CHAPTER II
E-GOVERNANCE AND DECENTRALISED PLANNING –
A CONCEPTUAL FRAMEWORK

2.1. DEFINITIONS AND SCOPE OF E-GOVERNANCE

E-governance is the application of information and communication technology to transform the efficiency, effectiveness, transparency, and accountability, of informational and transactional exchanges within government, between government, national, state, municipal and local level governments, citizens and businesses and empower business through access and use of information (Dr. Sanjay Kumar Dwivedi and Ajai Kumar Bharti, 2010). In other words, E-governance is the implementation and delivery of government services through the Information and Communication Technology to provide transparent, efficient, responsible and accountable governance to the society. Although the term E-governance is primarily used to refer to the usage of IT to improve administrative efficiency, this is expected to produce other effects that would give rise to increased transparency and accountability of government processes which reflect on the relationship between the government and the citizens and help build new spaces for citizens to ensure their participation in overall development process. (Bhatnagar, Subash 2010).

The term E-government and E-governance are often loosely used, but they are different in finer sense. E-government is a technology driven administration, where the citizen can avail government services like getting copies of land records, filing of tax returns etc. It basically involves the formulation of laws and regulations such as domain names etc. to govern cyber space (Gupta M.P, 2004). Moon, M.J. (2002) distinguished between public sector usage of information technology and E-government initiatives. He opined that although there is a distinction between public sector information technology
and E-government, often inters dependent and difficult to quantifiably separate, but E-government is that subset of public information technology that involves the delivery of govt. services and information to citizens. This delivery of services and information also involves the integration of networks and data basis to allow for cross-agency communication and interaction, which is an internal technology application.

E-governance is a part of government’s policy for social inclusion, for enhancing IT and for helping people to enhance their lives. The concept involves delivering of a variety of services via internet, telephone, community centers or government departments with a view to transforming the government from being a ‘procedure and power centered’ mechanism to a ‘citizen and service-centered platform’ (Mishra, S.S. Pani, N. & Sahu, B.S, 2004). It has the following main dimensions:

1. GOVERNMENT TO CITIZEN (G2C)

G2C aims at connecting citizens to government by talking to citizens and supporting accountability, by listening to citizens and supporting democracy, and by improving public services (Shah, 2007). It involves better services to the citizens through single point delivery mechanism and includes the areas like: E-Citizen, E-Transport, E-Medicine, E-Education and E-Registration.

Under E-citizen, integrated service centers exist and the purpose of these centers are to take over the various customer services in due course. It offers services like issue of certificates, ration cards, passports, payment of bills and taxes etc. These centers became one-stop Government Shops for delivery of all services. The G2C service in the transport sector i.e. E-Transport include Registration of motor vehicles, Issue of driving licenses, Issue of plying permissions (Permits), Tax and fee collection through cash and bank challans and control of pollution. E-Medicine involves linking of various hospitals in different parts of the country and provides better medical services to citizens. E-education constitutes various initiatives of educating citizens and the Government with the various Information technologies. E-Registration i.e. E-governing the registration and transfer of the properties and stamp duty has led to substantial reduction of paper
work and the duplication of entries. Further the transparency in work has increased and the overall time of process registration reduced.

The spirit behind G2C services will encompass all the services that the government is delivering to its citizens. The essential prerequisites for the achievement of this service are: Information for All, Citizen Feedback and improving services.

The citizen will act as watchdog to government if the information is readily available with him by keeping him informed, and provided with sufficient details of government activities. The equitable distribution of information to all widens the awareness with respect to the rights and responsibilities of the citizens which will ultimately increase the pressure on staff to perform well and to improve public understanding of government. Citizen feedback is must for improving the government services. Unless the government listens to its customer, it will not be able to find out what does the citizens want. The elected representatives who are said to be the voice of the citizens are not the true voice, for they get their votes according to their offerings and their offerings are not according to customer wants. In short it is an effort to make the public sector decision responsive to the citizens' views and needs. Besides it is expected to improve the speed, quality, reliability, convenience and cost of delivery of services to the citizen. Information technology will have a big role to play in the same. Services can be delivered from 24-hour one-stop government shops.

2. CONSUMER TO GOVERNMENT (C2G)

C2G will mainly constitute the areas where the citizens interact with the government. It will include areas like election when the citizens vote for the Government; census where she/he provides information about himself to the Government; taxation where she/he is paying taxes to the Government (Benjamin. P, 2001).

One of the main C2G services is E-democracy. E-democracy is an effort to change the role of the citizens from passive information giving to active citizens’ involvement. In an E-democracy the Government represents the citizens and informs them, encourages them to vote, consults them and engages them in governance. Taking
the citizens input about the various government policies by organizing an e-debate will further strengthen the E-democracy. The concept of e-debate is similar to chat over the internet, wherein not only the citizens but also the political leaders contesting the elections participate. The citizens give their feedback about the various policies of the parties and particularly the manifesto of the party (Davis. R, 1999). The initiative will further strengthen the process by enhancing the representative role, improving accessibility of citizens to their elected members and developing the capacity of elected representatives to engage in E-government. Elected members will also be provided with access to the local authority's Intranet and e-mail systems so that they become available online for decision making and people can easily access them.

The essential prerequisites for the achievement of this service are: Citizen Participation. For achievement of E-democracy, the citizen has to participate in the government business and therefore, spreading awareness becomes the responsibility of the State. Market research programs should be carried out using the Information Systems to determine the needs of the citizens. GIS is used as a tool to find out potential gaps in the services offered.

3. GOVERNMENT TO GOVERNMENT (G2G)

This can also be referred as “E-administration”. It involves improving government processes by cutting costs, managing performance, making strategic connections within government, and creating empowerment (Heeks. R, 1999). It involves networking all Government offices so as to produce synergy among them. The major areas are: E-Secretariat, E-Police, E-Court and State Wide Networks.

Secretariat which is the seat of power has a lot of valuable information regarding the functioning of the State. The cross-linking of various departments and exchange of information amongst various components led to the simplifications in the process of Governance through E-Secretariat.

**E-Police** will help to built citizen confidence. There will be two databases in E-police. One is for police personnel and the other for criminals. The database of personnel
will have the records of their current and previous postings. This will help to track policemen specialized in certain geographical regions and skills. The second database will be of criminals. This database has to be upgraded to national database for its total utility. By just typing the name of a criminal a police officer will be able to know the details of his past activities, including his modus operandi and the area of operation. Further a database like this will help to nab the criminals easily if all the police stations have simultaneous access to their record.

**E-Court** is a milestone in judicial administration in India. The pending court cases in India have brought the legal system to a halt. Not only are the consumers asking for changes in the administration, but also the system will collapse if it continues in this manner. IT can transform the system and bring in the court cases to a level of zero dependency. Creating a database of cases can do the same. In fact such a system will help to avoid all the appeals to High Courts and Supreme Court, for the Judges can consider the appeals from an intranet wherein the case remains in the same district court but the Higher Court gives their decision online based on the recorded facts of the case. Such a step will not only help the citizens but will also reduce the backlog of cases. The use of IT in the areas like recording of court proceedings, high resolution remote video to identify fraudulent documents, live fingerprints scanning and verification, remote probation monitoring, electronic entry of reports and paper work will further speed up the court proceedings. This involves linking all the departments of the Government with various district headquarters and the state capital, facilitating the flow of information between the various state departments and its constituents. Here, various blocks are linked to district headquarters, district headquarters to state headquarters and state headquarters to then national capital. The essential prerequisites for the achievement of this service are cutting expenditure, organize around outcomes, not tasks, managing process performance, establish a network and delegate and empower:

**4. GOVERNMENT TO BUSINESS (G2B)**

The government to Business model mainly comprise of **E-Taxation**. This constitutes various services that a business house needs to get from the Government,
which includes getting licenses etc. In a similar scenario, it can also flow from a business house to the Government as in the case of procurements, from such business houses by the Government. The essentials for achievement of G2B services for secure and authentic transactions include: Standards for electronic transactions, a secure payment mechanism and Public key infrastructure.

5. GOVERNMENT TO NGO (G2N)

The government to NGO model comprise of E-Society. The objectives of E-society are to build interactions beyond the boundaries of government by developing communities and to build government partnerships and civil society. It will involve building various associations or interest groups that will ensure the betterment of the society. Such initiatives deal particularly with the relationship between government and citizens: either as voters/stakeholders from whom the public sector derives its legitimacy, or as customers who consume public services. The essentials for the achievement of G2N services are: open access to government information by citizens, delivering data to citizens, receiving data from citizens, taking feedback from citizens and interacting with the interested groups.

2.2 Evolution of E-governance

Gartner, an International e-business research consultancy firm, has formulated a four phase E-governance model.

Phase I – Information: This is the initial stage where government provides website (static) with basic information that the citizens can access. Online presence mainly in the form of a web page and/or official website; links to ministries/departments may or may not exist. The communication is one-way, that is government to citizens only (G2C).

Phase II – Interaction: Governments provide more information online on public policy and governance; links to archived information (documents, laws, reports etc) easily accessible to citizens. At this level the on-line website has more capabilities and functionalities including sorting and searching of information.
Phase III- Transaction: Delivery of online Services such as downloadable forms for tax payments and applications for license renewals; beginning of an interactive portal or website for citizen centric services. The bottom-line is that now the complete process is online, including payments, digital signature etc. This saves time, paper and money.

Phase IV- Transformation: The fourth level in the maturity model is labeled transformed government. This is the phase in which all information systems are integrated and the public can get G2C and G2B services at one virtual counter. One single point of contact for all services is the ultimate goal. People interact with government in an integrated fashion, “online, not in line,” 24 hours a day, seven days a week from the convenience of their homes (Layne and Lee, 2001).

Figure: - 2.1 Evolution of E-Governance: Four Critical Stages

Source: Quality Assessment Framework, NeGP, 2008
2.2 Effects of E-governance on Economic Development

The links between E-governance and development have increasingly been articulated by international agencies in terms of the digital divide raising alarm bells with the concern that developing countries are being deprived of the opportunities for economic growth and social development enjoyed by advanced economies because of scarcity of E-governance programmes. Another key assumption from the modernisation literature is that deficiency in knowledge is partly responsible for underdevelopment. This argument derives from modernist development communication literature of the 1960s according to which the communication of scientific and technical knowledge from the developed world to developing countries would result in economic growth. This argument reappears in the conventional development discourse of international agencies, for example in the World Bank ‘Knowledge for Development’ report (World Bank, 1999), and more recently in the Bank’s Global Development Gateway portal.

Wade (2002), for example, argues that in taking for granted that ‘bridging the digital divide’ is the central issue of development, literature from the World Bank and other international agencies has neglected details of cost, risks and benefit ratios in human development terms. Castells (1998) puts forward a troubled vision of the information society in which ‘old binaries are reworked’ around the E-governance revolution such that the poor majority of the developing world becomes irrelevant to the new society. Essentially, these writers tend to recast the arguments of post-modern development theorists who explores the way in which knowledge, power and action are linked in the work of development agencies and projects around the world (Ferguson, 1990; Escobar, 1995).

According to recent work by development anthropologists (Nelson, 2002; Pigg, 2002), understanding the impact of development interventions entails a social constructivist account of how they unfold and are shaped by local players over time according to their priorities (Grillo & Stirrat, 1997; Gardner & Lewis, 2002). In the ICT field, Schech (2002) takes a social constructivist approach to study the developmental impact of ICT projects. A critical research question for her is to explore the link between ICT and development, looking at the extent to which ICT applications are amenable to
further shaping at the implementation stage according to how people perceive their development.

E-governance in Rural India can be utilized for poverty reduction strategies by enhancing pro-poor access to markets, health, and education. E-governance applications in this concern has proven successful in delivering desirable social, economic and government services to rural population by increasing their efficiency and productivity; improving their livelihood and also helping them voice their concerns, demand their rights and participate in decision-making processes. The potential of E-governance as a development tool hinges upon three prerequisites: a minimum threshold level of technological infrastructure, human capital and e-connectivity for all (Singh, Subir Hari, 2000). E-governance readiness strategies and programmes will be able to be effective and “include all” people, only if at the very minimum, all have functional literacy and education, which includes knowledge of computer and internet use; all are connected to a computer and all have access to the Internet. The primary challenge of E-governance for development therefore, is how to accomplish this. A country’s overall progress in E-governance closely correlates with its social, political or economic composition. Despite the developmental potential of E-governance, few developing countries have implemented pro-poor E-governance strategies depending largely on the Government’s willingness to develop and design content relevant and usable for them. ICTs and E-governance applications play a critical role in strengthening the linkages between policymakers and the poor and between the poor and the service providers as well as between the policymakers and the service providers (Bestle, 2004). E-governance applications help the poor to reach policymakers with feedback information about the progress contributing to the transparency and accountability in government services. Effective E-governance applications can minimize some of the vital causes of poverty such as overpopulation, lack of education, uneven distribution of resources, deep-rooted corruption by providing easy access to information to the poor, thereby, resulting in transparency, accountability and responsiveness in delivery of E-governance services. Political commitment, administrative support and managerial cooperation are vital for successful implementation of E-government aiming at tackling poverty.
2.3 E-governance and Decentralized Planning

In the emerging governance pattern, there is a close relation between E-governance and decentralization as both are integral parts of the current governance paradigm. E-governance is a means to achieve the goal of ‘Good governance’. Further as Clark (2003) says, the nature of the transformation from a model of industrialized government (centralized, bureaucratized, paper-based, impersonal, rule-based, disconnected, and organized into departments) to that of E-governance (decentralized, digital, personalized, client-focused, interconnected, and organized in new ways) is a fundamentally different one. Garg, Preeti (2008) suggests E-governance as a way to good governance. Some of the elements of good governance are rule of law, accountability, transparency, participation and people’s control. By harnessing ICT for internal as well as external operations, by better managing its resources and developing an appropriate organizational culture, the objective of good governance can be attained much more effectively. Technically speaking, there can be two kinds of decentralization associated with E-governance. One is decentralization in the monolith of the state itself at different levels due to the implementation of ICTs. The other kind of decentralization is that which is caused due to the implementation of ICTs at the local governments, thereby strengthening local governments and hence facilitating decentralization. And since this possibility of strengthening local governance through E-government is very much there, as Vriens & Achterbergh (2004) say, ‘local governments are confronted with the expectations and demands from citizens, companies, and higher-level governmental organizations to deliver services and products by means of IT’. E-government can facilitate government responsiveness to citizen needs and citizen participation in policy analysis and design. Decentralized governance can better facilitate the above process. (Kakabadse,Kakabadse and Kouzmin 2003). Thus, E-governance and decentralization seem to go hand-in-hand.

Even if there is a link between E-governance and decentralization, what is the need for understanding this linkage? Milward and Snyder (1996) have emphasized the need for using information technology for the successful implementation of decentralized
planning. According to them the governmental use of information technologies to engage and interact with the public further enhances the value of technology adoption, which in turns leads to greater government penetration. Holliday, I. (2002) pointed out that it is a potentially powerful tool to bridge the gap between people and govt. in terms of information and service and stressed the need for introducing E-governance. The effect of E-governance on decentralized planning could be seen in terms of increased efficiency and productivity. Enhancement of efficiency is analysed by taking into account of the speediness of service delivery mechanism. Reduction of costs is also considered as an important objective of E-governance. Singh, Vikram(2001) said that while E-governance cannot replace manual governance even its limited applications, to a large extent affect day- to- day living and it can reduce distance to nothing, linking remote villages to government offices in cities, reduce staff, cut costs and check leaks in the governing system. W.H.Dutton (1996) have suggested that ICT-enabled reforms can yield many benefits, including lower administered cost, faster and more accurate response to requests and queries, direct access to transaction or customer accounts held in different parts of government and the ability to harvest more data from operational system, thus increasing the quality of feedback to managers and policy makers. It enables the people to access benefits even if it is not official time.

Further, the need for understanding the linkage between E-governance and decentralization comes from the confusion of the real effects of E-government and ICTs per se on decentralization. The dominant centralization approach argues that the existing power elite manipulate computers to perpetuate and augment its power. Other scholars suggest that technology can decentralize bureaucratic structures and diffuse bureaucratic power. The little-known history of the information and communication technology revolution in the Israeli public sector suggests that the same empirical evidence can be woven into two starkly different historical narratives supporting each of these approaches (Peled 2001). And what holds true in the Israeli public sector should hold true for the whole government apparatus also. So, in the context of government, it becomes important to conduct research to find out whether E-government helps or hinders decentralization and get some academic justification for settling the argument one way or the other.
The technological basis of E-governance, viz ICTs per se has the inherent potential to provide an impetus to decentralization. As computing power has decreased in cost, computers shrunk in size and became more widely distributed; rather than reinforcing centralization and bureaucracy of governments, the new technologies have tended to encourage network organizations, new types of community and generate demands for different roles of government and methods of 'governance'. (McCullagh 2003). The infusion of new ICTs has imparted the democratic process by resisting the iron law of oligarchy and institutionalization to produce more flexible grassroots decentralized style of organization (Ward and Vedel, 2006).

Further as Lenihan (2002) says, E-government involves a shift from a more closed to a more open system. An open system is always something that is more favorable to the operation of decentralized structures than a closed one which is more compatible with a centralized system like that of the former communist states of Eastern Europe and the Soviet Union. A futuristic scenario presented by Chadwick(2003) talks about ‘Flatter hierarchies of creative officials plugged in to wider informational networks that organically include the on-line presence of citizen groups and affected interests is one way of injecting e-democratic practices into E-government’. Even if currently such E-democratic practices sound utopian and even if we discount the possibility of that happening in the near future, the fact remains that at least decentralization is a very imminent possibility through E-government if not E-democracy.

In the literature on the definition of E-governance, it is considered as a transformation effort – a transformation which is brought about by E-government by facilitating the decentralization of services and administration (Grant & Chau 2005). So, implicitly, these definitions imply the link between E-government and decentralization at the operational level, a link in which E-governance facilitates decentralization.

Moreover, the potential for self-management within an individual economic unit has been seen by the spread of intranets. (McChesney, Wood & Foster 2001). Self-management implies a degree of decentralization. So, there is a potential for self-management in the largest organization in a state-viz, the government through the implementation of E-governance and hence there is a potential for decentralization also in
this regard. IT governance describes the distribution of IT decision-making rights and responsibilities among different stakeholders in the enterprise, and defines the procedures and mechanisms for making and monitoring strategic IT decisions (Peterson 2004). And there should be a very real possibility that these IT decision-making rights and responsibilities can be distributed in a decentralized manner within an enterprise.

The decentralization process may not only be a side effect but may very well be an essential one caused by the introduction of ICTs in the government as a part of E-governance. This is because information overload is caused by the introduction of ICTs in E-governance and this demands a decentralized governance structure. (Kakabadse, Kakabadse and Kouzmin 2003)

E-governance also offers the possibility of transcending the very paradigm of decentralization and bringing in something that can be called as distributed governance. “Conventional government, with its top-down planning committees, hierarchical reporting relationships is too hierarchical to permit a significant de-concentration of authority and too slow and mechanical to ensure that, if it were attempted, it would remain responsive, transparent and accountable. As a result, conventional government could only decentralize. Not surprisingly, since the beginning of modern government, debates over government reform have usually been framed in terms of centralization vs. decentralization. Perhaps the most exciting and far-reaching feature of E-governance is the prospect of creating a communications and management infrastructure that could support a more distributed approach to governance. Decentralization involves the transfer of authority from one command-and-control centre to another, such as from central agencies to line departments or from federal to provincial governments. In decentralization, the transferred authority remains centralized, but is moved to a new centre (or a series of new centers). By contrast, distributed governance takes some of the centralized authority and spreads it around the system” (Lenihan 2002). And this prospect opened up by E-government may be the most radical political change in the history of the liberal democratic evolution since the French revolution.

All the above mentioned points imply the link between E-governance and decentralization at least at the operational level if not at a fundamental level. So, it seems
that at an operational level, E-governance facilitates decentralization. But at an essential level, E-government may even be facilitating centralization.

Moreover, decentralization per se cannot be considered as a supreme good vis-à-vis centralization, neither can the existing positive points of centralization be all discarded. The existing positive points of centralization have to be preserved even if the decentralization process is brought in through E-governance and so as Lenihan (2002) says, ‘the challenge is to build a new horizontal dimension into existing vertical structures, without compromising key values, such as privacy, transparency and accountability’. And these values are something that is working even in a vertically organized governance structure.

At an empirical level, one find that there are a lot of E-governance initiatives going on across the world that have an element of decentralization within them, both explicitly and implicitly. For example in Kerala, we have programs like Sevana, Sulekha and Sanchita for the Local Self Governments (LSGs) which have a manifest goal of decentralization (IKM, 2000). E-governance programs like Sevana, Sulekha and Sanchita eases the workload and facilitates a speedy, error-free, efficient and transparent process. The Information Kerala Mission (IKM) has implemented the program on a pilot basis in September 2001 in five Local Self Government institutions in the state. There are a slew of E-governance initiatives being implemented in local governments in countries like USA (Norris & Moon 2005), New Zealand (Deakins & Dillon 2002) etc.

Moon (2002) says that his study ‘echoes the conclusion of Musso, Weare, and Hale (2000) that there can at best be a mild encouragement regarding the potential of internet technologies to reinvigorate local governance. Thus, though he is not very optimistic about the potential of E-government for the purpose of decentralization, his study points out that there is a distinct possibility of internet technologies (which are a part of E-governance) helping decentralization. Further, Moon (2002) says that in the future, city governments should promote horizontal (interagency relations at the municipal level) as well as vertical (intergovernmental relations with state and federal government) collaborations to advance E-governance initiatives to stage 4 (integration) and stage 5 (political participation). Thus he gives a practical solution for using E-
governance for decentralization purpose. Chandrasekar (2006) says that the front-end of the E-governance process can be by the extra-state players like NGOs and the backend can be taken care of by the government. Thus the ambit of E-governance can be widened if needed in the process of exploring it vis-à-vis decentralization.

All these empirical level analysis about E-governance and decentralization show that there has been work done in this regard as well as a possibility of future work being done in this regard. Further as Madon (1993) says, administrative reform in a number of developing countries has recently been directed at achieving decentralization through the diffusion of information technology to local areas. This is also a part of E-government. So, E-governance has been consciously used by developing countries to bring about decentralization.

Figure:- 2.2 Elements of Good Governance

Source: The Researcher
The success of decentralized planning rests its objectives such as efficiency, transparency, accountability, responsibility and participation, social equity and gender equality. The aim of E-governance is to enhance the above mentioned objectives by not only helping service delivery of the Panchayat but it has an influence over all the spheres of activities of the Panchayats. Hence the effect of E-governance could be seen on the basis of supporting of E-governance for attaining the above said objective on a time bound manner.

2.3.1 Efficiency

The implementation of E-governance projects improves the efficiency of service delivery in the following ways.

A. Increased efficiency and Productivity:

The changes made possible by E-government, such as the improved information supply and service levels, help to increase efficiency of public service delivery. Tasks and costs can be more efficiently distributed, both within and between public sector bodies and processes can be streamlined to make better use of available resources and increase delivery capabilities. E-government allows the public sector to automate many routine interactions with citizens and businesses and back-office processes, eliminating paperwork and reducing processing costs, such as sorting, mailing, and printing (Mahipal, 1999; George, Mathew, 2001). Following the private sector, government bodies are in the early phases of using technology to better integrate and automate their supply chains (sourcing, purchase orders, and logistics). Making information and processes public also increases efficiency and productivity by allowing citizens to check on government business. The Chilean government’s online procurement system has not only greatly increased efficiency, but also made the system more transparent and open and allowed micro, small and medium-sized enterprises to increase their business opportunities.
B. Cost reduction:

E-governance enables public sector bodies to increase their service processing and delivery capabilities by requiring less time and fewer personnel. Leaner process design, the automation of parts of the service delivery process and the use of electronic communication with customers can lead to significant reduction in cost. The E-government Benefits Study published by the Austrian Government provides information on the demand for, and value and benefits of E-government Services. The Report further analyzed barriers to E-government initiatives and calculated costs/benefit ratios for government agencies providing E-governance services, as well as cost savings by consumers, including businesses. The study concluded that by 2003, 24 of the 38 government online programs surveyed were achieved cost reductions through a combination of direct savings, lower cost of delivery, and improved internal or business processes. Participating agencies were expecting reductions in costs of about AU$ 100 million from 24 E-governance programs. Sixty similar findings were made in the EU. In 2004, the European Union estimated that online VAT declarations were saving businesses some 30 million EUR. If maximum take-up was achieved, this could translate into annual savings of EUR 330 million across the EU.

C. Improved quality of information and information flow:

The provision of online and electronic information and the direct input of data in electronic format by public services improve information flows externally and internally. Furthermore, the shared use of information and databases made possible by electronic networks improve the speed and quality of data supply. Government agencies can communicate and exchange information easily through electronic means and a number of new communication channels have opened up between governments and its citizens (email, online information etc.).

D. Reduction of process time:

The digitization of public services can significantly reduce the time it takes to process and deliver a service, therefore saving precious time for both public administrations and their customers. Because data can be submitted electronically by customers and shared
between different organizations, service information can be reviewed online in real time. Furthermore, the availability of electronic data (from customers and other organizations) makes it possible to automate key steps of the decision-making and service delivery process, and in some cases to fully e-enable them. In 2005, a EU commissioned survey confirmed that E-governance services were producing real benefits for EU citizens and businesses – namely in terms of saving time and gaining flexibility. Covering nearly 50,000 users, the survey focused on six specific services: reporting personal income tax returns, reporting business Value Added Tax (VAT) returns, registering a new business, submitting a proposal for a public tender, searching a public library catalogue, and enrolling in higher education. According to the survey results, 90 percent of users were satisfied with the quality of the available online services and over 60 percent were very satisfied. Online income tax declarations already save European taxpayers an estimated seven million hours per year. Such e-services could save over 100 million hours each year when these are generally available and widely used in all member states. Also, the average online transaction saves 69 minutes for citizens and 61 minutes for businesses as compared to offline transactions.

E. Reduction of administrative burdens:

The use of ICTs in the provision of public services makes it possible to significantly reduce the administrative burden of the citizens and businesses that use these services, as well as for the organizations that deliver them. The availability, sharing and re-use of electronic data, the digitization of key processes and the elimination of unnecessary steps, accompanied by adequate organizational change, can provide a major contribution to the reduction of unnecessary administrative burden.

F. Increased flexibility

A major benefit of E-government is the improved service level in terms of increased flexibility (24/7 availability, multi-channel delivery, etc.) and transparency (availability of more detailed and complete information about the service). It also increased the capabilities for custom-made services. This includes easier and faster processing of standard cases or tasks, and the possibility to customize electronic service delivery.
Letting customers serve themselves through self-service electronic counters allows governments to increase service quality by reducing waiting times, and offering round the clock access and more specialized services. In addition, it significantly reduces customer service costs.

**G. Increased customer satisfaction:**

By raising service levels, reducing processing and delivery time, and making public services more responsive and customer-focused, E-government makes it possible to increase customer satisfaction. Although this increase is difficult to quantify, it can be measured through high usage figures, a decreasing number of enquiries or complaints, and through user surveys, such as the one carried out in the EU.

**H. Speedy and Cost Effective Service Delivery:**

Many studies have found that the services provided by governments are inadequate, unreliable and expensive. Citizens have to expend much effort and time to obtain such services. Service delivery processes have problems such as inadequate and irregular access to and supply of public services, lack of responsibility, neglect of consumers and their needs, delayed response and prevalence of bribery (Public Affairs Centre, 2001).

**I. Provision of information and services:**

Governance can improve interactions with citizens and provide services at lesser cost and time, and greater convenience. Many government departments provide information about activities and schemes to the public through their websites. They also provide facilities to download information and forms to obtain various services without visiting the concerned offices. Online facilities are also provided to obtain licenses, certificates, reservations, admissions, and allotments, which saves time and cost. For instance, after computerization of land records, farmers in Karnataka can obtain RTC (record of rights) within 30 minutes by paying Rs.15.00. They can obtain a copy of land records in the Taluk office by providing the owner’s name or plot number. Similarly, after computerization, land registration requirements in AP can be completed within an
hour instead of the several days needed earlier. The time for registration of land sales has been reduced from a week to less than an hour.

J. **Multiple services:** Governments are also providing multiple services at single points to facilitate speedy delivery of services to citizens to help save their money, effort and time, where earlier they had to visit several offices for obtaining different services.

Lokmitra Project in Rajasthan provides multiple services from different government departments through e-counters connected to a central server (www.lokmitra.gov.in). In the Panchmahal District of Gujarat, the district administration publishes information about developmental projects/programmes and performance of key departments. Its portal even provides the facility to download various forms and accepts a few of these online. Similarly, under Gyandoot in MP, citizens can access information regarding prices of cereals, agricultural machinery and equipment in local and outside markets. Citizens can seek advice, opinions and solutions to their problems from agricultural, animal husbandry, health and legal experts. They can obtain income, domicile, and caste certificates. Students can obtain examination result and question banks from the internet.

In AP, the E-Seva project provides many services at one place. Similarly, FRIENDS single-window model project in Kerala provides public services under a single roof at all district headquarters. These centers handle around 1,000 types of payments such as electricity and water, revenue taxes, license fees, motor vehicle taxes and university fees. This facility has saved citizens much effort and time. People had to visit several offices and stand in long queues waiting for their turn to pay taxes or other payments (Madon and Kiran 2003).

K. **Administrative efficiency for effective communication:**

E-governance can improve the efficiency of government by streamlining administrative procedures (simplification and transparent) for effective communication within and outside government departments. Rationalization and simplification of the
vast number of regulations and procedures through computerization, cut-short delays and enhance the quality of service-delivery. E-governance not only reduces paper work, but also facilitates speedy communication and effective coordination (Neeraja Misra, 2003). This ultimately reduces red tape and corruption and helps in providing more and better service at lesser cost (NASSCOM, 2003). For instance, the connectivity between the State Secretariat and twenty-three district collectorates in AP for data, voice and video communication has helped officials and ministers to interact through video conferencing and thereby save on travel time and related expenses (http://www.iimahd.ernet.in/egov/india.htm). Rajswift is a system in Rajasthan, which uses the internet to facilitate online data, text and email communication between the Office of the Chief Minister and the 32 District collectors. The networking of the entire secretariat in AP connecting government departments and the districts has not only extended the concept of a paperless office but also facilitated effective communication and management and storage of secretariat data, information and knowledge (http://www.iimahd.ernet.in/egov/india.htm). The computerisation and networking of 225 treasuries in Karnataka have facilitated transparency and speedy delivery of services. The network handles around Rs.20,000 crores, serving 4.7 lakh clients and 4,500 local governments (Zilla, Taluk, Gram Panchayats and municipal bodies). In AP, CARD enables digital registration of property in 214 sub-registrars’ offices across the state leading to faster, easier and transparent property registration process and also provides accurate calculation of stamp duty across the counter. ICT can also promote efficiency in government management by staff and cost reduction. It facilitates outsourcing and reduces transaction costs. It increases efficiency and ensures responsive and transparent administrative environment. For instance, the application of ICT in administration in the USA has resulted in the reduction of staff and expenditure. ICT based E-governance initiatives brings about the reinvention of government in terms of providing utilities and services to citizens to a point of direct contact and the lateral integration of official records, making them available to users. It also involves redesign of governmental institutions. However, several studies express reservations about the efficiency of computerised service delivery. For instance, the performance of e-centres in Kerala is not encouraging. In most of the centres, the collection levels have stagnated and collections are extremely erratic at a few centers.
Collection in most cases has stayed within the range of 10 to 40 lakhs in many districts. Lack of coordination between centers and participating departments, the apathy of participating departments and obstinate and indifferent attitudes of office staff are major constraints in this regard (Sreekumar, 2002).

2.3.2 Transparency and Corruption

Dissemination of information provides transparency and empowers citizens to ensure accountability and prevent the administration from indulging in corrupt practices. In many developing countries, including India, regulations are often complex and at times inconsistent. They tend to be numerous and difficult to comprehend not only to the public but also to the employees responsible for implementing them. Weak implementation of laws and regulations results in the flouting of rules and corrupt practices. Such violations are more where administrators enjoy vast discretionary powers. In fact, administrative delays and corruption are due to complex and non-transparent administrative procedures (Sangita, 1995a). Lack of openness in transactions is largely responsible for corruption in official dealings. Information on income and expenditure enables people to hold civil servants accountable, reducing inefficiency and corruption. The bureaucracy - the instrument of state action - assuming enormous power has came to be associated with inefficiency and corruption (Hussain 1990; Sangita1995b; Maheswari 2000; Ghuman 2001:711; Klitgaard 2000; Jain 2003;). Service delivery system in most of the sectors has not been satisfactory (Punyaratabandhu-Bhakdi et. al. 1986; Paul 1995; Paul and Sekhar 2000). The phenomenon of speed money and corruption has become one of the major issues in administration (Hussain 1990; Sangita, 1995a; Maheshwari 2000; Jain, 2000). It is believed that 20 to 30 per cent of illicitly money is siphoned off from government contracts and purchases due to lack of transparency and excess of discretionary powers.

Corruption at the grass roots has become a way of life. In rural areas, nothing moves without speed money in public offices. People are compelled to pay bribes to get government services and facilities (certificates, licences, transfers, building plan approvals, registration of properties and admission to schools or hospitals). Approval of
substandard works (roads, buildings and hospitals) and procurement of poor quality of goods (medicines, materials, agricultural inputs and implements) is very common. Stealing of electric power, water (through unauthorized connections) and essential items (from the public distribution system) and encroachment and misuse of government properties are very frequent. Misappropriation of funds meant for rural development and weaker sections are reported widely (Sangita, 2000). With this state of affairs, ICT can be a better instrument in dealing with the problems related to service delivery. The pertinent question here is to what extent ICT has controlled corruption. Many studies point out that E-governance holds much promise to address the problem of corruption.

Some studies have found that corruption has drastically come down after the introduction of E-governance. E-governance, according to scholars, checks corruption and improves service delivery. ICT promotes transparency and empowers contestability of public functions and ensures responsiveness. It reduces discretionary powers of administrators and transaction costs. For instance, increasing use of smart cards allows the citizen to have access to a number of government services and thereby prevents fraud and misuse of public services resulting in increased public confidence in welfare and taxation services (Wescott, 2003). For instance, land registration requirements in AP after computerisation can now be completed within an hour without official harassment or bribes. Lack of transparency in property valuation in the earlier system resulted in a flourishing business for brokers and middlemen, leading to corruption. Antiquated procedures, such as manual copying and indexing of documents, and storage in paper forms in ill-maintained backrooms, have all been replaced with the application of E-governance (Bhatnagar, 2003). Similarly, in a study carried out in five major cities (Delhi, Hyderabad, Kolkata, Chennai and Mumbai), it is found that corruption in tasks such as supply of electricity services provided by municipal corporations, urban development, transport (driving licenses), civil supplies, hospitals, water supply, railways (ticket reservation) and land registration has declined after computerization (www.indiatimes. economictimes.com).
Studies on the ‘Bhoomi’ project in Karnataka found that payment of speed money for obtaining land records has stopped after computerization. Generation of hundreds of cores of black money, which was transacted in the form of bribes, has been stopped after computerization of land records under the Bhoomi project. The farmer can have his/her land record on payment of Rs 15.00 from the village kiosk. This saves farmers’ time and money, and also saves them from harassment. They have easy access to tenancy land records (Chawla 2003). E-governance projects like Bhoomi and Khajane have made governance more transparent and citizen-friendly. The common entrance test (CET) for admission to professional courses in Karnataka is very transparent and efficient (Krishna 2003). Thirty seven year-old farmer Sivanna Dasiah, who bought a certificate to get a bank loan, told Reuters, “The village accountant used to demand 50 to 100 or even 500 rupees sometimes for one copy,” (Yahoo News,31st May 2001). This is the case with the sub registrar’s office also. After computerisation of land records, corruption and harassment of the common man has declined in registration deeds after the introduction of Kaveri software. It has ensured speedy delivery of documents and better access to information to the citizen through kiosks (Murthy, 2003). Corruption has come down after computerization of land registration in AP. Citizens can complete registration requirements within an hour, instead of the several days needed earlier. Similarly, the E-seva project in Hyderabad has made service delivery satisfactory in terms of time, cost and corruption (Pardhasaradhi, 2003). Similarly, corruption has declined and revenue in the form of fines from overloaded trucks has tripled after the computerization of 10 interstate check-posts in Gujarat. These fines and taxes due to the government are automatically calculated and printed out. Departmental inspectors at these check posts were notoriously corrupt, leading to the harassment of truck drivers and loss of revenue to the State. Corruption and black marketing in the Public Distribution System (PDS) in Akola District of Maharashtra was checked after computerization. In 2000, nearly 37,000 bogus cards and 9,000 duplicate cards were detected after proper survey and verification. This ultimately helped to save one million litres of kerosene in the first six months and Rs.56 - 60 million worth of sugar, wheat and other ration items annually (Barthwal, 2003).
Corruption and irregularities in the issue of learner’s licenses, driving licenses and registration of vehicles in AP have declined after computerization (http://www.iimahd.ernet.in/egov/india.htm). Corruption has declined, while revenue has increased after computerization of check posts in Gujarat (Bhatnagar, 2003). The farmers of Karnataka have paid more than Rs.19 crores in terms of user fees for obtaining their land records (Chawla 2004). By improving government processes (e-administration) connecting citizens (e-citizens and building external interactions (e-society), ICT can make a significant contribution to achieving good governance that is efficient and effective (Heeks, 2001). However, some studies point out that E-governance projects have failed to promote accountability and prevent corruption. Officials still collect speed money for land registration in AP. Everything happens inside the office where officials manually calculate the registration of monetary transactions and the customer waits outside. The study reveals that a lot of unaccounted money goes to the official’s pocket (Caseley, 2004). This is also the situation in the check posts in Gujarat. Though corruption has declined to some extent with the application of E-governance, it was found in a study in Delhi, Hyderabad, Kolkata, Chennai and Mumbai that bodies like municipal corporations, transport, railways and hospitals in Delhi still topped the list in terms of corruption. Middlemen’s role had not come down and their help is sought in getting services like railway ticket reservations, driving licenses, and municipal services (http://economictimes.indiatimes.com).

2.3.4. Responsiveness and Accountability:

Studies point out that ICT could make civil servants responsive and accountable with free flow of information regarding administration and policy (Mukhopadhyaya 2002). Display of information from the internet reduces manipulative capacity as well as prevents officials from misusing resources, and thus enhances peoples’ trust in government. Transparency or openness in dealings with the free flow of information to the stakeholders concerned is easy through ICT. Officials are bound to be accountable when they deal with people or people deal with officials electronically because all interactions are open to all concerned. The operations are transparent and known to all the actors involved. This transparent transaction makes officials responsive as their
Manipulative power is crippled owing to the openness. Similarly, the display of information regarding the beneficiaries selected for various government schemes can prevent wrong selection. Citizens can have all the information regarding how many people have applied, their socio-economic status, the criterion for selection etc.

Accessibility to information regarding land records, land registration, government policies, schemes and procedures, and so on empowers citizens to ensure accountability of administrators. The online complaint registration process, which has been innovatively introduced by an NGO in Mumbai, gives us a good example of how officials are made accountable to the people. If a complaint that is filed is not responded to within the stipulated time, it is automatically passed on to the next higher officer and this goes on till it is addressed. This process, therefore, makes officials accountable and as a result they do not dare to neglect their responsibility (www.prajafoundation.org).

2.3.5. Participation

Participation of the stakeholders in policy formulation and implementation is very important for achieving good governance. ICT has significantly changed the nature and extent of citizen participation, which fundamentally differs from the traditional kind of participation (Bandopadhyay, D, 1986).

<table>
<thead>
<tr>
<th>Participation indicators</th>
<th>Conventional governance model</th>
<th>Digital governance model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode of participation</td>
<td>Representative</td>
<td>Individual collective</td>
</tr>
<tr>
<td>Domain of participation</td>
<td>In-situ</td>
<td>Ex-situ</td>
</tr>
<tr>
<td>Approach to participation</td>
<td>Passive/reactive</td>
<td>Pro-active interactive</td>
</tr>
<tr>
<td>Impact of participation</td>
<td>Indirect/delayed</td>
<td>Direct/ immediate</td>
</tr>
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Source: (http://65.110.68.184/artman/publish/concept.shtml)
E-governance enhances citizen participation in shaping the policies and improving service delivery (Meena 2002; Budhiraj 2002). E-governance can facilitate better participatory process in governance. People can debate and discuss public policies before enacting any Acts or Rules. It can expand policy debates beyond the confines of dominant individuals and groups. Greater transparency can be ensured in actions and decisions through people’s participation in such debates. Citizens’ opinions, needs, and preferences can be communicated to the concerned authorities to provide relevant services and goods. This feedback helps in making service delivery more qualitative and cost effective. The online facility of complaining and suggestions helps the citizens effectively participate in the delivery of services. E-governance projects like ‘Bhoomi’, Gyandoot, ‘FRIENDS’, E-seva etc. and most of the government websites, have a feedback section helping stakeholders to participate directly with the delivery system bypassing the intermediaries. Anyone citizen can monitor the quality of many services. ICT empowers the citizens to have access to information related to government activities and programmes to monitor and judge government’s performance. Accessibility of information regarding land records, land registration, government policies, schemes and procedures, business, politics and so on empowers the citizen very much. E-governance enhances public participation by giving them the opportunity to share information, to suggest bettering the administration (Budhiraja and Sachdeva 2003).

Lodging complaints electronically against erring officials and so on not only can save time and cost but also ensures accountability. For instance, under ‘Gyandoot’ in MP, citizens can file complaints to the District Administration through E-mail with assurance of reply within maximum period of seven days. The complaint includes delays in sanction and disbursement of scholarship, quality seeds, and fertilizer, malfunctioning of drinking water and Public Distribution Systems and so on.

2.3.6 Accessibility and Equity Issue

Accessibility means that the process is the same for all the stakeholders with multiple and reciprocal pathways for information flow. This may require actively soliciting inputs from significant stakeholders, not from lobby groups and institutions, but
through creating structures to foster communication (Kakabadse et.al. 2004). Discussing the digital divide issue, some scholars have expressed their view that information-age direct democracy poses a new social segregation challenge for those who are information-rich and information-poor on an individual and societal basis (Kakabadse et al 2004). It is held that fewer people have accessibility to ICT. Therefore, promotion of E-governance would benefit the “technology-haves”. The practical application of E-governance, however, has disproved this idea. What is happening to the beneficiaries of ‘Bhoomi’ project? How is the ‘Gyandoot’ project operating? The kiosks installed for running these projects serve the demands of beneficiaries. It is immaterial whether the beneficiaries have the knowledge to use computers or not. The ‘Soochakas’ or informers in charge of the local kiosks in case of ‘Gyandoot’ or officials in the case of the ‘Bhoomi’ project serve the needs of the common people.

In many situations, the poor have less voice on account of their inferior social position. This has been revealed by many studies on the Panchayati Raj system and peoples’ participation. In grama sabha meetings, these people cannot express independent views either due to lack of awareness or due to fear of influential leadership in the area. In this regard, E-governance promises to be of great help to them. It is easier for people to lodge complaints, against erring local political and administrative officials by these means.

2.3.7 Empowerment:

Broadly, empowerment refers to the expansion of the capability and freedom to choose and act to shape one’s life as well as that of the community to which one belongs (Oommen, 2009). In Maharashtra, the “Wired Village” project in Warana, a rural area, gives information in the local language to the people of 70 villages, about crop prices, farmers’ payment dates, employment and educational opportunities, through 54 kiosks. It has helped farmers who supply sugarcane to the Warren Group of Cooperatives (WGCs) to achieve productivity. Before the project implementation, there was wide communication gap between the farmers and the WGCs, leading to inefficiency and lower productivity (www.mah.nic.in/warana/). E-governance makes public institutions
more responsive and accountable. ICT has the capacity to challenge the monopoly of the existing political class over the means of communication and to revitalize citizen-based democracy. In addition, these measures empower grass-root groups to collect information, organize citizens’ initiatives, change public opinion and influence national and local policies (Finquelievich et al. 2001). The Rajnidhi project in Rajasthan provides information related to investment opportunities, tourism (tourist places, fairs and festivals, forts, sanctuaries), health (family planning and immunization of children), employment, transportation, distance education, agriculture, information regarding procedures (forms, rates, places and persons) for obtaining ration cards, licenses, birth, death and caste certificates, and water and electricity connections. These kiosks provide an opportunity for citizens to lodge complaints and make suggestions to the Chief Minister and senior officers directly (www.ap-it.com/ egovernancego23governance.pdf).

2.3.8 Equity:

To what extent has the ICT found solutions to the problems faced by citizens? Has it really improved the lives of people? Attempts are on to find solutions to common problems faced by citizens. Much effort has been made to provide access to information through the internet. Efforts are on using ICT to provide medical facilities (telemedicine) and distance education to rural and backward regions. For instance, in the Gyandoot project, information about the prices of various agricultural commodities and expertise regarding agricultural extension is provided to the rural people. Equity means taking explicit care to balance the potential costs and the benefits among all stakeholders and presupposes openness with regard to differing or conflicting perspectives and assumptions (Kakabadse et al. 2004). By delivering services at the doorstep of citizens, both poor and rich, and providing equal opportunity to all, most of the E-governance projects bring equity. The Warana project in Maharashtra, Gyandoot in MP and Bhoomi in Karnataka clearly demonstrate that the poor and disadvantaged are potential beneficiaries of the services delivered through these projects. They just need to go to the nearest kiosk and tell the operator about the service they require. Then they can get whatever needed by paying a minimal user fee. It is not essential that they must own a computer system or those they know how to operate this in order to access the service.
Therefore, it can be said that E-governance can address equity concerns by providing services at the doorsteps of the poor, who are otherwise unable to access either ICT technology or information, or do not have the capacity to raise their voice against injustice due to their low socio-economic status. The poor can pay or collect whatever is required in their nearest kiosk instead of going to distant places expending time and money, which they would have to do in case of government-departmental dealing. Generally, urban areas are more developed with adequate infrastructure whereas the rural areas do not have much access to these. Therefore, people of the rural areas suffer a lot with regard to their interaction with government, thereby causing an equity issue. However, the Warana case illustrates how this equity issue can be addressed and how ICT can be used for rural development. Notwithstanding the promising and positive potential of E-governance, many studies reveal the gloomy side of its application in India.

The application of ICT has brought maximum benefits to the elite, has increased wealth inequalities and has had a negative impact on the poor (Madon 1998; Heeks 1999; Ramchandraiah 2003; NASSCOM 2003). IT-led growth has shown an overemphasis in urban areas and certain other regions in the absence of a more equitable regional development. There is apprehension that IT-led economic growth may contribute to widening of the rural urban disparity as shown by evidence both within and outside (Wackerman 1997; Bajpai and Navi 2000). Application of ICT is biased towards the urban and the rich. For instance, half the population in developing countries has not used a phone even once in their lifetime. Only less than one per cent of the population has access to computer facilities. In addition, most of the facilities are available only in urban areas. The use of these facilities in rural areas is very low, as many people have no knowledge of operating them. The lower incidence of usage is also attributed to frequent failure of kiosks and the absence of relevant data (very little attention to the information needs of communities). It is reported that many websites have not been updated and the old manuals have been transferred without carrying out the corrections. Most of the government websites are not properly maintained in terms of updating of the content and/or design. Relevant information needed by citizens should keep on the web page.
Simple design is essential for the benefit of the common people. Once put-up, these web pages have to be properly maintained to help in the delivery of better services.

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