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## Initiatives and Challenges of E-governance in India

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### Abstract:

*India is a developing country with democratic decentralization and to develop the participatory approach; e-governance was started in early seventies. It has ushered in transparency in the governing process; saving of time due to provision of services through single window; decline in corruption, convenience and empowerment. But still there are many challenges which create problems for Indian government to run e-governance. The present paper specially addresses the e-government initiatives that have a direct impact on the citizens and in which the citizens derive benefit through direct transactions with the governmental services and the usefulness of e governance for the government businesses and citizen of India. The present study also focuses on key challenges with possible remedial solutions and some strategies for successful implementation of e-governance.*

**Keywords:** E-GOVERNANCE, SCOPE, INITIATIVES, CHALLENGES

**Paper Type:** Concept Paper

### INTRODUCTION

Today's is the time of change and revolution. Things that are not dynamic are taken as mortal. In this direction the rise of e-governance has been one of the most outstanding developments of the web Global shifts towards enlarged deployment of IT by governments emerged in the nineties, with the advent of the World Wide Web. The technology and e-governance inventiveness have come a long way since then. Identifying the rising significance of electronics, the Government of India made the Department of Electronics in 1970.(Tom Butler et al.2005).

The succeeding establishment of the National Informatics centre (NIC) in 1977 was the primary main step towards e-Governance in India as it brought 'information' and its communication in focal point. Though, the major push for e-Governance was given by the initiation of NICNET in 1987 – the national satellite-based computer network. It was followed by the launch of the District Information System of the National Informatics centre (DISNIC) program to computerize every district offices in the Country for which free hardware and software was provided to the State Governments. NICNET was extended via the State capitals to all district headquarters by 1990 .

E-Government is not just "electronic" government. It is "enabled" government, the government that deliver diverse and better programs and services. E-Government is about people: newskill sets, mindsets and leadership approaches. It transforms how public servants work, relateto each other, do business, and involve citizens and others. It is a process thatrequires a continued pledge of political will, resources and engagement among thegovernment, private and public sectors.

It can not only perk up answerability, lucidity and efficiency of government processes, but also make possible sustainable and inclusive growth. It also offers a mechanism of straight delivery of public services to themarginal segments of the society in the farthest corners, without having to deal withmediators.

### SCOPE OF E-GOVERNMENT

Although e-government carries a broad variety of activities butthere are three distinct areas such as government-to-government (G to G), government-to-citizens (G to C),and government to business (G to B).

Each one of these represents a diverse combination of motivating forces. Nevertheless, some general goals consist increasing the efficiency, reliability, and quality of services for the respective groups.

Government to government (G to G) sector represents the backbone of e-government. It is observed that governments at the union, state and local level must improve and update their own internal systems and procedures before electronic transactions with citizens and business are brought in. Government to government e-government engrosses sharing data and conducting electronic exchanges between different governmental agencies. There are a lot of benefits with government-to-government initiatives. One advantage is cost reduction, which is attained by escalating the speed of the transactions, lessening in the number of personnel needed to complete a job, and enhancing the consistency of results. One more benefit, which flows from this, is development in the management of public resources.

Government to citizen (G to C) assists citizen communication with government, which is main objective of e-government. This attempts to make transactions, like payment of taxes, renewing licenses and applying for certain benefits, less time consuming and simple to carry out. It also endeavors to increase access to public information through the use of websites and kiosks. Further, one of the major goals of executing these initiatives has been to make a “single window” where citizens can carry out a range of tasks particularly those that involve multiple government departments, without requiring the citizen to initiate contacts with each government department individually. Hence, the G to C initiatives is driven by an urge to provide “better government” through better efficiency and more trustworthy results.

Government to Business (G to B) sector comprises both the procurement of goods and services by the government as well as the sale of surplus government goods to the public online. There are two inspiring forces behind G to B. At present; the business community prefers to carry out its activities such as sales, procurement, and hiring through electronic means. There many software companies, which are producing number of products focusing on performing routine business activities on line. Therefore, a lot of companies like to extend the cost savings realized through Business to Business (B to B) transactions to their business with union, state and local level governments. Another reason for the growth of G to B is the demand for cost cutting and efficient procurements in the government. Developing countries, where there is great pressure to minimize costs due to shortage of funds, G to B are being encouraged by the governmental agencies.

## **E-GOVERNMENT INITIATIVES IN INDIA: AN OVERVIEW**

E-Governance is applied by government in approximately each field. From urban areas to rural areas and from politics to teaching-Governance has stretched its origin all over the place. Either its public or private sector, ordinary man or businessman all is mostly dependent on e-governance. In the following paragraphs different areas where e-governance is widely used has been presented in regard of urban area and rural area.

### ***E- Governance Initiatives in Urban Areas***

**1. Transportation-**In this field a number of services is being offered by e-governance such as Issuance of Time Table of buses, Provision of booking facility for Interstate transportation, Transportation development Program, Regional Transport plans, Congestion Management Process, Transportation Demand Management and many others.

#### ***Different initiatives related to Transport are:***

1. CFST:-Citizen Friendly Services of Transport Department initiated by Andhra Pradesh government to offer services such as Issue of learner licenses, Issue of driving licenses, Renewal of driving licenses etc.
2. Vahan and Sarathi:-The backend applications Vahan & Sarathi assist in swiftening the overall work flow in the transport department by Tamil Nadu govt.
3. OSRTC:- The Orissa State Road Transport Corporation project was initiated to offer transport related facilities online.
4. HRTC: - Himachal Road Transport Corporation project is for online bookings, cancellation of seats, for enquiry about departure of buses, availability of seats and buses etc.[1] [www.nic.in/projects](http://www.nic.in/projects)

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**II. Online payment of bills and taxes:** In this area services offered by e-governance are: Online Transaction, Payment of Bill, Payment of taxes, Payment of house EMIs etc.

**Various Projects related to Online Payments are:**

1. FRIENDS: - It was initiated by Kerala Government for its citizens to make online payment of electricity and water bills, revenue taxes, license fees, motor vehicle taxes, university fees and like more.
2. E-SEVA: - Electronic seva started by Andhra Pradesh government to pay utility bills, avail of trade licenses and transact on government matters at these facilities.
3. BWSSB : Bangalore Water Supply and Sewerage Board was initiated by Bangalore government focusing on water billing, and collection system. In this every month bills of houses are generated through BGS software.

**III Municipal services:** - Under this category services offered are: House Tax Assessment, Billing and Collection, Maintain records of Land & property, Issue of Death Certificates, Registration & Attorneys of properties, Review and approval authority for site plans.

**Various projects related to Municipal Services are:**

1. E-Panjeeyan: - It was initiated by Assam government to deal with the computerization of the Document registration work at Sub Registrar Office.
2. SDO Suite: - It helps in issuing a variety of certificates such as Land sale Permission, Legal heir certificate, Issue of Passport Verification Certificate, Birth and Death Report.

**Areas of E-Governance in Rural Areas:-**

In rural areas also e-governance has its incredibly influential impact. Here, from agriculture to local information everything is done through e-governance.

**I Agriculture:- Following projects are used in Agriculture:**

1. Gyandoot: In the State of Madhya Pradesh it is an Intranet-based Government to citizen (G2c) service delivery initiative. The project was designed to expand the benefits of ICT to people in rural areas by directly connecting the government and villagers through information kiosks. The kiosks provide access to a multiplicity of government services, such as registration of complaints and submission of applications for the issuance of certificates and loans. Data on prices of agricultural crops in different markets are also available.
2. BELE: - It is a web-based application with 3-tier architecture for capturing and monitoring the major activities and services AGMARKNET: - It is a project approved by Department of Marketing & Inspection (DMI), Ministry of Agriculture, and Government of India.
3. AGMARKNET: - It is a project designed by Department of Marketing & Inspection (DMI), Ministry of Agriculture, and Government of India.
4. SEEDNET: - It is a SEED informatics network under ministry of Agriculture, Government of India. The project was initiated in Chhattisgarh for Kharif season.
5. Mustard Procurement Management System: - It was designed by Haryana government. It conducted the Survey of mustard sown by the farmers and feed this data in to the database of the system. This data is then processed and produce coupons having information of dates on which farmer may visit in the mandi to sale his mustard.

**II Local information:** - For local information like prices of seeds, fertilizers, loan rates etc. government has initiated e-governance Service in this area as:

**Various projects related to Local Information are:**

1. E-JanSampark: - It was originated by Chandigarh government. In this Services & Information are accessible to the common man in his locality to meet his basic need.
2. Prajavani: - It was started by the Government of Andhra Pradesh. It is a Web based On-line supervising of Public Grievances.

3. WebPortalsforHyderabadandCyberabad Police:-It wasstarted by hyderabad,developed and hosted with many exciting public utility features like Safety tipsfor all citizens, verifications status of Passports, Stolen vehicles etc.[1]

4. E-DISHA EkalSewa Kendra:-This project is designed by government of Haryana.E-Disha to deliver any service from any counter/location, so at the peak requirements of services, counters can be extended as per crowd.

5. E-Samadhan: - the Government of Himachal Pradesh stressed upon to develop grievances redressed mechanism so that the authentic public complaint may be restored in a time bound manner.

**III Land Record Management:-**In this area, a number of land records can be maintained in a very short time span.

**Major projects in this area are**

1. Bhoomi:-It is the foremost e-Governance land records management system projectwhich is effectively implemented for the benefits of the ordinary man by theGovernment of Karnataka.

2. Comprehensive Modernization of Land Records (CMLR):- This was designed by the government of Andhra Pradesh. It allowsintegrating functions ofproperty registration, mutations and updating of field survey maps.

3. Land Record Computerization: - The idea of this project is to computerizefresh allotment,land transfer, regularization of occupied land etc. relatedactivities of the Dept. of Land Management at district level.

**IV E-GOVERNANCE in Health Sector**

Service offered by these projects are Availability of medicines ,Special healthcamps, Facilities at Anganwadi canters etc.

**Various Initiatives Related to Health Sector:**

1. Online Vaccination Appointment for International Traveler:-Citizen centricapplication for the purpose of vaccination of the persons proceeding abroad andissuance of International Health Certificate.

2. SMS based Integrated Disease Surveillance System: - it is a SMS basedIntegrated Disease Surveillance System facilitates to report the happening of disease, number of persons affected from the area of occurrences immediatelyto the concerned authority.

3. Hospital OPD Appointment:-Hospital OPD Appointment System is anotherwelfare measure undertaken by Chandigarh Administration to make life ofcitizens simpler.

4. NLEP (National Leprosy Eradication Program):-NLEP is web based application developed for monitoring of leprosy cases in Chhattisgarh State.

5.HEALING:-it is a Health Information system for Kerala Government which is developed and implemented for Medical Health & Family Welfare department

**V E-GOVERNANCE in Education Sector:**

Under this category services offered are providing basic education (elementary, primary, secondary) to children, providingcomputer education to children, Results for 10th& 12thclasses, Information oneligibility for “Distribution of books” scheme etc.

**Various Projects Related to Education Sector are:**

1. CASSET:-This project is started by the Karnataka government for EducationDepartment.

2. Online Scholarship Management System:-It is meant for the purpose ofdistribution of scholarships and fees reimbursement.

3. AISES (All India School Education Survey):- This project wasdesigned by Assamgovernment. This project is used for surveying the number of schools indistrict.

4. CAPnic:-This is for the Centralized seat allotment process for professional courses and come under Kerala.

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5. VHSE Examination Management System:-it has been designed to handle pre-examination related activities of the vocational higher secondary education.

**VI Panchayat:-**Services provided by e-governance in this area are like issue of Birth/Death certificate, application for inclusion of name in Voter list, conducting various welfare schemes for the poor and needy sections of the society, preparing district wise planning, implementing those plan, and review for success, to provide wage employment to the needy from amongst the poorest section of the rural society, rural water supply and sanitation.

**Various Projects Related to Panchayat are:**

1. E-GramViswa Gram Project: - This Project Initiates e-Gram Project connecting 13716 Gram Panchayats and 6000 Citizen Common Service Centres as a part of the e-Gram connectivity Project by Gujarat.
2. RajNidhi: - "RajNidhi" is a web enabled information kiosk system developed jointly by Rajasthan state's Department of Information Technology and Rajasthan State Agency for Computer Services (Raj Comp) [4].
3. Raj-SWIFT:-The Rajasthan State's Department of Information Technology (DoIT) has developed Government's own Intranet called as "raj-SWIFT"[4]
4. Support for P & RD sector in Assam:-NIC, Assam State Centre has been identified as the technical consultant for e-Governance solution and Computerization of the Department of Panchayat and Rural Development.

## CHALLENGES

Though the government has come up with a number of initiatives to ease the access to public services, the desired outcomes are yet to be entirely realized. This can be largely attributed to various front-end and back-end challenges that the government continues to face. Front-end challenges relate to user-specific issues such as, high illiteracy levels, non-availability of userfriendly interfaces, inadequate power supply in rural areas, low broadband penetration and most importantly, lack of awareness of e-Governance initiatives.

On the other hand, back-end challenges relate to technical, process or human resource issues within the government. These issues include lack of systems integration within a department, lack of integration across government departments, limited knowledge of using computers at various levels of bureaucracy and deployment of technology without proper process re-engineering. There are several problems in the effective implementation of e-governance like:

Lack of awareness is the major issue in the utilization of e-governance services. It can be enhanced by sensitizing the people through arranging several awareness camps or workshops at the local grass root levels.

Every state is using a range of e-governance applications but the data of applications is not centralized (i.e. the data is not being shared to other state). The applications should be completely customizable and it should be hosted centrally so that availability of data can be nationwide and therefore will assist in dropping redundancy and inconsistency of data.

Another challenge is the lack of communication between various e-governance applications (each application will work independently). Therefore the data requirement for every application will be separate and it may cause high volume of redundant data which results in inconsistency of data and information as well. There should be the internal communication between various e-governance applications so that space utilization as well as data inconsistency can be minimized. Those officials who are vigorously occupied in some project does not document their experience and have not been in touch of others (some time intentionally). Officials are occasionally transferred which results in loss of documents and the knowledge base of the project.

In India the majority of the population is illiterate or inept of reading and writing in English language. Therefore web applications should be developed which uses more local language on its interface to make it more user friendly. Mobile phones had addressed this issue to some extent by using pictorial features, but in case of internet this issue still needs more attention.



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There are much people who are literate but they do not have much knowledge about Information Technology (IT). Majority of the people in India are not aware about the usage of Information Technology. Thus, in India, with low level of IT literacy, how can e-Governance projects be employed successfully? IT illiteracy is a main obstruction in implementation of e-Governance in India. So, first of all Indian people must be made aware about the usage of Information Technology.

The concept of e-Governance is claiming for enlarged efficiency and effectiveness of the government, but these goals can be attained only if the services are accessible to the 100% of the citizens. Thus each service should be available by anybody from anywhere and anytime. Major part of Indian population is not able to access e-Governance activities for a number of reasons, like some people may have limited access to Information and Communication Technologies and devices. Thus, government has to offer internet access through public terminals as a part of their universal access efforts.

Further, population of India is perhaps the major challenge in implementing e-Governance projects. Since population is considered to be an asset to the country but it also presents some other challenges e.g. establishing person identities. There is no unique identity of individuals in India though Indian government is making efforts for providing unique identity to its citizens. Apart from this, measuring the population, keeping the database of all Indian nationals and keeping this database updated and then providing the e-governance services to the whole population are key challenges.

In developing countries like India, cost is one of the most vital obstacles in the path of implementation of e-Governance where major part of the population is living below poverty line. Heavy amount of money is involved in implementation, operational and evolutionary maintenance tasks.

As the Information Technology changes quickly and it is extremely complex to update existing systems very fast. Regulations of different devices and their different characteristics may vary and the system in use must be able to handle all the emerging needs. Maintenance is a key factor for long living systems in a rapidly changing technical environment.

Another serious obstacle in implementing e-Governance is the privacy and security of an individual's personal data that he/she gives to attain government services. With the implementation of e-government projects, some effective measures must be taken to protect the sensitive personal information of the people. Lack of security standards can limit that is why development of e-Government projects that contains personal information.

The acceptance of English language in India is very low. E-governance applications are written in English. For this reason e-Governance projects do not get high success in India. Hence, the e-governance applications must be written in local language of the people so that they may be able to use and take advantage of these applications.

## CONCLUSION

Though government of India has taken major steps towards successful implementation of e-governance but in spite of that, there are some factors which may affect its successful implementation. Although Indian government is spending huge money on e-Governance projects but still these projects are not successful in all parts of India. There are different challenges for the execution of e-government in India. These challenges are like low literacy, lack of awareness, low broadband penetration, lack of system integration within a department, local language of the people of a particular area, privacy for the personal data of the people etc and all other reasons. A vision is necessary to implement the e-government in India and to meet the vision the challenges in the implementation of e-government should be conquered. Then the environment needs to be developed for the effective implementation of e-government in India. But in spite of all challenges India has number of award winning e-governance projects. Thus it can be affirmed 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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