

TECHNOLOGY AND RURAL ECONOMY

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ABSTRACT

Technology is touching every aspect of society and changing it dramatically. In the present state, everything can be represented in digital form. Any piece of information whether it is some news or personal communication or educational matter and job announcements, it can be easily given to the masses via technology. This technology has not only influenced the life of urban centers but it has also changed the whole scenario and working of rural economies as well. By providing educational material, job announcements, weather news and health tips to the rural population, technology promise to improve income-earning opportunities among rural economies also. This paper discusses the impact that technology lays on rural economy and its people.

I. INTRODUCTION

In contemporary times, we cannot even think of separating technology from the human life. Our society has a recurring co-dependence on technology for the fulfillment of its various needs. We not only use technology but depend on it heavily in our daily life situations. Our dependency is clear from the fact that demands for technology has keep on rising on regular basis. Our society make use of technology to travel, to communicate the messages, to learn and explore new things, to make business connections and also to live more comfortably. We all live in the world of information and the credit of sharing or passing the valuable information goes to the technology that serves all of us and bind us in a chain of network. No doubt depending on the content of the message delivered through various sources, different people may place different valuations on the information. On the other hand, the ability to share information among users can also impact the viability of providing it on a commercial basis. Before going further, it is very essential to know the meaning and definition of technology.

II. MEANING AND DEFINITION OF TECHNOLOGY

Many thinkers have explained and given the definition of technology from their point of view. Kumar et. al (1999) argue that technology consists of two primary components: 1) a physical component which comprises of items such as products, tooling, equipments, blueprints, techniques, and processes; and 2) the informational component which consists of know-how in management, marketing, production, quality control, reliability, skilled labor and functional areas. According to Bozeman (2000), technology and knowledge are inseparable simply because when a

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technological product is transferred or diffused, the knowledge upon which its composition is based is also diffused. The physical entity cannot be put to use without the existence of knowledge base which is inherent and not ancillary. Mascus (2003) has widened the concept of technology where technology is defined as 'the information necessary to achieve a certain production outcome from a particular means of combining or processing selected inputs which include production processes, intra-firm organizational structures, management techniques, and means of finance, marketing methods or any of its combination'.

III. TECHNOLOGY AND INDIAN ECONOMY

There was a time when information was conveyed through face to face contacts only; then came up post, courier, print delivery, telegraph or telephone. And now everything is communicated in digital electronic form with the help of Internet. Internet has made the life of human beings so comfortable that anyone who has the access and knowledge of it can go to any limit to fulfill their tasks. In such a state, for both the government and private sector, one of information technology's foremost benefits is in increasing efficiency by economizing on resource use in the operations of firms as well as in market transactions. But the efficiency gains from Internet use are not usual. Information technology industries also require new investment, only then the benefits of time and paper saved must be achieved fully within the economy. The costs of installing and maintaining the new infrastructure is the urgent requirement if we really wanted to achieve development in the Indian economy. Although by imparting knowledge to masses at a single time through the help of new technologies, we will definitely be able to increase the involvement and participation of people in various government schemes and policies which we called as e-Governance. If we want to set up an example of a good democratic country then we have to implement e-Governance at any cost which will prove that government thinks and work for the welfare of common people within India. For all of this, we have to implement the IT tools.

Pandit Jawaharlal Nehru, while addressing the Indian Science Congress in 1947 had stated "*for a hungry man or hungry woman truth has little meaning, he wants food, we have to find food for them clothing, housing, education and so on; all the absolute necessities of life that every human being should possess. So science must think in terms of the future hundred million persons in India*". Keeping in mind this prime need for development and application of science in the country, under his dynamic leadership, and through his vision, the country has witnessed spectacular advances in many fields of science and technology.

Technology has really the capacity to empower people within the society and also to facilitate the wave of development among the people. All the major technological innovations have significantly influenced the development capacity of our society thereby opening new ventures for the people. The new applications of agriculture and rural development are doing their best for the benefit of rural economy. This technology has rendered the help of computers, so valuable information and data has been transferred among the general public to promote development. Moreover, image transfer technology and interactive technology has also enabled all of us to

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produce, circulate and convey significant knowledge that can promote progress. The union of these technologies has created a new technological and production sector within the Indian economy that can solve a number of people's problems by making them aware about contemporary social as well as economic reality in the rural sector. The increased connectivity that has bridged the gap even in rural areas has really opened new frontiers of knowledge for them. The quicker the knowledge transferred means more possibility of growth and development within the Indian economy.

Technology has the capacity to alter the minds of people by giving them a suitable environment to learn and explore new things. In this way technology can develop rural communities and can solve the rural problems thereby improving their lives. Rural communities can achieve the objectives of poverty eradication, food security and sustainable development very easily in rural areas through the technologies help. However the reality is that in the context of Indian societies, technological applications are mostly limited to urban areas. Rural areas have not reaped enough benefits from them. But government should start working at grass root levels if we really wanted to achieve development in real sense.

Science and Technology policies made by the government are working already to achieve various objectives within the country. Science and technology are those essential tools that can work for the developmental activities in rural areas. They can tackle the problems of rural development in all sectors of the economy, such as, agriculture, environment, education, energy, health and sanitation, housing and habitat etc. As a result, it becomes very essential to build up and commence appropriate technologies that can ensure economic and environmental sustainability as well as optimal use of local resources in rural areas. To achieve the maximum targets in this area, we need the help and active participation of different institutions along with the appropriate technologies. Only then we will be able to improve the quality of life in rural areas to achieve the long term sustainability in their economies.

On the other bright side, technological change also affects the relationship that people share with each other, with their communities and with their governments. Even people in rural areas have become more mobile, more flexible in their choices of employment, residence, marriage and so on. The greater access to information has definitely changed the trends, pattern and lifestyle of rural people largely. Now India is looking forward to achieve the concept of Digital Village which can help in removing the issues of Digital Divide. This mission will facilitate the underdeveloped regions to work on the path of development. All these facilities would definitely enable the villagers to get connected to the family or friends who are at thousands miles away and with potential employers or the government. These facilities would certainly improve their lives.

Some of the positive benefits of technology for rural economies are the following:

1. It enables the people to know and learn more valuable information, news and educational material.
2. It will entertain and socialize the people more through various sources like social media, movies and TV shows etc.
3. It will help people in connecting at once with friends, family, employers and government.

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4. It will make their activities easier like booking of tickets, payment of bills, e-banking and so on.
5. It will help them in connecting with professionals in different fields and in gathering useful knowledge from them.

The benefits of technology will also benefit the government as well.

1. It would enable governments to deliver effective and high order governance through the use of communicating ideology.
2. Conducting a dialogue of public interest programs and feedback will also become easier for the governments.
3. Informing people about various programs, policies and schemes would also be easier.
4. Government would be able to gather the feedback and complaints immediately, for correction and redressal purposes.

Technology has played a very important role in promoting agriculture during the last several decades. The role of television and radio in providing education and extension services to the rural people has changed their whole standard of living. Following services have been made possible due to technology improvement within the country:

1. Access to helpful information through different types of Agricultural Information Systems (AIS);
2. Monitoring the conditions of natural resources along with environmental impact through different Information Processing Tools that is investigation of environment deterioration, soil erosion, deforestation;
3. Education and Communication Technologies that are playing a very significant role in producing new approaches to learning and knowledge management;
4. Networking where Science and Technology can contribute significantly to relating people/institutions among them and facilitating the emergence of 'Virtual Communities of Stakeholders' that generate and exchange information and knowledge among themselves.
5. Decision Support Systems (DSS) through which data and information provide significant information inputs for informed decision-making. These tools are playing an imperative role in converting information systems into knowledge systems.

The ability of IT-based communications to bring buyers and sellers on a shared platform will bring key potential gains within the Indian economy. These gains will make things and business easier like making better matching of buyers and sellers and even the creation of new markets within the rural areas. Nowadays rural farmers are able to sell their crops in a better way, they are more able to buy new inputs, and they are also seeking matrimonial alliances as well as jobs for their children across the globe through the internet services. On the other hand, the technology has made a close bond between government agriculture extension workers and farmers. Now the farmers are able to get any kind of support from agriculture extension workers of agriculture department like when to sow a particular kind of crop and when to harvest it, how to control the attacks of pests and weeds and other climatic hazards that earlier used to spoil their crops and targets. Now everything has become easier through the use of IT tools like e-call

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centers, web-portals, mobile technologies including CDMA (Code Division Multiple Access) and GPRS (General Packet Radio Service). All these facilities have brought a wave of change and success in rural economies.

IV. CONCLUSION

Use of technology in sectors like agriculture, irrigation, energy, health; family planning, education, employment and transportation is vital for bringing about a major transformation in the rural sector. Hence we can say that technology has the ability to uplift millions out of poverty and hopelessness. But its poor application has also many negative impacts that can cause serious threat to our lives and society. This calls for proper use of technology. The biggest challenge in front of us is to determine the type of future we need to have and then create such relevant and appropriate technologies which will bring more development within the society.

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