

## **BRIDGING THE INFORMATION GAP FACED BY THE FARMERS BY ENCHANCING RURAL TELECOM NETWORK IN INDIAN VILLAGES**

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### **Abstract**

Mobile based advisory services for farmers will be encouraged from the National Agricultural Research System (Agricultural Universities, Indian Council of Agricultural Research (ICAR) institutions and NGOs. Based on farmers' need assessment and location, farmer who is having specific information that needs to be generated in multimedia format for its dissemination among millions of farm families. These are the important components that are requires in agricultural extension systems and are in use of agricultural research, marketing and farmers. ICT in agriculture extension that bridges the communication gap between these set of components.

**Keyword:** Agricultural Extension Systems, Agricultural Research

### **Introduction**

The information that is been provided by the system can be user-friendly form, easy to access, cost-effective and even well protected from unauthorized accesses. ICT can also play a significant role in maintaining the above mentioned properties of the information as it also consists of 03 main technologies. ICT is the integration of technologies and its processes to distribute and to communicate the desired information to the target audience and also in making the target audience more participative in nature.

Communication has grown as essential infrastructure for socio-economic development in an increasingly knowledge intensive world. The reach of telecom service to all parts of the country has become integral part to innovative and technologically driven society. Studies have shown a positive correlation between Internet and Mobile Service on growth of GDP of a country. As a result of sustainable measures taken by the Government over the years, the Indian Telecom Sector has grown exponentially and has become the second largest network in the world, next only to China.

### **Importance of ICTs application**

[21] Raise long term growth potential through increased productivity and resultant improvement in overall individual competitiveness. The competitiveness is increased by exchange of firsthand information from one farmer to other wherein, the knowledge on crop cultivation and cropping pattern increases which may result in better yield.

[22] Create employment opportunities (both high skilled and low skilled). This not only helps in exchange information but also improves the skills of farmer towards adapting to new crops and allied activities. This also generates employment; the government operated RaithaSamparka Kendra, Kissan Call Centre and other information kiosks manned by personnel who provide employment opportunity and links unskilled, low skilled and skilled under one umbrella.

[23] Spread education and literacy. The literacy is not literacy in mere sense of reading and writing, literacy refers to enhanced knowledge and awareness of new things and technology. The ICT brings in new information and their by educates farmers on new inventions and innovations in the field and literates them.

### **Review of literature**

**Oladeji J.O et.al (2011)** in their article entitled, "Agricultural information needs of root and tuber farmers in the Atisbo local government area of Oyo state", assessed the agricultural information needs of root and tuber crop farmers in the Atisbo local government area of Oyo state. Author observed that lack of agricultural information is a key factor that has greatly limited agricultural advancement in developing countries. A regular supply of materials is needed by root and tuber crop farmers based on identified needs. Agricultural information reported as highly needed by respondents including marketing procedures, processing and improved planting techniques and soil management sources. According to author extension agents should ensure dissemination of timely information, especially to control crop diseases.

**F.A.O (2015)** this report described effective, replicable and are sustainable examples of ICTs for agriculture as reported by the e-Agriculture Community partners. These examples highlighted areas of application and models of ICTs in agriculture, animal husbandry, fisheries, forestry, and food security, where effective, sustainable, and scalable initiatives have been implemented at national, regional or global levels. Potential good practices offer insight into the right mix of conditions, inputs and methodologies that are important for replicable and sustainable initiatives. E-agriculture achievements at national, regional or global levels are documented in this annual Report it provides an overview of the projects and their components; discuss applications for ICT interventions, and document lessons learned in the field, with a geographical focus on Sub-Saharan Africa.

### **Research Methodology**

The present study forms part of agricultural economics by emplacing on the primary sector growth and development. Services and facilities those are available for farmers to become efficient and smart to enhance their agriculture production particularly.

### **Objectives of Study**

[5] To develop a conceptual framework for bridging the information gap faced by the farmers by enhancing Rural Telecom network with respect to Indian villages

### **Sample Size**

This study was based on a primary survey of 200 farmers belonging to Nagpur district of Maharashtra. An enumerator-based questionnaire was used to collect information. The interview method was adopted to collect data from farmers who were involved in farming activities.

### **Scope of the Study**

The present study is focused on awareness and usage of ICT in agriculture sector at macro level by taking into consideration Global, National and State perspectives. Whereas, at micro level the study

has focused on 04 taluks of Hassan district in India. The respondents' information related to use of ICT tools and impact of ICT on agriculture sector at study area.

### Limitations of the Study:

Following are the limitations of the research:

- Findings of the research is restricted to India alone
- This research discusses only about the rural telecom network with specific reference to Indian villages
- Findings of the study is limited to Indian farmers

### Hypothesis

[35] **Null Hypothesis:** Reducing transaction cost does not bridge the information gap faced by farmers with specific reference to Indian villages

[36] **Alternative Hypothesis:** Reducing transaction cost bridge the information gap faced by farmers with specific reference to Indian villages

### Findings

1. In India the growth of telephone network has been increasing. At the end of June, 2015, there are 100.74 crores telephone connections in the country. Out of this, 42.342 crores telephone connections are in rural areas and 58.401 crore are in urban areas of the country. The wireless telephones have increased from 6.67 million in March 2002 to 981.28 million in June, 2015.
2. In the beginning of Tenth plan tele-density was only 4.29 percent; it has increased to 78.66 percent at the end of eleventh plan.
3. Digital economy rankings of India in 2010 was 58 with score 4.11 out of 10 from 70 country survey where first was Sweden with score 8.49.
4. In the Information and Communications Development Report 2009 of the World Bank, it is reported that for every 10 percentage points increase in the penetration of broadband services, there is an increase in economic growth of 1.3 percentage points.

### Conclusion

In the study area, it was evident that telecom network users are earning more than non-telecom network users. Independent t-test result showed that farmers adopting telecom network in agriculture related activities are earning more than those sample farmers who are not using telecom network tools. This is evident from the fact that the mean agricultural returns of farmers using telecom network tools is Rs.1,05,561 which is higher than the mean returns Rs. 78,224 of non-telecom network usage farmers under the sample study.

Chi-square results show the significant association between usage of telecom network tools and landholding, level of education and income level of the respondents.

Ordinal logistic Regression revealed that among the socio-demographic variables, Income is the only significant determinate for production decision on cultivation. It means that for every one level increase in Income of farmers (from less than Rs 25,000 to Rs 50,000 and to Rs 75,000 to one lakh and above), the odds of not at all using telecom network versus the less frequent usage and more often usage of ICT will increase by a factor of 0.417 given that all other factors such as age, education and landholdings are held constant.

To sum up, it can be observed that usage and utilization of telecom network tools in agriculture is very poor and ICT users are better when compared to non-telecom network users in the study area.

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