E-GOVERNANCE INITIATIVES IN INDIA- A PATH TO RURAL DEVELOPMENT

Jayadatta S
Assistant Professor, Department of Management Studies
Anjuman Institute of Technology and Management, Bhatkal -581320
&
Prof. Chaco P J
Assistant Professor, Department of Management Studies
Anjuman Institute of Technology and Management, Bhatkal -581320

ABSTRACT

Among all the emerging Asian Economies, Indian population accounts to more than 70% of population living in rural areas which always exerts pressure on both Central and state governments to focus more on development initiatives of Rural India. In this regard ICT acts as a major provider of opportunities to many rural livelihoods as well as contributes more towards poverty reduction. The massive rural market is also changing very fast and internet access is mainstreaming among professionals. The pace however continues to be rapid with majority of digital channels constantly growing both in volume as well as strength. Productivity of rural areas can well be enhanced by proper usage of ICT through various e-governance initiatives like E-Choupal, Tata Kissan Kendra, Kissan call centres, Akashganga etc. Government of India has come up with an ambitious objective of transforming interaction of citizens with government in electronic form. By doing this Government can ensure better administration and transparency. A sincere attempt has been made to identify various building blocks which has led to rural development through various ICT initiatives

Keywords: E-Governance, ICT, Rural development, transparency, digital channels

Introduction

A remarkable change has been witnessed in lives of each and every people in today's era of Information and communication technologies (ICT) which is enabling government to deliver better and prompt services to even remotest corners of the country. With the advent of government websites in the late 1990's the term e-governance came into existence. As such e-governance or 'electronic governance' refers to use of information and communication technologies (ICT's) to provide both organization's and citizens with more convenient access to the government's various services and information. Today various initiatives have been taken by Ministry of rural development in India in a way of strengthening the ICT infrastructure to readily provide information as well as easy access of various rural development schemes to all the citizens in rural India. As the cost of accessing information has been a biggest hurdle for poor farmers various initiatives and major developments by Government through ICT has facilitated access to innumerable services. As such through ICT, several e-governance initiatives have been adopted which certainly have proved to be a major contributor towards enhancing sustainable rural development. Faster delivery of services is possible by the use of internet today which has brought more transparency between government and citizens. According to the global information technology report of 2012, e-readiness rank of India is 69 with a score of 3.89 out of 10 which suggests that use of ICT's in India is very low. Today with the advent of Information and communication technology (ICT) proper rural development and management of PRI's is devised through various e-governance applications which covers various aspects like accounts, finances, procurement of raw materials, maintaining of land records, agriculture marketing etc. Various pilot projects have been started across India to accomplish diversified requirements so that e-governance projects can be made successful and can also be generalized for the whole community.

Major Objectives of the Present study

> ➢ To identify various building blocks towards rural development through ICT
> ➢ To study various e-governance initiatives in India
> ➢ To identify major challenges for e-governance in India

Research Methodology

The present research paper is based on secondary data which is procured from various published sources like research papers, website of ministry of rural development, books, periodicals and newspaper reports.

Rural development:

India a nation with 69.8% of overall total population live in rural areas [1]. Government is required to make needy and concrete efforts for development of rural areas with such large rural population. Digital India campaign which was initiated in 2015 is one of the considerable efforts to reduce the digital divide and ICT has proved to be a tool for its successful implementation. By fetching more of what they need as per chamber of commerce rural development is a strategy which enables people to benefit themselves and their families [2]. K.Singh defines rural development as a process which leads to sustainable improvement and development in quality of life of poor people residing in rural areas [3]. The percentage of rural population in India is decreasing last two decades or so still it accounts for major proportion of total population. Percentage of rural population in 1991 was 74.3% which reduced to 72.2% in 2001 thus leading to 69.9% in 2011. The decrease in rural population can be understood as a major indication that there is need to provide better amenities and facilities in rural areas. Besides it also indicates that majority of the people are migrating to urban areas since last two decades or so in order to get access to better services and facilities available in city areas.

Major Building blocks towards rural development through ICT

1. Increase in internet user base in rural areas

As citizens of rural areas become educated and get to know the convenience which they can derive from biggest revolution of 'internet access' they will definitely be able to explore more and also stay well connected in line with growing trends. It is predicted that rural users as a percentage on internet population will rise from 29% in 2013 to 40-50% in 2018 (According to BCG Analysis of 2015). However it is also predicted that mobile internet users are likely to constitute 60-70% of the total online population

Table below showing 2018 Internet population which will be older, more rural and more gender balanced

	2013	**2018**
OLDER	60% Under 25	54% over 25
RURAL	29% rural	40 – 50% rural
GENDER BALANCES	2.6 men online for every woman online	1.9 men for every woman among 18-24 years old
SOURCE: SHAH et.al, BOSTON CONSULTING GROUP ANALYSIS,2015[4]		

SPEECH BASED AUTOMATED COMMODITY PRICES HELPLINE

Initially all the e-governance projects initiated necessarily use English as a medium of communication. But especially in rural areas where people are less educated who cannot read and write in their native language find it difficult in dealing with English language which poses a problem. This probably is a cause of major failure of many e-governance projects. As such a very kind, good and noble initiative has been taken by consortium of seven institutions (IIT-M, IIT-K, IIT-B, IIT- G, IIT- Hyd, TIFR and CDAC- Kol) and co-ordinated by IIT Madras. However a speech based automated commodity prices helpline for AGMARKNET which has been readily introduced in six different Indian languages. An automated system has been developed from which farmers can inquire about latest prices of agricultural commodities in their native language which can make the process easier.
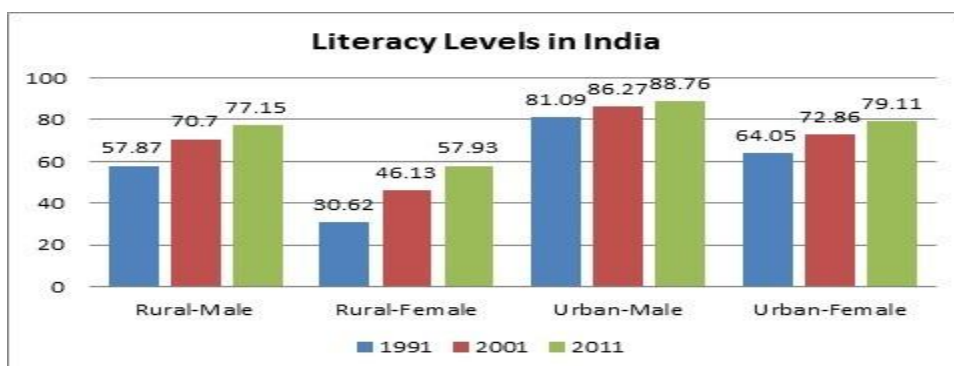
INCREASING LITERACY RATE

Table showing literacy rate in Rural India (Source: Census India)

From the above table we can infer that literacy rate in rural areas is increasing after very ten years. Rural Male and female literacy levels are par with urban male and female literacy levels. Analyzing the above table we can also find that there is a supportive element for the implementation of various e-governance initiatives as well as digital India campaign which aims at providing free internet access to people residing in rural areas of the country which requires more literate people.

E-GOVERNANCE

As part of its policy since the time India has adopted e-governance, E-governance has witnessed productive advancement. In order to improve the interaction within the government departments and also between citizens and government e-governance is using information communication technologies [5]. Prabhu in his paper stated that the major motto behind e-governance is necessarily to provide SMART (Simple, Moral, Accountable, Responsible and Transparent) government [6].
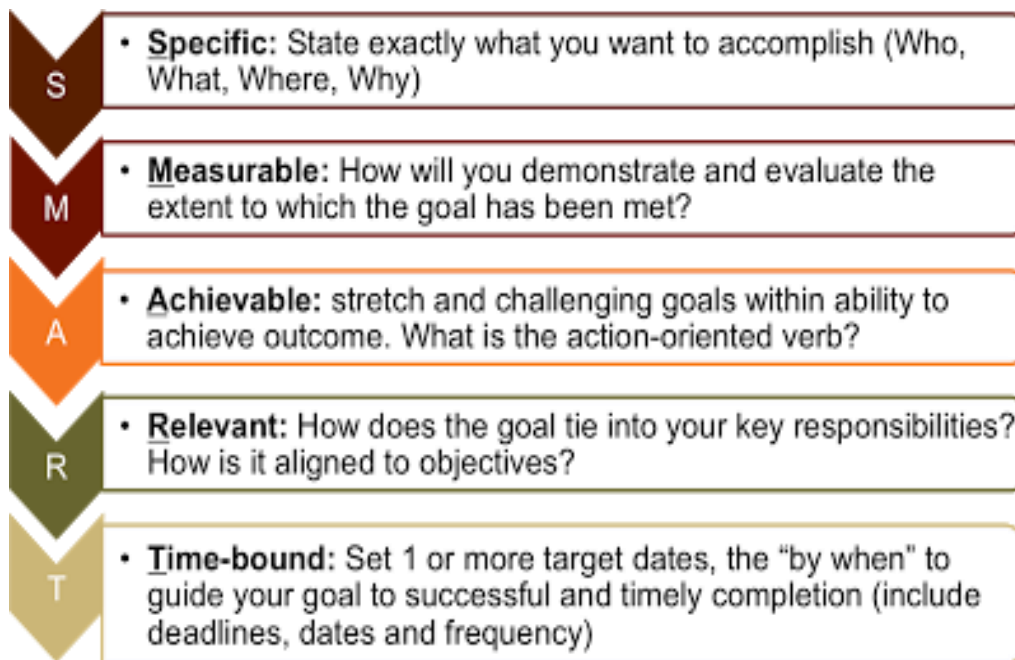
Source: E-Governance concepts and case studies, Prabhu (2004) [6]

Figure to show motto behind E-Governance (Smart government)

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Means and Abramson define e-governance as an electronic interaction (information and transaction exchange) between the government, employees and general public (citizens and businesses) [7]. World Bank in its report has defined e-governance as the usage of information technologies by various agencies and government departments that which have the ability to modify relations among various businesses, people and government. Major technological advancements as such are capable of providing various benefits like better empowerment of citizens, improvised delivery of services to citizens and businesses, efficiency in working style adopted by governments and reduced levels of corruption [8]. Today the concept of e-governance as such is used not only in India but is also renowned globally specifically in China where lot of open source software's are available currently [9]. People have not just been benefitted by providing market information economically through e-governance initiatives but it has also helped in the upliftment of level of education of student communities living in remote rural areas through various rural educational projects. To develop the core potential in rural areas definitely these projects are need of the hour and also there is vast scope for introduction of such projects [10].

BACKGROUND STUDY AND GLOBAL ERA OF E-GOVERNANCE

E-governance initiatives have flourished on one hand well in many parts of the world while on the other hand lot of failure stories abundantly reflect that such initiatives with major development perspectives have not yielded desired results. Estimates indicate that in major developing and transitional countries 35 percent of e-governance projects are total failures, 50 percent are partial failures and only 15 percent are successes [11]. Majority of the failures are due to gap between phases of designing a project and final phase of implementation. Huge differences have been seen in the way projects are being implemented. Besides such unpromising outcomes, most of the e-government initiatives in developing countries have grown to a level of recognition among most of the government agencies. Molla and Heeks has devised information and communication technology 4D activity (figure 2) which necessarily highlights that initially major issue with regards to e-governance was readiness and initiative where it was quite difficult to implement such initiatives due to lack of awareness, lack of infrastructure and more digital divide. The problem of non-availability of resources for carrying out various e-governance projects came up with passage of time. However with the heartfelt and mighty efforts of government the above mentioned first two issues were rightly addressed, also a new concern for

usage of services provided to citizens under these initiatives cropped up. It was indeed very hard for the people to believe that that they can have easy access to all their needs and wants. After 2010 onwards major concern was on impact of various e-governance projects initiated in terms of effectiveness and efficiency of working with regards to time and equity [12] [13].

Figure 1. Changing e-government issues over time
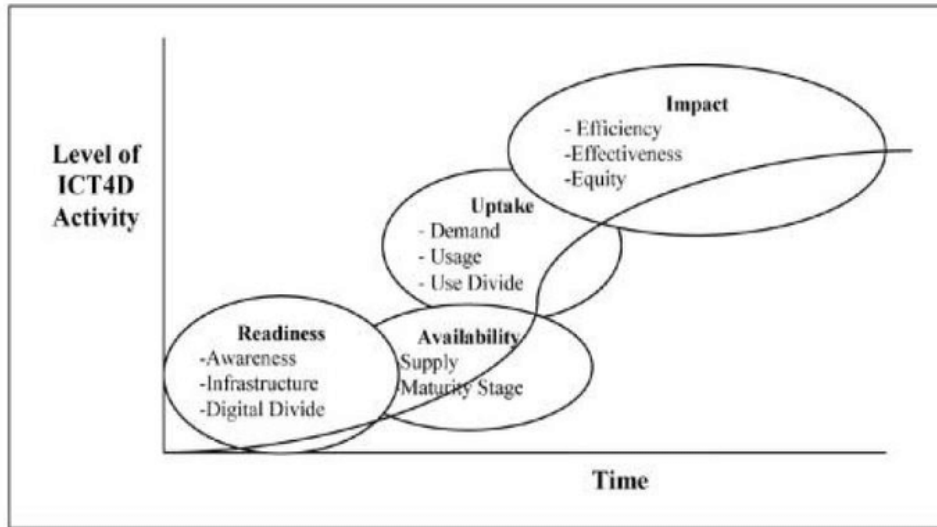
Adopted from (Heeks, 2006; Heeks & Molla, 2009)

Figure 2: Showing changing e-government issues over time as demonstrated by Heeks and Molla

Today in majority of the countries e- governance projects have reached a level of maturity and effective e-governance usage in many countries has also evolved to the level of maturity. Usage of such services however has been a challenge. Wilson through his studies opined that for a developing country like India, ICT certainly has progressive usage and applications in education, health, environmental monitoring, governance, economic growth, human rights promotion and other such areas [14]. Annamalai and Rao conducted a research study and proved that there has been a substantial reduction in transaction costs after adoption of automated supply chain management models for selling agriculture [15].

DIGITAL INDIA CAMPAIGN

A big challenge for government of India in recent years is communicating with the citizens with extensive geography, cultural diversity, vast linguistic dialects and immense population. Proper connectivity at a digital platform is by far the most efficient way for communicating with all the people of world's largest democracy. Hence to reduce the digital divide in the country Government of India has aimed at effectively and efficiently using the improvements in Information communication and technology (ICT). Some of the facilities which are provided through digital India campaign are digital locker, e-health, e-education, e-sign and national scholarship portal. Digital India as such is centered on three vision areas [16]:

1. **DIGITAL INFRASTRUCTURE AS A MAJOR UTILITY TO EVERY CITIZEN:**

As part of providing core utility for digital inclusion government is planning to readily provide high speed internet connectivity to around 2,50,000 gram Panchayats across the country. A unique, valid, lifelong, online digital identity will be provided to all the citizens. On a public cloud and platform there will be easy access to common service centers and also a shareable private space.
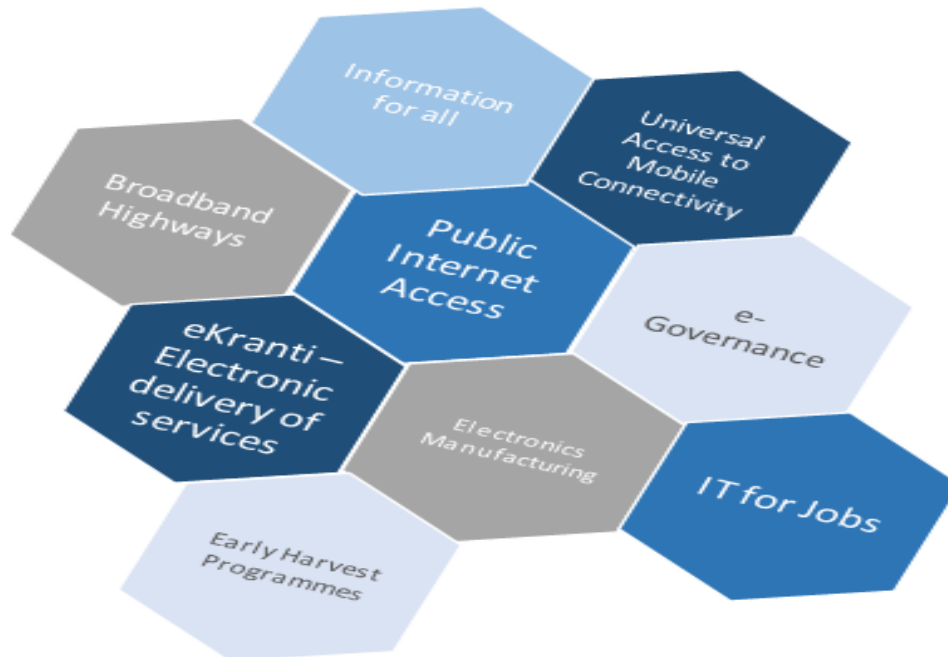

Figure showing major pillars of Digital India Campaign

2. GOVERNANCE AND SERVICES ON DEMAND

All the government departments under this vision will be seamlessly integrated and combined with high speed optical fiber that which will improve inter-operability of these departments and also will result in real time service delivery from online or mobile platforms. Besides these to digitally transform the services for improving ease of doing business in India, Government of India is planning to make all citizen entitlements portable through cloud for easy and country wide access. As part of this initiative for decision support systems and development making financial transactions electronic and cashless, Government is also planning to use the power of Geographic Information systems (GIS).

3. DIGITAL EMPOWERMENT OF CITIZENS:

The major vision of this programme is to empower citizens of India through digital literacy and also provide universal access to digital resources wherein all certificates and related documents are available on cloud and in native Indian languages. For participatory governance government also wants to provide collaborative digital platforms. Besides digital platform can also enable more innovative, creative and service oriented business models that which can create employment opportunities for citizens. Directly or indirectly the digital India project itself will create employment opportunities for nearly 17 million people which will help in fighting against unemployment and poverty related problems in India. On the outset government has also planned to give IT training to nearly 100 million students in smaller villages and towns as a major employment opportunity for youths hailing from rural and semi urban areas to cater to the need of very high demand of IT sector in India.

INITIATIVES FOR RURAL E-GOVERNANCE IN INDIA

1. Computerized rural information system project (CRISP)

For observing and monitoring the exercise of poverty alleviation programmes through computer based information system CRISP was mainly aimed at assisting the District Rural Development Agency (DRDA). As of now four versions of CRISP application software packages have been developed. Rural soft was the fourth version among them. However the beginning of e-governance in India was

marked by rural information endeavors. Rural soft 2000 was one such initial effort. Rural soft 2000 can be accessed by common man which contains all information on government portals and also enables government to monitor workings of various other agencies. Rural soft is a scalable solution that which helps in web based monitoring of various poverty alleviation schemes. So far it has been implemented in 15 districts of the country, which has been wired using state of the art VSAT (satellite based) network by the ministry.

2. NIC and NEGP:

For the smooth, ongoing success of e-governance, government launched national e-governance plan with the assistance and help of national informatics centre which was set up as a central repository for all e-governance initiatives.

➢ NIC: It was incepted in the year 1976 as a part of the Indian ministry of communication and information technology's department of electronics and information technology. It is a website which was designed for all e-governance initiatives taken by government at one place. This includes blocks, district, state government, union territories and central government. The ICT network of NIC is called as NICNET

➢ NeGP: National e-governance plan which came into existence on May 18, 2006 by department of electronics and Information technology (DEIT) and department of administrative reforms and Public Grievances (DAR&PG) was launched with the following vision "Make all public services accessible to common man in his locality through common service delivery outlets and ensure reliability, transparency and efficiency of such services at affordable costs to realize the basic needs of the common man" [17]. NeGP was set up with 27 mission mode projects (MMPs) and 8 components. It was also specially designed for rural areas and also for easy access of services provided by NeGP State wide area network (SWAN) and also common service centre (CSC) was set up during the period.

MAJOR E-GOVERNANCE PROJECTS IN RURAL INDIA

Some of the major projects which are already being implemented as part of digital India initiative in rural areas are as follows:

- ✓ www.mygov.in is a major platform that which has been implemented for rural citizens to interactively engage within the government service portals
- ✓ www.egreetings.in a portal for government greetings
- ✓ An aadhaar based biometric attendance system is being implemented in central government office in rural areas of delhi to begin with
- ✓ Jeevanpramaan portal which allows pensioners to submit their life certificate which can later be disbursed to agencies for necessary processing
- ✓ www.ebasta.in an eBook platform has been developed which can be used to upload e-books
- ✓ eSampark an operational IT Platform is sending of messages to elected representatives
- ✓ Digital locker systems
- ✓ Revamping of mission mode and other major e-governance projects like Transport, PDS, National Scholarship portal, e-prisons, checkpost online, payonline etc
- ✓ Major policies to help various departments in speedy implementation of e-governance projects which have been developed.
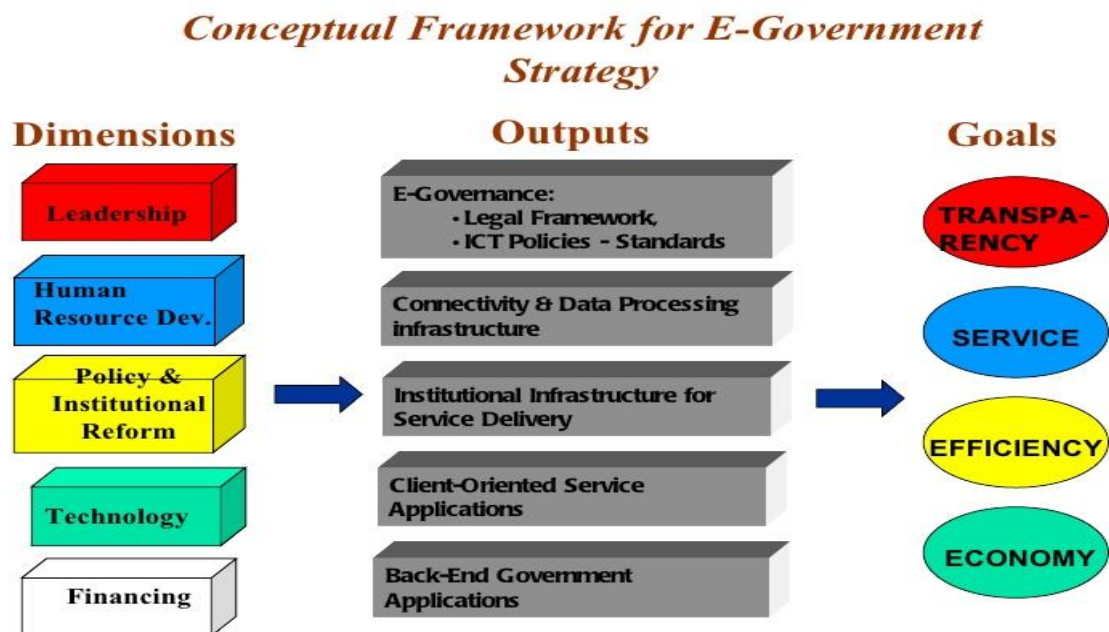

Figure to show proposed conceptual framework for e-government strategy

CONCLUSION

Today e-governance is presumed to be deemed as one of the most important ways of bridging the gap and digital divide in developing nations like India. Since the beginning of this millennium various initiatives by government through sustained developments in Information and communication technology (ICT) have helped to take off on a high note. It is also believed that political support at the highest level is arguably sine qua non for successful implementation of various e-governance initiatives. Also major e-governance projects do bear fruit only when application of IT is preceded by proper process re-engineering. E-governance also enhances the relationships between various projects using ICT. Besides e-governance not merely provides information about various activities of a government but it also involves citizen's to actively participate in government's decision making process. E-governance is a transition, a change that which cannot be stopped since it is a part of a global environment. Also co-operation from government officials and staff will contribute to a much smoother transition. India is likely to soon emerge as a leader in e-governance given the present high level of political environment and adequate sources of funding. Various building blocks such as increasing literacy rate in rural areas, initiatives like digital India campaign will certainly help rural people more tech savvy encouraging them to be in contact with Indian government through just a click of button. Hence in a nutshell it can be concluded that increasing digital literacy with the help of technical advancements are leading the way for successful rural development in India.

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