E-Governance Initiatives in India with Special Reference to Punjab

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Abstract
In the era of modernization and globalization the electronic dependency and utilization has been emerging as one of the driving force towards economic growth and development. Specifically, this scenario may not be much significant in the developed economies but it is an important area of concern in education, governance, commerce and so on. Since, India has been emerging as one of the ICT giant in the world, it is imperative to consider the e-governance and the related issues for analysis. Hence, this paper highlights the importance of IT in implementation of SMART government in the State of Punjab; it is one of the leading states of India in all terms of advancement. It discusses various e-governance initiatives undertaken by the state of Punjab and suggests various measures for their better implementation.

Keywords: IT, E-governance, Punjab
Introduction

Information technology (IT) is the outcome of the advances in telecommunications and is being extensively used in all walks of life-in offices, factories, railway stations, airports, communications, entertainment, education, banking, hospitals, transportation, shopping, etc. It handles data and information represented in digital, text, image, graphics or voice media and deals with communication storage, processing and printing. It helps to optimize the use of scarce resources through intelligent information support for decision-making and helps further in its implementation by supporting coordination effort without wasteful delays. IT has been globally recognized as an important vehicle of accelerated economic growth, efficient governance and human resource development. It is used to reduce the cost of governance and improve overall efficiency and effectiveness of the government machinery. It also has the greatest potential for citizens to participate in democratic government in an electronic world. Thereby, effective use of IT would bring about better efficiency, transparency, accountability and objectivity in the functioning of the government.

E-Governance

The term Governance means the process of decision making and also the processes by which the decisions are implemented. (What is Good Governance?, n.d.) E-governance or electronic governance may be defined as the delivery of government services and information to the public using the electronic means including the dissemination of information to the public and other agencies. There are three aspects to the e-governance – (a) automating the routine government functions; (b) Web-enabling the government functions so that the citizens will have a direct access, and (c) improving the government processes so that openness, accountability, effectiveness and efficiency may be achieved. In general, it may be defined as “giving citizens the choice of when and where they access government information and services”. (E-Governance Solutions and its importance, n.d.) E-governance promotes the efficiency, reduces time delays, enforces accountability and brings transparency in the working of the governmental system. As a result, it has become an integral part of democracy. All
important government policies, acts, rules, regulations, notifications that are useful to general public including the land records, examination results, crime records, vehicle registration, birth and death registration, training and education, employment information, policies and legislation, telephone directory, etc. are made available on the Internet and can be accessed by the public free of cost. It is beneficial to the citizens as they can enjoy faster, effective and timely government services and also to the government as it can become more integrated into the community and can focus its resources where they are needed the most. E-governance that involves technology, policies, infrastructure, training and funds is becoming popular around the world including India and other European and Western countries.

E-governance in India

India with its more than one billion people has over 15% of the world’s population living in only 2% of the world’s space. It has twenty eight states and seven Union Territories. In India, the concept of “e-governance” began with National Informatics Center’s efforts to connect all district headquarters through computers in the 1980s. The working group on convergence and e-governance of the Planning Commission has already recommended that the government must earmark $587 million in addition to the 3% plan outlay of each ministry for e-governance and convergence projects. (India to Give Serious Look at e-Governance, 2002) It further proposed the setting up an India portal for public access to information on various aspects of government functioning.

NASSCOM’s analysis revealed that the southern States of Andhra Pradesh, Karnataka, and Tamil Nadu are leading in terms of implementing e-governance projects. (e-Governance leads domestic IT growth, 2003) Although a few projects of e-governance in few states have won international awards yet it has not been able to make rapid progress in other parts of the country due to the several operational, economic, personnel, planning and implementation issues. Perhaps the most talked about initiative in e-governance has been the eSeva project of the Andhra Pradesh government. It has been noticed that E-Governance in India has focused heavily towards
investing in hardware and very little on developing software and services. The reasons for the slow evolution of e-governance in India include lack of IT literacy and awareness especially amongst the rural masses, underutilization of existing ICT infrastructure, attitude of Government Departments, resistance to re-engineering of departmental processes, etc.

E-governance in Punjab

Punjab is situated in northwestern part of India, covering 54% of the country’s total geographical area with a total population of 2.44 crores. It has recorded the average growth rate of 10% since independence which is the highest in the country. It has a literacy rate of 69.95% and offers distinct advantages for investment and industry. (Human Resource & Employment.) Punjab was the first state to translate the agricultural technology into green revolution as it recorded the highest growth rate in food production. That is why it is called the ‘food bowl of India’. In consonance with the national objective of making India a global IT Power and a front runner in the information revolution, the government of Punjab set up the Department of Information Systems and Administrative Reforms (DISAR). The Department of Information Technology (DoIT) has been set up to execute IT policy framework in the state of Punjab. Punjab IT Policy was formulated in 2001 so as to make Punjab a favored industrial destination with a world class infrastructure, to provide citizen-centric governance, and to turn the state into a knowledge society. Punjab was the first state to implement the national e-governance plan under National common services centers (NCSC). The e-governance initiatives of the state focus on creating efficient and cost effective government by improving the internal processes of the government through administrative reforms, process re-engineering, modernization and deployment of IT for an efficient, productive, objective and accountable government.

Keeping in view the resource constraints, the government considered it a better strategy to prioritize its departments and agencies on rational criteria so as to computerize them in phased manner. Twenty Four departments of the State Government had
participated in preparation of the Roadmap and they were prioritized into three phases as mentioned below:


**Punjab State Enterprise Wide Software Solution**: One of the major challenges for an effective e-Governance implementation is to transfer, reuse and extend core, common and department specific functionality across the administrative structure. Therefore, Punjab State Enterprise wide Software system was devised as a comprehensive system covering core functionality of integrated workflow and Document Management System coupled with common, department and citizen centric functions for the State of Punjab. The proposed project seeks to lay a strong foundation of e-Governance in the State of Punjab by leveraging the core infrastructure, i.e., Punjab State Wide Area Network, State Data Center and the Common Service Center, which are being planned for implementation by the state government to provide:

(a) File Management System to track a file in any department.

(b) Document Management System to facilitate centralized file and document numbering and linking incoming Correspondence.
(c) Knowledge Management System to enable storage and retrieval of knowledge repository.
(d) Workflow and Organization Model System to define the organization structure of the organization.
(e) Punjab One Portal for delivery of government services.
(f) Security and Access Controls to ensure that only the relevant information at the relevant level is available to relevant users at relevant times.
(g) Common Application System to cater to automation of Personnel Management System covering Personnel, Pay, Leave, Loan, GPF and Pension functionalities, Maintenance of Service Book, Treasury Management System, Grievance Management System, etc.
(h) Department Specific Applications to cater to processes which are specific to a department only.
(i) Various MIS Reports critical to the decision making as a part of a Workflow and Document Management System.

The State Government has already implemented Core Infrastructure and services including State Wide Area Network (SWAN), State Data Centre (SDC), Common Service Centers (CSC), Geographical Information System (GIS), Core and Common applications and E-procurement. It is in the process of implementing the major projects including the State Mission Mode Projects (Excise and Taxation, Land Records, Registration of Property, E-district, SUWIDHA – Deputy Commissioners’ office services, Transport and Treasury) and Other State Mission Mode Projects including Agriculture, PWD B& R, Police, Rural Development, etc. The various e-governance projects initiated by the state are as follows:

**Punjab State Wide Area Network (PAWAN):** As part of the National strategy, Punjab State Wide Area Network (PAWAN) is being established, to act as IT backbone for all e-Governance applications, with 2 mbps bandwidth. This network would connect the State Headquarter with three vertical layers for data, voice and video transmission – District, Sub-division and Block. All horizontal
offices at each vertical layer would be connected to this network through nearest Point of Presence (POP).

State Data Centre (SDC): The State Government has been working closely with Government of India for setting State Data Centre along-with PAWAN with a vision to create a knowledge based society and to provide better public services to its citizens. It is proposed to host various databases at central location to minimize the efforts required to maintain the applications, databases, security and other operational issues at multiple levels. This would be main hub for all IT activities across the State including services delivery. For this purpose, one SDC has been established at Chandigarh and 19 district data centers have been established at the district level.

Common Service Centres (CSCs): Punjab State E-Governance Society (PSEGS) has been appointed as the nodal agency for the
Common Service Centre Project. (Implementing the Common Service Centre, n.d.) Under the Scheme, about 2112 rural CSCs would be set up across Punjab. Each CSC would cater to the service requirement of 6-7 clusters of villages. CSCs for urban areas are also proposed to cater to a large number of business transactions. There would be three types of CSCs – Master CSCs, Urban CSCs and Rural CSCs. Master CSCs are proposed to act as focal point and backbone in the entire service delivery process. Urban CSCs are planned to cover the area under the Local Bodies. Rural CSCs would be determined on the basis of 1: 6 criteria.

**E-procurement:** E-Procurement (Govt. to replicate e-procurement project in Punjab, 2003) is a collaborative procurement of goods and services using electronic methods for bringing efficiency and transparency. It ranges from indent preparation, aggregation, tenders, bid evaluation, placing work orders to payments. The state government has decided to sign the MoU with DGS&D to provide E-Procurement platform which shall be used by all state government departments including PWD B&R, Irrigation, Mandi Board, etc.

**Excise & Taxation:** The Punjab Government was the first State in the Country to introduce Computerization in the Department of Excise & Taxation based on Value Added Tax (VAT) compliant system. All State barriers, wards and other offices are connected to the central server for on-line capturing, retrieval and cross verification of business records in a real mode. (Excise & Taxation Department, Govt. of Punjab, n.d.) This has resulted in checking of significant tax evasion, reduction in defaulter’s list, etc. Future plans include integration of check-posts, e-filling of returns, opening of more Bikri Kar Centres for citizen services, etc.

**Integrated Land Management System:** Government of Punjab has already initiated a project to computerize the Registration and Land Records Management to make it transparent and to increase the usefulness of data contained in these systems(Land records management system, n.d.). For the first time in the Country, the State Government has planned to provide both services of Land Records and Registration of Property Document in an integrated manner.
Land Records Data is presently being digitized in all districts. Delivery channels at all tehsils/sub-tehsils are being established for this purpose. All data would reside at the central server so that such services could be delivered on Internet for the land holders across the globe by ensuring anytime, anywhere services.

**E-district:** E-District project aims to integrate multiple applications, faster processing of public cases/appeals/grievances and redesign the processes for the core services including certificates (Domicile, Income, Marriage, Employment, Caste), social security (Pensions (Old age, Widow, Handicap, Destitute), payments), revenue court (Case listing/adjournment, filing), government dues and recovery (Issue of notices, record payments, Track default processes, Update of treasury receipts), public distribution system (Registration, Change of address, Addition of members, Issue of duplicates), RTI services (Grievance redressal services, Information for monitoring key social welfare schemes/programs), etc. to be delivered through the CSC’s. GoI has further suggested that the State can select up to four additional services including Police, Education, Health, Transport, Urban Development and Agriculture. Two districts namely Nawanshahr and Kapurthala have been chosen as pilot districts for this project.

![Proposed e-District Solution](http://www.doitpunjab.gov.in/pdfs/projects/edistrict.pdf)
Suwidha: The project was initiated in August 2002 at Fatehgarh Sahib. The State has implemented SUWIDHA project in all districts and sub-divisions to provide citizen services through a common citizen interface so that a citizen does not have to visit different offices for different services. It is a new way to get improved, timely and affordable services from the District Collector’s office and has a single window counter approach. All the 18 District Administrations and all sub-divisions have set-up state-of-the-art Suwidha centers in their respective DC offices. The services provided under this include Issuance and renewal of Bus Passes to Freedom Fighters/Handicapped person, Pension to old age/widows/disabled persons, character Verification, Issuance of Dependent Certificate, Issuance of Birth/Death Certificate, Attestation of Affidavit, Issuance/renewal of Driving License, Passport Services, Arms License Issuance System, Registration of Vehicle, Permission for fairs, Registration of Marriage, Demarcation of Land, etc.

Police: Punjab Police Department proposes to take up a comprehensive project of computerization of the department with a view to building an improved information infrastructure for enhancing the operational efficiencies at all levels in the department i.e., police stations, sub-divisions police offices, district police offices, range offices, battalions and the central police office. The e-Governance initiative of Police department aims to computerize the Department in the entire state to further increase the promptness, efficiency and operational readiness of the police force.

The Police Department (e-Governance in Punjab Police, n.d.) already has software applications including Crime Criminal Information System (CCIS) for entering and storing the data of crime and criminals, motor Vehicle Coordinating system, Talash for punching and storing the data of missing persons/ unidentified dead bodies, Portrait building, Identity card system, Organized Crime Information System for punching in information related to various agencies involved in organized criminal activities including history sheeters, terrorist activities, robbery, theft etc., FACTS (Finger Print Analysis and criminal Tracing System).
Transport: The project aims at computerization of transport department through the standard application software VAHAN for Registration of Certificates of vehicles and SARATHI for Driving Licenses. The district of Ropar has been selected for the pilot project. The state has decided to introduce smart cards for Driving Licenses and Registration Certificates which would store all relevant information namely Registration details, Insurance Details, Tax details, Permit details, owner details, etc.

Treasury and accounts management system: In order to bring more transparency in the functioning of the Treasuries and accounts departments, the project aims at implementing the payment module, receipt module, pension module, bank module, etc. (Computerization of treasuries, n.d.) All the 21 District Treasuries (including Punjab Treasury Chandigarh) and 54 Sub Treasuries have been computerized. The District Treasuries are proposed to be equipped with Interactive Voice Response System (IVRS) through which the DDOs would be able to know the status of the bills. This has not only brought efficiency in the system but has also improved the operation and management (O&M) of State funds in a better way.

Sukhmani: Sukhmani (Sukhmani Society for Citizen Services, n.d.) stands for Smart, Unified, Knowledgeable, Humble / Honest, Moral, Accountable, Novel Initiative. It encompasses reengineering of business processes to create innovative solutions that offer integrated citizen services under one roof. The roadmap is to have Sukhmani as the citizen gateway for over 120 services provided by the government including payment of electricity bills of Punjab State Electricity Board; water / sewerage bills, House Tax, applications for issuance of birth and death certificates by Municipal Corporation and payment of telephone bills of BSNL, etc. With a view to offer an integrated set of services to the citizens, the Sukhmani Society for Citizen Services was created. It is a district level body that would work under Punjab State E-Governance Society (PSEGS) Punjab. All the service centers in the district would be established, managed and run by the Sukhmani Society of that district on a self sustaining revenue model.
Conclusion

E-Governance enhances the relationships between government to government, government to citizens, citizens to government, government to private sector and NGO’s to government, using Information Communication Technology (ICT). Thus, e-governance not merely provides information about various activities of a government but also involves citizens to participate in government’s decision-making process. During the last few years, many initiatives have been taken by different state governments in India for using Information Technology as a tool in the functioning of government so as to provide better services to citizens. The initiatives of Punjab state are important. E-governance has eventually started to gain popularity in most cities of Punjab. Efforts are on to revolutionise every village in Punjab, providing them with IT-enabled service centres. Villagers here now do not need to travel miles to deposit their telephone, electricity or water bills, or register their grievances anymore. However, certain points are still to be seen by the state government, which includes:

- Review of the progress of all the ongoing IT projects is a must for all times to come.
- Sustainability of already started initiatives is a must.
- Compulsory computer education from class 6th to 12th in Government schools is required.
- Use of local languages in the IT implementation process. It is essential that local level databases be maintained in Punjabi language since most of the rural poor would like to get information in their regional language. For this purpose, an effective OCR technology is required to convert the data that is scanned and stored in local languages into meaningful and workable databases.
- It’s important to educate people at all levels about the benefits of egovernance by highlighting as to how it can save their precious time and efforts thereby making the government functioning more transparent. For this purpose, the public libraries in the state can play a very crucial role. Hence, the state government must take measures to upgrade the public library system in the state by passing the Public Library Act as soon as possible.
References


