

Role of Information and Communication Technology in Rural Development in Bihar

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Introduction

Information and Communication Technology (ICT) are those technologies that can be used to interlink information technology devices such as personal computers with communication technologies such as telephones and their telecommunication networks. The PC and laptop with e-mail and Internet provides the best example. Devices such as digital cameras, digital video cameras and players, personal digital assistants, slide projectors and mobile telephones are also compatible with more traditional media such as radio and television. In easy terms ICT is defined as technologies that facilitate communication, processing and transmission of information in the electronic format. The progress of any market mainly depends on the access to information. The ICTs greatly facilitate the flow of information and knowledge by presenting the rural consumers extraordinary opportunities to attain their own entitlements.

There is a comprehensible relationship between ICTs and the rural development. Despite ICT's massive potential, the current global information explosion has had surprisingly little impact on development activities and access to practical information for the rural marketing, rural population and frontline development workers in less developed states.

Bihar, historically among the most civilized and best administered states in India, but today known as one of the country's backward states. Bihar has now started the process of moving from a chiefly agrarian economy to an industrial and service economy.

The contribution of agriculture in the economy of Bihar is very high and with the use of ICT it can straight forwardly contribute in commercialization and increasing value added services within the sector which ultimately tends to empower the rural market.

The flow of right information from and to the rural consumers is a critical prerequisite for the development of the rural market in Bihar. The current development of ICT is contributing in the flow of information and knowledge, beyond the boundary of social and economic status. Earlier farmers living in the rural areas of Bihar had no access to market information and they were always dispossessed by the local middlemen who use to manipulate the prices of agricultural products. However the recent growth of telecommunication service bridged the information gap at a limited scale as the farmers now collect market information from different adjacent areas and get better price of his crops. Bihar is experiencing a very successful model of connecting with the rural consumer through mobile phone service. Now

the need is to expand services towards dissemination of relevant market based information and thus in turn lead to growth in the business.

Importance of ICT in the Rural Marketing

In Bihar, more than eighty percent of the population lives in villages and they are mostly dependent on the agriculture and agrarian based handicrafts for survival. They do not have access to relevant information because the proper IT infrastructure has not spread into the villages. A rural consumer need diverse kinds of information such as government rules, regulations, policies and subsidies, daily news, updated information's on pesticides, fertilizers, crops selection, prices of commodities, health and economy etc. With ICT the rural consumer would be able to get rapid access to information about different things such as health, education, business, employment etc. Some of the importance of ICT for rural people of Bihar across varied areas is as follows:

Market information for the farmers

ICT can play a vital role in making information available to the farming community at a reasonable price. In Bihar, around eight thousand Primary Agriculture Cooperative Societies (PACS) at Panchayat level, five hundred thirty Vyapar Mandal Sahyog Samiti (VMSS) at block level and the apex level Bihar State Cooperative Union (BISCOMAUN) are supporting the marketing needs of agriculture and allied sectors; twenty District Central Cooperative Banks (DCCBs) and apex level State Cooperative Bank (SCB) with wide network of branches (SCB and DCCBs) are catering to the needs of short term credit requirement of the members. An e-Kisan Bhawan has been established in various blocks that functions as single window delivery system for promotion of agriculture technologies and inputs. Farmer Advisory Committees at the state/district/block/Panchayat level, effective Kisan Call Centers and Kisan Pathsala has been set up. With the help of ICT the rural consumers also get information about the going rates in the market, the prevailing minimum support price for his produce and the places where he can get the better return for the same. Thus it bridges the gap between the urban and the rural market.

Information related to weather for the farmers

One of the benefits of ICT lies in providing timely and accurate information. Now the rural people can get information about the weather, including monsoon and threat of floods and other natural calamities. It reduces the farmer's dependence on uncontrollable natural factors and also allows them to plan their crops accordingly. It acts as a warning signal and helps the farmers to avoid risks.

Empowering the rural people

ICT can be used as an effective tool for rural consumer empowerment. The rural consumer acting solely will be unable to obtain the information they require once they have access to the internet. The knowledge obtained is sufficient to begin the process of identifying and mobilizing proper information resources. It can be used to create the demand that will generate the detailed information requirements necessary for the construction of useful information system. ICT will help them to make informed selection with regard to their own development and thus the rural consumer would be able to influence decisions that are taken by others but which have an effect on their future. E -Procurement has been introduced in Bihar for rural sanitation projects. To effectively utilize the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) biometric Smart Card based attendance system known as e-Shakti has been introduced for all NREGS beneficiaries. It helps to control the fake muster roll preparation at NREGS site and it also ensures the full payment to laborers as per work completion. The correct and timely wage payments is made automatically by e-Shakti application and directly credited into the beneficiary bank account.

Decision support to administration for rural development

Local government can also function effectively if they have access to information about the needs of local people thereby enabling them to communicate their needs to senior levels of government. For instance, in Bihar the government has set up electronics governance and citizen facilitation to provide better services and improved quality of governance and citizen facilitation. BSWAN(Bihar State Wide-Area Network) under NeGP (*National e-Governance Plan*) core infrastructure initiative aims to provide 4 Mbps vertical connectivity between the state headquarter and district headquarter and 2 Mbps between district headquarter & block headquarter. DIT (Department of IT) is also taking steps to connect all the departmental offices across Bihar to the nearest BSWAN centre through horizontal connectivity. BSWAN will become a useful tool to ensure the participation of panchayat level official machinery for MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Scheme), IAY (Indra Aawas Yojna) and other high impact schemes .District e-Governance Society has been constituted in each district under the chairmanship of the district magistrate with representation of various departments including NIC(National Information Center) to formulate, monitor and implement IT schemes/ program at the district level. Online access of land record facility provided by Government of Bihar helps people.

Dissemination of knowledge in rural areas

A major problem faced by rural areas of Bihar is the low level of literacy rate. It is the main cause of all evils in rural marketing. The youth of the village is not aware of the latest developments that can be of any use to them. They can very easily be misled by anti social elements because of their lack of education and alertness about their rights and welfare. The

whole scenario can change with the spread of education in the villages of Bihar. Students can be exposed to the new training materials and the higher form of knowledge through ICT. In Bihar under the tutelage of ICT@School, all government aided secondary and higher secondary schools have to provide basic computer literacy courses through a computer lab with broadband internet connectivity.

Generating and disbursing microfinance

Microfinance brought prosperity to the rural consumers with the help of ITC. A number of financial activities are done by the government because of full computerization of rural bank branches. The State Bank of India has issued the highest number of kisan credit card. These facilities help the farmers avail the benefits of microfinance in a much easier way.

Generating Employment opportunities

ITC provides information on new employment opportunities to the rural consumers also. A large number of rural youth are attracted towards various multilevel marketing companies where they can earn money by selling the products from their own place. ICT has increased their employment opportunities as they can get information about happenings in other parts of their state and various means of earning money. Rural entrepreneurship development program is another source of employment for the rural consumers.

Help marginalized groups

Most rural poor people lack the power to access information. ICTs could benefit all stakeholders including the civil society, in particular youth and women. Other disadvantaged groups that could be targeted include the disabled and subsistence peasants.

Challenges in implementing ICT in Rural Bihar

ICT has remarkable potential to make the information available at the right time there by empowering the rural people. However, there are many difficulties in implementing ICT in the rural areas of Bihar. Some of these challenges are lack of proper records and monitoring system, economies of scale, lack of basic social amenities and land and property rights. As there are many villages in Bihar where the population is as minimum as five hundred, in such a case all villages cannot be covered as it is practically not feasible to implement ICT as economies of scale does not allow the development progress as there are constraints for implementing ICT. Some of the challenges in implementing ICT in rural development are as follows:

- Inadequate, inconsistent and unpredictable power supply in the rural areas poses a serious threat to efficiency of ICT.

- Due to lack of awareness about information technology and illiteracy it can be hindrance in implementing ICT in rural areas.
- Non accessibility of secure and economical broadband connectivity in rural market continues to hamper the growth of ICT.
- Poor people and disadvantaged group like women may have restraint in the use of ICT for their specific purpose.
- Language of Software packages and content not in local language is another hindrance for rural consumers as most of the rural consumer are not comfortable in English language.
- Short lifecycle of IT assets due to high rate of depreciation and obsolescence is another factor acting as a threat to the viability of ICTs.
- Some parts of rural Bihar are infected with serious and chronic problems of recurring natural calamities and there are many district affected by extremist activities like naxalism.
- The rural people should have a sense of ownership of the knowledge management centers; otherwise it will be difficult to sustain them. In Bihar Vasudha Kendra (Common Service Centre) has been established in eight thousand panchayats across the state in order to take the governance to the grass-root level. Vasudha Kendras provides easy access to services like Government to Citizen (G2C), Government to Business (G2B) and Business to Citizens (B2C) services. But, it is not so effective in many panchayats of different blocks for an example panchayats of Bagaha-2 block of West Champaran district. Even block level it is not so effective.
- One of the important factor is-fear of Multinationals. Multinationals are searching rural markets. Multinational's products are very costly but with the use of ICTs and advertising they have made their place in rural market For example –‘Amway’ has market in Bihar's villages. Multinationals reach at rural market is dangerous of our economy also. These companies are trying to change mind set of the rural people, so that they can buy their products. Now soft drinks like Coca Cola, Pepsi etc. has market in the rural Bihar. These products are not beneficial for our health but people are consuming it, although cost of these soft drinks are more than milk.

Conclusion

Assessing the information needs are very essential elements in the context of ICT for rural development. The proper application of Information and communication technology is not possible in Bihar without fulfill the fundamental requirements like adequate electricity supply, cyber café , network connectivity at Block and Panchayat levels at affordable cost, internet connectivity at village level, computer literacy at school level in all government schools, etc. The rapid expansion of Information and Communication Technology can help significantly to improve living standards of the rural people. The application of ICT in various sectors of rural area such as education, health, agriculture, farming and rural economic development will definitely accelerate the rural growth. Despite the fact that ICT

has significantly entered into all aspects of our lives, impact of ICT in rural areas is very limited. Rural people should not be exploited in the name of development. Rural people should have knowledge about the multinational products before buying it. They should have knowledge about the side effect of the use of multinational products. Effective information delivery system is essential for rural consumers.

It can be observed that at the village level, people are exploited because of illiteracy and general ignorance. So need to focus on literacy is also required so that rural people should have awareness about what is right and what is wrong.

In a state like Bihar, where the rural area is a major concern for the overall development of the state, utilization of information and communication technology begins with access to the internet. Access to the internet can be improved by increasing the number of computers and internet hosts. Connectivity is another factor linked with bandwidth availability. Large amounts of bandwidth are necessary at the doorsteps of the rural consumer. Different strategies should be developed for the growth of rural area using ICT services. These strategies can be support for internet service providers in rural areas and improvement of the delivery mechanism for which institutional support and initiation is required. The development of various networks provides information to the rural area in educational development, rural economic development and rural health development which in turn will accelerate rural growth. Localized content development is another mechanism suggested for rural consumers. In the context of Bihar, this development is to be initiated for all script based language. Information has to be provided in the local language. Political will power is needed to understand the problems of the rural people and to provide them better solution. ICT can be used to help rural people a lot in terms of agro inputs, health services and physical infrastructure etc. The benefits of ICT in rural marketing should be calculated not only from the economic and financial point of view, but also in terms of the actual benefits it provides to the rural people. Rural people should be aware about product they use.

References

1. Agrawal, Binod (2006).Communication Technologies and Rural Development in India: Promises and Performances. Indian Media Studies Journal. Volume 1,july-dec.
2. Ekanath Khatiwada: (2007), ICT for rural community development. Icfai University Press.
3. M. S. Swaminathan “mission (2007): Every village a Knowledge Centre Movement Policy Recommendations”.
4. Thapliyal, M.P., D.K. Joshi, "Information Technology: Changing Face of Rural India “CSI Communication, July 2003, pp 9-10.
5. N R Ananthanarayanan and S K Srivastava (2005) .Role of Information Technology in rural development towards e-governance.

6. P Vijaya Kumar, N Appa rao and L Pratap Reddy (2007) “Developing IT networks in rural India”. Icfai University Press.
7. Planning Commission report Bihar (2012).
8. http://www.abhinavjournal.com/images/Commerce_&_Management/Jan13/10.pf.
9. <http://gov.bih.nic.in/Documents/IT-Policy-2011-English.pdf>.