

Original Research Article

Constraints Faced By the Farmers in Using Mobile Agro-Advisory Services

Navinkumar*, B. Dhananjaya, M. Hanumanthappa and T. H. Ranjeeth

Department Agricultural Extension, UAS, Raichur, Karnataka, India

**Corresponding author*

ABSTRACT

This study was conducted during 2016-17 in the Udupi district of Karnataka to find out constraints faced by the farmers in use of mobile messages and their suggestions. A total of 120 respondents were selected randomly for the study. Results showed that, Majority of the beneficiaries are facing the problem of lack of practical exposure (76.67 %), followed by, incomplete messages (74.17 %), clarification is difficult if any doubt arises (69.17 %), non-availability of network (65.83 %), lack of locally relevant information (42.50 %), more cost involvement for purchase of mobile phones (40.00 %), lack of adoption of technology (34.17 %) and problems of electricity during rainy season (12.50 %). Suggestion given by the respondents such as regular weather forecasting (93.33 %), followed by, Short video messages (87.50 %), market prices information (81.67 %), weed management information (72.50 %), plant protection information (59.17 %), timely information (52.50 %) and complete and meaningful messages (35.83 %).

Keywords

Mobile Agro-Advisory Services, constraints

Introduction

The arrival of ICT tools in agriculture is well in time. The use of ICTs is more recent in agricultural system. ICT has reduced the costs of collection, processing and dissemination of information that helps farmer to mitigate the risk. Applications of ICTs to transfer agricultural risk through instruments such as insurance and future contracts are still quite limited. The widespread use of these instruments seems to be hampered by slower institutional development, higher cost, inability to customize products to meet small holder's requirement and poor financial literacy rather than by the information constraints that ICTs can address.

An improvement of agricultural infrastructure is needed at all levels of the

supply chain that includes input delivery, credit, minimizing post-harvest losses, cold storage chains, marketing etc. Shrinking extension is another component of infrastructure that needs attention. The government of India has a huge research and development infrastructure in the form of institutions such as the Indian Council of Agricultural Research (ICAR), State Agricultural Universities (SAUs) and Krishi Vigyan Kendras (KVKs). The role of this set-up in research and extension activity is of great importance. However, crumbling public extension services are the causes for concern. After the green revolution in the mid-sixties, there has been no major technological innovation, which could give a fresh impetus to agricultural productivity. Insufficient extension services and poor

access to information further widen up the gap in adoption of technology and lead to poor productivity levels.

The farmer's exposure to risk and uncertainty is often provoked by lack of information about the inputs, farm management practices or market prices leading to an adverse impact on crop production and income. The evidences suggested that a farmer who received quality, up-to-date information and who has the ability to use that information is able to lessen the effect of these risks. To minimize major risks of farmers, there are number of ICT initiatives still working in the country. There are several advantages of mobile based ICTs tools in agriculture delivering the information needs of the farmers.

Even then it is not being utilized to its full potential. Mittal and Tripathi, (2010) found in their study that although it was evidenced that mobile phones were being used in ways that contributed to farm productivity yet, leverage to full potential of mobile phones for greater access to information remained unfulfilled small producers require significant improvements in the supporting infrastructure and also in capacity building to enable them to use the information more effectively.

Materials and Methods

The study was conducted in the year 2016-17 in Udupi district of Karnataka state. The main focus of this investigation was to study the impact of mobile agro-advisory services on the farmers of Udupi district. The farmers, who were receiving agricultural messages to their mobile in Udupi District, constitute the population of the study.

The farmers those who had already registered their mobile number for availing

agricultural information through Agro meterology centre, ZAHRS and KVK Brahmavar and any other source of information related to agriculture and allied information receivers were served as respondents for the study. There were 4000 registered Agro-met Advisory users and 1400 registered users in KVK. Among those 40 farmers from each existing three taluks viz. Udupi, Karkala & Kundapur were selected as respondents for the study. Thus the sample size of the study comprises of 120 respondents.

Results and Discussion

Constraints faced by the farmers

The constraints faced by farmers using mobile agro-advisory services were indicated in the Table 1 reveals that, the majority of farmers expressed the constraints such as lack of practical exposure (76.67 %), followed by, incomplete messages (74.17 %), clarification is difficult if any doubt arises (69.17 %), non-availability of network (65.83 %), lack of locally relevant information (42.50 %), more cost involvement for purchase of mobile phones (40.00 %), lack of adoption of technology (34.17 %) and problems of electricity during rainy season (12.50 %).

Suggestions offered by the farmers

The data presented in the Table 2 revealed that, the majority of farmers expressed the suggestion such as regular weather forecasting (93.33 %), followed by, Short video messages (87.50 %), market prices information (81.67 %), weed management information (72.50 %), plant protection information (59.17 %), timely information (52.50 %) and complete and meaningful messages (35.83 %).

Constraints faced by the farmers

The results in Table 1 indicated that, constraints faced by farmers using mobile agro-advisory services. A glance at the results as a whole indicated that, the majority of farmers expressed the constraints such as lack of practical exposure (76.67 %), followed by, incomplete messages (74.17 %), clarification is difficult if any doubt arises (69.17 %), non-availability of network (65.83 %), lack of locally relevant information (42.50 %), more cost involvement for purchase of mobile (40.00 %), lack of adoption of technology (34.17 %) and problems of electricity during rainy season (12.50 %).

The possible reasons could be that, there was no practical exposure of technologies and also the information disseminated through them are sometimes not relevant to the situation. The messages are very short due to the restriction in message characters. Therefore they are not getting clear information sent to them. The mobile agro-advisory service was one way communication, if any doubt arises, it was very difficult for the farmers to get clarification. As Udupi district consist of dense forest area and most of the villages and farmers are located in remote area therefore, they were facing the problem of non-availability of proper network for their mobiles.

As Udupi which belongs to coastal area it receives the rainfall earlier than the other areas so the information sent were delayed and not relevant to the situation. Cost involvement in case of purchase of mobile phones is more. Lack of adoption of technology, the reason could be that, the farmers are not practically exposed to the technologies so they will not ready to take

risk. The problem of mobile charging is quite common in rural areas due to irregular electricity supply especially during rainy season as there will be no power in the villages due to lightning and fall of trees on KEB lines.

Suggestions offered by the farmers

The data presented in the Table 2 revealed that, the majority of farmers expressed the suggestion such as regular weather forecasting (93.33 %), followed by, Short video messages (87.50 %), market prices information (81.67 %), weed management (72.50 %), plant protection information (59.17 %), timely information (52.50 %) and complete and meaningful messages (35.83 %).

The famers wanted regular weather forecasting information, as weather plays a very vital role in all the agricultural practice from sowing till the harvesting. Based on the weather forecasting information they plan their work and calendar of operations.

The farmers need short video message because video gives more clarity and involve more number of sensory organs that might be one of the reasons that farmers wanted. As a result of which majority of the farmers might opt to have the KVK messages in the form of videos.

Market prices information needed to the farmers, the prices of the agricultural commodities are highly fluctuating and the price of the produce will differs from one market to the other market. The farmers are not aware of “when to sale their produce” and “where to sale their produce” so they wanted to send them the market information and minimum support price of all the locally growing crops to get the better prices to their produce.

Table.1 Constraints faced by the farmers

(n=120)

Sl. No	Statements	Frequency	Percentage
1	Lack of practical exposure	92	76.67
2	Incomplete messages	89	74.17
3	Clarification is difficult if any doubt arises	83	69.17
4	Non-availability of network	79	65.83
5	Lack of locally relevant information	51	42.50
6	More cost involvement	48	40.00
7	Lack of adoption of technologies	41	34.17
8	Problems of electricity during rainy season	15	12.50

Table.2 Suggestions offered by the farmers

(n=120)

Sl. No.	Suggestions of the farmers	Frequency	Percentage
1.	Regular weather forecasting	112	93.33
2.	Short video messages	105	87.50
3.	Market prices information	98	81.67
4.	Weed management information	87	72.50
5.	Plant protection information	71	59.17
6.	Timely information	63	52.50
7.	Complete and meaningful messages	43	35.83

Fig.1 Constraints faced by the farmers

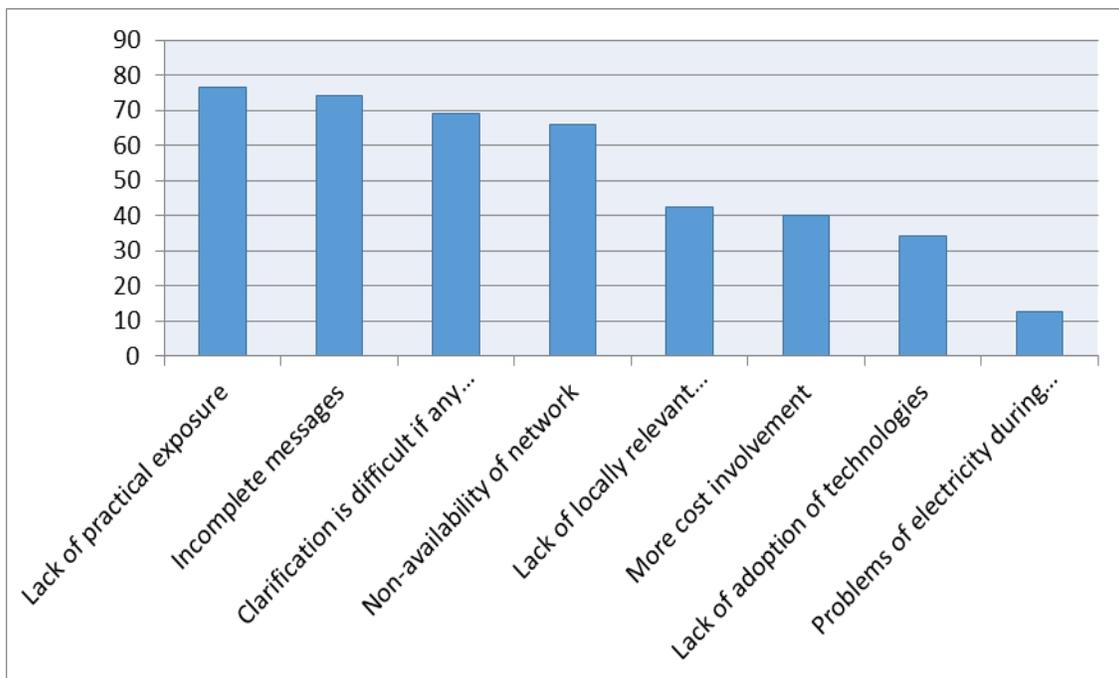
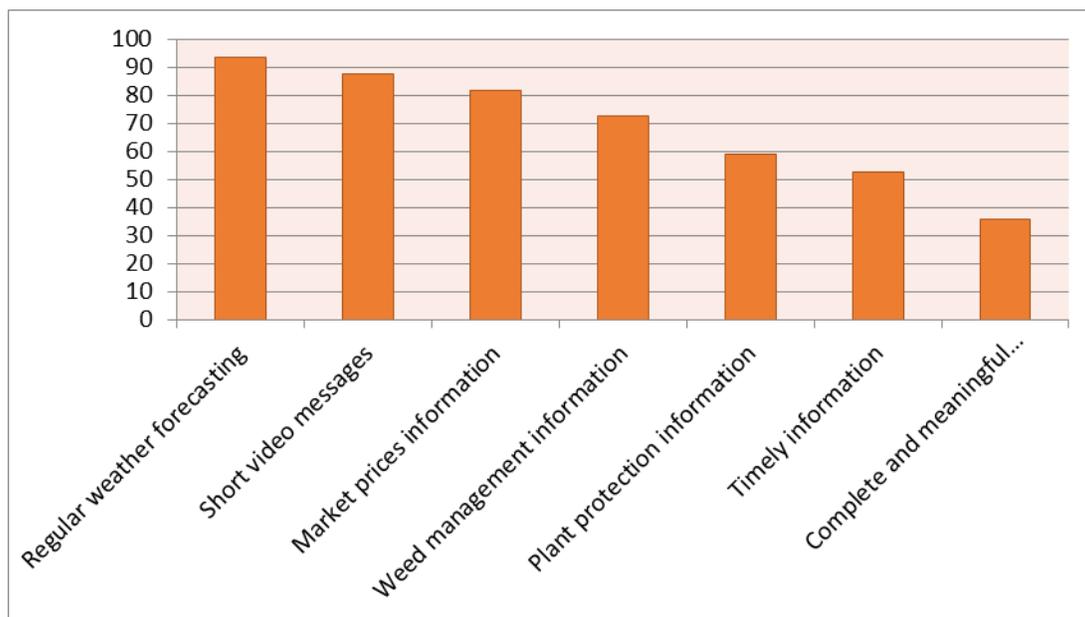


Fig.2 Suggestions offered by the farmers



Farmers had wanted the weed management information, as weed could reduce maximum yield of the produce. Pest and diseases are major problem in agriculture daily one or the other new pests and diseases are emerging and destructing the crop.

Maximum yield reduction was noticed in agriculture might be due to pest and disease incidence therefore, the farmers were wanted to send the information of newly developed preventive measures and chemicals against pests and diseases.

The messages should be timely to the farmers therefore, the farmers will plan their operations. However, the weather related information is very critical to the farmers and need to be sent at right time when compare to the other information.

The messages are too short and farmers were finding it hard to understand therefore messages should be easily understandable, local terms must be used instead of scientific words. Further, messages should be complete and meaningful in all the respect.

It is clear from the study that majority of the farmers are facing lack of practical problem as the scientist are sending the messages to the farming communities but they are not providing practical exposure to them and in a short message the farmers are hard to understand the information properly and carry out the activities. They had suggested that as Udupi dist is coastal area it receive the monsoon few days early compare to the other parts of Karnataka, so they need early weather forecasting information to carry out the activities.

References

- Jayanthi, M. and Asokhan, M., 2016, Constraints Faced by m-Kisan Users. *Journal of Extension Education*. 28 (1): 5622-5624.
- Khinchi, R., Sharma. N. K., Sisodia, S. S. and Kumar. V., 2017, Constraints faced by the farmers in the use of mobile phone for agriculture. *International Journal of Agriculture Sciences*, 9 (17): 4136-4138.
- Mittal, S., Gandhi, S. and Tripathi, G., 2010,

Socio-economic impact of mobile phones on Indian agriculture, Working Paper No. 246. Indian Council for Research on International Economic Relations.

Sonam, A., and Khare, N. K., 2015, Constraints faced by user in the use of ICT tools like KMS. *Advance research journal of social science.*, 6 (1) : 91-93.