Journal of Pharmacognosy and Phytochemistry

Available online at www.phytojournal.com

E-ISSN: 2278-4136
P-ISSN: 2349-8234
JPP 2018; 7(5): 1071-1073
Received: 10-07-2018
Accepted: 12-08-2018

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Constraints faced in use of mobile phones and suggestions given by the farmers of Mirzapur district of Uttar Pradesh

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Abstract
In this era of technology, the mobile phone is emerging as a potential Information and Communication technology tool for dissemination of various timely, need-based information to the farmers. The present study was conducted in Mirzapur district of Uttar Pradesh to identify the constraints faced by the farmers in the use of mobile phone services for getting agriculture information and suggestions given by them to overcome those constraints. For this study, 200 farmers were selected randomly from ten villages two blocks namely Madihaon block and Rajgarh Block. The study revealed that difficulty in getting timely, daily and frequently changeable information, lack of competence about Mobile operating, language barrier to operate the mobile services & applications, difficulties to use mobile communication due to low-level education, irrelevant contents were some of the major constraint perceived by the respondents. Therefore, to overcome these problems the study calls for some of the suggestions given by the respondents like, mobile messages should be made available in understandable form, skill gap of farmers in using mobile technology should be removed, well-organized system should be established for low-cost mobile service, mobile services must be farmers friendly, role of different organizations should be identified in popularizing mobile services etc.

Keywords: Information and communication technology, mobile phone, constraints, suggestions

Introduction
The challenge for the Indian government and policy makers is to regain the dynamism in agricultural sector as was evident in the 1970s during the era of green revolution. A major dilemma in the present situation – rising food prices and an ever growing population – is to strike a balance between policies for food security and policies to improve income levels of farmers. With agriculture being constrained by the availability of land, improving productivity remains a crucial factor for the future of India's food security (Mittal, 2012) [5].

To develop agriculture, it is necessary to reform agricultural extension system which is suffering from fund crisis, highly compartmentalized and has several inherent weaknesses. The use of various ICT tools can fill the gap of effective extension delivery mechanism. Among the ICT tools, mobile phone is widely recognized as a potentially transformative technology platform for the farming community of India.

Nowadays mobile phone technology has provided producers with information and knowledge on the correct market price, quantities, availability of a particular product and technical advice. Access to appropriate knowledge and information is an overriding factor for successful natural resource management (NRM) planning, implementation and evaluation processes and it is known to be one of the most important determinants of agricultural productivity (Khinchi *et al*.,2017) [4].

Mobile phones significantly have reduced communication and information costs for the rural people. This technology has provided new opportunities for rural farmers to obtain knowledge and information about agricultural issues, problems and its usage for the development of agriculture. Similarly, use of ICTs in agricultural extension services especially mobile phone services in the agricultural sector has provided information on market, weather, transport and agricultural techniques to contact with concern agencies and department (Aker, 2011) [2].

But there are many hindrances like lack of awareness of the utility of mobile phones for agricultural development, language problem, illiteracy, poor signal strength, high cost and unavailability of electric power are restricting the full fledge utilization of mobile phone technology by the farmers.

Materials and Methods
The research was undertaken purposively in Mirzapur district of Uttar Pradesh as KVK Barkachha under the IAS- BHU is actively using mobile phone technology for dissemination of information.

In Mirzapur district there are 8 community development blocks. Among those, two blocks were selected i.e. Madihon block and Rajgarh Block for the present study. These blocks were selected purposively on the basis of highest agricultural area and production. From these two blocks 10 villages were selected randomly, i.e 5 villages from each block. From each village 20 respondents were selected randomly, thus total 200 respondents were considered as sampling unit for the present study. The data were collected personally with the help of pre-tested structured interview schedule and percentage analysis was used to study the constraints faced by the farmers.

Results and Discussion

1. Constraints Encountered By the Farmers in the Use of Mobile Phones for Agriculture

The distribution of respondents according to the constraints faced while availing various mobile services is presented in Table No. 1

Table 1: Distribution of respondents based on various constraints faced while availing various the mobile services

S. No.	Statements	Frequency	Percentage	Rank
1	Difficulty in getting timely, daily and frequently changeable information	176	88.00	I
2	Lack of competence about Mobile operating	165	82.50	II
3	Language barrier to operate/use the mobile services & applications	148	74.00	III
4	Information according to need is not being given on mobile	143	71.50	IV
5	Difficulties to use mobile communication due to low level education of respondents	128	64.00	V
6	Irrelevant contents	119	59.50	VI
7	Difficult to popularize the use of mobile due to old age	111	55.50	VII
8	Difficult to get low cost affordable mobile service system	101	50.50	VIII

It is concluded from Table 1 that among the respondents 88.00 per cent expressed that the major constraint was difficulty in getting timely, daily and frequently changeable information. It is because the concerned authority circulates important messages at a specific time interval, and the messages are not delivered on daily basis. Lack of competence about operating mobile devices was the second major constraint which was reported by 82.50 per cent of the farmers as they face several difficulties to operate the new generation multi-media mobile phones. Language barrier to operate the mobile services & applications was the third major constraint reported by 74.00 per cent of the respondents. Most of the mobile phones have English as its default language, so it is quite difficult for the farmers who are not well acquainted with the language of the mobile operating system. Then, information according to the need is not being given on mobile was the fourth constraint reported by 71.50 per cent of the respondents. Farmers require various information based on their requirements like weather information, agricultural information, market information etc. which were not being provided accordingly. Further it was found that difficulties to use mobile communication due to my low level education were reported as fifth constraint by 64.00 per cent of respondents. This is because the respondents were not well equipped with the technical competence required to run the mobile interface. 59.50 per cent of the respondents reported that the information they get is irrelevant as sixth constraint. 55.50 per cent of the respondents found that it was difficult for them to use mobile due to old age as they presumed themselves not up to date with the advancement of technologies. Lastly 50.50 per cent of the respondents opined that the cost for affording mobile phone services is very high.

2. Suggestions by the Farmers to Improve Information Dessimination via Mobile Phones:

The distribution of respondents according to their suggestions for improving transfer of information via mobile phone is presented in Table No.2

Table 2: Distribution of respondents according to their suggestions for improving transfer of information via mobile phone

S. No	Statements	Frequency	Percentage
1.	Farmers problems in using mobile for information should be identified and solved	158	79.00
2.	Form of messages should be made available considering low educated farmers	153	76.50
3.	Skill Gap of farmers in using mobile technology should be removed	149	74.50
4.	Well organized system should be established for low cost mobile service	133	66.50
5.	Efforts should be made to make mobile service farmers friendly	125	62.50
6.	Efforts should be made to motivate farmers to use mobile for information	119	59.50
7.	Role of different organizations should be identified in popularizing mobile services	108	54.00
8.	Information need of farmers should be identified to make good use of mobile services	98	49.00
9.	Knowledge Gap in using mobile technology by farmers should be removed	91	45.50
10.	There is need to develop modules for sustainable mobile services in TOT	87	43.50

From Table No. 2 it can be concluded that majority of the respondents (79.00%) suggested that farmers' problems in using mobile for seeking of information should be identified and solved. Then, 76.50 per cent of the respondents opined that the form of messages should be made available considering low educated farmers. The message should be short, simple and there should not be any jargons. 74.50 per cent respondents suggested that skill gap of farmers in using mobile technology should be removed. For this farmers should be facilitated with proper training and demonstration, so that they get well acquainted with various features and utilities of the mobile phones. 66.50 per cent of the respondents opined that well organized system should be established for low cost mobile service, which includes reasonable price of mobile handsets and tariff plans. 62.50 per cent of the respondents recommended that efforts should be made to make mobile service farmers friendly, which includes use of local language to transmit various information, simple

interface of mobile etc. According to 59.50 per cent of the respondents efforts should be made to motivate farmers to use mobile for collecting various information. 54.00 per cent of the respondents suggested various concerned authorities; extension agencies should play their role in identifying and popularizing required mobile services by the farmers at the grass root level. 49.00 per cent of the respondents suggested that information need of farmers should be identified to make good use of mobile services and the target farmers should be facilitated with the services according to their needs. Lastly, 45.50 per cent and 43.50 per cent of the respondents suggested that knowledge gap in using mobile technology by farmers should be removed and there is need to develop modules for sustainable mobile services in TOT respectively so that rural farmers can easily access the various mobile services based on their needs.

Conclusion:

The present research assessed the major constraints faced by farmers in using mobile phones and suggestions given by them to overcome various lacunae regarding use of mobile phone. The application of mobile phone for disseminating useful agricultural information has emerged as an important pillar of ICT. Mobile phone as an ICT tool has potential to make the farmers affluent as it provides requisite information in user friendly form which is easy to access. Moreover it reduces time and distance barrier. However the study depicts that, difficulty in getting timely daily and frequently changeable information, lack of competence about mobile operating, language barrier, irregularity in providing information, irrelevant contents, difficulty in getting low cost affordable mobile service were the major problems faced by the farmers. Therefore the suggestions given by the farmers like, problems in handling mobile phones should be identified and solved; messages should be simple for the low educated farmers, removing the skill gap in using mobile phones, low cost mobile services should be provided, different agencies need to play their role in motivating and popularising the use of mobile phones, bridging the knowledge gap in using mobile phones etc. need to be implemented at grass root level. Government should provide stable power supply in rural areas so that farmers can recharge their mobile phones when necessary for exchange of useful and relevant agricultural information.

Acknowledgement

The authors are heartily thankful to Department of Extension Education, Institute of Agricultural Sciences, Banaras Hindu University for providing data collection facilities and also thankful to Lt. Dr. Dipak De for providing valuable guidance regarding the present investigation.

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