E-Government: A Futuristic Endeavor for Digitalizing India

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Abstract— **Government serves as the backbone for any developing country. ICT plays a vital role in today's global economy. Government uses ICT tools to make a significant impact on the development and growth of a nation. E-government has the ability to take the Indian subcontinent to the next level of digitization. The primary objective is to increase the efficiency and performance of governmental services. The main emphasis of integrating e-government in the current system is to make our country a successful and leading nation in this age of digital economy.**

*Keywords—***Digital government, ICT, MCA21.**

I. INTRODUCTION

The emerging technologies constantly change the world around us. These technologies have affected the way work is carried out in our day to day life. The present government of India is under substantial pressure to develop India in various spheres. Suppose the government has to implement a certain project involving all the states, following are the problems faced by government:

A. As all the departments of a government are interdependent on one another due to which if one has to get necessary information from other departments than the first one has to wait. So at implementation point of view it's a time consuming process.

B. Due to non-digitization, tedious and labors intensive paper work is involved.

Therefore, E-government can be used in different ways to implement activities in a more efficient and convenient manner.

II. E-GOVERNMENT

E-government (E-governance) is defined as all the actions carried out by government, including the use of ICT tools, for better administration and management. For instance, E-Governance enables anyone visiting a city website to communicate and interact with city employees via the Internet using graphical user interfaces (GUI), instant-messaging (IM), audio/video presentations, and in some way use a more sophisticated technology than a simple email letter to the address provided at the site. In other words, e-governance is the use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees" [1]. A strong IT domain in India may serve as a key advantage for e-governance initiative here.

A. *E-government focuses on:*

- Use of Information and communication technology (ICT) tools to achieve better a government and governmental services.
- The Information and communication technology uses in all facets of operations of a government organization.
- There is continuity in the optimization of service-delivery, maximum participation in various constituencies and governance by transforming internal and external relationships through the use of technologies like the Internet and new media [1].
- To provide faster and convenient government services and reduce costs for individuals and businesses to deal with government.
- To reduce corruption, fight poverty and improve the democratic process.
- Act as a tool for the transformation of public administration from bureaucracy to being a service provider.
- To reach out to a larger part of population.
- To integrate organizational silos and deliver citizen-services through common channels.

E-government is a secure and integrated way of combining components, systems and the processes which control various critical operations with simplicity. And this is made possible by using the Internet. E-government is all about using the internet to enhance the existing government and creating a new digital government.

E-governance is not merely using technology in any manner, but using it in an appropriate and well-defined manner. E-governance calls for changes in the relationship between the government and its citizens. Changes are required in the behavior of local authorities, citizens, and business processes (procurement, sales, exchanges, etc.). Lastly, re-thinking about administrative structures is also needed.

B. *ICT can improve government at 3 major levels.*

1) *Democratic:* It calls for better representation of citizens within the State institutions, enabling transparent election process and participation of a wider section of society in the national democratic discourses.

2) *Economic*: cleansing of the general macro-economic framework of the country, including the banking and financial sectors.

3) *Administrative*: bringing citizens closer to the administration, civil registry, land management, population census, tax collection, etc.

The two terms - e-government and e-governance are independent of each other, but at times these terms are used alternatively. The major distinction between e-government and e- governance is:

Fig. 1 Example of E-Government

III. TYPES OF INTERACTIONS IN E-GOVERNMENT

A. G2G (Government to Government)

Government to government is abbreviated as G2G. Government to government is conceptually said to an interaction between the local and centralized government. It is basically sharing of data through electronic means between different government department and organization. It supports the E-government used to manage the database and information that implement the functionality of the government.

By sharing the information and data, it reduces the cost which is used to allow the citizens to access the information over the internet. This kind of information is shared only between the government agencies and authorities.

G2G can be classified into two types - Internal and External. Internal G2G joins the various departments of a single government. It is used to collect and transmit the information and data between a single government. On the other hand, External G2G joins various departments of multiple governments. It is used to collect and transmit the information not only within the single government, but within multiple governments. Successful projects implement Government to government e-governance:

1) *Northeast Gang Information System:* It is abbreviated as NEGIS. It is used in north- eastern states to share data and information about different notorious gangs and to monitor their activities. This system is used by the police department to collect information and transmit it to other states as well.

2) *National E-Governance Plan:* The abbreviation for National E-Governance Plan is NeGP. It includes all the components, strategies and the governance structure. Online services under the National E-governance Plan:

- Road Transport: It is used for registration of new vehicles and driving licenses.
- Land Records: It is used to manipulate the land records data, registration and updating the land record information that is used to provide information to the land owners.
- Commercial Taxes: It includes improving the efficiency in case VAT clearance of refunds and online payment of taxes.
- Property Registration: It has taken place of manual systems for verification and scrutiny of documents related to property registration.

Advantages of the government to government:

- Efficient Storage and retrieval of data for Better decision making
- Better performance and management
- Prospects of a modern and the futuristic government
- Management of database information which supports the functionality of the government is efficient.
- Government offers accessibility to the best available technology to manage different affairs.
- Supports EDI, Electronic Data Interchange, which is used for interaction between import and export documents. EDI, basically, enables interchange of data by electronic means like e-payment.

B. G2C (Government to the Citizens)

The abbreviation of government to the citizen is referred a G2C. Services made by government to the citizens can be provided by the digital government. An interface is created between the government and citizens to provide various public services to citizens. In India where the public sector is still developing and is a great requirement for providing services such as booking of railway tickets and payment of electricity bills is under the control of digital government. This e-government becomes a boon for public sector companies by helping them to increase their output and efficiency. It promotes transparency and accountability in the public service by facilitating the availability, accessibility and sharing of information easily. It is useful   to allow the citizen to interact with the government and able to tell their issues in the convenient manner.

Better Services like booking of railway tickets, Payment of electricity bills delivers to the citizen are only done by the digital government. E-government helps to allow the citizens to interact with government by using the computers to achieve objectives at any time and at any location. The citizen can collect the information from official websites, e.g.: Regulatory service, general holidays, and Public hearing schedules. The

different government services may be provided to the citizens through a single window. The main advantage of this is user friendly and transparently.

1) *Booking of Railway ticket*

Booking of a railway ticket has become easier due to E-governance in the following manner:

- Citizens can make reservations from anywhere and any location at any time.
- Booking of tickets can be done electronically in selected areas.
- Online information about the Railway reservation is provided on the Internet.
- Citizens can also check the status of their train schedule, availability of the tickets at the station, train no. etc.

2) *Customs and Excise*

- It includes complete details of various policies, user information, citizen charters and information for travelers.
- These services are electronically processed.
- It has been used for the AUTOMATION OF CENTRAL EXCISE AND SERVICE TAX (ACES)
- 95% of Import documents have been computerized.
- It is used for allocation of custom duties to provide better services to the citizens.

3) *AP Online (State Government of Andhra Pradesh)*

It is used to provide citizens with centric services such as:
- Birth/Death Certificates
- Property Registration
- Driver's License
- The taxes and bills payment

4) *LOKMITRA (State Government of Himachal Pradesh)*

LOKMITRA offers e-governance services like:
- Online submission of applications.
- E-mail and Auctioning site for villages
- On-line public grievances, online issues raised by the citizen.
- Provide vegetables, fruits and other items at market prices.

5) *e-Mitra Integrated Citizen Services Center (State Government of Rajasthan)*

- Payment of electricity, water, telephone bills
- Registration of birth/death
- The payment for availing these services can be made through cash or bank cheque or credit card.
- Payment of the ticket Reservations

6) *E-Seva*

- Different payment methods are available for the convenience of the citizen.

- E-Payments through credit cards or the debit card on the Internet
- Location convenience with all networks of different channels
- It can be accessed directly via the Internet or ATM.

7) *Sampark*

The services available for the citizens at these centers include:
- Payment of taxes—VAT/CST
- Issue for the senior citizen card
- Disability identity card and birth and death certificates
- Payment of electricity bill
- Water and sewerage bills
- Availability of affidavits and court stamps
- Availability of forms and receives the application for obtaining passports from the authority concerned.
- Provide health and education information

8) *Bhoomi project (State Government of Karnataka state)*

'Bhoomi' meaning land, is a project focusing online delivery and management of land records computerized. LAND RECORDS ON WEB in Karnataka. It provides transparency in the records of land provides management with better citizen services and took discretion away from civil servants to operate stage. Features of BHOOMI project are:

- Provide farmers cheap and easy access to their land records.
- Easy to maintain and prompt up gradation of land records.
- Provide temper-proof records.
- To create databases of land revenue, cropping pattern, land use, etc.
- Utilize the data for formulating development programs.
- Enable usage of this database by courts, banks, and private organizations.
- Promote economic development.

C. G2B (Government to Business)

Government-to-business is abbreviated as G2B. E-government helps both small and large scale businesses. Government, also, has detailed information about the citizens of India. E-government provides loan for establishing any business through websites by filling an electronic form (e-form) using the unique ID and Permanent Account Number (PAN) which is issued to every citizen of India. Digital signatures make e-forms valid and replace the old paper-pen technology, thereby, creating a more transparent business environment when dealing with the government.

- To provide online business to citizens websites are developed.

- Government is collaborating with various IT companies and promoting their products. Companies sell their product online using government websites.

1) E-service-expert

E-service-expert will provide a long term sustainable place to share, collaborate and learn with years of experience in e-enabling government and business services like e-BIZ, e-COURTS, e-Procurement, Electronic Data Interchange (EDI), e-Trade. The aim is to transform the business environment of the country by providing efficient, convenient, transparent and integrated electronic services throughout the business life-cycle.

2) MCA 21

It is a digital and paperless working of MCA to ensure e-governance. MCA21 is a part of a government national e-governance plan by which companies would be able to file their documents through the electronic mode. E-form should be digitally signed by Managing Director, Director, Manager or Secretary. They will have to obtain DGS (Digital Signature Certificate).

3) E-procurement

E-procurement in action is the use of the Government Procurement Card (GPC). This Visa charge card allows central government departments and agencies to purchase low-value goods and services directly from suppliers. This can either be in person, over the phone, fax or by email or possibly through a website. Like advertising contracts, managing contracts, evaluating tenders, paying suppliers, reverse auctions - where the lowest bidder wins, dynamic purchasing systems - an open electronic catalogue where prices can be updated without introducing a new tender.

E-procurement can benefit suppliers in a number of ways. It can:
- Reduce paperwork and improve efficiency.
- It helps to process the orders more quickly.
- Speed up in payments.

D. G2E (Government to Employees)

Government-to-employee is abbreviated as G2E. India has been pursuing a government policy in software and services, production since 1970, which is much earlier than in any other developing countries. A number of people work in the government places. Employee plays a key role in any organization. So it is the responsibility of government that their employees have the privilege of better facilities in their working environment and use ICT tools in their premises. The main benefits of e-government are as follows:
- Working style up-gradation makes an employee work more efficiently and quickly.

- Employee from two or more, same or different departments can interact with the help with e-government websites with their unique IDs if they are far from the other.
- India is a super power in IT industry. With the help of IT any information about various departments is maintained on government websites making records easily accessible.

1) SPARK Project (Service and Payroll Administrative Repository of Kerala)

SPARK: Service and Payroll Administrative Repository for Kerala is a joint venture of IT Department, Finance Department and National Informatics Centre. SPARK is a web based application is used in conjunction with Personnel and Payroll Management System. It is an integrated personnel, payroll and information system of accounts are used by the government of Kerala for storing and managing information of about 5.25 lakh employees. This system has been developed in accordance with high priority for implementation of e-governance in governmental departments for the effective and efficient administration and service to the people of Kerala. The scope of implementation of SPARK is quite bright as the state of Kerala has 39 government departments, over 122 Field Departments and over 30000 offices.

SPARK system works by allotting each employee with a unique PEN (Permanent Employee Number) card. The usefulness of SPARK can be judged by the fact that this system is centralized, and it helps various departments get detailed information about any employee in an instance.

The advantages of using 'SPARK' include centralized database of employees, speedy payment of bill generation, automatic generation of employee ID card and on tax payment. The future expansion plans include electronic submission of bills; online leave application, updating budget allocation for each head of accounting, exclusive and dedicated project management unit of the project, importing salary related bills into accounting module and implementation and documentation as per ISO 27001: 2005 ISMS standards.

SPARK has further given birth to a product called "Personnel administration and Accounts for Central Establishments (PACE)" which can be implemented in any Government establishment. With this ambitious project, one can look forward to:
- Online data-sharing between various departments of the government.
- Norms based transfer and Vacancy forecasting.

For the purpose of SPARK implementation, the government has given permissive sanction to all departments, without broadband or KSWAN, to avail connection from BSNL at negotiated rates. The statewide implementation of the project is

being done by Kerala State IT mission. NIC provides necessary software support and consultancy for this project.

2) *FRIENDS Project (State Government of Kerala)*

'FRIENDS' are an acronym for 'Fast, Reliable, Instant, Efficient, Network for Disbursement of services'. FRIENDS integrated electronic interfaces, where citizens can access Govt. Services, pay bills & taxes & obtain information from Govt. FRIENDS is one of the largest Citizens interfaces IT projects in India. It is one stop payment collection center for Government Multiple computer counters deliver services, with highly trained & motivated staff. FRIENDS centers set up in 14 districts of Kerala. IT department works 24 hours-a-day making them available round-the-clock.

Benefits to Citizens:
• Single interface for all services
• Transaction time dramatically reduced to 3-5 minutes per person
• Govt. doors are always open
• Citizens are treated with respect as a valued client
• Corruption-free environment

Benefit to Government:
• Improved perception of Government
• Enhanced revenues
• Demonstration of advantages of IT induction

IV. CONCLUSIONS

E-Governance plays a vital role in developing countries like INDIA. It simply changes the whole concept of governance. It does not only promote democracy, it also benefits from it. The use of new technology by policy makers plays a critical role. Once government officials begin to use ICT, they will not switch it off, and will become active users and promoters of technology. At the bottom level E-governance increases the transparency in public dealing and increases efficiencies in the delivery of public goods. Various e-government projects have already been a success. Glorious e-governance performance is about four key components: End users need ID, Business Process amendment, Use of ICT tools and most importantly committed government objective. Deficiencies in any of these would result in e governance projects failing to achieve their objectives.

REFERENCES

[1] http://en.wikipedia.org
[2] http://www.revdept-01.kar.nic.in
[3] http://www.egovonline.net
[4] http://www.nisg.org
[5] http://www.igovernment.in
[6] Gorla Narasimhaiah, (2008), Hurdles in rural e-government projects in India: lessons for developing countries, Electronic Government, An International Journal, Vol. 5, No. 1, 2008
[7] Monga, A. (2008). E-government in India: Opportunities and challenges
[8] Raghunathan VS, Service and Payroll Administrative Repository for Kerala (SPARK)