Electronic Government Re-Inventing Governance: A Case Study of Pakistan

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Abstract
This study evaluates the importance of the emergence of Electronic Government (E-Government) as a tool of practice in the re-invention of Governance. It presents e-Government as wide-ranging of Electronic Democracy (eDemocracy), and Electronic Business (eBusiness), examines the nature and scope of developments in this emerging field. In the contemporary scenario, e-government is already in its second decade. More or less all countries around the world are introducing the e-government as a tool for reducing cost, saving time, improving social services and increasing efficiency and effectiveness of in public sector improving social services. E-government is a relatively new concept in Pakistan. However, being a developing country, it is facing serious problem regarding adoption of e-government and public delivery services. The purpose of this study is to evaluate the impact of e-government on public service delivery with a view to identify opportunities and challenges for the government and the governed. It may be made clear here that it does not provide an in depth analysis of various factors and forces. Instead, provides synoptic view of various issues and problems related to e-government.

Keywords: E-Government, Good Governance, Accountability, Public Service Delivery, Information and Communication Technologies (ICT) and Smart Government

1-1 INTRODUCTION
E-government is not about “e” but about government i.e an effective government. Electronic (or e) government refer to improve the efficiency ensure the accountability, transparency effectiveness of government through the use of Information and Communication Technologies (ICT). With the advancement of technology it became imperative to use of ICT for public good, as it was successfully being utilized in corporate as well as non-profit sector. The world witnessed two major changes during early 1990s; namely, focus on good governance for efficient delivery of public services and internet technologies. Concept of e-governance emerged due to merger of these two changes and it changed the basic philosophy of governance. (Andersen, and Sharon S. Dawes. 1994)

With the developments in various technologies, the process of governance has been and is continuously influenced positively. (Brown, Mary M. 2007). The technological innovations of the past had contributed significantly to improve the efficiency of the processes and systems of governance by altogether eliminating the concepts of time and distance. Unnecessary time consumption in routine transactions and problems caused by distance are successfully tackled by innovative technologies.

Historical the term of e-Governance was absent from dictionaries and encyclopedias until Second World War (1939-1945). Use of ICT in government first expanded during the 1950s and 1960s, the heyday of idea of scientific administration. It got an impetus after the discovery of computer. However, the term is (and was) use in the context of revitalization of democratic institutions, in order to ensure participatory democracy, transparent decision-making, and an attempt to eradicate any type of corruption. The explosion of internet use in the mid-1990s gave impetus to idea of scientific governance and countries such as USA, United Kingdom, Canada Australia, and New Zealand soon followed with their own version. Chadwik (2004 ;261). For a considerable time many terms used to denote the same concept that was associated with e-governance. These interchangeably used terms were/are Digital Government, Government Online, Paperless Government, E-Government, Smart Government and Open-Governance.

1-2 Research Methodology/ Literature Review
Qualitative as well as quantitative research methods have been adopted during this research in an attempt to explore the subject in depth. There has been very little systematic empirical study on impact of e-governance in Pakistan. Given the importance of the subject, it is surprising that this issue has not received much attention. Indigenous and empirical study on the subject is required which could uncover underlying factors impeding improved governance in Pakistan as there is no objective and independent analysis on the subject, and this paper attempts to fill this gap to some extent.

On the basis of reviewed literature, this paper is organized in four sections. First section focuses on the brief but comprehensive back ground of research problem. The Second section is an attempt to highlight the different stages and benefits of e-government. Third section of the paper evaluates the status of e-government
along with its mechanism and efforts to promote e-government in Pakistan. Last section of the paper is based on suggestions and concluding remarks. This study strengthens by qualitative and quantitative analysis at a time. Results and findings would be more justified if knowledgeable respondents about E-governance were large in number. This study can be stepped forward in future considering the factors individually or combined. It is expected that the results of this work would not only facilitate the scholars and experts of political economy but it would be also a massive contribution for the students, and policymakers in the field of development studies.

1-3 E- Governments: Conceptual Frame Work
The e-government (short form of electronic government) is complex and multi-faceted concept that is difficult to define in precise terms. It is often defined in various ways, and literature does not offer a consistent definition for e-governance. In a simplest sense “E-governance is more than just a government website on the Internet. (Backus :2001). According the UNESCO (2013) “E-governance refers to 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- government denotes delivery of government services and information to the public using electronic means (Brown Mary 2007: 178) According to Holmes (2001) ‘electronic governance’ is using information and communication technologies (ICTs) at various levels of the government and the public sector and beyond, for the purpose of enhancing governance. According to Andrew Chadwik (2004 ;261) : “e-government refer to impact of information and communication technology , particular the internet, on the value ‘processes and outcomes of public bureaucracies.” In the views of Kanaujia and Behera (2006) “E-Governance provides opportunities to move forward with high quality, cost effective government services delivery and the creation of better relationship between the people and the government.

Types of Interactions in e-Governance
According to Verma (2005) E-government is digital interactions between a government and citizens (G2C), government and businesses/Commerce (G2B), government and employees (G2E), and also between government and governments/ agencies (G2G). Following are the main e-government delivery models. These interactions may be described as follows:

<table>
<thead>
<tr>
<th>e-government delivery models</th>
<th>e-democracy</th>
<th>e-government</th>
<th>e-commerce/e Business</th>
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<tr>
<td>G2C: Government to Citizen</td>
<td>X</td>
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<tr>
<td>G2B: Government to Business</td>
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<td>G2G: Government to Government</td>
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<td>G2E (Government to Employees)</td>
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**Government-to-Government:** This interaction is concerned with use of ICT technology to enhance the internal efficiency of public officials and agencies, (Andrew 262) . The primary objective of this intra government interaction is to increase efficiency, performance and output of governmental affairs and policies to delivering services to their citizens through the use of ICT. This kind of interaction is only within the sphere of government and can be both horizontal i.e. between different government agencies as well as between different functional areas within an organization, or vertical i.e. between national, provincial and local government agencies as well as between different levels within an organization.

**G2C (Government to Citizens):** The main purpose of G2C is to make government; citizen-friendly.G2C interactions involved using the internet to provide public services and transaction on -line, and to improve the design and delivery of services by incorporation rapid electronic feedback. Government facilitates better delivery of government services to citizens to improve citizen empowerment through access to information or more efficient government management. It give three type of choice to citizen , when to interacts with government official (e.g. 24 hours a day, 7 days a week) how to interact ( e.g. through internet web surveys, fax, telephone, and email, Facebook or face to face ect.) and from where to interact (e.g. home ,work place or service center ect.)

**G2B (Government to Business)**

Government-to-Business: The primary purpose of G2B is to provide a friendly environment to businesses to enable them to perform more efficiently. it’s provide a platform to all the business community to supply their stuff and services for set prices and it referred as a market definition of public sector marketing. Here, e-Governance tools are used to aid the business community – providers of goods and services – to impeccably interact with the government. The objective is to cut red tape, save time, reduce operational costs and to create a more transparent business environment when dealing with the government.

**G2E (Government to Employees)**
An employee contribute his services with his hard work and honesty which helps to strengthen a relationship.
with the government and also they facilitated by government offered incentives. (Verma Ram 2005: 77-78). This interaction is a two-way process between the organization and the employee. Use of ICT tools helps in making these interactions fast and efficient on the one hand and increase satisfaction levels of employees on the other.

**Phases of e-government:**

The theoretical development of e-government in any country or state is along four stages, which indicate the extent of benefits that the stakeholders get through the e-government plans prevalent in any state. Gartner (2010), has framed a four-phase e-governance model.

![E-governance Maturity Model](Figure 2)

### 2-1 Stages of E-Government:

- **Information:** Information through web sites is the initial stage of e-government. A few websites are launched that contain limited and static information, which is updated more frequently with increasing usage and customer pressure. The information may be limited to the basic junctions, facts and figures and contact details of government departments and agencies. The informal ion stage does not call for any efforts at 'computerization' of the backend. **Interaction:** In this stage, the citizens can 'interact' with the government agencies in a 'one-way street' manner. The citizens can download forms, file forms, returns and complaints online, with government agencies. The capacity to search specialized databases and send e-mails to government agencies and links between related web sites are also available. This stage calls for building capacity and systems in the backend government agencies to receive the requests sent by the citizens online and to process the same in a sequential and accountable manner. The interactive websites reduce the tedium of the citizens partially by enabling them to save at least one step in dealing with government agencies. However, this stage has to be handled a bit carefully because, unless the speed and convenience with which citizens can file their requests is matched, to a large extent, by improvements in the backend processes resulting in faster fulfillment, it might result in disenchantment over a period. **Transaction:** This is a much more difficult stage to reach. In the transactional stage, the citizens can go through a full cycle of fulfillment of their requests. It is a two-way street. Complete and secure transactions such as online payments for utility bills, taxes, fees, registrations, renewals, obtaining permits, licenses and certificates are typical examples of interactions; e-procurement, online customs clearances, and one window service are more sophisticated examples of this stage. **Integration/Transformation:** This is as yet the Utopian stage of e-government. This stage envisages offering government information and services in an integrated manner-integrated not from the government's point of view but from the citizen or business' viewpoint. A very useful way of envisioning this stage is to package the information and services around the key events in the life cycle of a citizen or business. The integration phase involves removal of not only the jurisdictional limits within an agency but, with more difficulty, of the functional limits and boundaries between departments and agencies. (Kanauja, S Behera 2005 : 12-14)

### 2-2 Why E-Government is Important?

E-government is about the process for decision making and implementing through modern technology. It is in this context, the study of e-government has become very important in the literature of social sciences, administrative sciences and public policy studies. It is important for several benefits. E-government also called as SMART government. The acronym of SMART which mean to make government, Simple, Moral, Accountable, Responsive and Transparent (SMART). Many Government services rely on information passed among different offices within a department or across departments. The large amount of information and paperwork required results in an environment where for red tape rips, the workforce is inefficient and
bureaucratic, and the delivery of services is ineffective. With the usage of ICT, e-government reduces redundancies of information flows, and resulting in overall increased productivity. Another result of the integration of operations of government agencies is the improvement of transparency in government.

2-2.1 E-government as a mechanism for Promotion of good governance

Good governance is a multi-faceted phenomenon. The scholars and international donor agencies (IMF, World Bank, United Nations Development Programme) have articulated several significant indicators for good governance. The government should be participatory, consensus oriented, accountable, transparent, responsive, effective and efficient; as well as equitable and inclusive; at the same time, it follows the rule of law. More importantly, it gives assurance to its people that its governance would be free from corruption practices. The recent worldwide governance (2014) has articulated six indicators for promotion of good governance:

- Accountability and Transparency
- Free from violence and stability in political system
- Effectiveness of governmental policy
- Elimination of corruption
- Quality of governance
- Establish the rule of law.

So precisely, it can be say that the objectives of e-governance and good governance are quite similar to each other which can play a vital role in promoting e-governance and making government, accountable, transparent, responsive, effective and efficient.

2-2.2 E-Government: As a Tool of Eliminating Corruption:

The developing countries are in a great challenge to fight corruption that has got rise because of improper administrative transparency, lack of accountability and absence for monitoring process. The fundamental rights of the citizens are also been suppressed due to manual paper-based administrative system. This can be successfully reduced with the implementation of E-governance (Rajonand and Zaman, 2008). It is not expect that e-governance will eliminate all the corruption from the country but it is expected to improve the overall scenarios of governance and the impact will flow to improve the corruption situations. It is widely suggests that good governance is necessary to improve the rampant corruption situation and e-governance can be an effective tool to establish good governance.

2-2.3 E-Government: As a Tool for Electronic Service Delivery (ESD)

This is by far, the most visible impact of e-government to the extent that, often e-government is identified with provision of electronic service. Electronic Service Delivery (ESD) is obviously beneficial to the citizens and other customers of the government in a variety of ways. E-government projects in the social sectors, especially in the areas of welfare, health and education in the context of developing countries, bring in the benefits arising out of better targeting of benefit schemes. Electronic databases of citizens, employees and establishments, use of electronic identity cards, coupled with powerful search tools, name-based systems and the like, result in identification of the most deserving beneficiaries among the target group, and reduce the scope for duplication of benefits to the same individual or for drawing of benefits in the name of fictitious persons and institutions. Better image would be propagating with Speed, efficiency, transparency and convenience arising out of ESD enhances the image of government. This is in fact one of the strongest factors driving governments all over the world towards e-government. (Kanauja.S.Behra 2005:)

2-2.4 Electronic Democracy: as tool for Citizen Empowerment:

The primary purpose of E-Government is to make government, citizen-friendly. It’s aimed at empowering the citizen. They have access to information about government actions and policies can raise questions about the decision taken by the official. Electronic Democracy (e-Democracy) is also a tool for the civic engagement. E-democracy (a combination of word electronic and democracy) refers to the processes and structures that encompass all forms of electronic interaction between the Government (elected) and the citizen (electorate). That means that a form of government in which all citizen equally participate in democratic process by using the 21st century modern technology. (Clift, 2003). E-Government is a service that enables e-Democracy, of which e-Voting is a good example. According to UNESCO (2005) e-Voting can be a way to implement e-democracy, but there are also other means to make e-democracy possible.Besides e-Voting, the other benefits of e-Democracy to citizen can be in the form of:

(a) To strengthen public trust in governmental policies
(b) To improve relation between the citizen and government by increase transparency and accountability of governmental official/ public representative
(c) Increase opportunities for mass participation and involvement in decision making
(d) easy access to information on government agencies and programmes,
(e) multiple delivery channels to choose from, thus adding to convenience(Kanauja. 2005 : 10-12)

2-2.5 E-Government: Benefits to Business or E-Commerce:

The G2B interaction typically involve the use of technology to reduce operational cost, save time, cut red tape of
the government of buying and selling good services from firm. The businesses also derive most of the benefits mentioned above, namely, cost reduction, transparency and convenience. Besides these, there are a few distinct additional benefits that they get from a well-designed e-government initiative. These benefits are as follows:

Increased velocity of business, interaction with bureaucratic governments is one of the impediments to the growth of industry and business. With the digitalization of the G2B (Government to Business) interface, the velocity of business increases. Ease of filing returns under various statutes and enhanced speed in securing the various permits and licenses through electronic single windows are examples worth noting (Kanauja 2005 : 12).

2-3. Disadvantages of E-government

Despite its significance, the process of E-governance is not free from critics. The chief drawbacks of e-governance are the absence of equality in public access to the electronic means, for instance, internet, reliability of information on the website. Another setback is inaccessibility potential of many users especially those who live in remote areas, have low literacy levels, exist on poverty line incomes.” Establishment of e-government agencies cost a huge sum of money which is a setback for a developing country. The system of person to person interaction has lost which is valued by a lot of people in today’s society. The e-government may result in complete in partial loss of person to person contact, hence disruption of social values. It affects personal privacy because it is limited to a minimum level and it is inevitable in e-government. There is no personal privacy exist when the government interfere in private information.

3-1 - E-Government Mechanism in Pakistan

Pakistan inherited system of governance from the British and further restructured it as per local conditions and requirements. Due to repeated political turmoil, dispensation of quality services to the masses remained compromised due to ineffective plans and inconsistent policies over the years. Good governance is a nascent concept introduced in developing countries on public demand and due to intervention of the financial institutions such as World Bank and International Monetary Fund who usually advocate transparent and accountable processes in public sector. In Pakistan, internet emerged in 1995 during which internet user population was only a few hundred because of limited internet services in limited cities. Since the early 1990s, ICT is one of the fastest growing industries in the country. In 2001 just 1.3% of the population used the Internet. By 2006 this figure had grown to 6.5% and in 2012 to 10.0%. Since then ICT became one of the fastest growing industries in the country. Major reason of this increase is the government's policy to take concrete measures to connect the remotest areas of the country with the internet access. Governments of Pakistan seriously recognized the importance of information technology and launched a number of projects to equip the people of both rural and urban areas with modern Information Technology applications. E-government is a relatively new concept in Pakistan. As a developing nation, Country is facing serious problem regarding good governance and public delivery services. Red tapism is common in public offices and accountability of government official is not inside. The dawn of new millennium bought the inception of Information Technology Policy called the IT Policy and Action Plan 2000, formally launched on August 18, 2000. For the first time, significance of modern technology and e-government project is being realized by government as a significant mechanism for sustainable socioeconomic development. The Action Plan provided for development of human resource and infrastructure related to information technology, providing universal internet access, legislation for protection of consumers. In 2002, the Ministry of Information and Technology (MoIT) was established, since then ministry has flourished. Currently MoIT is playing a pivotal role in the society. Important institutions like National Database and Registration Authority (NADRA) and CPLC (Citizen Police Liaison Committee) have been established. The NADRA is one of the leading System Integrators in the global identification sector and boasts extensive experience in designing, implementing and operating solutions for corporate and public sector clients. Its offer services in systematic bio-data of the citizen for identification and verification, e-government project and secure the data. It has successfully implemented the multi-biometric national identity card & multi-biometric e-passport solutions in the country. CPLC is another highlighted institution in Pakistan is being flourishing through which citizen can check the vehicle registration information online service is available. The Government of Pakistan started online vehicle verification from three different provinces in Pakistan. In October 2002, the government decided to replace the IT Commission by Electronic Government Directorate (EGD). It works under the ministry of Information and Technology. The basic objectives of EGD are:

- To improve efficiency at ministry of Science and Technology
- To lead e-government’s efforts in country
- To Plan and Implement e-government’s projects
- To provide technical support to all level of governmental agencies at Federal, Provincial and District level
- To help in providing software and infrastructure in the field of e-governments. (The terms of EGD).
EGD was given financial and operational autonomy under the patronage of IT Ministry in order to ensure smooth inter-operability of e-government functions. In the spirit of democratic governance, revolutionary policies and need to be adopted and high priorities need to be given to information and communications technology (ICT) sector, particularly e-Government system in the country. Although some step have been taken by the government .for instance Pakistan Computer Bureau (PCB), on directive of senior management of MoIT, is pursuing the role out of e-Office Suite in the Federal Government to ensure effectiveness, efficiency, accuracy, accountability and transparency, in decision making and public services. Moreover, PCB has clearly defined the goals and target and formulated different teams to complete the task on fast track basis and for optimal utilization of PCB and EGD human resource. However some major decisions still need to made evolve the process of e-government. (EGD)

Electronic government is not rare for developed countries but Pakistan as a developing country is going through its primary phase. Many more efforts have been done to become an effective e-government structure in Pakistan. A good start has been made where the citizens of Pakistan can also get benefits from e-government. Ease in the access of technologies and online services are the main benefits for e-government in developing countries. These days Pakistan shows its rapid growth towards achieving the desired goal in electronic government to deliver its e-services with efficiently to the citizens and businesses. Initially, E-Government was exclusively a domain of developed countries but with the passage of time, the decreasing cost of ICTs makes their application easier for developing countries. This coupled with the higher access of technologies for the citizens in developing countries. Therefore, E-Government, today a country like Pakistan, can make the use of technology to deliver efficient and cost effective public services to its citizens and enhance the businesses. E-Government improve the efficiency and effectiveness of public sector through IT systems and applications. Its mean that maximum results can be achieved through minimum efforts. Moreover policies and strategies can also be taken to logical conclusion. E-Government increases the transparency, ensure accountability and make the audit of government official easier. Negative practice like corruption, red-tapism and absenteeism ect can easily be talked by the E-Government. Manual compilation of report and conversion of information into data not only affects the productivity but also results in delay of work. E-Government addresses both these issue: increase productivity and saves time.

4-1 Barriers for E-Governance in Pakistan:

Despite lot of encouragement in implementation of e-governance; various challenges are there to meet. E-governance becomes failure in many countries around the world especially in developing countries. E-governance projects may face challenges due to multiple reasons. Following are few challenges and barriers that can delay process of e-government implementation in Pakistan: The reasons are as follows:

- Failing experts and human resources are major bottlenecks for the introductions of e-governance.
- Limitations of skills and aptitude among the senior officials.
- Acceptability of electronic documents officially and legally.
- Fragile of collaboration among government departments
- Lack of collaboration and interaction between different departments
- conservative mind set of bureaucracy
- Low levels of ICT infrastructure.
- Accessibility / Insufficient Access to Internet to remote areas
- Awareness about utilizing and importance of e-governance.
- Inadequate understanding of advantages of e-governance among masses.
- People’s scarceness to use technology.
- Inappropriate resources allocation.

4-2 Policy Recommendations

After analyzing the present scenario of e-governance in Pakistan, the following suggestions are also found as strength in external environment, which can be treated as basement for e-governance implementation along with technological preparation of government.

- Serious attention should be given by both of Government and Citizens.
- Legal framework is required for the e-government in Pakistan. Legal base need to be created for document acceptability in all sectors of government and private sector to have the smoothness and authenticity.
- Geographical proximity for ICT infrastructure.
- International support for both of technical and financial.
- IT and skill development program should be promoted. Education about e-governance including the utilization and importance can be generated through media publicity, seminars, workshops and also
pilot testing as for example.

- The Governments need to adopt information society tools in order to remain responsive to citizen’s needs.
- Help in building the public trust and strengthening civic engagement.
- The internet and other advanced communication technologies can bring information quickly and more directly to citizens.
- Involvement of civil society could be beneficial for the promotion of e-governance in Pakistan.
- Scarce ness need to be removed by making the technology available to people. Nowadays some private organizations are coming up in technology spread out. This sector can be encouraged more for private public partnership.
- Urban areas are almost having the necessary infrastructure.
- Above all the central database system needs to be introduced and ensured for the people.

4-3 Conclusions

In the contemporary scenario, e-government is already in its second decade. More or less all countries around the world are introducing the e-government as a tool for reducing cost, saving time, improving social services and increasing efficiency and effectiveness of public sector improving social services. Outdated processes and documentation methods hamper efficient and transparent governance today. Use of ICT in governance backed by a networked and digitally enabled government can mitigate this handicap to large extent. Modern society based electronic governance will have wide impact not only upon ability to bring economic benefits to the society, but also upon issues related to social, cultural, technological and financial aspects of the community. This will bring forth solutions to the problems related to human and material resources, trained manpower and spread of education. E-government will facilitate disbursement and utilization of scarce resources more equitably.

Access to information by all citizens leads to better governance. Leading Western nations have already achieved development of a broad plan to interconnect industry, government, research and education with advanced telecommunications networks and information resources and technologies.

E-government has been identified as one the priorities for Pakistani government and all its agencies.

In this regard, e-government is near to complete the embryonic stage and very soon it will enter in growth stage in Pakistan. If government takes appropriate and revolutionary steps to implement the e-government, there is no doubt that we can become a role model for developing and neighbor countries. However, adoption of e-government is facing many challenges and barriers such as lack of infrastructure, conservative mind set of bureaucracy, language barrier and low literacy rate - which must be considered and treated carefully by government contemplating its adoption. Pakistan also needs to revamp its national level documentation and information structures and start transition towards E-Governance. This can be achieved by a process of sector wise development and creation of system based integrated networking. Thus by a concerted intra departmental integration process a practical step towards e-governance can be initiated. It can therefore be safely concluded that e-governance betters the service delivery and informed decision-making through public participation which ultimately leads to economic benefits for the society.

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