

AGRICULTURAL EXTENSION AND MOBILE APPS

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ABSTRACT

The objective of Agriculture extension role is dissemination of precise and timely information for satisfying growing demand for agricultural products. However, it also offers opportunities for producers to sustain and improve their livelihoods and can also boost innovation and promote rural development. In order to disseminate practical information, various Mobile applications in agriculture sector are increasingly important especially in era of inexpensive smart mobile phones and internet or data services on smart devices. Precise knowledge can mitigate challenges of enhancing production in a situation of declining natural resources necessary for production. This paper highlights few popular mobile applications and its role in assisting agricultural domain.

Keywords: mobile applications, agriculture extension

INTRODUCTION

Agricultural productivity has increased dramatically in India over the past 50 years. Grain production has kept pace with the increasing population, with yields of rice and wheat exceeding current consumption (Department of Agriculture Cooperation and Farmers Welfare 2017) and requirements for buffer stocks (Hussain 2018). An important and often overlooked aspect of the current crisis in India is the ecological sustainability of agriculture. Agriculture, by its very nature, is dependent on natural resources and ecosystem services. Thus, any plan for sustainable development in the agricultural sector must be cognisant of the need to preserve such natural resources as soil, arable land, water and to alleviate farmers' distress, it is crucial to manage the risks involved in production. A holistic approach to risk management needs to go beyond insuring for production loss, towards prevention and creating fad in farmers for latest agriculture practices.

Agricultural extension promotes and strives the application of scientific research and new knowledge to agricultural practices by educating farmer.

Farming community is facing lot of problems in maximizing the crop productivity; despite successful research/technology, most farmers are not getting proper information due to several reasons. The contribution of IT is bringing down costs, increasing efficiency and improving productivity. A well-conceived IT setup endows decision makers at all levels with better reflexes to effectively respond to market conditions.

A survey by SATISTA says that India will have approx. 813.2 million active mobile user by end of year 2019. With 451 million monthly active internet users at end of financial year 2019, according to a report by Internet and Mobile Association of India (IAMAI). It projected a double digit growth for 2019 and estimates that the number of internet users will reach 627 million by the end of this year. While internet users grew by 7 percent in urban India, reaching 315 million users in 2018, digital adoption is now being propelled by rural India, registering a 35 percent growth in internet users over the past year. It is now estimated that there are 251 million internet users in rural India, and this is expected to reach 290 million by the end of 2019.

Today mobile have become necessity as it is amalgamation of camera, calculator, map, wallet, GPS, dictionary, navigator, mirror, torch and much more than device for communication. Utilization of mobile apps and automated technologies (smart irrigation systems, sensor networks, GPS trackers etc.) makes the farming process more progressive and efficient. In addition, these innovations help farmers reduce costs, increase crop capacity and profits. For the advancement of the agriculture sector, mobile apps were introduced to help the farming community. With the introduction of digital India and smart agriculture system, there is a race in the industry for introducing hi-tech Mobile Apps. Mobile phone services for farmers comprise text message services, helplines and apps that provide information on training or weather forecasts, as well as accessing markets, financing and inputs such as fertilizers. The review, which looked at 23 studies of such services in

Africa, Asia and Latin America, found that although users often reported improvements, these were perceived benefits not always borne out by tangible evidence, such as changing trading patterns and price gains [7]. Beside Facebook & WhatsApp many other mobile applications assist farmers in getting valuable information on go on hand.

Agronomy Apps

KisanMitra & iKhedut - A mobile app to facilitate farmers in the area of Agriculture, Horticulture and Veterinary. It also provides information about various Government schemes. IFFCO Kisan - This android application provides information about the latest agriculture advice, latest mandi prices, and various farming tips. It also provides weather forecast information. It also provides agriculture alerts to farmers in 10 Indian languages.

Agri Media- It is an online marketplace bringing farmers, agriculture input/output, farming retail and fulfilment service on an online platform.

Commodity Pricing Apps

AGRIMarket - This app automatically captures the location of person using mobile GPS and fetches the market price of crops in those markets which falls within the range of 50 km.

Krushni Market Gujarat – Provides latest price of agriculture products categorized by district market yards.

Weather related

Weather & Radar India – It provide information regarding farm weather forecast and air pollutions. IMD Weather – It provides weather forecast for Indian region.

Meghdoot – It assist the farmers for weather-based farm management.

CONCLUSION

There are many smart IT technologies to assist farmer in farming business. A bunch of agricultural apps that too highly specialized are avail on App Store or Google Play but farmer gets confused about their authenticity & accuracy

of information. As information provided by an APP vary with region and crop variety wise, App rating doesn't help much in app selection.

REFERENCES

- Chauhan N. B., Patel, J. B. and Vinaya Kumar, H. M. (2016). Innovative ICT Models for sustainable agricultural development. National Seminar SEEG-2016: Lead Paper, pp: 75-80.
- D. Veluguri, R. G V and L. Jaacks, "Statewise Report Cards on Ecological Sustainability of Agriculture in India," *REVIEW OF RURAL AFFAIRS*, vol. IIV, no. 29 & 27, pp. 19-27, 29 June 2019.
- H. Baumüller, "The Little We Know: An Exploratory Literature Review on the Utility of Mobile PhoneEnabled Services for Smallholder Farmers," *Wiley Online Library*.
- M. Mandavia, "India has second highest number of Internet users after China: Report," *Economic Times*, 26 09 2019. [Online]. Available: https://economictimes.indiatimes.com/articleshow/71311705.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.
- M. RAJ, D. Kathiriyaa and N. Vegad, "The Role of Ict Projects in Agricultural Extension," *International Journal of Agriculture Sciences ISSN: 0975-3710 & E-ISSN: 0975-91*, vol. 8, no. 21, pp. 1399-1401, 2016.
- "Mobile users in India 2013-2019," STATISTA, 2019. [Online]. Available: <https://www.statista.com/statistics/274658/forecast-of-mobile-phone-users-in-india/>.
- Patel, K.P., Parmar, D.K. and Kathirya, D.R. (2017) Transformation of information through multimedia based interactive media for desi-cotton crop. *Guj. J. Ext. Edu.* Special Issue:206-209
- S. L., "Smart Farming: 10 Most Popular Agricultural Apps," CELEVEROAD, 25 04 2019. [Online]. Available: <https://www.cleveroad.com/blog/check-out-the-benefits-of-the-top-10-agricultural-apps>.
- "How useful are Mobile Apps to Farmers?," [Online]. Available: <https://krishijagan.com/news/how-useful-are-mobile-apps-to-farmers/>.