"A Review Paper on Information Technology Intervention in Rural Areas: with Reference To Madhya Pradesh"

Aditi Chaturvedi[1], Dr. Neha Mathur[2], Dr.Preeti Shrivastava[3]
[1]Research Scholar, Rabindranath Tagore University, Bhopal (M.P.) India.
[2]Dean, Dept of Management, Rabindranath Tagore University, Bhopal (M.P.) India.
[3]HoD, Dept of Management, Rabindranath Tagore University, Bhopal (M.P.) India.

ABSTRACT

Information communication technology provides us with information through telecommunication like the Internet, the cell phone, wireless networking and various other sources. It is equipped with problem solving ability comprising many forms of gadgets including electronic communication and computer systems based on hardware and software. It enhances the usefulness combined with traditional engineering performing the work efficiently and effectively at very high speed. ICT acts as a catalytic intervention system empowering rural population in Madhya Pradesh. It is accelerating economic development in rural India by helping the masses to access the information in order to bridge the gap. In a developing state like Madhya Pradesh, ICT revolution helps the rural populace to become active participants in growth of our country. There is no doubt that development of Indian villages is one of the important factors to usher growth of Indian economy. Combining ICT in rural development can hasten the process. Access to relevant information and knowledge is significantly important and ICTs can prove very beneficial in this process. Information Communication Technology is a procedure for empowering the village folk and it is fostering economic growth in rural Madhya Pradesh. It is doing so by providing the rural folk access to information so as to bridge the gap between the rural and urban masses. Accessibility to pertinent information and knowledge is of extreme importance. It can prove beneficial in this process to a large extent. This paper is based on secondary data and focuses on scope and role of ICTs in rural development in Madhya Pradesh.

Key words: Rural India, ICT, Revolution, Information, Communication, Technology.

I INTRODUCTION

Information and Communication Technology (ICT) is, today, a well-known service sector the world over. India can utilize it for acquiring Top position since the Indian mind has always been recognized for its capabilities of adaptability to technology. In order to achieve the targeted GDP of India it is necessary to accelerate rural development. This can be achieved by rendering the Indian rural society to become active participants in development of India in its entirety. Information and Communication Technology (ICT) represents a broad and continually evolving range of elements which includes not only computer hardware and software but also television, radio, mobile phones, personal computers, kiosks and policies that make these media and devices functional. ICT has helped in infusing knowledge with technology rendering easy means of approach to information in Madhya Pradesh.

ICT is not just about items like the internet, computers, or telecommunications but is an intersection of different electronic tools that facilitate the functions of information processing and communication, including transmission and display. Nowadays most devices like digital cameras, mobile telephones, personal digital assistants, slide projectors etc., can be linked with one another for sharing and exchanging information with them. Today, all these devices are categorized as integral and essential parts of ICTs. It is, non-the-less an established fact that access to information is the key for sustainable development. In today's scenario, improved communications and access to information has a direct bearing on the socio-economic development of a nation.

In the Indian context, rural growth is an important factor for her economy to grow. There can be no denying the fact that Information Technology has emerged as one of the most important industries in the Indian economy. It is contributing significantly to the growth of Indian economy. The liberalization of Indian economy gave a major boost to the IT industry of Madhya Pradesh. The rural Information and Communication Technologies applications play an important role in extending the services of Central Govt. agencies to the rural masses at their door steps. Schools in rural areas are promoted to raise the level of education and literacy in rural India since Education is the primary right of every Indian citizen whether urban or rural.

The 1980s witnessed the onset of Information and Communication Technology. This raised hopes of complete transformation of society by way of greater transparency, reduced menial work, better employment opportunities and increased income levels. But it also increased fears and concerns about increasing Digital Divide. These apprehensions reflected in the form of divide among Rural and Urban backgrounds; Gender Divide and also Language Divide. There was also a fear that, like many other technologies and inventions, the IT industry too may benefit only the upper strata of Indian Society. It was also feared that it would bypass the large Indian population living in the villages of the country, and would deprive them from its benefits.

The need to amicably blend community needs, knowledge and inputs with inputs of other stakeholders in the rural sectors is satisfactorily met by the intervention of Information and Communication Technologies. The Governments are concentrating on the eradication of poverty. This is bound to result in development. In this matter, they are whole heartedly concentrating their efforts in rural areas. The impact of Information Technology is that, today, the whole world became a global village. It is very clear that, if tailored to the needs of the poor and if used in the right way for the right purposes and complemented with required reforms, Information and Communication Technologies can assist in reducing poverty.

The All India Society for Electronics and Computer Technology (AISECT) came into being with the noble perspective of bridging the information and communications technology gap between India's urban and rural areas. AISECT empowers youth with skill training and digital know-how; it also uses the franchise model to build an entrepreneurship network. Its improved governance can have a direct bearing on reducing poverty and improving the environment. It is being increasingly used by the governments to deliver their services at the locations convenient to the citizens.

II OBJECTIVES AND METHODOLOGY

(a) Objectives:
    (i) To review the impact of Information Communication Technology in Rural areas of Madhya Pradesh.

(b) Research Methodology: For this review study, researcher reviewed the literature on ICT Intervention in Rural Areas: A study with reference to Madhya. This review paper is based on secondary data collected from different sources and work carried out by various people/researchers.

III LITERATURE REVIEW

(a) Ashwathnagar did a study entitled "Impact Assessment of Agriculture Interventions in Tribal Areas in Madhya Pradesh" in the year of 2009. The main objective of this work is to study the large number of initiatives taken by Madhya Pradesh to improve the agricultural and poverty situations in the State. The Govt. has implemented a number of schemes. The author wishes to understand and assess the impact of these interventions on the livelihood of the farmers in tribal areas and identify the specific constraints to understand their full potential and recommending measures to address the same.

(b) Ankur Mani Tripathi, Abhishek Kumar Singh and Arvind Kumar, did study titled "Information and Communication Technology for Rural Development" in the year 2012. The main finding of this study is that information Communication Technologies are developing everyday but are less applicable in rural areas. It is not being entirely implemented by the government and non governmental organizations for rural and urban areas.

(c) Amanuel Zewge, Yvonne Dittrich, did study in the title "Systematic mapping study of IT for development in agriculture the case of developing countries" in the year 2017. The main objective of this research work is to provide a comprehensive overview of what kind of interventions and research contributions have been achieved in Information Communication Technology.

(d) Charru Malhotra, V. M. Chariar, L.K. Das, and P. V. Ilavarasan did a study in the title "Information communication Technology for Rural Development: An Inclusive Framework for e-Governance" in the year 2009. The main objective of this research is to guide a systems-based framework of e-Governance projects, and provide a brief of future directions. The framework of this paper follows a participatory approach with inclusion of relevant TKS. It has a bi-directional Citizen to Government interface and a feedback mechanism. The prime objective of this research work is that rural e-Governance projects provide as ways to attain good-governance for increased sustained rural growth and development.

(e) Dr. Mohamed Haneefa K., Shyni K.G, Sujima A.P, performed a study under the title "Use and Services of Akshaya Community Information Centers in Kerala" in the year 2014. The studies found that majority of the entrepreneurs give various services at reasonable rates. E-literacy program is the main attraction for growth of the Akshaya Centers. It is revealed that the entrepreneurs are willing to diversify the Centers with more information technology related services.

(f) Jasmine Bartolome, did study titled "How has India's Rapidly Growing ICT cluster Impacted its Rural Poor?" in the year 2014. The main objective of this research work is to show that majority of Indian population lives in rural areas, with little to no access to education; thus, they have major boundaries to participate in India's booming development. Through generalization of latest literature and linear regression analysis of primary sources from the Indian government, it concludes that it has a potential to reach out to the rural impoverished, but it unfortunately remains untapped. As a result, increasing its specialization continues to leave the rural behind.

(g) Komathi Ale, Arul Chib, did a study entitled "Community Factors in Technology Adoption in Primary Education: Perspectives from Rural India" in the year 2011. The main aim of this research article is to address current gaps in research by concentrating on specific community factors that influence technology adoption. Community factors that affect the adoption of ICT in the rural education context can be translated into three claims, as suggested by the community dimension of the TCM model: a provision for unbiased technology access to children; requirement of application of local language within technology and content; and equipping teachers with technological skills while creating positive attitudes toward technology adoption.

(h) Lila Simon, conducted a study under the title "A study on the Information Technology Policy of Madhya Pradesh and its seamless connectivity of Bhopal City" in the year 2015. The main purpose of this study is that the Government of Madhya Pradesh has laid great significance on computerization in government departments, which are profit earning and the departments where there is a large public interfacing. Information Technology has been oriented towards real empowerment and development of the millions of the masses but real question is whether the common man in Bhopal city of Madhya Pradesh in India are aware or are readily accepting these changes.

(i) Meera Tiwari and Uma Sharmistha, did a study entitled "Information Communication Technology in Rural India: User Perspective Study of Two Different Models in Madhya Pradesh and Bihar" in the year 2013. The main objective of this is research is to explore if it can be deployed to enable the development of rural human capital and increase participation in market opportunities. Second, to study which method of delivery maybe better suited for reaching the ICTs to the most disadvantaged groups for capacity building at the individual, community and societal levels.

(j) Misra Harekrishna (2009)- Published A Research Study Entitled 'Governance of Rural Information and Communication Technologies' concludes that the Role of IT in rural development in India is quite appreciated. It has gained the status of infrastructure, and numerous approaches have been taken to exploit opportunities that information communication technology provides. In spite of phenomenal changes in the policy level improvements in rural (ICT) infrastructure, digital divide has still remained a challenge for national policy makers, state agencies and service 80 providers. Several of the pilot projects are being examined for scale up at the national level under National e-Governance Plan.

(k) Nidhi Vij, did her study entitled "Role of Information Technology in Policy implementation of Maternal Health Benefits in India" in the year 2016. The main objective of this study is to concentrate on the efforts made by the government of India to improve maternal health to reduce maternal mortality rate from 437 per 100,000 live births in 1990 to 140 per 100,000 in 2015. Moreover, estimates for maternal morbidity are three to four times that of the mortality rates with even more pronounced regional disparities. Universal access to free public healthcare for maternal health has been a national goal since 2005, but its quality of service and utilization rate of maternal healthcare remains an elusive dream for many of the rural women even after a decade of substantial efforts.

(l) Nikita Yadav, V. B. Singh did their study under the title "E-Governance: Past, Present and Future in India" in the year 2012. The main aim of this research is to work on the latest trends of technology that the government of the country has adopted. While working on this project we have concluded that E-Governance has made the working of government more beneficial and transparent to its citizens and also presented an exhaustive list of E-Governance projects which is currently being used in India and in international scenario.

(m) Reddy studied the "Implications of ICT and its Tools on rural societies of India" in the year 2017. He studied the implications of ICT and its Tools on rural societies of India. ICT gives huge possibilities to the government to increase its efficiency and meet challenges and objectives in all aspects of activities. The author also mentioned the benefit of IT applications in governance which includes access, storage, processing, organization and transfer of data to various levels of administration and increase the transparency and to provide cost effective and speedy discussions and meetings, quick and speedy action based on timely reliable information etc to the peoples.

(n) Robert Chapman and Tom Slaymaker did their study entitled "Information Communication Technology and Rural Development: Review of the Literature, Current Interventions and Opportunities for Action" in 2002. The main aim of this research work is to investigate the role that it has to play in developing countries, focusing particularly on those rural areas that are currently least affected by the current advances in the 'digital revolution'. Section one aims to look beyond the current 'digital divide' debate which focuses on information disparities to assess the potential role of ICTs in the context of current rural development paradigms.

(o) Subhash Bhatnagar, did a study entitled "Information Technology and Development: Foundation and Key Issues". The main objective of this research is to examine some of the problems that implementation of rural developmental programs have been afflicted with, and argues that information communication technology applications could overcome the weakness in implementation. It then goes on to assess the early efforts in use of ICT. This paper proposes a scheme for classifying the ICT applications and points out the key issues in implementing these applications.

(p) Siriginidi Subba Rao did a study under the title "Role of ICT in Indian Rural Communities" in 2009. The main aim of this research work is to analyze the factors preventing rural communities from reaping the advantage of ICTs, Indian initiatives to overcome the factors, ways of poverty alleviation and sustainable development.

(q) Sucheeta Kak and Sunita Gond, did a study titled "ICT for service delivery in Rural India –scope, challenges and present scenario" in the year 2015. The main aim of this research work is to examine if its implementation can play an important role in their overall development in the sectors of health, education and government services. To supplement Information Communication Technology service delivery, Government of India has the National IT Policy in place and is also on the verge of launching the massive Digital India program.

(r) Tauffiqu Ahamad, Jitendra Kumar Pandery, did a study in their title "A Study on Application and Role of ICT in Rural Development" in the year 2014. The main aim of the study is that ICT acts as a catalytic intervention for empowering rural India as it accelerates economic development in rural areas by helping the people to access information in order to bridge the gap. ICT revolution renders rural population to become an active participant in growth of our country. The purpose of this research is to access the relevance of ICT on rural growth.

(s) Vankudothu Ravinder Naik, did his study under the title "Effectiveness and Impact Analysis of Innovative Information and Communication Technology Based Extension Models" in 2014. The main aim of the study is that ICT is rapidly gaining the centre stage for future world economic growth and development. While ICT is gaining prominence as an engine for economic growth it also promises to have far reaching potential for the delivery of social services and enhancing the efficiency of government organizations.

(t) Vijay Singh, Sangeeta Jauhari did their study on the topic "An Analytical case study on AISECT and Skill Development Initiatives: A Journey from Pre to Post Globalization Era" in the year 2013. The main objective of this research is that All India Society for Electronics & Computer Technology, with a mission to impart technological knowledge to the rural and semi urban and tribal areas of the country and to promote ICT-based training and services to empower people and generate employment for the youth and unfold entrepreneurship based initiatives to create an inclusive society.

IV CONCLUSION

In the conclusion of this review it can be said that the technological advances in ICTs have reduced the cost and increased the quantity and speed of information transfer dramatically. ICT in rural areas is the solution for gradual elimination of traditional barriers for development by increasing access to information, expanding their markets, increasing job opportunities and better access to the governmental services. It is found that absence of awareness and information about the facilities and schemes are the main causes of backwardness in rural areas. There is need to empower rural people in accessing and using the IT so that they could align with the fast moving economy of the country. Rural people are the most important asset of India as the Indian economy is an agrarian one, but rural people are far from its benefits. This paper highlights some ICT technologies specially designed for application in rural sector considering cost, connectivity and knowledge base of potential end user. This review paper also discusses the various applications of ICT in the fields concerning rural sector such as e-governance, telemedicine, agriculture, risk management, women empowerment. A survey of various initiatives taken by Indian government at centre and state levels to promote the use of ICT for socio-economic development in rural areas was also done for measuring the effectiveness of the schemes. The research work will bring out the best model worked to implement IT interventions in the regions of Madhya Pradesh.

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