities.
- Facilitate sharing and exchange of data, information and knowledge between government entities.
- Increase e-business and e-commerce activities in Jordan. This will be reached by passing many maturity stages, and after overcoming barriers to adopt e-business and e-commerce services.

The new strategy of the e-government program in Jordan implies the need for new architecture. The well suited architecture for achieving the aims of the new strategy; such as integrating distributed systems, delivering high-quality customer centric and performance-driven services, is planned to be Service Oriented Architecture (SOA). SOA is considered to be one of the best ways to provide interoperability and integration between various range of services, implemented by different software applications, running on a variety of platforms in government organizations.

VII. CONCLUSIONS

E-government is growing to a size that requires from governments full attention and demand for the collaboration and facilitation with all parties involved (i.e. private sector and NGOs in society). This requires an adequate infrastructure in all aspects: technical, human and procedural. According to the NRI index, Jordan would need to focus policy attention to the individual usage and business readiness for ICT. Macroeconomic and business environment poses several challenges for Jordan, more so than other dimensions of e-readiness. So for policy makers, there is a vital need to know e-readiness indicators for the government as well as for businesses in order to apply needed strategies that reflect realistic objectives. Also, the government needs to monitor and evaluate the activities that have been launched to assure that their implementation is tracked with accountability and transparency.

Jordan needs to overcome barriers for adopting e-government among businesses with a mutual effort from both parties. Also, there is a vital need for more information regarding G2B case in Jordan in order to be able to apply the quality control assessment criteria. A good step would be to establish a higher committee for the monitoring e-government performance, where indicators of e-readiness are monitored (covering the first theme of this paper), and watch for barriers that hinder the advancement of e-government initiatives. As well as, measuring the percentage of strategy, technology, policy and organizational barriers of G2B e-services to identify correct actions that overcome these barriers and to

improve efficiency and organizational effectiveness.

VIII. FUTURE WORK

Future work is encouraged to explore other e-government readiness measures and try to integrate those into the process of improving e-government performance to assure quality results. As we mentioned, some indices did state the measures that were used to build the index, which means that more research is needed to improve the fit of the index to the country and the accuracy of the rankings.

Future research is needed to review the Service Oriented Architecture (SOA) principles, benefits and best practices that helped countries to satisfy the goal of delivering high-quality customer centric and performance-driven services in the field of e-government.

REFERENCES

- [1] Aboud, F. (2005). An Arabic Book entitled: "E-government, Between Implementation and Planning", King Fahad National Library, Reyadh, Saudi Arabia, 2005.
- [2] Abu-Shanab, E., Abu Al-Rub, S. & Md Nor, K. (2010). Obstacles Facing the Adoption of E-government Services in Jordan. *Journal of E-Governance*, Vol. 33(1), 2010
- [3] Alomari H., ' E-Government architecture in Jordan: A Comparative Analysis'. *Journal of computer science*, 2(11): 846-852, 2006 .
- [4] Baz, B. (2009). An Arabic Book entitled: "E-government Role in Managerial Decision-Making and Electronic Voting", Dar Al-Kotob Al-Qanonieh', Egypt, 2009.
- [5] Bhatnager, S. (2004). "E-government From Vision to Implementation", Sage Publications 2004.
- [6] Bob, Suda; Assistant commissioner IT solutions, G2B workshop, Buyers/ Sellers views on B2G. , 2001.
- [7] Bonham G.M, Seifert; The transformative potential of E-Government in Transitional Democracies, *Public Management. Electronic Journal.* , 2003.
- [8] Dubai e-government website: www.dubai.gov...
- [9] E-government Program (2007). Jordan E-government Architecture Vision..
- [10] EUROCHAMBRES; Position paper, eEUROPE 2005 Mid-Term Review. , 2003.
- [11] Grunauer, Karl Maria; Fleisch, Elgar, Osterle, Hubert: E-Commerce – project in supply chain. (2000).
- [12] Hijazi, A. (2008). An Arabic Book entitled: "E-government, Between Ambition and Reality", Dar Al-Fikr Al-Jamee', Alexandria, Egypt, 2008.
- [13] Ian Mizza, MBA, <http://www.miti.gov.mt/docs/Ian%20Mizza%20-%20FOI.pdf> .
- [14] Jordan E-government Strategy, 2006, accessed from the e-government website: www.jordan.gov.jo.
- [15] Jordan e-government website: www.jordan.gov.jo
- [16] Lam Wing , " Barriers to e-government integration", the journal of enterprise information management, Vol.18, No.5, pp.511-530, (2005)
- [17] Launching E-government in Jordan, Ministry of information and communication technology \MOICT). http://www.moict.gov.jo/moict/downloads/Jordan_E-Gov_CH4.pdf.
- [18] Matar, I. (2008). An Arabic Book entitled: "E-government, between theory and implementation", Dar Al-Jamea' Al-Jadeedah, Alexandria, Egypt, 2008.
- [19] Mckenna, Regis: Relationship Marketing- Successful

- strategies for the Age of the customer, New York: Addison-Wesley 1991.
- [20] Ministry of Information and Communications Technology, E-readiness Assessment of the Hashemite Kingdom of Jordan, 2006, http://www.moict.gov.jo/MoICT/MoICT_Jordan_ereadiness.aspx.
- [21] Murali Raman, Maniam Kadiannan & Ming Yu. E-business and E-government: Issues and Challenges in Malaysia, Information Technology Journal 6(3) 428-434,(2007).
- [22] Park, IK: National Competitiveness and EC, in : The Journal of Information (Korean), Vol.3, December 1996, pp.20-41, (1996) .
- [23] Patricia J. Pascual; E-Government , e- ASEAN Task Force UNDP-APDIP. 2003
- [24] Petra Schubert and Urs Hausler: E- Government meets E-Business; Institute for business Economics (IAB) University for Applied Sciences Basel, Switzerland (FHBB). (2001).
- [25] Slovenian National report for the Transfer- East project, 2006.
- [26] The Economist Intelligence Unit (EIU), The 2007 e-readiness rankings report. <http://www.eiu.com/siteinfo.asp?infoname>.
- [27]Yari. e-government and Regulatory environment,2008 www.egov.iist.unu.edu/index.php?../E-governance%20.