Electronic Government in Iraq: Challenges of development and implementation

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Abstract:
Electronic Government (eGovernment) is a well-known phenomenon in all over the world. eGovernment is the use of information technology by public sector organizations to reach out to its citizens in a modern and effective way. Year 2003 Iraq began to build its own eGovernment project with the help of Italian government to have the place among world ICT society. The purpose of this study is to find what the challenges are during development and implementing process of eGovernment in Iraq. This is a Qualitative study, conducted in Ministry of Science and Technology in Iraq where the author carries out interviews with employees. The project has not achieved its goals yet, many problems still wait addressing. The study concludes that Iraq eGovernment project faces the challenges of infrastructure instability and political influence, corruption and poor resource management.

Key words
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1. Introduction

Electronic Government (eGovernment) is a powerful tool for human development and essential to the achievement of the internationally agreed development goals including the Millennium Development Goals from The United Nations (2010). In the beginning of the 1990s public administration has been confronted by a series of new demands; society has been transformed by the influence of new technology (Jeorg, Algernissen, & Niehaves, 2006). Using of computer in life being important, citizens have become more internet-savvy and experience good electronic services from the private sector, they have begun to expect the same high standards from government agencies (Weerakkody & El-Haddadeh, 2010). Public services around the world have realized the importance of making their services more efficient and available (Weerakkody & El-Haddadeh, 2010). Interest in e-government has mushroomed over the past ten years as governments have viewed e-government as a lever for changing outmoded bureaucracies, making improvements in the efficiency and effectiveness of public service, enhancing service to citizens and businesses, and promoting participation and democracy (Rowley, 2011). Heeks (2006) define e-government as the use of information technology in the public sector to reach out to its citizens in a modern and effective way.

1.1 Background information

Iraq Government is in the special position of developing an eGovernment project in an environment that is receptive to innovative ideas; these information ideas will be catalysts of a positive and good future (Sharief, Graul, & Ian, 2007). Due to the current situation of security since 2003, Iraq finds itself coming to terms with how to progress to be in way of development (Sharief, Graul, & Ian, 2007). June 2004 the United Nations calls on Member States to help the new Iraqi government for institution building. Italian Minister for Innovation and Technologies and the Iraqi Minister of Science and Technology sign a Memorandum of Understanding in which the Italian Government commits to provide technical and financial assistance for the construction of an Intranet linking the Ministries of the new Iraqi Administration and built an eGovernment project. The
Government Intranet project represents the first step for the development of an efficient E-Government Platform, able to support the reconstruction the infrastructure of the Country (Matloob, 2008).

United States Agency for International Development (USAID) and Iraq Ministry of Science and Technology put a strategy from 2007-2010 to develop Iraqi electronic government project as it show in figure (1). The eGovernment Strategy will have the best possible chance of success if the process moves forward with high level support and sponsorship (Sharief, Graul, & Ian, 2007).

A government sector delivering integrated services and improved opportunities for community participation. But still these are several challenges which are exist during development and implementing process.

![Pathway to eGovernment in Iraq 2007-2010](image)

Figure 1 Pathway to eGovernment in Iraq 2007-2010 (Sharief, Graul, & Ian, 2007)

1.2 Purpose and objective
The purpose of this study is to focus on Iraq eGovernment project, will outline the most important factors about the project to find what are the challenges against the development process and to Acquire knowledge from decision-makers on how the organization have solved the issues Iraq experienced in its eGovernment development, thus enabling and discussion on how issues such as those Iraq faced could be solved in other contexts.

Therefore the main aim of this study is to find the challenges within the development and implementing process for Iraq eGovernment project, the objective of this study will be done by answering research question.

- What are the challenges developing and implementing eGovernment project in Iraq?

2. Method

This paper used qualitative method for collecting the data. The strength of qualitative research is its ability to provide complex textual descriptions of how people experience a given research issue (Mack, Woodsong, MacQueen, Guest, & Namey, 2005). Qualitative methods provide results that are usually rich and detailed, offering many ideas and concepts for study (ORISE, 2011), also Qualitative method depend of data which is a non-numeric data, words, sound found from interview tapes, researches, company documents and websites (Oates, 2006). This is suitable to the study since the author will deal with data provided by employees who work in eGovernment project obtaining input from the direct channels to identify challenges and implanting process of eGovernment project. Because the quality of the information retrieved within an interview is largely dependent on the interviewer (Heeks, 2006), the Author found that interview is the best way for collecting the data. Also that project documentation, textual analysis, websites was used to retrained useful data about the Iraq eGovernment project.

The study was conducted in Ministry of Science and Technology in Iraq, research site was chosen to meet certain criteria that are relevant to the theory underlying the research, since the study needs to collect data regarding to research approach. To identify the research question, how the data has been collected, data analyzing will be discus below:

2.1 Conceptual framework

The choice behind choosing of conceptual framework was regarding to eGovernemnt development process. Implementing the egovernment projects over diverse geographical areas;
across multiple departments and organizations with differing levels of IT and non-IT skills; having many different kinds of legacy processes; and governed by multiple sets of policies and procedures requires facing a set of challenges across the four dimensions of people, process, technology and resources. (Mr.C.Chandrasekhar, 2007).

The four dimensions will discuss it and show it in figure below:

![Four Pillars of e-Government](image)

Figure 2: The four Pillars of eGovernment (National Institute for Smart Government, India, 2007)

**People:** As e-government projects are rolled out across the country people within and outside the government play an increasingly important role in ensuring the success of these projects. The scale of transformation is huge and enormous resources not only in terms of money but also the expertise, skills and commitment of the people will be required. Hence, management of people is a biggest challenge to the success of the e-Government Program (Mr.C.Chandrasekhar, 2007).

**Process:** E-Government is not just about the automation of manual records and existing processes, with all their inefficiencies. Rather, it is about transforming government processes and creating new relationships between the government and its citizens and businesses. Hence, a fresh set of process parameters and related workflow should be created, without creating
unmanageable and chaotic changes, to maintain the consistency and sustainability of the process (Mr.C.Chandrasekhar, 2007).

**Technology:** ICT is a key element of reform efforts that can help dramatically reshape government to improve performance and reduce costs. Governments today are increasingly exploiting the tremendous opportunities provided by ICT to deliver services in a more efficient and effective manner, and mostly at lower costs than earlier. The realization of these opportunities, however, depends on the effective management and integration of the service delivery infrastructure. In particular, the government business processes, information resources, and the technology systems of multiple government agencies have to work in a coordinated and integrated manner (Mr.C.Chandrasekhar, 2007).

**Resources:** New technologies demand new types of implementation models. Budget constraints within government, barriers to entry of private investment in e-Government sector, lack of skills for program and project management, absence of frameworks that enable designing e-Government projects on a self-financing model are among the important challenges in the resource area.

However, the Public Private Partnerships (PPP) with innovative business models have emerged as a viable solution to the issues of funding e-Government projects and has helped in mitigation of risks through sharing of risks between public sector and private sector.

In sum, there are a plethora of challenges to the successful implementation of large e-Government programs (Mr.C.Chandrasekhar, 2007).

The questions was modeled regarding to each concepts of conceptual framework, the question can be shown in appendix.

### 2.2 Data collection

As the research was conducted within Qualitative study, in which author have to find the challenges against the development process in the Iraq eGovernment project, author wanted to collect data which is connected to Iraq eGovernment project. Since the selection of interview is very important, to choose the right person who can give the author the best data which it will be good data for research (Oates, 2006).
Regarding to Oates 2006, author need to plan the issues want raise and the questions want to ask, question need to be clear and easy to understand, give the interviewees time to read the question and inform him/her about the topic, did a practice interview would be best for good interview. In order to make a success interview, author need to choose which way going to formulate question, author found that a semi-structure interview relevant idea for collecting data because this technique give the ability for more speech with more detail for the issue which the author raise for (Oates, 2006).

Choosing of question regarding to Patton 2002, for any type of topic and distinguishing type of question will force the interviewer to be clear about what is going to ask and help the interviewee to respond clearly and appropriately. Also the questionnaire should indeed generate a data about the topic which author will going to write about, make sure the questionnaire cover all the topics (Oates, 2006).

Designing the question for interview was conducted regarding to research conceptual framework. So in order to answer research question, author design questions for collecting a relevant data for interview as it is given in appendix.

Documents and articles for eGovernment project were retrieved from Iraq Ministry of Science and Technology, Google Scholar, employee documents and Orebro university library was used to obtained data for research.

Iraq Ministry of Science and Technology minister contact via e-mail, a meeting with’ Director General Information Technology’ held in Baghdad, the choice for Ministry of Science and Technology because this is the only Ministry who responsible and adopted the project, preparation for interview tacked time because it was need to find which person are suitable for relevant data, the interview held after the permission and it was with the ‘Director General Information Technology’ and several interviews made with IT stuff who they responsible about running applications. The choice behind choose them because they were the only stuff who implement the project and manger of Iraq eGovernment project also involved within implementing and development process, However, the strength of these source is their proximity to the case in question, presumably making the data highly valid (Jansen, 2011), the date which inquire from interviewee helped the author to find such a good facts about Iraq electronic government project, mobile voice recorded used for recoding the interview ,taking notes within interview also.
Author sent the interview transcription to interviewee for approve and validate.

2.5 Data analysis
Interview was transcribed, making summary, after transcription, the textual dataset was coding and categorized according to four pillars of eGovernment conceptual framework phases (People Process, Technology, Resources); to present the data the author used CATWOE (Clients, Actors, Transformation, World view, Owner, Environment) as its shown in table 1 below:

Table 1: CATWOE Analysis of the Iraq eGovernment project

<table>
<thead>
<tr>
<th>Client</th>
<th>1- Iraqi People</th>
<th>2- Iraqi government</th>
<th>3- Stakeholder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actors</td>
<td>1- Stakeholder</td>
<td>2- Project team (IT Stuff)</td>
<td></td>
</tr>
<tr>
<td>Transformation</td>
<td>1- Making Policy makers</td>
<td>2- Citizen and stakeholder aware about new perspective of the project.</td>
<td></td>
</tr>
<tr>
<td>World View</td>
<td>1- Make application relevant and important</td>
<td>2- Introduce the new system</td>
<td></td>
</tr>
<tr>
<td>Owner</td>
<td>1- Iraq Government</td>
<td>2- US Government</td>
<td>3- IT Stuff in Ministry of Science and Technology in Iraq</td>
</tr>
<tr>
<td>Environment</td>
<td>1- Security situation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Results and Discussion

The challenges towards the Iraq eGovernment project can be categorized under the four pillar of eGovernment as identified by the conceptual framework.

4.1 People:
In Iraq, both political and civil situation is not stable enough, that it has affected the smooth transition from one party in power to another. In the public offices there are employees whose political alliance determines the status and the final word on projects. This has considerably stalled the progress of the eGovernment project. Then there is the need for better skilled personnel who can take initiative and carry out the project without higher intervention. Since the emergence from the recent war, Iraq is not yet perceived by its many skilled citizens who have sought asylum abroad to be a stable enough governance to resume their places at public offices. This has reduced the number of skilled personnel, especially in the IT sector in the public institutes in Iraq. The third party stakeholders who have been providing technology and support do not exist anymore, creating a problem with continuity.

4.2 Process:
The eGovernment program in its 4th year has been initiated with the support of the US government, with an action plan proposed by them. The process that it provides is still not compatible with the governance model of Iraq, mainly due to other reasons such as infrastructure, resources, people, who are the other pillars in the model this study uses.
The governance bureaucracy still has not converted to a digital medium, therefore requiring paperwork done instead. Unless the process changes to accommodate such a method, eGovernment cannot be implemented. The ministries of the government still operate within their own methods and without a political decision the eGovernment project cannot hope to centralize the data and operations as it plans to. The Iraq Government participates actively in a lot of important international gatherings regarding government policy and G2C ‘Government to Citizen’ implementations and this is a hopeful approach since the process can be purified with external assistance and also to attain an international acceptance in the world ICT community.

4.3 Technology:
One of the first steps of a nation as it becomes an information society is its presence on the Internet, in Iraq still they have problem with internet connection, citizen still have problem to get connection, wither the connection is bad or it is so expensive to get high speed connection. Infrastructure is very weak in Iraq at present that electricity does not reach citizens for more than few hours a day. Only one Internet service provider exists for Iraq which lessens the coverage.

4.4 Resources:
According to the observations of the author, the poor resource planning is a major problem within the project. This is closely related to corruption of bureaucracy within departments that the higher levels get the better resources while the actual development personnel get under performance resources. During development processes the IT group tried their best to work with what was available for resources and they were not satisfied with what they had to work with. 20% of Iraqi ministries are still don’t have that much services, still need active people who have time, energy to build such huge project, still using the offline system for implementing there services.

“Most e-government projects fail. They are either total failures, in which the system is never implemented or is implemented but immediately abandoned; or they are partial failures, in which major goals for the system are not attained and/or there are significant undesirable outcomes” (Heeks, 2006).
In addition, problems and challenges exist outside the government scope, but directly influence the project such as the lack of citizen trust towards the government. This causes a fear for privacy of the data provided by the citizens. There is less awareness of the citizen of G2C services. All these factors which are influence of the work on the project are connect and interact with each other, if the government give the citizen give the people trust and level of awareness being high toward using e-service Iraq will have good chance to be in good level in developing country. The perceived threat of security reduces many investors from creating a society that is bound by government and corporations with citizens.

5. Limitations

Since the study was conducted in Iraq, there was a need to have a lot of permission to do this research and sometimes requests were rejected because of security issues. That has minimized the amount of author’s activities and limited the scope of data collection. The study would be complete with a survey of citizen perspective about the eGovernment project but because the security situation the author couldn’t collect that data and just have study from government perspective.

6. Conclusion

eGovernment projects nowadays are being assessed from different dimensions. It is a challenge to conduct such study which is containing a history of a project with its challenges with implementation and development process. Iraq eGovernment project can still be classified as a newborn project, its history and progress cannot yet prove commendable.

Iraq eGovernment project has not achieved its goals yet, since there are still many challenges and problems associated with the four pillars of eGovernment success. To outline, People aspect has issues of political and civil instability, stakeholder discontinuity and lack of skilled personnel. In Process aspect, the lack of a political process that suits the eGovernment project goals such as centralization of ministries and other government offices. There is also the higher number of
manual G2C services which cannot be converted without political decisions. In the technology perspective, the infrastructure of Iraq is needed to stabilize, with electricity and internet as major components for eGovernment access. In resources aspect, there is the poor resource management and corruption which slows the project progress and the dissatisfaction of the project staff. This project is adopted to improve government performance towards citizen, but without many other external aspects such as citizen trust, lack of awareness, lack of security it cannot hope to succeed. Even though Iraq is in the beginning step of government-wide systems development, it is useful to look forward to how government services can improve with the input from the Iraqi citizen.

7. References


Appendix

Questions for the interview regarding the four pillars of eGovernment conceptual framework.

General

1. *When did the idea for the Iraq eGovernment project begin?*
2. *What were the aims of project?*

People

3. *Do you prepare an educational staff to lead this project in future?*
4. *What issues has there been regarding selecting personnel for the project?*
5. *Do you think that citizen will trust this project regarding to country situation?*

Process

6. *Did you have any idea how to begin and from where you begin?*
7. *What were the goals? G2G? G2C?*
8. *Do you have any interaction with citizens?*

Technology

9. *What were the problems and challenges which you face during the implementing and building processes?*
10. *How did you solve your problems, what were your ideas?*
11. *In Which level you think the project is?*
Resources

12. What were your initial recourses? Stakeholders?

13. How has the resources been managed to suit the entire project team?

14. If the system will run perfectly, do you have the capability to sustain it? Or will you still depend on foreign resources such as from USAID?