# CHALLENGES AND PROSPECTS OF CITIZEN-CENTRIC E-GOVERNANCE IN INDIA

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November 2022

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# Chapter 1

### Introduction

The development of Information and Communication Technology (ICT) has redefined the means of communication. It ensures faster and better communication, efficient data storage, retrieval, and processing, as well as exchange and utilisation of information whether they be individuals, groups, businesses, organisations, or governments. What initially served as a quicker, more accurate, and easier way to analyse text quickly made itself useful for processing and tabulating data to support decision-making. This process has currently reached a point where more and more people are driven to change their ways of doing things in order to take advantage of the benefits offered by ICT. This is due to increased computerization and increasing internet connectivity. In other words, "business process re-engineering" has resulted from this.For governments, the convergence of computerization, internet connectivity, and process re-engineering promises faster and better information processing, leading to quicker and qualitatively better decision-making, greater reach and accountability, better resource utilisation, and overall good governance. For citizens, it promises improved access to government agencies and information, effective service delivery, and transparency in transactions and interactions with the government.

In due course of time citizens became more conscious of their rights and they intended the government to perform up to their expectations the resultant factor is that there is a great change in the paradigm of governance. Today's citizens expect their government to be open in its dealings, responsible for its actions, and quick responses. Because of this, incorporating ICT into any plan created to promote good governance has become essential. It has also brought the realisation that these technologies may be employed to accomplish a variety of goals and resulted in quicker, more equitable development with a wider scope.

### **Review of Literature**

1. Ari-VeikkoAnttiroiko, et.al (2011) in their edited book on *Innovations in Public Governance* provides a contextual view of innovations in public governance. Public Governance is about coordination and the use of various forms of institutional arrangements in policy-making processes to pursue the common good. In practice, the improvements and radical changes in governance structures and processes are met through governance innovations and new eenabled governance models.

- 2. Devesh Kapur, et.al (2017)in their edited book titled Rethinking Public Institutions in Indiastates that India has witnessed multiple transformations to reshape its economy, foreign policy, politics, and society. The e-governance initiatives helped India to overcome its governance deficits.
- 3. Jan Kooiman,(2003) in his book Governing as Governance opens a comprehensive conceptual framework that seeks to capture the different elements, modes and orders of governing and governance today.
- 4. Jos C Raadschelders, et.al (2015) in their edited book on Global Dimensions of Public Administration and Governance, try to bring out the changes that happened in governance, globally after globalization. It also simplifies the complex map of public Administration and governance.
- 5. TapanBiswal,(2017) in his edited book Governance and Citizenship took a sincere effort to explore e-governance and other institutional efforts to elude poverty, migration, and unemployment. It also accesses the significant progress of information technology and mass upsurge in upward social mobility providing space for the so far neglected Dalits, Women, Children and other marginalised.

# **Objectives of the Study**

The study has been framed with the following objectives

- 1. To create a theoretical understanding ofe-governance practices in India.
- 2. To analyse the citizen-centrice-governance programs performing presently.
- To find out the challenges and prospects of existing e-governance practices in India.
- 4. To examine the efficiency of citizen-centrice-governance practices.
- 5. To compare e-governance practices with developed nations.
- 6. To suggest better ways for citizen-centrice-governance practices.

# Hypotheses of the Study

- 1. The concept of good governance has been achieved through e-governance practices.
- 2. E-governance practices are reachedwidely among the public.
- 3. General satisfaction of the public has improved after the implementation of egovernance.
- 4. Citizen-centric e-governance has achieved its targets.

# Methodology of the Study

Secondary sources like books, reports, websites, and journals will be used for the understanding of the concept and its implementation. Primary data will be collected from public servants and the general public for evaluation of its implementation. Simple statistical tools will be used for primary data analysis.

# Period of Study

The study started in 2022 and planning to end in 2024. E-governance has a recent origin and implementation is going on.

# Chapterisation

The study is divided into 4 chapters

# **Chapter 1 Introduction**

Introduction to the area of study, Objectives, Hypotheses, Review of literature

# Chapter 2 E-Governance- The Concept and Origin

A thorough understanding of the concept, policies, and programs will be carried out here. Will observe how other nations are practicing e-Governance.

# Chapter 3 Citizen-CentricE-Governance Practices in India

Secondary data collection of India's e-Governance practices with the main focus on citizen-centric administration.

# Chapter 4 Evaluation of Citizen-Centric E-Governance

Evaluation of citizen-centrice-Governance programs through primary data. Its analysis and testing of the hypotheses will also be carried out here.

# Chapter 5 Conclusion

Findings, Conclusion, and Suggestions

# Chapter 2 E-Governance- The Concept and Origin

Imagine a world where all interactions with the government could take place at a single counter, available round-the-clock, every day of the week. This becamefeasible when the governments are prepared to decentralise tasks and procedures and begin utilising electronic tools like the internet. The government will subsequently be accessible to every person via a website where all forms, laws, news, and other information would be posted continuously.

Of course, to effectively serve everyone, the front office will initially retain a number of communication channels, including physical counters, telephones, mail, and the internet. But this has drastically changed in recent years. Covid 19 pandemic has added oil to this growth. Before Covid pandemic commercial banks already operated in accordance with this idea in most of the countries. People only need to visit a physical counter in extremely rare circumstances. The majority of transactions were completed at an ATM, via mail, or online. In other words, they use the internet to accomplish more with fewer resources, in less time, and in smaller workspaces. In order to better serve its clients (citizens, corporations, and other interest groups) and to reduce costs by streamlining internal procedures, government, as a data gatherer and source, may also adopt this trend.

Governance, as the working of the government acquired an important place among economists and policy makers about development and poverty alleviation aspects of a country. The notion of governance is broader than government in the sense that it includes some additional factors such as public policies, institutions and economic relationship between state and non-governmental sector (Smith, 2007).

According to UNDP, governance is the process of exercising authority (political, economic, administrative or social) within various institutional arenas. In this way, it consists of the mechanisms, processes, and institutions through which citizens and groups express their interests, exercise their legal rights, meet their obligations and settle their conflicts or disputes. Similarly, according to Mahbub-ul-Haq Development Centre, governance must enable the state, civil society, and the private sector to fulfil the requirements of basic needs of all the people and particular focus on women, children and poorer section of the society.

The new governance paradigm is emerging in response to the changing role of state with regard to development both in developed and developing countries. It includes normative aspect of governance or good governance as well. In the narrow approach, good governance focuses on the efficiency of resources for the better economic development only (World Bank, 1994). In the broader approach, it includes not only economic development but also much more than that such as promoting participation, democracy and human rights etc.

#### **Good Governance**

We know what is governance. It simply means people who had authority over others. The government is having authority over the people. Here good government means one that promotes the welfare of all humanity and the whole planet. It should be trustworthy, just, progressive, accountable, virtuous, and transparent. We all know that it is an idle perfection and no government is coming up to this mark. The government has become too aggrandized for its own good. In a rapidly changing world, the time had come to reduce its dominance, and allow other institutions to emerge out of its shadow, shift to the government activities that they could perform just as well, and generally encourage non-governmental organisations to be more innovative than public bureaucracy (Ari-Veikko Anttiroiko,2011).

Good Governance aims to replace traditional public administration riddled with corruption and red-tapism and to make it more citizen-centric, responsible, and responsive. The core values of good governance include efficiency, inclusiveness, being consensus-oriented, transparency, accountability, rule of law etc. Specific programs aimed at good governance include setting up of Lokpal and Lokayuktas, Citizen's Charters, Right to Information Act, institutional mechanisms like NHRC, NCW, etc.

### **E-Governance**

Good governance is participatory, transparent, and accountable. It promises rule of law, efficiency, effectiveness, and ensures democratic governance. To achieve this one should go beyond public sector reforms, government and governance into institutional reforms and applied social science, and using the local findings of field research endeavoring to reveal how real change could be made to improve the quality of life in diverse communities (Ostorm,1990). Along with other institutional reforms, New Public Management acted as the richest source of administrative reform, reinventing government and good governance.

Two important landmarks from 'good governance' to e-Governance here to be remembered are the emergence of a specialised research institute titled Ash Institute for Democratic Governance and Innovation in USA ( the outspring of Kennedy School of Harvard University's realisation on citizen apathy and loss of trust in government) and the publication of the best selling book on public administration ' the Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Service' by Osborne and Gaebler in 1992. This book becomes the bible of Clinton administration and his 'more or less' slogan.

Accordingly, the essence of good governance that is governance belongs to everyone, not just to some privileged classes had happened and the emergence of Information Technology added fuel for the increasing acceptance of e-Governance.

# E-Governance – More than an Internet Access

E-governance encompasses more than just online access to official websites. But exactly what is it? What advantages does e-governance offer? How can governments ensure their success?

The governmental changes such as the introduction of decentralization needed to be addressed if we need to look into development-related changes. The general goal of the introduction of e-governance clearly includes reducing costs and increasing effectiveness and efficiency. Public desire for online information and services that improve democratic involvement, accountability, openness, and the quality and speed of services may also be the motivating factor. ICT solutions' adoption and utilization can help with governance improvements.Over the next few years, e-governance will spread throughout the world. Covid 19 pandemic of course made the changes faster stillsome nations are in the early stages.

# Non-internet e-Governance

As said earlier e-Governance doesn'tmean only online or internet. Some noninternet forms include telephone, fax, PDA, SMS text messaging, MMS, wireless networks and services, CCTV, tracking systems, road traffic management, biometric identification, identity cards, and other smart cards, polling station technology (where non-online e-voting is being considered), TV and radio-based delivery of government services and many more come under e-Governance.

# **Definitions of e-Governance and e-Government**

E-Governance, according to the Council of Europe, is the use of electronic technologies in three areas of public action:

- Public authorities' and civic society's interactions.
- Public authorities' performance during the democratic process(electronic democracy).
- Delivering public services. (Electronic public service)

According to the World Bank, "E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and Mobile Computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business 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 US E-Government Act of 2002 defines electronic government to mean (Section 3601): the use by the Government of web-based internet applications and other information technologies, combined with processes that implement these technologies, to:

- To get the information from government access to the public, other agencies along with other entities.
- Bring about changes that may enhance effectiveness, efficiency, service quality, or transformation in government operations.

# **E-GOVERNANCE MODEL**

An international research and consulting company for e-business, Gartner, has developed a four-phase e-governance model. Governments can use this egovernance model as a guide to determine where a project fits within the overall development of an e-governance strategy.

Governments typically begin by providing online information, but soon the public will in due course of time demand internal efficiency need increasingly complicated services. Naturally, this transformation will happen gradually, and certain services will be online before others. In certain circumstances, public demand is the driving force, while in other cases, government cost-saving measures also falls as a leading cause.

According to Gartner e-governance will develop in accordance with four-phased egovernance maturity model. These phases have been established based on ecommerce and e-government experiences in Europe and other Western regions.

# E-Governance Maturity Model (Gartner)

Early 90's ---- Information----Presence

Mid 90's----- Interaction----- Intake process

Present----- Transaction----- Complete transaction

Future----- Transformation------ Integration and organisational changes

Thus phase 1 is information, Phase 2 is dealt with interaction, phase 3 with transaction and phase 4 is transformation. It is not necessary that all institutions must go through each phase at the same time. In western countries Governmental institutions, on the other hand, are in one of three phases. The distinctions can be blatant: the department of public works may only be in the early stages of phase one, whereas the tax department may be in phase three. Everything depends on where the benefits are greatest.

#### **Phase 1- Information**

In this stage, e-governance entails having a web presence and making pertinent information available to the general public. The initial government websites had a layout similar to a brochure or pamphlet just to availablegovernment data to the public. As it is transparent, it enhances democracy and service. The government can also transmit information internally. In this phase information is the crucial factor.

#### Phase II – Interaction

The second phase uses a variety of applications to encourage contact between the public and the government. People can use search engines to find information, ask inquiries via email, and download various forms and papers. Normally, these activities are done only during working hours. The fact that a lion share of the intake process is completed online, in the end, results in greater efficiency. However, you must still visit the office to complete the process by paying a fee, providing documents, or signing documents. The internal operations of the government are spread up by the usage of electronic communication tools.

#### **Phase III- Transaction**

Here technical complexity as well as the customer value will rise. Without visiting an office, complete transactions can be completed. Online services include online voting, income tax filing, property tax filing, license extensions and renewals, and visa and passport applications. Security and personalization concerns, such as the requirement for digital (electronic) signatures to legally permit the transfer of services, are the main causes of phase three's complexity. In the business sector

government began to use electronic procurement software. To deliver quality service, internal processes must be modified during this phase. To enable paperless transactions with legal certification, the government must enact new laws and regulations. The process is now entirely online, including payments and digital signatures, among other things. It saves money, time, and paper.

#### Phase IV- Transformation

The fourth stage is transformation, during which all information systems are combined and the general public can access both Government to Citizen, Government to Business services at a single (virtual) counter. The ultimate objective is to have a single point of contact for all services. The internal side of achieving this goal is where the complexity lies, as in the requirement to fundamentally alter the culture, procedures, and roles within the government entity. Government workers from many departments must collaborate efficiently and seamlessly. Cost reduction, efficiency, and customer happiness are now at their maximum levels achievable.

#### Essentials of e-Governance

The following elements are impacted by the use of ICT in governance: -

#### **IT Department**

IT is playing a more and bigger role in governmental operations as e-governance is implemented. It is inevitable that the demand for a specialized IT department would rise, not only for installation but also for infrastructure, hardware, and software maintenance.

#### 24/7 Service Model

A completely fresh service model requires the adaptation of systems and processes. Since these processes are made self-service one can access his/ her application status even at midnight. Due to this new communication method citizens, overall attitude towardthe government has been changing. Compared with the slow phase of application response from the part of government its quick response is an appreciable change by all walks of life. Email, text messages, and whatsapp messages are the new ways of communication from the government service.

#### Need for Content

Governments will have to daily gather, create, and update content. The materials will be static in phase 1(Information) while they must be updated daily in phase 2(Interaction). The information on the website is the responsibility of content managers in each parent department.

### Human Resources

Trained personnel are necessary for an organization to use ICT effectively. If people are not at ease using the tools available to them, they will revert to their previous working styles and habits. IT specialists are needed for infrastructure maintenance. To find the required IT-skilled workers, governments will have to compete with the private or commercial sector.

### Security

Almost all computer systems are susceptible to outside attacks. The government is becoming much more vulnerable as it shifts its fundamental operations—information, communication, and transactions—to the internet. Internet rapidly expands the number of entry points. Antivirus software, firewalls at gateways, encryption technology, and reliable identification methods are all available for protection. The database is very important and critical. It is a major challenge faced by ICT.

# Privacy

Governments have detailed information about residents and businesses in stages 3(Transaction) and 4(Transformation), which are frequently stored in several offices on numerous computer systems or still in paper files. The privacy of certain citizens may be in danger as a result of data integration. The government is in charge of setting limitations on how private information is used and protecting it from unauthorized access. Numerous nations have previously established data protection legislation in response to public privacy concerns.

# MAJOR GOALS OF E-GOVERNANCE

There are several factors that highlight the importance of e-Governance. The main objectives and goals are as follows: -

- To promote the welfare of its citizens.
- Upholding the legal rights of all citizens.
- Ensuring equitable access to public services and that everyone benefits from economic development.
- Best delivery service to people.
- Ensuring accountability and openness.
- Empowering individuals through data.
- Improved effectiveness inside governments.
- Streamline industrial and business interfaces.
- Quick method of working.
- Save time and cost.
- Efficiency in delivering public service.
- Improvement of internal surveillance.
- Growing income.
- Reforming administrative systems.
- Supplying high-calibre facilities.

Within this wide definition, the aspects listed below reflect the functions of the government itself:

e-Services - government data, programs, and services that are distributed electronically.

e-Commerce-: the exchange of products and services using electronic funds, such as when consumers pay their taxes and utility bills, renew their vehicle registration, pay for leisure activities, buy office supplies, or bid on surplus government equipment. e-Management-: the application of ICTs to better manage governmental activities (from streamlining government processes to improving the flow of information within government offices).

e-Democracy-: involves electronic management(e-engagement), which is the public's participation in the policy-making process through electronic networks which means the interaction between public servants, people, and interest groups. And it also includes electronic control or e- controllership that includes expense, performance, and service management capabilities.

ICT:- an important aspectof e-Governance. The creation of a macroeconomic environment that fosters innovation and growth in the ICT sector, including fiscal policies (cost, innovation, investment, and venture capital), a legal and regulatory framework (competition, independent regulator, rule of law, security of intellectual property), and the channeling and mobilisation of resources for ICT instruments, have all become crucial tools in the pursuit of good governance.

The following considerations must be made in order to assess the risk of putting egovernance solutions into practice:

- Political stability (democracy or dictatorial regime).
- Adequate legal framework.
- Level of trust in government (perception of service levels).
- The importance of government identity (fragmentation or integration).
- Economic structure (education, agriculture, industry, or service).
- Government structure (centralized or decentralized).
- Different levels of maturity (the weakest part of the chain determines speed).
- Constituent demand (push or pull).

# **MAJOR OBJECTIVES**

Supporting and streamlining governance through electronic form and thereby strategically connecting government, citizen and business altogether. The efficient use of e governance can actively interlink all stakeholders, including the government, citizens, and enterprises. All three parties can be connected, and their procedures and activities can be supported, by the use of ICTs. In other words, e-governance promotes and supports good governance by using electronic means. As a result, e-

governances are the same as those of good governance. Thus, e governance means country's affairs can be better managed at all levels. This means proper administrative distribution from local to national level.

Here, e-government and e-democracy goals should be presented. E-democracy's primary goals are to:

1. Give citizens access to information and knowledge about the political process, about services, and about their alternatives; and

2. To enable the shift from passive information access to active citizen engagement by: educating, advocating for, encouraging participation in elections, consulting, and involving citizens.

The goals of e-governance should be separated accordingly as internally focused operations in e-government are separated from the goals for externally focused services.

EXTERNAL STRATEGIC OBJECTIVE: - The external objective of e government is to fulfill the public's needs and expectations satisfactorily from the side of the front office, by simplifying their interaction with various online services. The use of ICTs in government operations enables quick, accountable, transparent, efficient, and effective communication with citizens, businesses, and other agencies.

INTERNAL STRATEGIC OBJECTIVE: -The goal of e-government in the back office of government operations is to promote a quick, transparent, accountable, efficient, and effective procedure for carrying out administrative tasks for the government. As a result, we can see that government services become significantly cost savings.

We can draw the conclusion that e-governance encompasses more than just government websites. e-Governance is influenced by political, social, economic, and technological factors.

# Status of e-Government and e-Governance in Other Countries

'e Europe' is one of the success stories of e-government. The e Europe projects have been politically charged and goal-oriented. The European Union (EU) stands distinct from other global, regional, and sub regional, because of the careful consideration and implementation of e Europe and the political commitment of the EU leaders to build and really enforce a knowledge-based economy and society 'for the benefit of all.' The first thing emerging nations may well take away from e Europe is the good results of political intent and enforcement through efficient implementation benchmarking. Not only EU, other nations also experiencing the possibilities of e-Governance.

Kenya started its e-Governance initiatives in 2004 through its digital service delivery. More than 70% of the Kenyan population are using mobile phones and it simplified the government to reach the public through m-Governance. Egypt is quite behind and the government has started some legal initiatives. All business transactions are through e-receipts, pensions are through e-payments, and government-citizen expenditures are through e-payment.

Armenia started its e activities in 2004. More than 20 services were included in their first phase. They have a wide application of e-signature and e-visa. Through the e-Azerbaijan program, Azerbaijan entered in 2003. They are concentrating on free-flow information and ensuring transparency in the citizen-official relationship.Singapore's e-Citizen Portal is an organized single access point to government information and services. South Korea's Home Tax Service (HTS) provides citizens with 24/7 online services such as tax declaration. Taiwan has top-ranking G2C technology including an online motor vehicle services system, which provides 21 applications and payment services to citizens. Estonia is the first country in the world with e-residency which enables anyone in the globe outside Estonia can access Estonian online services.

The 2020 ranking of the 193 UN Member States in terms of digital government – capturing the scope and quality of online services, the status of telecommunication infrastructure and existing human capacity – is led by Denmark, the Republic of Korea, and Estonia, followed by Finland, Australia, Sweden, the United Kingdom, New Zealand, the United States of America, the Netherlands, Singapore, Iceland, Norway, and Japan.

Among the least developed countries, Bhutan, Bangladesh, and Cambodia have become leaders in digital government development, advancing from the middle to the high E-Government Development Index (EGDI) group in 2020. Mauritius, Seychelles, and South Africa are leading the e-government ranking in Africa. Overall, 65 percent of Member States are at the high or very high EGDI level.

Let us have a look among the very high, high, middle and low EGDI groups to gain better insight into the situation of countries with similar levels of performance within their respective EGDI groups, each EGDI group is further divided into four equally defined rating classes, or quartiles. The number of Member States in the very high EGDI group (with values ranging from 0.75 to 1.00) rose from 57 to 60, representing a 5 per cent increase between 2020 and 2022. Malta and the United Arab Emirates moved from the V3 to the VH rating class in the very high EGDI group. Four countries (Georgia, Peru, Serbia and Ukraine) moved from the high to the very high EGDI group, with Serbia jumping two intervals.

The 15 countries in the highest (VH) rating class within the very high EGDI group are the leading countries in terms of the 2022 Survey results, with values ranging between 0.8943 and 0.9717. Ranked from highest to lowest within the subgroup, these countries include Denmark, Finland, the Republic of Korea, New Zealand, Sweden, Iceland, Australia, Estonia, Netherlands, the United States of America (hereinafter referred to as the United States), United Kingdom of Great Britain and Northern Ireland (hereinafter referred to as the United Kingdom), Singapore, United Arab Emirates, Japan and Malta. At the regional level, 35 of the 60 countries in the very high EGDI group are in Europe, 15 are in Asia, 8 are in the Americas, and 2 are in Oceania.

# High EGDI group

The total number of countries in the high EGDI group rose from 69 to 73 between 2020 and 2022. Eight countries have joined the high EGDI group for the first time; three are in Africa (Côte d'Ivoire, Rwanda and Zambia), two are in the Americas (Belize and Guyana), and three are in Asia (Lebanon, Nepal and Tajikistan). Six of the eight countries in the high EGDI group are in special situations and are classified by the United Nations as Least Developed Countries (LDCs), Landlocked Developing Countries (LLDCs) and/or Small Island Developing States (SIDS), signifying the notable progress made in e-government development in countries with

limited resources. The number of countries in special situations in the high and very high EGDI groups rose from 35 to 41 (or by 15 per cent) between 2020 and 2022; one of the latter is a low-income country (Rwanda) and twelve are lower-middleincome countries (Bangladesh, Belize, Bhutan, Plurinational State of Bolivia, Cabo Verde, Cambodia, Kyrgyzstan, Mongolia, Nepal, Tajikistan, Uzbekistan and Zambia). At the regional level, 24 of the 73 countries in the high EGDI group are in the Americas, 22 are in Asia, 16 are in Africa, 8 are in Europe, and 3 are in Oceania. Eighteen of these countries are in the top HV rating class of the high EGDI subgroup, with 39 per cent of the 18 being countries in special situations (LLDCs or SIDS).

#### Middle EGDI group

The number of countries in the middle EGDI group (with values ranging from 0.25 to 0.50) decreased from 59 in 2020 to 53 in 2022. This decline is positive, given that eight countries moved up to the high EGDI group and two countries shifted from the low to the middle EGDI group during this period. Only one country moved down from the high to the middle EGDI group. Africa has the largest share of countries in the middle EGDI group (60%, or a total of 32 countries), followed by Asia (19%, or 10 countries), Oceania (17%, or 9 countries) and the Americas (4 %, or 2 countries). The overwhelming majority of countries in the middle EGDI group—43 out of 53, or 81 per cent— are countries in special situations (LDCs, LLDCs and/or SIDS). Among these 53 countries, 20 (38%) are low-income economies (16 in Africa and 4 in Asia), and another 25 (47 %) are lower-middle-income economies (2 in Oceania, 2 in Africa, 2 in Asia and 1 in the Americas) are upper-middle-income economies, and one country, Nauru, is a high-income country in Oceania.

# Low EGDI group

The number of countries with low EGDI values (below 0.25) dropped from eight in 2020 to seven in 2022. All of the countries in this group are LDCs and/or LLDCs; six are in Africa. Chad, Eritrea, Niger, Somalia and South Sudan were also in the low EGDI group in 2020, while one is an LDC in the Americas (Haiti). Guinea-Bissau

and the Democratic People's Republic of Korea are the only two countries that moved up from the low to the middle EGDI group in 2022

#### **E-GOVERNANCE IN THE INDIAN SCENARIO**

The foundation of India as a country is its bureaucratic structure. With the use of ICT, users may now communicate more quickly, inexpensively, precisely, and easily. They can also access high-quality facilities, work efficiently, share data, and use information. This contributes to tighter restrictions and increased sales. Everyone can gain from ICT, whether they are people, groups, organizations, or governments. To accomplish this, the government will need to change its own practices, mindsets, laws, rules, and regulations as well as the way it interacts with the public. E-government is no longer a choice; it has become a necessity.

In its simplest form, e-Governance is the use of information and communications technology to transform how governments operate into 'Simple, Moral, Accountable, Responsive and Transparent' (SMART) governance. The second Administrative Reforms Commission tried to analyse the success and failures of e-governancewhich means it tried to find out the best possible to overcome the failures and also gave recommendations and critical analysis to the government regarding e-governance. The Commission not only tried to analyse the success and failure of the Indian scenario but tried to give feedback from the global level too. With the help of this, the government can include new paradigms and reforms in the administration. The revolution in ICT has brought a whole new phase to governance. E-Government includes decision-making procedures and the application of ICT to increase citizen involvement in governmental matters.

According to some authors, e-Government is the state's e-business. This appears reasonable given that e-business and e-government use similar technology, hardware, and infrastructure. However, the market models are very dissimilar, which justifies e-Governance as a distinct field of study. Although there are numerous definitions of e-Governance, the goals of governments are undeniable: upholding public safety, dispensing justice, providing the institutional framework for the economy, and also ensuring that the vital social capital is increased through advancements in health and education, as well as through strong families and communities. A more thorough description of e-Government suggests alterations to two connected areas of governance:

1) The business of governance needs to be transformed, which entails cutting costs, enhancing service delivery, and updating processes;

2. Democracy's own processes and roles need to be re-examined. Reduced costs, less corruption, greater openness, a rise in revenue, and convenience for the populace are the outcomes.

India, the largest democracy in the world, stands to benefit much from e-governance, particularly one of important characteristics since citizen participation in governance is one of the characteristics of e-governance. There have been numerous global e-readiness assessments that demonstrate India's current level of e-readiness.

The three basic kinds of services made available by e-Government in India are (1) delivering information, (2) increasing processing effectiveness, and (3) facilitating transactions. The simplest of these is delivering information, and as we move from transactions to information, the complexity level rises. However, the second and third categories of services offer the most convenience to the populace. The difficulty is paying for such services.

Government reform, process and function automation, and improved technologybased public service delivery systems are all part of e-government, which aims to put the government on autopilot. The Indian government has established a number of initiatives to support e-governance, including e-Seva, Smart Government, Digital India, and e-Kranti. However, some issues in the application of e-governance pose obstacles to e-progress. The Indian government started initiatives to promote democratic governance. When it comes to e-governance, the initial project was NIC in 1977. Later, there were other initiatives such as NICNET in 1987 and e-Gov, which was launched by the IT ministry in 1999. e-Kranti and the plan for a Digital India are from the 2006 plan and in a later phase, the Indian government launched a number of programs to promote e-governance in India.

India's Rank as per United Nations E-Government Survey

Number of participating countries: 193

Year	Rank
2022	105th
2020	100th
2018	96th
2016	107th
2014	118th

Source: E-Government Development Index (EGDI) under Global Indices | Ministry of Electronics and Information Technology, Government of India (meity.gov.in)

### Conclusion

In this chapter, we have gone through the origin and development of e-Governance. Its different applications levels are also conveyed. How e-Governance are applied in other nations and the status of world ranking especially the difference between 2020 and 2022 were also observed. India's e-Governance policies and its initial activities are also explained here.

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### CHAPTER 3

### **Citizen-Centric E-Governance Practices in India**

E-Governance is one of themost important aspects of good governance. It includes application of communication and information technology (ICT) for providing se rvices by the government. Exchange of information, transactions, integration of previously existing services and information portals are the results. This chapter we are having an overall look on the citizen centric e-Governance initiatives of India. The services includes government to citizen (G2C), government-to-business (G2B), government-to-government (G2G), government-to-employees (G2E) as well as back-office processes and interactions within the entire governance framework. But we are concentrating on citizen-centric governance applications only.

Governance has become more complex and varied in the last few decades and

more importantly, citizens' expectations from the

governmenthaveincreasedmanifold.ICTfacilitatesefficientstoringandretrievalofdata, the instantaneoustransmissionofinformation, the processing ofinformation and data fasterthantheearliermanual systems,speedingupgovernmentalprocesses,takingdecisionsexpeditiouslyandjudicio usly,increasingtransparency,andenforcingaccountability.Italsohelpsinincreasingthere achofgovernment–bothgeographicallyanddemographically.

Theprimarypurposeofgovernanceisthewelfareofcitizens.Whileoneaspectofgovernan ce relates to safeguarding the legal rights of all citizens, an equally important spect is concerned with ensuring equitable access to public services and the benefits of economic growth to all. It is expected that e-Governance would enable the government to discharge its functions more effectively<sup>1</sup>.

The role of Information and Communication Technologies (ICTs) has been exemplified through various efforts and ventures established throughout the country. About 10,000 grassroots ICT initiatives try to enable rural people to break their age-old barriers and achieve acceptable standards of living (Atanuand Shadrach, 2006). Tele-

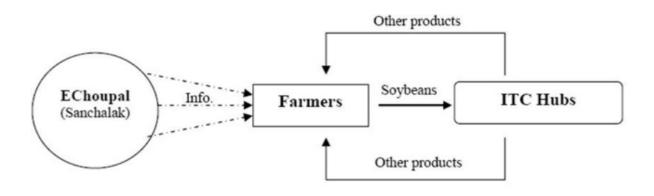
centermodelslikeITC's e-Choupal, n-Logue models, and Village Knowledge Centers; e-governance modelslike Gyandoot, Rural e-Seva, and Drishti; and ICT integrated popular communicationmedia like radio, TV and mobile provide information and knowledge to the remote areasoftheIndiansubcontinent.

ICT has made labour market accessibility easier; e.g., Labour Net is a Bangalorebasedorganisation that helps to connect, which utilises the mobile phone platform to match theskillsetofpeople availableforworkwiththe needs of thosewhorequireworkers<sup>5</sup>.

ICTisbeingusedextensivelyintheagricultureandhandicraftssectorstoprovideinformati onandaccessibilitytomarkets.AccessibilitytoinformationthroughICTisagreatenabler for markets, especially so for isolated or poor neighbourhoods<sup>5</sup>. For example, 'myfarm info' is an agriculture information system that an Indian farmer can easily accessthrough a mobilephone.The systemutilisesIOTtechnology, usescomplex algorithmsonthe history of crop diseases and forewarns the farmer on such a possibility. It guides onbetterwatermanagementandthroughSMSprovidesweatherupdatesandalsolatestma ndicrop prices, to help the farmer make an informed decision at every step<sup>6</sup>. These steps canhelpafarmer,conventionallyaweaklinkinIndia'sfightagainstpoverty. Some of the prominent efforts (wherein ICTs are being used for the rural and the poor)includeareasrangingfromthedisseminationofinformationtoonlinetradingofcom modities totelemedicinetoeducation.

# e-Choupal

e-Choupal is an initiative of ITC Limited, a conglomerate in India, to link directlywithruralfarmersviatheInternetforprocurementofagriculturalandaquaculture productslikesoybeans,wheat,coffee,andprawns.



Source: UNITAR (2005: 5)

e-ChoupalisanICTplatformthatfacilitatesflowofinformationandknowledge, and supports markettransactionsonline.

- IttransmitsInformation(weather, prices, news).
- IttransfersKnowledge(farmmanagement,riskmanagement).
- ItfacilitatessalesofFarmInputs (screenedforquality).
- ItoffersthechoiceofanalternativeOutputmarketingchannel(convenience,lowertransactioncosts) tothefarmer rightathisdoorstep.
- Itisaninterlockingnetworkofpartnerships(ITC+MetDept+Universities+Input COs + Sanyojaks, the erstwhile Commission Agents) bringing the "best-

inclass"ininformation, knowledgeandinputs.

e-choupal is, thus, a distributed transaction platform that brings together sellers, buyersalong with information and service providers. e-choupal is a model with a number of non-conventionalcharacteristicsnamely:

- Customer-centric.
- Capableofbeingusedformanycommoditiesandmultipletransactions.
- Easilyscalableonceitisverified
- Useslocaltalentandlocalpeopleanddevelops localleaders
- Extended to local as well as global procurers
- Stimulateslocalentrepreneurs to extend their innovativeness
- Usesalltheexistinginstitutionsandlegalframeworks.
- Manyothers canjointhemarketastransactiontimeislow.

The increased participation in e-choupal has been due to the creation of win-win situationin which both the firm and the farmer benefits equally. The farmer gets attracted towardse-choupalduetoincreasedprofits,addedservicesthathecouldget,savingintime,andtheabili tytousethee-choupalformanytransactions.

E-Choupal operation has been successful. It has reduced the cost of procurement and thecost of transit and the material handling cost. Procurement transaction costs are reducedfrom the industry standard of 8% (farmer incurs 3% and the processor incurs 5%) to 2% (with farmer saving all his 3%, and the processor-ITCsaving 3%) as shown in the following table.

Cost element	Conventional market	e-Choupal
Trolley Freight to Mandi	100	Nil
Filling & Weighing Labor	70	Nil
Labor Khadi Karai	50	Nil
Handling Loss	50	Nil
Sub Total	270	Nil
Processor Incurs		
Commission to Agent	100	50
Cost of Gunny Bags	75	Nil
Labor (Stitching & Loading)	35	Nil
Labor at Factory (Unloading)	35	35
Freight to Factory	250	100
Transit Losses	10	Nil
Sub Total	505	185
Grand Total	775	185
As % of Beans Value	8%	2%

 $Fig^2: Conventional transaction vse-choupal costs.\\$ 

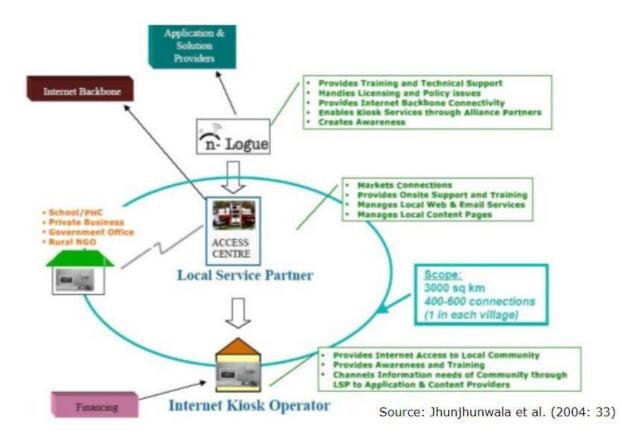
Source:

NITI

Aayogstudy<sup>2</sup>

#### N-LogueVillageInternetKiosks

A company named n-Logue (of TeNeT group of IIT-Madras) has been set up toprovide (telecom and internet) connectivity exclusively to rural areas. The objective is toset up kiosks within every village to provide the desired connectivity. Since 85 cent ofthe talukshave fiber-optic connections.nper Logueusesthisasabackbonetosetup itsaccesscenters at the taluk headquarters to service areas within a radius of 25 km. The model uses a network of an access center connected to several kiosks in villages within the area. Thusabout30-40villagescanbecoveredbyasingleaccesscenter. The business model for the kioskis proposed to be along the successful STD/PCO booths. It has an all-India ISP license and istiedupwithBSNL forprovidingtelecomservices.



VillagekiosksaresetupbyanLSP,whoinvestsmoneytobuyequipmentandwho,inturn,pr ovides services to the people of the village. A typical kiosk offers both telephone andInternet services to the local community: it is equipped with a PC, a power supply, anInternet/Voice connection, a suite of packaged software in the local language, and atelephone.

#### N-

Logue<sup>3</sup>supportsthisenterpriseinvariousways.First,ithelpsfindpartneringinstitutionsan d organisations - largely in the local area - that can provide such services. Second, n-

Logueprovidesboththefranchiseeandthekioskowner(whoisoftenayoungperson)witht he necessary training, marketing support, and opportunities to build their enterprises. n-

Loguealsohelpsbothoftheseentrepreneursobtainthenecessaryloanstogetstarted,mostl y by drawing on existing government self-employment opportunities. Finally, n-Loguepostsclassifiedadscreatedbykioskownersonthelocalwebsite.

To cite one specific example<sup>4</sup>, the kiosk at Melur (Madurai District, Tamil Nadu) started with e-government services and has expanded to offer health information, agricultural consultation, means of booking bus and train tickets, and offline services like computereducation. The villagers pay for every kiosk service they use, at rates that are lower thanthose in urban areas. This centre was recently connected to the Madurai AgriculturalCollege and Research Centre (under the Tamil Nadu Agricultural University). Villagerscan now email their agricultural queries to the College and receive an electronic answer. Ulagapichanpatti village, for example, sent with ladies regarding problem а query а finger(bhendi), the main crop of the village lost due to disease in 2001. In response to emails a ndphotographs<sup>4</sup> sent on behalf of farmers who visited the kiosk, the college appointed twohorticulture assistant professors to answer queries. A live net meeting was

conductedbetweenUlagapichanpattiandtheexpertsatthecollege;thediseaseinthespeci menswasimmediatelyidentifiedthroughthewebcam and was able to solve it.

Village

#### Knowledge

Centre

Averygoodprojectthathasbeendevelopedtoprovidethelatestinformationtothefarmersa bout agriculture covering topics from crop production to marketing is the formation

ofVillageKnowledgeCentre(VKC).Apartfromagriculture,VKCsalsoprovidetrainingan dholdworkshopsforruralcommunities.Informationregardinghowtostartasmallbusines sandwaystoincreasehouseholdincomeisalsoimpartedtothefarmers throughVKCs.

Most of the VKC shave volunt eeroperators from the village itself who

aretrainedinbasiccomputerskills.VKCsareconnectedtoVillageResourceCentres(VRC ).Thereare20-30VKCs to every VRC. Infrastructure and electricity bill of VKCs is maintained by thevillage,soonlythosevillages areselectedwhichcanbear theexpenditure.

ThroughtheVKCs,differenttypesofinformationsuchasnewgovernmentschemes,pric esof commodities, examination results, the importance of hygiene and its correlation withhealth, loan schemes by the government, certificates issued by the government, etc.

areprovided.VKCsworkwiththemainaimofimprovingagriculturebyimpartingknowle dgeregardingnewdevelopments,techniquesofagriculture,improvedvarietiesofseeds,m ethodsofcultivation,etc.Also,weatherinformation,latestmarketpriceandinformationr egardingdiversificationofcrops isalsosharedwiththefarmers.

VKCs also work towards the development of the rural community. So, in addition toinformation, training in things such as dairy improvement, clean milk production, etc isgiventothefarmers.Specialhelptoheavilyindebtedfarmersisprovidedsothattheyenjoy

financialfreedom.

VillageKnowledgeCentersarequitesuccessfulasaproject.Villagersalsoconsiderthisasas ymbolofstatusandutilizetheknowledgeprovidedthroughVKCs.Villagewomenwhowo rkfor VKCs alsofeelmoreconfidentandempowered.

# Gyandoot

On January 1, 2000 in Dhar district of central Indian state of Madhya Pradesh, a uniquelowcostandself-sustainablee-

governanceprojectnamedGyandoot(MessengerofKnowledge) was launched with 21 telecenters situated in different village councils of 5blocksofthedistrict.Theprojectgraduallyreachedmorethan600villages,covering9out of 13 development blocks in the district of Dhar. Gyandoot was an innovative, unique andcreative e-governance idea to deliver the citizens' services from the computers perhapsnever tried before in India. Before this, villagers would have to travel long distances to reach someone that may or may not have been there. Additionally, villagers

faceddiscomfortandcorruptionfrompublicofficials. Thus, Gyandootwascreated computerizing the frontend of government services in across the region.

TheservicesofferedundertheGyandootnetworkare:

- Commoditymarketinginformationsystem(MandiBhaav),wheregrainpricesareu pdatedonadailybasis.
- Incomecertificate(AayPramanpatra).
- Domicilecertificate(MoolNiwasiPramanpatra).
- Castecertificate(JaatiPramanpatra).
- Landholder'spassbookoflandrightsandloans(Bhooadhikarevamrinpustika/K hasraNakal).
- RuralHindiemail(GramDaak).
- Publicgrievanceredressal(ShikayatNivaran).
- Formsforvarious governmentschemes(AvedanPatra).
- Belowpovertylinefamilylist.
- Employmentnews(RozgarSamachar).
- Ruralmatrimonial(Vaivahiki).
- Ruralmarket(GramHaat).
- Ruralnewspaper(Gaon kaAkhbaar).
- Advisorymodule(SwasthaSalahkar,KrishiSalahkar,KanooniSalahkar).
- E-education(ShikshaGyandoot).

Gvandoot has been the recipient of several awards, including The Stockholm ChallengeAward 2000 and the Computer Society of India - Tata Consultancy Services (CSI-TCS)National IT award. The Stockholm Challenge IT Award 2000 was awarded to the Gyandootproject of Dhar district on 6th June 2000. Gyandoot was declared winner in the PublicService and Democracy category from a total of 109 IT projects from all over the world. The Gyandoot project was the only Indian project to receive the award in any category inlast four years. The project was awarded CSITCS National IΤ Award for best IΤ usagefortheyear 2000, instituted by the Computer Society of India.

#### Problems of Gyandoot

However, despite winning the Stockholm Challenge Award in Best Public Service (IT)category 2000, Gyandoot didn't achieve its intended impact<sup>7</sup>. Lack of electricity wasreplaced by solar powered cells which offered telecenters a backup for only 8–10

hourswhichraisedoperationalcosts. Thetelecominfrastructure in the district waspoor an dmost of the muse ddialup connections which proved to be slow and unreliable. The WLLs ystem (CorDECT) for faster connections was installed only in 20% of the total kiosks and only the CorDECT company could fix the technical issues, if any. Also, one of the biggest problems was that hardly anyone was using the services. Around 30% of people didn't know about Gyandoot's existence. The very rural poor, women and population from underprivileged caste groups didn't participate due to socio-economic reasons and also because of discomfort with technology.

#### Rural e-Seva

TheRurale-

SevaprojectwasstartedinWestGodavaridistrictbythedistrictadministrationtoempowe rcitizensthroughInformationTechnology.Thegoaloftheprojectistoreplacethe traditional form of governance, and its accompanying inefficiencies, with a modern,more transparent and responsive service delivery system. This system works with webenabledruralkiosks,runbytheSelf-HelpGroups(SHGs),whosemembersaredrawnfromthe poorest segments of the society. This project also aims to help these groups achieveeconomicindependence.

The project was operationalized with 47 kiosks in all 46 mandals of the district, with 2kiosks in Eluru, the district headquarters. In addition to the kiosks, 103 Rural ServiceDelivery Points (RSDPs) are also part of the project. The Rural E-seva kiosks started theiractivities with eighteen services, including G2C (Government-to-Citizen), C2C (Citizen-to-Citizen)andB2C(Business-to-Citizen)servicesinJanuary2003,withtechnologyfromtheNationalInformatics Centre(NIC).

Despite the minimal funds and budgetary constraints, the project succeeded<sup>8</sup> by involvingmultiplestakeholdersandpurposefullyutilizinggovernmentschemes. Theproj ectdemonstrateshowcostscanbereducedbyimplementinginnovativeideassuchasdevel oping an offline synchronization tool to reduce internet charges, making use ofsoftware developed by engineering students as part of their project work, and by utilizingtheavailableresourceswithNIC.

#### Akshaya

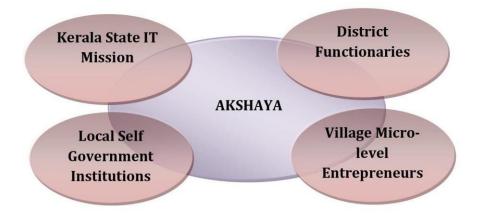
KeralaisthefirstStateinIndiatotakeinitiativeforthemasstransformationofICTbytheim plementation of district-wide e-literacy project 'AKSHAYA' in 2002, with an intentionof'EmpoweringKerala'.TheventurepavedthewayforthemigrationofKeralat othefirste-literatestate.

Akshaya Centers have emerged as the finest network of effective Common ServiceCenters (CSC)<sup>9</sup> envisioned to deliver a multitude of G2C, G2B as well as B2C services tothe public under a single roof. Presently, around 2,650 Akshaya ecenters are spread acrossKeralawithatleast2centersineachpanchayat.BybringingICTtoallsegmentsofpeo ple.

Akshayaactsasavehicleforimprovedqualityoflife,accessibilitytoinformation,transparen cyingovernanceandoverallsocio-economicgrowth.

1000+Akshayacentersareequippedwithbankingkiosksandmicro-

ATMstoofferthefullspectrum of banking and insurance services at the door step of the citizens. This is to caterto the villagers residing in areas where there are lesser number of banks.Kiosk banks are designed to be mutually beneficial to banks, Akshaya entrepreneurs, and the public. With the ownership of about 650 IRD Alicenses, Akshaya centers of fer insurance policiest other ural populace.



Source:Akshayawebsite9

Project Akshaya is an enormous step towards making the Government more accessible to citizens. Itpotentially empowers individual citizens by providing them with a responsive channel for accessinginformation and services and interacting with government. By reinforcing monopoly control over thegovernment–citizen relationship (transparency with security), Akshaya e-centers, has made aremarkableperformanceasthefront-end deliverynetwork forGovernmentservices<sup>9</sup>.

#### Making In Rural India

Making In Rural India (MIRI) is an online and offline platform enabling rural producers to be market ready besides connecting them to rural and urban customers. Thus creating a Virtual Prosumer Economy. It technologically enables the supply chain management system to make it more efficient and scalable.

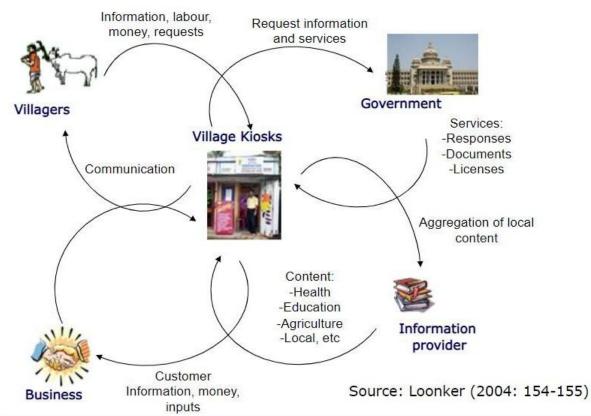
#### Drishtee

Drishtee- an NGO- envisions a world where all communities are empowered to achieve shared prosperity. To facilitate the development of 1500 'community organizations' - 'Vatikas', in the next 3 years enable shared prosperity through

ecosystem support and delivery of business services and demonstrate a model of sustainable living on our planet.

The skill development programs build the capacity of rural communities on needbased skill sets to help them earn a sustainable livelihood. To build capacity to enhance their employability to ensure livelihood.

Despite the large size and depth of India's financial system, the majority of the rural poor do not have access to formal financial services. With the reach of its rural network, Drishtee is in a unique position to extend banking services in rural communities. These services offer a unique opportunity to address the needs of the marginalized community and are in sync with Drishtee's mission of 'enabling the development of rural economy and society. The idea is to create viable business opportunities for entrepreneurs in villages who provide financial services (including banking, pension, and insurance) and thus help to create an ecosystem with relevant micro-enterprises that can be funded. Drishtee has implemented kiosk banking system and Micro ATMs/Pin Pads through about 1500 active kiosks from 2006 in various locations in India.



#### Kerala's Status

The era of digitization started in the state of Kerala with the inception of Kerala State IT Mission (KSITM) in 1999. The introduction of a network of Common Service Centres in the form of Akshaya is one of the benchmark projects of the

government to spread e-literacy and this has enabled broadband access to 90% of the Kerala villages in the form of Akshaya centres. They provide services like Aadhar enrollment, e-district services, utility bill payments and motor vehicle license payments among others. Currently along with more than 2000 Akshaya centres, the local government of Kerala has e-platforms such as Sevana (for Civil Registration and Pension), Sanchaya (for property tax), Sanketham (for building permits), Soochika (for status monitoring, file tracking) and so onintroduced with an aim of digitizing the local bodies and improving the efficiency of services provided by them.

# PROSPECTS AND CHALLENGES OF E-GOVERNANCE

Providing services based on the needs of the people more than any other imperative of the government is the prime motive behind a citizen centric administrative structure. This can beachieved by addressing citizens' immediate concerns, i.e. transparency, efficiency, stability, and continuity in the governance systems. The Government at all levels has endeavored to provide a citizen-centric administration. Creation of institutions such as Lokayuktas, National Human Rights Commission (NHRC), National Women's Commission (NWC), National Consumer Disputes Redressal Commission, etc. government of India trying to make it possible. E-Governance applications also contribute to making it happen in a speedy manner. Two years of the pandemic have revealed several bottlenecks in governance and gaps to bridge. Hope this will be rectified soon.

By this, I think it is time to search the prospects and challenges of e-governance applications in India. First, we go for the prospects.

# PROSPECTS

- Institutions become vibrant, responsive, and accountable.
- Decentralization will be possible.
- Transparency can be ensured.
- Efficiency, Effectiveness, Economy, and Ethics in Governance can be assured.
- Periodic and independent evaluation of the quality of Governance will be possible.

# CHALLENGES

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

- 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 pertains to the trust of the government.
- The government needs to ensure fraudulent free transactions, data security, and financial security.
- The innovation diffusion theory states that over time innovation will diffuse through a population, and the rate of adoption will vary between those who adopt early and late.
- The resistance to changefrom a paper-based to a Web-based system will be there.
- The digital divide exists between individuals, communities, and businesses that have access to information technology and those that do not.
- Economic imbalances including poverty is closely related to limited information technology resources.
- Cost is another important prohibiting factor that comes in the path of egovernance implementation particularly in the developing countries like India where most of the people living below the poverty line.

# Conclusion

We have seen how the concept of e-governance and m-governance has evolved and how much it is required for transparency and accountability on the part of the government at the same time it is also a tool to increase the participation of people in policy-making by empowering them with the right information at right time.

The penetration of the internet, and telecommunication services in India has increased in the last decade and this gives a ray of hope to the citizens of India to fight the long-persisting problems of poverty, corruption, regional disparity, and unemployment. But at the same time, due to the slow pace of project completion, red tape and resistance from the side of government employees and citizens have not given the desired result. What we understood from this paper is, we did many things, and we are doing much more however we have to travel yet more.

Still, we can undoubtedly say that digital technologies played a matchless role in holding people together during these pandemic days, especially in health, education, and public support mechanisms.

What we understood from the e-developed countries is that they have built the capacity to create products and develop platforms for strategic digital policies at the same time a strong but flexible framework for development. They are following user-centric government services. Another thing noticed is that the countries showing a very high or high level of e-governance have achieved this through capitalising on very high levels of human capital development and moderate to very high levels of infrastructure development.

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