
UNIT 1 E-GOVERNANCE: CONCEPT AND SIGNIFICANCE

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1.0 LEARNING OUTCOMES

After studying this Unit, you should be able to:

- discuss the concept and significance of e-governance;
- explain the various stages of e-governance;
- examine the various models of e-governance; and
- analyse the issues and challenges

1.1 INTRODUCTION

Reinventing government has been a dominant theme since 1990s, wherein governments world over are attempting to improve the systems of public service delivery. Rapid strides made in the field of Information and Communication Technology (ICT) have facilitated the reinvention of governments and prepared them to serve the needs of a diverse society. In other words, the information age has redefined the fundamentals and transformed the institutions and mechanisms of service delivery forever. The vision is the articulation of a desire to transform the way government functions and the way it relates to its constituents. The concept of electronic governance, popularly called e-governance, is derived from this concern. Democracies in the world share a vision of the day when e-governance will become a way of life.

India has been at the forefront of the IT revolution and has had its effect on the public administration systems, as we would see later in this Unit. In fact, if the potential of ICTs are harnessed properly, it has a lot of opportunities, especially, in the social and economic growth of the developing world.

1.2 CONCEPT OF E-GOVERNANCE

E-governance is the application of ICT to the processes of government functioning for good governance. In other words, e-governance is the public sector's use of ICTs with the aim to improve information and service delivery, encourage citizen participation in decision-making and make government more accountable, transparent and efficient.

The Ministry of Information and Technology states that e-governance goes far beyond mere computerisation of stand alone back office operations. It implies fundamental changes in government operations; and new set of responsibilities for the legislature, executive, judiciary and citizens.

According to the Comptroller and Auditor General, UK, e-governance means providing public access to information via the internet by government departments and their agencies.

So in essence, e-governance is the application of ICT in government functioning to bring in **SMART** governance implying: simple, moral, accountable, responsive and transparent governance.

SMART GOVERNANCE

Simple- meaning simplification of rules, regulations and processes of government through the use of ICTs and thereby providing for a user-friendly government

Moral- connoting emergence of an entirely new system of ethical values in the political and administrative machinery. Technology interventions improve the efficiency of anti-corruption agencies, police, judiciary, etc.

Accountable-facilitating design, development and implementation of effective Management Information System and performance measurement mechanisms and thereby ensuring accountability of public service functionaries.

Responsive- streamlining the processes to speed up service delivery and make system more responsive.

Transparent-bringing information hitherto confined in the government documents to the public domain and making processes and functions transparent, which in turn would bring equity and rule of law in responses of the administrative agencies.

SMART governance, thus, helps in:

- improving the internal organisational processes of governments;
- providing better information and service delivery;

- increasing government transparency in order to reduce corruption;
- reinforcing political credibility and accountability; and
- promoting democratic practices through public participation and consultation.

E-governance and E-government

E-governance and e-government are often used interchangeably, so distinguishing between them at this stage is imperative. According to Thomas B. Riley government and governance are both about getting the consent and cooperation of the governed. But whereas government is the formal apparatus for this objective, governance is the outcome as experienced by those on the receiving end. . . . E-government can be more productive version of government in general, if it is well implemented and managed. E-governance can evolve into participatory governance, if it is well supported with appropriate principles, objectives, programmes and architectures.

E-government is, thus, the modernisation of processes and functions of government using the tools of ICT as to transform the way it serves its constituents. As per the World Bank, e-government refers to the use by government agencies of information technologies (such as wide area networks, internet and mobile computing) that have the ability to transform relations with citizens, businesses and other arms of government. It is the use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees. E-governance, on the other hand, goes beyond the service delivery aspects and is seen as a decisional process. It is about the use of ICTs in the systems of governance, that is, using ICT to involve multi-stakeholders in decision-making and in making governments open and accountable.

1.3 STAGES OF E-GOVERNANCE

Different stages of e-governance are identified on certain set of criteria. These stages are:

- **Simple information dissemination** (one-way communication)- is considered as the most basic form, as it is used for merely disseminating information;
- **Two-way communication** (request and response)- is characterised with e-mail system and information and data-transfer technologies in the form of website;
- **Service and financial transactions**- is online services and financial transactions leading to web based self-services;
- **Integration** (both vertical and horizontal)- in this stage the government would attempt inter and intra-governmental integration; and
- **Political participation**- this stage means online voting, online public forums and opinion surveys for more direct and wider interaction with the government.

Another classification of e-governance has six stages of which the first two are similar to that of the above classification. The remaining four are:

- **Third stage**- refers to multi-purpose portals, which allow customers to use a single point of entry to send and receive information and to process transactions across multiple departments;
- **Fourth stage**- consists of portal personalisation, wherein customers are allowed to customise portals with their desired features;

- **Fifth stage-** is when government departments cluster services along common lines to accelerate the delivery of shared services and clustering of common services; and
- **Sixth and final stage-** technology is integrated further to bridge the gap between the front and back office.

After our discussion of the concept and stages of e-governance, we will now deal with significant models of e-governance that can be used in designing e-government initiatives.

1.4 MODELS OF E-GOVERNANCE

Prof. Dr. Arie Halachmi in his paper, namely, ‘E-Government Theory and Practice: The Evidence from Tennessee (USA),’ has given five important models of e-governance, which can be used as a guide in designing e-government initiatives depending on the local situation and governance activities that are expected to be performed. These models are:

- The Broadcasting Model
- The Critical Flow Model
- The Comparative Analysis Model
- The E-Advocacy/Mobilisation and Lobbying Model
- The Interactive-Service Model

We will now discuss these models individually.

- **The Broadcasting Model**

The model is based on dissemination/broadcasting of useful governance information, which is in the public domain into the wider public domain with ICT and convergent media. The strength of the model rests upon the fact that a more informed citizenry is better able to judge the functioning of existing governance mechanisms and make an informed opinion about them. Consequently, they become more empowered to exercise their rights and responsibilities. Widespread application of this model corrects ‘information failure situations’ by providing people with the relevant information relating to the governance sphere to make informed opinion and impact governance processes.

Further, the use of ICT opens an alternative channel for people to access information as well as validate existing information from different sources.

- **The Critical Flow Model**

The model is based on disseminating/channelling information of critical value to the targeted audience or into the wider public domain with ICT and convergent media.

The strength of this model is that ICT makes the concept of ‘distance’ and ‘time’ redundant when information is hosted on a digital network, and this could be used advantageously by instantly transferring the critical information to its strategic user group located anywhere or by making it freely available in the wider public domain.

- **The Comparative Analysis Model**

This model is highly significant model for developing countries and can be used for empowering people. Essentially, the model continuously assimilates best practices in the areas of governance and then uses them as benchmarks to evaluate other governance practices. It then uses the result to advocate positive changes or to influence ‘public’ opinion on these governance practices. The comparison could be made over a time scale to get a snapshot of the past and present situation or could be used to compare the effectiveness of an intervention by comparing two similar situations. The strength of this model lie in the infinite capacity of digital networks to store varied information and retrieve and transmit it instantly across all geographical and hierarchal barriers.

- **The E-Advocacy/Mobilisation and Lobbying Model**

This model builds the momentum of real-world processes by adding the opinions and concerns expressed by virtual communities. This model helps the global civil society to impact on global decision-making processes. It is based on setting up a planned, directed flow of information to build strong virtual allies to complement actions in the real world. Virtual communities are formed which share similar values and concerns and these communities in turn link up with or support real-life groups/activities for concerted action.

Hence, it creates a diversity of virtual community and the ideas, expertise and resources are accumulated through this virtual form of networking. In addition, it is able to mobilise and leverage human resources and information beyond geographical, institutional and bureaucratic barriers and use it for concerted action.

- **The Interactive-Service Model**

It opens avenues for direct participation of individuals in governance processes and brings in greater objectivity and transparency in decision-making processes through ICT. Fundamentally, ICT has the potential to bring in every individual in a digital network and enable interactive (two-way) flows of information among them.

Under this model, the various services offered by the Government become directly available to its citizens in an interactive manner. It does so by opening up an interactive Government to Consumer to Government (G2C2G) channel in various aspects of governance, such as election of government officials (e-ballots); redressing online of specific grievances; sharing of concerns and providing expertise; opinion polls on various issues; etc. (adapted from Prof. Dr. Arie Halachmi ‘E-Government Theory and Practice: The Evidence from Tennessee, USA’).

After our discussion about the models of e-governance, we will now focus on the legal and policy framework for the implementation of ICT and e-governance in the country.

1.5 LEGAL AND POLICY FRAMEWORK

The following provisions have laid down the legal and policy framework for ICT and e-governance.

- **Information Technology Act 2000**

The Action Plan endorsed by the Conference of Chief Ministers in 1987 had already addressed the pertinent issues of accountable and citizen friendly administration; and

transparency and right to information. In pursuance of these issues, the Information Technology Act was promulgated in 2000. The objective of the Act is “to provide legal recognition for transactions carried out by means of electronic data interchange and other means of electronic communication, commonly referred to as ‘electronic methods of communication and storage of information’; to facilitate electronic filing of documents with the Government agencies; and further to amend the Indian Penal Code, the Indian Evidence Act, 1872, the Banker’s Book Evidence Act, 1891 and the Reserve Bank of India Act, 1934 and for matters connected therewith or incidental thereto.”

Both e-commerce and e-governance transactions are covered under the ambit of this Act, which facilitates acceptance of electronic records and digital signatures. The Act, thus, stipulates numerous provisions. It aims to provide for the legal framework so that legal sanctity is accorded to all electronic records and other activities carried out by electronic means. The said Act further states that unless otherwise agreed, an acceptance of contract may be expressed by electronic means of communication and the same shall have legal validity and enforceability.

CHAPTER III of the Act details about ‘Electronic Governance’ and provides inter alia amongst others that where any law provides that information or any other matter shall be in writing or in the typewritten or printed form, then, notwithstanding anything contained in such law, such requirement shall be deemed to have been satisfied if such information or matter is:

- i. rendered or made available in an electronic form; and
- ii. accessible so as to be usable for a subsequent reference.

- **Report of the Working Group on Convergence and E-governance 2002-07**

Report of the Working Group on Convergence and E-governance proposed the need for administration to transform itself from a passive information and service provider to a platform/forum for the active involvement of citizens. This Report primarily concerned itself with public investments. It could not visualise the extent of private initiative that could be expected to come forth in the convergence area or in e-commerce or allied segments.

It felt the need to set up a central body for taking stock of the total IT picture in the country. This central body could be a ‘Council for E-governance’ or an adhoc ‘Commission on Re-engineering Administrative Procedures for E-governance.’ Another alternative it suggested was to set up a National Institute of Smart Governance.

- **Common Minimum Programme**

The importance of e-governance has been recognised in the Common Minimum Programme of the UPA Government, which inter-alia states that e-governance will be promoted on a massive scale. It made a solemn pledge to the people of the country with a government that would be corruption free, transparent and accountable; and an administration that would be responsible and responsive at all times.

- **National E-Governance Plan**

Three important elements of the National E-Governance Plan, which form the core infrastructure for effective service delivery are- Data Centres, State Wide Area

Networks and Common Service Centres. The 10-point agenda of the Department of Information Technology announced for growth of ICT in the country includes expeditious implementation of a ‘National E-Governance Plan’ to bring about transparency and citizen centric approach in administration.

- **Expert Committee**

An expert committee had also been constituted for the amendments in the IT Act 2000 to include the technological developments post IT Act 2000. The Expert Committee completed its deliberations and submitted its report in August 2005. Now the Expert Committee’s recommendations have been put on the website of the Department of Information Technology for inviting public views and suggestions. The Committee, during its deliberations, analysed some of the relevant experiences and international best practices. The Committee, while formulating its recommendations, kept in view the twin objectives of: (i) using IT as a tool for socio-economic development and employment generation; and (ii) further consolidation of India’s position as a major global player in IT sector.

- **Right to Information Act 2005**

The Right to Information Act 2005 confers on the citizens the right to:

- i. inspect works, documents and records of the government and its agencies;
- ii. take notes, extracts or certified copies of documents or records;
- iii. take certified samples of material; and
- iv. obtain information in form of printouts, diskettes, floppies, tapes, video cassettes or in any other electronic mode.

This has ensured a transparent and accountable government to the people. It has also established a two-way dialogue between the citizens and the government. It has enabled citizens to make well-informed decisions. Further, it is an important step towards tackling corruption and has ensured better monitoring of services provided by the government.

1.6 SIGNIFICANCE OF E-GOVERNANCE

ICT applications impact upon the structures of public administration systems. Technological advancements facilitate the administrative systems by enabling:

- Administrative Development; and
- Effective Service Delivery

We will now discuss them individually.

Administrative Development

Administrative reforms, often, have focused on procedural details and restructuring of systems and processes of government organisations. The basic objective of these reforms is to enhance capacities of the systems. ICTs can be used and are being used now to give further impetus to the process. They help in the following manners:

- **Automation of Administrative Processes**

A truly e-governed system would require minimal human intervention and would rather be system driven. While initially the solutions that were offered were quite primitive with poor information layout, inadequate navigation provisions, occasional disruption in services, periodic outdated content and little or no 'back office' support. However, technological advancements and increased pressure from citizenry have prompted improvements in these areas. Now administrative departments are computerised and connected through network. Software has been built and designed around government departments ensuring efficiency in operations. The departments have launched individual websites carrying information of their respective departments. This has enabled online carrying of operations and file movements. Budgeting, accounting, data flow, etc. has become easy. This has increased the efficiency of office operations and processes and has reduced unnecessary delays.

- **Paper Work Reduction**

An immediate impact of automation would be on the paperwork. Paperwork is reduced to a greater extent with communication being enabled via electronic route and storage and retrieval of information in the electronic form. All this has led to emergence of 'less paper office'. This concept is defined as an office situation where all the information (file and mail) amongst various functionaries is distributed online. In the words of Dubey, less paper office is the implementation of effective electronic communication processes that enable elimination of reproductive works and unnecessary papers. The concept is where files and mails (information) are transmitted over wires to small computers at each employee's desk. Office work, such as, file movements, notings, etc. is computerised and documentation, report preparation, databases are now maintained in computers. Due to interconnectivity through LAN, transfer of information and files take place online, thus reducing the physical movements and consumption and storage of huge piles of paper.

- **Quality of Services**

ICT helps governments to deliver services to the citizens with greater accountability, responsiveness and sensitivity. Quality of services improves, as now the people are able to get services efficiently and instantaneously. As volumes of transactions and information can be electronically handled and delivered over a wider area through the net and web, qualitative services become possible in least time, in least cost, in least difficulty and in greater convenience.

By ensuring online redressal of grievances the accountability of officials is ensured. They have become sensitive to the issues affecting people. Monitoring by way of video teleconferencing has further facilitated central monitoring, reporting and face to face communication that has assured effective service delivery by the officials.

- **Elimination of Hierarchy**

ICT has reduced procedural delays caused by hierarchical processes in the organisation. Through Intranet and LAN, it has become possible to send information and data across various levels in the organisation at the same time. Computerisation and communication patterns facilitated by ICT have increased efficiency and have led to the involvement of all levels in decision-making.

- **Change in Administrative Culture**

Bureaucratic structures have been plagued by characteristics aptly described by Victor Thompson as ‘bureau-pathology’. From the days of New Public Administration, efforts have been made to find ways to deal with the pathological or dysfunctional aspects of bureaucratic behaviour and to make delivery of public services effective and efficient. With e-governance, public actions coming under public glare would certainly induce norms and values of accountability, openness, integrity, fairness, equity, responsibility and justice in the administrative culture. Rather, administration would become efficient and responsive.

Effective Service Delivery

ICTs play an important role in effectively delivering services to the people. ICTs ensure:

- **Transparency** by dissemination and publication of information on the web. This provides easy access to information and subsequently makes the system publicly accountable. Also as web enables free flow of information, it can be easily accessed by all without any discrimination.

- **Economic Development**

The deployment of ICTs reduces the transaction costs, which makes services cheaper. For example, rural areas suffer on account of lack of information regarding markets, products, agriculture, health, education, weather, etc. and if all this could be accessed online would lead to better and more opportunities and thereby prosperity in these areas.

- **Social Development**

The access to information empowers the citizens. Informed citizenry can participate and voice their concerns, which can be accommodated in the programme/ project formulation, implementation, monitoring and service delivery. Web enabled participation will counter the discriminatory factors affecting our societal behaviour.

- **Strategic Information System**

Changing organisational environment and increasing competitiveness have put pressures on the performance of the functionaries. Information regarding all aspects need to be made available to the management at every point to make routine as well as strategic decisions. ICTs effectively enable putting such strategic information systems in place.

After the above-mentioned discussion on the significance of ICTs in governance, we will now highlight certain measures that will enable its effective implementation.

1.7 SUGGESTIONS

The above discussion highlighted the important role of ICTs in governance. In order to harness the benefits of ICTs maximally, we need to develop sufficient and adequate infrastructure, provide sufficient capital and investment, enable easy and wider accessibility and generate ample and skilful human resources. These are some of the immediate and pertinent challenges to effective implementation of ICT and e-governance. We will now discuss these issues individually.

- **Infrastructure**

The foundation of e-governance is based on the telecommunication services. To develop telecommunication, infrastructures are to be created so that the end-user is able to access the services promptly and effectively. To strengthen the infrastructure, 'The National Task Force on Information Technology and Software Development' in 1998 recommended broadband connection (also known as 'the last mile') linkage for IT Applications Service Providers (ASPs), Internet Service Providers (ISPs) and IT promotional organisations, either by fibre optics or by radio communication, with the aim to 'boost efficiency and enhance market integration' through Internet/Intranet for sustainable regional development.

- **Capital**

A high rate of investment in IT capital and a supportive environment is necessary to achieve digital economy. In view of the resource crunch with the government, there is need to generate resources from the market and private sector. Public-private partnership may be beneficial in this regard, as the private sector can participate and contribute with capital and expertise support.

- **Access**

At present, there are more than 10 million users of internet in the country. But the irony is that more than 75 percent of these users are in urban India. Internet has still to reach the rural and disadvantaged sections. However, efforts are being made to expand ICT connectivity into rural areas through involvement of Gram Panchayats. NIC has developed a comprehensive web-based software for panchayati raj and rural applications, which is being implemented in states like Andhra Pradesh. With most of the panchayats getting computerised, accessibility to various services has become easy.

- **Utility of Information**

There is a need to provide information, which is useful. The content of the information should be such that it should be interesting, beneficial and appealing to the people. In this regard, Government of India and some of the state governments have prepared a vision document for e-governance keeping in mind the needs of the citizens. Though Citizens' Charters of many departments are available on the net, further publicity of such facilities is required to enable the public to access the necessary information.

- **Human Resource Development**

Despite the ascending growth rate observed in employment in IT sector, there is dearth of quality manpower. There exists a demand and supply gap in the IT manpower market. India apparently needs to have more technical institutes to impart education and training to build a pool of human resources in the field.

- **Capacity Building**

Service delivery will be effective if there is a trained manpower. Though computer training is being imparted to all the basic public functionaries, except in few cases, an effective use of ICT is yet to be seen. Moreover, there is an immediate need to launch a nation wide 'Train the Teachers Programme' (3T Programme). This should be done at all levels including

schools and colleges. A combination of physical and virtual training also needs to be imparted.

- **Changing the Mindset of Government Functionaries**

To accept the change there is a need to change the mindset of service providers and receivers. The government functionaries need to be made aware that they are there to serve the clients as per the policies and programmes and that technological advancement is only a facilitator to solutions of problems faced by people and not a solution in itself. To change the mindset of the service providers there is a need to impart orientation and training programmes to them.

- **Language**

Success of e-government also depends on communication with the people in their local languages. Currently, the most widely used language is English for e-government. But given the Indian social conditions, unless we develop interfaces in vernacular languages, it would remain out of reach of many people who are not capable of accessing these services in English. In this context, it is essential that a clear strategy be formulated to provide access to local level databases maintained in regional and local languages as well as to use appropriate interfaces to aggregate such data. However, it may be mentioned here that organisations like Centre for Development of Advanced Computing (CDAC) has developed multilingual software for the purpose.

- **Standardisation in Data Encoding**

Once multiple access points maintained in various languages at various levels are established, there is a need to update them in conformity with similar standards for data encoding-an application logic for a common horizontal application and data dictionary. This is also important for finding aggregates in the national context.

- **Grievance Redressal Mechanism**

The mechanism planned for various functions need to make provision for grievance redressal as well. Interactive platforms on the internet may speed up the process and may be useful in this regard. The BMC-Praja Foundation's joint initiative of the Online Complaint Management System (OCMS) is perhaps the world's first in citizen-government partnership for solving public grievances in municipal services. Inaugurated in April 2003, the OCMS has been receiving grievances on behalf of citizens availing services of municipalities in Mumbai. It uses IT as a tool to bring in efficiency and effectiveness into the system. One can register his/her complaint online regarding various municipal services and the Municipal Corporation will redress this complaint in the time stipulated in the Citizens' Charter adopted by the Corporation.

Central Vigilance Commission has also provided such a platform for people to register their complaints against corrupt officials. Such sporadic instances need to be made broad-based and effective, though it may be conceded that more and more public service agencies are now providing or contemplating such facilities.

- **Cyber Laws**

The government needs to enact appropriate laws, especially those, which are necessary to

enable transactions over the internet. Safety concerns regarding use of credit cards or other modes of payment stops the consumers from using such facilities. The Mahanagar Telephone Nagar Limited, Delhi for example has provided the online facility for payment of telephone bills, but not even one percent of its consumers are making use of this provision. Hence, security has to be ensured for generating confidence in the system.

1.8 CONCLUSION

According to Traummuller and Lenk, e-governance is a global phenomenon today and it is the most recent paradigm in public administration. The speed and transparency associated with e-governance has the potential to make public administration responsive and effective. As the development of e-governance gets past the phase of pilot projects, it becomes apparent that sustainable development of e-governance will depend on an adequate institutional framework that will enable public administration to manage and harmonise the emerging multitude of technical and organisational changes at all levels of government....

The time has come to focus on the challenges in implementation, especially those related to cross-level applications and institutional framework, which would enable to bring in broader changes in governance.

1.9 ACTIVITY

- 1) Form a group and discuss in detail the provisions of the IT Act 2000 and Right to Information Act 2005.
- 2) Let us know about some of the measures that you can suggest to make the Right to Information Act effective.

1.10 KEY CONCEPTS

E- governance	:	use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees.
ICTs	:	are the information and communication technologies such as, radio, computers, Internet, Intranet, Websites, and satellites; providing database, knowledge database, expert systems, Geographic Information System, Management Information System, video and audio teleconferencing.
State Wide Area Network	:	networks linking the state headquarters right up to the block level through National Informatics Centre Network.
National E-governance Plan	:	seeks to implement 25 Mission Mode Projects at the Centre, State and integrated service levels so as to create a citizen-centric and business-centric environment for governance, create governance and institutional mechanisms, set up core infrastructure, formulate key policies and channelise private sector technical and financial resources into the national e-governance efforts.

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