

## An Analytical Study of Mobile Agro Advisories among the Farmers

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### Abstract

The study was conducted in Annur and Kinathukadavu blocks of Coimbatore district in Tamil Nadu. A total of 200 respondents were selected, it has been decided to select two per cent of the population as sample size. Variables such as social participation, contact with extension agency, mass media exposure, innovativeness, decision making ability, risk orientation, scientific orientation and profit motivation were found to be in medium level. Three-fourth of the respondents (76.50 %) had not undergone any computer training. Little more than two-third of the respondents (67.50 %) were using ordinary mobiles, more than fifty per cent of the respondents (57.50 %) were using 2 G network facilitating mobiles and two-third of the respondents (66.50 %) had no internet access in their mobiles.

**Keywords:** Mobile Phone; Network; Advisory; Innovative; Communication; Agriculture

### Introduction

Agriculture is the primary source of livelihood for about 58 per cent of India's population. Mostly farmers prefer to cultivate different type of crops in their field. Farmers are always expected different source information and advisories about agriculture and allied fields in timely and useful. In India, there are about 120 million farm holdings and the number is growing year by year. To provide at least one village extension personnel to 800-1000 farm families, the requirement of field level extension personnel is estimated to be about 1.3 to 1.5 million, against the present availability which is only about 0.1million (100 000) personnel (PC, GoI, 2007 [13]). According to estimates, on an average a public extension personnel spends 40 minutes per year for a farmer (Dileep kumar, 2012 [3]). In the 21<sup>st</sup> century, information and communication technologies can fulfill the farmers' expectation to their felt needs. In the way mobile phone is one of the best communication technologies to agriculture. Mobile phone is a best technology for fast sharing information to everyone and problem solving to farmers. Mobile phone plays multi role likes SMS, voice message, video call, picture, internet, e-mail, WhatsApp, and agriculture application apps for access the agriculture information such as cultivation practices, selection of crops and varieties, pest and disease, application of fertilizers, irrigation, harvesting, market price, export details and weather advisories. The National Commission on Farmers had noted that knowledge deficits constrain agricultural productivity in India. It added that the use of Information and Communication Technologies (ICTs) for agricultural extension is one way of addressing the information needs of farmers. Utilizing such new applications and services on mobile phones help the extension personal for accurate, speedy and timely supply of information to the farmers in various aspects related to agriculture and allied sciences (Kumari, 2016 [8]). Keeping these things in view the present study entitled An Analytical Study of Mobile Agro Advisories among the Famers as undertaken with the specific objectives are profile characteristics of the mobile user farmers, possession of mobile phones & internet access.

## Materials and Methods

The farmers especially those who have registered with Tamil Nadu Agricultural University for availing mobile agro advisories were the respondents for the present study. The block wise list of farmers who have enrolled for this service was obtained from the e-extension centre of Tamil Nadu Agricultural University. In Coimbatore district there are 11 blocks and it has been decided to select two blocks viz., 1. Annur 2. Kinathukadavu purposefully on considering maximum area under crop cultivation and maximum enrollment of farmers under this mobile agro advisory services. Total number of farmers enrolled from the above two blocks under TNAU was 10,048 and it has been decided to select two per cent of the above population as sample size. Accordingly, the sample size has been fixed as 200 respondents. The respondents from each block were selected by employing proportionate random sampling method. Suitable statistical analysis like a percentage analysis was done to interpret the results.

## Results and Discussion

The table 1 reveals that a vast majority of the respondents (71.00 %) had medium level of social participation, followed by high and low levels of social participation with 21.50 per cent and 7.50 per cent respectively. It may be inferred from the above finding that majority of the farmers tend to become members in social organizations, viz., primary agricultural co-operative bank, cooperative milk society, farmers organization and self-help groups, etc., mainly to avail the benefits given by the organization irrespective of their interest in such organizations. This might be the probable reason for the medium level of social participation among majority of the respondents. This finding is supported by the findings of Lavanya (2006) [10] who also reported that majority of the respondents were found under the category of medium level of social participation.

<i>Category</i>	<i>Number of respondents</i>	<i>Percentage</i>
<b><i>I. Social participation</i></b>		
Low	15	7.5
Medium	142	71
High	43	21.5
<b><i>II. Contact with extension and other agency</i></b>		
Low	38	19
Medium	131	65.5
High	31	15.5
<b><i>III. Mass media exposure</i></b>		
Low	32	16
Medium	141	70.5
High	27	13.5
<b><i>IV. Computer trainings undergone</i></b>		
Attended training	47	23.5
Not attended any training	153	76.5
<b><i>V. Innovativeness</i></b>		
Low	35	17.5
Medium	133	66.5
High	32	16

<b>VI. Decision making ability</b>		
Low	27	13.5
Medium	148	74
High	25	12.5
<b>VII. Risk orientation</b>		
Low	42	21
Medium	109	54.5
High	49	24.5
<b>VIII. Scientific orientation</b>		
Low	43	21.5
Medium	112	56
High	45	22.5
<b>IX. Profit motivation</b>		
Low	40	20
Medium	128	64
High	32	16

**Table 1:** Distribution of Respondents according to their Mobile Agro advisory service (n=200).

From contact with extension and other agency, it could be elucidated that majority of the respondents (65.50 %) had medium level of contact with extension agency, followed by low (19.00 %). The medium level of extension agency contact might be due to the regular visits made by the extension functionaries and high involvement of progressive farmers. The low level of extension agency contact might be due to the occasional visit (once in a fortnight only) made by extension functionaries like Assistant Agricultural Officers and Agricultural Officers. These findings are in conformity with that of Ganeshkumar *et al.*, (2012) [5].

It is apparent from mass media exposure, that a vast majority of the respondents (70.50 %) had medium level of exposure to mass media sources, followed by 16.00 per cent of the respondents with low level and the rest of the respondents (13.50 %) with high level of media exposure. Availability of various mass media sources like radio, newspaper and television etc., focusing on agricultural programmes caters the need of the respondents. This might be one of the major factors for medium level of mass media exposure and the frequent contact with the extension agency would have motivated the farmers to seek more information from the mass media sources. This finding derives support from the studies carried out by Ganesan *et al.*, (2013) [4].

Computer training was observed that a vast majority of the respondents (76.50 %) had not undergone any computer training. Only 23.50 per cent of the respondents had undergone computer training. Now the rural people have the feeling that computer knowledge is essential in everyday life. This thinking would have influenced 23.50 per cent of the respondents to undergo computer training. This finding is on parallel with the findings of Moovendhan (2006) [11] Anbarasan (2010) [1].

Majority respondents (66.50 %) were found with medium level of innovativeness, followed by 17.50 per cent respondents were found with low level and the rest (16.00 %) had high level of innovativeness. The above result could be attributed that majority of the respondents are quite earlier in adopting the innovations than other farmers in their social system. This might be due to their distribution in small sized to medium sized farm which facilitates adoption/experimentation of innovations. The finding is in accordance with Karunakaran (2004) [9].

It is reported from decision making, that a vast majority of the respondents (74.00 %) had medium level of decision making ability. Low level was found among 13.50 per cent of the respondents. The rest (12.50 %) had high level of decision making ability. Normally, the age and farming experience are the factors found influencing the decision making ability of the farmers. Already in this study it has been reported that most of the respondents were found distributed in the middle and old aged group and similarly they possessed medium to high level of farming experience. This could have resulted such as medium to high level of decision making ability of the respondents in this study area. The results are in agreement with the findings of Jayanthi (2016) [7].

Little more than half of the respondents (54.50 %) had medium level of risk orientation, followed by 24.50 per cent of the respondents had high level and the rest of the respondents (21.00 %) had low level of risk orientation. Failure of monsoon in the proceeding crop seasons and lack of assured irrigation supply may be the prime factors for placing majority of the respondents under medium level category of risk orientation. In addition to that, medium level of scientific orientation and extension agency contact prevailing among them can also be described as the other reasons for such a result. This finding gains support from the findings of Balekundargi (2016) [2].

It is clearly seen that majority of the respondents (56.00 %) possessed medium level of scientific orientation, followed by 22.50 and 21.50 per cent were in high and low levels respectively. Medium level of media participation and extension agency contact found with the respondents could be attributed as the reasons for medium level of scientific orientation observed with them. This finding is in conformity with the findings of Hanglem *et al.* (2015) [6] who reported that majority of respondents possessed medium level of scientific orientation.

It is found from profit motivation, that majority of the respondents (64.00 %) had medium level of profit motivation, followed by low (20.00 %) and high (16.00 %) levels respectively. It is natural that farmers with medium level of risk orientation will have medium level of profit motivation. The above findings drive support from the results of Nalini (2004) [12].

The data were collected with respect to possession of mobile phones and internet access by the respondents were analyzed and furnished in table 2. Little more than two-third of the respondents (67.50 %) were using ordinary mobiles and only 32.50 per cent of the respondents were using smart phones. With regard to mobile network, majority of the respondents (57.50 %) were using 2 G network facilitating mobiles, followed by 23.50 per cent using 3 G network mobiles and the rest 19.00 per cent of the respondents were using 4 G network mobiles. With regard to the internet access, it is seen that two-third of the respondents (66.50 %) had no internet access in their mobiles and the remaining 33.50 per cent of the respondents had internet access in their mobiles.

<i>S. No.</i>	<i>Possession of mobile phones</i>	<i>Number of respondents</i>	<i>Percentage</i>
<b><i>Types of mobile phones being possessed</i></b>			
1	Ordinary mobile	135	67.5
2	Smart phone	65	32.5
<b><i>Type of mobile network possessed</i></b>			
1	2 G	115	57.5
2	3 G	47	23.5
3	4 G	38	19
<b><i>Internet access</i></b>			
1	Internet access	67	33.5
2	No internet access	133	66.5
	<b>Total</b>	<b>200</b>	<b>100</b>

**Table 2:** Distribution of the respondents according to their possession of mobile phones and internet access (n=200).

## Conclusion

The study focused on SMS based mobile agro advisory services, the findings on social and extension agency contact revealed that they were in medium level on both of the variables. It is natural that when farmers are focused to get advisories through mobile communications, it will have at least a little impact on their social contacts and contacts with extension agency. It is not a welcoming trend. Becoming member / office bearer in social organization and frequent contacts with local extension agencies would enlighten them or enrich them with social prestige value and modern developments in agriculture. Hence, farmers are to be advised to maintain frequent / regular contacts with local social organization and extension agencies. Orientation with mass media sources will widen the wisdom of farmers on agriculture and sociological issues. Necessary advisories to be given to enhance their orientation with mass media sources. The respondents have not attended any computer training. The world is fast changing and lot of technological revolutions are taking place in the computer related fields. Hence the department concerned should take appropriate steps to inculcate computer literacy among the farmers. The local KVK can take up this issue and arrange for periodic computer literacy programme for the farmers. But farmers now-a-days prefer to receive messages / advisories in multimedia format. Hence they are equipped with smart phones such Hi-tech advisories are possible. State department of agriculture should take necessary steps to provide smart phones to farmers with subsidized rates. They should also be provided with concessional internet access.

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