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GOVERNANCE TO GOOD GOVERNANCE THROUGH E-GOVERNANCE: A CRITICAL REVIEW OF CONCEPT, MODEL, INITIATIVES & CHALLENGES IN INDIA

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ABSTRACT

This paper being critical review and viewpoint is an effort to study whether *E-governance* can make a significant contribution to the achievement of successful and sustainable deployment of *Good Governance* in India. This paper attempts to define the meaning of e-governance in national and international perspective. Furthermore it tries to demystify about major challenges in implementation of e-governance in India. It also suggests some inferences to triumph the success of e-governance especially in context of India. It starts with a definition of e-governance, and then presents a general e-governance model and several case studies (initiatives) and examples. The study focuses on extensive study of secondary data collected from government websites, various national and international journals and articles, publications, conference papers, government reports, newspapers, magazines which focused on various aspects of governance. E-governance has been recognized as a vital force for transformational improvement in quality, efficiency and effectiveness of governance. Indian government is making many efforts to provide services to its citizens through e-Governance. Use of ICT in governance (e-

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governance) fosters all elements of Good Governance. It can be concluded that e-governance is the key to the "Good Governance" for the developing countries like India to minimize corruption, provides efficient and effective or quality services to their citizens. E-governance increase democratic participation, accountability, transparency, and the quality and speed of services. However environment needs to be developed for the effective implementation of e-government in India. The present study provides a starting-point for further research in this field for development techniques for e-governance, resolutions of the barriers for smooth implementations of e-governance.

Keywords: - Governance, Good Governance, e-Governance, e-Governance Challenges

1. Introduction

Governance, good governance and e-governance are increasingly being used in development literature. Governance describes the process of decision-making and the process by which decisions are implemented (or not implemented). The World Bank for example, outlines three aspects of governance: i) the type of the political regime, ii) the public management of economic and social resources, and iii) the capacity of government to design, formulate and implement policies. The former UN Secretary General Kofi Annan describes good governance as a force ensuring respect for human rights and the rule of law, strengthening democracy, promoting transparency and capacity in public administration. Good governance is a term different to governance which is mainly a political and technocratic term without normative aspirations and suggests that governance should be "good" and not "bad". Good Governance may be defined as the processes that guide the political and socio-economic relationships, with commitment to democratic values, trusted services and just and honest business. Governments at Central, state and partly at local levels are facing challenges posed by increased demand for better quality of governance. While the developed world and some Asian countries have moved very quickly, India continues to lag behind in meeting the increasing levels of citizen expectations. The massive population growth, diversity of cultures, acute poverty and high illiteracy create numerous difficulties in delivery mechanisms of government services. The existing processes of service delivery and governance need to be improved. E-governance (Electronic Governance/ Digital Governance) has been recognized as a vital force for transformational improvement in

quality, efficiency and effectiveness of governance. A governance strategy driven by information and communication technology has to be developed and applied with the objective of bringing in more transparency and increased accountability. The Government of India (GoI) is transcending from traditional modus overhanding of governance towards technological involvement in the process of governance. Currently, the Government of India is in the transition phase and seamlessly unleashing the power of ICT (Information and Communication Technology) in governance. GoI is spending an enormous amount of finances in deployment of e-governance, but, are these efforts are going in the appropriate direction and leads towards intended results? What do the people percept from the concept of e-governance? What is the global perspective about perception of e-governance? What are the major challenges confronting the deployment of e-governance? In this attempt the author has made an attempt to riposte aforesaid issues. This paper is an effort to study whether *E-governance* can make a significant contribution to the achievement of successful and sustainable deployment of G*ood Governance* in India. This paper attempts to define the meaning of e-governance in national and international perspective. Furthermore it tries to demystify about major challenges in implementation of e-governance in India. It also suggests some inferences to triumph the success of e-governance especially in context of India. It starts with a definition of e-governance, and then presents a general e-governance model and several case studies (initiatives) and examples.

2. Review of Literature

A review of literature pertaining to this study provides valuable information. The insights from the literature are presented here.

Bhavya Lal (1999) reviewed the issues facing African countries in adopting information and communication technologies (ICTs) to enhance governance in four areas, reducing poverty, providing basic human needs, improving public administration, and enhancing democratization. It summarized the use of ICTs in these areas – both successes and failures – around the world and in Africa. The paper focused on many of the caveats that should accompany ICT deployment and ends with an action framework for practitioners anxious to get started. The paper discussed how Information and communication technologies (ICTs) can help to sustain e-governance process in three ways: (i) they can support tasks that involve complex decision making,

communication and decision implementation, (ii) they can automate tedious tasks done by humans, and (iii) they can support new tasks and processes that did not exist before. When ICTs are properly aligned with governance goals, they can help to create gains in both efficiency and effectiveness.

D. Roman Kulchitsky (2001) considered the possibility that IT and public managers in developing countries may be designing IT for decision making initiatives based on unrealistic assumptions. He argued that the problem with development thinking is that it views IT initiatives as allocation constraints. This creates the expectation that IT strategies can optimize new technologies, human resources processes, and structures within organizations. Consequently, knowledge is treated as an afterthought in IT strategies without consideration for its special characteristics. This article suggests that the challenges facing IT and public managers in developing countries are not allocation constraints but knowledge problems.

Richard Heeks (2001) studied the effect of new information and communication technologies and how it can make a significant contribution to the achievement of good governance goals. He outlined the three main contributions of e-governance: improving government processes (e-administration); connecting citizens (e-citizens and e-services); and building external interactions (e-society). Case studies are used to show that e-governance is a current, not just future, reality for developing countries. However, most e-governance initiatives fail. Countries therefore face two challenges. First, the strategic challenge of e-readiness: preparing six identified pre-conditions for e-governance i.e. Data Systems Infrastructure, Legal Infrastructure, Institutional Infrastructure Ready, Human Infrastructure, Technological Infrastructure, and Leadership and Strategic Thinking. Second, the tactical challenge of closing design-reality gaps: adopting best practice in e-governance projects in order to avoid failure and to achieve success.

Roumeen, Islam (2003) explored the link between information flows and governance. He looked at (a) how the availability of basic economic data affects governance and (b) how the legal framework governing access to information might affect the quality of governance. Empirical analysis showed that countries which have better information flows as measured by both indicators have better quality governance. Regions where the media have a greater reach were

also the areas where voters were more informed about political choices and able to cast votes accordingly. They need timely information on decisions related to various aspects of government activity, on how these decisions will be implemented, information on the consequences of these decisions and the process through which they are reached.

Saxena, K.B.C. (2005) opinioned that E-governance initiatives in most countries promise a more citizen-centric government and reduce operational cost. Unfortunately most of these initiatives have not been able to achieve the benefits claimed. Often the reason for this failure is a techno-centric focus rather than a governance-centric focus. The paper explored the necessary attributes of a governance-centric initiative under the banner "excellent e-governance" (e2-governance), and describe a methodology for ensuring such excellence in e-governance implementations. Excellence (or governance-centralism) in e-governance requires the initiative to be effectiveness -driven and not merely efficiency-driven. This will require the initiative to be led by "good governance" driven goal/purpose: additionally, the initiative must be outcome-focused.

Danish Dada (2006) provided a review of academic literature on the failure of e-governance in developing countries. Drawing from extensive research on the topic conducted by Richard Heeks, he suggested that there exist wide gap between the current reality in developing countries and the future of e-governance systems. These gaps could be classified into three types: a hard-soft gap, implying a gap between the technology and the social context in which it is applied; a private-public gap, suggesting that what works in the private sector may not work in the public sector; and a country context gap, that arises from the application of the same e-governance systems for both the developing and developed countries. The paper recommends that administrators in developing countries must assess the situation at hand before implementing e-governance.

Mohammad Shakil Akther et al (2007) in their study on an e-government project in Bangladesh highlighted that most e-government projects within developing countries employ high-technology intervention whereas citizens are not ready for this. There are successful projects which took low end route. This paper examines one such project to find out the reasons behind its success. The research concluded that stakeholders' participation is the driving factor for

success. The major issue is not IT, but an understanding between the citizen population and their complimentary governmental entity, which acts as the critical factor for triumph in e-government. Due to the active participation of stakeholders, both the birth registration and immunization rate have increased where concurrently other unforeseen benefits were realized; such as image enhancing of public and elected officials, use of data for school enrolment and decision making for vaccine management for society as a whole.

Christopher A. Cooper et al (2008) tested theories about political trust and citizen competence using the case of zoning. Many scholars argued that citizens with higher levels of political trust are more likely to grant bureaucratic discretion to public administrators than citizens with lower levels of trust. Trust, therefore, can relieve the tension between managerial flexibility and political accountability in the modern administrative state. Unfortunately, there is little empirical evidence showing that trust is actually associated with citizens' willingness to cede policy-making power to government. The results depicted that trust in local government is found to be an important predictor of support for zoning, but trust in state government and trust in national government have no effect. These findings suggested that trust affects policy choice and helps determine how much power citizens grant to local administrators.

David Coursey and Donald F. Norris (2008) presented empirical evidence from three surveys of local e-government in the United States to test whether the normative models are accurate or useful for understanding the actual development of e-government. Research into e-government is relatively new. Nevertheless much contemporary thinking and writing about e-government is driven by normative models that appeared less than a decade ago. The authors found that local e-government is mainly informational, with a few transactions but virtually no indication of the high-level functions predicted in the models. Thus, the models do not accurately describe or predict the development of e-government, at least among American local governments. These models, though intellectually interesting, are purely speculative, having been developed without linkage to the literature about information technology and government.

3. Rationale for the Study

India is a fast developing economy in the world and is under the transformation phase from governance to good governance through e-governance. The establishment of good governance has now become central in the discourse among development workers, social researchers, international development agencies and scholars. However, initiatives for achieving good governance have not been equally initiated all around the world. The honorable Prime Minister has started fostering a culture of Digital India undertaking many initiatives under this. His concept "Minimum Government and Maximum Governance" is a strong concept and many thoughts are given to it, planning and implementation for those thoughts were taken promptly by government. The author theoretically seeks to understand the relations among governance, good governance and e-governance; concept, model and various initiatives.

4. Problem Statement and Study Objectives

The review of literature has asserted that e-governance has played a big role to achieve the successful and sustainable deployment of good governance globally. The author seeks to study the significant role of e-governance to achieve good governance in India; analyzing the concept, model and initiatives taken by Indian Government. To address this goal, the study has following objectives in context on Indian environment:-

- To study the concept and definition of e-governance.
- To review the driving model of e-governance.
- To study the journey of e-governance.
- To review the initiative taken under e-governance by Indian government.
- To evaluate the significant role of e-governance to achieve goals of good governance.
- To discuss the challenges for sustainable e-governance.

5. Methodology

The exploratory research is designed to allow an investigator to basically look around with respect to some phenomenon, with the aim to develop suggestive ideas (Reynolds, 1971). This study is exploratory in nature and includes both quantitative and qualitative analysis. As a purpose of this study (critical review), this study focuses on extensive study of secondary data collected from government websites, various national and international journals and articles,

publications, conference papers, government reports, newspapers, magazines which focused on various aspects of governance. This is the best/standard practice for a research which is a critical review type.

6. E-governance in India

6.1 Concept and Definition

Imagine a situation in which all interaction with the government can be done through one counter 24 hours a day, 7 days a week, without waiting in lines at government offices. In the near future this is possible if governments are willing to decentralize responsibilities and processes and they start to use electronic means such as the Internet. Each citizen can then make contact with the government through a website where all forms, legislation, news and other information will be available 24x7x365.

According to Ibid (pp.846), e-Governance, could be defined as an IT-led reconfiguration of public sector governance and how knowledge, power, and purpose are redistributed in light of new technological realities. To make it simpler e-governance or digital governance would refer to governance processes in which Information & Communications Technology play a significant role. The role played by ICT could be wide ranging: in delivery and standard of governance services; to how people access such services; and the participation of people in governance sphere. In other words, e-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, & Mobile Computing,) that have the ability to transform relations with citizens, businesses, and other arms of governments. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with businesses and industry; citizen empowerment through access to information; or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and /or cost reductions.

The World Bank has defined e-Government as "government owned or operated information and communication technologies (ICT) that transform relations with citizens, the private sector, and /or other government agencies so as to promote citizen empowerment, improve service delivery, strengthen accountability, increase transparency, or improve government efficiency.

A working definition of e-governance can be taken as "e-governance is that form of governance which seeks to realize processes and structures by harnessing the potentialities of information and communication technologies (ICT) at various levels of government and the public sector and beyond, for the purpose of enhancing good Governance". (Katherine Reilly, 2002).

Shilubane (2001) defined e-governance as "the continuous optimization of government service delivery, constituency participation and governance by transforming internal and external relationships through technology, the Internet and the new media".

The Government of India has defined e-governance in a very broad sense; the Ministry of Information Technology (Government of India) defines it as "....the application of Information Technology to processes of government functioning to bring about Simple, Moral, Accountable, Responsive & Transparent governance."

E-governance is thus the process of enabling governance experts using Information and Communication Technology (ICT) to make governance effective for citizens in terms of efficiency, transparency, and cost-effectiveness. Traditionally, the interaction between a citizen or business and a government agency took place in a government office with emerging ICT it is possible to locate services centers closer to the clients. Such centers may consist of unattended kiosks in government agency, a service kiosk located close to the client, or the use of a personal computer in home or office. Although today, in most countries, e-government is mostly restricted to downloading forms to print out and mail in, and searching websites for information, tomorrow it could involve

Here another distinction that needs to be understood, that is the distinction between e-Government and e-Governance. Very often, these two terms are used synonymously, however, in our opinion there exists a slight difference between the two, while the former refers to processes and structures to the electronic delivery of government services to the public. According to Gartner Consulting, e-Government involves the use of ICTs to support government operations and provide government services. This would then include the following dimensions:

- e-services: the electronic delivery of government information, programs, & services.

- e-commerce: the electronic exchange of money for goods and services, such as taxes and utility billing, renewing vehicle registration, etc.
- e-management: the use of ICTs to improve the management of government (includes improving government processes to improving the information flow within offices, departments, and agencies).

At a broader level, apart from delivering government services, e-governance includes integration of several stand-alone systems and services between Government-to-Citizens (G2C), Government-to-Business (G2B), and Government-to-Government (G2G) as well as back office processes and interactions within entire government framework. The overall objective of such a catalogue is to enable the administration to provide services with affordable cost and optimum time to the end user (citizen). In a broader sense, 'e-governance' is all about reform in governance facilitated by the creative use of ICT.

6.2 Journey of E-governance in India

In 1970 the Government of India (GoI) has established Department of Electronics and subsequently in 1977 GoI has taken first major step towards implementation of e-governance by establishment of National Informatics Centre (NIC). By 1980 most of the government offices were equipped with computers but their role was confined up to word processing. With the span of time and advent of ICT, the GoI has taken a remarkable step for fostering e-governance by launching the national satellite based network NICNET in 1987 followed by District Information System of the National Informatics Centre (DISNIC) and NICNET was the first government informatics network across the world equipped with facilities like TELNET, FTP, internet along with database services (GISTNIC and MEDLARS). Up to 1990, NICNET has extended its extent from state headquarters to district headquarters.

Table-1: 12-Points Agenda for E-governance	
i	Each Ministry/Department must provide Pcs with necessary software up to the Section Officer level. In addition, Local Area Network (LAN) must also be set up.
ii	It should be ensured that all staff who have access to and need to use computer for their office work are provided with adequate training. To facilitate this, inter alia, Ministries/Departments should set up their own or share other's Learning centres for decentralized training in computers as per the guidelines issued by the MIT.

iii	Each Ministry/Department should start using the Office Procedure Automation software developed by NIC with a view to keeping a record of receipt of dak, issue of letters, as well as movement of files in the department.
iv	Pay roll accounting and other house-keeping software should be put to use in day-to-day operations.
v	Notices for internal meetings should be sent by e-mail. Similarly, submission of applications for leave and for going on tour should also be done electronically. Ministries/Departments should also set up online notice board to display orders, circulars etc. as and when issued.
vi	Ministries/Departments should use the web-enabled Grievance Redressal Software developed by the Department of Administrative Reforms and Public Grievances.
vii	Each Ministry/Department should have its own website.
viii	All Acts, Rules, circulars must be converted into electronic form and, along with other published material of interest or relevance to the public, should be made available on the internet and be accessible from the Information and Facilitation counter.
ix	The websites of Ministries/Departments/Organizations should specifically contain a section in which various forms to be used by citizens/customers are available. The forms should be available for being printed or for being completed on the computer itself and then printed out for submission. Attempts should also be made to enable completion and submission of forms online.
x	The Hindi version of the content of the websites should as far as possible be developed simultaneously.
xi	Each Ministry/Department would also make efforts to develop packages so as to begin electronic delivery of services to the public.
xii	Each Ministry/Department should have an overall IT vision or strategy for a five year period, within which it could dovetail specific action plans and targets (including the minimum agenda) to be implemented within one year.

Source: Adapted from "Minimum Agenda for e-governance in the central Government".

In year 2000, the GoI has established Ministry of Information Technology and identified minimum 12-points impressive agenda for e-governance for implementation of e-government services in all the Union Government Ministries/Departments. The agenda undertaken are given

in the Table-1. 'eKranti' or NeGP 2.0 was also conceptualized with a focus on electronic delivery of services.

Later Digital India which was launched on 1 July 2015 is an initiative to ensure that Government services are made available to citizens electronically by improving online infrastructure and by increasing Internet connectivity. Finally in year 2006 the GoI has launched National e-governance Plan (NeGP) with various Mission Mode Projects (MMPs) to automate essential mundane tasks. The Ministry of corporate Affairs has implemented the MCA 21 Mission Mode Project under the NeGP in September 2006. The project aims at the goals providing easy and secure online access to all registry related services provided by the Union Ministry of corporate Affairs to corporates and other stakeholders at any time and in a manner that best suits them. These are given in Table-2.

Table-2: Goals of MCA 21 Mission Mode Project	
i	Business: to enable registration of a company and file statutory documents quickly and easily.
ii	Public: to get easy access to relevant records and effective grievances redressal.
iii	Professionals: to enable them to offer efficient services to their client companies.
iv	Financial Institutions: to easily find charges for registration and verification.
v	Employees: to enable them to ensure proactive and effective compliance of relevant laws and corporate governance.

Source: Annual Report, 2007-08; Ministry of corporate Affairs

6.3 Model of E-governance

The three main target groups that can be distinguished in e-governance concepts are government, citizens and businesses/interest groups. According to an administrative reforms commission report e-governance initiatives implemented in the last 10 to 15 years can be categorized into the following :-

a) **Government to Citizen (G2C)** is an initiative which deals with extending the reach of governance to have a major impact on the people at large. Projects taken in this direction are Computerization of Land Records (Department of Land Resources, Government of India), Bhoomi Project: Online Delivery of Land Records, Gyandoot, Lokvani Project, e-Mitra Project,

Project FRIENDS, eSeva, Revenue Administration through Computerized Energy (RACE) Billing Project, Admission to Professional Colleges – Common Entrance Test (CET) etc..

b) **Government to Business (G2B)** is an initiative which deals with activities of government which impinge upon business organizations. The objective of bringing activities like registrations, licenses and exchange of information between government and business under e-governance is to provide an amiable legal environment to business, speed up processes and provide relevant information to business. Some of the projects are e-Procurement Project, e-Procurement, MCA 21, etc…

c) **Government to Government (G2G)** is an initiative which deals with large scale processing of information and decision making within government systems. This initiative has been taken to help in making the internal government processes more efficient. Some of projects are Khajane Project in Karnataka, SmartGov (Andhra Pradesh), etc…

The most common group interactions in e-governance are presented schematically in Figure 3.

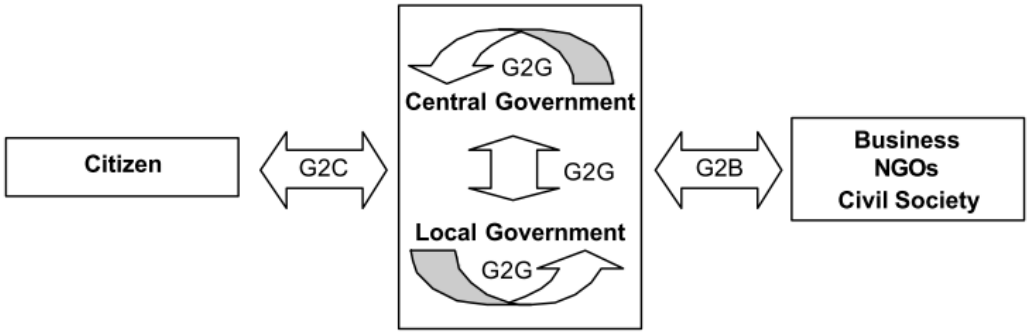

Figure 1: Interactions between main groups in e-governance

6.4 Elements of Good Governance

For the last couple of decades the notion of good governance has been a popular discourse among the intellectuals, politicians, aid agents, development workers, and administrators. International development agencies such as the World Bank, the United Nations Development Program (UNDP - United Nations Development Programs), the Asian Development Bank (ADB) and others use a functional approach to describe good governance, focusing on management factors to promote economic issues. Accordingly UNDP identified three bases of good governance: Economic, participatory and administrative (UNDP 1997a). The United Nations Development Programs (UNDP) highlighted good governance as the good exercise of a nation's affairs at all levels. It prescribed that governance is good when it subscribes to nine

characteristics, which are: Participation, Strategic Vision, Rule of Law, Transparency, Consensus Orientation, Equity Building, Effectiveness & Efficiency and Accountability (UNDP 1997b). The UNESCAP (UN Economic & Social Commission for Asia and the Pacific) identifies eight values of good governance. These are: Accountable, Participatory, Transparent, Consensus oriented, Responsive, Follows the rule of law, Effective and efficient and Equitable and inclusive (UNESCAP 2008).

Table-3 : Elements of Good Governance

UNDP	**ESCAP**	**WB**	**ODA/ DFID**	**ADB**
Accountability	Accountable	Accountability	Accountability	Accountability
Participation	Participatory	Participation	Participation	Participation
Rule of Law	Follows the rule of law	Rule of law and control of corruption	Legitimacy	Predictability
Transparency	Transparent	Government effectiveness	Transparency	Transparency
Consensus Orientation	Consensus oriented	Regulatory quality		
Equity Building	Equitable and inclusive	Political stability and absence of violence		
Effectiveness	Effective and efficient			
Efficiency	Responsive			
Strategic Vision				

Sources: Turner and Hulme (1997), Waheduzzaman (2007).

Likewise, UK's Overseas Development Administration (ODA - UK's Overseas Development Administration, presently DFID - Department for International Development, UK) identified four main elements that ensure quality of government services (see Table 2.2). The World Bank (WB) defines good governance as good management of a country's economic and social resources for development. Likewise, the Asian Development Bank (ADB) identified four basic

components of governance that help a government to operate most effectively and efficiently. All these elements of good governance have been presented in Table-3.

7. Analysis and Discussion on Initiatives of e-governance in India

Like governments in other part of the world, Government of India and a number of state governments' too have been introducing measures to improve standards of governance in their designated areas of influence. It was only in the mid-1990s that e-governance received the attention. There have been a number of initiatives, in the field of e-governance in India in the past couple of years, some of them are:

7.1 Computerization of Land Records: In collaboration with NIC. Ensuring that land owners get computerized copies of ownership, crop and tenancy and updated copies of Records of Rights (RoRs) on demand.

7.2 Bhoomi Project: Online delivery of Land Records. Self-sustainable e-governance project for the computerized delivery of 20 million rural land records to 6.7 million farmers through 177 Government-owned kiosks in the State of Karnataka

7.3 Gyandoot: It is an Intranet-based Government to Citizen (G2C) service delivery initiative. It was initiated in the Dhar district of Madhya Pradesh in January 2000 with the twin objective of providing relevant information to the rural population and acting as an interface between the district administration and the people.

7.4 Lokvani Project in Uttar Pradesh: Lokvani is a public-private partnership project at Sitapur District in Uttar Pradesh which was initiated in November, 2004. Its objective is to provide a single window, self-sustainable e-governance solution with regard to handling of grievances, land record maintenance and providing a mixture of essential services.

7.5 Project FRIENDS in Kerala: FRIENDS (Fast, Reliable, Instant, Efficient Network for the Disbursement of Services) is a Single Window Facility providing citizens the means to pay taxes and other financial dues to the State Government. The services are provided through FRIENDS Janasevana Kendrams located in the district headquarters.

7.6 e-Mitra Project in Rajasthan: e-Mitra is an integrated project to facilitate the urban and the rural masses with maximum possible services related to different state government departments through Lokmitra Janmitra Centers/Kiosks.

7.7 e-Seva (Andhra Pradesh): This project is designed to provide 'Government to Citizen' and 'e-Business to Citizen' services. The highlight of the eSeva project is thatall the services are delivered online to consumers /citizens by connecting them to the respective government departments and providing online information at the point of service delivery.

7.8 Admission to Professional Colleges: Common Entrance Test (CET): With the rapid growth in the demand as well as supply of professional education, the process of admission to these institutions became a major challenge in the early1990s. Recourse was then taken to ICT to make the process of admission transparent and objective. One of the pioneering efforts was made by Karnataka. The State Government decided to conduct a common entrance test based on which admission to different colleges and disciplines was made.

7.9 e-Procurement Project in Andhra Pradesh and Gujarat: To reduce the time and cost of doing business for both vendors and government.

7.10 MCA 21: By the Ministry of Corporate Affairs. The project aims at providing easy and secure online access to all registry related services provided by the Union Ministry of Corporate Affairs to corporates and other stakeholders at any time and in a manner that best suits them.

7.11 Khajane Project in Karnataka: It is a comprehensive online treasury computerization project of the Government of Karnataka. The project has resulted in the computerization of the entire treasury related activities of the State Government and the system has the ability to track every activity right from the approval of the State Budget to the point of rendering accounts to the government.

7.12 SmartGov (Andhra Pradesh): SmartGov has been developed to streamline operations, enhance efficiency through workflow automation and knowledge management for implementation in the Andhra Pradesh Secretariat.

7.13 National E-governance Plan: The National e-governance Plan (NeGP) has been formulated by the Department of Electronics and Information Technology (DEITY) and Department of Administrative Reforms and Public Grievances (DARPG) in 2006. The NeGP aims at improving delivery of Government services to citizens and businesses with the following vision: "Make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realize the basic needs of the common man."

Central government initiatives as mission mode projects (MMP):- Some of them are given below

7.14 e-office: The Government of India has recognized the need to modernize the Central Government offices through the introduction of Information and Communications Technology. e-Office is aimed at increasing the usage of work flow and rule based file routing, quick search and retrieval of files and office orders, digital signatures for authentication, forms and reporting components.

7.15 Immigration, Visa and Foreigner's Registration & Tracking: India has emerged as a key tourist destination, besides being a major business and service hub. Immigration Check Post is the first point of contact that generates public and popular perception about the country, thus necessitating a state of the art system for prompt and user-friendly services.

7.16 UID: The unique identification project was conceived as an initiative that would provide identification for each resident across the country and would be used primarily as the basis for efficient delivery of welfare services. It would also act as a tool for effective monitoring of various programs and schemes of the government.

7.17 Pensions: The pensions MMP is primarily aimed at making the pension/ retirement related information, services and grievances handling mechanism accessible online to the needy pensioners, through a combination of interactive and non-interactive components, and thus, help bridge the gap between the pensioners and the government.

7.18 Banking: The Banking MMP is yet another step towards improving operational efficiency and reducing the delays and efforts involved in handling and settling transactions. The MMP which is being implemented by the banking industry aims at streamlining various e-services initiatives undertaken by individual banks. Implementation is being done by the banks concerned, with the banking Department providing a broad framework and guidance.

7.19 Posts: Modernization of Postal Services has been undertaken by the Department of Posts through computerization and networking of all post offices using a central server-based system, and setting up of computerized registration centers (CRCs).

State Mission Mode projects: - Some of them are given below

7.20 e-governance in Municipalities: It is a unique initiative of the Government of India conceptualized under the umbrella of the overall National e-governance Plan (NeGP) and the

Jawaharlal Nehru National Urban Renewal Mission (Jnnurm) aimed at improving operational efficiencies within Urban Local Bodies (ULBs).

7.21 Crime and Criminal Tracking Network & Systems: Crime and Criminal Tracking Network & Systems (CCTNS) MMP aims at creating a comprehensive and integrated system for enhancing the efficiency and effective policing at all levels and especially at the Police Station level through adoption of principles of e-Governance, and creation of a nationwide networked infrastructure for evolution of IT- enabled state-of-the-art tracking system.

7.22 Public Distribution System: Computerization of the PDS is envisaged as an end-to-end project covering key functional areas such as supply chain management including allocation and utilization reporting, storage and movement of food grains, grievance redressal and transparency portal, digitization of beneficiary database, Fair Price Shop automation, etc.

7.23 Health: ICT for programme management has been undertaken by the Ministry of Health & Family Welfare in the Mother and Child Tracking System (MCTS) programme and the Ministry envisages a more comprehensive use of ICT including for Hospital Information Systems, supply chain management for drugs and vaccines, providing ICT tools to ASHA and ANM workers, programme management of National Rural Health Mission (NRHM), etc through this MMP.

7.24 e-panchayat: The Panchayati Raj Institutions (PRIs) are saddled with the problems of inadequate physical and financial resources, technical capabilities and extremely limited computerization. As a result, the potential of PRIs as the preferred delivery channel for the schemes of State and Centre as well as for citizen services has not been fully realized. While some computerization efforts for PRIs have been made by NIC over the years, the e- Governance revolution sweeping the country has not touched the PRIs yet in significant measure. The Ministry of Panchayati Raj, Government of India has therefore decided to take up the computerization of PRIs on a mission mode basis.

7.25 e-District: e-District is one of the 31 Mission Mode Projects under National e Governance Plan (NeGP) with the DIT, GoI being the nodal ministry. This project aims at providing support to the basic administrative unit i.e. District Administration by undertaking backend computerization to enable electronic delivery of high volume citizen centric government services which would optimally leverage and utilize the three infrastructure pillars of State Wide Area Networks (SWAN), State Data Centers (SDC) and Common Service Centers (CSCs) to deliver services to the citizen at his doorsteps.

7.26 National Land Records Modernization Programme (NLRMP):A Project for Computerization of Land Records (CLR) was launched in 1988-89 with the intention to remove the inherent flaws in the manual system of maintenance and updation of Land Records. In 1997-98, the scheme was extended to tehsils to start distribution of Records of Rights to landowners on demand. The focus of the entire operation has always been to employ state of the art information technology (IT) to galvanize and transform the existing land records system of the country.

Integrated Mission Mode Projects: - Some of the examples are given hereunder -

7.27 e-procurement: Ministry of Commerce & Industry (Department of Commerce) has been nominated as the Nodal Ministry for implementation of e-Government Procurement (e-GP) Mission Mode Projects (MMP). The vision of the e-Procurement MMP is "To create a national initiative to implement procurement reforms, through the use of electronic Government procurement, so as to make public procurement in all sectors more transparent and efficient".

7.28 e-Courts: The e-Court Mission Mode Project (MMP) was conceptualized with a vision to transform the Indian judiciary by making use of technology. The project had been developed, following the report submitted by the e-Committee under Supreme Court on national policy & action plan on implementation of information communication tools in Indian judiciary. A clear objective to reengineer processes and enhance judicial productivity both qualitatively and quantitatively to make the justice delivery system affordable, accessible, cost effective, transparent and accountable.

7.29 e-Biz: The e-Biz Mission Mode Project, being executed by Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, Government of India, was conceptualized with the vision. Its vision is "To transform the business environment in the country by providing efficient, convenient, transparent and integrated electronic services to investors, industries and business throughout the business life cycle".

7.30 Common Services Centres: The CSCs would provide high quality and cost-effective video, voice and data content and services, in the areas of e-governance, education, health, telemedicine, entertainment as well as other private services. A highlight of the CSCs is that it will offer web-enabled e- governance services in rural areas, including application forms, certificates, and utility payments such as electricity, telephone and water bills.

Some of the Recent Initiatives are given below:-

7.31 Direct Cash transfer: To facilitate disbursements of Government entitlements like NREGA, Social Security pension, Handicapped Old Age Pension etc. of any Central or State Government bodies, using Aadhaar and authentication thereof as supported by UIDAI.

7.32 Aadhar Enabled Payment system (AEPS): AEPS is a bank led model which allows online interoperable financial inclusion transaction through the Business correspondent of any bank using the Aadhaar authentication. This has helped in financial inclusion. The four Aadhaar enabled basic types of banking transactions are Balance Enquiry, Cash Withdrawal, Cash Deposit, Aadhaar to Aadhaar Funds Transfer

7.33 Digital India program: This programme has been envisaged by Department of Electronics and Information Technology (DeitY). The vision of Digital India aims to transform the country into a digitally empowered society and knowledge economy. The Digital India is transformational in nature and would ensure that Government services are available to citizens electronically. It would also bring in public accountability through mandated delivery of government's services electronically; a Unique ID and e-Pramaan based on authentic and standard based interoperable and integrated government applications and data basis. The program aims at providing digital infrastructure as a utility to every citizen as well as high speed internet as a core utility in all gram panchayats. The overall scope of this program is "to prepare India for a knowledge future", "to make technology central to enabling change" and "to become an umbrella program covering many departments"

7.34 MyGov: Citizen Portal Prime Minister launched an online platform mygov.nic.in to engage citizens in the task of "good governance" (surajya) as he completed 60 days in office on Saturday. MyGov is a technology driven platform that would provide people with the opportunity to contribute towards good governance.

7.35 E-Kranti scheme: This is project for linking the internet with remote villages in the country. This scheme will broaden the reach of internet services to the rural areas in the country. The fundamental features of this scheme will be making the records handy to the government with ease. It also includes Expansion of internet and commencement of IT based jobs in rural areas. It will also boost the use of mobile phones and computers in rural areas. It will also expand the use of IT in agriculture and retail trade too. Digital Cloud for every Indian Certificates issued by the government — education, residential, medical records, birth certificates, etc. are to be

stored in individual 'digital lockers' and a communication protocol established for government departments to access them without physically having to see the hard copy. The purpose of government is that copies of certificates issued by the government itself not to be carried around by people to government offices for various services.

7.36 M-governance: M-Governance is not a replacement for e-Governance; rather it complements e-Governance. M-Governance is the use of mobile or wireless to improve Governance service and information "anytime, anywhere". Mobile applications also rely on good back office ICT infrastructure and work processes. It has potential of using mobile phones as input devices in certain areas where last mile connectivity becomes issues for simple data inputs of critical importance for decision making in government departments. M-Governance is not a new concept. The private sector has been greatly leveraging these of mobile phones for delivery of value added services for the following which however are mostly SMS based: Banking, Media, Airlines, Telecom, Entertainment, News, Sports, Astrology, and Movie Tickets Etc. M-governance has increased the productivity of public service personnel, improving the delivery of government information and services, increasing channels for public interactions and Lower costs leading to higher participation of people.

8. Challenges in e-governance

There are large numbers of potential barriers in the implementation of e-Governance. The government is expanding an enormous amount on cultivating the culture of e-governance through NeGP but despite of that results are not overwhelming. Although there are islands of success in the area of e-governance but still there are certain areas which are unexplored or inadequately explored.

i) **Trust:** 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.

ii) 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.

iii) **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 himself 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.

iv) Cost: Cost is one of the most important prohibiting factor that comes in the path of e-governance implementation particularly in the developing countries like India where most of the people living below the poverty line. Elected officers and politician don't seem to be interested in implementing e-governance.

v) 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.

Table-4: Summary of the Challenges for sustainable e-governance in India

Environmental and Social Challenges	**Economic Challenges**	**Technical Challenges**
Different Language	Heavy Costs	Scope of applications
Low Literacy	Applications must be transferrable from one platform to another	Tried and tested technologies

Low IT Literacy	Maintenance of electronic devices	Diversity of Languages
Recognition of applications	Low per Capita income	Geographical problems
User friendliness of government websites	Limited financial resources	Interoperability
Services are not accessible easily	Poverty	Multimodal Interaction
Confidence on technologies provided by government	Reusability of software / modules by others	Privacy and Security concerns
Population	Portability	Lack of Key Persons
Lack of integrated services	Lack of collaborations	Rapid Technological Change globally
Lack of awareness in people	Monitoring and evaluation	Risk of failure of technology
Economic Separation	Cost of training	Citizen expectations and seamless services
Resistance to Change	Budgetary barriers in governments	Good technical framework and infrastructure

Source: Compiled by author.

Some of other barriers in successful implementation of e-governance in India are inadequate planning, leadership failures, deficiency in finances, lack of motivation and awareness, dearth of citizen centric nature of applications, poor cooperation among bureaucrats and people at local level, lack of trust, miserable technical design which endures lack of interoperability among distinct e-governance applications, underutilization of ICT infrastructure resources, limited availability of internet infrastructure, high cost of access and usage, lack of awareness and low digital literacy, narrow range of applications and services and an unfavorable business environment. The summary of all these challenges is given in the Table-4.

9. Conclusion

E-governance has been recognized as a vital force for transformational improvement in quality, efficiency and effectiveness of governance. Nearly all governments of the world are now moving

from the traditional way of handling administrative tasks to e-governance applications to meet the expectations of the growing populations. Indian government is making many efforts to provide services to its citizens through e-Governance. This is a change, a transition that cannot be stopped since it is part of a global movement.

ICT is a tool that can be applied to cover full range of human activities. As discussed earlier, the elements of good governance are Transparency, Consensus Orientation, Equity Building, Effectiveness & Efficiency and Accountability and Participatory. So use of ICT in governance (e-governance) fosters all elements of Good Governance. E-governance is the use of Information and Communication Technologies to facilitate the processes of Government and Public Administration for achieving all elements of Good Governance. Therefore we can say that e-governance is the key to the "Good Governance" for the developing countries like India to minimize corruption, provides efficient and effective or quality services to their citizens.
There are various facets of Good Governance. Changes to government processes, e.g. by decentralization generally to improve efficiency and effectiveness and to save costs. E-government is no longer an experiment in administrative reform but a permanent part of the governing process. E-governance allows real-time participation in the governmental and democratic process. E-governance ensures better policy outcomes, higher quality services and greater engagement with citizens. These could be online services and information that increase democratic participation, accountability, transparency, and the quality and speed of services.
During the last few years, many initiatives have been taken by different state governments in India for using IT as a tool in the functioning of Government so as to provide better services to citizens. Although Indian government is spending a lot of money on e-governance projects but still these projects are not successful in all parts of India. So, a vision is required to implement the e-government in India. To meet the vision the challenges in the implementation of e-government should be overcome. Then, the environment needs to be developed for the effective implementation of e-government in India. And the participation of people can play a vital role in implementation of e-governance in India.

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