Unit 1: Introduction

E-Governance- An Overview

E-Governance is a form of e-business in governance comprising of processes and structures involved in deliverance of electronic services to the public, viz. citizens. It also involves collaborating with business partners of the government by conducting electronic transactions with them. Besides, it entails enabling the general public to interact with the government, through electronic means, for getting the desired services. In other words, e-governance means application of electronic means in the interaction between

1. government (G) and citizens (C), both ways (i.e. G2C, and C2G),
2. government or business (B), both ways (i.e. G2B and B2G), and
3. internal government operation (G2G)

The aim, ultimately, is to simplify and improve governance and enable people's participation in governance through mail, and Internet.

E-governance is much more than just preparing some websites. It ranges from the use of Internet for dissemination of plain web based information at its simplest level to services and online transactions on the one hand and utilizing IT in the democratic process itself, i.e. election on the other.

E-governance implies e-democracy, wherein all forms of interaction between the electorate (i.e. general public) and the elected (i.e. the government) are performed electronically. E-government, as distinguished from e-governance, comprises a pragmatic application and usage of the most innovative technologies in computer and communication technologies, including Internet technology, for delivering efficient and cost effective services, and Information and knowledge to the citizens being governed, thereby realizing the vast potential of the government to serve the citizens.

Various manifestations of e-governance initiative will be in terms of the government delivering services to citizens of transacting business, offering general information, or conducting interactions with the general public and business using such IT tools as:

- E-mail
- Internet web sites publishing (including online interactive transaction)

- WAP application and publishing
- SMS connectivity
- Intranet development and usage
- Promotion of citizen access.

The advent of these other components and of Information and Communication Technology (ICT) as a highly leveraged enabling tool for delivery of services in the public and private sector has now been universally recognized. This has resulted in a redefinition of the fundamental concept of governance and also in recognizing its potential to change both institutions and delivery mechanisms of services for betterment of people.

Need for E-Governance

The fundamental motivation for the campaign of e-governance in India and elsewhere is a slogan—**to provide SMART government**—"SMART" being an acronym for Simple, Moral, Accountable, Responsive and Transparent Government, a laudable ideal, though difficult it may be to achieve in reality. Thus, we may conceive a Smart Village or Smart Municipality or Smart State, all very difficult but ideal models. Notwithstanding the difficulties involved in achieving this, a clear objective of e-governance can be cutting the cost of e-governance and also minimizing the complexities of the procedures by possible business process reengineering. The concomitant benefit is empowerment of people through what is called 'disintermediation'; in other words, eliminating the middleman or tout between the government and the people. For example, by doing so, property tax assessment and collection system can reduce the element of corruption in the system apart from increasing consumer convenience. The online system based on the Internet will reduce contacting with the mediating officials, thereby reducing the possibility of malpractice. This does not however mean that the primary objective of e-governance is tackling with corruption, even though it may be a fallout (though not necessarily).

Evidently, the objectives of achieving such e-governance go far beyond mere simple computerization of stand-alone back office operations in government offices. It should mean a drastic change in the way the government operates, and this means a new and redefined set of responsibilities for the executive, legislative and the judiciary. This requires bringing about a social catharsis, which needs to be done in a comprehensive, concerted and planned manner.

Historically, it was Chile that a real e-governance initiative was taken up as early as in 1972, when the IT applications were unheard of in government and were limited even in the business. They used techniques of IT not to just make government paperless or less of paper (as is presently being done) but to perform government work efficiently. They realized that transparency is the ability to regulate the conditions, not the transactions. Prof. Stafford Beer implemented for President Allende of Chile, the first e-governance software that would help the government survive a severe crisis. The question that was asked to and answered by the software was whether the government would survive by getting adequate grip and control over the situation in time of a severe inflationary crisis due to economic blockade resulting from stopping a copper exports (which was accountable for 80% of the foreign exchange earnings of Chile). The software which was developed did help in restoring prices back to normal, thus making the government survive. Chile thus became the first country to have successfully implemented e-governance.

Even though the Chile experiment of the real e-governance early in 1972 was a success story, the subsequent efforts in implementing e-governance in various countries, including the developed ones, were not aimed at such profound or sweeping purposes of critical nature. Generally, the e-governance applications have been more mundane, simple and straightforward. As the winds of e-governance and e-government blow widely through public organizations across the world, more and more governments in different countries have been harnessing the Internet and the powers of IT provide services of varied nature as follows:

- G-to-G (Govt. to Govt. –within and across the Govt.)
- G-to-C (Services by the Govt. to Citizens)
- C-to-G (Interaction of Citizens with the Govt.)
- G-to-B (Service of the Govt. to Business)
- B-to-G (Business interaction with the Govt.)

Issues in E-Governance Applications and the Digital Divide

Initially, the e-governance activity starts with providing information services by the government departments to the public in terms of State Websites. These websites provide information about the department concerned, facilities available, and services provided to the public along with the fees payable, etc. However, as the role of IT in the specific organization increases, the websites of government departments attempt at providing more advanced

services such as dynamic information and also specific transactions such as making utility payments. Gradually, this e-interaction of the public with the government leads to organizational transformation, transparency of public services, speed of service performance, increased citizen participation in the government, and thereby greater facilitation of participative democracy. Ideally, as the public agencies such as government departments and public sector undertakings begin implementing e-governance and e-government initiatives, their performance improves and they are better equipped to interact with citizens and provide services over the Internet. Thus, the citizens are enabled access to government documents, file taxes, make payments as utility bills, obtain or renew licenses and permits of different kinds, make bookings and reservations for public services, lodge complaints or file applications for various benefits, and even employment.

How much of these actually happen? What are the problems encountered in achieving hem? The enthusiastic initiatives in e-governance and e-government are not without consequential problems, as any technological innovation has. These initiatives have the potential to create a digital divide within the society, especially in the poor and developing countries. While the e-governance initiatives may benefit certain privileged sections of the society, the underprivileged, those who do not have access to the Internet or not well qualified or equipped to use Internet will be all the more distanced from the government, leading to disenchantment. Also, this will aggravate even further the existing divide between the privileged and he underprivileged. Thus, it is essential that governments concerned ensure that all citizens of different socio-economic and educational strata will have adequate access to the basic skills and infrastructure to participate in an increasingly technological society. As the digital divide becomes perceptible in different countries, public policy makers need to devise policies that would address issues of universal access and educational needs of their citizens, so as to match the requirements of an IT enabled e-government and e-society.

In addition, as the e-governments make Internet as the primary access point for all citizens to interact with the government, the issues that need to be focused are:

1. How will the performance of the government departments/public bodies be improved by e-governance initiatives?
2. What are the organizational effects of e-government and IT?
3. What are the correct strategies for success in e-governance projects?
4. What are the skills that are required by the government employees in an e-governance environment in the Information Age?

While detailed research is required to address these issues, preliminary indications are already available that e-governance increases efficiency, speed, effectiveness and citizen satisfaction. However, these will be true only if the e-governance services provided to citizens are fool-proof, reliable and inexpensive. The structural effects of e-governance and IT in government departments and public agencies are yet to be identified, and their long-term effects and longitudinal effects are yet to be studied. More research is required to be taken up to answer questions as to whether e-governance leads to decentralized decision making, and whether it results or calls for business process reengineering in the government departments and public organizations.

IT implementations do indicate the required business process reengineering (BPR) within the concerned government department. However, whether such reengineering is viable, can be implemented without any repercussions, what legal changes is required –these issues are open for discussion. Often, the prerequisites for reengineering of the processes in the government are not easy to meet: radical changes in the processes or procedures are not acceptable as they may lead to considerable repercussions, sometimes too radical to be acceptable or implementable, with many side effects.

A number of organizations are involved in studying these issues. The e-governance initiative, a part of National Center for Public Productivity at Rutgers University, Newark, New Jersey; Center for Digital Government, a US National Research and Advisory Institute; Center for e-government, an international body; Center for Electronic Governance, IIM-Ahmedabad; Center for Good Governance and also National Institute of Smart Governance, both at Hyderabad India, Center for e-governance at Department of Information Technology, and Ministry of Communications and Information Technology, Govt. of India, New Delhi are some institutions.

Evolution of E-Governance, Its Scope and Content

Even though historically it was Chile which implemented real e-governance solution as early as the seventies, the current interest and attention on e-governance applications all over the world has its roots in the "Information Super Highway" concept initiated by the US Vice President Al Gore in early 1990s. The Information Super Highway was defined largely in terms of information infrastructure at the national level by many countries including the US, UK, Canada, Australia and India. The focus was then largely on the development of components of the infrastructure, such as fiber optic networks across the States or Nations. Subsequently, the interest was widened to include socio-economic considerations encapsulated in the concept of

Information Society or *Knowledge Society*, which naturally has to encompass e-governance. That is how e-governance concept came into being in a formalized and focused manner, even though attempts to implement Information Systems in the government departments and other public organizations have been made with partial success in various countries including India. Such earlier attempts did not receive the state patronage on a broad-based manner while individual or stray attempts may be cited to have succeeded.

In general, during 1980s and 1990s, the governments all over the world lagged behind the commercial world in accepting and implementing Information and Communication Technology (ICT). The commercial word, including the industrial world, had gone far ahead of the governments all over the world in harnessing the potential of the ICT in their core and also peripheral activities. Commercial enterprises utilized ICT increasingly to reach out to their customers and business partners, thereby impressively enhancing their service quality, speed and convenience. E-commerce thus became a big boom (even though the boom never reached the expected levels). However, visible success cases of ICT application include the 24 hours ATM (Automated Teller Machines) services, 24 hours call centers, electronic shopping on the web, the use of DTV integrating cable TV with Internet, etc. The list could be unlimited. Examples can be cited for typical information systems that run the 'back offices' in the financial and other sectors of business and Industry. In fact, such 'back office' computerization could be even handled offshore in developing countries like India, where the skilled software manpower and also unskilled operational manpower have been available at low cost. The cost-effective satellite communication infrastructure facilitated such remote development and maintenance of software of these banking, financial, aviation, and industrial sectors. This formed to the bulk of the 'software exports' activity in countries such as India, Ireland, Israel, and China. Similarly, in 1990s and 2000 till now, the IT enabled services (ITES) formed the major component of remote services such as call centers, data entry etc. However, as indicated earlier, all these activities were not concerned with e-governance. Governments were the last in the bandwagon of institutions attempting to harness ICT in their activities. However, though late, the governments all over the world finally woke up to realize the potential of ICT in all their activities.

The initial efforts of e-governance simply resulted in only partial automation of the existing paper based manual procedures and did not result in any significant reengineering or optimization. While implementation of ICT in the business has resulted in good amount of Business Process Reengineering (BPR) as to move away from redundant and inefficient functional business units and to restructure organizations around processes that support core business units and the government enterprises such radical or significant changes have failed

to happen to a large extent. This situation could be traced to various factors in government functioning such as conservatism, resistance to change, and rigidity of legislation which impedes the amendment of rules and procedures.

As a result, ICT based management methodologies such as Business Process Reengineering, Supply Chain Management, Just In Time (JIT) methodologies, which has salutary effects in business and industry had left the government system practically untouched. The scope and extent of e-governance have been largely limited to simple applications with the maximum or computerized MIS and database management within the government departments along with gradually enhanced usage of simple ICT technologies such as e-mail, and limited usage of Internet and video-conferencing for government functions.

In addition to potentially delivering significant improvements in government services, ICT has been visualized by some as having much deeper and wider impact on society and even capable of affecting the quality of life and nature of democracy.

However, the significant issues that has become highly relevant for large scale implementation of ICT in governance are the issues of security, privacy, vulnerability of public ICT infrastructure to crime, potential for abuse, terrorism, and general crime, in addition to issues related to social cohesion, and social exclusion following what is popularly known as the *digital divide*.

Notwithstanding the issue of digital divide which basically refer to lack of access of poor people and rural people to Internet, the indirect benefits to all citizens from computerization and ICT in the government machinery will go a long way in improving the quality of life of people.

Thus, the scope of ICT implementation in government machinery can result in

- improvement of efficiency and effectiveness of the executive functions of the government, including delivery of public services;
- greater transparency of government to citizens and business, permitting greater access to the information generated or collated by the government;
- fundamental changes and improvement in relation between citizen and the state thereby improving the democratic process; and
- better interactions and relationships amongst different
    - wings of the same government
    - state of local governments within a country,
    - countries whose governments are web-enabled.

Any e-governance activity/project involves appropriate

- hardware and corresponding system software,
- networking of the hardware identified above—both the Internet and Intranet environment, and
- application software along with appropriate database management software

Present Global Trends of Growth in E-Governance

Press reports (during the end of 2002) indicate a trend of global growth in e-governance utilization by people in different categories. They indicate the following: The proportion of adults worldwide using the Internet to access government services or products during the past 12 months has increased by around 15 percent, according to the findings of the second Government Online Study published by Taylor Nelson Sofres. Three out of ten citizens (30 percent) globally said that they had accessed government services online compared with only (26 per cent) questioned a year ago.

Government online services are most commonly used to search for information (24 per cent users) and to download information (11 per cent of the users). The increased use of government online services is primarily due to rise in the proportion of people searching for information (from 20 to 24 per cent during the period from September 2001 to September 2002). Globally, online government transactions increased from just 6 percent to 7 percent during this period and the percentage of those providing personal details to government increased from 7 per cent to 8 per cent.

In some countries, percentage increase has been significantly higher than in others. Among the most significant increases in the use of government services online are Australia (from 31 per cent to 46 per cent), Turkey (from 3 per cent to 13 per cent), the Netherlands (from 31 per cent to 41 per cent), and the US (from 34 per cent to 43 per cent). In contrast, in Japan, however, government online usage fell by 4 per cent (17 per cent to 13 per cent of the citizens) between 2001 and 2002.

While security issues about accessing government services online were the main concern for many countries during 2001, perceptions of safety improved globally during 2002. When 23 per cent of citizens worldwide said that they feel safe disclosing personal information such as credit card and bank account numbers online compared to just 14 per cent of citizens in 2001,

representing thus an increase of almost two-thirds (64 per cent). As for the use of government online, the Scandinavian markets (Denmark, Finland, Norway, and Sweden), together with some South East Asian markets (Singapore and Hong Kong), have perceived the highest levels of safety (around one-third of users), in the system. In contrast, the greatest safety concerns were expressed by citizens in Japan (90 per cent said they felt accessing government service online was "unsafe"), Germany (82 per cent) and France (76 per cent).

Other Key Findings

Globally, government online use is more prevalent among men (33 per cent) than women (26 per cent), and among those aged under 35 compared with other age groups.

During the past 12 months substantial increases in government online use have taken place among 35-44 years-olds (from 22 per cent to 36 per cent) and 55-64 years-olds (from 2 per cent to 18 per cent). In contrast, use among those aged 65 and above decreased (from 7 per cent in 2001 to 5 per cent in 2002).

Globally, the proportion of Internet users who have made transactions using government services online is equal to the proportion of users who made online shopping transactions. Fifteen per cent of Internet users have made an online government transaction and in addition 15 per cent have made an online purchase at least once during the past 12 months.

The percentage of Internet users who access government online services varies considerably across different countries from 16 per cent in Hungary to 81 per cent in Norway.

Wendy Mellor, Director, Taylor Nelson Sofres commented: The increase in the use of government online services at a global level suggests that the public see the Internet as a more acceptable means of getting involved in the government activity at both national and local levels. However, significant differences exist between countries, may be due to, awareness of services, perceptions of safety, relevance of the site to users, and access to the Internet, among others.

In countries such as Singapore, Norway and Sweden, where the use of government services online is high, it is likely that a significant proportion of citizens feel comfortable with this approach of dealing with government. Yet in countries such as Britain, New Zealand and South

Korea, where usage lags behind general Internet use, more needs to be done to assess why uptake of online services is slow and what steps need to be taken to address this.

All the above statistics on usage is time bound. Over the years there has been a definite rise in the usage of e-governance all over the world.

Conclusion

While the growth in the use of e-governance is encouraging, our research shows that the majority of this growth is from citizens searching for information online rather than making transactions or providing personal information to government. This may be due to perceived security risks but if the use of these services is to increase, messages about the safety of government online services need to be communicated effectively.