

# **Study of E-Governance: The Attractive Way to Reach the Citizens**

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## **ABSTRACT**

Governments of many countries across the globe, today at all levels respond to millions of citizen's demands electronically. e-Gov (e-Governance or electronic Governance), is the functioning of the government in the cyberspace, which the functioning of electronic transactions and delivery of services and information to businesses, citizens and governments agencies are expected to be accurate and agile. e-Gov is an interface for the interaction between government and citizens and government and businesses, which contributes towards the enhancement of democracy, so the internal government operations are to be simplified and are done democratically, for all aspects of Governance, by the various target groups, using the application of Information & Communication Technologies to transform the efficiency, effectiveness, transparency and accountability of informational & transactional exchanges and to promote democracy, within government, between government & government agencies of National, State, Municipal & Local levels, citizen & businesses, and to empower citizens through access & use of information This literature brief guides and provides an overview of e- Governance can be used by Governments to carry out various administrative activities on a regular basis, in a smooth, effective, and low cost manner.

## **Keywords**

e-Gov (e-Governance or electronic Governance); Information and Communication Technology (ICT); Internet; Information Technology (IT); governance; Government to Citizens communication (G2C); Government to Business communication (G2B); Government to Government communication (G2G).

## **1. INTRODUCTION**

e-Gov is the application of Information and Communication Technologies to improve the ability of government to address the needs of society, for delivering Government Services, exchange of information, communication transactions, integration various stand-alone systems. It extends beyond provision of online services and covers the use of Information Technology for strategic planning and reaching development goals of the government. Through the e-Gov, the Government services will be made available to the citizens in a convenient, efficient and transparent manner. There is a reinforced thrust for an informed and participatory citizenry for efficient e-Gov. It goes without saying that impact of ICTs on institutional changes is fast spreading across the boundaries of social and political arrangements of societies.

e-Government is a form of e-business in governance and refers to the processes and structures needed to deliver electronic

services to the public (citizens and businesses), collaborate with business partners and to conduct electronic transactions within an organizational entity. It is also implemented using ICTs to improve the activities of government agencies.

e-Gov is the application of Information Technology to the Government functioning in order to bring about Simple, Moral, Accountable, Responsive and Transparent (SMART) Governance. e-Gov is a highly complex process requiring provision of hardware, software, networking and re-engineering of the procedures for:

- Improving effectiveness and efficiency of delivery of services by using the ICTs,
- Increasing the accountability and transparency in informational and transactional exchanges between various sources (e.g. Government agencies, etc.) and users (e.g. Public, etc.) of information and transactions,
- Empowering the public with easy, speedy, cost efficient and real time information access so as to increase citizen participation in the democratic process,
- Curbing the misuse / unauthorized use of information and transactions by filling in the gaps of availability, access and communication of information.

## **2. DRIVING FORCE FOR INTRODUCING AND IMPLEMENTING E-GOV**

e-Gov, is the use of Information Technology (IT), in the particular the Internet, the Wide Area Networks, and Mobile Computing, to deliver public services in a much more convenient, customer-oriented, cost-effective and altogether different and better way [1]. It has the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. It affects an agency's dealings with citizens, businesses and other public agencies as well as its internal business process and employees. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.

Traditionally, the interaction between a Citizen/s or a Business Organization/s and a Government Agency/s took place in a government office. With emerging ICTs, it is possible to locate service centers closer to the clients. Such centers may consist of

an unattended kiosk in the government agency, a service kiosk located close to the client, or the use of a personal computer in the home or office [2]. e-Gov helps simplify processes and makes access to government information more easily accessible for public sector agencies and citizens. One of the goals of e-Gov will be greater citizen participation.

### 3. FOUNDATION OF E-GOV TECHNOLOGIES

The global shift towards increased deployment of Information Technology (IT) by governments took place in the nineties, with the advent of the World Wide Web. Amid an increase in Internet and mobile phone connections, global citizens started expecting and accessing more and more information and services online from governments and corporate organizations to further their civic, professional and personal lives. This development provides us with abundant evidence of a new "e-Citizenship". The concept of e-Gov originated in India during the seventies with a focus on development of in-house government applications in the areas of defense, economic monitoring and planning. The deployment of IT was aimed to manage data intensive functions related to elections, census, tax administration etc. The efforts of the National Informatics Centre (NIC), to connect all the district headquarters during the eighties were a very significant development. Early nineties onwards, IT technologies were supplemented by ICT technologies to extend its use for wider sectoral applications with policy emphasis on reaching out to rural areas and taking in greater inputs from NGOs and private sector [3].

#### 3.1 Pillars of e-Gov

e-Gov is not about 'e' but about 'Governance'; it is not about computers and websites, but about services to citizens and businesses. e-Gov is also not about translating processes; it is about transforming them. e-Gov is concerned with the transformation of government, modernization of government processes and functions and better public service delivery mechanisms through technology so that government can be put on an auto-pilot mode.

The four pillars or factors on which e-Gov works are:

- People
- Process
- Technology
- Resources

The challenges in e-Gov have been described as centered around for key areas viz people, process, technology and resources. The key considerations in e-Governance are described in Table 1 [4].

**Table 1. e-Governance Imperatives**

Process	Simpli-city	Effici-ency	Citize-n Centr-icity	Sustainabi-lity	Cost-Effective-ness
People	Vision	Lead-ership	Com-mitm-ent	Compete-ncy	Change
Tech-nology	Archi-tecture	Open Stand-ards	Relia-bility	Scalability	Security
Resou-rces	Holis-tic	Effici-ent	Servi-ce Orien-ted	Sustained	Adequate

#### 3.2 Goals of e-Gov

Analogous to e-Commerce, which allows Business to transact with each other more efficiently (B2B) and brings Customers / Consumers closer to Businesses (B2C), e-Gov aims to make the interaction between Government and Citizens (G2C), Government and Business Enterprises (G2B), and inter-agency relationships (G2G) more friendly, convenient, transparent, and inexpensive.

There are some definite goals of e-Gov. The goals of e-Gov are:

- a. Better service delivery to citizens
- b. Ushering in transparency and accountability
- c. Empowering people through information
- d. Improved efficiency within Governments
- e. Improve interface with business and industry

e-Gov needs to transform all levels of Government but the focus should be on local governments since local governments are the closest to citizens, and constitute for many, the main interface with government. The relationship of citizens and local authorities tends to be one based on proximity as the interests at stake for both parties are closely entwined concerning issues such as public services, local development, education etc. e-Gov based administrative reforms in local governments can have maximum impact on citizens [4].

#### 3.3 Benefits e-Gov

e-Gov allows for government transparency, which is important because it allows the public to be informed about what the government is working on as well as the policies they are trying to implement. Simple tasks may be easier to perform through electronic government access. Many changes, such as marital status or address changes can be a long process and take a lot of paper work for citizens. e-Gov allows these tasks to be performed efficiently with more convenience to individuals. e-Gov is an easy way for the public to be more involved in political campaigns. It could increase voter awareness, which could lead to an increase in citizen participation in elections. It is convenient and cost-effective for businesses, and the public benefits by getting easy access to the most current information available without having to spend time, energy and money to get it.

e-Gov helps simplify processes and makes access to government information more easily accessible for public sector agencies and citizens. The anticipated benefits of e-Gov include efficiency, improved services, better accessibility of public services, and more transparency and accountability. An effective connected government is about a ‘bigger and better’ front-end with a ‘smaller and smarter’ back-end.’ The benefits of such governance are indicated in the Fig. 1 [4].

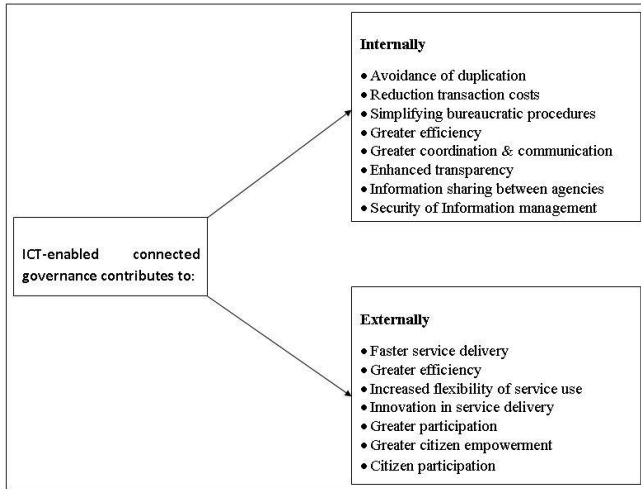


Fig 1: Benefits of e-Gov

#### 4. PROLOGUE ABOUT INFORMATION & COMMUNICATION TECHNOLOGIES

ICTs have become a major pillar of business not only in the private sector but also in government. Capabilities have been developed over long periods of time. Business processes are ICTs enabled in many ways, also in government. Government officials possess a profound know-how about their business processes and the enabling ICTs infrastructure [5] developed over long periods of time. Business processes are ICTs enabled in many ways, also in government. Government officials possess a profound know-how about their business processes and the enabling ICTs infrastructure [5].

#### 5. MODELS OF E-GOV

e-Gov is more than just a Government website on the Internet. Political, social, economic and technological aspects determine the scope and success of existence of e-Gov. It may include a broad range of services for many segments of society. The most common areas of e-Gov application are electronic commerce and business regulations, taxation and revenue, law enforcement and courts, education, health and transport.

e-Gov facilitates interaction between different stakeholders in governance, which is indicated in the Fig. 2 [6].

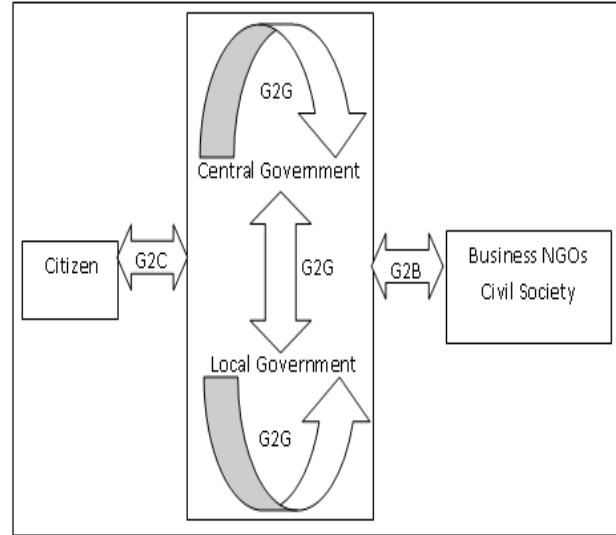


Fig 2: Interactions between stakeholders in governance

The e-Gov delivery models can be briefly summed up as follows:

- Government to Citizens (G2C)
- Government to Businesses (G2B)
- Government to Employees (G2E)
- Government to Governments (G2G)

#### 5.1 Government to Citizens

In Government to Citizens, an interface is created between the government and citizens, which enables the citizens to benefit from efficient delivery of a large range of public services. This model is similar to and applies the strategy of Customer Relationship Management (CRM) with business concept. By managing their Customer (Citizen) Relationship, the business (Government) can provide the needed products and services fulfill the needs from Customer (Citizen). This expands the availability and accessibility of public services on the one hand and improves the quality of services on the other. It gives citizens the choice of when to interact with the government (e.g. 24 hours a day, 7 days a week), from where to interact with the government (e.g. service centre, unattended kiosk or from one’s home / workplace) and how to interact with the government (e.g. through internet, fax, telephone, email, face-to-face, etc). The primary purpose is to make government, citizen-friendly, and implementing e-Gov is to enhance good governance. Good governance is generally characterized by participation, transparency and accountability. The recent advances in communication technologies and the Internet provide opportunities to transform the relationship between governments and citizens in a new way, thus contributing to the achievement of good governance goals. The use of information technology can increase the broad involvement of citizens in the process of governance at all levels by providing the possibility of online discussion groups and by enhancing the rapid development and effectiveness of pressure groups. Advantages for the government involve that the government may provide better service in terms of time, making governance more efficient and more effective.

In addition, the transaction costs can be lowered and government services become more accessible.

G2C will aim at connecting citizens to government by talking to citizens and supporting accountability, by listening to citizens and supporting democracy, and by improving public services. It will involve better services to the citizens through single point delivery mechanism and will involve areas like:

### **5.1.1 e-Citizen**

Under e-citizen integrated service centers will be created. The purpose of these centers will be to take over the various customer services in due course. It will offer services like registration and issue of Certificates (Birth / Death / Marriage), Ration Cards, Passports, Payment of Bills and taxes etc. These centers will become one-stop Government Shops for delivery of all services.

### **5.1.2 e-Transport**

The issues that are related with transport department are 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.

### **5.1.3 e-Medicine**

e-Medicine will involve linking of various hospitals in different parts of the country and provide better medical services to the citizen.

### **5.1.4 e-Education**

This will constitute various initiatives of educating the citizen and the Government with the various Information technologies.

### **5.1.5 e-Registration**

e-Governing the registration and transfer of the properties and stamp duty to be paid thereon will bring substantial reduction of paper work and reduce the duplicating of entries. Further the transparency in work will increase and the overall time of process registration will reduce.

The spirit behind G2C services will encompass all the services that the Government is delivering to its citizens, mainly e-Administration, e-Services, e-Democracy.

## **5.2 Government to Business**

In Government to Business, e-Gov tools are used to aid the business community – providers of goods and services – to seamlessly interact with the government. The objective is to cut red tape, save time, reduce operational costs and to create a more transparent business environment when dealing with the government. The G2B initiatives can be transactional, such as in licensing, permits, procurement and revenue collection. They can also be promotional and facilitative, such as in trade, tourism and investment. These measures help to provide a congenial environment to businesses to enable them to perform more efficiently.

In Government to Business model, the online non-commercial interaction between local and central government and the commercial business sector, rather than private individuals is occurred. As this model is the interaction between the government and the business houses, transaction includes:

- Dissemination of policies, memos etc,

- Government rules and regulations to Business information,
- Application forms and renewing licenses,
- Online registration, payment of taxes (e-Taxation), etc.

## **5.3 Government to Employees**

In the Government to Employees model, the online interactions through instantaneous communication tools between government units and their employees are held. G2E is one out of the four primary delivery models of e-Gov.

G2E is an effective way to provide e-Learning to the employees, bring them together and to promote knowledge sharing among them. It also gives employees the possibility of accessing information in regard to compensation and benefit policies, training and learning opportunities and civil rights laws. A G2E service also includes software for maintaining personnel information and records of employees G2E is transaction between government and Employee.

The G2E transaction that takes place between Government and Employees are:

- Online conference for employees
- Online training
- Employee information.

## **5.4 Government to Government**

The Government to Government model is the online non-commercial interaction between Government Organizations, Departments, and Authorities and other Government Organizations, departments, and authorities.

In Government-to-Government, Information and Communications Technology is used not only to restructure the governmental processes involved in the functioning of government entities but also to increase the flow of information and services within and between different entities. This kind of interaction is only within the sphere of government and can be both horizontal i.e. between different government agencies as well as between different functional areas within an organization, and vertical i.e. between national, provincial and local government agencies as well as between different levels within an organization. The primary objective is to increase efficiency, performance and output.

This model is the online non-commercial interaction between Government organizations, departments, and authorities and other Government organizations, departments, and authorities. The G2G systems generally come in one of two types, which are further sub-divided into areas:

- Internal facing - joining up a single Governments departments, agencies, organizations and authorities,
- External facing - joining up multiple Governments Information System (IS).

G2G will involve networking all Government offices so as to produce synergy among them. The major areas where G2G works:

#### *5.4.1 e-Secretariat*

Secretariat 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 will simplify the process of Governance.

#### *5.4.2 e-Police*

e-Police will help to built citizen confidence. There will be two databases. One of police personnel and the other of 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. Further this will help tap the criminals easily for all the police stations will have simultaneous access to their record. The module will also include G2C activities like online filing of FIR's, finding the case status of an FIR. Creating a database of Lost and Found can assist further lost and found of valuables and individuals.

#### *5.4.3 e-Courte*

The pending court cases in any country can bring the legal system to a halt. Not only are the Citizens will be 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. In fact such a system will help to avoid all the appeals to the higher Courts, 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. Further 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.

#### *5.4.4 State Wide Networks*

This will involve 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 will be linked to district Headquarters, district headquarters to State Headquarters and State Headquarters to the National Capital.

The Government to Government model can also be referred as e-Administration, as it involves improving government processes by cutting costs, by managing performance, by making strategic connections within government, and by creating empowerment.

## **6. CONCLUSIONS**

Technology is moving very fast. Today government has to face challenges in providing better services to the citizens. In the recent two decades, we have witnessed an extensive use of ICTs by global governments worldwide to enhance the efficiency of governments and bring them closer to citizens' demands. A number of organizations, both in the centre and the States, have taken commendable initiatives to develop hardware and software platforms to address the challenges of e-Gov. e-Gov provides the platform which can help governments explore and exploit the best ICTs to embed good governance principles and achieve public policy goals. The study addressed the issues such as cost/benefit analysis, e-services and take-up.

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