

An Assessment of Usability and Effectiveness of e-governance Services Offered by Government of India at Grampanchayat Level

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Abstract: E-Governance is nothing but use of internet technology as a platform for exchanging information, providing services and transacting with citizens, businesses, and other arms of government [15]. Today, citizens are willing to get the required services at their doorstep fast, efficient & corruption free. In 2006 the Government of India approved the National e-Governance Plan (NeGP) with the purpose to reduce the gap between the citizen and the Government. Ministry of Panchayat Raj Institutions (MoPR) and the Department of Electronics and Information Technology (DeitY), was entrusted with the responsibility of implementing the NeGP in its fullness. The study is related to assessment of use & usability of e-governance services, Analyze underutilized services, study the reasons behind them, propose ways to enhance the use and usability of essential but underutilized services, enumerate the redundant or unnecessary services, propose need based new services to be included. The researcher has used survey based research methodology to carry out research.

1. INTRODUCTION

Today, citizens are becoming more and more conscious about their rights to get the required services at their doorstep and both the state and central governments recognize the needs to deliver faster and efficient services to ordinary citizens through e-governance. Which is efficient instrument of administration. In India use of e-governance & ICT initiatives proved significant success in improving accessibility, cost cutting, reducing corruption and extending help and increased success.

We live in the world of 21st century and have seen the development of urban areas, but still there is a question mark i.e. mystery about development of rural area as compared to other developed urban areas. Centralization of industries in urban areas has suppressed the growth and development of rural areas which constitutes a major part of any developing country.[9]

The researcher has used survey based research methodology to carry out research.

A) National e-governance Plan (NeGP):

The NeGP is an enormous step towards making the government services accessible to citizens by creating massive countrywide infrastructure reaching down to the remote villeges, in ways that only save huge costs to the government but also make it more transparent and efficient in its day-to-day interactions with the common man. The objective is to bring public services closer to home of citizens. Vision of this project is "Make available all government services accessible to Common Man in his Locality through Common Services Delivery Outlets and ensure efficiency, transparency and reliability of such

services at affordable costs to realize the basic needs of the Common Man." [1]

NeGP comprises of 31 Mission Mode Projects (MMPs) including central level MMPs, state level MMPs and local government level or integrated MMPs, where each MMP leads towards transforming a high priority citizen **service from existing manual system to electronic system** for delivering e-services. There are 11 central, 13 state and 7 integrated MMPs. [1]

1.1.1. Services Provided By Central Mission Mode Projects are as below

S.No	Projects	Nodal Ministry/Department	Purpose
1	MCA21	Ministry of Corporate Affairs	Build up a secure portal that offers availability of all registry related services including filing of documents, registration of companies and public access to corporate information
2	Pensions	Department of Pensions and Pensioners Welfare	Provides the pension/ Retirement related information, services and grievances handling mechanism accessible online to the needy pensioners, through a combination of interactive and non-interactive components
3	Income Tax (IT)	Ministry of Finance/CBDT	Have a single ITD application running over a single national
			database with BCP and DRS. Provide PAN card to citizens and improve authentication for all major financial transactions.

4	Passport and Visa	Ministry of External Affairs	The Consular, Passport and Visa (CPV) Division of the Ministry of External Affairs (MEA) provides passport and consular services to Indian citizens through the Central Passport Organization (CPO), and consular and visa services to foreign nationals.
5	IVFRT(Immigration, Visa and Foreigners Registrations & Tracking)	Ministry of Home Affairs	A secure and integrated ICT system for Immigration, Visa Registration & Tracking and an interface with the e-Passport, Emigration and other relevant systems.
6	Central Excise & Customs	Department of Revenue/CBEC	Online Registration of Central Excise assesses and online amendment, Online Registration of Service Tax Assessments and online amendment, Electronic filing of Central Excise Returns, Electronic filing of Service Tax Returns, Electronic filing of claims, permissions, intimations submitted by assesses in the course of business with the Department. Instant E-acknowledgement of documents with an Unique Document Identification Number View, file and track the status of documents filed online Processing of Claims, Permissions, intimations filed by the assessed
7	Banking	Department of Financial Services	IMG framework focuses creation of "Mobile linked "No frills" Accounts which can be operated using mobile phones.
.No	Projects	Nodal Ministry/Department	Purpose

1.1.2 Services provided By State Mission Mode Project

S.No.	Projects	Nodal Ministry/Department	Purpose
1	Land Records	Department of Land Resources	Land records
2	Road Transport	Ministry of Road Transport and Highways	Registration certificate, driving license
3	Agriculture	Department of Agriculture and Cooperation	Provide services to farmers such as information on seeds, fertilizers, pesticides, crop magt., weather & marketing
4	Police	Ministry of Home Affairs	Recruitment, online investigation
5	Treasuries	Ministry of	Handles cash flow

		Finance	magt., accounting of receipt and payment of government
6	Municipality	Ministry of Urban Development	Utility bill payment, health, education etc.
7	e-District	Department of Information Technology	Support basic administrative unit
8	Commercial Taxes	Taxes Ministry of Finance	Collect tax from consumers and deposit in treasury tax refund, tax accounting
9	Gram Panchayat	Ministry of Panchayati Raj	Web Portal for Rural Populace
10	Employment Exchange	Ministry of Labour & Employment	Have a mechanism to provide valuable guidance and career counseling to unemployed

1.1.3 Services provided by Local Level Mission Mode Project.

S.No	Projects	Nodal Ministry/Department	Purpose
1	CSC	Department of Information Technology	Provides high quality video, voice in all areas utility services,
2	e-Courts	Department of Justice	Enhance judicial productivity, develop, deliver, install & implement dss
3	EDI	Department of Commerce	Pursued in trade regulatory, and facilitating agencies like customs, ports, airports
4	India Portal	Department of Information Technology & department of Administrative Reforms & Public Grievances	Acts as a logical front end It is a central repository of documents, forms, services, acts
5	NSDG	Department of Information Technology	Messaging switch enable interoperability & exchange of data across heterogeneous applications
6	e-Biz	Department of Industrial Policy and Promotion	Transform business environment by providing electronic services
7	e-Procurement	Department of Commerce	Contract, reduce corruption, provide legal certainty

1.1 e-Panchayat Project

Panchayat Raj - a self governing system in India. It was built for the empowerment of rural people. Gram Panchayat is the unit of this government system which governs the village level administration in India. Most of the population of India

lives in villages so the development of these Gram Panchayats is nothing but the development of the India!.[15].

The Ministry of Panchayati Raj is a branch of the Government of India looking after the ongoing process of decentralization and local governance in the States. Ministry of Panchayati Raj looks into all matters relating of Panchayati Raj and Panchayati Raj Institutions. It was created in May 2004. e-Panchayat is the flagship project of rural development department which aims to automate 33 Zilla Parishads, 351 Panchayat Samitis and 27896 Gram Panchayats across the state .

Under scheme “Bharat Nirmaan” computerization of all Panchayat Raj Institutions is carried out to bring the transparency, uniqueness in their working, To make all transactions and working online an ambitious scheme is started by government of India : “Sangankiya Gramin Maharashtra” (Sangram) in collaboration with TCS. It’s objectives are as below:

- 1) To make automation of all government services, an connect them online
- 2) To have an online review on various rural development schemes
- 3) To fill up detailed information of 11 applications of National Panchayat Suits
- 4) To make data entry and fill up information related to the scheme NREGA (National Rural Employment Guarantee Act) and Indira Aawas scheme

To build the capacity building programme in rural populace. In Sangli District the e-Panchayat scheme has been started from 1 May 2011. Under this scheme following 11 applications been developed and implemented in collaboration with NIC (National Informatics Centre.

Sr. No	Application	Purpose
1	Panchayat Portals	Web site for each Panchayat to share information in public domain
2	Area Profiler	Captures the geographic,demographic,Socio-economic and natural resources profile of a village/panchayat
3	PlanPlus	Helps Planning units such as panchayats,urban local bodies And line departments in preparing Perspective,Annual,ActionPlan
4	PRIASoft	Captures receipt & expenditure details through voucher Entries and automatically generates cashbook, registers,Utilization Certificates etc.
5	ActionSoft	Facilitates monitoring physical & financial progress of works taken up under Plan
6	Asset Directory	Maintains details of assets created/maintained; helps avoid

		duplication and provide for O & M
7	ServicePlus	A dynamic metadata-based service delivery portal That can provide electronic delivery of services
8	Social Audit	Details of statutory meetings held at ZP./BP./GP, requests For reports for social audit
9	Training	Training portal to address training needs of stakeholders Including citizens, their feedback, training material etc.
10	Grievance	Facility for citizens to easily lodge their grievance and efficient Redressal system with facility for escalation and monitoring by Higher authorities
11	GIS	A spatial layer to view all data generated by all applications On a GIS map

1.2 Sangram Kendra

Common Man can access e-governance services in his locality through Common Service Delivery Outlets (Gram Seva Kendra) . All the 33 Zilla Parishads,351 Panchayat Samitis And 27900 Grampanchayats in Maharashtra are equipped with Desktop computers, Printer cum Scanner machine and internet connections to enable improved service delivery. These front end service delivery centers have been named as Sangram Kendra in Maharashtra.

Following are the services provided by a Sangram Kendra at grampanchayat level:

Sr.No	Certificates	Sr.No	Certificates
1	Birth Registration & Certificate	11	Unemployment certificate
2	Death Registration & Certificate	12	NOC electricity for connection
3	BPL(Below Poverty Line) certificate	13	Job card
4	Resident proof application & certificate	14	Toilet certificate
5	Living Proof certificate	15	Construction Permission certificate
6	Marriage Certificate	16	Permission certificate for tap connection
7	NOC for Employment and Business	17	Character certificate
8	Property tax certificate	18	Old Age certificate for Niradhar scheme
9	Property Mutation certificate	19	Non beneficiary certificate
10	No dues certificate	20	e-banking facility

2. Literature Reviews :

1 : **ICT for Rural Development: An Inclusive Framework for e-Governance** By Charru Malhotra, V. M. Chariar¹L.K. Das and P. V. Ilavarasan²

This paper summarizes that intervention of information and communication technologies (ICT) in rural development

initiatives are not successful. Lack of community participation, absence of an integrated approach and non-inclusion of traditional knowledge systems (TKS) in the project designs are the major impediments. They focused that

1. The goal of governance “should be to develop capacities that are needed to realize development that gives priority to the poor, ... and creates needed opportunities for employment and other livelihoods” They therefore suggest a systems-based approach in the design of e-Governance projects,

2. Community participation is critical for customization of e-governance projects.

3. Community participation in design of ICT initiatives could be mobilized only if these initiatives are bi-directional.

4. Synergy between various stakeholders of rural governance is imperative for success of ICT initiatives.

Rural e-governance projects would lead to rural development only if they are customized as per the needs of local communities.

2) ICT in Local Self Governance: A Study of Rural India

by Puneet Kumar, assistant Professor MITS University Laxmangarh, Rajasthan, Dharminder Kumar Professor & Chairman Department of CSE GJUST, Hisar, Haryana Narendra Kumar Assistant Professor MITS University Laxmangarh, Rajasthan-*International Journal of Computer Applications (0975 – 8887) Volume 83 – No*

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In this paper researchers have focused that India comprises of millions of people which are not able to fulfill even their basic needs. In such circumstances their query is that will it be rational to think about usage of ICT or adoption of electronic services with various objectives for such populace?”

3) Smart e-governance for grampanchayat By POOJA S BHAGAT ,PORNIMA B.NIRANJANE

The researcher has focused that for online purpose digital signature will be the safest way for preventing tampering and any misuse. A digital signature or digital signature scheme is a mathematical scheme for demonstrating the authenticity of a digital message or document. In this paper they have seen a very good example of a successful e-government project initiated by the village community. They stated that if all the actors, who are involved in the project have their clear-cut idea, interest and perception towards the system in the right way then success of the project is more likely to happen..

4) **E-Governance: Past, Present and Future in.** By Nikita Yadav, Research Scholar, Singhania University, Pachari Bari, Rajasthan ,V. B. Singh Delhi College of Arts & Commerce, University of Delhi, Delhi

In this paper, researcher has given a framework and application of e-Governance along with a list of e-Governance projects run by state and central governments. Researcher has also proposed future technology for e-Governance with pictorial representation of working of e-Governance with new technology. Researcher has also proposed benefits of clouds with a graph showing how clouds reduce labor cost. Also stated that there are four pillars of E-Governance:- education, panchayats, health, education etc.

Researcher also stated the different areas of e-governance such as agriculture, disaster management Clouds provide services (IaaS, PaaS and SaaS means Infrastructure as a service , Platform as a service and Software as a service) which in turn are consumed by e-governance. These services are used by e-governance and in turn provide services to its number of customers at the same time. With clouds, when load increase a lot even then its performance doesn't decrease.

7) “E-Governance at Village Level Administration (In Rural India) By Santosh Shingare , Pratik Shinde , Depankar Sarkar , Priya Uttarwar and Rashmi Dusane” –

In this research paper author has expressed that in the world of 21st century there is vast development of urban areas, but still there is a question mark i.e. mystery of rural area development. This is because centralization of industries in urban areas that has suppressed the growth and development of rural areas which constitutes a major part of any developing country. They proposed web based system that supports all the activities and governance modules of Gram Panchayat having different modules which are similar or exactly same as the administrative modules of Gram Panchayat like meetings, property tax, planning, etc.,

3. Observations Resulted From The Literature Review

Following is the list of observations:

3.1: Use & Usability of e-governance services:

1. Use is defined as “Doing something with particular service in order to do a job or to achieve particular result” & usability means ISO defines usability as "The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use." The word "usability" also refers to methods for improving ease-of-use during the design process.[16].

Research Gap found for .Evaluate use & usability of e-governance services at gampanchayat level from rural populace's point of view is :

- 1) Rural populace are not having the awareness of e-governance
- 2) Access Points should be at proper places.
- 3) Maximum people are not having computer and internet literacy.

3.1.1 For Use & Usability of e-governance services some critical issues to be handled & solutions provided are :

- 1) Organize citizen's awareness program on IT and e-governance applications.
- 2) Create Online Access points at public places or increase number of CSC.
- 4) Create literacy and commitment to e-governance at high level..To increase the use of e- governance services try to provide digital jobs to rural areas to encourage rural talent ,government can establish the rural BPO to provide livelihood to rural young people.

3.2: Evaluation of impact of e-governance services

Impact can be defined as powerful & sudden effect created on a situation,process,or person.

An impact is the action of one object hitting another, or the force with which one object hits another.

Research Gap found for **Evaluate impact of e-governance services is :**

- 1) Impact on client: Majority of the young males are aware of about e-governance services than Females . So women empowerment program should be conducted in rural region to enhance their participation in e-governance & it helps to eliminated. gender bias .
- 2) Impact on Agencies: rural ICT applications are meant for socially and economically backward communities. So These kiosks must be located in the areas convenient to them to approach and use. The kiosk operators must communicate well with the citizens and cordially deliver the services.In one of the applications, the citizens have abandoned the kiosk as it was located in the the area where upper castes live.
- 3) Impact on society: Since the applications relating the employment generation and livelihood did not get attention, poor rural citizens gradually withdrew from using the kiosks.So needed special attention to ensure sustenance.
- 4) Impact on service delivery: Service delivery operator must be adequately trained on the application services given by the CSC, If poor responses from the central agency then the service delivery agents will be in embarrassing situation, resulting in abandoning of services.[14]
- 5) Rural projects also face a greater challenge in the maintenance of infrastructure .So impact of such cost on use of e-governance services need to be considered.
- 6) Impact on agency should be studied by considering parameters like different types of costs and revenue streams related to the service.

For **Evaluate impact of e-governance services** some critical issues to be handled are :

1) To measure impact certain helpful methodologies can be considered. The 'Outcome

Mapping' model promoted by the Canadian International Development Research Centre (IDRC) is one such helpful methodology."

2) To understanding the impact of costs and benefit of ICT investments for e-governance services at macro level, more projects from different contexts need to be evaluated and failed projects (that could not be successfully implemented) would have to be included in the Study.

3) User fee to avail the e-governance services should be reduced as per reduction in direct cost of accessing services reported by the client.

4) To make projects self-sustaining do not depend on only revenues from user fee but also private sector investment can be tapped. The value added services should be included such as e-booking, shopping mart.

5) If any type of system breakdown is there it leads to corruption. It also causes an overload of demand in comparison to the capacity of the system to process these services. Systematizing queues by appointments helps prevent break-down.[12].

Considering the above observations and research gaps, the researcher proposes to carry the research with respect to following research objectives;

4. Research Objectives

1. Create a Knowledge base of various e-Governance services offered by Government of India at Grampanchayat Level
2. Assess the use and usability of these services
3. Analyze underutilized services and study the reasons behind them
4. Propose ways to enhance the use and usability of essential but underutilized services
5. Enumerate the redundant or unnecessary services
6. Propose need based new services to be included
7. Design a framework to enhance the overall use and usability of e-governance services at Grampanchayat Level

5. Overview

It is observed that out of these services following services are less used by rural populace:

- 1) Permission certificate for tap connection
- 2) Property tax certificate
- 3) Property Mutation certificate
- 4) NOC electricity for connection

Only following services are used largely.

- 1) Birth Registration & Certificate
- 2) Death Registration & Certificate
- 3) Non beneficiary certificate
- 4) Living Proof certificate
- 5) Marriage Certificate

Following services need to be implemented in future under this e-governance Plan :

(1) Gram Panchayat Administration:- Schedules of Gram Sabhas.- Gram Panchayat Cleanliness Monitoring.- Self-help groups and other villagers welfare schemes - Assets management, property tax assessment and management,- Property lost/found reporting system, Gram Mart (Online Shopping)

2) Agriculture: :- 7/12 facility. to manage the farmers' grievances. It facilitates rendering educational services on the best agricultural practices to enhance the yield and reduce expenditure and enhance the quality of product for the farmers. Also it facilitates its agriculture and related departments to provide season-specific, region-specific information services to the farmers, apart from offering of counseling services to the farmers by agriculture experts.

3) Irrigation and Water Conservation: The module -will report problems on pipelines, canals, etc. and subsequent review of problems by Sarpanch.. Besides these, the module facilitates the appraisal of the status of water cess payments and reporting on the dues.

4) Dairy and Animal Husbandry : This module may facilitates provision of the following information services:, Veterinary counseling services, Information on animal diseases, Information on milk procurement and quality management,- Veterinary hospitals directory,- Reporting on breed improvement programmes, livestock data collection and reporting.

5) Elections: This module provides the information services : Registration of voters, Objection to voters list., Elected presentative information., Publication of electoral role, Dissemination of electoral roles.

6) Small Scale Industries :

7) Health This module provided following information: Diseases information, Communicable disease, Attendance of doctors in PHC, States of medicines consumables, Medical demography updation, Prevention care, Experts information

8) Family Welfare: This module makes available the information services:

- Benefits of welfare, Eligible couples information, Status of implementation of family welfare schemes.,

8)) Women and Child Welfare:

9) Also It is necessary to provide rural populace B2C type of services like online shopping so that people can make milk purchasing of seeds, fertilizers and other products related to their daily life

10) Community participation in design of ICT initiatives could be mobilized then only these initiatives are bi-directional. Government is providing services to rural populace (G2C), in turn Rural populace should be able to make inquiry, ask query to government.(c2G)

6. Conclusions for Current e-Governance at Grampanchayat Level.

1) Current e-governance services are G2C type. It is necessary to provide C2G type of services.

2) Also It is necessary to provide rural populace B2C type of services like online shopping.

3) Rural populace are not having internet awareness. Panchayat Raj Institutions are facing problems with inadequate physical and extremely limited Computerization. But this is out of the scope of the present study.

4) Psychic cost is more related with the mental harassment emerging out of normally tedious and long government procedures. It also discourages use of government services even though knowledge is widespread in the society. It also mutes the expectations of citizens thus leading to deterioration in government and citizen communication. [10],

5) if technology bias, gender bias, caste bias is not removed then there is no wider diffusion of services into the society.

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