The Role of E-government & ICT in Enhancing Performances of Public Service Qualities and Promoting Good Governance with a Reference to Uttar Pradesh

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Abstract: In the present scenario, Information technology has added the impetus to the services provided by the government.

This paper highlights the role and potential of information and communication technologies (ICTs) in supporting the —good governance programs in developing countries. ICTs can make a significant contribution to the achievement of good governance goals. This 'e-governance' makes the governance more efficient and more effective, and also brings benefits to the citizens of the country. We will be outlining the three main contributions of e-governance: firstly improving government processes; secondly connecting citizens and thirdly building external interactions. The developing countries face two major challenges. First, the strategic challenge of e-readiness: preparing six identified pre- conditions for e-governance. 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. .

This paper discusses the factors which are responsible for good governance, e-government initiatives in different states of India, and also includes some current challenges for managing E-Government projects in India. This paper also includes the current status of E- Governance in India (Eleventh Five Year Plan Achievements) and future prospects of E-Governance in India i.e. the vision and objectives of the Twelfth Five Year Plan (2012-17), its major recommendations and its targets.

I. E-GOVERNANCE IN INDIA: EMERGING TRENDS

E-government is organizing public management in order to increase efficiency, transparency, accessibility and responsiveness to citizens through the intensive and strategic use of information and communication technologies in the inner management of the public sector (intra and inter governmental relations) as well as in its daily relations with citizens and users of public services.‖

E-governance is an ICT-enabled tool to achieve good governance. We may think of it as integrated governance since it integrates people, processes, information, and technology in the service of achieving the aim of good governance. Indian government has been using IT for more than 40 years. So what's new about e-governance? What's new is that we are moving on from IT to ICTs and from IT to IS [7].

New Govt.-people Connections: ICTs

The old pattern used information technology (IT) for automating the internal workings of government by processing data. The new system utilizes information and communication technologies (ICTs) to support and transform the external workings

of governance by processing and communicating data. E-Governance encompasses all ICTs, but the key development is computer networks – from intranets to the Internet – creating a platform for new digital connections:

- Connections within the government – allowing 'consensus based decisions'.

- Connections between government and NGOs/citizens – supporting democracy.

- Connections between government and business/citizens – strengthening service delivery.

- Connections within and between NGOs – platform for joint action.

- Connections within and between communities – paving way for social and economic enrichment.

As a result, the focus shifts from simply automating the govt. to connect it with the larger community in the form of e-citizens, e-services and e-society.

New Wholistic trends: IS

Generally Information Technology has been the major resource in majority of the reforms. The new trends attempt to bring information systems (IS) to the heart of reform.

In practice this means two things:

- A pivotal role for ICTs: as governance becomes recognised as – ever more information-intensive, ICTs have become an essential part of more and more governance initiatives. ICTs are also recognised as a key lever to change.

- An all-encompassing role for ICTs: e-governance means using ICTs as means to the end of good governance. ICTs are no longer seen as an end in themselves and they work only as part of a wider systemic 'package'.

II. E-GOVERNANCE AND DEVELOPMENT

The public service delivery system in the developing nations 'costs too much, delivers too little, and is not sufficiently responsive or accountable. Good governance reforms aim to revamp this delivery system. E- Governance offers new solutions, helping improve government processes, connect citizens, and build interactions with and within civil society. E-governance has the power of ICTs, which provide three basic change potentials for good governance for development:

- *Automation*: It means replacing the human-executed processes which involve accepting, storing, processing, outputting or transmitting information..

- *Informatisation*: It means supporting human- executed information processes. Like, supporting current processes of decision making, communication, and decision implementation.

- *Transformation*: It creates new ICT-executed information processes or supporting new human- executed information processes.

The main benefits to governance for development by the ICT can be listed as below:

The E-governance becomes more feasible, adaptable with the probability of real time processing to make the policies work in a better with a higher quality standard.

Failure of ICT Initiatives in Developing Countries

Although the developing nations have been constantly trying to develop innovative modes of operability, where they utilize IT for the software development, it is a known fact that majority of such initiatives are a failure. The basic factors that may be one of the reasons of failure can be over budget, less user interactive adaptable, delay in delivering the product. The most cited reason for failure in achieving economic benefits from ICT projects in developing countries is that the financial logic of ICT-based

automation is typically based on Western cost/benefit calculations in which the cost of new technology is more than balanced by the benefit of labor cost savings. In developing countries, though, we can be fairly certain that such calculations donot apply since technology costs are typically two-three times greater and labor costs up to ten times lower thanin industrialized countries [2].

The failure of an information systems project in a developing country government is, however, a real and practical problem not only because of the opportunity cost of the investment, particularly the outlay of scarce resources of capital and skilled labor, but also because, where the IFIs are advocating an information systems project as part of a public sector reform programme, failure or partial failure has a negative effect on the image of the government implementing the initiative.

A successful information system of e-government focuses on technical efficiency in terms of inputs (protocols adopted), processes (connection speed) or internal outputs (web sites, access points). Little emphasis is placed on the true areas of public value: the external outputs of e-government (such as public access to government information), let alone the broaderoutcomes of e-government on society. A successful information systems project is construed as one that is delivered on time, to budget and fully meeting user requirements [6].

III. E-Governance: Major Challenges in India

Poor people and poor infrastructure are major challengesin countries like India. It poses a major challenge in reaping the full benefits of service provision under e- governance. The various barriers can be enumerated as follows:

1. **Poverty:** Accessing Internet is a costly affair for the poor who struggle for their livelihood in developing countries like India. Required infrastructure in the form of installing the necessary telephone lines needed for internet or email access isequally unaffordable in most poor countries.

2. **Technical illiteracy:** There is general lack of technical literacy as well as literacy in countries likeIndia.

3. **Language Dominance:** The dominance of English on the internet constrains the access of non-English- speaking population. In the case of India, 95 percent of the population does not speak English. Due to such overwhelming dominance of English over these communication channels, computers and the internet are quite useless in Indian villages.

4. **Unawareness:** There is general lack of awareness regarding benefits of E-Governance as well as the process involved in implementing successful G-C, G-G and G-B projects.

5. **Inequality:** Inequality in gaining access to public sector services between various sections of citizens, especially between urban and rural communities, between the educated and illiterate, and between the rich and poor.

6. **Infrastructure:** Lack of necessary infrastructure like electricity, internet, technology and ways of communications will affect the speed which delays the implementation.

7. **Impediments for the Re-Engineering process:** Implementation of E-Governance projects requires lots of restructuring in administrative processes, redefining of administrative procedures and formats which finds the resistance in almost all the departments at all the levels.

IV. Reason of Success or Failure of E-Government Project in India

An estimated US$3 trillion was spent during the first decade of the 21st century on government information systems. Yet recent studies suggest between 60 to 80% of e-government projects fail in some way leading to "a massive wastage of financial, human and political resources, and an inability to deliver the potential benefits of e-government to its beneficiaries". Systems failures are recognized as occurring from a complex interaction of technical and human factors set in a social situation rather than as the result of the failure of one particular component (human or technical) [5].

If we take the view that an e-government project has failed if it misses any of the criteria that are implicit in such a common-sense definition of success, then it is hardly surprising that most projects are categorized as failures. But to understand failure, we need to examine the basis on which academic writers, who generally adopt an informative stance to evaluation, decide to provide descriptive and diagnostic information on the projects being considered. These diagnostic approaches fall into three main categories – factoral analyses, systems approaches and interpretive studies. Heeks (2002) applied a factor-based approach to an analysis of the significant number of failures in e-government projects. A survey of relevant case studies in the literature led him to the identification of seven dimensions necessary and sufficient to measure the gap that exists between 'current reality' and the 'design concept' of the intended application. He contends that the wider the gap that exists on each of these dimensions, the higher the risk of failure for the project.

The seven dimensions of potential design-reality gaps to be explored on an e-government project are summarized by the ITPOSMO acronym and are outlined as:

a. **Information:** the formal information held by the digital system and the informal information used by the people involved with the system.

b. **Technology:** mainly focuses on the digital IT but can also cover other information-handling technologies such as paper or analogue telephones.

c. **Processes:** the activities undertaken by the relevant stakeholders for whom the e- government system operates both information- related processes and broader business processes.

d. **Objectives and values:** often the most important dimension since the *objectives* component covers issues of self-interest and organizational politics, and can even be seen to incorporate formal organizational strategies; the *values* component covers culture: what stakeholders feel are the right and wrong ways to do things.

e. **Staffing and skills:** covers the number of staff involved with the e-government system, and the competencies of those staff and other users.

f. **Management systems and structures:** the overall management systems required to organize operation and use of the e-government system, plus the way in which stakeholder agencies/groups are structured, both formally and informally.

g. **Other resources:** the time and money required to implement and operate the e-government system.

It is a common knowledge that majority of e- Government projects have failed to yield the potential benefits that are otherwise possible with deployment of ICT in public sector. There are enough surveys carried out on e-Government projects which tend to conclude that many e-Government projects fail to achieve the intended objectives / benefits. Failure rate is high amongst developing countries.

Governments are increasingly under pressure to showcase' successful projects! The failure of a vast majority of e-Government projects in developing countries including in India raises important and serious questions about the justifiability of the huge investments in financial and human resources being made in these projects.

E-Governance Project Failure - Facts and Reasons (Shown in Table 1)

35 % of e-Government projects are total Failures	Initiatives not implement - Initiatives abandon immediately
50% of e-Government projects are partial Failure	- Main stated goals nachieved - Initial success but fail after an year - Success for one group b failure for others
15% of e-Government projects are successes	All stakeholders benefited No adverse results

Table1 (Source: www.nisg.org/docs/539_Report.pdf)

Reasons & Causes of project failures (Shown inTable 2)

There are a number of reasons for e-Governmentprojects not doing well or falling short of expectations.

Project Definition	- Lack of a failure proof project plan, With Undefined objectives and goals
Scope	Inadequate planning and poor containmentof the project scope Meeting end user expectations / business benefits No Change Control System
Cost	- Poor project estimations and overruns of schedule and cost
Time	- Unrealistic timeframes and tasks andlack of prioritization Lack of management commitment
Communi-cation	-Infrequent communication between project units and other stakeholders
Quality	- Lack of skills, inadequate testing processes and not meeting expectations
Risk	No authority to project warning signs Poor control of outsourcing
Procure-ment	- Vagueness in specifying requirements leading to undesirable procurement
Human Resource	- Poor management of expectations,roles and responsibilities, Ineffective resource management Lack of organizational support Lack of User Involvement Stakeholder conflict

Table2 (Source: www.nisg.org/docs/539_Report.pdf)

V. E-GOVERNMENT PROJECT MANAGEMENT: ISSUE AND CHALLENGES IN INDIA

E-Government is recognized internationally as an enabler toward achieving good governance, reducing cost of operations for the government, and increasing theability of citizens and businesses to access public services in an effective and cost efficient manner. The successful implementation of e-Government project is a challenging task.

Some current challenges for managing E-Government Projects in India

1. Lack of effective project management tools andmethods.Absence of proper planning, various ad hoc tasks are taken up by the project team due to which the focus on critical activities is lost.

2. The knowledge of project management concepts is very low in Government officials forming part of the e-Government Project team.

3. E-Government projects do not follow any standardized project management implementation frameworks.

4. Resources are over loaded with work due to inadequate staffing. Sometimes tasks not assigned to the team appropriately.

5. No control of central IT agencies during project execution. The decision making process is generally left to individual line ministries and departmentssince funding comes from them.

6. No provisioning of Project Management dashboard for collaborative project monitoring by all stakeholders in large e-Government projects.

7. Inadequate tracking of how the project is being implemented, tasks causing delays.

8. No monitoring of Cost and Schedule at project checkpoints.

9. During the project initiation, the baseline data is not captured which is useful for bench marking of activities.

Some Suggestion / Solutions to the aboveChallenges

1. Government needs to have their own project management tools.

2. Project tracking tool should be integrated to the tasks/ activities of the project and these should be monitored instead of status reports with only long text paragraphs being generated for monitoring the project status.

3. Complete transparency/ work break down/ what are the issues blocking the project progress should be provided in the PM tools. Projects should be tracked through milestone based approach and evaluation done at various critical checkpoints.

4. Cost, schedule, quality milestones checkpoints should get included as part of the project deliverables. Proper baseline study should be performed for proper monitoring of the project.

5. Automated, outcome-based dashboards should be used.

6. All the stakeholders must be made aware of theproject deliverables, timelines etc.

VI. E-GOVERNANCE PROJECTS IN INDIAN STATES

There have been continuous efforts from government in India to provide citizen services in a better manner utilizing e-governance. Some of the successful initiativesundertaken in various states of India are:

1. **Andhra Pradesh:-** e-Seva, CARD, VOICE, MPHS, FAST, e-Cops, AP online—One-stopshop on the Internet, Saukaryam, Online Transaction processing

2. **Bihar: -** Sales Tax Administration Management Information

3. **Chhattisgarh: -** Chhattisgarh Infotech PromotionSociety, Treasury office, e-linking project

4. **Delhi:-** Automatic Vehicle Tracking System,Computerisation of website of RCS office, Electronic Clearance System, ManagementInformation System for Education etc

5. **Goa: -** Dharani Project

6. **Gujarat:-** Mahiti Shakti, request for Government documents online, Form book online, G R book online, census online, tender notice.

7. **Haryana: -** Nai Disha

8. **Himachal Pradesh: -** Lok Mitra

9. **Karnataka: -** Bhoomi, Khajane, Kaveri

10. **Kerala:-** e-Srinkhala, RDNet, Fast, Reliable,Instant, Efficient Network for the Disbursement of Services (FRIENDS)

11. **Madhya Pradesh:-** Gyandoot, Gram Sampark, Smart Card in Transport Department, Computerization MP State Agricultural Marketing Board (Mandi Board) etc

12. **Maharashtra: -** SETU, Online ComplaintManagement System—Mumbai

13. **Rajasthan: -** Jan Mitra, RajSWIFT, Lokmitra, RajNIDHI

14. **Tamil Nadu:-** Rasi Maiyams–Kanchipuram;Application forms related to public utility, tender notices and display

VII. CURRENT STATUS OF E-GOVERNANCE IN INDIA (ELEVENTH FIVE YEAR PLAN ACHIEVEMENTS)

National E-Governance Plan (NeGP)

Government formulated National E-Governance Plan (NeGP), across the country with 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.‖

E-Governance initiatives in India under NeGP

Significant progress has been made in the implementation of the core and support components under NeGP. Major achievements are highlighted below:

State Wide Area Networks (SWANs)

The Government has approved the Scheme for establishing State Wide Area Networks (SWANs) across the country. Under this Scheme, technical and financial assistance are being provided to the States/UTs for establishing SWANs to connect all State/UT Headquarters up to the Block level via District/ sub- Divisional Headquarters. As of 31st July, 2011, the SWANs in 27 States have been operational. It is expected that all State SWANs would be operational by March 2012. To monitor the performance of SWANs, the Department has mandated positioning Third Party Auditor (TPA) agencies by the States/UTs.

State Data Centres (SDCs)

The State Data Center (SDC) is being implemented across the country to provide common IT infrastructure to host Government applications. SDC is one of the three infrastructure pillars structured under NeGP to facilitate web enabled Anytime, Anywhere access. SDC is conceptualized with the objective of providing a common enabling infrastructure to the States / UTs to consolidate services, applications and infrastructure to provide efficient electronic delivery of G2G, G2C and G2B services. Substantial progress has been made in the SDC project. As of 31st July, 2011, 13 State Data Centres have been declared operational.

Common Service Centres (CSCs)

The CSC Scheme as approved by Government of India in September 2006 for setting up of 100,000+ (one lakh) internets enabled centres in rural areas under the National E-Governance plan (NeGP) is being implemented in a Public Private Partnership (PPP) mode. The Common Services Centres (CSC) are proposed to be the delivery points for Government, Private and Social Sector services to rural citizens of India at their doorstep. The State Governments like Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Jharkhand, Kerala, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal have issued Government Orders / Notifications to the various departmental heads /District Level authorities/ Stakeholders for use of CSC to deliver various G2C Services. The various G2C Services offered are: Agricultural services, RTI Services, NREGA MIS Data Entry service, Postal Products, Land Records, Issuance of Birth and Death Certificates, Utility Services, Electoral Services, Transport Services, Grievances, e-District Services etc.

Electronic Form Application through State Portal, State Service Delivery Gateway (SSDG)

This project entails delivery of the services through Common Service Centres (CSCs) by leveraging the common infrastructure (SWAN, SDC etc.). The project also envisages the development of the applications and infrastructure required for deployment of State Portal and State Service Delivery Gateway (SSDG) for the State. This will enable citizens to download forms and submit their applications electronically with help of electronic forms hosted on the State Portal (SP) and routed through a common services gateway (SSDG/NSDG).

Capacity Building

The Capacity Building Scheme aims to build adequate capacities in the Government at all levels right from the decision makers to Panchayat levels in order to successfully roll out the National E-Governance Plan.

E-District

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 SWAN, SDC and CSCs to deliver services to the citizen at his doorstep. Initially certain high volume citizen centric services are taken up and thereafter new services can be added as the demand for more e-enabled services increase. Under this project, a set of 5 service categories are being implemented in all e-District Projects. These include (1) Issue of Certificates including birth, death, domicile, etc., (2) Social Welfare Schemes – including social welfare pensions (3) Services related to Revenue Court (4) Ration Card related services (5) RTI (Right to Information) services including readressal of grievances.

Citizen Engagement

As more and more projects are getting implemented under NeGP, an increasing need has been felt for wider and deeper participation of and engagement with all stakeholders specially public at large to ensure that citizen centricity is maintained in all projects. To enable and support this goal, a Citizen Engagement Framework for e- Governance Projects has been developed for ministries and departments to facilitate the voice and space for citizen participation in E-Governance, especially for the weakest and the most marginalized sections of society for whom the e- Governance projects are created to serve the most.

VIII. FEATURE PROSPECT OF E-GOVERNANCE IN INDIA

Vision and Objectives of the Twelfth Five Year Plan (2012-17)

1. To deliver all Government services in electronic mode so as to make the Government process transparent, citizen centric, efficient and easily accessible.

2. To break information silos and create shareable resources for all Government entities

3. To deliver both informational and transactional government services over mobiles and promote innovation in mobile governance

4. To build Shared Service Platforms to accelerate the adoption of E-Governance and reduce the ‒cycle time‖ of E-Governance project implementation

5. To strengthen and improve sustainability of the existing projects through innovative business models and through continuous infusion of advanced technology

6. To promote ethical use of technology and data and to create a safe and secure E-Governance cyber world

7. To create an ecosystem that promotes innovation in ICT for Governance and for applications that can benefit the citizens

8. To better target the delivery of welfare schemes of the Central and State Governments

9. To reduce asymmetry in information availability, accessibility and ability to utilize the information

10. To increase the all-round awareness and create mechanisms that promotes and encourages citizen engagement.

11. To make available as much data as possible in the public domain for productive use by the citizens.

Major Recommendations for the Twelfth Five Year Plan

The brick and mortar models of development have limitations with respect to reaching the last mile of our population. Information Communication Technology offers an efficient and speedier solution to deliver public services in a transparent and reliable manner to every citizen through ICT needs to be leveraged in every aspect of governance. DIT has been able to build

the core E-Governance infrastructure (Data Centers, State Wide Area Networks, Common Services Centres (CSCs), Mobile Service Delivery Platform) across the country during the 11th Plan which will continue in the XII Plan so as to bring it to its logical conclusion. Also, the focus of the XII Plan will be on leveraging to catapult India in the top quartile of HDI ranking through quantum improvements in the delivery of Public Services. This will also bring in process efficiency, accountability and transparency.

Targets of the Twelfth Five Year Plan (2012-17)with respect to E-Governance

1. A National Institute for E-Governance (NIG) would be setup as an autonomous State of the Art National Institute. NIG will also train at least 50 employees from Central Government per year on Project Management Certification.

2. An E-Governance Innovation and R&D Fund will be created to give adequate impetus to innovation in E-Governance and M-Governance

3. Electronic Delivery of Services (EDS) Bill will be implemented. Assistance will be given to every Central Government Department in delivering at least one Service in electronic mode and every State Government in delivering at least three Services in electronic mode apart from the services which are already identified in the MMPs under NeGP.

4. Shared Services Platforms for e-Payment, GIS, call centre, etc. will be created.

5. An apps store will be created to promote development of large scale E-Governance and M Governance applications

6. M-Governance platforms and frameworks will be created to enable delivery of public services throughmobile devices

7. At least one person per family in 50% of the families will be targeted to provide basic IT training in the XII Plan period.

8. Cyber Security will be a major focus area during theTwelfth Five Year Plan Period.

9. Existing SWAN, SDC, NSDG/SSDG, India Portal, CSC Schemes will be rolled out and maintained in all States/UTs. These schemes would be further augmented and technologically upgraded.

10. The e-District MMP will be implemented in all districts.

11. Training on Basic IT Skills will be introduced systematically for the existing and all new entrants into Government service.

IX. CONCLUSION

E-Governance enhances the relationships between G2G, G2C, G2B, C2G and B2G using ICT. Thus, E- Governance not only provides information about various activities of a Government but also involves citizens to participate in government's decision making process. 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. In this paper we have made an attempt to summarize key areas which should be focused upon when a country wishes to position itself to be seriously moving towards E-Governance in a comprehensive way. This is a change, a transition that cannot be stopped since it is part of a global movement. Cooperation from government officials and staff will contribute to a smoother transition. Given the current high level of political commitment and largely adequate sources of funding, India is likely to soon emerge as a leader in E-Governance.In spite of poor infrastructure, poverty, illiteracy, language dominance and all the other reasons India has number of award winning e- governance projects. Effective promotion schemes bythe Indian government will also be a boosting factor to provide quality services to their citizens which means there is huge potential for the development of e- governance in various sectors. According to Skoch consultancy New Delhi, 81% citizens report reduction in corruption, 95% find cost of e-

governance affordableand 78% favours fast of delivery of services. 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.

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