



Use of Mobile Phone by the farmers for Agriculture and Allied Activities

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Received: 04 Jul., 2019

Revised: 07 Oct., 2019

Accepted: 25 Nov., 2019

Abstract

Agriculture and allied sector activities in India is the largest source of livelihood for the people of India. About 70 percent of its rural households still depend primarily on agriculture for their livelihood, with 82 percent of farmers being small and marginal. Contribution of agriculture sector in Indian economy is much higher than the world's average of 6.4%. As most of the people depend on agriculture in India and with a high population, it is impossible to give information to each and every farmer personally. For this reason the role of mobile phone is a good initiative in the agriculture sector. The use of mobiles in agriculture and allied sectors brought a revolution in the agricultural development. There are different mobile applications developed for the benefit of farmers. Mobile can be used to disseminate timely information regarding best cultivation practices, seed availability, cropping pattern, weather forecasts, fertilizer usage, market information, organic practices and information about vaccination, insurance alerts, livestock diseases, exotic and indigenous breeds, feeding management, livestock rearing and government schemes for agriculture and allied sector. The present study assesses the level of usage of mobile phone by the farmers for agricultural and allied activities and their purpose for usage of mobiles. The study reveals that 70 percent of farmers use mobile for production purpose in comparison to other ICT tools and most of the farmers use mobile for communication with others and to get general information. So, the role of mobile is very important in the development of agriculture sector for providing accurate and timely information to the farmers.

Keywords: Agriculture, allied sector, mobile phone, vaccination, insurance alerts, livestock diseases, exotic and indigenous breeds, feeding management, livestock rearing, government schemes

Mobile phone usage in third world countries is playing a vital role for the enhancement of farmers business towards agriculture. The rural area, where nearly 69 per cent of the total Indian population lives still faces several challenges, such as low literacy, poor healthcare facilities, low income, high poverty, low access to formal employment and poor infrastructure. Nowadays, mobile phones facilitate to get out of these constraints by providing need-based and user-centric information and services at an affordable cost which is hither to unreachable.

Recently, communication through mobile phones is considered very important in enhancing farmers' access to better understand agricultural market situation. Farming communities appreciate mobile phone as easy, fast and convenient way to communicate and get prompt answers of respective problems. Nowadays, the mobile phone has generated an opportunity for the farmers especially to get the information about marketing and weather. Through this important technology, they directly keep in touch with market personnel and offer their

produce at reasonable prices. The use of mobile phone also keep them aware about weather forecast, agriculture input application like fertilizer and pesticides which might be affected by unforeseen seen disasters as communicated by meteorological department. This device has given new direction and approach to farmers to communicate directly and share about recent advances with each other. The advantages of mobile phones include: affordability, wide ownership, voice communication, and instant & convenient service delivery. Due to these, there is explosion across the world in the number of mobile apps, facilitated by the evolution of mobile networks and by the increasing functions and falling prices of mobile handsets (World Bank, 2012).

Considering the use of mobile phones different private organizations, govt. of India and ICAR had developed mobile applications for farmers to avail information about agriculture. The mobile applications like IFFCO Kisan, Kisan Suvidha, eNAM, Agri market, Pashu Poshan, Digital Mandi, Pusa Krishi etc. are just a few to name about.

Studies reveal that mobile phones have a positive impact on sustainable poverty reduction and identify accessibility as the main challenge in harnessing the full potential (Bhavnani *et al.* 2008).

According to ‘The Rising Connected Consumer in Rural India’, a study by the Boston Consulting Group, up to 300 million Indian consumers are expected to be online by 2020. More than half of the new Internet users are expected to come from rural communities. Cheaper mobile handsets, spread of wireless data networks, and evolving consumer preferences will all drive rural penetration and usage. (BCG, 2016). With this backdrop the present study was conducted by taking two broad specific objectives, that is, to study the level of usage of mobile phone in comparison to other ICT tools, and to assess the purpose of usage of mobile phones by the farmers.

Methodology

The study was conducted in two villages of Dhenkanal district of Odisha. Villages were selected purposively considering that the villagers had exposure on mobile phones. 100 respondents from the villages were selected randomly as the respondents. The ICT tools taken mainly were

television, radio, computer and mobile phone. The use of mobile phones indicated by seven purposes like communication with other, to know about marketing, to get higher price of produce, to get new information on agriculture, to get general information, to get health information, for increasing production, to know improved skill on agriculture having scale high, moderate and low.

RESULTS AND DISCUSSION

Table 1: Uses of ICT Tools by the Famers (Expressed in percentage) (N = 100)

ICT Tools	Percentage of farmers having access to the ICT tools including out sourcing	Percentage of farmers use tool on production purpose
Television	100.00	50.00
Radio	57.00	13.00
Computer	47.00	47.00
Mobile phone	90.00	70.00

Data from table 1 illustrates the uses of ICT tools by the farmers. It shows that all the farmers has access to television. Most of the farmers (90 percent) are having access to mobile phones followed by 57 percent and 47 percent access to radio and computer respectively. But it is also shown in the table that 70 percent of farmers use mobile phone for production purpose followed by 50 percent uses television, 47 percent uses computer and 13 percent uses radio. The use of mobile was more than the any other ICT tools. Farmers are having more access to mobile phones to get information and for entertainment purpose.

Data from table 2 displays purpose of use of mobile phones by the farmers i.e., most of the farmers (50%) have high usage of mobile phones for communication with others and 57 per cent to get the general information. To get the new information on agriculture and to know improved skill on agriculture half of the respondents (50%) were using mobile technology, followed by 43 per cent to know about marketing. The use of mobiles to get the higher price of produce, health information and increase in production were very low and most of the farmers do not know that by using mobile phones the benefits can get by sitting in the home.

The farmers can make better use of mobile phones by improving their knowledge and skill of using ICT tools.

Table 2: Purpose of use of mobile phones (Expressed in percentage) (N = 100)

Purposes	High	Moderate	Low	Total
Communication with other	50.00	40.00	10.00	100.00
To know about Marketing	7.00	43.00	27.00	77.00
To get higher Price of produce	0.00	13.00	10.00	23.00
To get new information on agriculture	37.00	50.00	13.00	100.00
To get general information	56.00	37.00	7.00	100.00
To get health information	0.00	0.00	30.00	30.00
For increasing production	0.00	27.00	43.00	70.00
To know improved skill on agriculture	0.00	50.00	20.00	70.00

CONCLUSION AND RECOMMENDATIONS

There are numerous usages of mobile phones reported by rural people. Besides knowledge, information about market prices secured through mobile phones enabled farmers to choose wholesale markets in which to sell their products or even harvesting of their produce. The farmers, who use mobile phone for seeking information has reported improved marketing because of better price information.

Mobile phone has reduced the cost of accessing information, as the search is carried out over development of social relations in non-traditional

ways, although conservative sections of rural society often opposed their use by young women and girls. The issue of changes in networks and social relations enabled by mobile phones came out clearly.

Mobile phone has the potential to effectively supplement the efforts of existing extension services and synergise the whole process. The fast growth of mobile penetration and the rapid expansion in mobile communication network by the telecom players provide a fertile ground for looking at this medium seriously.

The awareness about m-value added services, availability of low-cost mobile phone sets, regular power supply or provision of alternative power like solar power, penalty provisions to operators for non-functional towers and money deductions without any call must be carried out effectively.

REFERENCES

- The Economic times. 2009. Impact of mobile phone on farmers, 12th Oct, 2009.
- Retrieved from <https://shailshsaxena.blogspot.com/2016/12/20-best-agriculture-apps-for-indian.html>.
- Jain, N. and Sanghi, K., BCG 2016. The rising connected consumer in rural India. <https://www.bcgperspectives.com/content/articles/globalization-customer-insight-rising-connected-consumer-rural-india/>.
- Bhavnani, Asheeta *et al.* 2008. 'The Role of Mobile Phones in Sustainable Rural Poverty Reduction'. Washington DC, World Bank.
- Qiang, C.Z., Kuek, S.C., Dymond, A. and Esselaar, S. 2012. Mobile Applications for rural development, World Bank 2012.
- Director General on behalf of the National Institute of Agricultural Extension Management (MANAGE) 2017. Mobile Apps Empowering Farmers, *Extension Digest*, Vol.1 No.2, Dec 2017, Rajendranagar, Hyderabad – 500030, Telangana State, India.

