

Agricultural Apps: to Empower Farmers

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SUMMARY

Agriculture and allied sectors are one of the largest contributors to the India's GDP. The need for timely access to information for decision making in agriculture and allied sectors needs no emphasis. Among Information and Communication Technologies, there has been increasing use of Android phones which is changing the agricultural communication process. Government of India has launched many Android applications such as Kisan suvidha, mKisan, Pusa Krishi App, Crop Insurance App, AgriMarket and many more for the dissemination of information on agriculture related activities for the farmers. Different apps are developed as per its functionalities and used by the farmers. If all such listed functionalities are bundle into the one single app and according to the native language of the farmer, then it is easy to utilize for the farmer.

INTRODUCTION

Agriculture plays a vital role in the Indian economy. 58 per cent of India's rural households depend on agriculture as their principal means of livelihood. Agriculture and allied sectors are one of the largest contributors to the Gross Domestic Product (GDP) in India. Now a day's Information and Communication Technologies (ICT), is playing a great role in the development of agriculture by providing fast, reliable and accurate information and means to the farmers in a user-friendly manner, leading to "Digital Agriculture". This digital change is acting as a tipping point for Indian agricultural system (Krishi Jagran, 2019; Panda *et al.*, 2019). Among the Information and Communication Technologies, there has been increasing use of Android phones which is changing the agricultural communication process. The Android agricultural applications (apps) will be the most effective tool for transferring the information regarding agriculture directly to the farmers. An Android application is software on a mobile phone, tablet, computer that enables a user to access specific information, make payments, other transactions and sending messages etc. The application (app) are downloaded (for free or for payment) from a wireless network from an online store and may require a live connection to function effectively. Government of India has launched a number of web and mobile based applications for dissemination of information on agriculture related activities with free of cost, for the benefit of farmers and other stakeholders. Many android apps and being utilized for different kind of functionality regarding the farming activities like cropping information, pesticides, fertilizer, seed, selling of crop, irrigation information, estimation of crop production, weather information and information regarding the best practices of farming. (Patel and Patel, 2016).

Some of the Apps launched by Government of India:

Kisan Suvidha:

Kisan Suvidha is an omnibus mobile app developed by Department of Agriculture & Cooperation, Ministry of Agriculture and Farmers Welfare. Kisan Suvidha mobile app has been launched by Honble Prime Minister on March 19, 2016. It would help farmers by providing relevant information to them quickly. The information regarding Weather, Market Prices, Dealers, Plant Protection, Agro-advisory, KCC Contacts, Soil health card and Cold storage and gowdowns. Farmers can seek advisories on their agriculture related problems directly from the agriculture scientists.

m Kisan:

m Kisan is a SMS Portal for farmers enables about all central and State government organizations in agriculture and allied sectors which gives information/services/advisories to farmers by SMS in their language, preference of agricultural practices and location. The project conceptualized; designed and developed in house within the Department of Agriculture & Cooperation has widened the outreach of scientists, experts and Government officers posted down to the Block level to disseminate information, give advisories and to provide advisories to farmers through their mobile telephones. These messages are specific to farmers' specific needs & relevance at a particular point of time and generate heavy inflow of calls in the Kisan Call Centres where people

call up to get supplementary information. USSD (Unstructured Supplementary Service Data), IVRS (Interactive Voice Response System) and Pull SMS are value added services which have enabled farmers and other stakeholders not only to receive broadcast messages but also to get web based services on their mobile without having internet. Semi-literate and illiterate farmers have also been targeted to be reached through voice messages.

Pusa Krishi App

Pusa Krishi app helps farmers to get information about technologies developed by Indian Agriculture Research Institute (IARI), which will help in increasing returns to farmers. The app also provides farmers with information related to new varieties of crops developed by Indian Council of Agriculture Research (ICAR), resource conserving cultivation practices as well as farm machinery and its implementation will help in increasing returns to farmers.

Crop Insurance App:

This app provides details of crop insurance. Developed by Department of Agriculture & Farmers Welfare (DAC&FW).

Features of the App

Crop Insurance mobile app used to calculate the Insurance Premium for notified crops based on area, coverage amount and loan amount in case of loaned farmer. It can also be used to get details of normal sum insured, extended sum insured, premium details and subsidy information of any notified crop in any notified area.

Agri Market

This application provides information regarding prices of the crops. This information regarding the prices of crops will be made available to the farmers from the markets within 50 km from their location. Through this application, farmers will get the information about the actual prices, crop insurance amounts, and other details regarding the crops and agriculture posted from the government's end officially.

Advantages of using Apps`:

- The main advantages of mobile apps for farmers were that they give timely information according to the farmer's specific needs.
- All types of information on crop i.e. soil, climate, rainfall, seeds, and machinery at any point in time, and any number of times is available on finger tips of farmers.
- The information available is localized, thereby increasing the comfort and precision as required.

Disadvantages of using Apps:

- According to (Cantor 2009) with the diversity in languages, even if the best of the applications do not support regional languages then translation will be required at all the stages which increase the dependency and in turn reduce the acceptability and popularity.
- According to (Kirk 2011) due to network issues, speed of the data delivery, legal restrictions, it might prevent the farmers by getting the updated and complete information.

CONCLUSION

Android apps are working as a boon for farmers and transforming agriculture. Different apps are developed and used as per its functionalities by the farmers. If all such listed functionalities are bundle into the one single app and in the native language of the farmer, then it is easy to utilize it.

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