



# KNOWLEDGE LEVEL OF THE MEMBERS OF FARMER PRODUCER ORGANISATION ON MOBILE AGRO ADVISORY SERVICE

Suriyapriya E. and M. Kavaskar\*

Depart. of Agricultural Extension, Faculty of Agriculture, Annamalai University, Chidambaram-608002 (T.N.) India.

## Abstract

Mobile phones significantly reduce communication and information costs. Poor communication facilities lead to limited access to information and this can lead to loss of income. Mobile based advisory services can help to reach poor farmers in remote rural areas. Over the past few years, India witnessed several experiments on agro-advisory service delivery through mobile phone. Mobile phones also provides new opportunities for farmers to obtain access to agricultural information, such as market prices, weather report, agricultural techniques in various formats like audio, videos and text. Information Technology (IT) enabled services could help in solving some of the problems that Indian farmers are facing. A study was taken up to assess the knowledge level of mobile advisory service. The research study was conducted in Kanchipuram district. The study was taken up in eight villages which were selected based on the highest number of registered farmers under Farmer Producer Organization (FPO). The results indicated that almost half the proportion (47.50 per cent) of the respondents were having medium knowledge level on mobile agro advisory service.

**Key words :** Knowledge level, Mobile agro advisory service, Farmer Producer Organisation.

## Introduction

Farming in India is being undertaken by a large section of population under extreme diverse condition. Most of these farmers are small and marginal farmers who don't have access to relevant and timely information that adversely affect the agriculture growth and productivity. Farmer Producer Organization (FPO) is one type of producer organization where the members are farmers. Small Farmers' Agribusiness Consortium (SFAC) is providing support for promotion of Farmer Producer Organization (FPOs). Mobile phone technologies have provided a good platform for farmers to share their knowledge and information among each other in time such as market rates, new varieties and weather information etc.,

A simple mobile has plenty of features to communicate the information across the world within a time. The device does not require many supported elements like personal computer, regular power supply and internet service to have a communication facility. Suriyapriya *et al.*, (2018) concluded that there had been positive impact of mobile phone services on the utilization of vegetable crop

\***Author for correspondence :** E-mail : kavasag@yahoo.co.in

management practices in order to get more yield and minimum loss caused by pests and diseases in vegetable crops. The daily updates on the prices of agricultural commodities in the local markets of the surrounding districts are most useful during harvesting time. Deshmukh *et al.*, (2016) reported that majority of the respondents (57.50 per cent) possessed medium level of knowledge regarding ICT tools. Maximum per cent of the respondents (56.17 per cent) were using ICT tools at medium level. Suriyapriya *et al.*, (2018) observed that the timeliness of information provided through mobile agro advisory services (83.33 per cent) of the respondents perceived that information regarding the plant protection measures was provided in time. Further, 80.00 per cent of the farmers agreed with the statement that technological information provided through mobile agro advisory service was highly relevant to farming system.

## Material and Methods

The research study was conducted in Kanchipuram district. The study focused mainly on members of Farmer Producer Organization (FPO). Kanchipuram district had five Farmer Producer Organization (FPOs). Among the five Farmer Producer Organization (FPOs), Chennai

Horticulture Produce Producer Company was selected purposively. The study was taken up in eight villages which were selected based on the highest number of registered farmers under Farmer Producer Organization (FPO). A sample of 120 registered farmers was selected by using random sampling technique. Knowledge is the totality of understood information possessed by a person. It often so happens that persons are not aware about the features of their electronic gadgets and therefore, gadget remains underutilized. Knowledge of respondents about mobile agro advisory service was measured by yes/no dichotomy. Two score was given for 'yes' and one for 'no'. Each respondent was asked whether he knows about the feature. Total score of the individual respondent was calculated by adding the scores obtained by him on individual features. A pre-tested and well constructed interview schedule was used for data collection through interview method. The collected data were subjected to statistical analysis. This statistical tools used in this study were percentage analysis, cumulative frequency method.

## Results and Discussion

To assess the overall knowledge level possessed by respondents on mobile agro advisory service, necessary data were collected and are furnished in table 1.

The data in Table 1, indicated that almost half the proportion respondents (47.50 per cent) of the **Table 1:** Distribution of respondents according to their overall knowledge level on mobile agro advisory service.

(n=120)

| S.No. | Category | Number | Per cent |
|-------|----------|--------|----------|
| 1.    | Low      | 29     | 28.33    |
| 2.    | Medium   | 57     | 47.50    |
| 3.    | High     | 34     | 24.17    |
| Total |          | 120    | 100.00   |

respondents were having medium knowledge level on mobile agro advisory service and 28.33 per cent of respondents were having high knowledge level, whereas 24.17 per cent of respondents were having low knowledge level. The urge to earn money and the desire to increase the socio-economic status might have been the reasons for the medium to high level of knowledge found among majority of the respondents. This finding derives support from the findings of Ajay (2016).

### Knowledge level of the respondents on mobile agro advisory service

The result on distribution of respondents according to their knowledge level of the respondents on mobile agro advisory service is given in table 2.

The data in table 2, displays 40.53 per cent as the

**Table 2:** Distribution of respondents according to their extent of knowledge on mobile agro advisory service.

(n=120)

| S.No.                     | Mobile application                 | Number | Per cent     |
|---------------------------|------------------------------------|--------|--------------|
| I. Agricultural apps      |                                    |        |              |
| 1.                        | Kisansuvidha                       | 45     | 37.50        |
| 2.                        | i <sub>s</sub> app                 | 18     | 15.00        |
| 3.                        | Crop insurance                     | 52     | 43.33        |
| 4.                        | m-krishi                           | 116    | 96.67        |
| 5.                        | RML                                | 20     | 16.67        |
| 6.                        | TNAU expert system                 | 39     | 32.50        |
| 7.                        | IFFCO kisan                        | 35     | 29.17        |
| 8.                        | Plantix                            | 19     | 15.83        |
| <b>Mean percentage</b>    |                                    |        | <b>35.83</b> |
| II. Messenger app         |                                    |        |              |
| 1.                        | WhatsApp                           | 106    | 88.33        |
| 2.                        | Telegram                           | 18     | 15.00        |
| 3.                        | ChatOn                             | 05     | 4.17         |
| 4.                        | WeChat                             | 05     | 4.17         |
| 5.                        | Viber                              | 12     | 10.00        |
| <b>Mean percentage</b>    |                                    |        | <b>24.33</b> |
| III. By call              |                                    |        |              |
| 1.                        | Kisan Call Centre                  | 63     | 52.50        |
| 2.                        | m-krishi help line                 | 89     | 74.17        |
| <b>Mean percentage</b>    |                                    |        | <b>63.33</b> |
| IV. By smartphones        |                                    |        |              |
| 1.                        | Internet                           | 96     | 80.00        |
| 2.                        | Online video/webcast               | 39     | 32.50        |
| 3.                        | Online version of farm publication | 60     | 50.00        |
| 4.                        | E-mail                             | 36     | 30.00        |
| 5.                        | Facebook                           | 73     | 60.83        |
| 6.                        | Twitter                            | 26     | 21.67        |
| 7.                        | Online audio content               | 34     | 28.33        |
| 8.                        | m-kisan (SMS)                      | 07     | 5.83         |
| <b>Mean percentage</b>    |                                    |        | <b>38.64</b> |
| <b>Overall percentage</b> |                                    |        | <b>40.53</b> |

overall mean percentage of knowledge on mobile agro advisory service. Among the four items under mobile agro advisory service, nearly two-third (63.33 per cent) respondents possessed knowledge regarding agro advisory service through call service followed by smart phones (38.64 per cent), agricultural apps (35.83 per cent) and messenger apps (24.33 per cent).

### By call

The mean knowledge percentage of 63.33 per cent was found under the category of agro advisory service through call service. Knowledge against sub-items under the category of call in the descending order was *viz.*, m-

krishi help line (74.17 per cent) and Kisan Call Centre (52.50 per cent). This might be due to fact that m-krishi was available in the study area itself and the mobile communication was very useful to farmers living in rural areas, it facilitated immediate access to up to date information and faster and easy communication between farmers and information providers. Further, extension personnel of state department agriculture and NGOs created awareness regarding Kisan Call Centre among Farmer Producer Organization (FPO) members. Farmers used toll free number (1800-180-1551) from any telephone & sought expert advice on different aspects of farming. The KCC number is accessible through all land lines and mobile phones. This may be the probable reason for high level of knowledge on Kisan Call Centre and m-krishi help line. This finding is in line with the findings of Kailash (2016).

### By smartphones

The mean percentage score knowledge on smartphones was found to be 38.64 per cent. Further, their knowledge of items under smartphones was found to be high for internet (80.00 per cent) followed by facebook (60.83 per cent), online version of farm publication (50.00 per cent), online video/webcast (32.50 per cent), e-mail (30.00 per cent), online audio content (28.33 per cent), twitter (21.67 per cent) and m-kisan (5.83 per cent). The percentage of young and mature adult farmers accessing the internet through their smartphones is growing continuously. The impact of mobile as a mode of providing information for farming will depend on how mobile networks are able to link the farmers to the market information in a timely and accurate manner. The most significance is that today's smartphones provide a programmable computing platform with the built-in sensors to create many useful applications in the personal group and community. This finding is in line with the findings of Chen *et al.*, (2014).

### Agricultural apps

The respondents mean knowledge percentage under agricultural apps was found to be 35.83 per cent. Among the sub-items under agricultural apps the percentage of respondents in the descending order was m-krishi (96.67 per cent), crop insurance (43.33 per cent), kisansuvidha (37.50 per cent), TNAU expert system (32.50 per cent), IFFCO kisan (29.17 per cent), RML (16.67 per cent), plantix (15.83 per cent) and i<sub>s</sub> app (15.00 per cent). This might be due to fact that m-krishi functioning successfully for the last 8 years in the study area and the extension personnel of state department agriculture and NGOs conduct regular training to the Farmer Producer Organization (FPO) members and other farmers

regarding mobile based agro advisory service in the study area. Further m-krishiapp, Kisansuvidha and TNAU expert system help the farmer to find easy solutions to the problems in their farm fields and also helps to get information about weather so as to take measures to save their crops. This may be the probable reason for the high level of usage of agricultural apps among the Farmer Producer Organization (FPO) members. This finding is in line with the findings of Kailash (2016).

### Messenger apps

Nearly one-fourth (24.33 per cent) of the respondents had knowledge on messenger apps. Their knowledge score under various messenger apps in the descending order was *viz.*, whatsapp (88.33 per cent), telegram (15.00 per cent), viber (10.00 per cent), chaton and wechat (4.17 per cent). The messenger apps, it is easiest, simplest and fastest way to approach all the important news and information. Now a day's messenger apps are easily connect by the peoples. Particularly, whatsapp is a platform to share real-time information which allows the user to exchange messages, audio, video and photographs. It allows users to create groups, broadcast and send images, audio, video messages simultaneously to one person or group. Whatsapp was most popular app for giving instant messaging and found to be the mainstream acceptance and popular now world over. This may be the probable reasons for high level of knowledge found among the respondents.

### Conclusion

Nearly two-third (63.33 per cent) respondents possessed knowledge on agro advisory service through call service followed by smartphones (38.64 per cent), agricultural apps (35.83 per cent) and messenger apps (24.33 per cent). Majority of the respondents were found to be under medium level of knowledge on mobile based agro advisory service. Hence, the extension functionaries of state department of agriculture and other private mobile advisory service providers to use different forms of information like text, audio, video, multimedia, animation etc., should be used for value addition to the information provided on the mobile apps so that the farmers could easily understand.

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