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e-Governance and Administrative Efficiency: Issues and Challenges

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Abstract

This study examines the role of e-Governance in administrative efficiency. The main objective of this study is to analysis the present issues and practical challenges between e-Governance and administrative efficiency. This study is a qualitative research and data were collected mainly from secondary sources. It argues that e-governance promotes participatory, transparent, responsive and inclusive democracy to enhance administrative efficiency. The accessibility of basic social services through the provision of information communication technology enhances effective communication between the government and the governed, while it creates open plain ground for the citizens to receive feedbacks from the appropriate government channel. The challenges arise from lack of trust, resistance to change, digital divide, cost, privacy and security. But, the challenges can be changed by enchanting necessary actions like awareness program and proper training, strengthening mobile government, ensuring website information in major languages, policy makers to ensure user friendly and congenial policy implementation, strengthening stakeholders and citizen feedback. The results suggest that e-Governance can be a very effective tool in improve administrative efficiency.

Keywords: *Governance, E-Governance, Administrative efficiency*

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Background to the Study

Governments throughout the world are in quest of finding ways to deliver public services more efficiently and effectively. E-governance is seen as a tool to improve productivity and efficiency in internal administration and to increase responsiveness to the public. E-governance can be understood as an extension of reforms to improve public sector efficiency. The initiatives of government agencies and departments to use ICT tools and applications, Internet and mobile devices to support good governance, strengthen existing relationships and build new partnerships within civil society, are known as e-governance initiatives. As with e-commerce, e-governance represents the introduction of a great wave of technological innovation as well as government reinvention. It represents a tremendous impetus to move forward in the 21st century with higher quality, cost effective government services and a better relationship between citizens and government (Fang, 2002). Many government agencies in developed countries have taken progressive steps toward the web and ICT use, adding coherence to all local activities on the Internet, widening local access and skills, opening up interactive services for local debates, and increasing the participation of citizens on promotion and management of the territory (Graham and Aurigi, 1997).

Application of e-governance has been a potent instrument in disseminating information, consultation, enhancing citizen's participation, sending feedback to the citizens, monitoring and evaluating government projects and making government accountable and transparent in its total political engagements. E-governance has become a necessary political mechanism in evaluating government performance in many developed nations of the world, including United Kingdom, U.S.A, Netherland, Germany etc; it enhances citizen's ability to have access to the basic programmes of government while it brings about openness in performing public functions. The scope of e-governance revolves around e-registration, e-participation, e-taxation, e-mobilization, e-education, e-service delivery, e-feedback, e-policing, e-planning, e-debate and analyses of public financial statements. It also creates awareness for the general local populace in relation to activities such as immunization, vaccination, civic education, time for collection of waste, identification of community development association in every neighborhood and making suggestions for the betterment of government programmes.

The use of information technology can increase the broad involvement of citizens in the process of governance at all levels by providing the possibility of on-line discussion groups and by enhancing the rapid development and effectiveness of pressure groups. Advantages for the government involve that the government may provide better service in terms of time, making governance more efficient and more effective. In addition, the transaction costs can be lowered and government services become more accessible (UNESCO 2005). According to Danfulani (2013) E-governance came as a result of revolution in Information and Communication Technology (ICT) which finds expression in digital technologies like personal Computers, the internet, mobile telephony, and different electronic applications. A confluence of these technologies eased the flow of information, its accessibility and delivery. This came with numerous advantages because citizens were connected with government, government became more efficient and robust, cost of governance and transaction were scaled down, and transparency was enhanced. Akbar (2004) corroborates that e-Governance is improving the

lives of billions of people worldwide and is integrating government services in a way never seen before. Thus, application of information communication technology will facilitate efficiency and effectiveness in achieving the stated objectives. Hence, E-governance therefore becomes a political device adopted to ensure good governance through which government and citizen's relationships are facilitated to ensure better performance. It brings about openness and transparency in the running of governmental business. That is to say, administrative efficiency and democratic values can be improved simultaneously through innovation by fostering public participation and control through web-based interactive service in external administration (Kim, 2016)

Despite the immense popularity and potency of electronic government, it remains uncharted in many countries regarding proper implementation. However, technology possesses the prospect of improvement in the way government works, and makes better interactions with their citizens. According to Siar (2005) the application of information and communication technology for improving governance by enhancing government's role in service delivery, public administration, and promotion of participatory democracy has been gaining momentum in many parts of the world. Maswood (2009) opines that E- governance may be understood as the performance of governance through the electronic medium in order to facilitate an efficient, speedy and transparent process of disseminating information to the public, and other agencies, and for performing government administration activities. It is the use of modern Information and Communication Technologies, such as Internet, Local Area Networks, and Mobiles etc, by Governments to improve effectiveness, efficiency and service delivery to promote easy access to the Government services to the public. E-Governance is a network of organizations to include government, nonprofit, and private-sector entities; in e-governance there are no distinct boundaries.

Moving away from these assertions, the aim of this paper is to identify and analyze primary issues and challenges of e-governance towards administrative efficiency.

Conceptual Clarification/Literature Review

The Concept of e-Governance

E-governance is the public sector's use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective. E-governance involves new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organizing and delivering information and services. E-governance is generally considered as a wider concept than e-government, since it can bring about a change in the way citizens relate to governments and to each other. E-governance can bring forth new concepts of citizenship, both in terms of citizen needs and responsibilities. Its objective is to engage, enable and empower the citizen (www.unesco.org).

E-governance entails the digitized coding, processing, storage and distribution of data relating to three key aspects of governing societies: the representation and regulation of social actors; the delivery of public services; and the generation and circulation of official

information (Coleman, 2008). E-governance is more than just a government website on the Internet. The strategic objective of e-governance is to support and simplify governance for all parties; government, citizens and businesses. The use of ICTs can connect all three parties and support processes and activities. In other words, in e-governance electronic means support and stimulate good governance.

Electronic Governance (e-Governance) is the use of Information and Communication Technologies (ICT) for the planning, implementation, and monitoring of government programmes, projects, and activities (Crowley, 2008). E-Governance is expected to help deliver cost-effective and easy-to-access citizen services. It is defined as delivery of government services and information to the public using electronic channels (Baidyabati Municipality, 2012). E-governance means using information and communication technologies (ICTs) at various levels of the government and the public sector and beyond, for the purpose of enhancing governance (Bedi et al., 2001; Holmes, 2001; Okot-Uma, 2000 cited in Palvia and Sharma, 2007). E-governance is a set of "technology-mediated processes" that are changing both the delivery of public services and the broader interactions between the citizens and Government. E-governance is generally considered as a wider concept than e-government, since it can bring about a change in the way how citizens relate to governments and to each other (Maswood, 2000). In the view of Akbar (2004), E-governance is the computerization and automation of common government processes with the goal of lowering costs, improving efficiency and generally providing better services to citizens.

The Concept of Administrative Efficiency

Efficiency is the ability to do things well, successfully, and without waste. Administrative efficiency looking systematic progress and well organized administration (Payne & Pheysey 1971). The dimensions specialization (division of labor within the organization) and standardization/formalization (standardization of roles, interdepartmental communication) contribute in a positive way to administrative efficiency, in contrast the dimension centralization is a negative way to administrative efficiency. Administrative efficiency can be interpreted as the efficiency of the gathering, processing and communicating of information (Spenkelink 2012).

e-Governance and Administrative Efficiency

E-Governance contributes towards effectiveness, efficiency and equity in public services that further enhances the quality of public service delivery (Pathak et.al 2008) the policy framework, enhanced public services, high-quality and cost-effective government operations, citizen engagement in democratic processes, and administrative and institutional reform are consistent objectives of e-Governance (Dawes 2008). It has to assist in provision of services, employee support and recognition programs, recognition of customers in the delivery of local services, concept of "one-stop" customer counter, and use of performance measurement to assist in a cycle of continuous improvement (Robertson and Ball 2002).

Consequently, e-Governance is a unique partnership involving the government, private entrepreneurs, community volunteers, and citizens in improving the e-literacy skills of the community (Prasad 2012). Achieving administrative efficiency is one of the objectives

followed by e-Governance (Vanderose, Degraveand Habra 2015). Good governance and e-Governance also important procurement of empower the administrative efficiency; e-Governance is a way to achieve good governance. E-Government is a part of e-Governance.

Through the implementation of good governance and e-Government it can identify the core principles to achieving administrative efficiency (Haldenwang 2004); the key objective of e-Governance is to create good governance (Kabir 2007). Therefore, administrative efficiency, transparence and accountability are key characteristics of good governance; the successful implementing e-Governance can be improved good governance. Consequently, e-Governance is the way to empower the good governance and it will agree grass-root citizens to interact with the government at all level. In 21st century ICT is to promote greater efficiency and deliver responsive, cost-effective services to citizens within the framework of good governance principles (Colby 2003), it is a major mechanism to improve government's administrative efficiency, transparency, and effective service delivery (Jahankhani et al. 2006) the idea is to make the delivery of services to the public more effective, efficient, speedy, accountable, accessible, responsive, and traceable (Garg 2008). In this view, the main emphasis on e-Governance is removal of corruption and strengthening of civil society, people's participation, transparence, administrative efficiency and accountability. And also, e-Governance builds the administrative efficiency: avoid lateness, transparency, easy access, responsiveness, reduced red tape, increasing quality of service and citizen centric delivery of services. The successful e-Governance will save money and it can be helpful to develop ICT based generation and to increase the economic growth (Alam 2012). Above mentioned features can be achieved through proper implementation of e-Governance using of modern information and communication technologies.

Issues in the e-governance implementation

Technology Issues

In technology there are three basic elements. These are infrastructure layer, application layer, integration technology and application layer. The technologies and services for networking in e-governance is the infrastructure layer which is about hardware and software required to generate a web site, as well as it is about the equipment's location and who looks after it. Application layer is made up of software and services that either extend the site's performance or make it easier to manage. The integration layer is to use the Internet to tie together practically all the traditional disciplines associated with various services provided by the web site. Application software is the software that performs the functions of a web based information system.

Infrastructure layer

It is made up of various core technologies which are explained below:

Carrier: The basic element by which site is connected to the internet. Internet service providers(ISP) provide internet connection and bandwidth required for the sites.

Hosting centre: Like big corporate world make specially designed rooms for equipment. E-governance also looking for such specially designed rooms which are cost effective and efficient.

Three more layers of infrastructure are needed for the better performance of the web sites load balancing, security layer, and caching. Load balancing regulates the traffic generated by the incoming requests to the servers. Load balancing software handles information requests with the most available capacity in order to avoid server busy messages. Security layer controls which information to be given and to whom. This layer is used to prevent the hacking and making online transaction safe. When web server jumps up against its performance limits, especially when the server has to extract too much information during the peak traffic, the cache gives a helping hand by storing frequently requested information.

Basic Application Layer

The core technologies in the basic applications layer are content management system, personalization, transaction engines, site analysis, campaign management, and customer support. Content management system makes it easy to create and organize web content especially with thousands of pages and lots of interchangeable words and images. Other features of content management system are server caching and analysis of web site traffic. Personalization system stores the visitor/ citizen profile while they visit the site. The system prompts the visitor to give their profile on voluntary basis. Also it tracks the visitor's visits. Transaction engine allows the visitor to configure his/her request and facilitates to pay by credit card or other means. Also it manages the service and visitor information, and it facilitates to have a real time link with a third party such as a credit card company or a bank. As web can reveal more about its visitor behavior than any other medium, most servers collect and store enormous amounts of information about how many page views they serve. Besides, site analysis system stores information such as how many visitors came in every month, how long they stayed on the site, and what they looked at. Campaign management system goes beyond the site analysis and helps to launch certain marketing efforts, such as automated email that responds instantly. Customer support system gives a helping hand to a visitor who has trouble using a site. The system gives automated help with the human touch.

Integration Technology

The core technologies in integration are application integration, sales integration, and financials. Application integration enables the user to talk with the legacy system, which is a non-Internet system. For example, a web site gives the front-end interface to access to various services. To complete the request the back-end systems are to be integrated. This kind of integration is provided by available Enterprise Application Integration software. The integration technology bolts together those non-Internet systems and Web operations. Sales integration collects all sales data in various government centers in real time and provides remarkable opportunities to forecast and track the visitors. Once the transactions are completed over the web, the transaction details are to be plugged into accounting system.

Application Software

The visitor interacts with the application software when entering input into an application program and receiving output from the program. The three step method is proposed for the application software plan to interact with the user. These are:

Where are we
Where we want to go
How do we get there

Where are we: the present status of application in the government organization? Analyzing the functional area in every government organization. Identifying the systems for which the application software is not yet developed is also a primary task.

Where we want to go: What kinds of governance are required by the next generation? It is trying to utilize internet technology to shape the way of living for the next generation

How do we get there: Innovative Internet business models are to be created in e-governance context to intertwine the relationship between people and their government? Implementation can be done in progressive stages such as getting online with web sites, providing electronic distribution, implementing financial transaction such as tax or license payments.

Management of Change Related Issues
It is important to investigate how the business of government and the nature of governance itself change in the digital networking economy. Questioning the policy formulation processes in view of e-citizen expectations is a major initiative in e-governance. Ultimately the objective of the process reengineering is to rethink the value propositions of the government and how they function in serving the citizens. The major goal is to change the behavior of governments with the changing needs.

Funding Issues
Around the world, governments provided funding for the select pilot projects on government on-line, including projects such as public works, government services, and human resources. The real challenge for the government is to go about funding the full range of initiatives in order to achieve the objective of Government Online. One suggestion is that the concerned department has to come up with adequate fund by themselves. Other issue is utilizing the available resources both in the plan sector and outside it.

Challenges in e-governance
There are large numbers of potential barriers in the implementation of e-Governance. Some hindrance in the path of implementation, like security, unequal access to the computer technology by the citizen, high initial cost for setting up the e government solutions and resistance to change. Challenges identified as trust, resistance to change, digital divide, cost and privacy and security concerns.

Trust
Trust can be defined along two dimensions: as an assessment of a current situation, or as an innate personality trait or predisposition. The implementation of public administration functions via e-government requires the presence of two levels of trust. The first is that the user must be confident, comfortable and trusting of the tool or technology with which they will

interact. The second dimension of trust pertains to trust of the government. There has to be a balance between ensuring that a system prevents fraudulent transactions and the burden that extensive checks can take place on people who are honest.

Resistance to Change

The innovation diffusion theory states that over time an innovation will diffuse through a population and the rate of adoption will vary between those who adopt early referred to as early adopters and to those who adopt the innovation much later, referred to as laggards. The resistant to change phenomenon can explain much of the hesitation that occurs on the part of constituents in moving from a paper based to a Web-based system for interacting with government. Citizens, employees and businesses can all have their biases with respect to how transactions should be processed. However, government entities and public policy administrators cannot ignore the changes that occur as a result of the implementation of information and communication technology (ICT). In the early 1990s identified the important role that ICT would have in shaping public policy, and cautioned both rich and poor governments about neglecting its significance. Education about the value of the new systems is one step toward reducing some of the existing resistance. It can also be particularly useful for a leader or manager, to buy into the new system at an early stage in the adoption process.

Digital Divide

The digital divide refers to the separation that exists between individuals, communities, and businesses that have access to information technology and those that do not have such access. Social, economic, infrastructural and ethno-linguistic indicators provide explanations for the presence of the digital divide. Economic poverty is closely related to limited information technology resources. An individual living below poverty line does not afford a computer for him to harness the benefits of e-government and other online services. As the digital divide narrows, broader adoption of e-government in the public domain becomes possible.

Economic poverty is not the only cause of digital divide. It can also be caused by the lack of awareness among the people. Even some of the economic stable people don't know about the scope of e-governance. Awareness can only help to bring users to that service delivery channel once. It cannot guarantee sustained use of the system unless the system is also designed in such a way as to deliver satisfactory outcome. Procedures need to be simplified to deliver concrete benefits and clear guidelines provided to encourage their use by the actual end users and reduce users'dependence on middlemen/intermediaries.

Cost

Cost is one of the most important prohibiting factor that comes in the path of e-governance implementation particularly in the developing countries where most of the people living below the poverty line.

Privacy and Security

There will be three basic levels of access exists for e-government stakeholders: no access to a Web service; limited access to a Web-service or full-access to a Web service, however when personal sensitive data exists the formation of the security access policy is a much more complex process with legal consideration. With the implementation of e-government projects, effective measures must be taken to protect sensitive personal information. A lack of clear security standards and protocols can limit the development of projects that contain sensitive information such as income, medical history.

Conclusion and Recommendations

E-government refers to the use of information and communications technologies to improve the efficiency, effectiveness, transparency and accountability of government. The strategies of e-governance can enable government and citizens to engage and partner with each other and other stakeholders. E-governance as we observe from our discussion may enhance access to government by citizens. It may increase access by those who work within government and those who work with government. It facilitates good governance for all stake holders. E-governance promotes participatory democracy, provides adequate information about political process and enhances faster social service delivery at the grassroots level. The adoption of information communication technology makes governance inclusive, efficient, responsive, transparent, accountable and more participatory which embodies the elements of administrative efficiency. However, the challenges have been identified and we hope that government and stakeholders in the ICT sector will quickly find quick and lasting solutions to them. For adequate solution to the challenges, we have suggested a number of recommendations among others have been advanced.

Firstly, the government should also enact Information and Communication Technology (ICT) laws that will make computer literacy a compulsory aspect for every public or civil servant both at the local, state and federal levels. Such policies should also involve the adoption of effective ICT awareness with computer-related literacy training programmes introduced in our primary, secondary and tertiary institutions. With this implemented, the challenges will be reduced as well as putting the country into the world map of ICT/e-governance high ranking list.

Secondly, the advantage of e-Governance is using internet for the poor people (remote area) because perception of peoples is key source of measuring government level: level of corruption, accountability, efficiency etc. Therefore, government could be considered access to electricity, telephone, ICT facilities for the poor peoples.

Thirdly, strengthening stakeholders and citizen feedback: people's opinion should take more concentration about the function of e-Governance. As well as if public opinion on e-Governance which is either positive or negative and their suggestions get from the people, it will help to improve the function of e-Governance.

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