

INTERNET TECHNOLOGY: PROSPECTS AND PROBLEMS IN RURAL INDIA

Ms. Nilaxi Chari

Assistant Professor, Goa Multi-Faculty College, NH-4A, Ponda-Belgaum Road, Dayanand
Nagar, Tal. Dharbandora, South Goa 403406

Abstract: *If development is a process of change that affects people's life, then it may involve an improvement in the quality of the life as perceived by the people undergoing change. However, development is not always a positive process and it involves an understanding of various economic, political and social factors. In this so called "modern life", food, clothing and shelter are not only the necessities, but having mobile phones with Internet connectivity has become an integral part of one's daily life. In short, today's life is information-based life and provision for Internet facility should also be a part of development process. Developments in Internet facilities and its spread in India is also not a uniform phenomenon. According to the 'India Mobile Congress 2017' report, penetration of Internet in India is only 33 per cent overall and 16 per cent in rural. As per the Census 2011, rural population in India makes up about 69 per cent which is very vast and having accessibility to Internet due to its varied applicability in rural life can be prospective as well as challenging. Moreover, the country is in rapid state of development and to achieve progress even in its rural set up, it needs Internet as the most sophisticated communication system available in the world. The present study focuses primarily on India's rural Internet connectivity and its efficacy. The theme of the paper also tries to project the possible means by which Internet can be reached to every nook and corner of the country. Real development in India can only occur only when the rural counterpart develops.*

Key words: *Internet Technology, Rural India, Development, Prospects, Problems*

INTRODUCTION

Development is a process of change that affects people's life and involves an improvement in the quality of the life as perceived by the people undergoing change. Whatsoever it may mean, development, is not always a positive process and to achieve it even in its narrow sense, a thorough knowledge of economic, political and social life of people needs to be acquired. Moreover, the study "Internet Technology: Prospects and Problems in Rural India"

when stated has a spatial dimension too. So the present theme of investigation is from the perspectives of development focused on current status of penetration of the Internet technology in rural India with its prospects and problems. The theme also aims at possible means by which a sound co-relation among the variables; economy, politics, society and the Internet can be established to achieve a true sense of development in rural India. According to the 'India Mobile Congress 2017' report the Internet experience in India is only 33 per cent and in that 16 per cent rural. In other words, 67 per cent of the population of the country is deprived of the Internet. To be specific on the theme, 84 per cent of the rural masses, where the real India dwells, are still awaiting its procurement. The dream of 'Digital India Plan' of the Government will only be actualize when its countryside progresses. This is it where the researcher feel if the Internet is provided through Mobile Communication System (which is very handy) to every nook and corner of the country, a revolution will occur where in people, economy and politics mingle to form a new Digital India.

REVIEW OF THE LITERATURE

From the study of Boston Consulting Group's (BCG) Center for Consumer Insight (CCI), Rural Digital Influence Study, 2015-16, by 2020, about 315 million (48 per cent) Indians living in rural areas will be connected to the Internet. As compared with 120 million at the then present and that is about 36 per cent of the country's total online population. This particular fact creates a huge opportunity for brands and marketers in places where establishing a physical presence is still a challenge. The study titled 'The Rising Connected Consumer in Rural India'; rural Indians use the Internet mainly to access social networking websites. They account for around 70 per cent of the Internet users in rural areas (mainly for Facebook and E-mailing). The researchers even identified five segments of Internet users: 1. Unemployed, 2. Farm Owner / Student, 3. Farm Worker / Laborer, 4. Self-owned Business, and 5. Service Worker / Trader. The first three segments come under the less affluent group and the list following the two as affluent group. Under the Unemployed Category, the population under the age group between 18-30 years, 36 per cent of the rural masses with 9 per cent of Internet penetration has exposure to Internet for less than one year and used Internet mainly for social networking and listening to music. The less affluent people under the same age group used Internet for social networking, gaming/media and e-mailing. The group numbered 8 per cent of the total rural population having exposure to Internet for 1-2 years with 33 per cent of Internet penetration. The affluent segment of the rural population

made use of the Internet for social networking, gaming/ media, e-commerce and e-mailing. This category of population had 19 per cent of rural folk with about two years of Internet exposure and experienced 30 per cent of Internet penetration. The study also projected high growth potential for this age group as the population is young, socially and economically productive and in total comprised 63 per cent of the country's rural population.

The research 'E-governance in Rural India: Need of Broadband Connectivity Using Wireless Technology' by Kalpana Chaudhari, et.al, states that, empowerment of rural communities is crucial for development of rural region. Bringing people in mainstream of the digital technology to access and adopt modern technologies is a major concern now. Rural development implies both, economic development of people and greater social transformation using electronic governance. The study envisaged, in order to provide the people of Jalgaon district of Maharashtra with better prospects and opportunities for economic and agricultural development and its management and marketing, increased participation in usage and adoption of Information and Communication Technologies (ICTs) is required. The main aim of the study was to explore the nature, role and relevance of the electronic/digital governance using ICTs and Wireless technologies for agricultural and rural development.

RESEARCH METHODOLOGY

The study is descriptive in nature and in order to achieve the aims and objectives, the researcher relied upon secondary sources which include news articles, research papers, Internet sources etc. and wherever required, statistical numerical facts have been judiciously used. The idea behind reliance on these secondary sources was to understand the role of economic, political, and social factors and their relationship impacting the use of the Internet technology in the prospects of rural development as well as the problems in using internet in rural India.

AIMS AND OBJECTIVES OF THE STUDY

The aims and objectives of the present study are aimed at establishing and analyzing the prospects and problems of using Internet technology among the rural masses of India from the perspectives of socio-economic and political factors and to provide true time suggestions on removing the bottlenecks in the use of Internet technology by the rural people.

PROSPECTS OF INTERNET TECHNOLOGY IN RURAL SETUP

The expanding Internet has definitely caused a shift in urban business behavior throughout the world. The emergence of the Internet in rural regions as a cheap infrastructure resource, changes job cost structure. Distance is now measured in bandwidth connection speeds. The “New Economy” is having a profound impact on employment. Working in Cyberspace is a job opportunity that rural workers can and should exploit. Following are some of the avenues that can be exploited by using Internet:

Rural Digital Economy: The integration of business and entrepreneurial activities into the rural digital economy varies from sector to sector and among economic players:

1. **Telemedicine and Tele-health** have been hailed as vital to healthcare provision in rural communities, whether by improving locally provided healthcare quality or by expanding the menu of medical services.
2. **Online Courses** offerings for students in primary, secondary, post-secondary and continuing education programs have improved educational opportunities especially in small, isolated rural areas. And interaction among students, parents, teachers, and school administrators has been enhanced via online forum, which is especially significant given the importance of ongoing parental involvement in children's education.
3. **“Lone Eagles”** are individuals who are able to conduct private consulting, investment activity and other business pursuits from any location. While their numbers are small in rural communities, they tend to have high incomes and are sort by many communities. For rural areas they are most common in locations having good communication and information infrastructure, such as broadband services, able to handle high volumes of data transmission.
4. **Low-end and high-end service jobs** are most common throughout the world and have been providing employment over the last several decades. Broadband allows rural areas even to compete for such type of service jobs from call centers to software development, etc.
5. **New Markets** for existing rural businesses, including farms, also hold some promise. Niche markets, such as organic farm goods, are some example.
6. **Rural Businesses** have been adopting more e-commerce and Internet practices, improving efficiency and expanding market reach. Some rural retailers use the Internet

to satisfy supplier requirements. The farm sector, a pioneer in rural Internet use, is increasingly comprised of farm businesses that purchase inputs and make sales online.

7. **Tackling monetary problems**, as very often a shortage of physical money as number of banks in rural areas is less and far between. The recent demonetization hit in India was probably the worst hit as rural people needed physical money in order to carry on with their lives, to buy and sell, to transact, to pay fees, as well as for any and everything needed. If there was a provision for high speed Internet, it would have made their life so simple. They could have done all their routine work through Internet Banking, Mobile wallets, etc. instead they wasted hours of their time in queues waiting for their turns in urban areas.
8. **Tackling weather related problems in agriculture and information on agricultural operations** can be handled by using the internet. Forecasts on rain, seasons of dry and wet spell, wind speed, atmospheric pressure conditions, etc are readily available over internet. Besides this, the information such as .best time to seed, plant and harvest crop, market forecasting fertilizers to used, etc can be made use by the farmers via internet.
9. **Farmers' awareness** about the pricing of their produce in the local, national and international can reduce drastically the dependence on middleman and they get the returns what actually is of that day by means of high-speed internet.
10. **Awareness to the new technologies** available in agriculture through handy internet access can make a farmer more open and advance in using modern methods of agricultural production and to increase its outputs in a qualitative manner.
11. **Information on latest government schemes and plans** are made available in details through internet and the same can used by the rural folks without any office bias.

From the literature above it can be deduced that without the Internet services, the rural area may hamper their routine activities to a complete cease and the phase of modernization may never reach to its beneficiaries. The possibility of new small business start-ups even may remain in peril and dreams.

All of this discussion on prospects, points to the scope and scale of what is occurring, and begs the question of whether rural places will participate in the benefits associated with this economic growth. The positive view suggests the technology can help rural communities overcome the disadvantages of distance and remoteness. Critics counter that the capacity to access and use the technology will be slow in coming to rural places. There are several ways to address the question of rural competitiveness. Unfortunately, much of the assessment is

largely speculative, given the paucity of research data. Some of the available information is gleaned from Internet business boosters or advocacy groups, and needs to be evaluated accordingly.

PROBLEMS OF INTERNET TECHNOLOGY IN RURAL SETUP

Rural development is a persistent challenge everywhere, whether in advanced industrial and post-industrial economies or in less developed settings. The principal reason for rural development's special place within the broader sphere of economic development is 'the rural penalty' (Hite, 1997). Although there are several dimensions of the rural penalty, principal among them are a low density of population and therefore a low density of most markets, and greater distance to those markets as well as to information, labor, and most other resources. Hobbs and Blodgett (1999) highlight the fact that the 'rural differential' is primarily one of population density.

Draben Stott (2001, P.4) has identified five challenges that will be critical in shaping the rural economic outlook: tapping digital technology, encouraging entrepreneurs, leveraging the new agriculture, improving human capital, and sustaining the rural environment. Three of the five are connected rather directly to the digital economy and the use of information and communication technologies (ICTs): digital technology, entrepreneurship and human capital.

Besides, the low population density and its repercussions in the use of ICT and specifically, Internet Technology, here are some of the important problems faced by rural India in accessing Internet:

1. **Lack of regional coordination in promoting Internet strategy for rural and agricultural development:** The first step in the context is to create awareness and understanding of the nature and fundamental advances which are now possible in development, their practical implications and how they translate into operational terms for individual organization. Every government and donor agency needs to address the new generation of policy which these advances call for and the new public/private sector relationship they require. But, it has been observed that this is not happening.
2. **Absence of pilot projects:** Internet pilot projects can enable the development of local applications related to the range of outputs that a context need. These projects though start on its small scale to identify strengths and weaknesses of a system prove to achieve important results which allow them to be implemented soon, and take advantages of

collaborating opportunities with other nodal agencies and government. The results are shared locally, nationally, and internationally via reports, videos, world wide websites, and local and international media. They even ties to existing Internet services and projects (urban or rural) that involve significant local participation to improve chances of success.

3. **No use of Internet for development approach:** It has been very often, widely observed throughout the country that the planning agencies rarely make use of Internet resources in planning processes. If Internet is used, it can save huge amounts of time and money in surveying for information and to give a better picture of reality.
4. **Ill defined liberalized telecommunication policies:** The modern Internet services has reached the stage where it is now less expensive to build than the broadband services which use traditional copper wire telephone infrastructure and it is still used in currency. It is high time for the government to change these systems from wired to wireless connectivity as it is more efficient, less expensive and reliable.
5. **No support to local Internet entrepreneurs and other service providers:** Local entrepreneurs, progressive NGOs and university computing departments in urban areas throughout the developing and developed world are becoming Internet service providers, providing dial-up telephone access to the sophisticated graphical, sound and video communication, etc. are becoming very popular. But, this initiative is very much lacking in the Indian situation.
6. **Weak coordination in assisting stake holders in advocating for Internet service provision and telecommunication infrastructure and policy improvement:** Despite tremendous technological and service advances, rural and remote areas continue to suffer poor telecommunication infrastructure. For instance, millions of people continue to do without basic telephone service, or are unable to utilize existing infrastructure to operate fax machines. Poor telecommunication infrastructure is recognized as an important factor in leading people in rural areas to choose to migrate to urban areas.
7. **Improper orientation of existing Internet information services to its users:** Information resources on low input agriculture, commodity prices, alternative crops, international crop market patterns (seasonality of specific region crop successes and failures etc.), new techniques, integrated pest management, rural development strategies, FAO reports and research, etc. This type of information is truly be of benefit to small producers and the people of rural and remote areas, it must be easily available to them and/or to the organizations that serve and represent their interest. But it seems

that, proper orientation on Internet Information services to its user in the country is missing.

8. **Inadequate support to rural and agricultural education sector through Internet capability:** The most important current Internet user group consist of recent university and college graduates. In many countries these individuals are exposed to Internet benefits while at school, when they obtain jobs in business or government, they encourage the adoption of new technologies and methodologies, their creative uses of ICT is often adopted by planners, managers, agricultural educationist, etc. so the government of India even is expected to support rural and agricultural sector through Inter capability.
9. **Lack of awareness about Internet building and demonstration:** Despite the rapid growth in Internet service, general awareness of the Internet and its benefits is weak in the country. Ties between existing Internet user groups and the rest of the civil society are poor, and there is very little local information content available on the Internet to help stimulate local interest. Existing Internet services have difficulty marketing the Internet beyond early adopters because it often requires fostering desires and needs among clients who may not know the benefits of the Internet. Thus, awareness building through workshops, seminars, training courses, public events and media attention can help to better inform potential user groups and bringing them closer to making the decision to begin using the Internet.
10. **Low support to rural and remote infrastructure development:** Internet service providers (ISPs) in capital cities of the country are often keenly interested in extending service to rural and remote areas. However, lack of market research on potential client basis for Internet services in rural and remote areas, and the necessity to take the financial risk in providing such services, can prevent existing ISPs (private, non-governmental organization or government) from building an infrastructure. So it is the government, which can interfere to remove such obstacles.
11. **Weak support to creative Internet applications and information services for rural and agricultural development:** People use Internet because it provides them with information, and the ability to communicate with friends, colleagues, co-workers, and peers from around the world. It also provides communication environment that encourages creativity, expressions, enjoyment, and experimentation. By making use of information in the context of rural and agricultural development various creative Internet applications are available to foster rural and agricultural lifestyles. This type of

applications are developed in many Latin American and African countries where individuals, groups and organizations function together to bring out solutions to various rural and agricultural problems. In India, this type of venture is missing.

CONCLUSION

To conclude, the researcher attempted to give justification to the research from the perspectives of development process, which states that 'development is a process of change that affects people's life and involve an improvement in the quality of the life as perceived by the people undergoing change'. The process of development is not always a positive process and to achieve it there is a need of blending economic, political and social life of people. It was evident from the study that the Internet spread in India is not uniform and is faced with series of problems discussed in the study. Along with problems Internet also brings host of opportunities to its rural counterpart. Here, it is the role of the government especially to develop Internet infrastructure and convince people about its manifold utilities. The problems discussed earlier have serious repercussions on rural economy, polity, and society and if not addressed rural India will remain rural in its geographical settings.

SCOPE FOR FURTHER RESEARCH

In the study, the Internet availability to rural masses in India was seen only from mobile communication as it is very handy and affordable, but the technology with its merits has inherent disadvantages. This does not mean that the researcher failed or ignored this fact. The choice behind selection of this option (mobile communication) was its affordability and portability as stated earlier. Studies on the similar lines in rural India can be carried forward by using other means of Internet services as Wi-Fi, WiMAX and BridgeMAX, Satellites, Balloons, IEEE 802.22, Laser link technology, Distributed systems, etc. are a few other wireless ideas that can serve needs of rural India. These internet services even have their advantages and disadvantages too. Here, it is the discretion ability of the researcher comes in the picture to choose the appropriate technology. Nevertheless, governmental involvement in planning infrastructure for technologies is of crucial significance.

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