Challenges for ICT in Rural Development

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Abstract: The growing demand for agricultural products, however, also offers opportunities for producers to sustain and improve their livelihoods. Information and communication technologies (ICT) play an important role in addressing these challenges and uplifting the livelihoods of the rural poor. ICT offers an opportunity to introduce new activities, new services and applications into rural areas or to enhance existing services. ICTs can play a significant role in combating rural and urban poverty and fostering sustainable development through creating information rich societies and supporting livelihoods. If ICTs are appropriately deployed and realize the differential needs of urban and rural people, they can become powerful tools of economic, social and political empowerment. The present research paper highlights the challenges for ICT in rural development.

Keywords: Development, ICT, Economic, Social, Political, Rural Development.

Introduction: The concepts, methods and applications involved in ICT are constantly evolving in our daily lives. The Rural development in India is one of the most important factors for growth of the Indian economy. The present strategy of rural development mainly focuses on poverty alleviation, better livelihood, provision of basic amenities and infrastructure facilities. Rural Development forms an important agenda of the Government. However, the application of ICT in the Rural Development sector has been relatively slow. The main reasons for this are poor ICT infrastructure in rural areas, poor ICT awareness among agency officials working in rural areas and local language issues. Agriculture is an important sector with more than 70% of the Indian population living in rural areas and earns its live hood by agriculture and allied means of income. The sector faces major challenges of enhancing production in a situation of dwindling natural resources necessary for production. In rural communities of developing countries, with limited capacities and resources to respond to the effects of extreme natural hazards, drought, landslides, floods, and to the impacts of these events on local social systems (e.g. health, infrastructure, transportation,

migration), ICT tools (the potential of telecentres for disaster preparedness and response) are emerging as an area of increasing interest. Combining ICT in Rural Development can not only speed up the development process but it can also fill the gaps between the educationally and technologically backward and forward sections of the society.

CHALLENGES FOR ICT IN RURAL AREA:

- **Illiteracy:** In India the literacy rate of the rural population is much less than the urban population. The government is creating attempt to growing the literacy rate in rural population but still a large amount of needs to be done as it is far less than the literacy rate in urban population. Literacy rate in rural areas stand at 68.90% with rural male literacy rate 82.1% and rural female literacy rate 65.5%.Whereas literacy rate in urban areas stand at 85.0% with urban male literacy rate at 88.76% and urban female literacy at 79.11%.

- **Technical Illiteracy:** There is need of technical literacy as well as literacy in India; there is a connection between education level and use of electronic means or Internet. This is a major drawback in which the users are not technically literate to use the technology. in India, where many of the projects launched by the government like Gyandoot, Bhoomi etc. for rural people but because of the lack of technical awareness they are not capable of using the services provided by the government.

- **Poverty:** In India the poor people who does great effort for their daily living. To whose accessing the Internet is a costly issue for necessary communications in the form of installing the required telephone lines needed for internet or email access is similarly too exclusive in developing country.

- **Limited Citizens' Awareness:** There is common lack of awareness concerning advantages of E-Governance as well as the process mixed up in executing successful G-C, G-G and G-B projects.

- **Infrastructure:** There is the shortage of required infrastructure like electricity, internet technology and methods of communications will influence the speed which postponed the implementation process.

- **Discrimination:** There is too much dissimilarity in fast access to public sector services between various divisions of citizens, mainly among urban and rural communities, among the educated and illiterate, and among the rich and poor.

- **Cost:** Cost is one of the most important exclusive factors that arrives in the path of e-governance success mainly in the developing Country India where majority of the people of whole population living under the poverty line. They do not have the funds for the operating expense of telephone line, internet connections etc.

- **Hesitate to Revolutionize:** People are disinclined to change. As e-governance means transform of the system from manual to computerize based, it is generally disliked by the employees and the general public. People generally hate it as they require to learn new things in it for which they necessitate to give in additional time and effort.

- **Speed:** On the time of internet accessing, speed plays an important role. But because of the infrastructure, there are the major dissimilarities between the rural and urban area, that's why the speed of internet connectivity is not same to all over the India.

- **Lack of Participations of Society, Public and Private Sectors:** Designing of any application requires a very close interaction between the govt. department and the agency developing the solutions. At present the users in govt. departments do not contribute enough to design the solution architecture. Consequently the solution developed and implemented does not meet the requirements of an e-governance project and hence does not get implemented.

- **Privacy and Security:** There will be three basic levels of access exists for e-government stakeholders: no access to a Web service; limited access to a Web-service or full-access to a Web service, however when personal sensitive data exists the formation of the security access policy is a much more complex process with legal consideration [26]. On the time of execution of e-government projects successful procedures must be taken to guard receptive private information. A lack of comprehensive security standards and protocols can limit the development of projects that contain sensitive information.

- **Language Dominance:** The dominance of English on the internet bounds the access of non-English-speaking population. In the case of India, mostly population does speak Hindi. Due to such irresistible domination of English over these communication channels, computers and the internet are relatively useless in Indian villages' populations.

- **Funding Issues:** All over the world, governments provided fund for the select pilot projects on E-governance, including projects such as public works, government

services, and human resources. The actual challenge for the government is to set off regarding funding the complete variety of schemes in order to achieve the goal of E-governance. One idea is that the related department has to come up with sufficient fund by themselves. Other issue is utilizing the available resources both in the plan sector and outside it. In the next stage every village will be connected via wireless and dial up access. Accordingly, each state government is imagined to make stronger the infrastructure in this way for the project of E-governance.

- **Trust:** Trust can be defined along two dimensions: as an assessment of a current situation, or as an innate personality trait or predisposition. The implementation of public administration functions via e-government requires the presence of two levels of trust. The first is that the user must be confident, comfortable and trusting of the tool or technology with which they will interact. The second dimension of trust pertains to trust of the government there has to be a balance between ensuring that a system prevents fraudulent transactions and the burden that extensive checks can take place on people who are honest. Recently, confidential information on military veterans was compromised when a computer containing their personal information was lost. This type of incident can erode trust and user confidence in government systems. Trust, along with financial security, are two critical factors limiting the adoption of e-government services.

- **Digital Divide:** The digital divide refers to the separation that exists between individuals, communities, and businesses that have access to information technology and those that do not have such access Social, economic, infrastructural and ethno-linguistic indicators provide explanations for the presence of the digital divide Economic poverty is closely related to limited information technology resources. An individual living below poverty line does not afford a computer for himself to harness the benefits of e-government and other online services. As the digital divide narrows, broader adoption of e-government in the public domain becomes possible. Economic poverty is not the only cause of digital divide. It can also be caused by the lack of awareness among the people. Even some of the economic stable people don't know about the scope of e-governance. Awareness can only help to bring users to that service delivery channel once. It cannot guarantee sustained use of the system unless the system is also designed in such a way as to deliver satisfactory outcome.

Procedures need to be simplified to deliver concrete benefits and clear guidelines provided to encourage their use by the actual end users and reduce users 'dependence on middlemen/intermediaries.

Conclusion: It is important to note that the proportion of the economy involved in some or other form of adaptation or usage of ICT is still very small. The proportion of people involved in the ICT Industry, especially in the rural areas is negligible. Thus, another priority action, in order for the benefits of ICT to trickle down as well as contribute to the rural prosperity, would involve setting up several rural and village level micro-enterprises. Information and Communication Technology has great relevance in today's world. If implemented properly ICT can surely bridge the gap between economically and technology backward and forward classes. With the IT boom in India technology is easily accessible to the government machineries with relevantly cheaper and convenient manner. Proper training and implementation of ICT programmes in simple way and language which is easily understandable by the rural people can surely bring about revolution in rural development But ICTs alone can't bring about rural development. Education is one of the basic problem for application of ICT as 40% of India's population is illiterate. All modern economies have demonstrated in the past that education is the first step to building the capacity which people can then use. If the Indian economy grows at 5-6 per cent per annum as it has been growing over last 2-3 years, then over 10-15 years the size of the Indian economy would have doubled. Even with this level of growth it cannot by any means bridge disparities and eradicate poverty. Therefore introducing ICTs alone will not meet the development challenge. For ICTs to succeed in India, education for all must be the first priority.

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