

ROLE OF 'TECHNOLOGY AND INNOVATIONS': A BLUE PRINT FOR PROMOTING GOOD GOVERNANCE IN INDIA - 2018**Dr. Shweta Rani**

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Abstract:

Technology and Innovations present creative ideas facilitating the vision of "Good Governance" in India. The role of technology and innovation in economic growth which is a direct reflection of good governance of countries across the globe has been an important part of the conversation in many academic and policy circles (Julien 2007). Silicon Valley in California, Korea's Digital Media City, Japan's Kansai Science City, India's IT hub of Bangalore, and Nairobi's Silicon Savannah all serve as models of Good Governance induced economic development founded on innovation and use of latest technologies.

Key Words: Dematerialization, Good Governance, Innovation, Online Portal, Technology

1. Introduction:

Innovation and Technology present creative ideas facilitating the vision of "Good Governance" in India. The role of 'innovation and technology' in economic growth which is a direct reflection of good governance of countries across the globe has been an important part of the conversation in many academic and policy circles (Julien, 2007). Silicon Valley in California, Korea's Digital Media City, Japan's Kansai Science City, India's IT hub of Bangalore, and Nairobi's Silicon Savannah all serve as models of Good Governance induced economic development founded on innovation and use of latest technologies. Technology plays the biggest role to achieve the motto of "Minimum Government and Maximum Governance." Governance has become a "hot" topic as evidence mounts on the critical role it plays in determining societal well-being. Governance is "the process of decision-making and the process by which decisions are implemented (or not implemented)". Good governance is an indeterminate term used in international development literature to describe how public institutions conduct public affairs and manage public resources. The Secretary General of the United Nations, Kofi Annan, reflects a growing consensus when he states that "good governance is perhaps the single most important factor in eradicating poverty and promoting development".

2. India: A Nation with Diversity:

India is the second most populous nation in the world after Republic of China. With a total head count of 1.25 billion people as per census of India, 2011, India presents an example of unity in diversity. This diversity is prevalent in various aspects ranging from physical aspects like geographical setting, climatic variability, natural vegetation etc; economic aspects like income variations; social aspects like level of literacy, state of ignorance, caste, creed, religion etc. Under such circumstances, science and modern technology as a tool should be integrated and provided with digital framework.

Restarting Indian Economy: What Needs to Be Done?

Good Governance	Innovation
	Reforms

Innovation and technology along with social welfare reforms are regarded as an agent to fulfill human needs and aspirations. It presents all new range of challenges which India has readily accepted and is committed to provide this digital platform even to the remotest part of the nation.

3. Role of Innovation and Technology:

Innovation (since independence) is a very important landmark to study the dispersal of any innovations and technological developments not only in India but across the world. A new idea, phenomenon, practice evolving in any field of study or a multitude of field and its various disciplines is known as 'innovation.' If an innovation is evolved in the field of digitization and digital knowledge, it is generally quoted as 'Digital Innovation.' Such digital innovation may be in the field of new electronic ways of money transfer i.e. e-transfer of money, e-governance, e-commerce, e-literacy, e-health etc. In other words, it is usually termed as Diffusion of Digital knowledge/Innovation.

4. Diffusion of Digital Knowledge over Space: A Geographer's Perspective

As a geographer, we are more concerned with the process of diffusion i.e. spatial diffusion. Every agricultural innovation has a particular point of origin i.e. a source. Once the innovation is evolved, it needs to spread, diffuse or pass on from one person to the other and from one country to another. This process of spread of innovation of new technology and digital knowledge over space is known as Diffusion or to be precise, 'Diffusion of Digital Knowledge.' Since the process of innovation is not an instantaneous process it takes some time to spread and diffuse over space depending upon person to person and region to region. Thus, there is a process, pattern and trends in the evolution which goes on increasing from the year of its inception to some later years with more and more people adopting the innovation and thus benefitting. The various stages involved in the process of diffusion of innovation are:

- ✓ Primary Stage: It is the initial stage when a process is introduced. There are very few adopters for the process.
- ✓ Diffusion Stage: It generally lasts from 5 to 10 years with more adopters.
- ✓ Condensation Stage: Number of adopters further increases knowing the advantages of the innovation.
- ✓ Saturation Stage: Almost all the people in the region adopt the innovation.

5. Understanding Diffusion of Innovation: The Haggerstrand Model

According to the 'Haggerstrand Model', the process of adoption and diffusion of innovation passes through five basic and interrelated stages. These stages are passed by some people very quickly and while others take time to pass the stages (Fig 1).

- ✓ Awareness Stage: A potential adopter must be aware of the existence of the particular innovation either by inter-personal channel or through television, radios, published articles related to innovation etc.
- ✓ Attention Stage: Attention should be given by potential adopter to the innovation adopted by his neighbor in a region.
- ✓ Evaluation Stage: Preparing a balance sheet of the advantages, merits and limitations in terms of pros and cons of the innovation.
- ✓ Trial Stage: Finding that the innovation is worth adopting over the existing system.
- ✓ Adopting Stage: Once the above four stages are complete, now it is time to adopt the innovation.

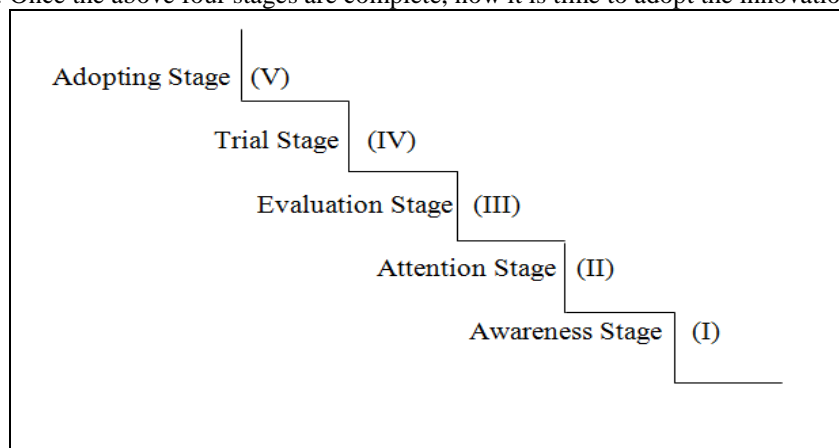


Figure 1: Stages in Adoption and Diffusion

An innovative and educated person will take less time to adopt any new innovation in digital knowledge as he can draw conclusions and inferences very easily and quickly and vice-versa. The person will also look into the pros and cons and can rationally interpret the results. Reliance on digital modes of communications like computers, smart phones, etc. can go a long way in providing them a hassle free life.

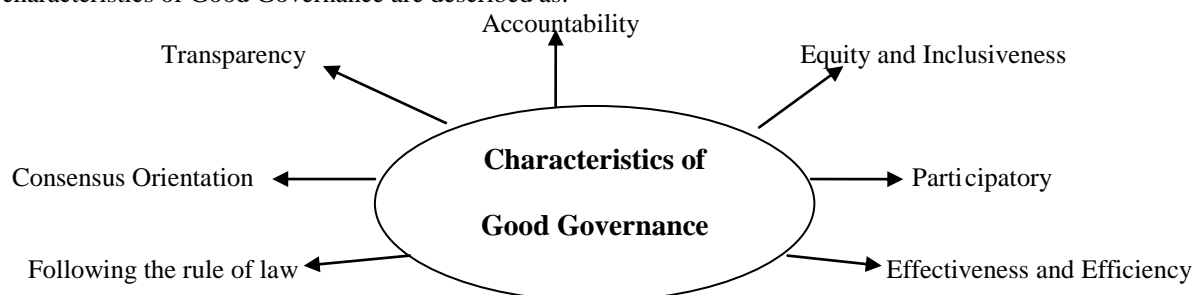
6. Knowledge Economies:

Innovation and Technology leads to the creation of knowledge economies. Knowledge economies are defined generally as an economy whose development relies on the ability to create and use knowledge based upon existing Technologies and Innovations. In a narrower sense - The state of scientific research and development that provide jobs and create wealth for a nation.

7. Good Governance and the Growth of Knowledge Economies:

It has been established that knowledge economies prove to be better for a nation than an economy based on tourism or raw material resources such as oil. In Development as Freedom, Amartya Sen argues that economic development is more than an increase in GDP per capita, and that the wealth of a nation is not measured by the contents of its coffers, but by the freedom of its citizens. Such freedom is measured by the "Voice and Accountability indicators" as established by the World Bank. Together, they form an integral part and key pillars of both the growth of knowledge economies and the strength of a free society i.e. 'Good Governance.' The primary goal of technology and innovation is to open a door to a new facet of exploration and exploitation in the various aspects of life i.e. economical, political, social, educational, religious etc. Such multidimensional and multi-sectoral approach would aid and facilitate development process reflecting the state of 'Good Governance.' Three institutions can be reformed to promote good governance: the state, the private sector and civil society.

The major characteristics of Good Governance are described as:



8. ICT – A Tool for Good Governance:

Information and Communication Technology/E-governance was especially driven in USA by the 1998 Government Paperwork Elimination Act, introduced by former president Bill Clinton on 17th December, 1999. The Information and Communication Technology sector (ICT) has been a pioneer and powerful catalyst in addressing the needs and interests of low-income communities in developing countries. But such a role of ICT sector came to be realized only about some twenty years back with people having a self-conscious appreciation for ICT sector's role in expanding economic opportunities emerged. The rate of technological innovations in ICT has accelerated dramatically, and today, the sector is much larger in magnitude than what it was at time of its inception i.e. 20 years ago. It encompasses a more diverse universe of active players than ever before. Today, this sector includes hardware, software, the internet, telephony, application and support services either provided by corporate giants or individual developers etc. Thus, there exists a "network effect" which increases productivity of large chunk of people. [2]. Information and Communication Technology is used as an instrument by the government to enhance the range, quality of

information and service provided to the citizen in a cost effective manner. These are in a way advanced technologies that can serve better delivery of government services to citizens. It is rather a comprehensive and integrated approach that intends to connect the length and breadth of the country in the shortest possible time through its various and multi-dimensional facets like e-governance, e-health, e-literacy. The four interrelated pillars of e-governance are illustrated in below Fig. 2.

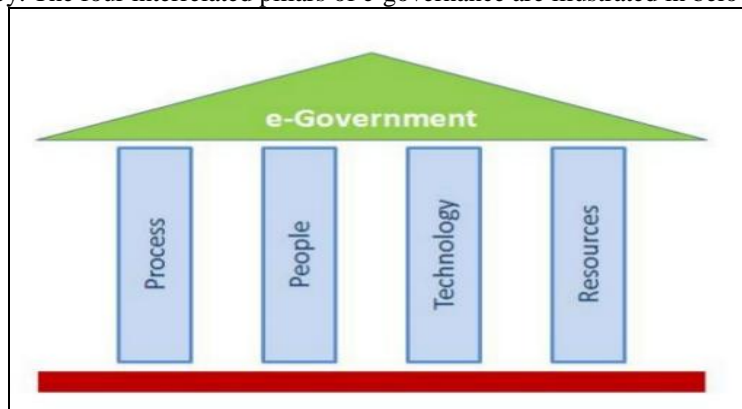


Figure 2: Four Pillars of E-Governance

All the above depicted pillars provide the base and helps in laying sound and stable foundation of e-governance. It thus, enhances the functioning of government to make it:

- ✓ Smart
- ✓ Moral
- ✓ Accountable
- ✓ Responsive
- ✓ Transparent Governance

9. Benefits:

The benefits of information and communication technology are manifold as listed below:

- ✓ Better access to information and quality services for citizens;
- ✓ Simplicity, efficiency and accountability in the government,
- ✓ Cost Effective,
- ✓ Expanded reach of governance.
- ✓ Building a strong and effective information chain,
- ✓ Optimum utilization of resources'
- ✓ Minimum use of hardcopy.
- ✓ Reduction of delays, Red tape and corruption.

10. Digitization of Health Care Services:

In a massively populated country like India, digitization will provide better healthcare access to human resources. Digitization potentially will enable the healthcare industry to manage its huge volumes of data, which needs validation and analysis, by its ability of critical computing and analytical ability (Kumar & Manjula 2014). This innovative technology is a way to improve the performance of healthcare systems by linking various systems via data and communications platform improving and expediting clinical decision making, and thus, enabling access to all levels of healthcare for a wide range of conditions. With tele-medicine, hospitals will be able to lower the cost of patient care and increase the effectiveness of chronic disease management. The measure collects all possible patient information to create thorough electronic health records (EHR's) for each patient (Hoerbst & Ammenwerth 2010).

11. Best Practices in Good Governance: An Indian Perspective:

A variety of country level initiatives and international movements put emphasis on various types of governance reform. The workings of institutions like IMF, UNITED NATIONS, WORLD BANK are examples of good governance standards for prominent organizations in the international community.

At the level of India, several milestones have been achieved and many more are in the line. These are designated as best practices in Good Governance in India and are listed as:

- ✓ AIIMS unique Pre Paid Cash Card Sewa in Cardiothoracic and Neurosciences (CN) Centre: It integrates technology with social welfare thus, enhancing access to healthcare services.
- ✓ Using mobile phones to check traffic rule violations: The Third Eye project, initiated by Gurgaon Traffic Police, utilizes innovative mobile phone application to capture images and track traffic rule violators in the city. (Example: In Delhi, ring road on the way to ITO).
- ✓ Real-time train tracking system: Indian Railways in partnership with IIT Kanpur has launched a real-time rail navigation project known as SIMRAN through which passengers can track the exact location and speed of a train. It has herald a new era of using ICT for monitoring railway operations. It has thus tremendously increased the passenger/public satisfaction.
- ✓ Computerized Electricity Bill Collection and Online Remittance System.
- ✓ Yantradoot: A farm mechanization initiative in Madhya Pradesh to increase agricultural productivity through dissemination of information and know-how.
- ✓ Integrated Taxpayer Data Management System (ITDMS)

- ✓ Avahan – A holistic HIV/AIDS prevention programme for six of Indian states with 83 percent of the country's HIV infected population.
- ✓ Effective Off-Site Real-Time Waste Monitoring Mechanism, implemented by Greater Hyderabad Municipal Corporation.
- ✓ Jaankari facilitates the Right to Information (RTI) for all citizens in Bihar through a call centre. This model has managed to reach the most disadvantaged sectors of the population and moreover, it is easy to replicate.
- ✓ Agriculture Resources Information System Network (AGRISNET): It is a comprehensive online knowledge portal to disseminate relevant information to farmers in terms of ensuring technological connectivity, development of system software and provision of hardware at agriculture department offices benefitting 80 lakh farmers in the state.
- ✓ Supporting MGNREGA through ICT: It aims to effectively enable the poor to demand their rights based entitlement to employment through the use of technologies.
- ✓ E-SANCHAR integrates mobile telephony with information technology for generating voice calls for the timely transfer of information to rural citizens, specifically target groups including the elderly, physically challenged and widowed persons.
- ✓ CHILDLINE, a national 24-hour toll free tele-helpline service, implemented by the Ministry of Social Justice and Empowerment for the care and protection of children in distress.
- ✓ Income Tax Department implemented a data mining that generates the 360 degree profile of an entity by compiling information from all data sources to track tax payments.
- ✓ Social Inclusion: Holistic approach for integrating persons with disabilities.
- ✓ SAMS, a centralised e-admission system, initiated by the Department of Higher Education, Orissa, leverages ICT to enhance students' access and capacitate college functionaries to manage an easy and convenient process of admissions.
- ✓ Empowerment of Differently-abled Population: Navi Mumbai Municipal Corporation established the Education and Training Institute for the differently-abled to provide special education and capacity building training to ensure their integration in the mainstream.
- ✓ Use of 'Green cycles' at metro stations for students to ply to colleges and university.
- ✓ Online registration of FIR and 24 hour women helpline portal.
- ✓ Himmat App – an initiation by Delhi Police
- ✓ Whatsapp edge: Delhi Uttar Pradesh Police to get citizen on Whatsapp to increase safety: Usage of 'Whatsapp' - the growing social messaging tool (supporting free text and image sharing on Smartphone) for the safety of people in Uttar Pradesh and Delhi.
- ✓ Low floor CNG buses in Delhi to enable the differently-abled citizens- 'keep moving'.

12. Vision for Good Governance: 2018

As a young and computer savvy citizen of India, my visions of 'Good Governance in India – 2018' are listed as:

- ✓ Pan Indian recognition and entitlement of voting rights to Indian nationals anywhere in India and not restricted to the place of residence and/or place of issuance of the card. There should be a provision for Centralized Online Portal containing voter's personal information and other required details. At the time of election, the Voter ID card's number should be locked once the vote has been casted for that election. Such system would prevent multiple casting of votes by the same individual on one hand, and on the other, would witness a record increase in the ratio of voters and thus, total votes casted. Thus, the true essence of voting rights would be reflected.
 - ✓ Centrally Administered Employment Generation System especially those pertaining to the unemployed educated youth should be reframed and re-defined based on innovative ideas, information and technology. Access to an All-India Online Employment Portal System provided with a username and password directly under the control of government of India. It would serve to manage an easy and convenient process of job fulfillment.
 - ✓ Also, Provision of Centralized Grievance Cell where the applicant could address their problems in case of non-responsive behavior. However, its working should be highly confidential and strict based on legal rules and regulations.
 - ✓ Dematerialization of the form filling system. Process of compulsory online filling of forms supported with scanned copies of certificates and testimonials would help to reduce the wastage of paper on one hand and online payment of fees would reduce the hassle on the part of going to banks and post offices, thus saving time.
 - ✓ Health is a vital resource and a pre-requisite to live a long, productive, and fruitful life. In this context, there should be 'Innovative use of GIS technology to map the densely populated areas in India ensuring them easy and safe access to Basic Healthcare Facilities.'
- Primary healthcare systems and hospitals should be localized within the reach of the needy population with access to clean drinking water, medicines, diagnostic tools, and facilities for efficient and timely healthcare.
- ✓ Creation and optimum utilization of knowledge base.
 - ✓ Provision of finances for start up to young, talented and enthusiastic youths.
 - ✓ Very soon, the working of the banks will become paperless and premise less.
 - ✓ The heavy bags of the school children will be replaced by a single equipment or gadgets like laptops/tablets/palmtops recording the bulk of their syllabus, assignments, lectures etc. and many more in years to come

13. Concluding Remarks:

Such an Innovative and Technology induced vision for 'Good Governance in India – 2018' would help to add on to the existing list of Best Practices as dreamt by the brain child of this campaign – Sri Narendra Modi, the honorable Prime Minister of India.

All these and many more efforts will play a significantly important role in bridging the gap between India and developed countries of the world and thus to establish India as the pioneering leader in the world economy. Also, India will become both qualitatively and globally competitive.

14. References:

1. Kramer W.J., Jenkins, B. and Kats R.S. (2007) The Role of the Information and Communications Technology Sector in Expanding Economic Opportunity, Corporate Social Responsibility Initiative Report No. 22, Cambridge, Kennedy School of Government, Harvard University.
2. Yoon, Chin Saik. (2004). "Public address system at the PAN-supported telecentre in India saves scores of Indian villagers from tsunami" Digital Review of the Asia Pacific. Malaysia.
3. Rahul De: Impact of Indian E-Government Initiatives: Issues of Poverty and Vulneability Reduction, and Conflict.
4. Jagadeesan and Krishnan (2008) Entrepreneurship and Rural Development in India" (Ed) published by ICFAI University Press.
5. Dinakar, Akila. "Now online access for poor farmers." The New Indian Express. March 7, 2000.