

A Review of Farmer Participation in Information and Communication Technology through Mobile Banking and Mobile Marketing in Rural Agricultural Systems

Authors : J. Cadby, K. Miyazawa

Abstract : Information and Communication Technology (ICT) has been widely adopted into the agricultural landscape with advancements of mobile connectivity and data accessibility. In developed nations, mobile-technology is well integrated into marketing transactions, and also plays a crucial role in making data-driven decisions on-farm. In developing nations, mobile banking and access to agricultural extension services allow for informed decision-making and smoother transactions. In addition, the availability of updated and readily available market and climate data provides a negotiation platform, reducing economic risks for farmers worldwide. The total usage of mobile technology has risen over the past 20 years, and almost three-quarters of the world's population subscribes to mobile technology. This study reviewed mobile technology integration into agricultural systems in developing and developed nations. Data from secondary sources were collected and investigated. The objectives of the study include a review of the success of mobile banking transactions in developing nations, and a review of application and SMS based services for direct marketing in both developed and developing nations. Rural farmers in developing countries with access to diverse m-banking options experienced increased access to farm investment resources with the use of mobile banking technology. Rural farmers involved in perishable crop production were also more likely to benefit from mobile platform sales participation. ICT programs reached through mobile application and SMS increased access to agricultural extension materials and marketing tools for demographics that faced literacy-challenges and isolated markets. As mobile technology becomes more ubiquitous in the global agricultural system, training and market opportunities to facilitate mobile usage in developing agricultural systems are necessary. Digital skills training programs are necessary in order to improve equal global adoption of ICT in agriculture.

Keywords : market participation, mobile banking, mobile technology, rural farming

Conference Title : ICCCAD 2018 : International Conference on Cloud Computing and Agricultural Development

Conference Location : Singapore, Singapore

Conference Dates : March 22-23, 2018