

**Information and Communication Technology: A Framework for  
Good Governance in Reference to Selected States of India**

by

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## **Candidate's Declaration**

I hereby certify that the work presented in the thesis entitled “**Information and Communication Technology: A Framework for Good Governance in Reference to Selected States of India**” in fulfilment of the requirement for the award of the degree of Doctor of Philosophy in Management and submitted in the Department of Humanities and Social Sciences of Jaypee University of Information Technology, Waknaghat (H.P), India is an authentic record of my own work, carried out during the period from July 2009 to May 2016, under the supervision of **Dr Anil Sehrawat and Dr Y. Medury**.

The matter presented in this thesis has not been submitted by me for the award of any other degree in this Institute or any other Institute/University.

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*Dedicated to my brother (Amit)...*

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## **Publications**

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## Abstract

The impact of Information and communication is increasing in every sphere of human beings that includes work and business; it has also contributed tremendously to the competitiveness of the nation through social and economic development. Presently, the growth in Information and Technology is changing the various elements of human life. In India, in recent times the e-governance applications have shown their positive effect in minimizing the processing cost, increasing transparency and supporting economic development etc., by income generating projects. Both the terms governance and good governance, are being gradually more used in the development literature. The shift of internet in nineties to Information Technology makes a way for government to citizen interactions. It also raises the expectation for the attainment of the targets of good governance.

The main purpose of the study was to develop a shared vision for leveraging the Information and Communication Technologies for achieving Good Governance. The citizens' perception and their experience with the inefficiency, harassment or difficulty encountered level of corruption, in various government offices and their services and their priorities regarding e-Governance initiatives taken by state governments are explored. An attempt has been made identify the gaps and drawbacks in the existing ICT led e-Governance initiatives/ policy framework to propose a broad strategic e-governance policy framework in terms of citizens' prioritization, demographic factors, barriers, harassment, preferences, methods, and measuring success, for achieving good governance as per the expectations of citizens. The study tried identify and establish linkages between different critical factors responsible for creating a favorable policy environment for effective and successful adoption of e-governance.

The study found that citizen from the different states and demographic strata agree that ICT can be a powerful tool to facilitate good governance. Two factors Provision of Basic Fundamental Facilities and Creation of Conducive Environment emerged as major factors contributing to the good governance. These factors include minimum interference from the government, good law and order situation, safety and security of life and property, transparency and accountability in government dealings, corruptions free government working, citizen centric working of public offices, creation of jobs, good quality of infrastructure like roads, power, irrigation, transport, sanitation, water supply etc., quality education for all and trained and skilled workforce in public offices, upliftment of deprived class, Reducing digital divide and other inequalities in the society and good business environment. The citizens are ready to pay extra for a good quality service through use of ICT and did not appear too enthusiastic about provide discounts and freebies from the government. They believe that the use of ICT can really reduce the level of corruption,

inefficiency, harassment or difficulty faced by people in getting services from government office and thus helpful in achieving good governance.

People use basic services that include administrative offices, land records and related issues, medical and health, municipality, education, police and urban development most frequently followed by public utilities that include electricity department, food and civil supplies, banking services, agriculture services and employment exchange. People also frequently use Consumer welfare and related services that include tender related to all departments, cooperative societies and related work, consumer rights, welfare and consumer court, information under RTI Act. 2005 and public grievance redressal. The results reflect that either people are not aware about the social welfare schemes or they are reluctant to take the benefit that leads to failure of these schemes or not getting the desired results.

Lack of proper information and guidance about the correct procedure, rules etc., unavailability of forms and unavailability of concerned employee on the seat leads to frustration and harassment among citizens. Long chain of employees, who deal with single work or services; no access or difficult access to senior officers and poor infrastructure are other factors that add to people's difficulties. Impractical and very old laws, rules and regulations, complex and overlapping among different rules that leads to long procedures and confusion, employees at lower level apply rules at their discretion, no or weak disciplinary actions against employees, incomplete and incorrect application forms. Other factors that lead to frustration and harassment are lack of vision and planning related to service delivery in government offices, misuse of discretionary powers by employees, untrained and unmotivated employees and no or slow public grievance redressal mechanism. Excessive workload on government employees and collusion between employees and middle men, lack of accountability mechanism in government offices for the staff for delays and harassment of citizens also add to citizens' problems.

A shift towards e-modes of payments is observed among Indian citizens' are switching though the most preferred mode of payment for utility bills and other computerized citizen services/e-governance services is cash at service centre. Speedy delivery of services with accuracy, reduction in the distance between service centre and locality and increase in working hours is three top most rated factors contributing to the success or effectiveness of improved services through e-governance.

People feel five factors namely, i) Political will, public support and technical feasibility; ii) Economic feasibility, computer literacy and infrastructural support; iii) Process simplification, service availability and public acceptability; iv) Benefits to stakeholders and v) Marketing and

public awareness are required for effective Good Governance framework through the use of ICT. Process simplification, service availability and public acceptability are the most important for an effective good governance framework through the use of ICT. Differences between national and state level policies and the plans and policies formulated are not based upon local needs of citizens and departments hamper the effective e-governance. Citizens want free computer education at schools and free computer training for citizens. A sizable citizen group is willing to pay for computer training for citizens and want computer education in schools with fee.

The results of the present study reflected that a large number of populations have no access to internet. People have good access to means of communication but still they rely more on friends and relatives to know about the social welfare schemes of governments. People are reluctant in using e-governance facilities. People want e-Services in their mother tongue or bilingual. A large number of people are dissatisfied with the government offices. Shortage of trained staff and IT infrastructure like shortage of computer, networking, and server related issues are also highlighted.

Last but not the least, it is suggested to ensure the good governance through e- governance among the states the corruption free dealings with the government officials, good education facilities by the government which are job oriented, creating new job opportunities in the private sector and the government sectors are the major factors that could contribute.

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# 1. INTRODUCTION

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## 1.1 - Information and Communication Technologies (ICT):

Information and Communication Technologies (ICT) is impacting each aspect of human life including work and business, and contributed enormously to the competitiveness of the nation through social and economic development. In the era of the new 'Global Digital Networked Economy', the new mantras for the success are connectivity, convergence, internet and networks. We, as such, no longer talk about Information Technology but of Information and Communication Technology. 'As a great social leveller, information technology ranks second only to death. It can raze cultural barriers, overwhelm economic inequalities, and even compensate for intellectual disparities. High technology can put unequal human beings on an equal footing, and that makes it the most potent democratizing tool ever devised' (Pitroda, 1993).

World over, the relationship of Information and Communication Technologies (ICT) is being recognized ever more. ICT plays the role of the principal change agent in making the world flat. It is also the chief leveller for inclusive governance. The present era governments are empowering people through ICT since in the emerging Global Digital Networked Information Economy, it proves to be an effective short-cut to raise the levels of equity. A variety of issues and challenges have to be kept in mind while framing Information and Communication Technology strategies and policies, especially in the public domain. These are complex exercises which cover areas such as technology, human challenges, infrastructure, administrative standards, architecture, safety, fiscal, legal, confidentiality, quality of service etc, and above all the aspirations and expectation of the citizens.

Information and Communication Technologies (ICT) is a handy tool for good governance. Two terms, Governance and good governance, are being progressively more used in development literature. Governance is described as the process of making decisions and implementing them. Hence the practice whereby public institutions carry out public affairs, handle civic assets and assure the recognition of rights and services is good governance. These are accomplished in a manner basically free from abuse and corruption, while giving due regard to the rule of law. Good governance may be defined as the guiding principles of the political and socio-economic relationships, with devotion to the democratic principles, trusted services and just and honest business. It provides a boundary which encompasses political, social and economic priorities based on a broad consensus in society, and where the voices of the poorest and feeblest are also considered for the decision-making processes. Besides, the areas of equity, poverty and quality of life are also affected by good governance.

Internet resulted in huge shifts towards increased use of IT by governments in the Nineties, giving a clearer platform for Government to Citizen (G to C) interactions and the expectation of the attainment of the goals of good governance. Facing the rising expectations of a highly conscious citizenry, Governments suddenly began to believe that enhanced effectiveness, transparency, accountability and a people oriented adoption of IT enabled governance can be the new basis of public governance. New dimensions of economic and social progress are being created globally by harnessing the potential offered by these new technologies. Challenges for the Governments relate to the need for obligatory efforts aiming at developing and encouraging the human resource to

operate the national information infrastructure, transcending the digital divide by reducing the digital gap through deploying the necessary national information infrastructure, and by providing necessary financial resources to implement both the human and infrastructural requirements.

The late seventies saw the emergence of E-governance in India. The focus was to use ICT to manage demanding functions of elections, census, taxes, etc. through focusing on in-house government applications covering planning, security and financial monitoring. The efforts of the National Informatics Center (NIC) during eighties and to connect all the district headquarters from 1988 was a watershed. Since early nineties, e-governance has seen the use of IT for wider applications with emphasis on having a reach to rural areas while taking in greater inputs from NGOs and the private sector. There has been a growing association of global support agencies such as DFID, G-8, UNDP, WB etc. under the framework of e-governance for development.

With primary focus on mechanization and computerization, states look forward to use IT in the fields of connectivity, networking, information processing systems and service delivery. At a micro level, this has ranged from introduction of IT in electronic file handling, individual departments, public grievance systems, access to entitlements, service delivery for high volume routine transactions, provision of market information and tax dues to meet goals of poverty alleviation through the promotion of entrepreneurial models. The thrust has varied across initiatives, with some focusing on bettering livelihoods, and others focusing on enabling the citizen- state interface for various government services. (Data Quest- E-GOVERNANCE-20 Hot e-Gov Projects in India, October 2003).

### **1.2 - e-Readiness:**

e-Readiness means how the states prepare themselves to provide governance equitably and cost effectively and the capability is reflected in the degree of integration, the deprived segments of society attain, after application of ICT as an e-governance tool. Apart from this, e-readiness is the ability of the state to provide businesses the capability of participation in the regional level digital economy and further networking with the national level digital economy. e-Readiness is the extent of preparedness of a country to participate in the networked world. It would demand the adoption of ICT in offering inter-connectedness between government, businesses and citizens. (e-Readiness Assessment Report 2003)

The report is based on the critical assessment of Parameters based on a composite index consisting of six major areas:

- i. Network Access - information, internet affordability, hardware and software, and service and support.
- ii. Network Learning - institutional access to ICT (educational institutions developing ICT at work force).
- iii. Network Society - individuals and organizations online, locally relevant content and ICT in everyday life and workplaces.
- iv. Network Economy - ICT employment opportunities.
- v. Network Policy - telecommunications regulation and ICT trade policy.
- vi. e-Governance - special efforts, Government preparedness, e-Services, data systems and leadership and awareness.

### **1.3 - e-Government:**

E-Government has moved on from just 'electronic' government to 'enabled' government – government that delivers different and quality programs and services to community. E-Government is about people: new skill sets, mindsets and leadership approaches. A transformation in concept of working of public servants, their inter-relations and engaging citizens and other partners. e-Governance aims to understand processes and structures for harnessing the potentials of the Information and Communication Technologies (ICTs) at different levels of government and the public sector for the purpose of enhancing good governance. It has a larger scope and is more inclusive. It will take some time before one transforms to g-Government.

The inexorable move towards e-government has been driven as much by citizen expectation as by the technology itself. Citizens in the developed nations, most especially Canada, the United States and the United Kingdom, have been relatively quick to embrace internet-based technologies in their personal and commercial interactions. An estimated 50 per cent of those in the United Kingdom and 60 per cent of North Americans, now have access to the Internet. The global digital revolution and the looming age of knowledge-based society and economy will serve as a test for many national elites: are they willing and prepared to lead their societies into the era of 'new public management and responsive democracy.

To deliver an earlier return on their investment, Governments are pushing further their e-Government programs, through better efficiency of services for their customers or increased internal competence. Performance on nearly every indicator has been improved by almost all the sections of the world. However, there are continuing problems in the areas of confidentiality and safety that need to be addressed.

The capability to increase and improve service delivery to businesses, employees, citizens and other governments is directly attached to government's ability to successfully pool resources across organizations, processes and IT systems. As a process, e-Government requires an unrelenting assurance of political will, resources and commitment among the government, private and public sectors. Also, if the following ten questions, outlined in the roadmap, are asked and attempted to answer by e-government practitioners, they may be able to develop a system of e-government making the current government practices more efficient and bringing transformation in the very relationship between the public, the private sector and government.

- i) Why are we pursuing e-government?
- ii) Do we have a clear vision and priorities for e-government?
- iii) What kind of e-government are we ready for?
- iv) Is there enough political will to lead the e-government effort?
- v) Are we selecting e-government projects in the best way?
- vi) How should we plan and manage e-government projects?
- vii) How will we overcome resistance from within the government?
- viii) How will we measure and communicate progress? How will we know if we are failing?
- ix) What should our relationship be with the private sector?
- x) How can e-government improve citizen participation in public affairs?

#### **1.4 - Citizens' Expectation from e-Government**

New forms of interactions are created by the Internet that allows people to participate in the governmental and democratic processes. Like e-business, however, once the opening is created and the tools are at hand, it does not remain a matter of choice but becomes a matter of time. Citizens and customers expect governments to get with it; if they do not, they risk becoming irrelevant (Tapscott and Agnew, 1999).

We recognize that we do not have all the answers. Consultations will continue with our stakeholders on what should be our country's technological future. We also hail exchanges with other governments on best practices and policies. It is anybody's guess how the next IT revolution will take shape (Peng, 2003).

The Objectives of improving efficiency, effectiveness and saving costs often require changes to government processes, e.g. by delegation and decentralization. The motivating force can be the public demanding online services and information that raise democratic contribution, answerability, clearness, and the quality and speed of services. E-government is a permanent part of the governing process rather than an experiment in administrative reform. For both governments and citizens, clearly its advantages far outweigh the risks of investment. (Backus, 2001)

#### **1.5 - Conceptualizing Good Governance:**

Good governance has recently come into daily use in public administration, political science, and, more particularly, development management. For example, The 1991 Harare Commonwealth Declaration committed member governments to the democratic process and institutions which reflect national circumstances, the rule of law and the independence of the judiciary, just and honest government, fundamental human rights, including equal rights and opportunities for all citizens, regardless of race, color, creed or political belief.

Good governance strives to act as partner with business and alliances in the sharing of knowledge across institutions for comparative advantage within the context of inter and intra-governmental interfaces and transactions.

Good governance can also be conceptualized as part of a development process. In character, it should be participatory, transparent and answerable, among other things. This provides a framework within which political, social and economic targets are based on a broad agreement in society, and that while allocating resources the voices of the poorest and weakest are heard in the processes of decision. Also, good governance has major implications for quality of life, equity and poverty. In particular, good governance may be defined as combining and defining the processes and structures that direct the socio-economic and political relationships, with particular reference to 'commitment to democratic values, trusted services and just and honest business' (Darell, 2002)

#### **1.6 - ICT and Good Governance:**

With the advent of the new information and communication technologies, added value has been imparted to the processes that give distinctive appearance to relationships that characterize good governance. New opportunities for growth and development have been initiated by the rapid progress, use and propagation of the new and emerging Information and Communication Technologies (ICTs), in all the countries. The Governments world over are seeking to harness the potential offered by these novel technologies to produce new proportions of economic and social

progress. Urgent challenges relate to the need for necessary efforts by Governments to aim at narrowing the digital gap through incrementally:

- i) Placing the basic national information infrastructure;
- ii) Developing the required human resources to operate the national information infrastructure
- iii) Arranging for the required finance to for both the infrastructural and human resource requirements.

The impact of the emerging digital convergence resulting from creative divergence promise significant benefits such as easier access to public services, superior health care, new access to training and work, new commercial, and entertainment opportunities, besides good governance. Using information and communication technologies is not without attendant problems and can be risky. These can be of diverse origins, namely, that of strategy, context and of operation. The efforts of national governments to move towards the development of national information policies and strategies have been stimulated by the challenges and opportunities posed by the new and emerging information technologies.

Several Commonwealth Governments have become leaders in these initiatives by seizing upon the opportunities offered by these new and emerging information and communication technologies to reform democracy, government-related transactions as also helping society, both economically and socially. Other Governments still lag to appreciate the importance of information and communication technologies. They still depend on the traditional ways of creating wealth and providing services. The responsibility for the development of the knowledge economy and the new digital society rests with the Government and the other governance structures, particularly the private sector by focusing on people-centered development. Governments set and propagate policies and are collectively spend the most on information and communications technologies and services and they are a major producer or potential producer of content and of innovation.

‘...e-government focuses on the use of new information and communication technologies (ICTs) by governments as applied to the full range of government functions. In particular, the networking potential offered by the Internet and related technologies has the potential to transform the structures and operation of government.’(OECD, 2001a)

‘All governments have caught on to the point-and-click phenomenon, as evidenced by the increasing amount of information available to the public at a modem’s reach. Most government Web sites offer the public vast arrays of facts regarding government structure, laws, initiatives, geography, information requests and links to related sites.’ (OECD, 2000)

### **1.7 - e-Governance:**

In its simplest sense, facilitating the processes of government and public administration by using Information and Communication Technologies is e-governance. In reality, though, e-governance is really about choice. It works by providing citizens with the choice of how they want to interact with their Governments and the decisions of the Governments to support citizen choices by using Information and Communication Technologies.

As an amalgamation of the application of technology to government, it comes under a large technological umbrella that includes:

- i) The online delivery of government services and the automation of government systems;
- ii) The widespread use of network-based technologies and the movement of government to the Internet environment;
- iii) The utilization of capabilities and electronic practices in governmental environments to reduce costs and client fraud and increase efficiency;
- iv) The application of ICTs to ease carrying out of business and promote economic growth;
- v) The fundamental re-engineering and reorganizing the structures of the government and the nature of public administration; and
- vi) The use of ICTs to encourage new levels of engaging citizens, from the online voting booth to electronic town halls and new levels of political accountability.

Rather than being purely functional, governance is essentially a normative, relational exercise, unlike technology. The underlying principle of modern democratic governance is philosophy that government's role is facilitating and relating instead of dictating or creating. As a result, government has adopted a triad of roles:

- i. Propagator of political expression and action, both at home and abroad;
- ii. Catalyst of economic activity; and
- iii. Deliverer of public services
- iv. From these roles flow a series of core relationships or interactions, the effective management of which is the bailiwick of public administration. Those defining interactions manifest under four main heads:
  - v. Government-to-Citizen - This encompasses a wide range of interactions, from the provision of welfare and health benefits and the delivery of services to the regulatory and compliance oriented licensing. Involving democratic legitimization and engagement among these many interactions is foremost.
  - vi. Government to Business - Government serves as an enabler and broker of economic activity, a user of commercial goods and services and also as the regulator of both domestic and international trade and commerce.
  - vii. Government to Employee - Government facilitates business, democratic engagement and service delivery, so employees represent the facilitators of government. These interactions include strategic and tactical mechanisms for encouraging the implementation of government goals and programs and administrative elements such as human resource management, budgeting, and accounting.
  - viii. Government to Government - The Governments depend on other levels of government within the state to successfully deliver services and assign responsibilities, and engage in ongoing interactions with foreign states and international organizations to further political and economic goals.

Economic benefits cannot be derived by merely having the equipment or networks. Other factors, such as the regulatory environment, the ability to change organizational set-ups, the availability of appropriate skills, as well as the power of additional innovations in ICT applications, affect the ability to seize the benefits of ICT. As a result, countries with equal ICT dispersion will not always have similar impacts of ICT on economic performance.

It may be mentioned here that for the purpose of this study we will use the term e- governance (rather than e-Government) which broadly covers the issues studied in this thesis. The e-

Government is a broader term and may also include new levels of democracy and citizen engagement like online voting on issues /e-democracy which is not intended to be covered.

### **1.8 - Why e-Governance for Development?**

As is true all over the world, governments in the developing nations are not sufficiently responsive or answerable, deliver too little, and cost too much. Good governance reforms aim to address these shortcomings. Yet after many years of effort, progress in implementing such reforms has been much slower than expected. It offers a new way forward, by connecting citizens, improving government processes, and building interactions among and within civil society. (Heeks, 2001)

What does e-governance exactly offers? It has ICTs, which provide three basic change potentials for development in good governance:

- Automation: replacing existing human-executed processes by which people accept, store, process, and transmit information, like, existing clerical functions get automated.
- Informatisation: supporting existing human-executed information processes, like, supporting current processes of communication, decision making and decision implementation.
- Transformation: support to new human-executed information processes or creating new ICT-executed information processes, like, creating new public service delivery methods.

These change potentials, in turn, can bring the benefits to governance for development:

#### **i) Efficiency gains:**

- Governance that is cheaper: lower total cost for producing the same outputs.
- Governance that is efficient: same total cost for producing more outputs.
- Governance that is quicker: same total cost and less time for producing the same outputs.

#### **ii) Effectiveness gains:**

- Governance that is innovative: producing new.
- Governance that works better: producing with higher quality standard with the same outputs at the same total cost in the same time.

These are the objective and direct benefits. Many others can be brought by ICTs. For example, using ICTs, both internal and external benefits can be brought by government:

- i. Internally, providing benefits such as greater political control or an improved public image or better staff motivation.
- ii. Externally, by delivering better and cheaper services to those who depend on government or indirectly by signifying the gains of ICTs to the population; by encouraging foreign investment and by catalyzing the local IT industry.

### **1.9 - Need for the Study**

The enthusiasm for realizing the potential of ICTs is often dampened by the barriers to successful strategic policy formulation as well as its implementation. This research is an effort to study, firstly, the collective visualization of all stakeholders concerning 'Good Governance' through

'Participatory Stakeholder Assessment' in the Indian context, and secondly, whether the new information and communication technologies can make a significant contribution to the realizing the good governance objective. The study has also attempted to identify and establish linkages between the factors which are responsible for creating a favorable environment for effective and successful implementation of e-Governance for achieving good governance. There is an urgent need to carry out study in the Indian environment to identify the possible hurdles in the execution of e-governance applications and draw a meaningful framework in this direction to workout alternative solutions to tackle or address these barriers and pain points through appropriate strategic policy interventions.

The study uses both primary and secondary sources of information besides in- person observations, interviews, and taking into account of experiences from public forums. The notified policies, reports and published research work have also been used in the study as a secondary source of information besides information posted on Internet and from other sources. Case studies were also conducted for identification of critical success factors and proposing the new framework by gaining knowledge about the successes and failures of the existing e-Governance initiatives.

### **1.10 - Significance of the Study:**

India has been one of the first entrants to the group of IT and e-Governance movement. E-Governance initiatives are being taken by Government of India and many States for the last decade and a half since the formation of National Informatics Centre in 1987-88. Though isolated islands of successes have emerged with the subjective vision and efforts of individual champions, a structured strategic policy framework for leveraging the advantage of ICT and e-Governance for the overall social and economic development of the masses is yet to be evolved in a holistic manner. This would require a deep understanding of various factors responsible for creating a conducive environment for effective and successful implementation of e- Governance in a real life multidimensional factored space.

Though most of the States have come up with their own IT policies, e-governance policies, policies for attracting investments in IT, ITES and BPO, no State has been able to come up with a comprehensive strategic policy framework for leveraging the total advantage of Information and Communication Technologies. Government of India has also failed to draft a 'Strategic IT action Plan' for the States though some work has now been initiated by the Department of Information Technology, Ministry of Communication and Information Technology, on the National e-Governance Plan (NeGP).

e-Governance is exceptional opportunity for us to change the way the country is governed. The governments are today in the process of transformation worldwide. Everywhere, every state is changing; from silos of information to integrated services, regulator to facilitator, departmental focus to customer focus and protective to collaborative mode of working.

All the stake holders cannot be provided with integrated services and take the best advantage of ICT in the absence of a broad strategy on the policy framework covering ICT infrastructure, human resource development, education, process re-engineering, e-Governance, e-business and industry,. There are innumerable policy gaps and disconnects. Every stake holder whether citizens, state or Government of India understands ICT and e-Governance based on their own priorities and perceptions.

Even in States where ICT and e-governance initiatives have been taken in big ways, new areas of



concern have emerged demanding strategic policy intervention in a comprehensive manner. Some of these are security, authentication and privacy policies, service level agreements, public-private partnership policy, right to information policy, IT Services policy, access policy, outsourcing policy, , IT Infrastructure Management Policy and IT resource acquisition policy etc. All these new areas demand a deeper look into and a more comprehensive treatment of issues and problems.

### **1.11 Plan and procedure of the study**

A clear conception of methodology is essential for the successful completion of the research project. Keeping in view the nature and purpose of the study the investigator adopted a descriptive survey method to carry out the study. Descriptive survey method deals with what exists at present and it describes and interprets the current prevailing conditions, relationships and practices.

#### **1.11.1 Objectives of the Study:**

The objectives of the study are as follows:

- i. To develop a shared vision for leveraging the Information and Communication Technologies for achieving Good Governance.
- ii. To study the citizens' perception and their experience with the inefficiency, harassment or difficulty encountered level of corruption, in various government offices and their services.
- iii. To study the citizens' priority regarding e-Governance initiatives taken by state governments.
- iv. To identify the gaps and drawbacks in the existing ICT led e-Governance initiatives/ policy framework.
- v. To develop a broad strategic e-governance policy framework in terms of citizens' prioritization, demographic factors, barriers, harassment, preferences, methods, and measuring success, for achieving good governance as per the expectations of citizens.
- vi. To identify and establish linkages between different critical factors responsible for creating a favorable policy environment for effective and successful adoption of e-governance.

#### **1.11.2 Sample**

The sample includes 710 males and females in the age range of 25-50 years belonging to rural, semi-urban and urban areas of six states Delhi, Haryana, Himachal Pradesh, Punjab, Chhattisgarh and Uttarakhand. It includes 132 respondents from Delhi, 108 from Haryana, 121 from Himachal Pradesh, 130 from Punjab, 117 from Chhattisgarh and 102 from Uttarakhand.

#### **1.11.3 Questionnaire**

On the basis of the objectives of the study the investigator developed a questionnaire. The final questionnaire consisted of a total of 33 common questions that included close-ended, multiple and Likert scale type questions. The questionnaire covers full profile of the respondents, respondents' opinion, perception, experience and expectations about various aspects of good governance like the existing level of computerized government services, desired timings, preferred language for services ,factors responsible for a good administration and governance, level of corruption, inefficiency, harassment by employees or system or difficulties faced in getting the service. Their

priorities for improving this service through computerization/ use of ICT/e-governance, extra charges the respondents are willing to pay, their preferred mode of payment, barriers and risks involved in computerization of citizen services, factors for contributing to the success or effectiveness for improved e-services, creating awareness and training of employees and citizens to implementing good governance.

#### **1.11.4 Data Collection**

##### **Pilot Study**

The research tool was administered on a sample of 50 respondents of the same population from which final sample was to be selected to find out the appropriateness of the questionnaire or any difficulty faced by the respondents while responding to the items of the questionnaire regarding comprehension of statement and adequacy of language of items. Simple instructions were given for filling up the questionnaire. The results of the pilot study ensured the adequacy of the questionnaire for the purpose of the study.

##### **1.11.5 Procedure of Data Collection**

People, who came to mini secretariat and municipal office for some work, were randomly approached by the investigator and request to fill the questionnaire developed by the investigator. The incomplete questionnaires were dropped from the analysis, therefore, 710 (132 from Delhi, 108 from Haryana, 121 from Himachal, 130 from Punjab, 117 from Chhattisgarh and 102 from Uttarakhand) made the final sample of the study. The data collection for this study was conducted between June 2015 and September 2015.

##### **1.11.6 Statistical Techniques Used**

The data analysis has been done with the help of SPSS software and the following techniques have been used:

1. Descriptive Statistics
2. Chi Square
3. ANOVA
4. Principle Component

## 2. GOOD GOVERNANCE: A THEORETICAL FRAMEWORK

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### 2.1 Origin and Definitions of Governance

Governance, like regulation theory, is not an invention of communication science. The origin of governance can be traced to various disciplines. Governance, as a scientific term, evolved in the field of economics. In the beginning, governance was used to describe institutional rules that helped to reduce transaction costs. In this perspective, the hierarchy of the firm is seen as an alternative to market coordination (Benz, Lütz, Schimank, and Simonis, 2007). Nowadays, governance in the economics normally refers to corporate governance that is the separation of ownership and control in corporations (Fama and Jensen, 1983). Drawing on agency theory, scholars focus on the relationship between owners, mostly shareholders, and management, and raise the question of how management can be controlled and held accountable (Kersbergen and Waarden, 2004).

Governance finds its root in political science. Initially, governance was used in the field of international relations. International organizations, regimes, and agreements are regarded as forms of global governance which is suitable for solving transnational problems beyond the jurisdiction of single nation-states (Wilkinson, 2006). “Governance without government [...] presumes the absence of some overarching governmental authority at the international level” (Rosenau, 1992). Thus, governance fills power structures in the power vacuum of international relations. In Europe, another use of governance attracts growing interest. In relation to the European Union, the term multilevel governance is used to describe and analyze the interplay between different levels of decision making (Bache, 2006; Bevir, 2009). Democratic governance implies yet another view on governance. It is an inherently normative approach discussing ways to improve regulation and government (Benz, 2004). In this vein, governance often refers to the necessity of involving civil society in decision making on all levels of the political system (Mayntz, 2004). Governance is associated with participatory and deliberative processes in civil society, social movements, and active citizenship (Bever, 2009, p. 8). More recently, regulatory reform is described as a move from government to governance. Statutory regulation confronted with numerous societal changes like state's possibilities to regulate are said to be limited due to the increasing complexity of social problems, the fragmentation of knowledge and power; also, the growing autonomy of different parts of society, as well as the blurring distinction between state and society (Black, 2001.). As a consequence, “new governance” is deemed necessary.

Aside from these uses of governance in economics and social sciences, governance is heavily used in politics. Since the 1980s, the World Bank commits itself to the diffusion of so-called good governance in the developing countries. It calls for public sector reforms often associated with neo-liberalism. The Organization for Economic Co-operation and Development also promotes principles of good governance such as reliability, accountability, effectiveness, and transparency of governing (Kersbergen and Waarden, 2004).

### 2.2 Narrow and Broad Definitions of Governance

The term Governance is widely used in different disciplines and political practices. This quality of governance as a “catch-all word” (Lange and Schimank, 2004) comes at the cost of clarity. Thus, a definition is needed. When interested in policy and regulation, the more recent *governance debates associated with regulatory reform* that emerged in political science seem particularly

helpful. Statutory regulation is affected by the same problems. Additionally, it is challenged by rapidly changing factors like convergence, commercialization, and the globalization of social and cultural life as well as of economic arrangements “exert pressure towards a more extensive and differentiated form of social management” (McQuail, 2007). As a consequence, it is argued that traditional statutory regulation is insufficient and that new forms of regulation are needed (Schulz and Held, 2004; Tambini et al., 2008). When discussing this assumed need for reform, scholars usually distinguish between narrow and broad definitions of governance.

*In its narrow sense, governance refers to changing polities, politics, and policies* and “signifies a change in the meaning of government, referring to a *new* process of governing; or a *changed* condition of ordered rule; or the *new* method by which society is governed” (Rhodes, 1996). Accordingly, scholars stress the difference between government, that is, hierarchical statutory forms of regulation, and governance, that is, new, innovative, and cooperative forms of regulation (e.g., Benz, 2004; Pierre and Peters, 2000). In this view, governance “only comprises types of political steering in which non-hierarchical modes of guidance [...] are employed, and/or public and private actors are engaged in policy formulation” (Héritier, 2001). Traditional statutory regulation (or “government”) is explicitly considered to be outside the scope of governance.

In contrast, *broad definitions of governance* go beyond so-called new forms of regulation and focus on *collective coordination* in general. (Pierre, 2000) defines governance as “sustaining coordination and coherence among a wide variety of actors with different purposes and objectives such as political actors and institutions, corporate interests, civil society, and transnational organizations.” Similarly, Mayntz (2004, p. 66) points out that governance refers to the *regulatory structure as a whole, encompassing the entirety of forms of collective rules in society*, ranging from self-regulation of civil society to traditional regulation by government.<sup>1</sup> These broad definitions emphasize that *governance is not taking place beyond the state* (as governance as a label for new forms of regulation insinuates). On the contrary, governance encompasses statutory regulation as well (Benz, 2004; Héritier, 2001). It is a mix of governing efforts by public and private actors occurring at different levels and in different modes (Kooiman, 2003; Mayntz, 2004, p. 66).

This broad view of governance is adopted for several reasons: First, restricting governance to its use as an ideologically laden label for allegedly new and better forms of regulation implies that regulatory reform is inevitable due to government failure and a variety of social, economic, and technological changes. This argument is in line with a neoliberal narrative distinguishing between “bad” governance and “good” governance involving a minimal state (Bevir, 2009, p. 5). However, regulation is not determined by commercialized markets and technological convergence but the result of political decisions. These functional approaches that view governance primarily as a response to governability problems arising from social complexity neglect the important issue of democratic accountability (Papadopoulos, 2003).

Second, the state remains important despite the emergence of non-statutory forms of regulation. On one hand, the hierarchy between state and society cannot that easily be dismantled: The state keeps its monopoly on the legitimate use of coercion and governments are elected in order to resolve collective problems (Black, 2001). Hence, traditional statutory regulation is not rendered obsolete by governance (Kooiman, 2003). On the other hand, the capacity for conventional “command and control” regulation is said to be complemented and gradually replaced by a capacity for influence (Mayntz, 2004, p. 72; Peters and Pierre, 1998, p. 226). The new role of the state is being a facilitator or a *primus inter pares*. “The new governance, we reiterate, does not mean the end or

decline of the state but the transformation and adaptation of the state to the society it is currently embedded in. In particular, the state remains crucial as a goal-setting structure” (Pierre and Peters, 2000, p. 68). In this context, scholars speak of “meta governance” in order to describe how the state steers the various organizations and actors involved in governance (Kooiman, 2003).

Finally, many supposedly innovative forms of governance may turn out to be quite old (Treib et al., 2007): Whether a phenomenon is old or new is not a question of definition but of empirical analysis. “The debate over governance may simply be that the academic community catching up with the reality of the public sector in the contemporary world” (Peters and Pierre, 1998, p. 240). For instance, self-regulation has already a long tradition in the sector and was important even before social scientists had the right words to capture such arrangements (Pierre and Peters, 2000, p. 30).

### **2.3 Defining Governance**

Given the above discussion, an essential requirement for any definition of *governance* is that it encompasses the entirety of forms of collective rules in the sector. In line with this comprehension of governance, (Freedman 2008, p. 14) stresses that *governance* is broader than statutory regulation and “refers to the sum total of mechanisms, formal and informal, national and supranational, centralized and dispersed, that aim to organize systems.” This definition promises to be of substantial value for policy research.

However, like any definition based on the debates about regulatory reform in political science, it focuses on collective rules and excludes the different forms of *governance existing at the level of single organizations*. Therefore, a broader comprehension of the term governance is needed. Lange and Schimank (2004, p. 19) go beyond the collectively binding rules and decisions that lie at the heart of political science and define governance as *patterns of coping with interdependencies between actors*. In this sense, governance refers to all patterns of rule and explores the construction of social order and social coordination (Bevir, 2009, p. 3).

Therefore, *governance can be defined as the regulatory structure as a whole, i.e., the entirety of forms of rules that aim to organize the systems*. This definition covers both *collective and organizational governance*. Likewise, Hamelink and Nordenstreng (2007, p. 232) refer to governance as a “framework of practices, rules, and institutions that set limits and give incentives for the performance of the system.” McQuail (2007, pp. 17–18) describes *governance* as both the numerous forms of management and accountability within the system and the institutionalized relations between the system and society.

### **2.4 What is Good Governance?**

As the basic premise for discussing good governance, this present study considered the functional aspect of governance: whether governments have achieved their stated objectives effectively and efficiently or not? Good governance helps countries to achieve sustainable and self-reliant development and social justice. Good governance comprises of two concepts: i) the ideal orientation of a state that works best to achieve self-reliant and sustainable development and social justice; and ii) the ideal functioning of government that operates most effectively and efficiently.

The key point of the former, i.e., the ideal orientation of a state, hinges on whether the state's basic attitudes are democratically oriented. Elements contributing to this include, for example, the

legitimacy and accountability of the government, the securing of human rights, local autonomy and devolution of power, and civilian control of the military.

The latter, the functioning of the government, depends on whether a government has the requisite political and administrative structures and mechanisms and the capability to function effectively and efficiently. Elements contributing to the latter concept of good governance include the basic laws and institutions of a nation, the administrative competence and transparency, decentralization of its administration, and the creation of an appropriate market environment; all of these are needed to support people's participation in every aspect of politics, the economy, and society. These are therefore necessary components of good governance as "the government functioning as the basis for participatory development."

Good governance as expressed through factors like reliability, predictability and accountability is increasingly seen as a key factor in ensuring national prosperity. However, many aspects of the relationship between good governance and national prosperity are still poorly understood and may indeed vary across countries. Some basic questions include:

- i. What is good governance and why is it important for economic and social development?
- ii. What is the role of such factors as the rule of law, transparency, accountability and public service ethics in promoting good governance?
- iii. How can good governance be promoted in transition to more open and democratic societies?
- iv. What lessons have been learned from public management reforms about the importance of good governance for achievement of social and economic objectives?
- v. What are the key aspects of good governance, and are these universal or relative to individual countries?

Recent economic and social developments have increased attention towards the role of good governance in achieving social and economic development.

- i. Public management reforms have been a key factor in improving capacities of OECD countries to address issues such as budget deficits; external pressures on competitiveness, not least as a result of growing globalisation; perceived lack of public confidence in government; growing needs for services; and increasing demands for better and more responsive services
- ii. There is also a growing recognition that the current world financial crisis stems from weaknesses in the institutions of governance, and that durable solutions to this crisis need to address these governance problems.
- iii. Systems of governance affect the performance of the state in executing its core functions and through this, the performance of countries in meeting their major economic and social goals.
- iv. Governments create the conditions for functioning of markets, operation of private firms, strength of civil society, and welfare of communities and individuals.
- v. The quality of governance is recognised as fundamental to ensuring the quality of life of citizens.

- vi. In its own right, good governance is important as a determinant of the sustainability and strength of democracies.

## **2.5 Aspects of Good Governance**

Good government depends on an ability to exercise power, and to make good decisions over time, across a spectrum of economic, social, environmental and other areas. This is linked with the government's capacity for knowledge, mediation, resource allocation, implementation and maintenance of key relationships.

There are many ways to define governance and good governance. However, there seems to be a general consensus that key factors include:

### **i. Technical and Managerial Competence**

Technical and managerial competence of civil servants is an obvious factor of good governance. This may be less of a constraint than it used to be, as access to education has improved, but rapid changes require on-going development of skills.

### **ii. Organisational Capacity**

Good governance has to be built on the quality of organisations so that development is based on this rather than simply relying only on political will, personal will of a strong leader and state power, which may not be sustainable over the longer term. Having skilled staff is not sufficient if the government organisations do not have the capacity to make good use of these skills. Capacity of government organisations is a key factor in the provision of many important services to businesses and the public, and in creating conditions for economic progress and social cohesion. The organisational structure and management systems of government have been reformed in many OECD countries. The problem was often seen as excessive centralisation, inflexibility and lack of efficiency. The key response to this has been to provide managers and staff with more autonomy in operational issues in return for more accountability for performance. In other countries the problem may be a lack of accountability and discipline in the administration, often with associated corruption. In such situations the response typically will need to focus on strengthening the basic management systems of government, involving to a certain extent increased bureaucratisation.

### **iii. Reliability, Predictability and the Rule of Law**

The rule of law refers to the institutional process of setting, interpreting and implementing laws and other regulations. It means that decisions taken by government must be founded in law and those private firms and individuals are protected from arbitrary decisions. Reliability requires governance that is free from disoriented incentives - through corruption, nepotism, patronage or capture by narrow private interest groups; guarantees property and personal rights; and achieves some sort of social stability. This provides a degree of reliability and predictability that is essential for firms and individuals to take good decisions. Reliability and predictability do not mean that the more specific the regulations are the better. Excessive specification can lead to rigidities and risk of selective application of regulations. Interpretation and effective implementation of individual regulations requires a degree of discretion. This discretion can be counterbalanced by administrative procedure legislation and external reviews of decisions (appeal mechanisms, judicial review, ombudsmen etc.). Reliability and predictability require certain degree of political stability. Governments need to be able to make credible commitments and persuade the private sector that decisions will not ultimately be reversed due to political

uncertainty. While this is not necessarily related to a particular political system in the short term, over the longer term democracy enhances stability by giving a voice to citizens to express their preferences through an open competition.

**iv. Accountability**

Accountability can be both an end in itself - representing democratic values - and a means towards the development of more efficient and effective organisations. Politicians and public servants are given enormous power through the laws and regulations they implement, resources they control and the organisations they manage. Accountability is a key way to ensure that this power is used appropriately and in accordance with the public interest. Accountability requires clarity about who is accountable to whom, for what. The civil servants, organisations and politicians are held accountable for their decisions and performance. Accountability can be strengthened through formal reporting requirements and external scrutiny (such as an independent Audit Office, Ombudsmen, etc.). Democratic accountability, as represented by accountability of ministers to parliament and the parliament to voters, can be seen as objective in itself, but it also strengthens accountability in general. Many OECD countries are strengthening accountability through more focus on accountability for performance as opposed to limiting accountability to regularity of decisions.

**v. Transparency and Open Information Systems**

Transparency is an important aspect of good governance, and transparent decision making is critical for the private sector to make sound decisions and investments. Accountability and the rule of law require openness and access to information so that higher levels of administration, external reviewers and the general public can verify performance and compliance to law. Governments have access to a vast amount of important information. Dissemination of this information through transparency and open information systems can provide specific information that firms and individuals need to have to be able to make good decisions.

**vi. Participation**

Participation can involve consultation in the development of policies and decision-making, elections and other democratic processes. Participation gives governments an access to important information about the needs and priorities of individuals, communities and private businesses. Governments that involve the public will be in a better position to make good decisions, and decisions will enjoy more support once taken. While there may not be direct links between democracy and every aspect of good governance, clearly accountability, transparency and participation are reinforced by democracy, and themselves are factors in support of democratic quality.

**vii. Relations Between Different Aspects of Good Governance**

There are complex relations between the different aspects of good governance. In many ways some factors can be seen as preconditions of others (e.g. technical and managerial competence is one precondition of organisational capacity, and organisational capacity is one precondition of maintaining the rule of law). But there are also important effects in the other direction (e.g. organisational capacity building reinforces technical and managerial competence, accountability reinforces the rule of law).



## 2.6 Sustainable Development and Good Governance

### i. Development is primarily a domestic responsibility

The responsibility for sustainable development at the national level – that is, for the complex mosaic made up of economic, social, political, cultural and ecological components that must be put together under a specific set of conditions – lies first and foremost with the countries concerned. Any improvement in the people's quality of life has to begin and be maintained “at home”. Of course, a favourable economic environment and fair conditions of competition and trade will make a country's efforts to that end easier, but “outside” players can only support and facilitate sustainable development – they cannot replace a country's own endeavours. Its economic, social and political fabric is of immense importance for a country's success in developing itself. That fabric depends, above all, on the nature of the development policy that the country has chosen to follow as well as on the quality of its government and authorities.

### ii. Positive contribution to development

Various developing countries which are quite comparable in terms of their natural resources (land, water, arable soil, minerals, climate etc.) and social structures have over the past thirty years shown strikingly differing records of economic and social progress. Measured by the criteria of child mortality, life expectancy and literacy – the key indicators of quality of life – some countries have made considerably greater progress than others, even though they all operate in the same world economic environment and have comparable colonial pasts. This shows that historical burdens, adverse international economic conditions such as falling raw material prices or other external factors, though important, do not have a decisive impact on the achievement of a higher quality of life in the countries concerned. In light of this fact, coupled with the uneasiness caused by irresponsible rulers in a number of countries, the matter of “governance” has come to the forefront of the debate over development policy. “Governance” is the art of public leadership. There are three distinct dimensions of governance: First, the form of political regime; second the process by which authority is exercised in the management of a country's economic and social resources; and third, the capacity of governments to design, formulate, and implement policies and discharge functions.

The criteria that constitute good governance have been drawn from these three dimensions, and include: *legitimacy* of government (degree of “democratization”); *accountability* of political and official elements of government (media freedom, transparency of decision-making, accountability mechanisms), *competence* of governments to formulate policies and deliver services, *respect* for human rights and rule of law (individual and group rights and security, framework for economic and social activity, participation).

### iii. General lessons for sustainable development

A government that shoulders responsibility for sustainable development and ensures its people have safety and security, solidarity, order and continuity; creates an environment in which its citizens can exercise their productive, political and cultural abilities. Strategies for overcoming social inequalities and economic underdevelopment are like a complicated puzzle. Various pieces of the puzzle have to be sifted through and put together to give an overall picture that corresponds to the specific conditions within a country. Yet, despite the great diversity of existing economic and social settings, there are a few general lessons for successful sustainable development that can be drawn from the experience amassed over

the past forty years. At the macro-level, the following policies and measures have proved effective: A sound economic and financial policy designed to forestall high inflation rates or overvalued currencies as well as limiting government activities to the tasks that the market cannot handle results in economic growth based on allocation mechanisms in conformity with the market economy. Economic growth is a critical but not the sole requirement for success in the fight against poverty. It is equally important to have a social policy that places particular emphasis on meeting basic human needs. Education, training and extension services and availability of credit fosters self-reliance and initiative among people belonging to all segments of society. Another contributing component is a social climate where opportunities for personal development are available to everyone irrespective of gender, race, socio-cultural background or other differences. Where a socio-economic ambience of this quality has been put into effect, it has led to impressive economic success from which the lowest income groups have also benefited, since government expenditures in the education and social welfare sectors could be financed from it. Such countries have also been more successful than others with respect to the ecological sustainability of their development policy. Where progress in achieving good governance is lacking, there development be it economic, social or ecological does not take place. On the contrary, in most cases stagnation at an already low level or even reversals have been the results. A number of sub-Saharan countries can serve as warnings in that regard. Poor governance generates a social environment detrimental to development. In such cases external aid, whatever the amount or intention, has little effect. Indeed, it can even be harmful if it contributes to prolonging an undesirable state of affairs. **“Good governance” puts people into the centre of development. “Where people grow, profits grow”: this well-tried business rule is applicable to development policy as well.** A national development policy of this calibre can then be successfully supported through international cooperation.

iv. **The driving force behind development assistance**

By “development assistance” – or in more modern terms, “financial and technical development cooperation” – we understand a range of activities of various partners that promote the participation of the developing countries in the world economy, and that help people to overcome poverty and share in their country's development. Development cooperation can take on various forms: financial or technical support for projects and programs, provision of capital or infrastructural goods or of credit on easier terms. Humanitarian aid is the aspect of development cooperation directed towards bringing speedy relief during emergencies, such as those caused by natural disasters or war. Development assistance is extended out of all kinds of motives, from well-considered self-interest to a sincerely felt moral duty. Until the end of the East-West conflict, geostrategic considerations also played an important role. They no longer do, leaving both an opportunity and a problem for development cooperation. The opportunity consists in the possibility of allotting funds solely according to rational criteria such as “good governance”. Without such a guideline an effective and efficient utilization of the available resources will not ensue. In times of financial and budgetary belt-tightening as well as mounting social challenges in industrialized countries development cooperation must also accept certain constraints. This situation compels cautious decision-making and efficient performance. It means having to do more for the poverty-stricken in developing countries with fewer means available. Only quality management will ensure that development assistance continues to enjoy the high regard it now has in industrialized countries. The

situation is not without risks. If, beset by their own problems, the developed countries cannot manage to see beyond their own noses, and they will fail to realize that the socio-economic development of poor countries is in their own best interest. This would not only endanger global peace and progress, it would also lead to adverse repercussions on the economies of industrialized countries. Growing poverty in developing countries would also intensify the pressure on their people to emigrate, again with complex consequences for all industrialized countries. A cutback in funding would coincide with ongoing high rates of population growth and most likely with dwindling environmental resources as well. If the problems remain the same or worsen, and the funds made available to solve them stagnate or shrink, then new sources of funding must be found. Even more importantly, every possible way of improving quality, effectiveness and efficiency has to be fully utilized. This applies across the board, but most particularly to those engaged in development cooperation.

## **2.7 Participatory Development and Good Governance**

Participatory development and good governance are related in the following way: participatory development, with its central focus on raising the quality of participation by local societies for better, self-reliant and sustainable development and social justice, is an important aspect of people-oriented development. Good governance is the foundation of participatory development to promote participation and creating the environment in which participatory processes take place. Promoting participatory development by the government boosts people's trust in their government, and increases effectiveness and efficiency of government services. Thus in the long run, good governance evolves into stronger aspirations for further democratization. The strength of a state's desire for democracy also influences the process of formation of political and administrative structures and government's capability to translate this national stance into action.

## **2.8 Participatory Development and Good Governance in Indian Perspective.**

Participatory development and good governance should not be added as a new field of Indian Official Development Assistance (ODA) but should underlie all aid as part of its conceptual basis.

A tide of political democratization and economic liberalization based on competitive principles has been sweeping the world and stimulating, in its wake, the drive toward a new role for government. A shift is also occurring in development strategies, away from a single focus on economic growth and toward greater emphasis on sustainable development. Many countries, moreover, are becoming aware (albeit to varying degrees) of the need to provide opportunities for broader participation as a complement to government-led development approaches. Yet in consideration of the present widening disparities in developing countries such as those between the rich and the poor groups of society, it is necessary to review past methods of promoting economic and social development in developing nations.

The points to examine are namely: (i) whether local societies, the assumed beneficiaries of development, have adequately reaped the rewards, and whether the capability of local people and communities to participate has been fostered in such a way as to compensate for the deficiencies of the government-led approach, (ii) whether arrangements within the framework of top-down decision making and the government functions that support it could have worked to narrow gaps and promote participation by local societies, and (iii) whether development aid has stimulated developing countries themselves to remedy the distortions at their roots.

India's aid projects have been implemented in a wide range of fields and are producing tangible results. These projects have involved the cultivation of human resources, for development practitioners and leaders engaged in development tasks in developing countries, improvement of social services, and infrastructure building. More recently, they have expanded to include areas recognized as being especially important in development: environmental conservation, the rectification of regional disparities, and the fulfilment of basic human needs (BHNs). In order for Japan to ensure that its development aid takes root more firmly and contributes more significantly to the realization of social justice and sustainable and self-reliant development by developing countries in the future, it is important for Japan to include the concept of participatory development in the scope of its aid and to implement aid in such a way that developing nations' governments promote participatory development voluntarily and are capable of carrying out good governance.

In other words, it is extremely important to clarify how the results of development projects have contributed to human development in aid planning, implementation, and evaluation. To clarify this, it is necessary both to strive to more accurately understand the economic and social conditions and needs of the intended ultimate beneficiaries and reflect them in aid planning and implementation and to give support for the building of community organizations and institutions to enable more people to take advantage of aid achievements and participate in development themselves at the local and regional level. It is also important to assist recipient governments to create organizations and institutions that will enable them to promote policies that improve people's social capabilities. Aid to strengthen the public sector must create the structures and foster the competence needed by governments to assume roles as effectively and efficiently to promote their people's broad-based capabilities and to respond to the people's expression and will.

### **Conclusion**

As a minimal strategy Moody-Stuart recommends, among other things, that companies which do business in developing countries and are approached by top officials for "commissions" refrain from taking part in sales transactions or projects that in the company's judgment are disadvantageous for the buyer or interested authority, respectively. Further, no compromising of the company's standards should be entertained, even when the customer appears to be "magnanimous" (Kleinwächter, W., 2008)

## **3. ROLE OF ICT ON GOOD GOVERNANCE**

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### **3.1 Introduction**

Information is the key to democracy and information empowerment is fundamental to a successful democracy. The advent of information technology (IT) has nurtured the swift emergence of a global “information society” that is changing the way people live, learn, work and relate. Even after 60 years of India’s independence, poverty remains the pressing problem of the country. Being an agrarian society, agriculture plays a vital role in the India’s economy from the perspective of poverty alleviation and employment generation and also contributes a quarter of national income.

To sustain the pace of rural development, the government should redefine its Information and Communication Technology (ICT) policy and make it more innovative with active participation of development organisations.

ICT integrates a wide range of services, applications and technologies, using various combinations of hardware and software, like telephony, mobile telephony, fax, etc. and internet based data services such as e-mail, file transfers, entertainment etc.. A variety of other applications covering video conferencing, teleconferencing, distance learning, management information systems (MIS) and stock-taking can also be delivered. The technologies range from old technologies such as radio and TV to new ones such as cellular mobile communications; networks may be comprised of copper or fibre optic cable, wireless or cellular mobile links, satellite links, etc. The hardware includes telephone handsets, computers and network elements such as base stations for wireless service. The software runs all these components in the form of sets of instructions behind everything from operating systems to the internet. ICTs comprise a variety of tools and facilitate improvement in information management and dialogue between individuals, groups, communities, etc. The tools include computer hardware, operating systems, application software (word processing, data processing, database management systems), as well as networks and intranets, telephone and electricity lines, radio and satellite systems by which they operate. Further, ICTs refer to the internet-based tools (the World Wide Web, online forums, e-publications) and non-internet services (direct modem-to-modem links, dial-in bulletin board systems). While technological innovations increase, ICTs involve more hybrid advancements (tele and video conferencing, multitask devices, other wireless systems) and at the same time traditional devices also.

### **3.2 Components of Information Technology (IT)**

The following nine components of IT hierarchy were identified by Lee, Cheung and Chen (2005).

- i. **Application infrastructure:** An application is a software program that resides on a computer for the purpose of translating electronic input into meaningful form. Application management includes purchasing software, developing proprietary applications, modifying applications, providing installation and technical support, and other tasks related to ensuring that applications are meeting the needs of the organization.
- ii. **Communications:** Technology that facilitates digital communication both within the organization and the outside world is relevant here. It includes the management of hardware and software to facilitate communication via computer, telephone, facsimile, pagers, mobile phones, and other communication services. It also includes the cabling and any other communication linkages required to create an effective communications network, in addition to the necessary hardware and applications to meet the needs of the organization.

- iii. Data management: This refers to the way the organization handles and structures its information resources. Data may be sourced from internal or external databases. Data management includes data collection, database design, sorting and reporting information, creating links to external databases, assuring data compatibility, and other activities surrounding the effective management of electronic information.
- iv. IT management: Information technology management includes many of the professional and strategic activities of the information technology group including negotiation, IS planning, project management, and other tasks. IS project management is defined as the coordination and control of all of the activities required to complete an information systems project.
- v. Security: To protect data and equipment, reduce processing time, organizations restrict access to certain type of data. Moreover, it also protects data and applications from manipulation and contamination. Recovery refers to the need for a plan to maintain computer operations and information should a disaster occur.
- vi. Architecture and standards: Information technology architecture is a set of policies and rules that govern the use of information technology and plot a migration path to the way business will be done in the future. Mostly, it provides technical guidelines rather than rules for decision-making. Architecture has to cope with both business uncertainty and technological change, making it one of the most difficult tasks for a firm. Each architecture decision needs a sound business base to encourage voluntary agreement and compliance across the business. Five elements of architectures and standards are important: data, technology, communications, applications, and work. It can be distinguished between specifying architecture or standards and enforcement.
- vii. Channel management: New and emerging technologies allow direct connections or distribution channels to customers.
- viii. IT research and development: The information system market developed rapidly, particularly with the rise of new e-business technologies. It is thus necessary to continually test applications and hardware to assist with planning decisions. IT research and development includes identifying and testing new technologies for business purposes and evaluating proposals for new information systems initiatives.
- ix. IT education: Training and education in the use of IT can be defined as formal classes, individual training, and technology-based self-training programs for users ensuring hands-on computer proficiency levels meeting corporate requirements. IS management education can be defined as education aimed at senior levels in the firm designed to generate value from IT use.

### **3.3 Impact of ICT on governance**

Digitalization has meant that the technological platform can be used in various application areas and there has been a gradual merger of the IT, telecommunication and broadcasting sectors. This has led to the development of a succession of services that are within the premises of these three sectors. The Internet today is the most prominent example of such a hybrid service. Initially developed to link computer networks via the telecom network, Internet is used today to support many different types of content services including transmission of radio and TV and both ordinary telephony and video telephony. Another service beginning to have an impact is the digital TV

which gives access to several channels and also permits the use of interactive broadcasting services. This development challenges the present regulation on two fronts: First there is a merger of three separate sectors (IT, telecommunications and broadcast) that have until now been regulated in very different ways. Second, new services have appeared and have caused the emergence of new problems that have not been taken into account by the present regulatory models. Within the telecom sector, regulation has first of all been concentrated on regulation of the infrastructure. This infrastructure has been provided by public controlled national monopolies from the start. These monopolies are now being privatized and competition is enforced through a complicated set of sector specific competition rules administered by the national telecom agencies. Broadcasting of radio/TV was formerly primarily a public activity. In most European countries broadcasting has been dominated by government controlled national broadcasting companies, who were responsible for universal delivery of public services. Regulation of this semi-public broadcasting sector has primarily focused on contents rather than on the infrastructure itself.

Confronting these two sectors where the state has played an extremely active role both through direct ownership and a regulator, the IT-sector finds itself in an area where public regulation has been much more limited and at the same time, is much more internationally oriented. In particular, the development of the Internet has been centred on the US and regulation of the content as well as infrastructure has largely been left to the market. The merger of these three sectors places completely new demands to the future regulation that not only concerns the technical design but the use of ICT services will shape the role of private citizens in governance within different areas. To illustrate, how ICT influences the development of different types of governance, the following gives a short review of some of the most important areas where ICT has a decisive role in the choice of the governance model. A distinction is made between the sectors that are related to citizens' use of ICT and ICT-related products and services in private, and the sectors that are related to production and use of ICT in the industry (Table 3.1).

**Table 3.1: Areas of regulation within use and manufacture of ICT products and services**

<b>Private</b>	<b>Industry</b>
Infrastructure	Market conditions
•Access to infrastructure and services	•Licenses
	•Regulation of competition
Content	Product Rights
•Access to information	•Open source
•Authenticity	•Copyright
•Public service	
•Protection of personal data	
Transaction (e-commerce)	Taxation
•Consumer protection (payment, cooling-off possibility, quality and security and marketing)	•Electronic goods
	•e-Commerce (with physical products)
	Work Environment (tele-working)
	•At home
	•Abroad

**Source: Falch, (2005)**

The table gives an overview of some of the essential problems where development in the ICT-sector has been decisive for the effectiveness of various regulatory models. In this light some selected regulatory fields will be examined. Focus is on fields with direct importance for the individual citizen as user of ICT either in private life or in connection with working life.

Following fields will be examined:

*Private sphere*

- access to electronic services (infrastructure),
- access to electronic information,
- consumer protection with regards to electronic trade.

*Public sphere*

- Tele-work.

The regulatory needs within each of these fields will be discussed; however the design of the specific rules will not be part of the discussion. The purpose is to discuss the applicability of different type of governance and modes of democratic influence. At the same time different models for regulating these fields will be presented (national legislation, indirect regulation, self-regulation, etc.) and the democratic implications are being discussed.

### **3.4 Infrastructure**

Infrastructure has traditionally been an area with a considerable degree of public regulation. In Denmark, along with other European countries, both the telecom sector and the radio/TV have been run by companies with complete or partly public ownership. This has changed distinctively the past decade due to the technological development and a whole new developing-regime has appeared. The general trend is, however, clear. In the telecom sector, it is foreseen that regulation of the universal service obligation will play a diminishing role while more emphasis will be placed on letting the market ensure everyone access to the net. Consequently, the main emphasis will be to ensure a competitive market as mentioned below.

During the liberalization process that started at the beginning of the 90s, the character of the public control with the telecom sector changed from control via ownership to control through legislation and direct regulation. There is today a very detailed regulation of the telecom infrastructure. The purpose of this regulation is to further competition in a situation where a company as starting position has 100% of the market. The intent is that this regulation gradually can be 'normalized' and partly substituted by the general competition legislation that is in force in other sectors. This process was not started by Danish politicians but was dictated by the EU Commission that has more or less enforced a liberalization of the telecom market through a succession of directives.

The regulation of the radio spectrum is a clear example of how the market has been given a larger role in social regulation. It is necessary to have a very detailed regulation for the use of the radio spectrum nationally and internationally due to technical reasons, and it is the responsibility of the National Telecom Agency to allocate the available frequencies in the best possible way, so that there is room for as many as possible and at the same time to prevent interferences with each other (frequency economics). Another consideration is the promotion of competition that has appeared in the latest legislation. Promoting competition in the telecom market has now been given priority over the economy of frequencies. The suppliers must then account for how and to what use they will apply for the offered licenses. It has been proposed to introduce further liberalization where it will be permitted to re-sell the allocated licenses to other operators Siefert, (2000). Internationalization of the market for voice communication began in the fixed network. VoIP is expected to revolutionize the market for voice communication. VoIP has enabled a range of entirely different business models, which have created new challenges for the national regulators (Meisel and Needles, (2005) Many of these models completely escape current regulation of traditional voice communication such as universal service provision access to emergency calls, etc. Moreover, it is possible for a subscriber to make use of his VoIP from any place equipped with an Internet connection.



### 3.5 Content

Electronic information plays an increasing role due to technological developments enabling the emergence of a succession of new possibilities using electronic information quantitatively and qualitatively. Regulations in the broadcasting field still bear evidence that there have been substantial limitations in the volume of information that the individual user has access to. It is therefore an essential criterion to ensure versatility in the limited choice of programs. Today a large part of the population has access to a considerable number of radio and TV channels. By the introduction of digital and later web-based TV, the number of channels will not, in practice, be an important limitation. The bottleneck will move from the distribution link to the production link.

Furthermore, the Internet has developed into a new electronic medium that makes the transition between mass media and personal communication more fluid. Much of the information accessible to millions of people all over the world is aimed for a very limited group of receivers. It is questionable whether it will be fair to apply the same rules for the producers. The development within the ICT sector has given the individual user more freedom to choose between different types of contents. In return it becomes increasingly difficult to ensure the consumers adequate quality and versatility.

### 3.6 Consumer Protection

Consumer protection in relation to electronic commerce was discussed intensively in the late 90s in a declaration on Global electronic Commerce by WTO in May 1998 and a Ministerial OECD conference in Ottawa later the same year (Falch and Henten, 1999). But after the adoption of the EU directive on electronic commerce in 2000 (EC, 2000) the discussion has been oriented more towards specific issues such as privacy and Intellectual property rights than on the more general issue of consumer protection.

In fact, consumers in many countries enjoy a better protection in e-commerce than in traditional markets (Henten et al., 2002). But this protection is not guaranteed for international transactions. Even a limited unregulated international market for Internet trade might have severe implications for consumer protection in both national e-commerce and traditional national markets. If such an alternative regulatory framework is recognized for certain types of transactions, it can be questioned whether it will be possible to maintain a national legislation with rules that differ substantially from the international regulation on the Internet. If the e-commerce environment is unregulated, problems will arise in the offline world. Lack of consumer protection in the online world will undermine protection in the traditional consumer environments. Thus, an international dimension to the question of consumer protection in relation to e-commerce arises as direct relationships between foreign suppliers abroad and consumers have been the exception. One of the key drivers for electronic trade from business to consumers is that it will often be more convenient than traditional shopping for consumers with access to the Internet. This convenience is related to time saving, faster delivery, and a wider selection of goods. But electronic trade can also benefit consumers in other ways. Access to an electronic marketplace for consumer goods and services gives the consumer a range of new facilities, which in many respects increases the consumer power through better access and a more transparent market. The Internet will improve the possibilities to “shop around” and compare offers from different suppliers. This will enable creation of a more transparent market for consumers. Particularly in periphery regions the Internet may improve market access and thereby enhance competition. Electronic trade does however also create new problems related to consumer protection. The Internet has properties that facilitate fraud and complicates prosecution. These properties are related both directly to the trade transactions and to the flow of information surrounding the transactions. A number of consumer issues have been identified in a number of reports dealing with consumer protection on digital networks. These issues include:

- i. *Authenticity;*

- ii. *Quality and safety;*
- iii. *Cancellation and cooling off;*
- iv. *Contractual issues*
- v. *Payments;*
- vi. *Marketing practices;*
- vii. *Privacy.*

This list of issues concentrates on consumer protection, i.e. protection of private citizens in their role as consumers. Therefore subjects like protection from illegal and harmful information, tax problems and intellectual property rights are excluded from the present analysis.

### **3.7 Role of ICT for governance**

The importance of ICTs is not the technology, but its enabling function in facilitating access to information and communication across large distances; improved access to governmental and quasi-governmental resources and services; opportunities to trade or bank online through kiosks; opens new opportunities to design, manufacture and market products through internet or intranet systems; increased and improved education through computers or about computers or both; superior medical advice and diagnostic information; information about local resources, opportunities to earn a better living by learning a new skill in the knowledge-based economy, improving agricultural productivity, etc., that are essential elements in today's economic and social interaction, conducting businesses, compete in markets and shape developmental priorities (Siriginidi, 2002). However, ICTs cannot solve all the problems; they need infrastructure to be put in place to establish distribution channels and play a role to reduce cost of reaching to the people. To increase income generation capacity of rural economy, enough provisions have to be made for capacity building and integrate them with the national economy. In this task, the role of ICTs is needed to be understood.

ICTs play a major role in a nation's politics, economy, social and cultural development. Over the years, role of ICTs has emerged as a powerful, indispensable, tool in the massive scaling up and the inter-linkages of development interventions and outcomes inherent in this objective have been recognized. ICTs offer enormous opportunities to narrow social and economic inequalities; support sustainable local wealth creation by overcoming obstacles of geographic isolation, lack of access to information and challenges in communication. Thus, according to Article 19 of the Universal Declaration of Human Rights, ICTs fuel the global economy and relate to human rights, helping at best, to support freedom of expression and right to information.

The use of technology is an important factor in the organization of our society. With the dramatic development in information technology and telecommunication technology, these two have a decisive role in dealing with information and dissemination of information in networks.

The basic development in technology is taking place on a global scale and only few countries are in a position to influence how fast and in which direction the development is heading. But the societal development is in no way dictated by how these technologies develop. Technology can be used in different ways and the way technology is applied specifically depends on both economic and political factors. Consequently, there may be substantial variations between countries. The use of ICT not only brings about effective production but, at the same time, changes the character of many of the functions using ICT including the more service-oriented and information intensive parts of society. Differing from many other technologies, ICT is used not only to rationalize production of goods but also to reform administrative routines both in the private and public sectors. ICT, therefore, not only expands the technological space wherein a certain decision must be taken but influences directly the pattern of decision-making.

ICT enters all parts of the political decision-making. The political parties and movements have their own web-sites. The public sector uses the Internet to inform citizens and will also use ICT to strengthen the direct communication with the individual citizen in the longer run. Application of ICTs as a tool in the political decision-making process has been the subject of various studies (e.g. Hoff et al., 2000 and Dutton, 1999).

The regulatory challenges connected with ICT are on two levels: first, use of ICT creates new products and services such as digital information that have not been taken into account by the present regulation. Second, ICT influences the overall framework for regulation of existing products and services. One example is the regulation of financial markets. Here use of ICT has implied that international financial transactions can be made faster than ever before, and made it much more difficult to control national monetary markets.

### **3.8 ICT tools and applications for service delivery**

ICT applications, such as e-Government, e-Commerce, e-Education, e-Health and e-Environment are seen as enablers for development, providing an efficient channel to deliver a wide range of basic services in remote and rural areas. ICT applications can facilitate the achievement of millennium development targets, reducing poverty and improving health and environmental conditions in developing countries. Given the right approach, context and implementation processes, investments in ICT applications and tools can result in productivity and quality improvements. In turn, e-applications may liberate technical and human capacity and enable greater access to the basic services.

E-Government is not just “electronic” government. It is “enabled” government, the government that delivers different and better programs and services. E-Government is about people: new skill sets, mindsets and leadership approaches. It will transform how public servants work, relate to each other, do business, and engage citizens and others. E-government is a process that requires a sustained commitment of political will, resources and engagement among the government, private and public sectors. However, if e-government practitioners ask and answer the following questions outlined in the Roadmap, they potentially can develop a system of e-government that not only makes current government practices more efficient, but also transforms the very relationship between the public, the private sector and government. E-government is more about government than about “e”. It enables better policy outcomes, higher quality services and greater engagement with citizens. Governments and public administrations will, and should, continue to be judged against these established criteria for success.

### **3.9 Technologies and integrated management**

Lack of peoples’ participation, fractured relationships between government agencies and citizens, lack of availability of local resources, limited integration with local Community Service Offices (CSOs) and exogenous social and economic environment are the reasons why ICT has failed to deliver the full range of services in governance matters (Aichholzer, 2004).

Updating of data in local languages, standardization in all areas like encoding, application logic for common uses, user interfaces, preparing data dictionaries, making appropriate cyber laws, procedural and legal changes in the decision and delivery-making processes as well as in the institutions and encouraging private public partnerships can facilitate successful application of the e-governance projects in India (Chauhan, 2009).

Efforts are needed to incorporate local languages and local content in the internet in a massive way. Accessing the internet using keyboards may limit the use of the internet. Hence, there is need to

develop voice-enabled internet service with Indian languages, and applications should emerge out of the Indian way of life (Harris and Balaji, 2003).

### **3.10 ICT tools/applications for good governance**

To ensure that cities strengthen key parameters of sustainable development, notably those related to liveability, competitiveness, good governance, management, and bankability, many public-sector entities and municipalities across the world have adopted ICT to trigger ‘Smart City’ development for their respective constituencies. Recognizing that such technology can transform the way cities benefit from agglomeration while minimizing adjustment costs (‘grime, crime and time’), introducing ICT in the governance system of cities can transform urban and water services development. To aid WBG’s initiatives on sustainable urban and water development in the Indian Region, this section discusses the three fundamental ICT methodologies employed internationally towards urban governance and water management, namely, E-Governance, Social Accountability, and GIS. The objective is to identify and discuss cost-effective tools employed within these ICT methodologies to enable replication initiatives in urban India (Government of India, 2011).

#### ***1) E-Governance Tools***

By eliminating intermediaries and simplifying government to citizen and business transactions -making them more accessible to a wider audience - E-Governance seeks to reduce opportunities for corruption through supporting transparency and accountability measures. The ability of any citizen to efficiently and securely access municipality services/information around-the-clock and from any location reduces the potential for bribery—that could harm the poor—or discrimination—that could dissuade minorities from using the service. Along with PCs, widely diffused mobile telephones now also allow more citizens to deepen interactions with public-sector urban agencies. As a result, mainstreaming ICT-based E-Government systems into functions of sub-national level entities can transform municipalities by supporting officials in providing better governance and management capabilities. According to Prahalad and Hammond (2002) the different tools and systems that facilitate achievement of desired objectives through E-Governance are well established and widely used. These are detailed in the following sub-sections, and include:

##### ***i. e-Revenue:***

E-Revenue systems attempt to offer citizens and businesses an assurance that calculation of municipality charges/fees/Tax Returns/etc. is arithmetically correct and these payments can be processed efficiently. These systems are also designed to provide necessary tools for the comprehensive administration of working capital finance mechanisms for municipalities and service providers. They encompass software for: automated generation of invoices regarding utility service charges, fees; municipal tax appraisals for citizens and businesses; and digital revenue collection mechanism for local governments.

##### ***Merits:***

- E-Billing leads to efficient, streamlined collection of service charges and fees from citizens as well as transparency in collection processes.
- Through effective utility demand assessment and management, service providers can plan for adequate resource allocation to meet consumption requirements.

- Through online tax filing systems, governments can aim to reduce corruption in tax processing and build public trust.
- An organization can save 1-2% of turnover by replacing paper invoices and optimizing the related processes with web-based services. Electronic and automated invoice processes can result in savings of 60-80% compared to traditional paper based processing. Thus the payback time on investments in E-Invoicing projects can be as short as six months.

**ii. e-Authorization:**

E-Registration, e-Permit and e-Contract are online channels that enable citizens and businesses to seamlessly engage into various forms of certification and deeds with the local government in a transparent and cost-effective manner. Such online mechanisms are widely applied with the objective of improving economic competitiveness of cities and enhancing productivity through automation of time-consuming regulatory processes (for instance, computerized approvals for establishing enterprises, obtaining birth certificates, registering vehicles, land titling, etc.). These services include automation and interconnectivity of local registrars, ability to register over the web, and electronic distribution of registry information.

**Merits:**

- Automation reduces the barriers to starting a business, as measured by the Doing Business indicators. In countries with electronic registration, starting a business takes less time, requires fewer procedures, and costs less – leading to greater entrepreneurship.
- These services often provide authentication support, ensuring safe and secure transactions by protecting integrity of data.
- By streamlining processes and enabling transparency, scope for corruption is vastly reduced.

**iii. e-Procurement:**

With the objectives of reducing the time and cost of doing business for municipalities and vendors (goods and services providers), E-Procurement systems digitally link local government departments, agencies and local bodies with their vendors to create a single-stop shop for all procurements. This facilitates online tendering to provide ‘anywhere any time’ access to the vendors/bidders for participating in tendering, thereby eliminating the non-value-adding activities like manual sale of tender documents, manual opening and reading of bids, preparation of comparative statements (as they are automatically available), audit/cross check of comparative statements, time spent in movement of files from one person to another, manual creation of purchase order and delivery schedule etc. Often, to aid municipalities adhere to budget cuts and reduce scope for corruption; e-procurement tools have in-built mechanisms to levy various controls on government purchases and expenditure. Prahalad and Hart (2002) in their study provide the process information concerning various aspects of procurement, such as government suppliers, procurement prices, and acquired items.

**Merits:**

- By doing away with paper forms, e-procurement not only helps eliminate errors, but also reduces postage costs and the expenses and space considerations surrounding paper-based record storage.

- By closely tying actual demand with in-house handling/storage capacity, the amount of inventory and services municipalities must purchase is reduced - allowing for efficient supply chain management.
- Through E-procurement systems, municipalities can consolidate orders for similar items with one supplier, resulting in deeper volume discounts and cost savings.
- Better value for money spent can be realized through increased vendor competition and the prevention of cartel formation.

**iv. *Financial Management Systems:***

With the objective of forecasting the total liquid cash resource available to the government at a point in time, Integrated Financial Management Information System (IFMIS) provides an integrated financial package for public resource management by computerizing the budget management and accounting systems. It consists of several core sub-systems which plan, process and report on the use of public resources. IFMIS sub-systems normally include accounting, budgeting, cash management, debt management and related core treasury systems. In addition, some governments also include non-core sub-systems such as tax administration, procurement management, asset management, human resource and pay roll systems, pension and social security systems.

***Merits:***

- More realistic and standardized budget formulation and execution
- Historic information on expenditures
- Improved resource allocation, revenue and expenditure control
- Asset, liability and cash management
- Financial Risk management and control systems
- Access to reliable and timely information to support decision making
- Customer service
- Auditable financial statements

**v. *e-Citizen Development:***

e-Governance applications can be leveraged to deliver customized socio-economic services to citizens (such as targeted employment opportunities, Health information, Skill development opportunities, etc.). As greater number of urban residents in developing countries gain technology accessibility through rising ICT penetration levels, e-Government systems providing Web-enabled or mobile-phone based government services can now address a wider audience including disadvantaged groups. e-Citizen Development programs can involve public broadcasting mechanisms (over mobile phones, internet) for disseminating vital information (for instance, recommended sanitation measures, location of ongoing recruitment campaigns, etc.). Public computer centres/Training labs have been launched to impart educational/skill development programs for specific target groups such as women, disabled citizens, etc. Also, by incorporating specific search parameters in local government websites, on-demand/customized opportunities can be provided to citizens (for instance, relevant employment opportunities, etc.) Castells, (1998).

***Merits:***

- In view of the strong linkages between socio-economic conditions and governability, improved economic conditions of citizens can reduce dependence on law enforcement and hazard management agencies for public safety.
- Greater awareness of citizens on health measures through e-governance can reduce future spending on disease prevention measures and treatment.
- Targeted citizen-centric solutions can vastly help reduce 'trust deficit' between citizens and local governments.

**vi. E-Municipality.**

By integrating the overall activity of the municipality (administrative service delivery as well as financial activities) into a unified system, this tool aims to incorporate all essential features for introduction and operation of e-Government. E-Municipality refers to the virtual integration of all municipal departments/functions within a city to create a seamless 'one-stop-shop' access point for citizens. Such systems handle interactions for every kind of activity between citizens, businesses, public employees and government departments on the electronic platform. For instance, through e-Municipality systems, users can fill out digital forms only once and the data gets automatically transferred to all relevant departments immediately - avoiding the scope for needless duplications, redundancies and confusion. As per Robertson,(1994) typical modules incorporated within e-Municipality integrated systems include: Registration of municipal property (issuance of deeds of municipal ownership and maintenance), Rental of the municipal property, Real Estate Appraisal (automation of appraisal procedures related to municipal land and buildings), Cashier's office (automation of cash and bank transfer payments on municipal charges – housing, land, administrative services, etc.), punitive ordinances (Issuance, registration and printing of punitive ordinances for offenders), etc.

**Merits:**

- Ensuring effectiveness and efficiency in public administration.
- Equal access for everyone.
- Integrated network.
- High quality and rich information.
- Improved ease of service.
- Cost saving.
- More transparency and ease of access to government units.

**2) Social Accountability Tools**

Social Accountability tools (such as online blogs, forums, discussions) render a platform for large-scale citizen review/feedback/dialogue on public-sector policies and services via up-to-the second news, meeting notes, postings, data, images, etc. These multiple-format mechanisms offer new barrier-free models of public participation in which real-time collaboration, experience-sharing and participation amongst citizens are becoming the norm. This enables authorities to constantly remain in touch with people in order to make governance more effective and representative. In view of the growing accessibility of ICT in most Indian cities, citizens and stakeholders are in an increasingly powerful position to leverage mechanisms for Social Accountability (Porsdam, 1999).

The various tools that support ICT-based Social Accountability mechanisms in the framework of Urban/water services are discussed in the ensuing sub-sections, and include:

*i. Surveys (Forecast/Retrospective)*

Citizen surveys are investigations of the behaviour, preferences, attitudes or opinions of a target group sample, collected through online questionnaires. Ex ante (or forecast surveys) can help government and utilities to shape future plans, such as investment/infrastructure plans to expand services, institutional changes and tariff changes. Post ante surveys (or retrospective surveys) can constitute effective mechanisms for conveying citizen's viewpoints and review of public projects and services to authorities. Surveys may cover particular sub-groups or geographical communities within the service area or the whole service area. Ex ante/forecast surveys may measure willingness to pay or preferences (for example) service levels and tariff structures. Post ante surveys can be used to evaluate and monitor performance of urban projects and services from the citizen's point of view (Patton, 2004).

A wide variety of online applications exist for conducting surveys using the Internet. Through mobile phones, respondents can submit their choices using SMS messages, touch-tone number punching, interacting with voice messaging systems, etc.

Merits:

- a) Targeted forecast surveys are a useful tool for consultations on service development and improvement. Retrospective surveys can give agencies insights into problems being faced by citizens and bring pressure to bear for their resolution.
- b) Within the targeted population group, there exists equal access for everyone.
- c) Although surveys can be expensive to conduct, those high costs may be warranted for large planned activities – results are often used to create change.
- d) Surveys can be institutionalized into normal utility or municipality operations

*ii. Citizen Outreach*

Outreach can be a first step to a two-way dialogue and consultation – although it is mostly a one-way process, with information flowing from utility companies/municipality to the public through SMS messages and alerts or e-mail notifications. Citizen outreach pertains to efforts by agencies to connect directly with the public for purposes of disseminating vital information/messages pertaining to necessary health precautions, location of skill development workshops, change in tariff levels, tax payment information, etc. Outreach can also be used to provide information on the utility, including works and service disruptions, and on how to use complaint and consultation mechanisms (Laffont, 1993).

Merits:

- a) Community outreach can establish a basis for accountability by building trust and making utility/municipality staff more accessible.
- b) It can be customized to reach specific/targeted communities or groups.
- c) Cash costs are modest; costs for consumers are low; can be organized in parallel to other activities of urban and water-sector agencies.



- d) Outreach activities can be easily made routine

**iii. Digital Publication**

An effective way of ensuring accountability of local governments and service companies is by making performance data of these entities available through online publishing of annual reports/metrics or disseminating relevant information using SMS messages. Such reports provide a mechanism for public overview of agency activities and a tool to monitor performance. It can be a powerful tool for citizen and consumer advocates demanding change as well as for community representatives monitoring utility performances, particularly if it provides data on service performance as well as finances. As utilities already send e-bills to consumers, this provides a valuable channel through which additional data can be provided.

Merits:

- a) This tool offers high sustainability once a performance management system is place. Setting-up these systems can be strongly encouraged by formalization through enforced laws or guidelines.
- b) Effectiveness of publishing data can be easily enhanced based upon the relevance, quality, timeliness, and format of the information provided.
- c) Publication of service and performance data provides the basis for accountability.

**iv. E-Participation**

E-Participation mediums such as blogs, citizen forums, on-demand information channels (for instance, YouTube, Facebook), online chat rooms, etc., render a virtual feedback, review, critique and complaint loop between citizens and concerned authorities/service providers. The goal of such mechanisms in governance is to enable greater citizen participation in managing and monitoring city administration. Through e-participation, people can interact with local officials and make their voices heard. It allows citizens to immediately see how and why their representation is functioning the way they are, and enables citizens to share their comments and views on the functioning/performance of local agencies. Public officials/agencies can judge the prevailing mood of citizens and take corresponding course of action based on popular sentiment. This helps voters better decide who to vote for in the future or how to help the public servants become more productive.

Merits:

- a) It is possible for users to remain anonymous while providing feedback to local administrators.
- b) The extension of Social networking tools to Mobile communications can vastly enhance the participation levels of ordinary citizens in governance
- c) Access to Social Networking tools is by-and-large cost-free to citizens, enabling even the urban poor to participate in governance.

According to Deloitte Research (2000), the ICT-based Social Accountability constitutes a mechanism towards inculcating more citizen-centric governments by providing residents the opportunity to conduct open dialogue, feedback, situation monitoring and idea-exchange with local governments and municipalities. As discussed, ICT applications for Social Accountability helps develop well-informed, aware citizens by fostering collaboration, participation, and idea-exchange (or ‘storytelling’) and puts them in real-

time contact with elected officials or their offices. This allows voters to have a direct impact and influence on their local government, as officials are urged to take appropriate action based on prevailing views of constituencies.

### **3.11 Methods for e-governance implementation**

- i. To achieve well-designed, successful E-Governance applications using internet or mobile phones, a secure-transaction environment (to protect data security) must be created for making municipalities more accountable and transparent.
- ii. Typically, streamlining of business processes for enhancing municipal capability towards servicing citizen/stakeholder needs and concerns may be required.
- iii. The underlying Information Technology (IT) structure should have the flexibility for alterations and modifications over time to suit evolving citizen/customer requirements and yet ensure intended accountability of municipalities.
- iv. To ensure continuous high-level support for E-Governance from local governments, these applications must be devised based solely on policies and objectives stipulated by official authorities.
- v. It is a fact that India needs huge amounts of funds for implementation of e-governance projects. Governments do not have such large amounts of funds. In this regard, encouraging private investment seems to be a possible answer. Public private partnership (PPP) can be encouraged to initiate projects in order to meet the needs of the rising population. The Gujarat Check-Post Project is an example of the PPP model for promoting e-governance in India.

### **3.12 ICT for decision making strategies**

The development approach to IT initiatives, however, offers no direction as to how IT can directly improve the use of implicit knowledge on individual and inter-subjective levels, and how that kind interaction can improve the decision-making process in the organization (Dada, 2006).

IT initiatives are designed to stimulate usage of only one aspect of knowledge — inter-subjective explicit knowledge during decision making activities. Similarly, the fact that IT obstacles are viewed mainly as explicit knowledge constraints implies that IT initiatives reinforce IT usage practices centered around IT applications that collect and process factual and descriptive information, such as data and transactional processing applications. In other words, the belief that maximizing computing power and communication capabilities while minimizing organizational constraints leads to IT usage for decision making in developing countries.

Bertot, (2003) considered the possibility that IT and public managers in developing countries may be designing IT-for-decision-making initiatives based on unrealistic assumptions through his paper “Cargo Cults, Knowledge, and IT-for-Decision-Making Strategies in Developing Countries”. It argues that the problem with development thinking is that it views IT initiatives as allocation constraints. This creates the expectation that IT strategies can optimize new technologies, human resources processes, and structures within organizations. Consequently, knowledge is treated as an afterthought in IT strategies without consideration for its special characteristics. This article suggests that the challenges facing IT and public managers in developing countries are not allocation constraints but knowledge problems.

Although IT and public managers in developing countries argue that there is no ideal model for IT and decision-making activities, their vision of what needs to be done is based on positivist

assumptions that they, along with stakeholders, possess all the relevant information needed to design and implement the most appropriate strategy to improve organizational decision making in public institutions.

Chawla, Rajeev, and Bhatnagar, (2001) suggested that IT initiatives in non-industrial organizations are essentially allocation solutions that revolve around what development thinking views to be the most appropriate means to improve efficiency and effectiveness in organizational activities. These requirements could be, a technical infrastructure that provides access to information content, Information content that consists of electronic resources relevant to organizational decision making; and a skill base that includes specialized skills.

### **3.13 ICT for decision-making practices**

Although such assumptions are necessary conditions for accessing factual and descriptive information, this article argues that they do not directly address how IT, human resources, and socio-organizational factors trigger the use of implicit knowledge on individual and inter-subjective levels. More specifically, IT initiatives do not make allowances for what is known about the decision-making process — once the stream of explicit knowledge that flows through IT and information networks is made available to the organization, it is received by an individual who engages in a kind of discourse with the information. Furthermore, this reflective process is fundamentally a dialogical structure that guides decision-making activities.

It may be observed from above mentioned review of literature that some pioneer work has been done by various researchers in islands of components of good governance in developing countries including India. However, there is a need to present a comprehensive, integrated and holistic approach for good governance with Indian perspective and the proposed study intends to fill this gap.

Lenk and Roldan (2001) were of the opinion that E-governance initiatives in most countries promise a more citizen-centric government and reduce operational cost. Unfortunately most of these initiatives have not been able to achieve the benefits claimed. Often the reason for this failure is a techno-centric focus rather than a governance-centric focus. The paper explores the necessary attributes of a governance-centric initiative under the banner “excellent e-governance” (e2-governance), and describe a methodology for ensuring such excellence in e-governance implementations. Excellence (or governance-centralism) in e-governance requires the initiative to be effectiveness-driven and not merely efficiency-driven. This will require the initiative to be led by “good governance” driven goal/purpose: additionally, the initiative must be outcome-focused.

Chawla, Rajeev, and Bhatnagar, (2001) discussed in their study on an e-government project in Bangladesh highlight that most e-government projects within developing countries employ high-technology intervention whereas citizens are not ready for this. There are successful projects which took low end route. This paper examines one such project to find out the reasons behind its success. The research concludes that stakeholders’ participation is the driving factor for success. The major issue is not IT, but an understanding between the citizen population and their complimentary governmental entity, which acts as the critical factor for triumph in e-government. Due to the active participation of stakeholders, both the birth registration and immunization rate have increased where concurrently other unforeseen benefits were realized; such as image enhancing of public and elected officials, use of data for school enrolment and decision making for vaccine management for society as a whole. It may be observed from above mentioned review of literature that some pioneer work has been done by various researchers on ICT and good governance in

developing countries including India. However, there is a need for comprehensive, integrated and holistic approach for good governance with Indian perspective and the proposed study intends to fill this gap.

Whereas the cost of delivering financial services in rural areas may have previously been prohibitive, IT may make it affordable. It can be done through following ways:

- i.* By increasing staff productivity
- ii.* By reducing transaction costs
- iii.* By removing physical asset barriers to growth
- iv.* By increasing the range of access point options:
- v.* By borrowing and building on the resources of others
- vi.* Facilitating Integration Technology

The proper application of mainstream IT solutions can increase confidence in a partner's ability to share information, lend credibility to the quality of data that will be shared, convey an image of organization, sophistication or a "Cutting edge" approach to operations, and generate confidence in the partner's ability to manage risk. Both sides of the coin are important in enabling MFIs and the microfinance industry in general, to forge the kind of partnerships that allow the design, delivery and financing of solutions which meet its objectives and facilitate the economic development of individuals, communities, and nations.

### **3.14 e-governance applications in rural India**

Rural e-Governance applications in the recent past have demonstrated the important role the ICT play in the realm of rural development. Several e-Governance projects have attempted to improve the reach, enhance the base, minimize the processing costs, increase transparency, and reduce the cycle times. Several states have initiated the creation of state wide area networks (SWAN) to facilitate electronic access of the state and district administration services to the citizens in villages. Most of the e-Governance projects have demonstrated the power of ICTs in rural context and are seen as reference models for future e-Government project implementations. There are a lot of projects being made to replicate some of these in areas of land records, property registration and transportation through central government initiatives. The ICTs are being increasingly used by the governments to deliver its services at the locations convenient to the citizens. The rural ICT applications attempt to offer the services of central agencies (like district administration, cooperative union, and state and central government departments) to the citizens at their village doorsteps. These applications utilize the ICT in offering improved and affordable connectivity and processing solutions. Several Government-to-Citizen (G2C)e-Government pilot projects have attempted to adopt these technologies to improve the reach, enhance the base, minimize the processing costs, increase transparency, and reduce the cycle times. A large number of rural e-Government applications, developed as pilot projects, were aimed at offering easy access to citizen services and improved processing of G2C transactions. Since 1990s, there have been many ICT initiatives in rural India undertaken by different government agencies. The services offered through ICT for rural e-Governance initiatives can be divided into three types. They are:

- i.* Informational services disseminate generic (non-customized) information, such as agricultural practices, weather forecasts, market rates and contact information.
- ii.* Transactional services involve an exchange of specific (or customized) informational services or funds between two or more parties using the ICT infrastructure. The examples of these services include e-commerce and email.

- iii. E-Governance services refer to transactional services that involve local, state, or national government. Providing land records, submitting user complaints to local officials, and confirming a user's presence on electoral rolls are examples of these services.

In the present study, the impact of ICT services in rural areas, especially the informational and e-Governance services, are being analyzed with the help of primary data. The other methods used for the primary data collection are informal discussions and non-participatory observation about the role of ICT initiatives in providing the informational service regarding the agricultural practices and market prices for the agriculture produces. The informational services will help the agriculture farmers for profitable agricultural practices which lead to the overall development of the rural areas.

### **3.15 ICT initiatives taken by states considered for study**

#### **3.15.1 Punjab**

- i. Accelerating the economic growth of Punjab by promoting investments in the Knowledge Sector in general and ICT based Industry and Services in particular and facilitating NRI Investments towards development of the ICT sector within the state.
- ii. Promoting self-employment for the youth by designing appropriate initiatives and create direct and indirect gainful employment for the educated and other youth in all professions. Also, promote vocation ICT initiatives in schools and other institutions.
- iii. Enabling Physical and Social Infrastructure Development with a special focus on the three pillars of National e-Governance Plan (NeGP) viz., Providing Integrated Services through Citizen Service Centres (CSC) under one roof, Wide Area Network (WAN) and Data Centres.
- iv. Leapfrogging in the Knowledge economy by promoting overall qualitative human resource development.
- v. To establish new multi-faceted ICT institutions and societies as centres of excellence to ensure Punjab's competitiveness in the space – To move up the value chain, promote RandD culture and promote the knowledge society
- vi. Create an ICT enabled friendly business environment through suitable Policy, Legal, Regulatory and Institutional Framework. Create suitable policy framework, institutional framework, infrastructure, work environment, information culture, for facilitating Good Governance – represented by the following attributes: i) Rule of Law, ii) Transparency, iii) Accountability, iv) Responsiveness, v ) Consensus and Orientation, vi ) Equity and Inclusiveness, vii) Effectiveness and Efficiency, viii) Right to Information and ix) Optimize touch points between citizen - Government Interface. Minimize Data Duplication from citizen by creating Integrated Databases and State Data enter
- vii. Develop a consistent technology architecture and standards baseline across all departments and promote the development and delivery of a wide breadth of online services Government-to-Citizen (G2C), Government-to-Business (G2B), and Government-to-Government (G2G) services) via a state-wide integrated e- Portal.
- viii. Promote entrepreneurial initiatives that are beneficial to the society such as publicizing

and market development for handicrafts and other products of rural artisans, content distribution etc.

- ix. Facilitate Digital Unite by promoting increased awareness and information exchange among the community
- x. Provide safeguards for system security, disaster recovery, and privacy protection in all the Government and Business transactions.
- xi. Assess gaps in capacities within Government and pursue Capacity Building exercises in Government, RandD, Scientific and Industrial Research and define policies for recruitment
- xii. Facilitate the government departments in drafting Annual Technology Plans and corresponding budgets so as to improve state-level strategic project planning, budgeting, and tracking
- xiii. To empower children, women, the disabled, the SC/ST and other backward classes by providing special programs for playing a role in the knowledge economy.
- xiv. Foster growth and development in Local Language Interfaces and content through selective policy initiatives.
- xv. Telecom Infrastructure and Usage Policy - Connectivity, Free Right-of-the-way policy. Work toward Convergence of Technologies.
- xvi. Promote sustainable business model in e-Governance and other ICT initiatives through Public-Private Partnership and other revenue models.
- xvii. To promote adoption of ICT and other new technologies in growth of industry and business to increase competitive advantage, reduce costs and boost overall economy.
- xviii. Catalyze rural re-construction in particular, development of rural infrastructure through use of appropriate technologies.
- xix. Facilitate the next agricultural revolution in all facets including pre-production, production, post harvesting and marketing of agricultural produce, horticulture and animal husbandry products.

### 3.15.2 Haryana

**Vision:** To transform Haryana into an IT driven economy

#### **Objectives**

The IT Vision is sought to be realised by achieving the following objectives:

- i. Modernize and rationalize the administrative set up so as to upgrade the standard and quality of administration,
- ii. Providing public centred, cost-effective and efficient Government,
- iii. Extensive percolation of IT literacy and education in the State,

- iv. Promoting investments in IT industry,
- v. Encouraging the initiative of private sector in IT related infrastructure and services,
- vi. Increasing the share of IT in State Gross Domestic Product,
- vii. Generating IT related employment opportunities, and
- viii. Ensuring a better quality of life by increasing the earning capacity of the residents.

**Re-engineering of administrative processes:**

- i. To facilitate adaptation to IT, The State shall undertake recasting the structure, intensive re-engineering and bring administrative reforms in the functioning of its administrative departments,
- ii. IT Initiative Fund for e-Governance: establishment of an IT initiative fund for e-Governance with monetary assistance from profit making State PSUs and co-operative institutions.
- iii. State-wide Area Network: The State shall establish backbone network i.e. Haryana State Wide Area Network (HARNET) for transmission and dissemination of data, voice, and video; to be utilised for multi-service facilities, inter department connectivity, file transfer facility, on-line application processing, video conferencing and e-mail query and response.
- iv. Centralised Data Repository of public domain information shall be laid by the State Government Departments which will further establish local area networks and departmental intranets for "Anytime- Anywhere" usage.
- v. Flagship Applications /Proof-of-concept: Flagship applications will be developed as proof-of-concept applications for positively assuring its Departments, Boards and Corporations.
- vi. SMART Cards: SMART Card based citizens ID with multi-functions that enable citizens to act as a Voter ID, interact with services, make payments, obtain ration card, passport, vehicle registration and driving licence etc. shall be introduced by the year 2003 in association with the private sector.
- vii. Promote Hindi: The use of Hindi in Information Technology will be promoted by the State Government to increase the outreach to the common man. Promotion for the use of Devnagari in computers will be taken by specific initiatives and developing web applications for this purpose.
- viii. Government Procurement/Tendering Process: By the year 2002, the existing system shall be replaced by Electronic procurement and settlement system with supporting databases and transparent decision making.
- ix. MIS for Different Levels: Using the process of reengineering in the State Government, an efficient and effective department specific IT based Management Information System / Decision Support System shall be evolved.
- x. Standardisation of IT Infrastructure, data and applications: Procurement of hardware, software, networking equipment etc. shall be mandatory for all Departments, Boards and Corporations in accordance to the specifications and standardisation laid down by Hartron, the sole agency designated by the State Government for software and equipment procurement.
- xi. Use of GIS Technology: The data for environmental protection, traffic regulation, spatial planning, utility management, etc. shall be integrated, analysed and visualised by the extensive use of GIS.
- xii. Development of Portal Website: Hartron would set up a portal website of the State

- by interconnecting website of every department who in turn shall develop their own websites. Government tenders, public domain information employment news, and notices issued for general public by the Government shall be published on this website.
- xiii. IT Literacy in Government: To achieve 100 per cent IT literacy in the Government by 2002, and IT Literacy Plan (ITLP) shall be implemented for the employees. The minimum level of defined proficiency in IT literacy will include word processing, data entry, e-mail and access etc. A desired level of proficiency shall be achieved by devising a suitable incentive policy.
  - xiv. e-Citizen Interface - Digitisation of Public Domain Information: All the information of public domain like official gazette notifications, circulars, acts, rules, regulations, policies and programme documents would be made available for electronic access on Web. This process shall be completed by the year 2002.
  - xv. Delivery of Public Domain IT Services: State-of-art technology shall be used in the State Government Departments, Boards and Corporations for electronic delivery of services which are in the public domain. A transaction fee will be charged from the users for the delivery of such services.
  - xvi. Electronic Commerce: A number of legal issues have surfaced with the development of electronic market places and these require to be addressed in e- Banking and B2B and B2C applications. and will endeavour to develop An International Electronic Commerce Hub, in joint venture with VSNL/private sector, will be developed in Gurugram. This hub will be set by the State Government to give due emphasis on e-Commerce
  - xvii. Promotion of IT-enabled Services or Remote Services: Due to the vast employment generation potential of IT-enabled Services or Remote Services, establishment of such units shall be promoted by the State Government.
  - xviii. Promoting IT Industry: The State Government has specifically worked out special package of incentives, providing opportunity for competitive growth under this IT Policy as it recognizes the need to give fillip to investments by the private sector in IT Industry. The State Government shall play the role of a facilitator for such investments by creating reliable infrastructure, investor friendly environment, speedy clearances and escort services.
  - xix. Communication Support: The State Government shall encourage the establishment of support networks by the private sector. Such networks using satellite communications, optical fibres, and wireless communication technologies will create adequate bandwidth for meeting large scale connectivity needs.
  - xx. Service Delivery Points (SDPs): The SDPs like Interactive Voice Response Systems (IVRS), Public Tele Info Centres (PTICs) and Information Kiosks in the private sector, shall be encouraged, for citizens to access services.
  - xxi. Internet Community Centres: To provide Internet facilities throughout the State and up to last mile linkage, private sector will be promoted by the State Government for setting up of Internet Community Centres
  - xxii. IT Based Human Resource Development: Human resource development shall be given top priority by the State Government with the objective of improving the employability of the residents in IT.
  - xxiii. Institutional Frame Work: Minimum interference and maximum facilitation shall be the governing philosophy of the State to create investor friendly environment.



### 3.15.3 Himachal Pradesh

Information technology plays a very important role in the rural development of Himachal, by providing citizens with information necessary for development. Many IT and e- Governance related projects like SUGAM , LOKMITRA , SMS gateway, AGRISNET for Himachal Pradesh, telemedicine projects, HIMS, HRTC online ticket booking etc. have been initiated in Himachal Pradesh. Services like online bill payment ,transfer of funds , monitoring of CIBC investments, order cheque book, transfer and receive an INTERA e-transfer TM2, view CIBC Visa \*account etc.; are provided through such applications.

**SUGAM (I-CoSC) :** Integrated Community Service Centres (i-CoSC) provides services and information to the citizens under a single roof. Services like transport vahan- vehicle registration, saashi- driving license, bus booking and time table; voter registration and voter ID; e-parman/certificates- caste domicile, senior citizen, income, backward area, SC/ST, OBC; revenue-land records, utility- electricity bills, telephone bills, monitoring of files, market-agriculture, commodity prices; arms license, police complaints, e-pehchan- senior citizen identity card, labour and employment, tourism, hotel reservation etc. are covered by these services centres. These centres are established at all tehsils/sub-tehsils, sub-division and district headquarter of Shimla district.

**LOKMITRA:** This scheme of Government is beneficial especially for the rural people. It is delivered in the remotes corners through IT as well as non-IT based services. Through these services, the rural people can track the services available with the centres like certificates, complaints and land records and can report grievances against any service and person.

**SMS gateway services:** Started by the Department of Information Technology, bulk messages can be sending to a group of users (citizens or government employee) in a single step for sharing public information. Also, some specific service information to individual users (citizens or government employees) as per requirement can be sent using this SMS facility. This facility may be used at SUGAM centres for sending SMS regarding the state of service when it is ready for delivery or if there is some deficiency in the document submitted by someone at the counters.

**AGRISNET** provides online information for agriculture, animal husbandry, and horticulture and fisheries department. AGRISNET project will bring farmers, researchers, scientists and administration together. Even the citizen can ask online question and can get advice from the experts of the concerned department. It can also provide information regarding the soil, crop rotation, about seeds, fertilizers and pesticides and weather. They even give information about which crop to grow and which animal to raise.

**E-pehchan:** For the issuance of the senior citizen identity card and disability identity card by the district welfare office, e-pehchan software is implemented. This also keeps the information in the records intact and guarantees easy retrieval when required.

**Telemedicine:** It was implemented to provide and improve health service in the state by providing access to medical specialities to common people.

**HMIS:** Hospital Management Information System includes computerisation of the activities of the hospital and to keep track the patient record or the medical history. This database is also useful for doctors from the research point of view.

**HRTC Online Booking:** It is used for the advance booking of seats in state transport buses. Smart card is also issue of discount.

**VCC:** Vigilance complaints monitoring system provides facilities for filling online complaints.

**RCMS:** Revenue Court Monitoring System software is developed by the IT department for the use at revenue courts at division, district, and SDM and tehsil level. It provides e-portals like e-money darshan, LMS, e-despatch, HIMSWAN, e-samadhan, e-salary, etc.

### 3.15.4 Delhi

Delhi use ICT for the following purposes

- i. For the improvement of quality of life through e-governance, government will provide services to all the citizens at any time and at any place, at an affordable cost and in local language.
- ii. For the creation of job opportunities and for greater income development, transparent and accountable service delivery to businesses and other stakeholder is enabled.
- iii. For long term sustainability of the service quality, the innovative process re-engineering, public- private partnership, participation by the citizens and automation of key departmental processes is assured.

The portfolio of the state consists of ICT applications that will electronically deliver the highest quality of services to the citizens (G2C), businesses (G2B), government functionaries (G2G) and government employees (G2E). Core e-government infrastructure is also identified by the strategy and is being implemented in a phased manner.

Following are the recommendations that are listed in EGRM to achieve the above mentioned vision:

- i. To initiate individual developmental transition integrated transaction through modules and scalable fragments and to provide scope for future extension.
- ii. To move to citizen service bureau by providing one stop-shop for all common services for delivering various government services.
- iii. To develop and deploy state wide area and network, state data centre etc. as core infrastructure which would act as the backbone for the developmental governance.
- iv. To derive synergy by reducing duplicity from cross departmental interactions in fields like maintaining citizen database, usage of common applications, GIS mapping etc.

As the backbone of the NCT of Delhi, state-wide support infrastructure would act as state wide area network and the state data centre which would connect all the departments and also provide access and connectivity to the government employees and citizens. Chief Minister's office has set up a Public Grievance Redressal cell with a dedicated website for registering grievances directly online.

The state nodal agency is expected to have motivated and experienced resources in its team. In order to retain them, they must have a strategy to sustain e-governance initiative within the state. The technology policy support group shall be responsible for providing technical inputs for government's policy related issues. The nodal agencies with the partnership of private parties can run the facilities and will be responsible for all the e-procurement related services.

The government of NCT of Delhi has an IT policy constituted in a specified zone so as to promote the investments in the information technology industry and e-governance in the state. The main objective of the Delhi government is to create a state where citizens can connect with the government electronically, by making available most of the services online while ensuring that there is no digital divide.

### **3.15.5 Uttarakhand**

Under normal e-governance plan (NeGP) by the Department of IT, e-district aims at providing support to the basic administrative unit i.e. district administration, which proposes to adopt an integrated approach of citizen services delivery.

e-District refers to the administrative set-up that is coordinated by District Collector /Magistrate including Subdivision /Tehsil /Block/Village level units that are responsible for public service delivery. These services are expected to be delivered with the help of proposed common services centres (CSCs) schemes under the National e-governance plan (NeGP) of the Government of India.

DeGS has identified the six service categories which shall be taken as pilot plan for implementation in Pauri as e-District:

- i. Issuing of certificates that includes: domicile, caste, income, Birth, Death, and Character etc.
- ii. Social welfare schemes including services: Pensions (old age, Handicap and widow).
- iii. Revenue court schemes including services: daily cause list, case status details, final order copy. Government dues and recovery, changes in Khatauni and mutation process etc.
- iv. Panchayat Raj: Pariwar register copy, pariwar registry entry.
- v. Disaster Management: Compensation for damage due to disaster.
- vi. Services related to ration card that includes the change of address, addition or deletion of members, applications for issue of duplicates etc.

### **State Wide Area Network – Uttarakhand**

Under the State Wide Area Network, the state of Uttarakhand should be operational as a secure network to offer the e-governance services: voice, video and data services on the same network.

Under the SWAN, the broad objectives of Uttarakhand State are as follows:

- i. To provide online information and government services in a secure way to the public.
- ii. To provide a convenient public access to government's information and services.
- iii. To fulfil the state's vision of widespread access to government services in cost- effective manner for long distance converged communication services( voice, data and video), under the state and local government entities.
- iv. To connect the available networks with the proposed network for better utilization of the existing facilities.
- v. To improve the efficiency of e- commerce applications to meet public requirement.
- vi. To show important improvement in government to citizen (G2C), citizen to government (C2G), government to business (G2B), business to government and government to government (G2G) interfaces.

### **Proposed Application**

After the operationalization of the Uttarakhand State Wide Area Network the following services will be available:

- i. Common people will be able to fill the online forms of registration.
- ii. Sales tax – status of tax, collected, area-wise/location wise.
- iii. Transport services including tax collected at every check post.
- iv. High court includes the status of all cases (description, pending, next hearing etc.)
- v. E-agro services include the details of agricultural land for farmers.
- vi. E- Village will provide e- governance services to the last level citizen.

- vii. Public Health Information System (PHIS) - All State medical college and civil hospitals will be connected to provide telemedicine services.

### **3.15.6 Chhattisgarh**

Under the national e-governance plan, the state of Chhattisgarh has launched the State Data Court as the country continues developing infrastructure to help a common delivery platform for e-governance initiative. It was implemented by the Chhattisgarh IT growth agency Chhattisgarh InfoTech and Biotech Promotion Society. As a shared service centre, it allowed rest of the government departments to focus on the service delivery instead of infrastructure management.

- i. The SDC is one of the main infrastructure elements under India's National e-governance plan that can be set-up in all the state.
- ii. The SDC in Chhattisgarh will gather information from across different state agencies, and will work as a central data repository and secure data storage.
- iii. The SDC will stay connected with the state wide area network through which it synthesize database from remote block service.
- iv. These data centres will support common platform to provide various service in managing all e-governance service applications provided by the state to individuals and businessmen.
- v. These data centres will entertain each application including those related to urban administration, procurement, commercial tax, GIS, rural development, land record system, education as well as financial management etc.
- vi. Along with this, it will also provide support to the state intranet portal, disaster recovery portal, remote management and service integration.
- vii. If there is some improvement in the equality of governance, the vision of inclusive growth reducing poverty and bridging the various divides that continues to fragment our society can also be achieved.
- viii. In all the districts of the state of Chhattisgarh, the district planning committees have been formed to provide valuable inputs and review.
- ix. For maintaining the accounts of PRIS, software should be launched at ZP and JP level as it is done manually at all tiers of PRIS.

#### **Vision of Chhattisgarh**

- i. It will be leader in transparent and accountability based governance in the country
- ii. It will become a leading state for technologically developed and enhanced agricultural focus.
- iii. It will provide improved and affordable health care facility to the citizen of the state.
- iv. It will be the destination of technically advanced and responsible business organisations.

#### **Initiatives proposed by Chhattisgarh**

Computerised initiative has been taken by the state of Chhattisgarh for panchayats for enablement of the PRI for IT. VSAT based connectivity has been set up at zila, panchayat and janpad panchayat.

**E-Panchayat Portal** supports the several processes including on-line monitoring of rural development schemes at panchayat level, on-line monitoring of employment guarantee and beneficiary schemes, information on resources of gram panchayats, compilation of basic information of gram panchayat for decision making, use of the maps and funds accounting software package that are developed by NIC is used by e-panchayats named RURALSOFT.

**Web Based Application** is used for online planning, monitoring and accounting are for BRGF under the guidance and direction from Ministry of Panchayati Raj to demystify and strengthen the decentralised planning process.

**PRIASOFT** is a software package that is used for monitoring of allocated funds, expenditure pattern and level revenue generation and allows transmission of intended reports to various monitoring agencies. It is web based software used for monitoring the online schemes. It is used for scalable schemes that mainly aim at capturing and processing data related to poverty alleviation schemes.

**NREGS** is used by NREGA cell at zila, panchayat and janpad panchayat to monitor the implementation of old age pension schemes at district level. Monthly reports are generated by using this application.

**State Data Centre** provides the infrastructure required for the database from the blocks and also the online services to the citizen at village or urban areas. These centres will be located centrally and assumed to connect to the remote block service using the Chhattisgarh state wide area network of the state.

### **3.16 Conclusion**

The socio-economic development is shaped by a succession of players at different levels—players who are subject to democratic control. Central in this process is, on one hand, the elected government bodies and on the other hand, the private sector consisting partly of citizens and partly of private enterprises. In principle, the overall framework is made through legislation and other regulations while the private players influence the development by their conduct on the market partly as manufacturers and partly as consumers.

This clear distribution of roles does not however hold up in the real world. First, the public sector alone, by its sheer size, is an important player both as a manufacturer and a consumer. Second, the elected representatives are not alone in setting the overall framework, as both citizens (who also may act as employees or consumers) and manufacturers are organized in a succession of organizations that together participate in making the framework for the markets wherein their members have to operate. The influence of these organizations are not only limited to influencing the public decision-makers. They also participate directly in the administration by negotiating agreements on wages and working conditions and trade association agreements on ethical guidelines, etc.

Apart from the players within the national power structures, the socio-economic development is also influenced by a series of external factors. One of the most important of these factors is globalization, which has caused nation states, in many areas, to become more dependent of decisions taken outside its borders and consequently the national scope of decision-making has in many instances become restricted. The on-going globalization is closely connected to the technological development within information and telecommunication technology. This is perhaps most evident within the financial sector where the possibility for instant transfer of information has been an important prerequisite for the development of global currency and stock markets.

## **4. REVIEW OF RELATED LITERATURE**

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### **4.1 Review of literature**

Literature Review or Review of Literature is a comprehensive survey of the works which aims to review the critical points of current knowledge published in a field of study, or related to a particular topic of research, usually in the form of a bibliographic essay or annotated list of references in which attention is drawn to the most significant works completed. Literature review is a conceptually organized combination of a literature search results that provides a context for the research. It is neither a summary of the literature, nor merely description of the works, but it is a critical piece of information. It involves thorough study and analysis of available literature on the problem under study. For this proposal, an attempt has made to list some of the work done on the topic of the study under subsequent sections.

Good governance is an indeterminate term used in international development literature to describe how public institutions conduct public affairs and manage public resources. Governance is "the process of decision-making and the process by which decisions are implemented (or not implemented)". The term governance can apply to corporate, international, national, local governance or to the interactions between other sectors of society.

### **4.2 The role of Good-Governance in the developed and developing Countries**

E-governance can be defined as "a government structure which is efficient and effective and is duly controlled by citizens" (Bedi et al, 2001). Perri (2004) states e-governance tools can "be used to sustain...the important elements of accountability and tension that a liberal democratic order requires". Within the same context, e-governance aims to promote policy making, however e-government requires the use of e-democracy.

On the other hand, e-government means "exploiting the power of information and communications technology to help transform the accessibility, quality and cost-effectiveness of public services" (Office of the Deputy Prime Minister, 2003). E-government also relates to the relationship between citizens and power bearers. To increase accountability and empowerment, the use of e-government is vital, in order to achieve citizen participation.

The topic of e-government and e-governance has become increasingly acknowledged over the last few years, and many governments gradually shifting toward the online services. However developing countries lag behind due to lack of capital and knowledge of the internet and Information Technology. Developing countries are more likely to have corrupt governments, thus restricting the level of ICTs within the country. However with organizations from developed countries, implementation of programmes produce effective results; the degree of corruption is reduced and democracy heightens. It is also important to mention that even developed countries are confronted by issues such as how to structure their e-government. Abbasi S, (2005) elucidates the Institutional Framework of the NeGP (National e Governance Plan) at the Apex, Programme and Project Level. These projects consist of State, Central and Integrated Projects, which aims to be cost effective so that local communities can participate. The author also observes the notion that governments are at different stages and possess various initiatives regarding e-Governance in India. Abbasi also explains that political will is essential for effective e-Governance and policy making.

“Conceptualization to project formulation and implementation” (Abbasi S, 2005) is based on knowledge although many governments are not at the same level nor do they have the expertise. There is emphasis to “create an institutional mechanism” (Abbasi S, 2005) to strengthen ICT knowledge in e-Governance. Allen et al (2001) envisages the challenges for Canada and emphasizes a “new culture in government”, to overcome existing barriers for development. Two sections are investigated; partnerships and leadership of people. By empowering citizens, an effective e-Government system can be implemented. It is not just technology that affects e-Governments but leadership, partnerships and existing structures. One of the main barriers is “an administration culture” (Allen et al, 2001). The Canadian goal was to provide all public services online by 2004. To create an environment of knowledge and learning has been on forefront for Canada. The government needs readjusting to the new form of e-Governance. This report (Backus M, updated April 2001) is influential in collating examples from developing countries, such as Ghana, Tanzania and Kenya, where the use of e-Governance strives to overcome corruption. For each case study, problems and development objectives are assessed. The main problems are transparency and limited resources. Links to other e-Governance initiatives such as e-Democracy Initiatives in South Africa, Uganda and Burkina Faso are also outlined. The social, economic and technological aspects are examined. Success factors include political stability and trust. The use of workshops can help to educate people in the developing world about ICTs and e-Governance. Bedi K, Singh P. J., Srivastava S (2001) in their book focuses on the internet as a tool for self-governing, depicting existing programmes which have been implemented, such as the ‘Friends Project’ in Kerala. The internet is seen as a democratic tool to give citizens freedom, accessibility and power. The publication explains the opportunities of ICTs and the need for effective governance to create an e-Democracy. The use of the internet, however, reduces the role of local authorities and empowers citizens. Consequently, the use of the internet in the programmes mentioned allows participation on a non-elitist level. The link between the internet, governance and society is essentially illustrated in this book.

Bhatnagar (1999) presents delivery models in less economically developed countries and provides opportunities and challenges for the future. According to Bhatnagar, E-Government strives to achieve efficiency and delivery of services online and the benefits include “less corruption [and] empowerment” (Bhatnagar, 1999). Programmes such as income tax online (Mexico and Brazil), customs online (India and Jamaica) and rural internet kiosks are cited. Access to rural areas is problematic and needs to be addressed. Public services in Bangalore, in the form of bar graphs, show that all services have increased since 1994 and corruption has also declined (Bhatnagar, 1999). Time frameworks are extremely important for programme implementation. This paper states the potential for e-Governments in developing and developed countries. Case studies in Europe, Asia and North America are also discussed. Dimensions and sectors of e-government are examined. The paper also outlines the stages of e-Government; “presence, interaction, transaction and transformation” (Bonham et al, 2003). Issues are investigated, with case studies from Birmingham (England), Rochester (New York) and Seoul (Korea) are discussed. The Birmingham government allows citizens to pay council taxes and report various domestic problems online. The initiatives of these three cities are reviewed. Expectations of e-Governance are an existing issue, as expectations are still very high. Carlitz, Gunn (2002) discussed online rule-making promotes citizen participation and encourages comments to be made, through opinion polls. However the government must decide how to make this information available. There are many challenges for federal agencies who implement electronic rule-making. Online rule-making can be adapted to any level of the government, used to discuss problems in order for resolutions to be made. Paperwork will be a thing of the past as more governments are seeking to adapt to an electronic administration

system. Topics such as transparency and common access are examined. Online rule-making is more accessible, unlike paperwork and involves people, be it at work or home. The magazine article conducts an interview with R. Chandrashekhar (Department of Information Technology, Government of India) discussing the National e-Governance Plan (NeGP) for India. Chandrashekhar (2005) describes the NeGP Plan which implements projects and is engaged on participation from public-private partnership. The NeGP Plan has been referred to “economic liberalisation” (Chandrashekhar, 2005), which aims to be established in both the government and outside the government. The NeGP Plan aims for governments to use ICTs to “delive[r] efficient government services and enhanc[e] transparency in governments” (Chandrashekhar, 2005). There is a strong emphasis on citizen participation in order for the NeGP Plan to perform. The online article supports e-Government, which emphasises the importance of policies and access to information. The main problem that affects developing countries is capital. The project, Romanian Information Technology Initiative: Policy (RITI) is mentioned, which has increased the use of Internet and telecommunications. This project has led to a higher level of awareness of e-Government. The article also refers to conferences such as the e-Government Eastern Europe Conference in September 2005. This has also increased awareness and knowledge. The editorial emphasises the importance of modernization in bringing about a global e-Government. Examples include Kenya and Madagascar, who have been improving their strategies in e-Government (Digital Opportunity, 2005). The online editorial discusses present projects, as the deadline 2005 approaches in December. The council services and projects are expected to grow, according to the article. The importance of demand is central in promoting projects, because they must be efficient and effective for citizens and governments alike. Projects such as the Wireless City Project and Project Nomad, set up by the Westminster City Council includes monitoring and CCTV systems. The Council aims to reduce costs and improve effectiveness. The use of wireless technology is a solution to previous problems. The security element of data will also be enhanced (Digital Opportunity, 2005).

Gill (2004) draws own experience and records ICT advancements. The chapters observe ICT in connection with people, governments and businesses. Greed and power are the main elements which inhibit potential ICT growth. Globalization and the influence of democracy are associated with ICTs; there is a struggle for freedom to use ICTs. As the author concludes: technology and society have a co-dependent correlation, thus each is dynamic in bringing about the Information Revolution. There is a collection of papers for the International Conference on e-Governance (ICEG 2003) in Delhi. The case studies are collected internationally. The chapters include issues and challenges concerning e-Governance with relevant case studies which have been successful. The book emphasizes the relationship of governance, business and citizens. By enhancing these correlations, the role of e-Governance can continue to be successful. The application of ‘Citizen Service Centers’ promotes empowerment and accessibility of ICTs for local people. Analysis of successful programmes regarding e-Governance in India is integrated within the volume. Elements of capacity building and organization cooperation are also included Gupta, (2004). Heeks, (1999) focuses on the information age and reinventing the government. It also includes relevant case studies, showing governments are unprepared for the information age reform. International practice has provided new models for reform. Electronic government projects have included those from Portugal and India. Heeks incorporates several initiatives from all over the world. Also implications for the government are addressed. Electronic democracy is also discussed in detail; models of democracy and how to strengthen relationships between the government and citizens, for example online voting. Several countries have ‘government online’ which broadens the gap between authority and the general public. Heeks R, United Nations, (2001) in an online document, brings



together the main contributions of e-Governance and mentions case studies. By promoting good governance, the developing world has more to offer; improving links between governments and citizens. The key elements of e-Governance are addressed; e-administration, e-citizens, e-services and e-society. To promote an efficient and effective government, costs need to be cut and relationships must be restored. The component of empowerment is crucial in promoting good governance. Examples of case studies include those from Egypt, Tanzania, China and South Africa. The paper also emphasizes the difference between government approaches and models in the North and South regions of the world. Jha, (2004) discuss the basic leading problems in the government, such as lack of experience and limiting infrastructure. The slide titled 'Corporations vs. Governance' gives an outline of potential problems, such as programmers which are experimental and "methodology driven". These programmes disregard reality and instead implement programmes that are not suitable for the needs and demands of citizens. However corporations and governments do have much experience, which needs to be implemented correctly. By establishing relationships and delivering services, the effectiveness of the government will improve over time. Okot-Uma (2005) explains the role of governments; problems associated with e-Governance and examine the good practices needed. The good practices mentioned include the implementation of ICT initiatives, good human resources and accessibility. Okot-Uma (2005) states the features of e-Governance needed for implementation; "Change Management, Process Enablement, People Enablement, Infrastructure Enablement and Systems Enablement". The three main good practices also include "Building an IT culture, creating public awareness programmes and formulating and implementing a communication strategy" (Okot-Uma, 2005). Okot-Uma accentuates that good practice in e-Governance will bring about improved ICT development; however both governmental support and organizational commitment are essential.

Perri, (2004) attempts to explore threats of ICT for governance and policy making. However opportunities are also discussed. Perri aims to define e-Government in four sub categories; e-democracy, e-service provision, e-management and e-Governance. A brief history of e-Governance is incorporated, with examples and initiatives. E-governance tools are investigated; e-Governance tools rely on different situations and frameworks dependent on what stage the government is in. This publication draws on principal analysts' knowledge, contains useful definitions and discusses the importance of political judgment needed for implementation of e-Governance. Perri, (2004) criticizes previous publications on e-Governance; simply stating its content has been "astonishingly neglected in all this vast recent literature". Picci (2005) comments on the model on e-Government, relationships, policies and time. The article outlines mathematical equations. Investment of e-Government can only take place if they "are accompanied by appropriate complementary interventions" (Picci, 2005) such as training and management. Tuscany is briefly referred to in the article. Structural models are assessed in relation to e-Government, which also relates to criticism of policies. These models are dynamic and affected by time. Graphs are also integrated, to show private labour and e-Government's savings. The importance of time will substantially affect the performance of e-Government strategies. Prabhu, (2004) focuses on e-Governance in India and also includes case studies ranging from Brazil, China and Sri Lanka. The case studies are useful for future projects, although it is not very constructive; the publication needs more positive and negative points from the experience of past projects. The literature focuses on models and theories; giving stages which are not very useful for many governments. The surveys are slightly dated as much has changed since the data was collected. The book includes other literature; however this publication is merely an outline of case studies and needs to include improved guidance for future programmes. Ratan, (2005) in an article indicates the implications for e-Governance; infrastructure, coverage, integrated deliverance and cost. Ratan's overview accentuates the key elements of NeGP;

national connectivity, web portals and citizen service centres. This initiative uses ICTs to improve the “quality, accessibility and effectiveness” of government assistance to communities” (Ratan, 2005). The overview also states the progress of NeGP; some are at a theoretical stage and others have started practical schemes. The NeGP aims to increase the role of e-Governance to make it accessible to citizens. The article states several objectives to overcome problems affecting the NeGP plan. It also mentions that the World Bank has helped to fund the Government of India’s programme, called ‘e-Bharat’. However the main concern for NeGP is at the implementation stage. Samarajiva and Zainudeen (2005) explain e-Sri Lanka Initiative (eSL), scheduled in 2002, aimed to bring ICTs to everyone in Sri Lanka and to improve the role of governance. The main objectives were to alleviate poverty and to improve human welfare. The role of ICTs also intended to develop the economic situation. Being available in major languages ensured information accessibility. Integration of ICTs within the governmental framework led to increased “transparency, accountability and efficiency” (Samarajiva et al, 2005). The government services have been made accessible to everyone, no matter their location. The need for reliable infrastructure has improved the situation of Sri Lanka’s global communication. Sealy, (2003) in a topic of e-governance states that e-Governance is more about citizens rather than technology. The projects must have an effect on rural communities and the poor must be targeted. E-Governance is an effective instrument in determining development and can bring about change. Sealy proposes that a “national unit within government” is needed for successful e-Governance. The focus on these islands and the existence of globalization is also mentioned. Stanca, (2005) in her article states that the use of ICT has enabled Italy to conform to perform efficiency within the government and to improve connections with citizens and corporations. Stanca states Italy has assisted with e-Government programmes in the developing world, providing ICT programmes in deprived regions. The e-Government policy has been successful. Importantly, Stanca implies the “digital revolution must be cultural before it can be technological”. The use of technologies has enabled e-learning, which provides training and knowledge to the population. Council for Excellence in Government, (2001) displays Washington’s e-Government Fellows Programme which was implemented in 2000 and is funded by not just the state but also by non-profit organizations. The programme aims to train and educate government officials and to eventually implement online systems. The project intends to incorporate the government and citizens, thus to encourage participation. This page also provides links to partnership organizations and partnership polls and publications. The aim is to encourage the citizen-state relationship for the future. The programme also allows online services.

A report of the Office of the Deputy Prime Minister (2003) draws on surveys of Electronic Local Government and case study interviews. Firstly the report aims to define local e-Government and lists the objectives such as issues on democracy and service delivery. The importance of economy is also illustrated, such as the workforce and infrastructure. The results have shown that time and cost of providing information has decreased, whereas ‘e-enabled’ has increased. An example of a case study includes internet voting for youths, with successful results. The e-Government strategy and effective diagrammatic models are included. There are fifteen member states included in the documentation. This survey aimed to document the degree of internet use for e-Governance in the Pacific states. The survey contains issues that the Pacific states have to deal with; the issue of access is still a problematic feature. The majority of the states acquired their own websites. Obstacles such as capital and bandwidth are other problems which are addressed. However there is lack of e-government attention. The investigation intended to create a “connected Pacific”. There is however much to be done to improve e-Governance within the Pacific states. UNESCO, (2002). Weerasinghe (2004) states the divergence of Information Technology within the world, where South and North divides one another. The journal article presents information about a new concept

within the Sri Lankan government, namely 'e-Sri Lanka'. This strategy aims to build ICTs in the country, as there is an unequal distribution of IT in Sri Lanka. Therefore the concept launched by the government aims to involve each individual, especially those from the rural sector who are desperately isolated. With the implementation of e-Governance, it is expected services (both public and private) will prosper. Therefore the economy of Sri Lanka has a positive outlook.

#### **4.3 Networking as a specific mode of public governance**

The idea of traditional public governance strategy, as it relates to public, private and voluntary sectors, refers particularly to hierarchies, markets, and communities (Kickert, Klijn and Koppenjan 1997). Whereas to some academics (Rhodes 1997), public governance refers to self-organizing and inter-organizational networks. Pierre and Peters (2000) point out that, although networks have become an increasingly important aspect of public governance they are only one specific mode of public governance. Doornbos (2003) echoes the earlier observation of Rhodes (1996: 652) that "governance signifies a change in the meaning of government, referring to a new process of governing, or a changed condition of ordered rule, or the new method by which society is governed." For Rhodes (1996), governance has to do with self-organizing inter-organizational networks that substitute and complement the functions of hierarchies and markets or co-exist with them. Rhodes (1996) asserts that these networks are characterized by interdependence between organizations, continuing interaction between network members, and game-like interactions rooted in trust and subject to rules negotiated by network participants.

In view of the current literature on public governance, it can be said that governance is the result of interactions between several stakeholders with different goals and perceptions. Governance involves not only cooperative, but also competition and conflict management. In order to have such governance and effective management of these games, networking strategies will be necessarily required. With respect to the studies conducted by Klijn and Teisman (1997), three factors play outstanding roles in governance networking strategies: public perceptions, public actors (stakeholders), and institutional arrangement. For this purpose, two management strategies in networks, considering three mentioned factors, are presented as game management and network constitution.

#### **4.4 Virtual Governance Networking Policies**

The preceding section looked at networking as a specific mode of public governance from the point of view of politics and policy. Based on the above reasoning, in the following section we will show how ICT mechanisms and especially virtual systems will potentially make this idea to be realized.

Most analysts studying the impact of ICT point out that mobilization of interests is potentially easier through the internet than through more conventional formats. As Schwartz points out, "In the past, putting such campaigns together—especially around national issues—has required enormous time and expense. The Internet almost makes it easy, especially among people and groups that are already networking online". As a result, not only ICT-based governance networking policies provide access to information and organizational tools, it also permits a much wider range of contacts and networks unlimited by space, and it permits interactivity so that citizens and other public stakeholders are not mere passive recipients of information but co-producers of it.

#### **4.5 Governance through E-Communication**

An Honest and effective communication with the public is a legitimate and necessary function. A variety of electronic tools such as telephones, cellular telephones, computers, facsimile machines, pagers, electronic mail (e-mail) systems and Internet access are the virtual means which facilitate the process of communication with public. Engaging public stakeholders in governance networking processes requires public access to information, and governments to share and communicate information, messages and interactions with citizens. Therefore, a new concept of mass communication has emerged. In accordance to theoretical notions (Laswell 1948; Wright 1960), mass communication theory is briefly introduced as following:

Mass communication occurs when a small number of people create and send homogeneous messages to a large anonymous and usually heterogeneous audience through the use of specialized communication media. The units of analysis for mass communication are the messages, the mediums, and the audience.

The notion that ICTs could provide tools and frameworks for increased access and improving the quality of access to government is progressively more accepted among citizens. Those ICTs could provide better tools that integrate the public stakeholders into the governance networks through aiding improved communication and participation. If we consider the wide range of information communication technologies that engage public stakeholders to governance and their capability to collapse time and space, their potential to facilitate virtual governance networking is well worth exploring.

Along with application of ICT in public-government communication, e-communication policy will enable virtual governance networking by following capabilities, for instance, the potential to quickly and easily reach wide and diverse group of public stakeholders; the opportunity for citizens who have limited time; to respond interactively to government and send their comments on-line, rather than by post; the opportunity for more informed communication and negotiation with public, by providing access to further information through links to online resources; the opportunity to filter and analyse responses automatically as they are received electronically; and opportunity to generate feedback to respondents automatically and to provide them with email or any ICT tools alerts.

The uses of information communication technologies (ICT) as a policy of virtual governance networking facilitates a number of tasks: information transfer; dialogue support to public stakeholders, problem exploration and solving, measurement of needs and public preferences, and mutual participation. Furthermore, e-communication is value added in terms of the time, costs, participation rates, engagement levels and dissemination processes associated with completing a successful communication.

#### **4.6 Governance and E-Consultation**

Consultation differs from communication in that it involves a two-way flow of information and views between governments and the public. A London based research institute, the Consultation Institute, defines public consultation as: the dynamic process of dialogue between individuals or groups, based on a genuine exchange of views, and normally with the objective of influencing decisions, policies or programs of action. Also, it argues that consultation is a two-way exchange of information between the government and the public before decisions are made. It is an open and accountable process allowing individuals and groups to participate in the decision-making process

of the government. In practice, the variety of forms that public consultation exercises take, vary widely. Increasingly, however, processes of public consultation are involving more open forms of dialogue such as focus groups and citizens juries. These consultation techniques require some sort of information gathering and communication process and this is where ICTs come in.

The concept of public e-consultation is a relatively new and concerns the use of information and communication technologies (ICTs) to enable participation in public consultation. Public e-consultation is the use of electronic computing and communication technologies in consultation processes and is complementary to existing practices. Therefore, public e-consultation can be an effective tool in encouraging participation and gathering response information to consultation documents and social policy issues as part of a broader range of methodologies. Electronic consultation includes a wide variety of methods of consultation, all of which provide technological alternatives to the more traditional techniques. Although a lot of these methods utilize the Internet, e-consultation also includes methodologies that use mobile phone technology and other multimedia equipment. Some examples of e-consultation mechanisms and tools are: online surveys, online polls, Question and Answer Pages (FAQs pages), ICT based facilities to comment on public documents and reports, Live chat events (Chat-rooms), instant messaging and Net meetings, SMS technology, WAP technology (Wireless Application Protocol), multimedia events (Web Casts) over the internet, infra-red voting handsets, and mailing lists.

Public e-consultation mechanisms and tools have the potential to achieve the same results as traditional consultation techniques, but with the use of less resources and time spent by both the facilitators and the users. Printing costs, like paper and ink, and the cost of mailing questionnaires out to thousands of people are all saved. Also, after the original setup of the various systems, administrating the consultation is cut down to a minimum, as software is available to collate the results into usable information for us. Time is saved as we can receive results and feedback instantly, and consultation is made easier and more accessible for public as you can attend forums and meetings from the comfort of your own home.

It can be concluded that almost for any traditional forms of public consultation there is a method of e-consultation that could be used as an alternative, but we are a long way off becoming a completely virtual society. To ensure that a majority of public stakeholders are included in consultations, combination of traditional and virtual forms of consultation will be the preferred method for the time being.

#### **4.7 Governance in Public Services**

The efficiency of many public goods or services delivery depends not only on the performance of the providers but also on the public co-operation. However, some public goods and services activate the involvement of users in design and production and the others may only help to increase the chances that producers meet public users' needs. With the intention of explaining the idea of e-co-production as a policy of virtual governance networking, we have to consider two main concepts which play important roles for public co-production process: the stakeholder concept and system theory concept.

Correia (2005) argues that "the stakeholder concept emerged in the 1960s among academics at the Stanford Research Institute, who proposed that, instead of focusing exclusively on shareholders, a firm also should be responsible to a variety of stakeholders without whose support the organization would collapse. The term was made known by Freeman (1984), who also expanded it to include in

the stakeholder definition ‘any group or individual who can affect or is affected by the achievement of the organization’s objectives.’

The particular interest to the argument developed here is that stockholding always implies some notions of co-operation. Even though the system theory concept will always be an essential requirement for co-production, the latter contains much more value added elements than co-operation. Also, since governance networking strategies will be fundamental to public governance and governance is composed of various public stakeholders, therefore systematic governance networking with public stakeholders conducts co-production as a policy. In fact, there will be always virtual arrangement of co-production which implies application of information policies such as e-communication and e-consultation during the processes of governance systems. By this means, we have shown below how systems theory will support e-co production as a policy of virtual governance networking.

Governance as systems are composed of inputs (public stakeholders such as citizens, community organizations, non-profit organizations, businesses, media, public agencies, and elected politicians) and sub-systems such as: structures, processes, roles, needs or psychological state of individuals (Narayanan and Nath 1993). Consistent with system theory and governance notions, governance outputs will be co-produced and also virtual co-products such as public goods or services, public policies, constitutions, laws, regulations, and informal rules. We have shown the conceptual framework of e-co-production as a virtual governance networking policy.

In nineties the governments took a shift towards the increased deployment of information technology. With the increased use of internet and mobile phones, the citizens around the globe started expecting from the corporate organizations as well as from the governments about more and more access for the information and online services to enhance their professional, civil and personal lives. This development leads us towards the new ‘e- citizenship’. In India the concept of e-governance is originated during the seventies with a focus on development of in- house government applications in the area of economic planning, monitoring and defence. The main idea behind the concept was to manage the data, intensive functions related to census, elections and tax administration etc. A significant development was shown by National Informatics Centre (NIC), by connecting the district headquarters during the eighties. By the early nineties ICT was proved a supplement of the information technology. On one hand top policy makers in India justify the need to adopt and expand the e-governance because it is cost effective, reduces waste, increases transparency, eliminates corruption and promises a better future for citizens (Dev, 1999; Schware, 2000; Wadia, 2000; Siliconindia, 2001) but on the other hand no sincere effort was put to examine the impact of information technology on the governance process (Monga, 2008). ICT for good governance is opposed by many for the reasons that it will create a new class of untouchables living in information poverty; compromised privacy, unequal access to government services, and grind down accountability (Ghere and Young, 1998; Hariharan, 1999; Upadhayaya, 2000)

On the basis of existing literature it can be concluded that there are eight parameters for good e-governance: connectivity to access the government websites, accessibility to e-governance services, easy to operate government websites designed in a way that even untrained computer users can easily use these websites, assistance for operating the computers to those who lack education and computer literacy, single window system in e-government portal, internet kiosk for citizens who do not have computer facility, security and interlink that account for sustainable e-governance, and the Government website should be updated from time to time and these should be linked to other government websites at all levels of hierarchy in the government, so that all the websites should work without any obstacle.

Popper (2003) concluded that widespread use of ICT in e-governance enhances transparency in the processes and procedures concerning the relationship between the state and the citizen. Kalsi, Kiran and Vaidhya (2008) argued that Indian citizens today are interested in the deliverable outputs from the government services. They want to see a single face of the government and availability of all government services from a single kiosk. Chen and Thurmaier (2008) examined how the governments should finance the development of e-transactions, as e-government evolves in to the transactions stage. They suggested a flexible pricing framework which embodies both the firm's and the government's perspectives.

Bhattacharya and Goswami (2011) concluded that government agencies have done a recommendable job in the field of e-governance but a lot is required to be done for providing better services to masses. Upadhyay and Kumbharana (2012) studied the behavioural implication of usage of ICT for e-governance in rural India and concluded that people still prefer to work in traditional manner and waste time and effort in getting routine e-governance jobs done. Mishra and Fatmi (2015) concluded that creating a favourable environment and developing digital skills among common people are big challenges in e-governance.

Researchers have identified some barriers that act as a hindrance in the implementation of the e-governance facilities in India. Sharma et al. (2011) stated that e-governance is a biggest challenge in front of e-governance in India to provide service to more than a billion people. Delopoulos (2011) argues that it is very important for India to materialize its strategic plans. He further identified barriers on demand and supply of e-governance. Gartner (2005) suggested that the biggest barrier in the acceptance of e-governance is that government employees perceive adaptation of new technology has negative impact on their jobs and career. Another barrier is lack of e-governance facilities in local and regional languages. Planning Commission of India (2002) highlighted large gap between education level and computer literacy rate in urban and rural areas. People are not aware and are uninterested in using ICT system. World South Asia Report (2004) stated that presently less than 10,000 villages out of 6 lacs have internet facility. Interrupted supply of electricity is also a barrier in the implementation of e-governance in India.

After the identification of the barriers, it becomes important to find out the solutions of these barriers that can help in improving the e-governance facilities. In 2006, India started implementing the ICT to improve government service delivery by introducing national e-governance plan and m-governance in 2012 as an extension to this program. Several Indian states have set up Information technology and communication departments to guide and coordinate the implementation of e-governance program and projects. These IT and communication departments have shown remarkable progress in the growth of e-governance applications. Despite these efforts, the government is not able to connect with the widespread population of different societies like women, disabled and illiterate sections of the society; therefore, it is very important to make changes in the process of government so that these facilities can reach to the deprived sections. Now, e-governance is not an experiment in administrative reforms but it is a part of the governing process. Conventionally, the interaction between citizens, business and government agencies took place in government offices only. But, with the emergence of ICT, it has become easy to locate service centres closer to the clients. So, e-governance helps in simplifying the process and its access easily available for the public sector agencies and the masses.

#### **4.8 E-banking**

Various applications of e-commerce are continually affecting trends and prospects for business over the Internet, including e-banking, e-marketing, online retailing, e-distribution, and online customer relations management.

E-banking is one of the e-commerce vital infrastructures and includes familiar and relatively mature electronically based products in developing markets, such as telephone banking, credit cards, Automated Teller Machines (ATMs), and direct deposit. It also includes electronic bill payments and products mostly in the developing stage, such as stored-value cards like smart cards/smart money and Internet-based stored value products.

The most common e-banking services include inquiry functions, bill payments, credit card payments, fund transfers, share investing, insurance, travel, electronic shopping, and other basic banking services.

Application of e-banking tools and methods differ considerably in developing countries compared to the developed nations. For instance, human tellers and automated teller machines continue to be the limited e-banking channels of choice in developing countries. Also, only a small number of banks employ Internet banking. According to Boss, et al. (2000), among the middle and high-income people in developing Asian countries, questioned in a McKinsey survey, only 2.6% reported banking over the internet in 2000. In India, Indonesia, and Thailand, the figure was as low as 1%; in Singapore and South Korea, it ranged from 5% to 6%. In general, Internet banking in such Asian developing countries accounted for less than 0.1% of these customers' banking transactions, as it did in 1999. At the same time, the Internet is more commonly used for opening new accounts but the numbers are negligible as less than 0.3% of respondents used it for that purpose, except in China and the Philippines where the figures climbed to 0.7% and 1.0%, respectively. This slow uptake cannot be attributed to limited access to the Internet since 42% of respondents said they had access to computers and 7% said they had access to the Internet. It can be said that the major obstacle regarding less use of e-banking in Asia is lack of security and confidence. Therefore, it is the main reason for not opening online banking or investment accounts. Apparently, there is also a preference for personal contact with banks. In order to represent the status of e-banking as a virtual governance networking policy in the domain of e-co-production, we have summarized the historical reputation of e-banking conducted from the McKinsey survey among the middle and high-income people in Asia as follows:

E-banking in Asian developing countries is in the early stages of development. Most banking in these countries is still done by conventional ways. However, according to McKinsey survey results; there is an increasing growth of online banking indicating a promising future for online banking in these countries. Below is a brief illustration of e-banking in three members of The Association of Southeast Asian Nations (ASEAN) countries:

In the Philippines, Citibank, Bank of the Philippine Islands (BPI), Philippine National Bank, and other large banks pioneered e-banking in the early 1980s. The most common online financial services include deposits, fund transfers, applications for new accounts, Stop Payment on issued checks, housing and auto loans, credit cards, and remittances.

In Singapore, research by Net Value (an Internet measurement company) shows that more than 28% of Internet users visited e-banking sites in May 2001. According to the survey by Net Value, two out of three visitors made a transaction. In addition, all major banks in Singapore have an



Internet presence. They offer a wide range of products directly to consumers through proprietary internet sites. These banks have shifted from an initial focus on retail-banking to Small and Medium Enterprises (SMEs), corporate banking products, and services. There are several products offered: fund transfer and payment systems, integrated B2B e-commerce products, purchase order, invoice generation and payment, securities placement and underwriting, capital market activities, securities trading, and retail banking.

In Malaysia, E-banking emerged in 1981 with the introduction of Automated Teller Machines (ATMs). This was followed by tele-banking in the early 1990s where telecommunications devices were connected to an automated system through the use of Automated Voice Response (AVR) technology. Then came PC banking or desktop banking using proprietary software, which was more popular among corporate customers than retail customers. On June 1, 2000, the Malaysian Bank formally allowed local commercial banks to offer Internet banking services. On June 15, 2000, Maybank, one of the largest banks in Malaysia, launched the country's first Internet banking services. The bank employed 128-bit encryption technology to secure its transactions.

Despite the mentioned obstacles and limitation on the subject of e-banking among Asian developed and developing countries, there are more developed and mature e-banking environment emerging which play an important role in e-commerce by encouraging a shift from traditional modes of payment like cash, cheques or any form of paper-based legal tender to electronic alternatives such as e-payment systems, thereby closing the e-commerce loop (Boss et al. 2000). On the other hand, access to high-quality services is also a concern as most Asian banks are in the early stages of Internet banking services and many of the services are very basic. It is from there that we show below the respondents of the McKinsey survey adopting e-banking as a Virtual governance networking policy. Source: (Boss et al. 2000)

With respect to the above trends and prospects, e-banking adoption among the middle- and high-income people in developing Asian countries is increasingly growing. That means more than 58% of users undertake one-third more transactions a month than other users, and they tend to employ all banking channels more often. It is important to note that Rejecter respondents also preferred consolidation and simplicity, i.e., owning fewer banking products and dealing with fewer financial institutions.

#### **4.9 Municipal Capacity Building Initiatives in India**

A number of National and State level institutes were established by the Indian government at different points of time to train State government officers working in different departments. Gradually, the institutes began to offer courses on local government topics for municipal functionaries. Some institutes were set up exclusively to meet the capacity building requirements of local government functionaries. One institution that focuses only on matters relating to municipal administration is the All India Institute of Local Self Government. This institute, established in 1926, operates in various parts of the country through a network of regional centres and sub centres. The centres undertake research, organise and conduct specialised diploma courses, seminars, conferences, and provide an open forum for officials and non-officials of municipalities. Similarly, a network of City Managers' Associations was created in 1997 with financial support of USAID/USAEP, and with technical support of the International City/County Management Association based in Washington DC, USA. City Managers' Associations are membership based associations of city managers, urban sector professionals, academic institutes, and non-government

organisations, established in various Indian cities with the objective of strengthening and enhancing the capacities of municipalities and other city level agencies.

In addition to setting up of training and research institutions in different parts of the country and the creation of municipal networks, some other measures have been taken. For instance, a project on 'capacity building for decentralised urban governance' was launched in November 2006 by the Ministry of Urban Development in collaboration with UNDP. Under this project, 16 city governments, four each in the States of Kerala, Orissa, Rajasthan and Uttar Pradesh, have been extended support in the areas of property tax, accounting procedures, and preparation of city development plans (UNDP, 2007). Secondly, the Ministry has initiated a programme for training women councillors. For this purpose, State governments are required to nominate one State level institute for conducting training programmes of three days duration. Financial aid at the rate of INR 1000 per day per participant is provided to the institutions. In addition, the institutes are also given grants of up to INR 500,000 for preparation of training modules. The total expenditure involved in the conduct of training programmes is shared between the central and State government on 50:50 basis (Ministry of Urban Development, 2006). Another significant initiative under a major urban renewal programme is the allocation of funds for conducting rapid training workshops in cities which are lagging behind in urban development. Recent statistics show that about 1850 elected representatives and 1800 municipal officials have participated in the workshops (Ministry of Urban Development, 2009).

#### **4.10 Formal corporate governance structures in India**

India's formal corporate governance institutions were very poor but have somewhat improved since the 1991 liberalization: capital markets have been liberalized, a takeover code adopted in 1994 paving the way for a rudimentary market in corporate control, and steps have been taken to improve corporate governance norms and disclosure practices. Foreign capital has increased (Goldman Sachs, 2003). We can classify India according to its formal codes of legal/regulatory institutions and different levels of investor protection; these are formal measures of investor protection. We can conclude that India's formal shareholder and creditor rights are relatively well formulated within a well-established legal framework.

However, as noted above, a distinctive feature is the prevalence of conglomerate business groups entailing common ownership and management by family members; firms are separate legal entities, listed separately with their own set of shareholders, but the family controls the strategic direction and regulates firm transfers (Peng, M. W., and Jiang, Y. 2006.). It has been widely argued that business groups have filled institutional voids such as imperfections in markets for capital, products, and managerial talent (Peng and Jiang, Y. 2006). Peng and Jiang (2006) provide evidence that concentrated ownership is beneficial for firm performance in cases where there are weaker or less developed legal and regulatory institutions to protect shareholders.

Moreover, India has marked differences between regions. Although national legal structures and policies apply in all states, there are marked variations in the implementation of the legal system at the state level. Thus high-performing states such as Gujarat or Maharashtra have 8% per annum growth rates in state GDP compared with 4% per annum and lower rates in Bihar or Orissa. In these poorly-performing states the security of property, ownership rights, and enforcement of the rule of law is poor and formal legal codes are ineffective.

#### **4.11 Governance in Indian Prospective**

In India, despite shareholder and creditor rights formally having been well set up, there are issues in terms of how effectively these rights are enforced. We noted that, in part, this is a regional issue with some states having effective legal rights and in others the rule of law not being well established. Overall, as it shows, in terms of effectiveness, India fares poorly on the rule of law and corruption indices compared with the average in the sample, although the efficiency of the judiciary is good and the risk of expropriation is low. Lee and Oh (2007) distinguish between the pervasiveness and arbitrariness of corruption, arguing that pervasive corruption without arbitrariness does not detract from growth and investment, in that it is predictable and can be built into firms' calculations of cost. Arbitrary corruption on the other hand, even with fairly low levels of pervasiveness, puts off the investors, especially foreign investors, in that its uncertainty and unpredictability make dealings more hazardous. They identify China and India as both having pervasive corruption; but in addition, India also having arbitrary corruption which would tend to undermine formal institutions and place greater onus on the role of the informal institutions in the governance of firms.

To interact with these formal governance institutions in India, we argue that the most important informal institutions are those associated with business groups. We discussed above the extensive ownership and control of firms by families and business groups in many Asian countries, including India. The issue for this paper concerns what role these groups play: do they fill an institutional void by giving access to resources through informal private networks or do family-controlled firms discriminate against outside shareholders, have more difficult agency conflicts within the family and lead to worse performance of firms from the point of view of shareholders. Douma and colleagues (2006) find positive effects on performance of concentrated corporate ownership by foreign and domestic corporations (as distinct from foreign or domestic financial institutions), in particular when affiliated to a business group. Peng and Jiang (2006) find that the net balance of benefits and costs of family ownership and control in large firms depends on the legal and regulatory institutions for investor protection: that high family ownership concentration is beneficial when formal legal institutions are weak. Heugens et. al. (2009) support this finding—that when there is less than perfect legal protection of minority shareholders, ownership concentration is an efficient corporate governance strategy. But they also find that a certain threshold level of institutional development is necessary to make concentrated ownership effective. Where owners can extract private benefits from the corporations they control then such concentration is not beneficial to firm performance.

Li, Ramaswamy, and Pettit (2006) argue that the business group structure is a horizontal strategy of diversification that is particularly suited for dealing with the market failures associated with failures in capital markets and in the managerial labor market. Capital markets in India fail because they are weak and shallow and limit any company's potential to obtain money to fuel expansion and growth (Khanna and Palepu, 2005; Khanna and Yafeh, 2005). In most emerging economies, equity is a small part of capital raised and access to debt capital is controlled by a handful of banks which act according to government priorities in the industrial sector. Usually access to foreign capital is relatively limited due to weak governance norms (Li et al., 2006). Large business groups overcome financing obstacles, creating an internal capital market and enabling the different firms within it to compete for funds.

This summary of the literature as well as our cases (Estrin and Prevezer, 2010) lead us to conclude that the informal institutions of corporate governance in India are substitutive—that they replace

the largely ineffective formal legal framework and capital markets but have non-conflicting aims or goals with those of formal institutions. This applies mainly in those states where the rule of law, crime, and corruption are not so arbitrary as to create conflicting goals between the business groups and the formal legal framework.

#### **4.12 Good Governance**

More research is definitely needed to take a closer look at the relationship between transparency and governance or information and economic growth. Information flows as proxied by the two indices, the transparency index and the access to information index. These two indices are positively correlated with the quality of governance. Better governance has been empirically demonstrated to be correlated with higher growth. The indicators used to assess better information flows are of two kinds. One index is based on the existence of freedom of information laws and second index is called the “transparency” index which measures the frequency with which economic data are published in countries around the world.

Islam (2003) explored the link between information flows and governance through his study “Do More Transparent Governments Govern Better?” with the objective to examine how the availability of information may affect governance. Specifically, it looks at (a) how the availability of basic economic data affects governance and (b) how the legal framework governing access to information might affect the quality of governance. Empirical analysis showed that countries which have better information flows as measured by both indicators have better quality governance. Regions where the media have a greater reach were also the areas where voters were more informed about political choices and able to cast votes accordingly. They need timely information on decisions related to various aspects of government activity, on how these decisions will be implemented, information on the consequences of these decisions and the process through which they are reached. He examined how the presence of Freedom of Information (FOI) laws may affect how countries govern. The purpose of all such laws is to define a framework for the sharing of information. Economic theory tells us that information is needed to make sound economic and political choices, to monitor agents and reward or punish accordingly. Better availability of economic data and the ability of people to demand and receive the information they need, is highly correlated with governance. Governments that do not produce organize and share information will be hampered in policymaking. Good policymaking requires up-to-date information on the economic situation and the sharing of information for better coordination, analysis and monitoring.

It is a well established fact that improvements and legitimacy will only be delivered if two things are in place. First, the strategic e-readiness infrastructure helped by the leadership and integrated vision on which e- governance depends. Second, the tactical best practices that are needed to close design-reality gaps and to steer e-governance projects from failure to success.

Surveys of e-governance initiatives are incredibly rare; a shortcoming that needs to be addressed. Even donors, who should be committed to monitoring and evaluation, rarely seem to produce reports. From the material that is available, two main types of e-governance failure can be identified. In some cases, there is the total failure of an initiative as it is never implemented or in which a new system is implemented but immediately abandoned. Alternatively, there is the partial failure of an initiative in which major goals are unattained or in which there are significant undesirable outcomes. One type of partial failure that particularly seems to affect e-governance

initiatives is the sustainability failure of an initiative that succeeds initially but then fails after a year or so.

Heeks (2001) studied the effect of new information and communication technologies and how it can make a significant contribution to the achievement of good governance goals through his study “Understanding e-Governance for Development”. The paper outlines the three main contributions of e- governance: improving government processes (e-administration); connecting citizens (e-citizens and e- services); and building external interactions (e-society). Case studies are used to show that e-governance is a current, not just future, reality for developing countries. However, most e-governance initiatives fail. Countries therefore face two challenges. First, the strategic challenge of e-readiness: preparing six identified pre-conditions for e-governance i.e. Data Systems Infrastructure, Legal Infrastructure, Institutional Infrastructure Ready, Human Infrastructure, Technological Infrastructure, and Leadership and Strategic Thinking. Second, the tactical challenge of closing design-reality gaps: adopting best practice in e-governance projects in order to avoid failure and to achieve success.

The study further elaborates new systemic approaches to information systems (IS) to the heart of reform. As governance becomes more information-intensive, ICTs become an essential part of governance initiatives and play a central role. ICTs are also recognised as a key lever to change. They are no longer isolated on the side-lines. An integrated role for ICTs, e-governance means using ICTs as servants to the master of good governance. ICTs are no longer seen as an end in themselves and they are seen to work only as part of a wider systemic 'package'. Overall, then, e-governance is the ICT-enabled route to achieving good governance.

#### **4.13 ICT for Improved Governance**

The enthusiasm for realizing the potential of ICTs is often dampened by the barriers to successful implementation. The first task in using ICTs as a tool to improve governance is to ignore ICTs altogether and focus on selecting and prioritizing improvement goals that are urgent or important. Once the most important goals are established, senior level policymakers must establish milestones that will indicate that the project is on track. The next step is to review alternative solutions to the problem given constraints on financing, infrastructure, literacy and skills. Each solution must be associated with cost-benefit analysis of infrastructure, training, etc... Once a solution is accepted based on the planners' estimation of its merits and costs, a detailed work plan must be developed, with provisions for adequate training and capacity building. The final step in the process is to lay the groundwork for monitoring and evaluation. Lal (1999) reviewed the issues faced by the African countries in adopting information and communication technologies (ICTs) to enhance governance in four areas: reducing poverty, providing basic human needs, improving public administration, and enhancing democratization through his paper “Information and Communication Technologies for Improved Governance”. It summarized the use of ICTs in these areas – both successes and failures – around the world and in Africa. The paper focused on many of the caveats that should accompany ICT deployment and ends with an action framework for practitioners anxious to get started. The paper discussed how Information and communication technologies (ICTs) can help to sustain e-governance process in three ways: (i) they can support tasks that involve complex decision making, communication and decision implementation, (ii) they can automate tedious tasks done by humans, and (iii) they can support new tasks and processes that did not exist before. When ICTs are properly aligned with governance goals, they can help to create gains in both efficiency and effectiveness. A cross-national multilingual online survey focused on issues related to the European Knowledge Society and its impacts on living conditions, industrial

relations and working conditions by the year 2015. A Delphi report “European Knowledge Society Foresight” was submitted to by Rafael Popper (2003) to European Foundation for the Improvement of Living and Working Conditions. The report concluded that one of the major contributors in reinforcing KS (Knowledge Society) trend would be widespread use of ICT in e- governance. This enhances transparency in the procedures concerning the relationship between the citizen and the state in my country. This was further seen as a KS trend that will increase two industrial relations factors (economic growth/wealth creation, and entrepreneurship and innovativeness). Furthermore, the widespread use of ICT in e-governance will increase social cohesion and sustainability / environmental quality. A considerable number of participants believed that the use of ICT in e-governance will increase the employee autonomy and responsibility at work but there was still a substantial amount of opinions that the statement will have no effect over the factor. Uncertainties about the impacts of ICT in e-governance were reported in the way it will affect social exclusion or divides, work-life balance and job creation. The study by Dada (2006) provides a review of academic literature on the failure of e-governance in developing countries. Drawing from extensive research on the topic conducted by Richard Heeks, the paper suggests that there exist wide gaps between the current reality in developing countries and the future of e-governance systems. These gaps could be classified into three types: a hard-soft gap, implying a gap between the technology and the social context in which it is applied; a private-public gap, suggesting that what works in the private sector may not work in the public sector; and a country context gap, that arises from the application of the same e-governance systems for both the developing and developed countries. The paper recommends that administrators in developing countries must assess the situation at hand before implementing e-governance.

The study by Cooper et al (2008) tests theories about political trust and citizen competence using the case of zoning. Many scholars argue that citizens with higher levels of political trust are more likely to grant bureaucratic discretion to public administrators than citizens with lower levels of trust. Trust, therefore, can relieve the tension between managerial flexibility and political accountability in the modern administrative state. Unfortunately, there is little empirical evidence showing that trust is actually associated with citizens’ willingness to cede policy-making power to government. The results depict that trust in local government is found to be an important predictor of support for zoning, but trust in state government and trust in national government have no effect. These findings suggest that trust affects policy choice and helps determine how much power citizens grant to local administrators.

The study by Coursey and Norris (2008) presents empirical evidence from three surveys of local e-government in the United States to test whether the normative models are accurate or useful for understanding the actual development of e-government. Research into e-government is relatively new. Nevertheless much contemporary thinking and writing about e-government is driven by normative model that appeared less than a decade ago. The authors find that local e-government is mainly informational, with a few transactions but virtually no indication of the high-level functions predicted in the models. Thus, the models do not accurately describe or predict the development of e-government, at least among American local governments. These models, though intellectually interesting, are purely speculative, having been developed without linkage to the literature about information technology and government.

According to Chen and Thurmaier (2008) governments must grapple with how to finance the development of e-transactions, as e-government evolves into the transactions stage. The authors argue that the externalities effects of electronic transactions suggest they are appropriately financed

by some combination of public investment and user charges. The authors propose a self-financing model adhering to two basic requirements. A flexible pricing framework is the core of the self-financing model, as it embodies both the firm's and the government's perspectives. The authors assess basic assumptions of the pricing framework using contingent valuation methodology and a state-wide survey of more than 400 firms. The empirical estimates developed by authors of the willingness to pay for e-transactions with state government and the theoretical discussion about the self-financing model form the basis for prescribing policy recommendations.

#### **4.14 Knowledge and IT for Decision Making Strategies**

The development approach to IT initiatives, however, offers no direction as to how IT can directly improve the use of implicit knowledge on individual and inter-subjective levels, and how that kind interaction can improve the decision-making process in the organization. IT initiatives are designed to stimulate usage of only one aspect of knowledge — inter-subjective explicit knowledge during decision making activities. Similarly, the fact that IT obstacles are viewed mainly as explicit knowledge constraints implies that IT initiatives reinforce IT usage practices centred around IT applications that collect and process factual and descriptive information, such as data and transactional processing applications. In other words, the belief that maximizing computing power and communication capabilities while minimizing organizational constraints leads to IT usage for decision making in developing countries. Kulchitsky (2001) considered the possibility that IT and public managers in developing countries may be designing IT-for-decision-making initiatives based on unrealistic assumptions through his paper “Cargo Cults, Knowledge, and IT-for-Decision-Making Strategies in Developing Countries”. It argues that the problem with development thinking is that it views IT initiatives as allocation constraints. This creates the expectation that IT strategies can optimize new technologies, human resources processes, and structures within organizations. Consequently, knowledge is treated as an afterthought in IT strategies without consideration for its special characteristics. This article suggests that the challenges facing IT and public managers in developing countries are not allocation constraints but knowledge problems. Although IT and public managers in developing countries argue that there is no ideal model for IT and decision-making activities, their vision of what needs to be done is based on positivist assumptions that they, along with stakeholders, possess all the relevant information needed to design and implement the most appropriate strategy to improve organizational decision making in public institutions.

The author suggested that IT initiatives in non-industrial organizations are essentially allocation solutions that revolve around what development thinking views to be the most appropriate means to improve efficiency and effectiveness in organizational activities. These requirements could be, a technical infrastructure that provides access to information content, Information content that consists of electronic resources relevant to organizational decision making; and a skill base that includes specialized skills to design, manage and utilize ICTs for decision-making practices. Although such assumptions are necessary conditions for accessing factual and descriptive information, this article argues that they do not directly address how IT, human resources, and socio-organizational factors trigger the use of implicit knowledge on individual and inter-subjective levels. More specifically, IT initiatives do not make allowances for what is known about the decision-making process — once the stream of explicit knowledge that flows through IT and information networks is made available to the organization, it is received by an individual who engages in a kind of discourse with the information. Furthermore, this reflective process is fundamentally a dialogical structure that guides decision-making activities.

It may be observed from above mentioned review of literature that some pioneer work has been done by various researchers in the field of good governance in developing countries including India. However, there is a need to present a comprehensive, integrated and holistic approach for good governance with Indian perspective and the proposed study intends to fill this gap. Saxena (2005) is of the opinion that E-governance initiatives in most countries promise a more citizen-centric government and reduce operational cost. Unfortunately most of these initiatives have not been able to achieve the benefits claimed. Often the reason for this failure is a techno-centric focus rather than a governance-centric focus. The paper explores the necessary attributes of a governance-centric initiative under the banner “excellent e-governance” (e2-governance), and describe a methodology for ensuring such excellence in e-governance implementations. Excellence or governance-centralism in e- governance requires the initiative to be effectiveness-driven and not merely efficiency-driven. This will require the initiative to be led by “good governance” driven goal/purpose: additionally, the initiative must be outcome-focused. Akther et al (2007) in their study on an e-government project in Bangladesh highlight that most e-government projects within developing countries employ high-technology intervention whereas citizens are not ready for this. There are successful projects which took low end route. This paper examines one such project to find out the reasons behind its success. The research concludes that stakeholders’ participation is the driving factor for success. The major issue is not IT, but an understanding between the citizen population and their complementary governmental entity, which acts as the critical factor for triumph in e-government. Due to the active participation of stakeholders, both the birth registration and immunisation rate have increased where concurrently other unforeseen benefits were realised; such as image enhancing of public and elected officials, use of data for school enrolment and decision making for vaccine management for society as a whole.

It may be observed from above mentioned review of literature that some pioneer work has been done by various researchers on ICT and good governance in developing countries including India. However, there is a need for comprehensive, integrated and holistic approach for good governance with Indian perspective and the proposed study intends to fill this gap.

#### **4.15 e-Governance and Good Governance**

A lot of Studies have been conducted in developed as well as developing countries to assess the parameters leading to good governance. A brief review of some of these studies along with research gaps have been is given below:

Heeks (2001) studied the effect of new information and communication technologies and how it can make a significant contribution to the achievement of good governance goals. The paper outlines the three main contributions of e-governance: improving government processes (e-administration); connecting citizens (e-citizens and e-services); and building external interactions (e-society). Case studies are used to show that e-governance is a current, not just future, reality for developing countries. However, most e-governance initiatives fail. Countries therefore face two challenges. First, the strategic challenge of e-readiness: preparing six identified pre-conditions for e-governance i.e. Data Systems Infrastructure, Legal Infrastructure, Institutional Infrastructure Ready, Human Infrastructure, Technological Infrastructure, and Leadership and Strategic Thinking. Second, the tactical challenge of closing design-reality gaps: adopting best practice in e-governance projects in order to avoid failure and to achieve success.



The study further elaborates new systemic approaches to information systems (IS) to the heart of reform. A central role for ICTs, as governance becomes and recognised as more information intensive; ICTs become an essential part of more governance initiatives. ICTs are also recognised as a key lever to change. They are no longer isolated on the side-lines. An integrated role for ICTs, e-governance means using ICTs as servants to the master of good governance. ICTs are no longer seen as an end in themselves and they are seen to work only as part of a wider systemic 'package'. Overall, then, e-governance is the ICT-enabled route to achieving good governance. Leading governments are emphasizing the need for their government programs to deliver an earlier return on their investment, through greater service effectiveness for their customers or increased internal efficiency. E-government has shown improvements over the previous year. Every region of the world has improved its e-government performance on nearly every indicator. However, there are continuing problems in the areas of privacy and security that need to be addressed. Government's ability to improve service delivery to other governments, employees, citizens and businesses is directly attached to government's ability to effectively collaborate across organization, processes and IT systems. Islam (2003) explored the link between information flows and governance with the objective to examine how the availability of information may affect governance. Specifically, it looks at (a) how the availability of basic economic data affects governance and (b) how the legal framework governing access to information might affect the quality of governance. Empirical analysis showed that countries which have better information flows as measured by both indicators have better quality governance. Regions where the media have a greater reach were also the areas where voters were more informed about political choices and able to cast votes accordingly. They need timely information on decisions related to various aspects of government activity, on how these decisions will be implemented, information on the consequences of these decisions and the process through which they are reached. This paper examined how the presence of Freedom of Information (FOI) laws may affect how countries govern. The purpose of all such laws is to define a framework for the sharing of information. Economic theory tells us that information is needed to make sound economic and political choices, to monitor agents and reward or punish accordingly. Better availability of economic data and the ability of people to demand and receive the information they need are highly correlated with governance. Governments that do not produce organize and share information will be hampered in policymaking. Good policy making requires up-to-date information on the economic situation and also the sharing of information for better coordination, analysis and monitoring. It is well established fact that improvements and legitimacy will only be delivered if two things are in place. First, the strategic e-readiness infrastructure, especially the leadership and integrated vision on which e-governance depends. Second, the tactical best practices that are needed to close design-reality gaps and to steer e-governance projects from failure to success. Through various case studies, it is found that most e-governance initiatives that are begun currently fail. Surveys of e-governance initiatives are incredibly rare; a shortcoming that needs to be addressed. Even donors, who should be committed to monitoring and evaluation, rarely seem to produce reports. From the material that is available, two main types of governance failure can be identified. In some cases, there is the total failure of an initiative never implemented or in which a new system is implemented but immediately abandoned. Alternatively, there is the partial failure of an initiative in which major goals are unattained or in which there are significant undesirable outcomes. One type of partial failure that particularly seems to affect e-governance initiatives is the sustainability failure of an initiative that succeeds initially but then fails after a year or so. Rosell (1995) in their study on an e-government project in Bangladesh highlight that most e-government projects within developing countries employ high-technology intervention whereas citizens are not ready for this. There are successful projects which took low end route. This paper examines one such project to find out the reasons behind its success. The research concludes that

stakeholders' participation is the driving factor for success. The major issue is not IT, but an understanding between the citizen population and their complimentary governmental entity, which acts as the critical factor for triumph in e-government. Due to the active participation of stakeholders, both the birth registration and immunisation rate have increased where concurrently other unforeseen benefits were realised; such as image enhancing of public and elected officials, use of data for school enrolment and decision making for vaccine management for society as a whole.

Saxena (2005) is of the opinion that E-governance initiatives in most countries promise a more citizen-centric government and reduce operational cost. Unfortunately most of these initiatives have not been able to achieve the claimed benefits. Often the reason for this failure is a techno-centric focus rather than a governance-centric focus. The paper explores the necessary attributes of a governance-centric initiative under the banner "excellent governance" (e2-governance), and describe a methodology for ensuring such excellence in governance implementations. Excellence (or governance-centralism) in e-governance requires the initiative to be effectiveness-driven and not merely efficiency-driven. This will require the initiative to be led by "good governance" driven goal/purpose: additionally, the initiative must be outcome-focused. The study by Corradini, et al (2007) highlights that Digital identities, profiles and their management enable online interactions and transactions among people, enterprises, service providers and government institutions. In this paper, after having examined the European identity management policies, they explain the differences between digital identity and digital citizenship and introduce digital credentials and also discuss how an identity management framework, composed by shared and standardised services supporting authentication procedures, can change within the e-Government domain. The paper concludes by outlining future trends and the potentiality of the extended digital identity in both public and private sectors. Within an e-Government's domain it is possible to enforce the identity Management framework in a more specific way. The paper also discussed current and foreseeable trends for identity management along with an analysis of important issues and requirements. The study introduced a model of an identity management framework and discussed some of our past and current research activities in this area.

## 5. ANALYSIS AND INTERPRETATION OF DATA

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After collection of data it is very important to analyze the data to extract the desired information otherwise the raw data gathered on certain parameters have no meaning and it is a heap of certain hidden facts or information. Keeping in view the objectives of the study, the data were statistically processed using appropriate design and techniques to draw appropriate inferences and conclusions.

“The process of interpretation is essentially one of stating what the results show? What do they mean? What is their significance? What is the answer of the original problem?” Good, Barr and Scates (1941). All the limitations of the data must enter in to and become a part of interpretation of the results. Analysis of data means studying the tabulated material in order to determine inherent factors or meanings. It involves breaking down the existing complex factors in to simpler parts and putting the parts together in new arrangement for the purpose of interpretation. Thus, analysis and interpretations of data with appropriate statistical techniques help researchers to attack the related problems to avoid the unnecessary labour.

Therefore, keeping in view the nature of study the investigator adopted a descriptive survey method to carry out the study. Descriptive survey method deals with, what exists at present and it describes and interprets the current prevailing conditions, relationships and practices (Gall, Borg, and Gall, 1996).

### 5.1: Reliability Statistics

First of all, the reliability of the data was tested by computing Cronbach’s Alpha Model and the reliability coefficient. The results are presented below:

**Table 5.1: Reliability Statistics**

<b>Items</b>	<b>Cronbach Alpha</b>	<b>No of Items</b>
factors that are important to achieve good administration and governance	.951	13
Citizens’ experience or perception about government offices and services provided by	.852	18
factors cause harassment and frustration among citizens	.758	9
Citizens’ preference to pay utility bills and charges of e-services	.860	6
Factors contributing in effective e-governance services	.954	8
Factors on the basis of their relevance in causing harassment and difficulties for citizens to get services from different government departments and resulting into inefficiency and corruption.	.871	12
Factors on the basis of their importance to create an effective Good Governance framework	.801	12

Factors on the basis of severity to the existing national and state level e-governance policies	.923	17
Factors for measuring the effectiveness/ impact on the success of an e-governance project/ services	.911	10
Risks/ challenges involved in implementation of Good Governance through ICT	.901	9

### 5.1.1 –Demographic Profile

The demographic profile of the respondents is given below in Table 5.2. The average age of the respondents was between 18 to above 40 years of age.

**Table 5.2: Demographic Profile**

Group	Number	Percentage
Gender		
Male	494	69.58
Female	216	30.42
Marital Status		
Married	502	70.70
Unmarried	208	29.30
Area of Residence		
Rural	180	25.35
Semi-Urban	372	52.40
Urban	158	22.25
Education		
Graduate	302	42.53
Under graduate	223	31.41
literate	185	26.06
Income		
Tax payer	315	44.37
Non Tax payer	352	49.58
BPL	43	06.05

Table 5.1.2 reflects that the total sample size for the present study was 710 and out of this sample 494 (69.57 %) respondents were male and 216 (29.57 %) were female. 502 (70.70 %) were married and 208 (29.29 %) were single. 180 (25.35%) were belonging to rural area, 372 (52.39 %) to semi-urban areas and 158 (22.25 %) to urban areas. 302 (42.53 %) were educated up to graduate level or more, 223 (31.40 %) were undergraduate and 185 (26.05 %) were literate. 315 (44.36 %) were tax payers, 352 (49.57 %) were non-tax payers and 43 (6.05 %) were belonging to BPL (below poverty line) families.

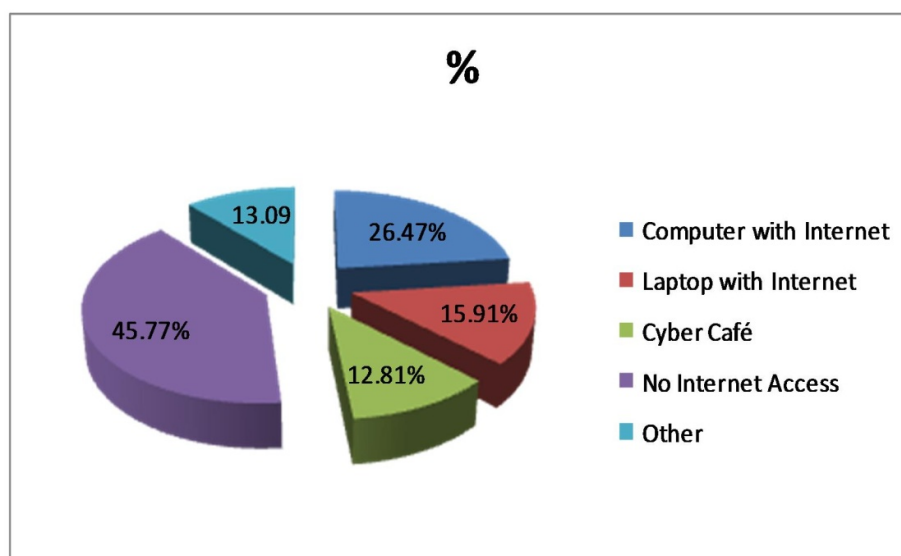
### 5.1.2 ICT Practices and Awareness

The results of Internet access to the people of the six states under consideration are given in the Table 5.2.

**Table 5.3: Computer and Internet Access Facility**

S. No.	Computer and Internet Access	Numbers	%
1	Computer with Internet	188	26.47
2	Laptop with Internet	113	15.91
4	Cyber Café	91	12.81
5	No Internet Access	325	45.77
6	Other	93	13.09

Figure 5.1: Computer and Internet Access Facility



Analysis in the Figure 5.1 reveals that majority 45.77% of people do not have internet access at their homes or offices. 26.4% people access internet on their computer and 15.91% have laptop with instant internet access. 12.8% people have internet access through cyber café. 13.09 % people access internet through other means.

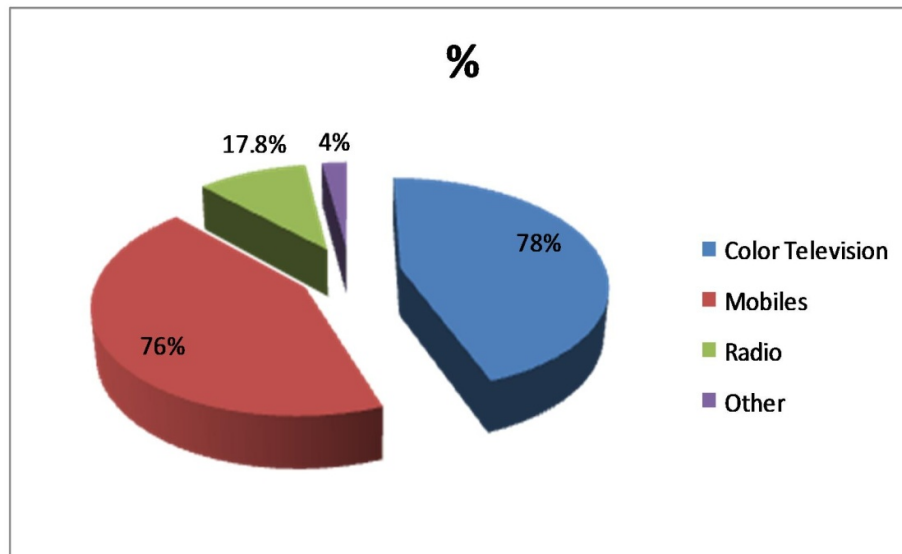
### 5.1.3 Availability of Means of Communication

The results of the means of communication other than internet is available to people in these states are given in the Table 5.4.

**Table 5.4: Availability of Means of Communication**

S. No.	Means of Communication	No.	%
1	Color Television	554	78
2	Mobiles	546	76
3	Radio	127	17.8
4	Other	29	4

**Figure 5.2: Availability of Means of Communication**



Analysis of Figure 5.2 reveals television is the most preferred mean of communication used by the 78% people followed by mobile phone used by the 76% people. 17.8 % people use Radio and only 4% people use other means of communication. Over all people have good access to means of communication.

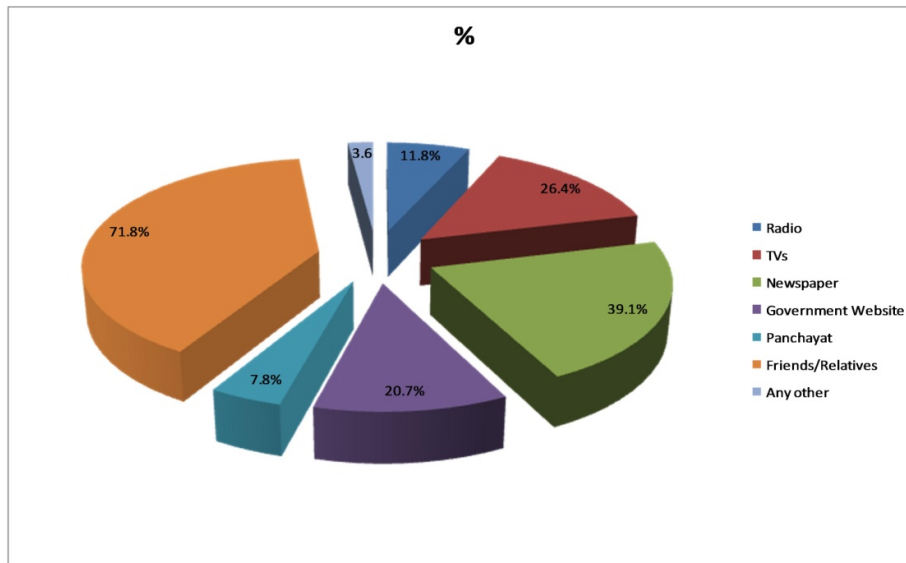
#### 5.1.4 Awareness among Users about the Welfare Policies

The results of the source of information about social welfare schemes and policies of state and central government are presented in Table5. 4.

**Table 5.5: Source of Information about Social Welfare Schemes and Policies**

Means of Awareness	Nos.	%
Radio	84	11.8
TVs	188	26.4
Newspaper	278	39.1
Government Website	147	20.7
Panchayat	56	7.8
Friends/Relatives	510	71.8
Any other	26	3.6

**Figure 5.3: Source of Information about Social Welfare Schemes and Policies**



The analysis of Figure 5.3 shows that friend and relative (71.80 %) are the biggest source of information about social welfare schemes and policies followed by newspapers 39.1% and television 26.4%. 20.7% people access government websites, 11.8% use radio to get information about these schemes. 7.8 % people come to know through gram panchayat and 3.6% come to know through other sources about these schemes.

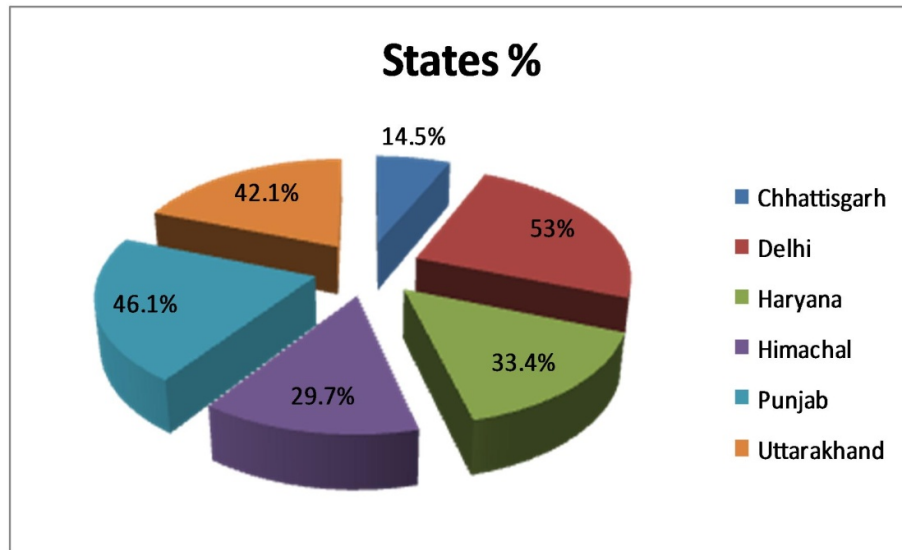
### 5.1.5 Use of E Governing Facilities

The results of the status of Use of e-governance facilities offered by the government offices are given in the Table 5.5.

**Table 5.6: Use of E Governing Facilities**

States	No		Yes		Total
	Nos.	%	Nos.	%	
Chhattisgarh	100	85.5	17	14.5	117
Delhi	62	47	70	53	132
Haryana	72	66.6	36	33.4	108
Himachal	85	70.2	36	29.7	121
Punjab	70	53.8	60	46.1	130
Uttarakhand	59	57.8	43	42.1	102
Total	448		262		710

**Figure 5.4: Use of E Governing Facilities**



Analysis in the Figure 5.4 shows that majority of the respondents under the states were not using e governing facilities. The results also shows that 85.5% respondents in Chhatisgarh, 70.2% in Himachal and 66.6% respondents in Haryana were not using e governing facilities offering by their respective government offices. Only a trend among the average usage of e- facilities was noticed that supported by the analysis. The Table also shows that in Delhi 53%, in Punjab 46.3% in Uttarakhand 42.1%, in Haryana 33.4%, in Himachal Pradesh 29.7% and only 14.5% people use E-governance facilities.

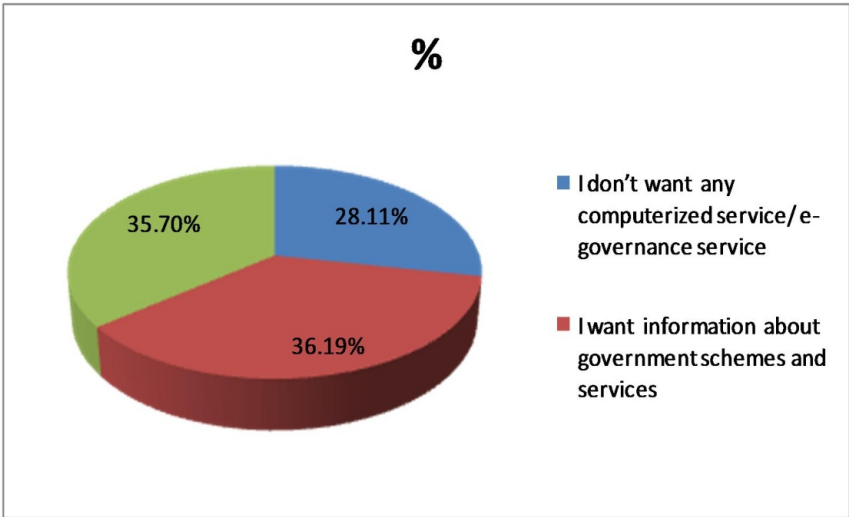
**5.1.6 Type of computerized government services/e-governance services citizens want**

**Table 5.7: computerized government services/e-governance services citizens want**

	<b>computerized Government services</b>	<b>%</b>
1	I don't want any computerized service/ e-governance service	28.11
2	I want information about government schemes and services	36.19
3	I want complete process and procedure of government schemes and services online	35.70



**Figure 5.5: computerized government services/e-governance services citizens want**



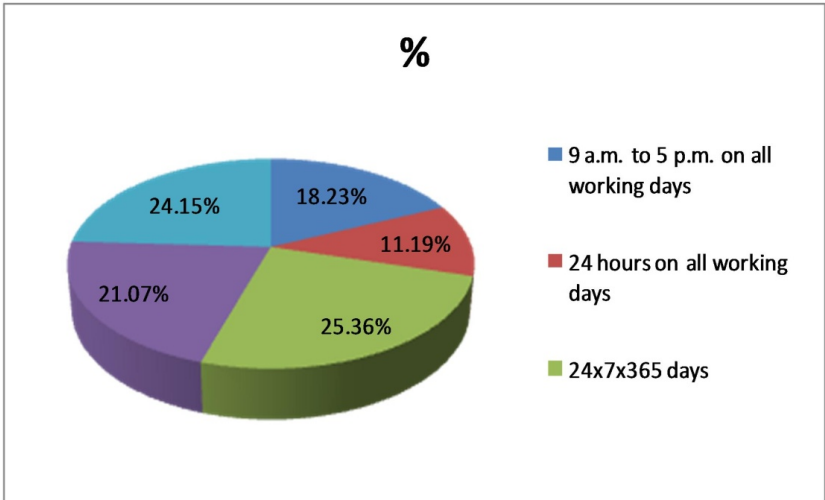
The results presented in table 5.7 indicate that majority of people want computerized government services/e-governance services.

**5.1.7 Timings of government services**

**Table 5.8: Timings of government services**

Sr. No.	computerized Government services	%
1	9 a.m. to 5 p.m. on all working days	18.23
2	24 hours on all working days	11.19
3	24x7x365 days	25.36
4	Internet based online services	21.07
5	Online services including payments of fees and taxes	24.15

**Figure 5.6: Timings of government services**



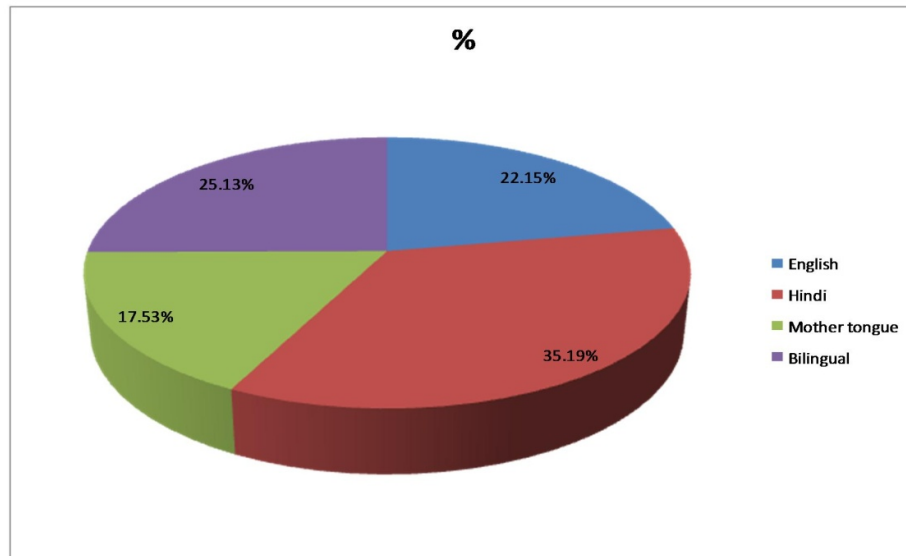
The results presented in table 5.8 indicate that majority of people want government services 24x7 and they want these services online.

### 5.1.8 Preferred language for computerized government services

**Table 5.9: Preferred language for computerized government services**

Sr. No.	computerized Government services	%
1	English	22.15
2	Hindi	35.19
3	Mother tongue	17.53
4	Bilingual	25.13

**Figure 5.7: Preferred language for computerized government services**



The results presented in table 5.8 indicate that most preferred language for computerized government services is Hindi followed by bilingual and English.

### 5.1.9 Satisfaction toward Government Offices

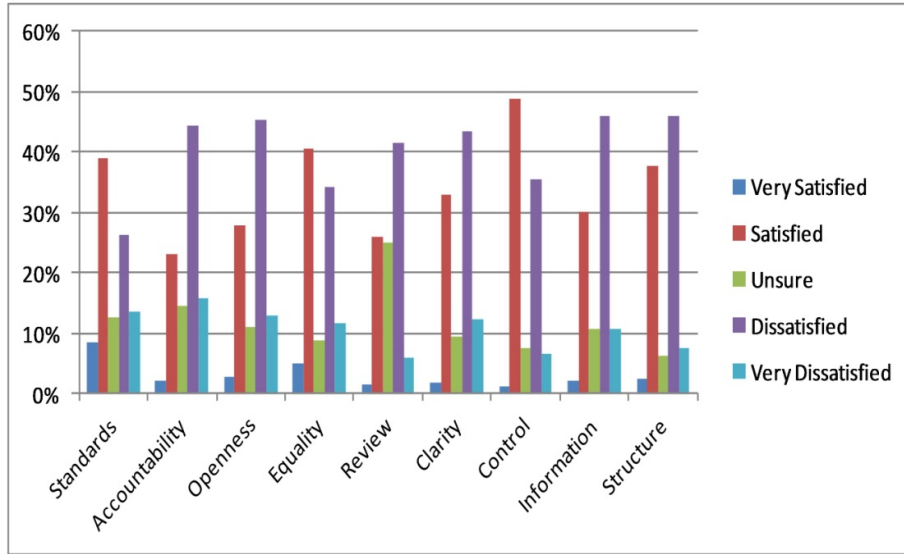
The results of the level of satisfaction among the people towards the government offices of the states under study are given in Table 5.9.

**Table 5.10: Satisfaction toward Government Offices**

Level	Very Satisfied	Satisfied	Unsure	Dissatisfied	Very Dissatisfied
Standards	8.3%	39.1%	12.5%	26.3%	13.6%
Accountability	2.1%	23.2%	14.5%	44.2%	15.9%

Openness	2.6%	27.8%	10.9%	45.3%	13%
Equality	4.9%	40.4%	8.8%	34.2%	11.5%
Review	1.4%	26%	25%	41.4%	6%
Clarity	1.6%	33%	9.4%	43.5%	12.2%
Control	1.2%	48.8%	7.6%	35.6%	6.6%
Information	2.2%	30%	10.8%	46.1%	10.7%
Structure	2.3%	37.8%	6.1%	45.9%	7.6%

**Figure 5.8: Satisfaction toward Government Offices**



The analysis of Figure 5.8 revealed that 47.4 people were satisfied with the standards, 25.3 with accountability, 30.4 % with openness,45.3% with equality, 27.4 with review, 34.6% with clarity, 50% with control, 32.3% with information and 40.1% with structure. On the other side 39.9% people were dissatisfied with the standards, 60.1 with accountability, 58.3 % with openness,45.7% with equality, 47.4 with review, 55.7% with clarity, 42.2% with control, 56.8% with information and 53.5% with structure. It shows that people are more dissatisfied with the government offices.

**5.1.10 Major Problems**

The results of the major problems associated with the ICT application in good governance are presented in Table5.11.

**Table 5.11: Major Problems Faced by Government Offices in Implementing ICT**

Problems	Chhattisgarh		Delhi		Haryana		Himachal Pradesh		Punjab		Uttarakhand		Total Types
	No	%	No	%	No	%	No	%	No	%	No	%	
No printer	47	40.2	34	25.8	52	48.2	81	66.9	76	58.5	58	56.9	348
No networking	105	89.7	95	72.0	47	43.5	104	86.0	56	43.1	62	60.8	469
Dearth of clients	12	10.3	41	31.1	23	21.3	14	11.6	25	19.2	36	35.3	151

No server/server-related issues	104	88.9	85	64.4	62	57.4	47	38.8	89	68.5	95	93.1	482
No wiring/electrical issues	93	79.5	47	35.6	58	53.7	74	61.2	104	80.0	69	67.7	445
Computer shortage	88	75.2	125	94.7	102	94.4	97	80.2	103	79.2	82	80.4	597
Shortage of staff	49	41.9	57	43.2	53	49.1	84	69.4	100	76.9	84	82.4	427
Total	498		484		397		501		553		486		

The analysis in Table 5.11 reveals that 75.2% people in Chhattisgarh, 94.7% in Delhi, 94.4% in Haryana, 80.2% in Himachal Pradesh, 79.2% in Punjab and 80.4% in Uttarakhand perceived that shortage of computers is the biggest problem in implementing ICT effective. The Shortage of trained Staff is the second biggest hurdle. 41.9% people in Chhattisgarh, 43.2% in Delhi, 49.1% in Haryana, 69.4% in Himachal Pradesh, 76.9% in Punjab and 82.4% in Uttarakhand perceived that there is shortage of trained staff in government offices. 88.9% people in Chhattisgarh, 64.4% in Delhi, 57.4% in Haryana, 38.8% in Himachal Pradesh, 68.5% in Punjab and 93.1% in Uttarakhand reported server related issues as a problem. 89.7% people in Chhattisgarh, 72% in Delhi, 43.5% in Haryana, 86% in Himachal Pradesh, 43.1% in Punjab and 60.8% in Uttarakhand perceived absence of networking within offices as a problem. 79.5% people in Chhattisgarh, 35.6% in Delhi, 53.7% in Haryana, 61.2% in Himachal Pradesh, 80% in Punjab and 67.7% in Uttarakhand perceived that electricity or power supply is an issue. 40.2% people in Chhattisgarh, 25.8% in Delhi, 48.2% in Haryana, 66.9% in Himachal Pradesh, 58.5% in Punjab and 56.9% in Uttarakhand perceived that there is shortage of printers in government offices. 10.3% people in Chhattisgarh, 31.1% in Delhi, 21.3% in Haryana, 11.6% in Himachal Pradesh, 19.2% in Punjab and 35.3% in Uttarakhand perceived that there is dearth of clients.

To find out whether Demographic variables, viz. age, gender, area of residence and marital status has an influence on citizens' preference to get the computerized Citizen Services/ e- , from the Government ANOVA has been applied. The results are presented below:

**Table 5.12- Gender and Preference to get the computerized Citizen Services/e-Governance services, from the Government**

Sr. No.	Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
1	Free of cost services through government offices	Between Groups	2.671	1	2.771	10.805	.001***
		Within Groups	208.774	709	.237		
		Total	211.445	710			
2	Free of cost through public agencies in your locality	Between Groups	.002	1	.002	.005	.936
		Within Groups	211.848	709	.259		
		Total	211.850	710			

3	Through private agencies recognized by government at a reasonable cost.	Between Groups	2.566	1	2.566	13.055	.000***
		Within Groups	166.489	709	.198		
		Total	169.055	710			
4	Private or personal services even if they are not recognized by government.	Between Groups	1.042	1	1.051	10.301	.001***
		Within Groups	85.650	709	.111		
		Total	86.692	710			
5	Online services through common services centre at a reasonable cost.	Between Groups	.444	1	.441	1.899	.170
		Within Groups	196.912	709	.232		
		Total	196.787	710			

\* Significant at .05 level, \*\* Significant at .01 level, \*\*\* Significant at .001 level

The results presented in table 5.12 indicate that the ANOVA values of male and female respondents are significant for: i) Free of cost services through government offices; ii) Through private agencies recognized by government at a reasonable cost and iii) Private or personal services even if they are not recognized by government.

**Table 5.13-Age and Preference to get the computerized Citizen Services/e-Governance services, from the Government**

Sr. No.	Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
1	Free of cost services through government offices	Between Groups	.389	4	.099	.398	.817
		Within Groups	211.777	706	.255		
		Total	212.166	710			
2	Free of cost through public agencies in your locality	Between Groups	2.486	4	.622	2.522	.041*
		Within Groups	208.464	706	.257		
		Total	210.950	710			
3	Through private agencies recognized by government at a reasonable cost.	Between Groups	8.386	4	2.095	11.000	.000***
		Within Groups	160.682	706	.191		
		Total	169.068	710			
4	Private or personal services even if they are not recognized by government.	Between Groups	.868	4	.214	2.117	.088
		Within Groups	85.842	706	.102		
		Total	86.710	710			

5	Online services through common services centre at a reasonable cost.	Between					
		Groups	2.041	4	.510	2.199	.058
		Within					
		Groups	195.400	706	.242		
		Total	197.441	710			

\* Significant at .05 level, \*\* Significant at .01 level, \*\*\* Significant at .001 level

The results presented in table 5.12 indicate that the ANOVA values of different age group respondents are significant for: i) Free of cost through public agencies in your locality and ii) Through private agencies recognized by government at a reasonable cost.

**Table 5.14- Area of Residence and Preference to get the computerized Citizen Services/e-Governance services, from the Government**

Sr. No.	Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
1	Free of cost services through government offices	Between					
		Groups	1.262	2	.581	2.320	.099
		Within					
		Groups	210.882	708	.249		
		Total	212.144	710			
2	Free of cost through public agencies in your locality	Between					
		Groups	3.399	2	1.728	6.869	.001***
		Within					
		Groups	207.521	708	.236		
		Total	210.920	710			
3	Through private agencies recognized by government at a reasonable cost.	Between					
		Groups	1.939	2	.969	4.963	.006**
		Within					
		Groups	167.123	708	.198		
		Total	169.062	710			
4	Private or personal services even if they are recognized by government.	Between					
		Groups	.648	2	.323	2.182	.099
		Within					
		Groups	86.040	708	.103		
		Total	86.688	710			
5	Online services through common services centre at a reasonable cost.	Between					
		Groups	1.531	2	.765	3.305	.036*
		Within					
		Groups	195.812	708	.231		
		Total	197.343	710			

\* Significant at .05 level, \*\* Significant at .01 level, \*\*\* Significant at .001 level

The results presented in table 5.14 indicate that the ANOVA values of respondents belonging to rural, semi urban and urban areas are significant for: i) Free of cost through public agencies in your locality; ii) Through private agencies recognized by government at a reasonable cost and iii) Online services through common services centre at a reasonable cost.

**Table 5.15 -Marital Status and Preference to get the computerized Citizen Services/e-Governance services, from the Government**

Sr. No.	Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
1	Free of cost services through government offices	Between Groups	1.772	3	.589	2.351	.070
		Within Groups	210.370	707	.259		
		Total	212.142	710			
2	Free of cost through public agencies in your locality	Between Groups	.586	3	.197	.779	.503
		Within Groups	210.363	707	.259		
		Total	210.949	710			
3	Through private agencies recognized by government at a reasonable cost.	Between Groups	5.339	3	1.789	9.199	.000***
		Within Groups	163.726	707	.192		
		Total	169.065	710			
4	Private or personal services even if they are recognized by government.	Between Groups	.282	3	.093	.891	.455
		Within Groups	86.424	707	.111		
		Total	86.706	710			
5	Online services through common services centre at a reasonable cost.	Between Groups	2.560	3	.853	3.701	.011*
		Within Groups	194.779	707	.231		
		Total	197.339	710			

\* Significant at .05 level, \*\* Significant at .01 level, \*\*\* Significant at .001 level

The results presented in table 5.15 indicate that the ANOVA values of respondents with different marital status are significant for: i) Through private agencies recognized by government at a reasonable cost and ii) Online services through common services centre at a reasonable cost.

## 5.2 –Factors Contributing to Good Governance

Principle component factor analysis with varimax rotation and Kaiser Normalization was applied to find out the factors contributing to good Governance. The results indicate that two factors i) Provision of Basic Fundamental Facilities and ii) Creation of conducive Environment account for a total variance of 56.113.

Provision of Basic Fundamental Facilities emerged as the most important factor of the study with a total variance of 41.458. The major elements of this factor include: i) Minimum interference from the government (.785); ii) Good law and order; safety of life and property (.782); iii) Transparency and accountability in government dealings (.765); iv) Corruptions free government working (.764); v) Citizen centric working of public offices (.745); vi) Creation of jobs (.742); vii) Good quality of

infrastructure like roads, power, irrigation, transport, sanitation, water supply etc (.697); viii) Quality education for all (.697) and ix) Trained and skilled workforce in public offices (.688).

Creation of Conducive Environment emerged as the second most important factor of the study with a total variance of 14.655. The major elements of this factor include: i) provide discounts and freebies (.862); ii) Upliftment of deprived class (.591); iii) Reducing digital divide and other inequalities in the society (.520) and iv) Good business environment (.366).

**Table 5.16 - Factors for Good Governance with their item Loading**

Factor No	Factor	Eigen Value	Total % of Var.	Items	Item Loading	Mean	S.D.	Rank
1.	Provision of Basic Facilities And Good Governance	5.812	41.458	Minimum interference from the government.	.785	1.30	1.011	8
				Good law and order; safety of life and property.	.782	1.41	1.065	2
				Transparency and accountability in government dealings.	.765	1.45	1.029	1
				Corruptions free government working.	.764	1.32	1.014	7
				Citizen centric working of public offices.	.745	1.24	1.032	9
				Creation of jobs	.742	1.33	1.188	6
				Good quality of infrastructure like roads, power, irrigation, transport, sanitation, water supply etc.	.697	1.40	0.956	3
				Quality education for all.				
				Trained and skilled workforce in public offices.	.679	1.35	1.077	5
					.688	1.36	1.054	4
Mean score of Provision of Basic Fundamental Facilities and Good Governance						1.35		
2.	Creation of conducive Environment	2.049	14.655	i. Provide discounts and freebies	.862	0.67	1.392	12
				ii. Upliftment of deprived class	.591	1.12	1.172	11
				iii. Reducing digital divide and other inequalities in the society	.520	1.20	1.141	10
				iv. Good business environment.	.366	0.50	1.571	13
				Mean score of creation of conducive environment				
Overall mean of two factors						1.11		

The results presented in table 5.16 reflect that means core of first factor Provision of Basic Fundamental Facilities is 1.35 and it is higher than overall mean of 1.11. Among the constituents of this factor: Transparency and accountability in government dealings has the highest mean followed by Good law and order; safety of life and property; Good quality of infrastructure like roads, power, irrigation, transport, sanitation, water supply etc.; Trained and skilled workforce in public offices; Quality education for all; Creation of jobs; Corruptions free government working; Minimum interference from the government and Citizen centric working of public offices at the lowest level.



The second factor, Creation of conducive Environment has a mean score of 0.875 which is lower than overall mean score of 1.11. The constituents of this factor are: Provide discounts and freebies; Upliftment of deprived class; Reducing digital divide and other inequalities in the society and Good business environment. Provision for discounts and freebies has a low mean score of 0.67 that means people don't want discounts but they want good quality.

Thus the results reveal that the factors contribute to good governance are: i) Minimum interference from the government; ii) Good law and order; safety of life and property; iii) Transparency and accountability in government dealings; iv) Corruptions free government working; v) Citizen centric working of public offices; vi) Creation of jobs; vii) Good quality of infrastructure like roads, power, irrigation, transport, sanitation, water supply etc.; viii) Quality education for all) and ix) Trained and skilled workforce in public offices.

### **5.3. Citizen's Perception about various Government Offices and their services on the basis of the yearly frequency of use of the services; level of corruption, inefficiency, harassment or difficulty encountered and priority for improving the service through computerisation/use of ICT /e- Governance**

The data was collected for 18 major services rendered by the Government offices. Most of these services are required by the citizens on a day to day basis. The purpose was to understand the citizens' perception regarding the inefficiency, harassment or difficulty faced, level of corruption, their priority for improving these services and the frequency of use of the service by them. To know whether the citizens believe that if these services are provided through computerization/use of ICT/e-Governance in that case it will improve the quality of service and also reduce corruption inefficiency, harassment or difficulty faced.

Factor analysis of the priority for improving these 18 services by Computerisation/ use of ICT/e-Governance provided three major factors namely: i) Public utilities and basic services, which includes basic services like agriculture related issues administrative offices, land records, medical and health, municipality, education, police, public utilities like electricity, water, sewer, phone, mobile. It emerged as the most important factor and explains 27.09 per cent of total variation; ii) Agriculture, procurement, banking and related services, which includes seeds, fertilizers, insecticides, weather report, soil report, technical advice, procurement of food grains markets, crop insurance etc., Banking facilities- banking, loan, insurance, etc., Tenders related to all departments and Cooperative societies and related work. It emerged as the second most important factor and explains 22.39 per cent of total variation; and iii) welfare, approvals and development account explains a total variance of 18.15. This factor includes: Consumer Rights, welfare and Consumer court, Information under RTI Act. 2005, Employment exchange, Benefits of social welfare schemes, Business related work like project clearance, approvals, subsidies, registration of firm, payment of taxes and Urban Development-quality of service, allotment of plots, passing of building plans, change inland use etc.

**Table 5.17 –Priority for improving the services through Computerization/use of ICT/ e- Governance**

<b>Factor No</b>	<b>Factor Name</b>	<b>Eigen Value</b>	<b>Total % of Variance</b>	<b>Items</b>	<b>Item Loading</b>	<b>Mean</b>	<b>S.D.</b>
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1.	Public Utilities and Basic Services	7.043	27.090	i.	Offices of Deputy Commissioner/SDM/ Tehsildar for licences, registration of vehicles, permits, NOC's and other kind of certificates.	.797	3.71	1.612	
				ii.	Land records, transfer of property and other related work.	.788	3.74	1.622	
				iii.	Medical services like Hospitals, public health, vaccination, and ambulance.	.756	3.60	1.660	
				iv.	Education – like admission, testing, examination, results, certificates.	.710	3.60	1.642	
				v.	Municipal/civic services like water, sanitation, property tax, birth and death certificates, street light etc., house construction plans/ maps etc. Payment of bills.	.720	3.70	0.595	
				vi.	Police-station-registration of FIR/ complaints, tracking of complaints.	.678	3.73	1.597	
				vii.	Electricity department- electricity connection, repairing, payment of bills.	.686	3.64	1.767	
				viii.	Food and civil supplies- ration card, ration depot and other supplies.	.637	3.58	1.671	
	Mean score of Public Utilities and Basic Services							3.66	
2.	Agriculture Procurement banking and related Services	5.822	22.392	i.	Agriculture department- seeds, fertilizers, insecticides, weather report, soil report, technical advice, procurement of food grains markets, crop insurance etc.	.821	3.54	1.790	
				ii.	Banking facilities- banking, loan, insurance, etc...	.798	3.60	1.821	
				iii.	Tenders related to all departments	.775	3.57	1.761	
				iv.	Cooperative societies and related work	.681	3.37	1.758	
	Mean Score of Agriculture, Procurement banking and related Services							3.52	
3	Welfare, Approvals and development	4.721	18.158	i.	Consumer Rights, welfare and Consumer court	.772	3.34	1.871	
				ii.	Information under RTI Act. 2005	.735	3.23	1.866	
				iii.	Employment exchange.	.712	3.60	1.788	
				iv.	Benefits of social welfare schemes.	.636	3.51	1.712	
				v.	Business related work like project clearance, approvals, subsidies, registration of firm, and payment of taxes.	.618	3.37	1.772	
				vi.	Urban Development-quality of service, allotment of plots, passing of building plans, change inland	.623	3.30	1.789	
	Mean score of Welfare, Approvals and development							3.39	
Mean score of all the three factors								3.52	

The results presented in table 5.17 reflect that mean score of first factor Public utilities and basic services is 3.66 and it is higher than overall mean of 3.52. The second factor, Agriculture procurement, banking and related services has a mean score of 3.52 which is equal to the overall mean score of 3.52. The third factor Welfare, approvals and development has a mean score of 3.39 which is lower than overall mean score of 3.52.

This reflects that people believe that information and communication technologies can reduce the inefficiency, harassment or difficulty faced and the level of corruption in the government offices.

**5.3.1- Citizens’ experiences about various Government Institutions and their services on the basis of frequency of use of the services**

Factor analysis of Citizens’ experiences about various Government offices and their services on the basis of Frequency of Use of the Services resulted in four factors namely:

Basic Services emerged as the most important factor and explains 45.87 % of total variation. It includes administrative offices, land records and related issues, medical and health, municipality, education, police and urban development.

Public utilities emerged as the second most important factor and explain 6.33 % of total variation. It includes electricity department, food and civil supplies, banking services, agriculture services and employment exchange.

Consumer welfare and related services emerged as the third most important factor and explain 5.69 % of total variation. It includes tender related to all departments, cooperative societies and related work, consumer rights, welfare and consumer court, information under RTI Act. 2005 and public grievance redressal.

Social development and approvals emerged as the fourth important factor and explain 3.86 % of total variation. It includes benefits of social welfare schemes and business related works.

These four factors accounted for a total variance of 61.75.

**Table 5.18 -Factors Explaining Citizen’s experience about various Government Institutions and their Services on the basis of Frequency of Use of the Services**

Factor No	Factor Name	Eigen Value	Total % of Variance	Items	Item Loading	Mean	S.D.
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1.	Basic Services	11.93	45.870	i.	Offices of Deputy Commissioner/SDM/ Tehsildar for licences, registration of vehicles, permits, NOC's and other kind of certificates.	.734	2.33	1.48
				ii.	Land records, transfer of property and other related work.	.713	2.32	1.58
				iii.	Medical services like Hospitals, public health, vaccination, and ambulance.	.698	2.25	1.48
				iv.	Education – like admission, testing, examination, results, certificates.	.653	2.43	1.46
				v.	Municipal/civic services like water, sanitation, property tax, birth and death certificates, street light etc., house construction plans/ maps etc. Payment of bills.	.637	2.62	1.63
				vi.	Police-station-registration of FIR/ complaints, tracking of complaints.	.625	2.59	1.68
				vii.	Urban Development-quality of service, allotment of plots, passing of building plan, change in land use etc.	.524	3.10	1.78
	Mean of Basic Services					2.52		
2	Public Utilities	1.654	6.337	i.	Electricity department- electricity connection, repairing, payment of bills.	.730	3.25	1.81
				ii.	Food and civil supplies- ration card, ration depot and other supplies.	.685	2.72	1.77
				iii.	Agriculture department- seeds, fertilizers, insecticides, weather report, soil report, technical advice, procurement of food grains markets, crop insurance etc.	.674	2.98	1.85
				iv.	Banking facilities- banking, loan, insurance, etc...	.641	2.56	1.73
				v.	Employment exchange.	.621	2.52	1.75
	Mean of Public Utilities					2.80		
3.	Consumer Welfare and related Services	1.488	5.696	i.	Tenders related to all departments	.811	2.22	1.54
				ii.	Cooperative societies and related work	.763	2.20	1.59
				iii.	Consumer Rights, welfare and Consumer court	.665	2.18	1.54
				iv.	Information under RTI Act. 2005	.651	2.09	1.51
				v.	Public Grievance redressal	.627	2.23	1.53
	Mean of Consumer Welfare and related Services					2.18		
4	Social development and Approvals	1.004	3.863	i.	Benefits of social welfare schemes.	.652	2.65	1.82
				ii.	Business related work like project clearance, approvals, subsidies, registration of firm, and payment of taxes.	.621	2.48	1.70

Mean of Social Development

2.56

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Overall mean of four Factors	2.51
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The results presented in table 5.18 reflects that municipality/ civic services, police station and urban development these three components of Basic Services have higher mean scores than 2.52 the factor mean score of Basic Services.

The mean score of Public utilities is 2.80 and the important components having a higher mean score than the factor mean are electricity department and agriculture department.

Consumer welfare and related activities factor has a mean score of 2.18 and the important components having a higher mean score than the factor mean are public grievance redressal, tenders related to all departments, cooperative societies and related works and consumer rights, welfare and consumer court.

Social Development and Approvals has a mean score of 2.56 and the important components having a higher mean score than the factor mean is benefits of social welfare schemes.

Three factors Basic Services (2.52), Public Utilities (2.80) and Social Development and Approvals (2.56) are important factors to describe the Citizen's experience about various Government offices and their services on the basis of frequency of use of the services. For better e-governance the governments should focus on these factors. Consumer welfare and related services has lower mean score 2.18 than the overall mean 2.51 of all factors

#### 5.4 –Factors causing frustration and harassment

The opinion of citizens related to the factors causing frustration and harassment were taken. The results are presented in table 5.17.

**Table 5.19 -Relevance of factors causing Frustration and harassment and difficulties to the Citizens in getting The Citizen services from various Government departments**

Sr. No.	Factors	Mea n	S. D..	Rank
1	Lack of proper information and guidance about the correct procedure, rules etc.	.98	1.343	1
2	Unavailability of forms.	.93	1.289	2
3	Unavailability of concerned employee on the seat.	.92	1.236	3
4	Unreasonable delay and multiple visits to get a service.	.88	1.248	4
5	Corruption and middleman.	.87	1.291	5
6	Untrained and unresponsive employees.	.83	1.280	6
7	Long chain of employees, who deal with single work or services.	.82	1.237	7
8	No access or difficult access to senior officers.	.76	1.309	8
9	Poor infrastructure.	.71	1.249	9

The results presented in table 5.19 reflects that Lack of proper information and guidance about the correct procedure, rules etc.; Unavailability of forms; and Unavailability of concerned employee on the seat are rated as three top most factors responsible for causing Frustration and harassment and difficulties to the Citizens in getting The Citizen services from various Government departments . The three least important factors responsible for causing frustration and harassment and difficulties to the Citizens in getting The Citizen services from various Government departments are Long chain of employees, who deal with single work or services; No access or difficult access to senior officers and Poor infrastructure.

The factor analysis of factors causing frustration and harassment resulted in four factors citizen awareness and training, work culture, accountability and e-culture and simplification and updating of rules emerged as the most important factor that explains the maximum 36.02% variation. It includes Impractical and very old laws, rules and regulations; Complex and overlapping among different rules that leads to long procedures and confusion; Employees at lower level apply rules at their discretion; No or weak disciplinary actions against employees; Incomplete and incorrect application forms.

Capacity building in staff and Lack of planning, MIS and systems, service orientation and Customer handling emerged as the second factor that explains 32.38% of total variation. This factor include lack of vision and planning related to service delivery in government offices; Misuse of discretionary powers by employees; Untrained and unmotivated employees and No or slow public grievance redressal mechanism.

The third factor emerged is Collusion, work pressure because of unequal distribution with a total variation of 15.17%. It includes Excessive workload on government employees and Collusion between employees and middle men.

Lack of responsiveness and accountability mechanism that includes lack of accountability mechanism in government offices for the staff for delays and harassment of citizens and explain 10.44% of variation.

**Table5.20 -Factors causing Frustration and Harassment**

Factor No	Factor Name	Eigen Value	Total % of Var.	Items	Item Loading	Mean	S.D.	
1.	Citizen Awareness and Training, Work Culture, Accountability and e-culture and Simplification And updating of rules	6.492	36.027	i.	Impractical and very old laws, rules and regulations.	.954	0.80	1.47
				ii.	Complex and overlapping among different rules that leads to long procedures and confusion.	.935	1.52	0.88
				iii.	Employees at lower level apply rules at their discretion	.931	1.51	1.22
				iv.	No or weak disciplinary actions against employees	.920	1.50	0.88
				v.	Incomplete and incorrect application forms	.867	0.80	1.20

Mean score of Citizen Awareness and Training, Work Culture, Accountability and e-culture and Simplification and updating of rules 1.22

2.	Capacity building in staff and Lack of planning, MIS and systems, service orientation and Customer handling	5.836	32.387	i.	Lack of vision and planning related to service delivery in government offices.	.976	1.38	1.20
				ii.	Misuse of discretionary powers by employees	.889	0.95	1.30
				iii.	Untrained and unmotivated employees	.852	1.10	1.61
				iv.	No or slow public grievance redressal mechanism	.850	1.38	1.20
	Mean Score of Capacity building in staff and Lack of planning, MIS and systems, service orientation and Customer handling							1.20
3	Collusion and Work pressure because of unequal distribution	2.738	15.172	i.	Excessive workload on government employees	.698	1.19	.82
				ii.	Collusion between employees and middle men	.598	0.97	1.21
	Mean Score of Collusion and Work pressure because of unequal distribution							1.08
4	Lack of Responsiveness and Accountability mechanism	1.887	10.445	i.	Lack of accountability in government offices	.878	1.52	.79
	Mean Score of Lack of Responsiveness and Accountability mechanism							1.52
Overall mean of all the four factors								1.25

**Table 5.21 -Preferred Mode of payment for utility Bills and other computerized Citizen Services/e-Governance services**

Sr. No.	Preferred Mode of payment for utility Bills and other computerized Citizen Services/e-Governance services	Mean	S. D.	Rank
1	Cash at services centre.	3.54	1.597	1
2	Cash in the bank/ post office/ treasury.	3.40	1.619	2
3	Online payments/ transfer (Prepaid Coupons Like airtel money, Paisa Pay and PayPal)	3.26	1.599	3
4	At any ATM	3.13	1.617	4
5	Through cheque at service centre.	2.97	1.676	5
6	Collection from your house at extra cost.	2.95	1.569	6

The most preferred mode of payment for utility bills and other computerized citizen services/e-governance services is cash at service centre second preferred mode is Cash in the bank/ post office/ treasury, third preferred mode is Online payments/ transfer; fourth is ATM. The results indicate that Indian citizens' are switching to e-modes of payments. Collection from their house at extra cost is being provided is ranked last.

**Table 5.22: Factors contributing to the success or Effectiveness of Improved Services through e- Governance**

	<b>Factors</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Rank</b>
1	Speedy delivery of services with accuracy.	1.34	1.025	1
2	Reducing the distance between service centre and locality.	1.21	1.083	2
3	Increase working hours.	1.18	1.087	3
4	Simple interface and procedure to avail a service.	1.16	1.057	4
5	Availability of all major services at single counter.	1.14	1.130	5
6	Control on corruption and middleman.	1.09	1.052	6
7	Trained and accountable staff.	1.03	1.078	7
8	Better infrastructure at government offices.	1.01	1.102	8

The three top most rated factors contributing to the success or effectiveness of improved services through e-governance are: i) Speedy delivery of services with accuracy; ii) Reducing the distance between service centre and locality and iii) Increase working hours.

### 5.5 -Factors for effective Good Governance framework through the use of ICT

Factor analysis for an effective Good Governance framework through the use of ICT resulted in five factors namely, i) Political will, public support and technical feasibility; ii) Economic feasibility, computer literacy and infrastructural support; iii) Process simplification, service availability and public acceptability; iv) Benefits to stakeholders and v) Marketing and public awareness. The results are presented in table 5.21.

**Table 5.23 -The level of importance to be given to each variable for an effective Good Governance framework through the use of ICT**

<b>Fact or No</b>	<b>Factor Name</b>	<b>Eigen Value</b>	<b>Total % of Var.</b>	<b>Item</b>	<b>Item Loading</b>	<b>Mean</b>	<b>S.D.</b>	
1	Political will, Public Support and acceptability	7.725	36.754	i.	Political will and support.	.872	1.70	
				ii.	Acceptability of the services method by citizens.			
				iii.	Participation of local bodies (Municipal councils and Panchayats)	.824 .820	1.31 1.53	.952 .695
Mean Score of factor Political will, Public Support and technical feasibility						1.51		
2	Economic Feasibility, Computer literacy and Infrastructural support	3.665	17.416	i.	Training of the citizens	.747	1.53	
				ii.	Availability of IT infrastructure.	.631 .572	1.26 0.95	.933 1.132
				iii.	Affordable cost of services.	.565	1.20	.866
				iv.	Capacity building and training of the staff.	.747	1.50	.793
				v.	Physical Infrastructure-buildings, power, furniture, computer etc.			
Mean Score of Economic Feasibility, Computer literacy and Infrastructural support						1.28		



3	Process Simplification and Service Availability	2.615	12.417	i.	Simplifications of process and procedure of availing services.	.793	1.48	.700	
				ii.	Regular monitoring and feedback process to fix accountability, system and rule of law.	.748	1.76	.494	
Mean Score of factor Process Simplification, Service Availability and public Acceptability								1.62	
4	Benefits to stakeholders	1.914	9.062	i.	Financial benefits to citizens and government.	.940	1.31	.741	
Mean Score of factor Benefits to stakeholders								1.31	
5	Public awareness	1.789	8.532	i.	Awareness and encouragement among the citizens to use IT services.	.957	1.42	.695	
Mean Score of factor Public awareness								1.42	
Overall Mean of five factors								1.42	

The results presented in table 5.23 indicate that the third factor process simplification, service availability and public acceptability has the highest mean score of 1.62. It means citizens feel that this factor is most important for an effective good governance framework through the use of ICT. The mean score of first factor political will, public support and technical feasibility is 1.51 and is higher than the overall mean of 1.42. It means citizens feel that this factor is second most important for an effective good governance framework through the use of ICT.

**Table 5.24 - Severity of following key issues, with respect to the existing national and state level e-governance policies:**

Sr. No.	Issues	Mean	S.D.	Rank
1	Differences between national and state level policies.	4.00	1.000	1
2	Policies and plans are not based upon local needs of citizens and departments	3.67	0.577	2
3	Lack of proper and adequate policies and frameworks for critical issues like database management, data sharing, privacy and security of information, cyber crime etc.	3.67	0.575	3
4	Lack of trained and motivated workforce, public awareness.	3.67	1.528	4

Table 5.24 shows that Differences between national and state level policies and Policies and plans are not based upon local needs of citizens and departments are the factors that hamper the effective e-governance.

**Table 5.25 -Direct/ Indirect Risks/Threats Involved while implementing Good Governance through the use of ICT/e-Governance**

Sr. No.	Factors	Mean	SD	Rank
1	Political resistance	3.51	1.06	3
2	Resistance from the employees	3.57	1.29	1
3	Resistance from citizens	3.55	1.18	2
4	The digital divide will increase further	3.08	1.30	7
5	Privacy of data and citizens at risk	3.22	1.14	4
6	High cost and technological changes	3.13	1.38	6
7	Risk of cyber crimes	2.95	1.36	8
8	Loss of jobs	2.80	1.35	9
9	Affordability of services by citizens	3.21	1.45	5

The results presented in table 5.25 reflects that Resistance from the employees, Resistance from citizens and Political resistance are the three major direct/indirect risks/threats involved while implementing good governance through the use of ICT/e-governance.

**Table 5.26: Citizens' willing to pay for availability of a service at your doorstep**

Sr No	Charges	Chhattisgarh	Delhi	Haryana	Himachal Pradesh	Punjab	Uttarakhand
		%	%	%	%	%	%
1	At district headquarter (normal charges)	51.28	31.81	36.11	35.53	44.61	40.19
2	At Tehsil level (normal + additional charges)	18.80	25.75	25.92	29.75	23.84	22.55
3	At ward or panchayat level (1.5 times of normal charges)	18.80	23.48	20.37	24.79	19.23	21.56
4	Home delivery (double charges)	11.11	18.93	17.59	9.91	12.30	15.68
Total		100	100	100	100	100	100

The results presented in the table 5.26 reflect that most of citizens want services at normal charges at district level. A sizable citizen group is willing to pay extra to get these services near to home or at their doorstep.

**Table 5.27: Citizens' preference for spreading awareness and training of citizens for using e-services**

Sr No	Awareness Mode	Chhattisgarh	Delhi	Haryana	Himachal Pradesh	Punjab	Uttarakhand
		%	%	%	%	%	%
1	Free computer education at schools	62.40	25.75	36.11	45.45	53.08	43.14
2	Free computer training for citizens	17.95	25	28.71	25.62	23.08	27.45
3	Computer training for citizens with nominal fee	10.25	25	17.59	12.40	14.61	17.65
4	Computer education in schools with fee	9.40	24.25	17.59	16.53	9.23	11.76
Total		100	100	100	100	100	100

The results presented in the table 5.27 reflect that citizens want free computer education at schools and free computer training for citizens. A sizable citizen group is willing to pay for computer training for citizens and want computer education in schools with fee.

## 5.6 Results

- i. A sizable number of people do not have access to internet.
- ii. Television and mobile phones are the most preferred means of communication respectively. Over all people have good access to means of communication.
- iii. Friend and relative are the biggest source of information about social welfare schemes and policies followed by newspapers and television. Only 20.7% people access government websites and only 7.8 % people approach gram panchayat to get information about these schemes.
- iv. Majority of the respondents in these states were not using e governing facilities offered by their respective government offices. In Delhi 53%, in Punjab 46.3% in Uttarakhand 42.1%, in Haryana 33.4%, in Himachal Pradesh 29.7% and only 14.5% people in Chhatisgarh use E-governance facilities.
- v. Majority of respondents want computerized government services/e-governance services.
- vi. Majority of respondents want government services 24x7 and they want these services online.
- vii. Most preferred language for computerized government services is Hindi followed by bilingual and English.
- viii. Majority of respondents are dissatisfied with government offices.

- ix. Citizens perceived that shortage of computers is the biggest problem in implementing ICT effective followed by lack of trained Staff. Server related issues, absence of networking within offices, electricity or power supply, shortage of printers in government offices dearth of clients are other hurdles.
- x. Age, gender, area of residence influence the respondents' preference about the agencies to avail e-governance facilities.
- xi. Provision of Basic Fundamental Facilities and Creation of conducive Environment are two most important factors contributing to good Governance The major elements of Provision of Basic Fundamental Facilities factor include: minimum interference from the government, good law and order situation, safety of life and property; Transparency and accountability in government dealings, corruptions free government working, citizen centric working of public offices, creation of jobs, good quality of infrastructure like roads, power, irrigation, transport, sanitation, water supply etc., quality education for all and trained and skilled workforce in public offices. Creation of Conducive Environment includes: provide discounts and freebies, upliftment of deprived class, Reducing digital divide and other inequalities in the society and good business environment.
- xii. Citizens' perceived that if these services are provided through computerization/use of ICT/e-Governance in that case it will improve the quality of service and also reduce corruption inefficiency, harassment or difficulty faced.
- xiii. Citizens' want that Public utilities and basic services, which includes basic services like agriculture related issues administrative offices, land records, medical and health, municipality, education, police, public utilities like electricity, water, sewer, phone, mobile should be computerized on top most priority. Computerization of agriculture, procurement, banking and related services, which includes seeds, fertilizers, insecticides, weather report, soil report, technical advice, procurement of food grains markets, crop insurance etc., Banking facilities- banking, loan, insurance, etc., Tenders related to all departments and Cooperative societies and related work got the second priority. Computerization of welfare, approvals and development account which includes: Consumer Rights, welfare and Consumer court, Information under RTI Act. 2005, Employment exchange, Benefits of social welfare schemes, Business related work like project clearance, approvals, subsidies, registration of firm, payment of taxes and Urban Development-quality of service, allotment of plots, passing of building plans, change inland use etc. got the priority.
- xiv. The most frequently used services by citizens are basic services that include administrative offices, land records and related issues, medical and health, municipality, education, police and urban development. Public utilities include electricity department, food and civil supplies, banking services, agriculture services and employment exchange emerged as the second most frequently used services. Consumer welfare and related services emerged as the third most frequently used services. It includes tender related to all departments, cooperative societies and related work, consumer rights, welfare and consumer court, information under RTI Act. 2005 and public grievance redressal. Social development and approvals emerged as the fourth important group of services. It includes benefits of social welfare schemes and business related works.

- xv. Lack of proper information and guidance about the correct procedure, rules etc., unavailability of forms and unavailability of concerned employee on the seat are rated as three top most factors responsible for causing Frustration and harassment and difficulties to the Citizens in getting the citizen services from various Government departments. The three least important factors responsible for causing frustration and harassment and difficulties to the Citizens in getting the citizen services from various Government departments are Long chain of employees, who deal with single work or services; No access or difficult access to senior officers and Poor infrastructure.
- xvi. Factor causing frustration and harassment are impractical and very old laws, rules and regulations, complex and overlapping among different rules that leads to long procedures and confusion, employees at lower level apply rules at their discretion, no or weak disciplinary actions against employees, incomplete and incorrect application forms. Other factors that lead to frustration and harassment are lack of vision and planning related to service delivery in government offices, misuse of discretionary powers by employees, untrained and unmotivated employees and no or slow public grievance redressal mechanism. Excessive workload on government employees and collusion between employees and middle men, lack of accountability mechanism in government offices for the staff for delays and harassment of citizens also add to citizens' problems.
- xvii. The most preferred mode of payment for utility bills and other computerized citizen services/e-governance services is cash at service centre second preferred mode is Cash in the bank/ post office/ treasury, third preferred mode is Online payments/ transfer; fourth is ATM. The results indicate that Indian citizens' are switching to e-modes of payments. Collection from their house at extra cost is being provided is ranked last.
- xviii. The three top most rated factors contributing to the success or effectiveness of improved services through e-governance are: i) Speedy delivery of services with accuracy; ii) Reducing the distance between service centre and locality and iii) Increase working hours.
- xix. Effective Good Governance framework through the use of ICT resulted in five factors namely, i) Political will, public support and technical feasibility; ii) Economic feasibility, computer literacy and infrastructural support; iii) Process simplification, service availability and public acceptability; iv) Benefits to stakeholders and v) Marketing and public awareness. The results are presented in table 5.22. The results presented in table 5.22 indicate that the third factor process simplification, service availability and public acceptability has the highest mean score of 1.62. It means citizens feel that this factor is most important for an effective good governance framework through the use of ICT. The mean score of first factor political will, public support and technical feasibility is 1.51 and is higher than the overall mean of 1.42. It means citizens feel that this factor is second most important for an effective good governance framework through the use of ICT.
- xx. The effective e-governance is hampered by differences between national and state level policies and the plans and policies formulated are not based upon local needs of citizens and departments.
- xxi. The three major direct/indirect risks/threats involved while implementing good governance through the use of ICT/e-governance are resistance from the employees, resistance from citizens and political resistance.

- xxii. Citizens want free computer education at schools and free computer training for citizens. A sizable citizen group is willing to pay for computer training for citizens and want computer education in schools with fee.

## 6 CONCLUSION AND STRATEGIC FRAMEWORK

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The main purpose of the study is to identify the factors citizens feel contribute to good governance and the role ICT can play in achieving good governance. The existing literature has provided a direction to understand the concept of good governance and related issues and certain conclusions pertaining to good governance, e-governance and role ICT can play in governance. The results of the present study have also strengthened the thesis that e-governance/ICT enabled governance is a better route to achieve good governance. ICT has the potential to help India achieving the goal of good governance, which remains for the most part untapped. Efficiency and effectiveness can be brought in the functioning of government offices by proper alignment of ICT policies with the working of these offices and the region where situated.

Existing literature has suggest that maximization of computing power and communication capabilities and minimizing the organizational constraints leads to increased ICT usage for decision making in developing countries. In developing countries IT and public managers are facing the knowledge related challenges not allocation constraints. A link between flow of information and governance exists. Sharing of information for better coordination among different components of governance, analysis and monitoring is essential for good policymaking.

A basic impediment in developing countries is that high-technology interventions are introduced in e-government projects for which neither the employees not the citizens are ready. Functioning of the government and its processes need a major rethinking to utilize ICT as a tool to deliver government information and services to the masses. E-Governance initiative should be a goal driven and outcome based.

### 6.1 Findings

The major findings of the study are as follows:

1. A sizable number of people do not have access to internet but they have good access to means of communication. Television and mobile phones are the most preferred means of communication.
2. People rely more on friend and relative to get information about social welfare schemes and policies followed by newspapers and television. People prefer relatively less to access government websites and approaching gram panchayat to get information about these schemes.
3. People want computerized government services/e-governance services but the current usage of available e-services is low. They want the availability of these services for longer working hours.
4. Age, gender, area of residence influence the respondents' preference about the agencies to avail e-governance facilities.

5. Citizens want government services 24x7 and they want these services online in Hindi followed by bilingual and English.
6. Majority of citizens are dissatisfied with the functioning of government offices. Citizens' perceived that if these services are provided through computerisation/use of ICT/e-Governance in that case it will improve the quality of service and also reduce corruption inefficiency, harassment or difficulty faced.
7. Citizens perceived that shortage of computers is the biggest problem in implementing ICT effective followed by lack of trained Staff. Server related issues, absence of networking within offices, electricity or power supply, shortage of printers in government offices dearth of clients are other hurdles. They feel that resistance from the employees, resistance from citizens and political resistance are the major challenges in implementing good governance through the use of ICT/e-governance.
8. Provision of Basic Fundamental Facilities and Creation of conducive Environment are two most important factors contributing to good Governance The major elements of Provision of Basic Fundamental Facilities factor include: minimum interference from the government, good law and order situation, safety of life and property; Transparency and accountability in government dealings, corruptions free government working, citizen centric working of public offices, creation of jobs, good quality of infrastructure like roads, power, irrigation, transport, sanitation, water supply etc., quality education for all and trained and skilled workforce in public offices. Creation of Conducive Environment includes: provide discounts and freebies, upliftment of deprived class, Reducing digital divide and other inequalities in the society and good business environment.
9. Citizens' want that Public utilities and basic services, which includes basic services like agriculture related issues administrative offices, land records, medical and health, municipality, education, police, public utilities like electricity, water, sewer, phone, mobile should be computerized on top most priority. Computerization of agriculture, procurement, banking and related services, which includes seeds, fertilizers, insecticides, weather report, soil report, technical advice, procurement of food grains markets, crop insurance etc., Banking facilities- banking, loan, insurance, etc., Tenders related to all departments and Cooperative societies and related work got the second priority. Computerization of welfare, approvals and development account which includes: Consumer Rights, welfare and Consumer court, Information under RTI Act. 2005, Employment exchange, Benefits of social welfare schemes, Business related work like project clearance, approvals, subsidies, registration of firm, payment of taxes and Urban Development-quality of service, allotment of plots, passing of building plans, change inland use etc. got the priority.
10. The most frequently used services by citizens are basic services that include administrative offices, land records and related issues, medical and health, municipality, education, police and urban development. Public utilities include electricity department, food and civil supplies, banking services, agriculture services and employment exchange emerged as the second most frequently used services. Consumer welfare and related services emerged as the third most frequently used services. It includes tender related to all departments, cooperative societies and related work, consumer rights, welfare and consumer court, information under RTI Act. 2005 and public grievance redressal. Social



development and approvals emerged as the fourth important group of services. It includes benefits of social welfare schemes and business related works.

11. Lack of proper information and guidance about the correct procedure, rules etc., unavailability of forms and unavailability of concerned employee on the seat are rated as three top most factors responsible for causing Frustration and harassment and difficulties to the Citizens in getting the citizen services from various Government departments. The three least important factors responsible for causing frustration and harassment and difficulties to the Citizens in getting the citizen services from various Government departments are Long chain of employees, who deal with single work or services; No access or difficult access to senior officers and Poor infrastructure.
12. Factor causing frustration and harassment are impractical and very old laws, rules and regulations, complex and overlapping among different rules that leads to long procedures and confusion, employees at lower level apply rules at their discretion, no or weak disciplinary actions against employees, incomplete and incorrect application forms. Other factors that lead to frustration and harassment are lack of vision and planning related to service delivery in government offices, misuse of discretionary powers by employees, untrained and unmotivated employees and no or slow public grievance redressal mechanism. Excessive workload on government employees and collusion between employees and middle men, lack of accountability mechanism in government offices for the staff for delays and harassment of citizens also add to citizens' problems.
13. A shift towards e-modes of payments is observed among Indian citizens' are switching though the most preferred mode of payment for utility bills and other computerized citizen services/e-governance services is cash at service centre.
14. Speedy delivery of services with accuracy, reduction in the distance between service centre and locality and increase in working hours is three top most rated factors contributing to the success or effectiveness of improved services through e-governance.
15. Effective Good Governance framework through the use of ICT resulted in five factors namely, i) Political will, public support and technical feasibility; ii) Economic feasibility, computer literacy and infrastructural support; iii) Process simplification, service availability and public acceptability; iv) Benefits to stakeholders and v) Marketing and public awareness. The results are presented in table 5.32. The results presented in table 5.32 indicate that the third factor process simplification, service availability and public acceptability has the highest mean score of 1.62. It means citizens feel that this factor is most important for an effective good governance framework through the use of ICT. The mean score of first factor political will, public support and technical feasibility is 1.51 and is higher than the overall mean of 1.42. It means citizens feel that this factor is second most important for an effective good governance framework through the use of ICT.
16. The effective e-governance is hampered by differences between national and state level policies and the plans and policies formulated are not based upon local needs of citizens and departments.
17. Citizens want free computer education at schools and free computer training for citizens.

A sizable citizen group is willing to pay for computer training for citizens and want computer education in schools with fee.

## 6.2 Conclusion

In India initial attempts towards e-Governance were made during the 1980s and early 1990s. The purpose of these initiatives was to interconnect different government departments and the development of in-house government applications related to defence, economic monitoring, planning and the deployment of IT to manage data-intensive functions related to elections, census, tax administration etc. The focus of applications was on automation of internal government functions rather than on improving service delivery to citizens. Then in 2006 National e-Governance Plan was formulated with a purpose of improving delivery of Government services to citizens and businesses. In 2015 Digital India campaign was launched by the Government of India to ensure availability of government services to citizens electronically by improving online infrastructure and by increasing Internet connectivity in rural areas with high-speed internet networks and digital literacy or by making the country digitally empowered in the field of technology.

The main purpose of the study was to find out the perception about good governance and the role ICT can play to facilitate the processes of government and public Administration to achieve Good Governance. Good governance has different facets: changes in government processes to improve efficiency and effectiveness and to make them cost effective. Today, e-government is not an experiment in administrative reform but has become a permanent feature of the governing process. e-Governance has made real-time participation possible in the governance and democratic process. Further, it ensures e-Governance ensures transparency, better policy outcomes, higher quality of services and better engagement with citizens.

Citizen from the different states and demographic strata agree that ICT can be a powerful tool to facilitate good governance. Two factors Provision of Basic Fundamental Facilities and Creation of Conducive Environment emerged as major factors contributing to the good governance (Kalsi, Kiran and Vaidya, 2008). These factors include minimum interference from the government, good law and order situation, safety and security of life and property, transparency and accountability in government dealings, corruptions free government working, citizen centric working of public offices, creation of jobs, good quality of infrastructure like roads, power, irrigation, transport, sanitation, water supply etc., quality education for all and trained and skilled workforce in public offices, upliftment of deprived class, Reducing digital divide and other inequalities in the society and good business environment.

The citizens are ready to pay extra for a good quality service through use of ICT and did not appear too enthusiastic about provide discounts and freebies from the government. They believe that the use of ICT can really reduce the level of corruption, inefficiency, harassment or difficulty faced by people in getting services from government office and thus helpful in achieving good governance (Kalsi, Kiran and Vaidya, 2008).

People use basic services that include administrative offices, land records and related issues, medical and health, municipality, education, police and urban development most frequently followed by public utilities that include electricity department, food and civil supplies, banking

services, agriculture services and employment exchange (Kalsi, Kiran and Vaidya, 2008). People also frequently use Consumer welfare and related services that include tender related to all departments, cooperative societies and related work, consumer rights, welfare and consumer court, information under RTI Act. 2005 and public grievance redressal. Social development and approvals that include benefits of social welfare schemes and business related works are least frequently used services. This result reflects that either people are not aware about the social welfare schemes or they are reluctant to take the benefit that leads to failure of these schemes or not getting the desired results.

What frustrates people or makes the service delivery is lack of proper information and guidance about the correct procedure, rules etc., unavailability of forms and unavailability of concerned employee on the seat. Long chain of employees, who deal with single work or services; no access or difficult access to senior officers and poor infrastructure are other factors that add to people's difficulties. Impractical and very old laws, rules and regulations, complex and overlapping among different rules that leads to long procedures and confusion, employees at lower level apply rules at their discretion, no or weak disciplinary actions against employees, incomplete and incorrect application forms. Other factors that lead to frustration and harassment are lack of vision and planning related to service delivery in government offices, misuse of discretionary powers by employees, untrained and unmotivated employees and no or slow public grievance redressal mechanism. Excessive workload on government employees and collusion between employees and middle men, lack of accountability mechanism in government offices for the staff for delays and harassment of citizens also add to citizens' problems. If these services provided online it will result in less number of visits per person and less number of visitors that reduce the work load of employees, speed up the delivery and reducing the harassment and frustration among citizens.

A shift towards e-modes of payments is observed among Indian citizens' are switching though the most preferred mode of payment for utility bills and other computerized citizen services/e-governance services is cash at service centre. Speedy delivery of services with accuracy, reduction in the distance between service centre and locality and increase in working hours is three top most rated factors contributing to the success or effectiveness of improved services through e-governance.

People feel five factors namely, i) Political will, public support and technical feasibility; ii) Economic feasibility, computer literacy and infrastructural support; iii) Process simplification, service availability and public acceptability; iv) Benefits to stakeholders and v) Marketing and public awareness are required for effective Good Governance framework through the use of ICT. Process simplification, service availability and public acceptability are the most important for an effective good governance framework through the use of ICT. Differences between national and state level policies and the plans and policies formulated are not based upon local needs of citizens and departments hamper the effective e-governance. Citizens want free computer education at schools and free computer training for citizens. A sizable citizen group is willing to pay for computer training for citizens and want computer education in schools with fee.

Another purpose of the present study is to examine the condition of ICT infrastructure and its accessibility for using the ICT based services. The explore level of awareness among the masses about the government policies and major areas of e-governance services and its usage; satisfaction level of the people with the dealing of government offices and to identify the major problems and

issues associated with the good governance in these states. The results of the present study reflected that a large number of populations have no access to internet (Kalsi, Kiran and Vaidya, 2008; Yadav and Tiwari, 2014; Singh, 2008 and Singh and Sahu, 2008). Therefore, the ICT facilities created by the governments do not get desired results. If the governments intend to reach the common man in that case they have to increase the penetration of internet infrastructure. There may be many ways to improve the IT infrastructure (Kalsi, Kiran and Vaidya, 2008; Yadav and Tiwari, 2014; Singh, 2008).

Another finding of interest is that a large population has good access to means of communication but still they rely more on friends and relatives to know about the social welfare schemes of governments. The major concern have arises that only a very small number of people come to know about these schemes through the gram panchayats. The government agencies must involve the gram panchayats in the dissemination of information and implementation of the schemes. The initiative should be taken at the ground level with the help of Panchayats and Ward Committees so that the work effectively carried out for the public with the help of public. The Promotion of Community participation is essential and it should be boost through the administrative efforts. It should be done at local level with people participation in the decision making. The awareness with the progress and annual reports should be published by the government offices and auditor-general's report under the states needs to be distributed among the people.

People are reluctant in using e-governance facilities. The reasons for this reluctance in using these facilities may be illiteracy, lack of awareness or lack of necessary IT skills (Yadav and Tiwari, 2014). It is suggested that the way the government organising campaigns to spread awareness about the social welfare schemes in a similar fashion they should organize campaigns to make people aware about the e- governance facilities and to develop necessary IT skill in masses to make them capable to use these facilities. The government offices should offer personal relationship, while dealing with the public; this may give a feeling of personal touch to the people. The government should encourage the people for use of the e-governance facilities being offered by the different offices by using different mean of communication.

A large number of populations are dissatisfied with the government offices. In the context of northern Indian states, the government offices should be proactive rather neutral in case of public interests and help is concerned (Kalsi, Kiran and Vaidya, 2008; Yadav and Tiwari, 2014 and Singh, 2008). It is suggested on the basis of this study the government offices and the municipality should be direct to their employees for giving personal attention to the public especially who need. The offices also require improving service quality as a whole.

Another finding indicated towards the shortage of trained staff and IT infrastructure like shortage of computer, networking, and server related issues. The shortage of staff and the computers need to be removed among the offices to implement the ICT applications and online based services to the public (Singh and Sahu, 2008). The government should ensure the proper electricity. In the absence of electricity the ICT based governance is not possible among the states. If governments want to bring transparency and effectiveness in the e-governance they have to create a sustainable IT infrastructure not only to handle the present load but to bear the predicted load of coming years.

Last but not the least, it is suggested to ensure the good governance through e- governance among the states the corruption free dealings with the government officials, good education facilities by the government which are job oriented, creating new job opportunities in the private sector and the

government sectors are the major factors that could contribute.

### **6.3 Proposed Broad Strategic e- Governance Policy Framework**

The present study has an objective to propose a Broad Strategic e- Governance Policy Framework. In the proposed framework citizens' priorities, preferences, methods of functioning are considered to achieve 'Good Governance' as per their expectations. The respondents agreed that the factors contributing to the good governance are: good education facilities, good quality of basic infrastructure, safety and security of life and property, peaceful law and order situation, creation of new jobs, effective, accurate and efficient working of government offices and employees and, conducive business environment, reduction of digital divide and other inequalities and minimum or no interference by government.

A visible change towards concessions and freebies by the government as factor of good Governance are losing their importance in the mindsets of citizens. The citizens are ready to pay the price for good quality services. They prefer better quality of services and economic development over freebies. Factors considered less relevant to achieve good governance are: i) provision of discounts and freebies, ii) upliftment of deprived class iii) reducing digital divide and other and iv) good business environment. Two major factors provision of basic facilities and creation of conducive environment account for a total variance of 56.113.

Information and Communication Technology is not a solution to all problems but can be a powerful tool to facilitate good governance through improved citizen services and high internal efficiencies. The requirements and expectations of the citizens from e-Governance are reflected in factor analysis of the priority for improving this service through computerisation / use of ICT/ e-Governance resulted in three factors: i) public utilities and basic services ii) agriculture, procurement, banking and related services and iii) welfare and development. It is evident that citizens value convenience, transparency, awareness, proper availability and maintenance of government record and simple procedures and interface.

The citizens want speedy delivery of services, accessibility, transparency and accountability in the functioning of government offices and reduced corruption in dealings with these offices. People are more interested in the deliverable outputs from the Government services rather than the inputs going into the process of e-Governance. They want a single face of the government and all the government services should be available at a single window and be delivered at the doorstep in a desired manner at the chosen time rather than decided by the government. People want these services in mother tongue and are ready to pay extra to get the services at doorstep or in the vicinity.

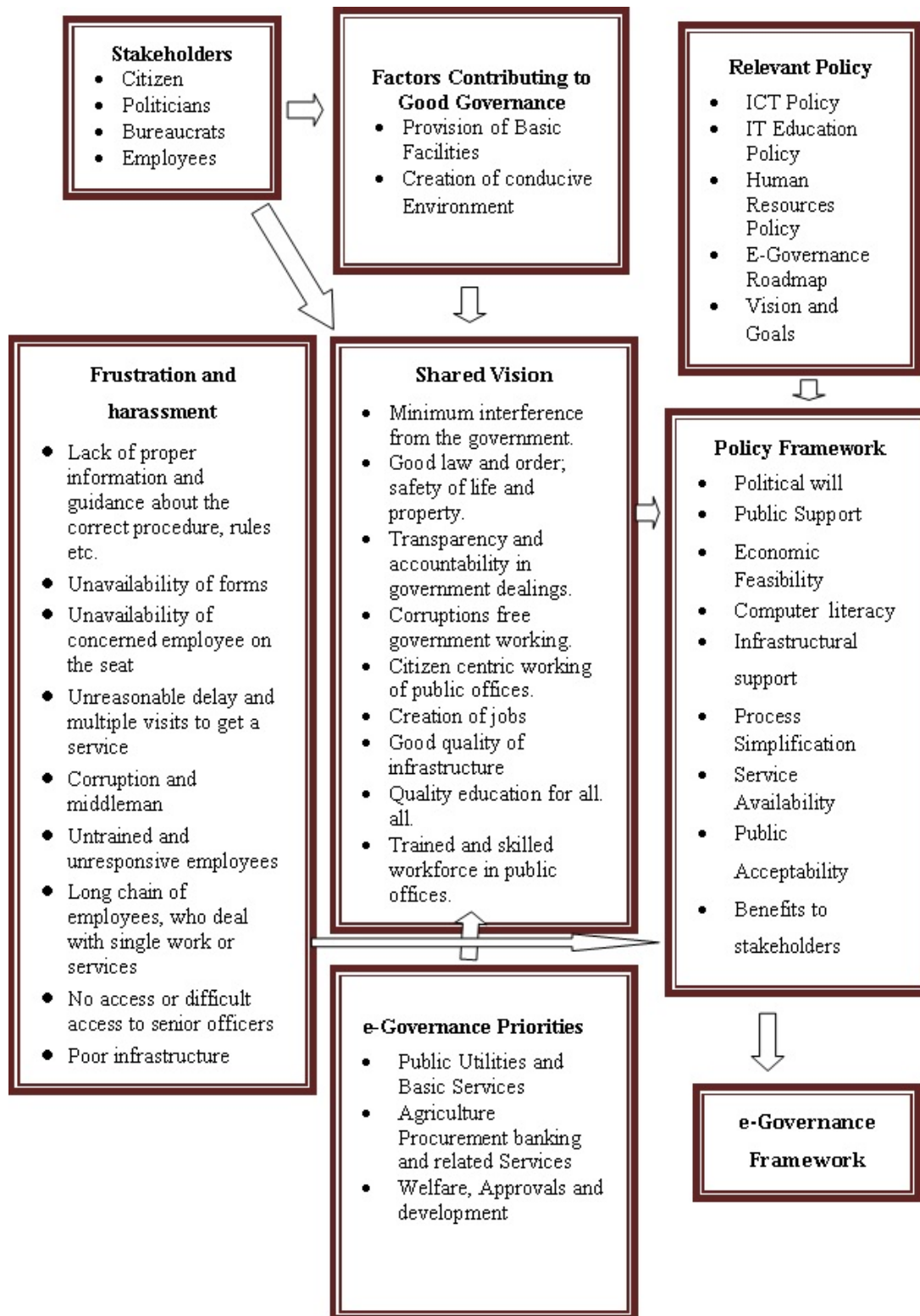
People think that to achieve effective good governance through the use of ICT there is a need for simplification for processes, regular monitoring and feedback to enforce accountability among employees, to create systems and establishment of rule of law, technical feasibility and economic viability, user friendly interface and appropriateness of service and capacity building and training of government staff and citizens.

The broad strategic ICT policy framework must, therefore, address some of the basic issues identified in this study are presented below in table 6.1:

**Table 6.1: Good Governance Framework**

<b>Sr. No</b>	<b>Policy Factor</b>	<b>Details of Policy Factors</b>
1	Political will and Public Support	i. Political will and support. ii. Acceptability of the services method by citizens. iii. Participation of local bodies (Municipal councils and Panchayats)
2	Economic Feasibility , Computer literacy And Infrastructural support	iv. Training of the citizens v. Availability of IT infrastructure. vi. Affordable cost of services. vii. Capacity building and training of the staff. viii. Physical Infrastructure- buildings, power, furniture,
3	Process Simplification, Availability And Public Acceptability	Service ix. Simplifications of process and procedure of availing services. x. Regular monitoring and feedback process to fix accountability, system and rule of law.
4	Benefits to stakeholders	xi. Financial benefits to citizens and government.
5	Public awareness	xii. Awareness and encouragement among

Figure 6.1: Good governance policy framework



#### **6.4 -Constraints and Limitation**

No study is complete in it and always has certain limitations; however, these limitations also act as opportunities for future research. The study has been delimited to a sample of 710 respondents, who visited the government offices for some work. The sample used was confined to the Shimla, Panchkula, Mohali, Delhi, Raipur and Dehradun cities of six states Delhi, Haryana, Himachal Pradesh, Punjab, Chhattisgarh and Uttarakhand. In addition, the scales used to evaluate the current status of ICT and good governance was self developed and included the common facilities available. The data collected was self-reported and, therefore, subject to the limitations of that process. Different states have different models to implement ICT in governance; therefore, it would be desirable to develop a scale to measure ICT and good governance on the basis of facilities available in that specific state. So many ICT initiatives are being implemented by central and state governments to achieve good governance; therefore, such studies need repetition to gauge the actual scenario.

Other limitations of the study are that the majority of the factors considered are based on literature developed in the west or the experience of limited implementation of e- Governance in India. Study was limited to the variables that helped in understanding people's perception and expectations from e-Governance and their implementation Challenges.

#### **6.5 Policy Implications**

There is a need to present a comprehensive, integrated and holistic approach for evolving a policy framework on good governance through the use of ICT with Indian perspective and the present study has definitely contributed to bridging this gap. Besides this, evolving a shared vision of good governance in the Indian context has opened up many new possibilities for the Governments to use ICT and help them in prioritizing areas for focused attention. Identification of critical success factors and proposing the new framework by learning from the successes and failures of the existing e-Governance initiatives/ projects by various states has also been a contribution. An attempt has been put to explore how State and Centre governments' policies interact with local factors to influence the development in the ICT based services. The funding by State and centre governments for developing the IT infrastructure and the new policies for ICT based services should be increased. There is a need to examine the initial design of core services and staffing policies in local agencies for a positive influence of these policies on people and it becomes more important when the centre government is committed to bring technology in the implementation of social welfare schemes.

The problems associated with present level of investment for ICT based services should be resolved in limiting access to these e-governance programs and failing to support high level of quality in local areas. The capacity or power of local level administration to promote these ICT based services should be increased at level above and beyond the minimum standards set in the state or by the centre. The appropriate initiative should be taken or innovative ways can be identified to meet the ICT needs of the population at large, like, proper infrastructure should be setup for these ICT based services, the proper supply of electricity and staff should also be provided. Awareness campaigns by the public and private bodies should be conducted. Thus this study provides the basis to examine the strategy which would support widespread excellence and innovation for these ICT based services.



## **6.6 Further Scope of Research**

The effective use of ICT services in Government administration can significantly improve existing efficiencies and access to speedy delivery of services. It can help in decreasing costs and increase transparency in the functioning of government departments. ICT can be a tool for governments to change themselves from a centralized, bureaucratized, paper-based, impersonal, rule based, disconnected departmentalization, to decentralized, digital, personalized, client-focused, interconnected networks. The confusion and disorder created by the networked society continues to impact e-government initiatives of governments. Governments are redefining their service delivery processes and integrating delivery services with customer in the focus. ICTs and good governance require more inter-disciplinary research with both relevance and influence to examine the many interfaces between technological, social, economic and political perspectives. Different states have different models to implement ICT in governance; therefore, it would be desirable to develop a scale to measure ICT and good governance on the basis of facilities available in that specific state. So many ICT initiatives are being implemented by central and state governments to achieve good governance; therefore, such studies need repetition to gauge the actual scenario.

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## ANNEXURE

### INFORMATION AND COMMUNICATION TECHNOLOGY--- A FRAMEWORK FOR GOOD GOVERNANCE IN REFERENCE TO SELECTED STATES OF INDIA QUESTIONNAIRE

#### Section A: Profile of the Respondents

1. Name: \_\_\_\_\_
2. Gender: Male [ ] Female [ ]
3. Age: Below 20 [ ] 21- 30 [ ] 31-40 [ ] Above 40 [ ]
4. Marital Status: Single [ ] Married [ ] Widowed/ Divorced [ ]
5. Address: \_\_\_\_\_
6. Area of Residence: Urban [ ] Sub urban [ ] Rural [ ]
7. Qualification: Illiterate [ ] Under Graduate [ ] Graduate [ ] Post-Graduate [ ]
8. Occupation (Please specify).

Occupation	Please Tick (✓)
Agriculture	
Wages/Labour	
Business	
Private Service	
Government Service	
Student	
Any other (Please specify)	

9. Under which sector you are serving? Public (State/ Central)[ ] Private [ ] Any other (Please specify) \_\_\_\_\_
10. Income Group: BPL [ ] APL (Non Tax Payer) [ ] Tax payer [ ]

Sr. No	Statement	
<b>11.</b>	<b>Do you have access to internet?</b>	<b>Please Tick (✓)</b>
	Computer with Internet	
	Laptop with Internet	
	Cyber Café	
	No Internet Access	
	Any other	
<b>12.</b>	<b>Which means of communication do you have?</b>	<b>Please Tick (✓)</b>
	Colour TVs	
	Mobiles	
	Radio	
	Other	
<b>13.</b>	<b>How do you get information about the welfare policies of government?</b>	<b>Please Tick (✓)</b>
	Radio	
	TVs	
	Newspaper	
	Government Website	
	Panchayat	
	Friends/Relatives	
	Any other	

<b>14.</b>	<b>Do You use e-governance facilities offered by the government offices?</b>	<b>Please Tick (✓)</b>
	Yes	
	No	
<b>15.</b>	<b>What kind of computerized Government services/e-governance services you want?</b>	<b>Please Tick (✓)</b>
	i. I don't want any computerized service/ e-governance service.	
	ii. I want information about government schemes and services.	
	iii. I want complete process and procedure of government schemes and services online	
<b>16.</b>	<b>What do you think about the appropriate timings of government services?</b>	<b>Please Tick (✓)</b>
	i. 9 a.m. to 5 p.m. on all working days.	
	ii. 24 hours on all working days.	
	iii. 24x7x365 days	
	iv. Internet based online services.	
	v. Online services including payments of fees and taxes.	
<b>17.</b>	<b>How much you are Satisfied with delivery of services from service office?</b>	<b>-2 very unimportant, -1 unimportant, 0 neutral, 1 important, 2 very important</b>
	i. Standards	-2 -1 0 1 2
	ii. Accountability	-2 -1 0 1 2
	iii. Openness	-2 -1 0 1 2
	iv. Equality	-2 -1 0 1 2
	v. Review	-2 -1 0 1 2
	vi. Clarity	-2 -1 0 1 2
	vii. Control	-2 -1 0 1 2
	viii. Information	-2 -1 0 1 2
	ix. Structure	-2 -1 0 1 2
<b>18.</b>	<b>What is your preferred language for computerized government services?</b>	<b>Please Tick (✓)</b>
	i. English	
	ii. Hindi	
	iii. Mother tongue	
	iv. Bilingual	
<b>19.</b>	<b>How much the below given factors are important to achieve good administration and governance?</b>	<b>-2 very unimportant, -1 unimportant, 0 neutral, 1 important, 2 very important</b>
	i. Minimum interference from the government.	-2 -1 0 1 2
	ii. Good law and order; safety of life and property.	-2 -1 0 1 2
	iii. Transparency and accountability in government dealings.	-2 -1 0 1 2
	iv. Corruptions free government working.	-2 -1 0 1 2
	v. Citizen centric working of public offices.	-2 -1 0 1 2
	vi. Creation of jobs	-2 -1 0 1 2
	vii. Good quality of infrastructure like roads, power, irrigation, transport, sanitation, water supply etc.	-2 -1 0 1 2

	iii. Quality education for all.				-2 -1 0 1 2
	ix. Good business environment.				-2 -1 0 1 2
	x. Trained and skilled workforce in public offices.				-2 -1 0 1 2
	xi. Upliftment of deprived class				-2 -1 0 1 2
	xii. Reducing digital divide and other inequalities in the society				-2 -1 0 1 2
	xiii. Provide discounts and freebies				-2 -1 0 1 2
<b>20.</b>	<b>Rate your experience or perception about below given government offices and services provided by these on the following criteria: a) Frequency of use of services by citizens; b) Level of difficulties people face in getting services, misbehave by employees and corruption; c) Priority to make the services computerized through ICT.</b>				<b>1 lowest relevant to 5 highest relevant</b>
		<b>Frequency of use of services by citizens</b>	<b>Level of difficulties people face in getting services, misbehave by employees and corruption</b>	<b>Priority to make the services computerized through ICT</b>	
	i. Offices of Deputy Commissioner/SDM/ Tehsildar for licences, registration of vehicles, permits, NOC's and other kind of certificates.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	ii. Land records, transfer of property and other related work.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	iii. Medical services like Hospitals, public health, vaccination, ambulance.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	iv. Education – like admission, testing, examination, results, certificates.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	v. Municipal/civic services like water, sanitation, property tax, birth and death certificates, street light etc., house construction plans/ maps etc. Payment of bills.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	vi. Police-station-registration of FIR/ complaints, tracking of complaints.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	vii. Business related work like project clearance, approvals, subsidies, registration of firm, and payment of taxes.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	viii. Electricity department- electricity connection, repairing, payment of bills.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	ix. Benefits of social welfare schemes.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	x. Food and civil supplies- ration card, ration depot and other supplies.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	xi. Agriculture department- seeds, fertilizers, insecticides, weather report, soil report, technical advice, procurement of food grains markets, crop insurance etc.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	xii. Banking facilities- banking, loan, insurance, etc...	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	xiii. Employment exchange.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	xiv. Cooperative societies and related work	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	xv. Tenders related to all departments	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
	xvi. Information under RTI Act. 2005	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	

	xvii. Consumer Rights, welfare and Consumer court	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	xviii. Urban Development-quality of service, allotment of plots ,passing of building plans, change inland use etc.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<b>21.</b>	<b>Please indicate to what extent the below given factors cause harassment and frustration among citizens.</b>			<b>-2 very unimportant, -1 unimportant, 0 neutral, 1 important, 2 very important</b>
	i. Lack of proper information and guidance about the correct procedure, rules etc.			-2 -1 0 1 2
	ii. Unavailability of forms.			-2 -1 0 1 2
	iii. Unavailability of concerned employee on the seat.			-2 -1 0 1 2
	iv. Unreasonable delay and multiple visits to get a service.			-2 -1 0 1 2
	v. Long chain of employees, who deal with single work or services.			-2 -1 0 1 2
	vi. Untrained and unresponsive employees.			-2 -1 0 1 2
	vii. Corruption and middleman.			-2 -1 0 1 2
	viii. No access or difficult access to senior officers.			-2 -1 0 1 2
	ix. Poor infrastructure.			-2 -1 0 1 2
<b>22.</b>	<b>How would you prefer to get e-governance services?</b>			<b>Please Tick (✓)</b>
	i. Free of cost services through government offices.			
	ii. Free of cost through public agencies in your locality.			
	iii. Through private agencies recognized by government at a reasonable cost.			
	iv. Private or personal services even if they are not recognized by government.			
	v. Online services through common services centre at a reasonable cost.			
<b>23.</b>	<b>Are you willing to pay for availability of a service at your doorstep?</b>			<b>Please Tick (✓)</b>
	i. At district headquarter (normal charges)			
	ii. At Tehsil level (normal + additional charges)			
	iii. At ward or panchayat level (1.5 times of normal charges)			
	iv. Home delivery (double charges)			
<b>24.</b>	<b>What will be your preference to pay utility bills and charges of e-services?</b>			<b>1 lowest relevant to 5 highest relevant</b>
	i. Cash at services centre.			1 2 3 4 5
	ii. Cash in the bank/ post office/ treasury.			1 2 3 4 5
	iii. Online payments/ transfer			1 2 3 4 5
	iv. At any ATM			1 2 3 4 5
	v. Through cheque at service centre.			1 2 3 4 5
	vi. Collection from your house at extra cost.			
<b>25.</b>	<b>To what extent the below given factors can contribute in effective e-governance services?</b>			<b>-2 very unimportant, -1 unimportant, 0 neutral, 1 important, 2 very important</b>
	i. Speedy delivery of services with accuracy.			-2 -1 0 1 2
	ii. Reducing the distance between service centre and locality.			-2 -1 0 1 2
	iii. Increase working hours.			-2 -1 0 1 2
	iv. Simple interface and procedure to avail a service.			-2 -1 0 1 2

	v. Availability of all major services at single counter.	-2 -1 0 1 2
	vi. Control on corruption and middleman.	-2 -1 0 1 2
	vii. Trained and accountable staff.	-2 -1 0 1 2
	viii. Better infrastructure at government offices.	-2 -1 0 1 2
<b>26.</b>	<b>How to spread awareness and training of citizens for using e-services?</b>	<b>Please Tick (✓)</b>
	i. Free computer education at schools.	
	ii. Free computer training for citizens.	
	iii. Computer training for citizens with nominal fee.	
	iv. Computer education in schools with fee.	
<b>27.</b>	<b>Please rate the below given factors on the basis of their relevance in causing harassment and difficulties for citizens to get services from different government departments and resulting into inefficiency and corruption.</b>	<b>-2 very unimportant, -1 unimportant, 0 neutral, 1 important, 2 very important</b>
	i. Impractical and very old laws, rules and regulations.	-2 -1 0 1 2
	ii. Complex and overlapping among different rules that leads to long procedures and confusion.	-2 -1 0 1 2
	iii. Lack of vision and planning related to service delivery in government offices.	-2 -1 0 1 2
	iv. Employees at lower level apply rules at their discretion	-2 -1 0 1 2
	v. Misuse of discretionary powers by employees	-2 -1 0 1 2
	vi. Untrained and unmotivated employees	-2 -1 0 1 2
	vii. Excessive workload on government employees	-2 -1 0 1 2
	viii. Lack of accountability in government offices	-2 -1 0 1 2
	ix. No or weak disciplinary actions against employees	-2 -1 0 1 2
	x. No or slow public grievance redressal mechanism	-2 -1 0 1 2
	xi. Collusion between employees and middle men	-2 -1 0 1 2
	xii. Incomplete and incorrect application forms	-2 -1 0 1 2
<b>28.</b>	<b>Please rate the below factors on the basis of their importance to create an effective Good Governance framework.</b>	<b>-2 very unimportant, -1 unimportant, 0 neutral, 1 important, 2 very important</b>
	xiii. Political will and support.	-2 -1 0 1 2
	xiv. Awareness and encouragement among the citizens to use IT services.	-2 -1 0 1 2
	xv. Training of the citizens	
	xvi. Simplifications of process and procedure of availing services.	-2 -1 0 1 2
	xvii. Availability of IT infrastructure.	-2 -1 0 1 2
	xviii. Affordable cost of services.	-2 -1 0 1 2
	xix. Acceptability of the services method by citizens.	-2 -1 0 1 2
	xx. Participation of local bodies (Municipal councils and Panchayats)	-2 -1 0 1 2
	xxi. Regular monitoring and feedback process to fix accountability, system and rule of law.	-2 -1 0 1 2
	xxii. Capacity building and training of the staff.	-2 -1 0 1 2
	xxiii. Physical Infrastructure- buildings, power, furniture, computer etc.	-2 -1 0 1 2
	xxiv. Financial benefits to citizens and government.	-2 -1 0 1 2
<b>29.</b>	<b>Please rank the below given factors on the basis of severity to the existing national and state level e-governance policies.</b>	<b>1 lowest relevant to 5 highest relevant</b>



	i. Differences between national and state level policies.	1 2 3 4 5
	ii. Policies and plans are not based upon local needs of citizens and departments	1 2 3 4 5
	iii. Lack of proper and adequate policies and frameworks for critical issues like database management, data sharing, privacy and security of information, cyber crime etc.	1 2 3 4 5
	iv. Lack of trained and motivated workforce, public awareness.	1 2 3 4 5
<b>30.</b>	<b>Please note the importance of the below given factors for measuring the effectiveness/ impact on the success of an e-governance project/ services.</b>	<b>-2 very unimportant, -1 unimportant, 0 neutral, 1 important, 2 very important</b>
	i. Citizen centric approach of services by all departments.	-2 -1 0 1 2
	ii. Citizen friendly process and procedure of services.	-2 -1 0 1 2
	iii. Policy formation and implementation.	-2 -1 0 1 2
	iv. Capacity building at all levels of government.	-2 -1 0 1 2
	v. Involvement of all stake holders while designing and implementing services.	-2 -1 0 1 2
	vi. Availability of funds for infrastructure.	-2 -1 0 1 2
	vii. Time bound implementation of e-governance project.	-2 -1 0 1 2
	viii. Transparency in the system.	-2 -1 0 1 2
	ix. Awareness and training of citizens.	-2 -1 0 1 2
	x. Political will, commitment and support.	-2 -1 0 1 2
<b>31.</b>	<b>Please rank the below given risks/ challenges involved in implementation of Good Governance through ICT.</b>	<b>1 lowest relevant to 5 highest relevant</b>
	i. Political resistance.	1 2 3 4 5
	ii. Resistance from the employees.	1 2 3 4 5
	iii. Resistance from citizens.	1 2 3 4 5
	iv. The digital divide will increase further.	1 2 3 4 5
	v. Privacy of data and citizens at risk.	1 2 3 4 5
	vi. High cost and technological changes.	1 2 3 4 5
	vii. Risk of cyber crimes.	1 2 3 4 5
	viii. Loss of jobs.	1 2 3 4 5
	ix. Affordability of services by citizens.	1 2 3 4 5
<b>32.</b>	<b>Please rate the below given methods on the basis of their importance in creating awareness and training of government staff to use ICT for providing e-governance services.</b>	<b>1 lowest relevant to 5 highest relevant</b>
	i. Computer education should be made compulsory for all government jobs.	1 2 3 4 5
	ii. Computer training should be made compulsory for all government employees.	1 2 3 4 5
	iii. Computer literacy is important for all the elected representatives.	1 2 3 4 5
	iv. Computer literacy should be made compulsory for promotion of government employees.	1 2 3 4 5
	v. Basic computer literacy for the citizens.	1 2 3 4 5
<b>33.</b>	<b>What are the major problems faced by government offices in implementing ICT?</b>	<b>Please Tick (✓)</b>
	i. No printer	
	ii. No networking	
	iii. Dearth of clients	

	iv. server/server-related issues	No	
	v. wiring/electrical issues	No	
	vi. shortage	Computer	
	vii. staff	Shortage of	