

Constructing E-government Model: the case of Saudi Ministry of Labor

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ABSTRACT

The Ministry of Labor in Saudi Arabia started E-Government applications three years ago. The Ministry has undertaken major attempts to re-engineer its interface with the labor and employment automated systems. It has also suffered a number of highly publicized failures in delivering its services electronically. This paper presents a case study of the process of 'constructing' e E-Government experienced by this organization. It describes one particularly interesting instance of the way in which public sector organizations are struggling to construct an E-Government identity. This paper highlights the usefulness of a model of the ideal-typical electronic government organization developed as part of my research and consultancy activity. The model is useful as a means of highlighting the limitations of conventional definitions of E-Government in the Saudi Ministry of Labor while providing pointers for the development of future strategy in this area.

1. INTRODUCTION

A broad definition of e-Government is the use of information and communication technologies (ICT) in improving the activities and services of government [1], and a more value-laden definition is "the use of ICT to transform government by making it more accessible, effective, and accountable". [2] The first definition reflects the basic model of e-government where government services are delivered on-line to citizens and implies efficiency and customer-service; the second derives from a governance model of increased participation of citizens in the affairs of their government. However and beyond semantic differences which illustrate different perspectives on e-government, namely government automation versus government transformation, e-government has been associated with a variety of processes and outcomes including the integration of the government in a seamless and transparent body, better public service and enhanced citizen trust, empowerment of citizens by integrating them into the functioning of government, strengthening good governance and broadening public participation, reform of government in view of more transparency and accountability, etc. While conceptually there seems to be an agreement over what constitutes e-government, objectives differ between those who use e-government to transform government, where government itself is but one part of a larger value cycle – the democratic process-- and others who long for a fully-automated hence efficient government operation, hence a government that is mostly oriented towards service delivery. The major difference lies essentially in the original visions that drive e-government

initiatives; visions that are democratic government or lack generally anchored into a larger practice of thereof. [3]

2. INFORMATION TECHNOLOGY IN SAUDI ARABIA

2.1 Seventh five-year development plan

The seventh development plan in Saudi Arabia includes a clear vision of the role of information technology in the economy. The plan envisages, among other things, a national plan for the use of information technology (IT) for scientific and economic development. The IT plan would include programs aimed at facilitating the availability of and easy access to the most recent information, determining the roles of data producing and data collection entities, information integration, establishing information systems within the national information network, and making information technology and information services accessible to all segments of the society. [3]

The plan sets the country's vision for bridging the technological gap between Saudi Arabia and the developed world by 2020. Strategies have been developed for investing in the use of information technology for human development along the lines of international standards in order to enhance local capabilities to handle modern technologies. [3]

2.2 National policy for science and technology

The Council of Ministers, on 8 July 2002, approved the national policy for science and technology paper, which had been prepared jointly by the Ministry of Planning and the King Abdul Aziz City for Science and technology (KACST). The paper contains ten strategic principles, each encompassing a number of mechanisms and programs for the implementation of the country's science and technology policy. The tenth principle focuses on the availability of and accessibility to scientific and technological information, through the application of a number of steps, i.e.

- Development, strengthening and facilitating accessibility to national scientific and technological databases,
- Development of national programs to encourage the production, dissemination, and exchange of information, and to facilitate the application and accessibility of such information, with a view to integration in the information age,
- Developing mechanisms for the security and protection of information,
- Strengthening the use of the Arabic language in the information technology,
- Development of a national information plan in support of global development in the country,
- More focus on the adaptation and national development of information technology with a view to enhancing the efficiency and effectiveness of the use of information in the country.

KACST and the Ministry of Planning are in the process of preparing the fourth phase of the comprehensive national plan for science and technology, comprising a number of mechanisms to

implement programs and projects aimed at the realization of the national policy objectives for science and technology. [3]

2.3 Adaptation of IT

KACST and the King Fahd University have prepared two studies on the adaptation of information technology. KACST's document is entitled "National vision of the adaptation and use of IT in Saudi Arabia", and the latter study is a draft national plan for the adaptation of information technology. [3]

2.4 National IT plan

On 6 March 2001, a royal directive instructed the Saudi IT Association to prepare a national IT plan and propose the needed mechanisms for its implementation. Accordingly, the secretariat has embarked on two parallel paths:

The first path: Preparation of the plan and of implementation strategies. A number of preliminary studies have been conducted, and work is proceeding on the preparation of a comprehensive plan with a long term perspective of IT in the country for the next 20 years, and a five-year rolling plan.

The studies covered an analysis of the current situation, experience of other countries, and modern technologies in the field relating to four main areas:

- Education and culture,
- Economy and trade,
- Communications and information security,
- Administration and services.

Each of the above areas is divided into a number of sub-areas. Annex 1 lists the main and sub-areas with a brief description of each.

The second path: Preparation of initiatives for immediate implementation to address urgent issues pending the application of the comprehensive plan. A paper on "initiatives for immediate implementation" has been finalized. It covers a number of urgent IT issues that call for immediate action. It includes six main proposals that cover restructuring of the information sector, training of human resources in the field of informatics, development of the ICT infrastructure, development of IT industries, strengthening of the Arabic and Islamic content, and enhancing the realization of e-government.

The final plan is due to be finalized by the end of 2003. [3]

4. THE E-GOVERNMENT REQUIREMENT

4.1 Technical & Industrial Infrastructure

The infrastructure is the supporting hardware and software that allow for electronic communication. A reliable infrastructure is needed in order for e-government to flourish. People and businesses inside such countries cannot participate without the presence of an adequate infrastructure in place. [5] Overall Internet penetration and PC penetration in the GCC is currently estimated at 9.23 percent and 7.64 percent respectively. [6] The ratio of Internet users to the PC installed base is then 1.21:1. By comparison, the Internet penetration and PC installed base in North America are 57 and 62 percent respectively (0.91:1 - more PCs than Internet users), while in Europe the Internet penetration and PC installation base are almost equal at about 24 percent (1:1). It is believed that in order to have an impact, there should be at least 20% PC penetration. It is very expensive to build a reliable infrastructure; in addition, many times it falls on the shoulder of the governments to finance the infrastructure needed. A technology-friendly attitude within government is therefore necessary. Internet access charges are another limiting factor. A report from the Arab Advisors Group [7], published in early 2001, stated that the combined bandwidth of Egypt, Saudi Arabia, Lebanon, Jordan, Morocco, Oman, Syria and the UAE was 777mbps, equivalent only to the combined bandwidth of 518 US cable modem subscribers. [8]

4.2 Transactional vs. Holistic e-Government

For many, ultimate e-government means putting government transactions on-line, or automation. This is reflected in the four stage classification of e-government where it moves from simple web presence or informational e-government to the upper stage of transactional e-government, wherein government services are delivered seamlessly through a one-stop shop or portal (see Figure 2). Hence, many governments have moved swiftly to leverage the Internet to meet the rising expectations of citizens, not only by providing more efficient transactions but also by rolling out new services to show that government understands the needs of the people. [9] In some cases, citizens themselves drive the establishment of these services by participating in the planning and development process of e-government projects. [10]

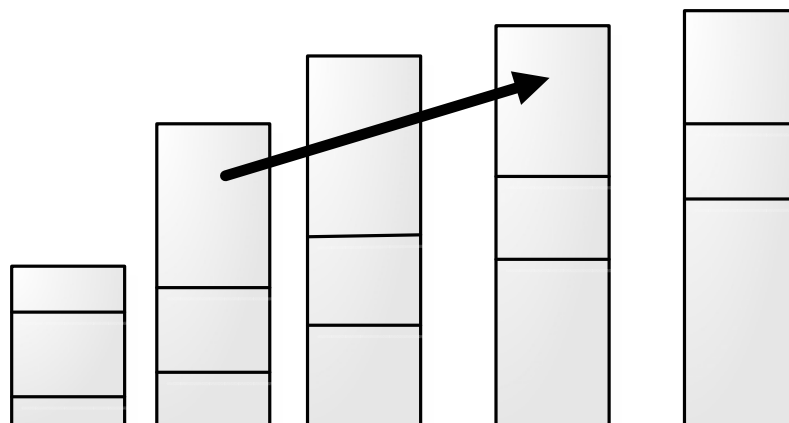


Figure 2. Stages of e-Government Model (Adapted from [11]).

4.3 The Design-Reality Gap

A number of e-government projects around the world found that 35% are total failures and 50% are partial failures. Only 15% are successes. [12] Total failures are projects that are not implemented or are quickly abandoned. Partial failures occur when objectives are not met or significant undesirable effects emerge. His major findings, based on the analysis of a large sample of e-government case studies, are that failures are primarily due to gaps between reality and designs. Reality and design are captured through seven dimensions (see Figure 3). Successful e-government projects are those that closely mirror reality and do not try to change it drastically. For developing countries, the gap is wider whenever e-government solutions from advanced government environments are implemented. "So there is often a large design-reality gap when you try to introduce in a developing/transitional country an e-government system designed in and for an industrialized nation". [12] If one were to give any credit to the success and failure statistics of Heeks, then it would not be advisable for developing countries to use e-government projects as a conduit for government reform because that will further widen the gap between design and reality. This position is partially echoed in the Roadmap for e-Government in the Developing World (2002) which states upfront in its introduction that "e-government in the developing world must accommodate certain unique conditions, needs and obstacles. These may include a continuing oral tradition, lack of infrastructure, corruption, weak educational systems, and unequal access to technology" and further down "in developing countries where resources are scarce, rushing forward with ill-conceived e-Government plans can be a costly mistake, financially and politically". [10]

One finds oneself caught between two antagonistic positions, that of mainstream e-government policy literature clearly favoring a holistic and reform approach to government and Heeks approach, which is largely echoed in the practice of e-government in many developing countries. The dilemma is that if one goes for the first approach, the risk of failure could be very high as Heeks findings show. However if one foregoes the reform approach, one might lose an opportunity for reforming government and condemn one's country and citizens to the same type of government only on-line this time. To deal with this dilemma we have to better understand the theoretical mechanisms underlying both approaches and eventually identify contexts where either approach could be more suitable than the other. This will be done in conjunction with the challenges facing e-government in the Gulf. But first let us briefly overview e-government projects in the region. [10]

4.4 Global Ranking of GCC e-Governments

Based on a UN report in 2004 [13], not a single Middle East country has made it into the top 25 global e-government readiness ranking, the first being Bahrain in 46th position. Its e-content study praised the efforts of business websites in the region but found that localized information about culture and education was scanty, and not updated often enough. [14] The e-readiness report has shown a decline of the readiness index for all GCC countries but for Bahrain and Saudi Arabia. The only country that made a significant progress both on the world and GCC scales is Saudi Arabia with massive investments in ICT infrastructure and a more prominent Web presence as major government projects went on-line. [15] Bahrain while remaining stable in the world rankings grabbed the lead from Dubai and has become a solid leader in e-government throughout the GCC and Arab regions. The UAE after a quick rise in the previous years is regressing rapidly as a result of a sharp decline in its Web measure index. The Web measure index reflects the service levels provided by e-government web sites and portals (i.e. on-line

presence). Transactional web sites for instance will have a higher index than purely informational ones. T

5. E-Government Challenges

E-Government is a large scale and complex change initiative. The challenges can be categorized into customer expectations, process, people and technology related issues. Such multi-dimensional complexity mixed with local cultural aspects presented unique challenges for Saudi in undertaking its own e-Government initiative. The challenges encountered are summarized in the following table. [16]

CHALLENGES IN E-Government

Customer Expectations	Process	People	Technology
<ul style="list-style-type: none"> • Not in-line but on-line: Customers demand services through more convenient innovative channels • Customers require 24x7 High Quality eServices • Customers Require-Multi channel and consistent services; internet, mobile, call centre, etc. • Customers require Multi-lingual services: Arabic and English • Customers demand High-performance services 	<ul style="list-style-type: none"> • Some Government services have complex rules and regulations resulting in bureaucracy and red-tape • While providing traditional counter based services, each service needs to be migrated from counter based to innovative channels; hence significant amount of time and resources are required on top of the existing ones • Requires changes in business processes (in certain cases full reengineering, in some cases quick wins through e-enablement; phased approach via continuous improvement) 	<ul style="list-style-type: none"> • Requires leadership at various levels to implement the initiative • Requires new skills to redesign and implement business processes • Establish new approaches and methods to manage the new channels • The technical divisions need new skills for new technologies • Requires both the augmentation of existing skills and also the acquisition of new skills 	<ul style="list-style-type: none"> • Technology is rapidly changing with new technologies emerging at an accelerated pace • Life-cycle of technologies has become around 1 to 2 years resulting in a disruptive change in some cases • The life-cycle of an eService today from the design & implementation to achieving benefits through adoption by customers is in some cases greater than the life-cycle of technology <p>and interoperable while implementing the new ones</p>

(Adapted from [16]).

5. CONCLUSIONS

Because e-government is a costly and lengthy process, officials should be aware of these pitfalls before embarking on this journey.

E-government is a process that requires a sustained commitment of political will, resources and engagement among the government, private and public sectors. However, if e-government practitioners take care of technical requirements, they potentially can develop a system of e-

government that not only makes current government practices more efficient, but also transforms the very relationship between the public, the private sector and government.

By promoting the larger goals of society and making government more responsive to its citizens—creating a citizen centered, “user-friendly” government—e-government can be a powerful tool in improving a nation’s quality of life. The power and promise of e-government are open to all, in both the developing and industrialized world.

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