International Journal of Chemical Studies

P-ISSN: 2349–8528
E-ISSN: 2321–4902
IJCS 2019; 7(5): 3286-3288

Received: 03-07-2019
Accepted: 07-08-2019

Giridhar KA
Department of Agricultural Extension Education, College of Agriculture, Dharwad University of Agricultural Sciences, Dharwad, Karnataka, India

Devendrappa S
Department of Agricultural Extension Education, College of Agriculture, Dharwad University of Agricultural Sciences, Dharwad, Karnataka, India

MP Potdar
Department of Agronomy, College of Agriculture, Dharwad. University of Agricultural Sciences, Dharwad, Karnataka, India

Corresponding Author:
Giridhar KA
Department of Agricultural Extension Education, College of Agriculture, Dharwad University of Agricultural Sciences, Dharwad, Karnataka, India

Analysis of awareness about agriculture information provided through mobile phone services among farmers

Giridhar KA, Devendrappa S and MP Potdar

Abstract
This study was performed to examine the awareness of farmers about agriculture information provided through mobile phone services. Simple random sampling technique was employed to select 120 respondents among the registered farmers to mobile service of KVK, Dharwad, APMC, Hubli and weather based mobile services of UAS, Dharwad. The primary data required for the study was obtained using structured interview schedule prepared for the purpose. The results showed that cent per cent of the farmers had awareness about agriculture information sent through SMS and local market prices for agriculture commodities provided by APMC followed by 80.00 per cent of them had awareness of mobile agriculture application. While almost equal (75.00%) per cent of the respondents had awareness of agriculture information provided by Kisan Call Center and Agromet Advisory Services of UAS, Dharwad. Also Equal (66.66%) per cent of them were aware about Raitha Chetana Help Line of UAS Dharwad and Farmers Help Line of Department of Agriculture, GOK. Results also showed that more than 68.00 per cent of the farmers were aware of information provided on fertilizer application by SMS service of KVK and more than 65.00 per cent of them were aware of information provided on pest and disease control measures through SMS by KVK. Even 64.16 per cent of them were aware of management practices of horticulture crops provided through mobile services and information regarding harvest and storage practices by SMS service of KVK and 62.50 per cent of them were aware of information regarding seed treatment and sowing time provided through mobile phone services of KVK.

Keywords: Awareness, agriculture information, mobile phone

1. Introduction
The modern world is undergoing a fundamental transformation as an industrial society that marked the 20th century, rapidly delivers the way to an information society of the 21st century. It is being increasingly felt that Information Communication Technology (ICT) can be a major media for all round socio-economic development. ICT play a spectacular role in societal transformation to realize the concept of knowledge society in the Indian context. India being an agriculturally rich country, it cannot overlook the field of agricultural development in particular as the main domain of societal transformation. Here comes the enormous potential of ICT that has to be harnessed for overall agricultural development in particular and for societal transformation in general. The emerging information technologies have a significant role to perform in evolving such a paradigm, as was evident from the interdisciplinary dialogue on information technology: Reached the Unreached. The unrestricted flow of information through ICT processes opens up avenues for the people to view each other from a different geographical and cultural sphere will lead to broadening of views and changing of mindsets overtime. It is a fact that horizontal level communication structures and knowledge networking promotes horizontal flow of information to farming community (Donner, 2006) [3]. Now days, mobile phone based ICTs are being implemented across the country and access to ICT can have a tremendous positive impact on sustainable development and poverty reduction (Torero and Braun, 2006). Information and communication technologies (ICTs) play a crucial role in agricultural extension services meeting the information requirement for farmers. There are several organizations extensively using modern information technology in India to promote communication between researchers, extension workers, and their farmer clients to transfer technologies and information more effectively (Saravanan, 2010; Kameswari, 2011; Nikulsinh, 2010) [10, 5, 8]. For instance, farmers can raise queries related to agriculture and allied sectors using their mobile phone to a farmer call centre which has been operating in every state

of India. In another initiative called farm science centre, weekly sms alerts are issued to farmers on various agricultural developments like weather forecast, disease forecast, and market information (Saravanan, 2010; Ashutosh *et al*., 2012) [10, 1]. IFFCO Kissan Sanchar Limited (IKSL) and Reuters Market Light (RML) are providing services through sms and voice messages about agriculture related information (ICTFSECBP, 2009; Marcel and Bart, 2012) [4, 6]. Similarly, there are many private and public organizations that are disseminating agricultural related information on farmers' mobile phone. Agricultural experience can be shared among farmers from different parts of the globe, as a result of this the farmer has unlimited sources of information in any area of agriculture. They can help by enabling extension workers to gather, store, retrieve and disseminate a broad range of information needed by farmers, thus, transforming them from extension workers into knowledge workers (Meera, 2004) [7]. With this background the research was conducted to study the awareness of farmers about agriculture information provided through mobile phone services by interviewing the sample respondents in the study area. The standardized structure schedule was used to collect the data through personal interview technique.

2. Methodology

2.1 Study area: The study was conducted in Dharwad district which was purposively selected as it comes under the jurisdiction of UAS, Dharwad and from the point of researcher convenience.

2.2 Selection of respondents: Registered farmers to mobile service of KVK, Dharwad, APMC, Hubli and weather based mobile services of UAS, Dharwad were selected for the study. List of farmers from KVK, APMC and UASD were collected for the purpose. From the list, 120 farmers were selected randomly. Thus the total sample size constituted 120 respondents for the study.

The required information was obtained from sample respondents by personal interview method with the help of structured interview schedule. The tabular analysis was made to document the awareness of farmers about agriculture information provided through mobile phone service by computing averages and percentages.

3. Results

3.1 Over all awareness about agriculture information through mobile phone services

It was observed from the Table 1 that majority (53.33%) of the respondents had high awareness on agriculture information through mobile phone services. This might be due to majority of the farmers were of young and middle age group, moderately educated, cultivating mostly commercial crops and the need for relevant updated Agri – information. Another reason might be due to all most all farmers possessed smart phones and basic cell phone sets made them to be aware about latest sources of agricultural information. The fact that the mobile phone is the device for seeking information, so farmers were eager to know about agriculture knowledge through mobile phone services. This findings in confirmation with the findings of Chaturbhuj (2011) [2] who concluded that a large number of modern communication media users had medium to high status of awareness about modern communication media. More than one third (32.50%) of the farmers had low awareness about agriculture information through mobile phone services. Farmers expressed that special attention is required for transmission of information to the end users of mobile phone services on agricultural apps, agricultural portals. The findings of the study are in agreement with the results of Stratakis (2004) [11] who observed that the transmission of informative short text messages or picture messages to farmers on their mobile phones.

3.2 Individual statement wise awareness about agriculture information through mobile phone services

Table 2 revealed statement wise awareness among the farmers about agriculture information provided through mobile phone service. It depicted that cent per cent of the farmers were aware of agriculture information sent through SMS, probable reason might be that they are registered farmers to SMS based mobile services. Also cent per of the farmers are aware of local market prices for agriculture commodities provided by APMC, reason might be that as most of them sell their produce through APMC and also it is one of the most popular service provided by APMC, hence all of them are aware of it. Followed by 80.00 per cent of them were aware of mobile agriculture application the probable reason might be that most of the farmers are young and middle aged and had medium education level so they were eager in knowing about new trends of ICT in agriculture. Equal (75.00%) per cent of the respondents had awareness on agriculture information provided by Kisan Call Center and Agromet Advisory Services of UAS, Dharwad as they are reliable and popular source of agriculture information and even most of them are registered to Agromet Advisory Services of UAS, Dharwad.

Table also shows that equal (66.66%) per cent of them were aware about Raitha Chetana Help Line of UAS Dharwad, and Farmers Help Line of Department of Agriculture, Karnataka, which provide guidance and assistance whenever farmers are depressed. 62.50 per cent were aware of accessibility of web enabled services on agriculture farmer portal, AGMARKNET and other portals, probable reason could be that they were interested in innovations. With regard to SMS based information provided by KVK, 68.33 per cent of the farmers were aware of information provided on fertilizer application and 65.83 per cent of them were aware of information provided on pest and disease control measures through SMS. Even 64.16 per cent of them were aware of management practices of horticulture crops provided through mobile services and information regarding harvest and storage practices. Whereas 62.50 per cent of them were aware of information regarding seed treatment and sowing time provided through mobile phone services. The reason might be that most to the farmers are registered to SMS service and are aware of the information provided regarding various agriculture operations through SMS. The results are in line with the findings of Osondu and Ibezim (2015) [9] which revealed that most of the farmers were aware of ICT tools which provided required agriculture related information.

Table 1: Over all Awareness on agriculture information through mobile phone services (n=120)

Sl. No.	Categories	Frequency	Percentage
1	Low (<7.79)	39	32.50
2	Medium (7.79 to 11.24)	17	14.17
3	High (> 11.24)	64	53.33
Mean= 9.51		SD= 4.05	

Table 2: Awareness on agriculture information through mobile phone services (n= 120)

Sl. No.	Awareness on mobile services	Frequency	Percentage
1	Mobile agriculture application (Marata vahini, APMC, RML, Agri app)	96	80.00
2	Agriculture information through SMS	120	100.00
3	Agriculture information provided by Kisan Call Center (1800-180-1551)	90	75.00
4	SMS based local market prices provided by APMC	120	100.00
5	Farmers Help Line (1800- 425- 3553) of Department of Agriculture, GOK	80	66.66
6	Agromet advisory services of UAS Dharwad	91	75.83
7	Accessibility of web enabled services on agriculture farmer portal, AGMARKNET and other portals	75	62.50
8	Raitha Chetana Help Line of UAS Dharwad (1800 425 1150)	80	66.66
SMS based information provided by KVK			
9	Information Provided on seed treatment and sowing time provided	75	62.50
10	Management practices on horticulture crops	77	64.16
11	Pest and disease control measures	79	65.83
12	Information provided on fertilizer application	82	68.33
13	Information provided on harvest and storage practices	77	64.16

4. Conclusion

It was revealed from this study that cent per cent of respondents were aware of agriculture information through SMS, whereas, relatively less awareness was found among farmers regarding web enabled agriculture information. The Agriculture Application (smart phone app) *Marata vahini*, IFFCO *kisansuvida*, AGMARKET App. etc. are most useful for current information about weather condition, market prices, farm machinery, insecticide and pesticide. The farmers can acquire more information on agricultural practices by using the applications if they are provided with training and capacity building programmes about agricultural application and technologies.

5. References

1. Ashutosh D, Debabrata B, Rupak G. Accessing Agricultural Information through Mobile Phone: Lessons of IKSL Services in West Bengal. Indian Res. J Ext. Edu, 2012, 12(3).
2. Chaturbhuj Y, Punjabi NK, Sharma FL, Santosh DS. Awareness of farmers about modern communication media in Udaipur district of Rajasthan. Raj. J Ext. Edu. 2011; 19:90-93.
3. Donner J. The social and economic implications of mobile, telephony in Rwanda: An Ownership/Access Typology, Knowledge, Technology, & Policy. 2006; 19(2):17-28.
4. ICTFSECBP (Information Communication Technology for Small Enterprise Capacity Building Program), 2009, Final Report September 29, 2006-September 28, USAID from the American People, 2009.
5. Kameswari VLV. ICTs for Agricultural Extension: A Study in the Indian Himalayan Region. Elect. J. Inform. Syst. Dev. Ctries. 2011; 48(3):1-12.
6. Marcel F, Bart M. Impact of SMS-Based Agricultural Information on Indian Farmers. The World Bank Economic Review, Published by Oxford University Press on behalf of the International Bank for Reconstruction and Development, 2012, 1-32.
7. Meera SN. Information and communication technologies in agricultural development: A comparative analysis of three projects from India. AgREN Network London: ODI, 2004, 135.
8. Nikulsinh MC. Farmers' Perception about ICT Application: A Case study of Gujarat state. Indian Res. J. Ext. Edu. 2010; 10(3):21-26.
9. Osondu CK, Ibezim GMC. Awareness and perception of farmers to the use of Information and Communication Technologies (ICTs) in agricultural extension service delivery: A case study of Imo state, Nigeria. International Journal of Agriculture Innovations and Research. 2015; 4(1):2319-1473.
10. Saravanan R. ICTs for Agricultural Extension: Global Experiments, Innovations and Experiences. New India Publishing Agency (NIPA), New Delhi, 2010, 115-168
11. Stratakis S. Reaching farmers through mobile phones: The internet for development projects. Information for development. 2004; 2:27-30.
12. Torero M, Braun J. Information and Communication technologies for development and poverty reduction-The potential of telecommunication. The Johns Hopkins University Press and IFPRI, Washington, DC, 2006.