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The Effect of Change Management on E-Government: Implementation in Egypt

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Abstract:
With the rapidly changing technology, digitalized technology and the great improvements in the field of communication and information technologies, the way the businesses operate and the competition between companies have totally changed. Competition has risen to a totally new level. Governments started to realize the value and the importance of changing from the traditional way into an electronic one. The article discusses the importance of E-Government and its effect on the service quality of the public sector, discussing how change management is a critical success factor in the E-Government implementation. The focus is narrowed down to developing countries especially Egypt. The article first represents an overview of the E-Government, how the shift in models from a traditional one into E-Governments was successful in many countries, the opportunities and benefits of implementing the E-Government in developing countries as well as the challenges and barriers facing its implementation. Finally, the effect of E-Government implementation in developing countries especially in Egypt is analyzed.

Keywords: Change Management, E-Government, Developing Countries, Egypt

1. Introduction

Recently and due to the vast improvements in the field of digitalized technology and Information System - IS, businesses are no more competing with other local businesses but the competition has been taken to a higher level, globally. It became easy to communicate and have suppliers and customers from all over the world. Besides gathering information about any market, industry and companies have become so easily and quickly achieved through the internet. The effect of improving technologies of information system is not only limited to businesses and markets, it has also affected how universities communicate with students where everything has been digitalized; the lecture slides, books, summaries and any notes are often available electronically through the internet that can allow access from any place. On a bigger scale, governments have also started to provide services to the citizens and their stakeholders electronically through the internet. Nowadays inorder to maintain a competitive edge depends primarily on the ongoing update of goals, purposes and processes of doing things in any organization (Osborne & Gaebler: 1992; Malhotra 2001).

Unlike before, now the world is open and there are many worldwide rules and regulations concerning countries and governments that have changed. Accordingly, citizens put the governments under severe pressure to deliver their services at both higher quality and on time. The only way to satisfying its citizens, is to consider using the Information and Communication Technologies (ICT) and to re-engineer their processes. By using ICT, governments can overcome many of their obstacles. Thus, through offering the governmental services via electronic tools, time could be dramatically saved; there will be a simplification of procedures, and of course a better record management, reduuucing the probability of human error, corruption and bribes and ensuring better transparency (Monga, 2008).

Many countries and governments have recently changed from the traditional way of conducting governmental services into E-Government. By focusing on the Egyptian government in this research paper, it is beneficial to know that many countries in Africa especially in Southern Africa like Mauritius, South Africa, Mozambique, Botswana and Namibia updated their regulatory and institutional frameworks to adapt with "E-Government"(UN e-govt. report, 2008; Bwalya K. J. & Healy, M. 2010).

In this paper, the Change Management's Effect on E-Government Implementation in developing countries will be discussed along with the opportunities and challenges facing its implementation. Then the focus will be narrowed down to the Change Management's Effect on E-Government Implementation in Egypt as being one of the developing countries.

2. Litrature Review

2.1. E-Government

E-government is a multidimensional and complex concept which requires deep and full understanding of all its aspects, not simply defining it as electronic or digitalized governmental services. As by narrowing its understanding and definition many opportunities of what it offers are given up. That was clear in some countries, where the main reason behind failure of E-Government initiatives was the poor understanding and narrow definition of its concept, scope, processes as well as its functions which will be discussed below in details (Osborne & Gaebler, 1992). The E-Government is defined by many researches and organizations like Abramson and Means (2001), World Bank (2001), Fraga&Tapscott (1996) and UNPA & ASPA (2001) as the use of Information Communication Technology (ICT) to update and enhance the internal and external way of doing things beside their interrelationships with its suppliers, customers and businesses. Thus, increasing the effectiveness and efficiency of the governmental sectors with the aim of making a change to improve its services and benefiting the public sector and all the members of the society. Both the economic and social developments in all countries are heavily dependent on the development of their public sector. Beside achieving the aim of "balanced E-Government", E-Government framework components and main issues could be categorized into three main categories as follows;   First, are the transformation areas which are the internal, external and relational, Second category is the users, customers, actors and their interrelationships who are mainly the citizens of the country, businesses, government organizations as well as the employees and the third component of the E-Government could be categorized as the E-Government application domains which are e-services, e-democracy and e-administration.

The E-Government concept has first started in mid 1980s and has been developing and greatly evolving since then. However, it has just been widely spread and in general use only during the past five years. E-Government is arising mainly from the interaction of three areas which are the technology, management and the government itself. Each of which has gone through its own development and evolution phases. These three areas are not fully evolved; they are still evolving and likely to undergo significant further evolutions. As for the first area; technology, in 1994 the adoption of internet and email has started to be widely used and the World Wide Web Consortium was first launched, offering simpler access to the internet. Afterwards the governmental websites and web based information started to spread across the countries, enabling the two way communication between the government and its customers (citizens) as well as its other stakeholders. Later attention was attracted more to the importance of electronic infrastructure, the expansion of technology assets and wireless communication; for example enabling the usage of telephone, camera, music, gaming and radio/television in a single hand-held wireless device. The technological evolution didn't stop at this point, there are many more technologies evolving every day. Like the evolution in the Technology and ICT, the management (which is the second area) has also faced great evolution and change mainly influenced by the evolution of technology and ICT. The New Public Management which emerged in 1980's provided a foundation of diverse models of government roles and instruments. The change in management in the governmental / public sector is imported from the change in management that took place in the private sector, like the managers' empowerment, more focus on performance and results, benchmarking and management innovation. Accordingly private sector and the non-for profit sector are considered as partners to the government. Due to the increase in complexity and risks attached to technology, the importance of management consultancy has increased significantly as well. Advancements in technology and ICT have to be accompanied by advancement in management in order to reach the objectives of the E-Government that the technology is meant to support. In addition to the evolution of the technology and the management, here comes the evolution of the third area affecting the E-Government concept, "Government Evolution". There are many forces inside the public/governmental sector greatly affecting the implementation of E-Government over time ; as an example are the politicians and economists as both are concerned about the cost saving and the efficiency in using the governmental available resources. Since technology requires big budget and a great investment, the E-Government implementation is somehow hindered by those politicians and economists within the Governmental sector due to their care about costs and efficiency. However the government had to respond to public society's demands. The governmental electronic environment is much larger and more complex compared to the private sector thus creating a bigger need for managers to take decisions and provide leadership in areas with major technological component (Brown, 2005).

The E-Government has a wide range of activities. Those activities are mainly divided into three different areas related to the government itself: First is the government-to-government (G to G), second is the government-to-citizens (G to C) and third is the government to business (G to B). First the Government to Government sector (G to G) involves sharing data electronically through the internet between the various governmental agencies. The second sector is the Government to Citizen (G to C) which is considered the primary goal of the E-Government that allows the citizens to interact with the government electronically. For example, performing some transactions through the web like paying taxes, renewing licenses and many other transactions. The third is the Government to Business (G to B), and which includes all the purchases and procurement of both goods and services by the government beside the sale of governmental surplus goods to the public through the internet (Mutula, 2012; Monga, 2008).

The private sector has overpassed the public and governmental sector in digital connectivity by using E-Commerce and E-Business models. Everything is connected through the internet, sales are made electronically overseas. This change in management, in the way of conducting businesses in the private sector has made a great pressure on the public and governmental sector to start considering the change and to rethink of its own organizational models and hierarchies (Osborne & Gaebler:1992), like the customers of any company, the citizens of a country are the customers to the government. Any company is customer-oriented; the governments should be focusing more on their citizens' needs. The ICT tools are used to fulfill those needs and increase their efficiency in serving their customers (citizens). Governments are faced with many challenges to transform from the bureaucratic model to E-Government and to modernize the administrative practices and management using the Information Communication Technology – ICT and E-Businesses model (Tapscott & Caston, 1993).

The transformation in the public/governmental sector from the bureaucratic to E-Government includes the process of shifting in many areas. First, the orientation of the government should be changed from being cost-efficient to be more user friendly and flexible. Second, the hierarchy and the organizational chart has to change from being a vertical, functional and departmentalized one into a horizontal one with information shared, teams and networking across the different departments and sectors. Third, the leadership style has to be democratic with more facilitation, coordination with innovative skills rather than a high command and control from managers in higher positions over their subordinates. Fourth, the internal communication between the employees has to be a multidirectional one and direct with central coordination not a top down and hierarchical communication, in order to increase efficiency and reduce time. Fifth, the government has to use multiple channels with formal as well as informal ways in its external communication. Moreover, the service provided by the government should be user customized and exchanged electronically not standardized and no need for face-to-face interpersonal interaction. To sum up; the traditional bureaucratic, hierarchical model should be replaced by a more competitive, knowledge-based economy. It has to be having more flexibility and a customer-(citizen) oriented strategy with a focus on teamwork and participation beside empowering rather than serving. (Kaufman, 1977; Ho, 2002).

2.1.1. Opportunities and Challenges Facing the E-Government Implementation

This section focuses on the opportunities, benefits and challenges of applying the E-Government in both the developing and developed counties. The only difference between the developing and developed countries is that developing countries are not really benefiting from the E-Government opportunities because of their limited use of E-Government. The E-Government is not widely spread like in the case of developed countries. Four of the advantages of applying the E-Government are cost reduction and higher efficiency, higher quality of services delivered to businesses and customers, more transparency, anti-corruption and accountability and which increases the capacity of the government and finally promoting the use of Information Communication Technology - ICT in other sectors of the society (Ndou, 2004). First and foremost advantage of E-Government is the cost reduction and higher efficiency. For the government to put its services "Online" there is a decrease in the costs of processing the operations than making them manually. Beside, this reduces the time required for making transactions, by allowing data and file sharing among the different departments and areas of the government. This in turn, reduces the probability of making mistakes of manual procedures by streamlining internal processes, faster and more informed decision making and thus leading to higher speed and faster transaction processing and higher efficiency. (Tapscott, 1996; Amit and Zott, 2001; Malhotra, 200; Al-Kibsi et al., 2001).

By using the E-Government, higher quality of service delivery to both the businesses and customers is assured since there is neither long-time consumption nor lack of transparency as in the case of the traditional model of public service delivery; and this is the main second advantage of E-Government. No need for a business to get a license or a permit to fill out a number of application forms and visit a number of different offices as before. Same case for a citizen to issue a certificate or an official document or to make any kind of a simple service, there isn't any more a need to travel to the central government office, or to go to different offices as in the case of the traditional public service. By using the ICT, putting all the governmental services online and changing from traditional way of delivering governmental services into an E-Government model, bureaucracy is reduced, fast and convenient transactions are assured, 24*7*365 accessibility of the services through the internet is made available, in addition to more personalized and customized services. Thus, leading to higher quality of service delivery and customer (citizen) satisfaction. (Ndou, 2004; Rinne et al., 2001a).

The third advantage of E-Government is that it helps to increase transparency, as citizens, businesses and all the other stakeholders have access 24*7*365 to all the updated rules, policies, political, economic, legislative and governmental information through the website. No need to go to governmental offices to obtain the information thus increasing transparency, beside allowing the citizens to directly participate in decision making processes through providing their own ideas and suggestions in forums and online surveys (Ndou, 2004). The ICT and E-Government has their great benefits and opportunities towards the internal transactions, communications and interrelationships on the governmental sector itself thus increasing its capacity. The use of the internet as well as the intranet and local area networks allows different departments of the government to share databases and documents. This helps in better data assessment, faster information flow, better decision-making and no need for paperwork thus increasing its capacity, in addition to the knowledge-based and expert systems and which help in providing a more responsive and guideline-based process (Ndou, 2004).

The last but not least advantage of E-Government is that using the E-Government with continuous interaction and communication between the government itself and its stakeholders, the awareness of ICT and its usefulness is spread among the different parties in the societies; besides creating a pressure upon the government's interested stakeholders to start implementing and using the ICT in conducting their businesses and this is mainly in order for the E-Government to take place and mandate the use of ICT tools and applications. For example for a Government to Business (G to B) transaction to occur, the business itself should have and electronic-based way of communicating and adapted electronic equipment. Moreover, for a citizen to make a financial transaction online, the financial institutions like banks have to create their own secure and reliable methods for electronic transactions. Thus, from the benefits of creating E-Government is promoting the ICT for its stakeholders and other parties of the society. Accordingly, new training courses in both schools and universities concerning ICT and providing the required skills and capabilities are needed (Mansell and When, 1998).

After discussing all the above mentioned opportunities and benefits of the E-Government, one should examine the different barriers and challenges that face the E-Government and the other factors that may hinder its implementation in a specific country. The more complex and multidimensional a concept is, the more challenges and barriers it will have. Since E-Government is very complex and multidimensional, it has a diverse and wide variety of challenges and barriers to its implementation and

management especially in developing countries like Egypt (Alshehri and Drew, 2010; Ndou,2004). The first and the main challenge that faces the implementation of the E-Government is the Information Communication Technologies- ICT infrastructure. Citizens and all the members of the society should have internet access in order to be able to communicate, share and use the E-Government services. In many developing countries, where many citizens don't have personal computers and accordingly no internet access, there won't be a benefit from the E-Government by any means. According to the World Bank (2013), in developed and high-income economies, there are 416 personal computers per 1,000 people while in the developing and low-income economies, there are only 6 PCs (Personal Computers) per 1,000 people. This is a big challenge facing the implementation of E-Government in developing and low-income countries. To overcome this challenge, governments should consider providing different basic infrastructure and access methods to the public and at low prices irrespective of their physical or financial capabilities like cellular phones, satellite receivers, kiosks, etc. (Tapscott, 1996). Also the policy issues and the legislations are from the big challenges facing the implementation of E-Government. In order to process the E-Government principles and functions; a formalized law, a range of new rules, policies and legislations addressing the electronic activities like electronic signatures, electronic archiving, freedom of information, data protection, computer crime, intellectual property rights, copyright issues.. etc. should be existing in order to ensure privacy, security and legal recognition of electronic transactions. In developed countries such legislations exist protecting its people but that is not the case in developing countries. Thus the many rules and legislations create a challenge to implementing E-Government in a developing country (Granados and Masilungan, 2001).

Moreover, for a successful E-Government implementation, a diversified skilled manpower is needed and mainly in the fields of technology, commerce as well as in management. They should have technical skills for installation, maintenance, designing and implementation of ICT infrastructure. Besides having skilled labor in managing online processes, functions and customers (citizens) are needed (Granados and Masilungan, 2001). Therefore, the government has to consider providing the required training sessions, workshops and seminars to help its employees acquire those needed skills and to encourage lifelong learning concept, not only acquiring the needed basic skills as learning is a non-stop continuous process in order to follow up with everyday changing technologies (Freeman and Soete, 1994).

2.2. Change Management

When introducing new practices and processes of doing things like implementing E-Government instead of a traditional one, it has to be greatly accompanied by change in the management style. Change management is defined as the acquirement of new skills, using new tools and applying new principles in managing people which is the human element of any organization in order to achieve the desired outcome/change, as success is dependent on the employees' behavior. (Department of Administrative Reforms & Public Grievances Ministry of Personnel, Public Grievances and Pensions Government of India, 2010). – Set2 (3)

Change management could be either reactive or proactive, where reactive means reacting to changes happening in the surrounding environment while proactive is initiating the change itself, since there are changes occurring at a continuous basis (Sacheva, 2009). Change management has two sides; a hard side and a soft one. The hard side represents the changes in the systems, strategies, goals, ways of doing things and processes while the soft side of change management represents the change in behavior and attitude of the employees like the way of communicating, chain of command, emotional intelligence and motivation ...etc. both the hard side and the soft side together lead to a successful change management (Dias de Lima, 2009). Change management is a complicated task where there is no specific right way to do so, according to Bosilj-Vukšić (2011): "There is no one right way, but there is a number of frameworks within. You can find a way that is right for your change today".

Change management should be planned strategically. Poor change management is one of the big reasons behind the failure of implementing E-Governments in developing countries. Many of the developing countries' failures to implement E-Government were due to the lack of managing changes in policy, culture, mindset, organizational structure and processes. For example, many institutions failed to recognize the e-mail as an official way for dealing with papers and reports due to signature issues; where on the other hand, more developed countries accept scanned photos of documents with signatures. So by managing change, civil servants has to change their thinking and start accepting e-ways of communication (Kifle and Low Kim Cheng, 2009; Saboohi and Sushil, 2010).

Change management has always been a great challenge for implementing E-Government. It can be divided into two sub-concepts: Change Management Approach and Management of Resistance to Change. Change Management Approach is the change that occurs in the organizational structure of the entity undergoing the change. The government has to identify the culture as the primary driver of strategic organizational change. On the other hand, the Management of Resistance to Change is managing the resistance to change that normally the employees and the stakeholders may have. Resistance to change is a big barrier and challenge to a successful change. As a normal rule, employees fear changes, as why should they give out what they already have and been working with for years for a risky unknown. In order to overcome this challenge, the government should consider providing incentives and many benefits to its employees as well as establishing well-structured plans. This will encourage the employees to participate and feel part of the change (Dutch ICT and Government Advisory Committee, 2001; DeLisi, 1990: Hassard and Sharifi, 1989).

In order to develop a successful change management; there are some strategies that should be taken into consideration since that the change management includes both a theoretical part as well as a practical part. An organizational change is made of a three-stage process; which are unfreezing, change and refreezing. The first stage is the unfreezing stage; which occurs due to the existence of inappropriateness of two or more attitudes which results in disconfirmation within the organization; moreover the occurrence of pressure exerted by shareholders on the senior management in order to gain higher return on investments. The second stage includes the process of replacing old behaviors through introducing and integrating new behaviors into the

organization. There should be a change in employee's skills as well; this change could be done through providing extensive training to make sure that employees are aware of the new roles they will be in charge of. Moreover; there should be an association between the system applied and employees in order to provide a supportive environment suitable for applying an organizational change. The third and last stage which is the refreezing stage includes the evaluation and measurement of behavior change occurred in the organization, where the design of reporting system and reward system are determined. The design is set based on the requirements needed for applying the change; in other words if there should be a change in employees' behavior ,then the compensation system will be designed based on desired employee's performance; in this case bonuses and rewards will enhance the employee's performance and the change needed for the organization as well. (Durant; 1999)

However, some researchers have concluded that the percentage of change failure has reached two-third of all organizations and this is considered a huge cost for companies that faced such failure; these costs charged on companies are represented in the form of money, resources, and time. Failure may occur due to several reasons; which are due to the lack of obligations from the top management, lack of bonuses/compensations related to achieving the change ,deficiency of training programs and burdens of change. On the other hand successful change could be achieved if some requirements have been met. First, manager's behavior should be clear enough to explain and show employees the important values needed for creating the expected change successfully, second comes the important tasks needed; and which should be done sequential and not all at once; since this might result in too much load and which leads to huge confusion to all employees. Moreover team groups should be provided along with steps showing what should be done in details; so that the employees could feel confident and motivated enough for change and which will lead to success. Third, there should be an effective compensation system that offers bonuses and rewards for the employees to encourage them to follow the desired behaviors. There should be an exclusion of rewards for old undesired behaviors; in order to discourage employees to follow any old behavior. Finally, there should be more attention given for introducing new technology and developing employees' skills that are needed to adapt with such high tech, in addition to improving training programs to provide employees with higher skills and experience to be able to deal with the new system and procedures. Even the physical environment should be supporting these changes and encouraging the employees to deal with them in the organization (Durant; 1999).

2.3. E-Government and Change Management in Egypt

The E-Government program in Egypt was launched by (MoSAD) which is the Ministry of State for Administrative Development in partnership with MoCIT. The program was implemented throughout 11 years, in two stages. The first stage of implementing E-Government was during the period of 6 years between 2001 and 2007. In this stage strategic plans were set and approved, trial and pilot projects have taken place and even some projects have been deployed in some geographical areas. The second stage of the program was the following 6 years from 2007 to 2012 and in this stage, pilot studies have been expanding on a national level and the governmental administrative body has been developed (MoSAD, 2009). The first Egyptian E-Government website (www.egypt.gov.eg) was launched in January 2004, and from the first services that were available online on the website were telephone e-billing and birthday issuance certificate (Azab et al., 2006). The E-Government program has 3 clear visions; first is to provide services based on the needs and expectations of the public, second, all the private and public sectors have to participate in the E-Government implementation and management and finally the third vision was to use the governmental resources ultimately, with efficient allocation in order to help in reducing costs while reaching its goals. Accordingly the mission statement reflected the vision and put it into practice, "*introducing better governance, in order to reduce government expenses and to increase the government efficiency*" (MoSAD, 2007).

The strategies of the E-Government implementation, laid down by MoSAD were developed through the following four interrelated programs. First, the "Institutional Development Program". This program aimed at improving the work environment and developing Human Resources through setting policies, plans, regulations as well as regulated management structures for regulating wages, incentives and thus enhancing the Human Resources. The second program is the "Governmental Services Development Program" and which is aiming at providing all citizens, companies, businesses, employees and all the other entities in the country convenient and effective services. The third program is the "Enterprise Resource Planning Program" and it focused on the governmental processes and procedures aiming to reduce expenses, reduce costs, improve the work flows processes and motivate the use of technology, ICT and auto nation throughout the governmental processes. Finally the fourth program is concerned with "Establishing and Integrating National Databases" and it aimed at creating an integrated national database storing all the information and data needed that could be safely exchanged (MoCIT, 2007).

According to Ramzy and Gebba (2012), the Egyptian E-Government portfolio is divided into four categories. First is the "No-Presence Category" and which represents only 14%; this category defines the not existing e-services either because of a broken link or an under construction notation. The Second Category is the "Informative category" and which also represents another 14%; this category represents a one way flow of information, from the Government which is the service provider to the citizens like for example form downloading, or a description of several steps to be followed in order to complete an enquiry. The third category is the "transactional category"; it represents the biggest portion which is 42%. The transactional category, unlike the Informative Category, represents a two-way communication and flow of information between the government and the public, this category includes two subclasses which are the Financial and the non-financial. The financial sub class represents payment on-line for the required services while the non-financial subclass represents only online submissions and files uploading without any money exchange. The fourth and last category of the Egyptian e-Government portfolio is the "Participatory Category". This Category represents 30% and it focuses on the customer satisfaction in order to enhance the quality e-services provided and to be customer oriented. This is achieved through feedback forms, blogs… etc in addition to online voting (Ramzy and Gebba, 2012).

Egypt is a developing country as well as an Arab one; the following section discusses the challenges facing Egypt since it belongs to the two groups. Legal and Regulatory Challenges are considered to be from the main barriers facing the implementation of E-Government in Egypt, the country lacks a legislative framework for its E-Government, which leads to slow implementation of some e-services like online tax payment, submission of documents online as well as issuance of certificates. Egyptians have great concerns with security and privacy, without a guarantee of privacy and security they won't trust e-services and won't take the risks of losing their money. Beside the Legal and Regulatory challenges in Egypt, the implementation of E-Government faces great challenges concerning cultural, social and economic issues. The use of credit cards for online payments is not yet adequate for Egyptians, where people hesitate using it, beside the lack of alternative ways for payments like payment through mobile phone bills (Abdel Nasser et al., 2007; Akemi & Omar, 2009; Al-Fakhri et al., 2008).

The inconvenience of delivery is one of the factors greatly hindering the E-Government implementation and spreads a negative reputation. Due to the inaccessibility of some e-services because of technical problems and lack of quality measurement, e-services are avoided. Moreover, the low internet penetration in Egypt plays a big role in hindering e-services. However, there is an attempt to increase the internet penetration through mobile phones. Also, Egyptians have a high rate of computer illiteracy and English language, thus many citizens don't benefit from E-Government as the internet remains English Language dominated (United Nations, 2011).

Moreover, the lack of public awareness (of employees of private sector as well as of the public sector) of the potential benefits and opportunities resulting from the application of E-Government, acts as a big challenge to e-services as people don't participate in its development nor implementation.

Egyptians are reluctant to automation as mentioned before because of different cultural factors like security and privacy concern. In addition, the Egyptian government itself lacks the standards and specifications for the process of government automation (Almarabeh & Abuali, 2010; Mohammad et al., 2009).

Egypt also faces great bureaucratic challenges, like the inflexibility to make any modifications and the lack of integration and information exchange and sharing between the governmental bodies. Due to the inflexibility in making modifications, the complexity causing an increase in inflexibility, workflows need to be re-engineered to ensure efficiency and effectiveness by meeting the citizens' expectations. Beside complexity, fear of change is a big factor in inflexibility, as well as overlapping authorities hindering cooperation. (Elsheikh et al., 2008)

From the technical challenges facing the implementation of E-Government in Egypt; the lack of a common database storing all the citizens' transactions. In Egypt, there are thirty three ministries; several services require the interaction between more than one ministry. The repetitive inquiries should also have unified standards for maintaining consistency. Moreover there should be integration between the different ministries. One of the big challenges in Egypt is that channels are handled separately and there is no communication network for exchanging information between the different governmental bodies (Jawahitha and Gwendolyn, 2010; khasawneh et al., 2011).

3. Recommendations and Conclusion

In this section of the paper, recommendations and practical steps are given for E-Government implementation in Egypt. First, E-readiness assessment study to fully understand the current HR, skills, ICT, legal and regulatory framework and other aspects in order to start planning for strategies concerning those aspects in an effective way like infrastructure planning, HR planning. Etc. Second, raising awareness among all the citizens is highly recommended in order to spread the awareness of the benefits, importance and opportunities that the E-Government has to offer for Egypt. This could be achieved through organizing workshops, seminars and conferences. It is highly recommended and important to start pilot projects with high flexibility and agility to assure success as pilot projects give a glimpse of the real projects and elaborate the challenges that might face the real projects. By using pilot projects, much money and time are saved. Moreover, simulating coordination among governmental departments and agencies is highly recommended in order to increase effectiveness and efficiency. Databases need to be shared to avoid duplicating records and to enhance the performance of interacting governmental agencies like the different ministries. Also the success of e-services and e-governments is greatly depending on human skills and capabilities more than any physical infrastructure. Thus, education and training sessions are highly recommended along with incentives to motivate people to learn and improve their knowledge and skills.

Finally as a conclusion, and as explained above throughout the paper, E-Government Implementation is multidimensional and complex, successful change management strategy is mandatory for the success of E-Government implementation in a given country especially in the case of Egypt. In Egypt, it is obvious that among the reasons of poor change management strategy and the failure of E-Government implementation is the lack of leadership not only application of ICT. Organizational change issues are much more important than technological issues.

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