

Original Research Article
EVALUATING THE IMPACT OF MOBILE DISSEMINATED
AGRICULTURAL SERVICES ON FARMERS' ATTITUDES IN
DINDIGUL DISTRICT, TAMIL NADU, India

ABSTARCT

Mobile phone plays a vital role to share the various information related to agricultural activities. The method of communication is very easy and understandable for the farming community and helps them to disseminate the information in timely manner and they directly keep in touch with the marketing agencies. Especially the mobile phone is used for to get aware about the marketing prices and weather forecast for agricultural operations. The research was conducted in Cuddalore district of Tamil Nadu. The respondents were 120 farmers selected by using the random sampling technique and collected information by using the interview schedule. The major findings of the study revealed that majority of the farmers 43.33 per cent had favourable attitude about agricultural services disseminated through mobile phone. And the relationship of profile characteristics with attitude revealed that out of ten characteristics, five characteristics namely - educational status, mass media exposure, extension agency contact economic motivation and Innovativeness were found to have positive and significantly correlated with the attitude of farmers towards the agricultural services disseminated through mobile phone.

Key words: Agricultural services, Attitude, Communication. Mobile phone, Profile characteristics

1. INTRODUCTION

“Information communication Technology advancements can be used to provide farmers with accurate, timely, and relevant information and services, facilitating a more profitable agricultural environment. However, all the ICT initiatives are not uniform with disparities between regions in the level and quality of telecommunications, information and the effort of individuals, public and private organizations and differentiated nature of demand of the farmers in different areas” (Pudkeet *al.* 2020). “Among the all ICT tools mobile phone plays a vital role in exchanging and sharing the information, mobile phone is becoming one of the basic necessities now a days for all types of rural and urban people. A mobile phone is

an Information Communication Technology (ICT) tool used for two-way communication” (Shankaraiah *et al.* 2012).

“This rapid growth of mobile telephony has emerged as a successful communication tool which has not only transformed the working style of many sectors but also created new professional dimensions in various businesses including agriculture” (Asongu&Asongu, 2018).“It was widely recognized as a potentially transformative technology platform for developing nations”(Krell *et al.* 2021).“Mobile phones are transforming the lives of many users in developing countries and are widely recognized as an important current and future technology platform for developing nations. Mobile technology has emerged as a transformative tool in agriculture, offering new opportunities for information dissemination and communication” (Deichmann *et al.* 2016). The use of mobile phones, smartphones, and associated applications in farming activities has become increasingly prevalent, enabling farmers to access real-time information, market prices, weather forecasts, and agronomic tips (Mendes *et al.* 2020). The integration of mobile technology in agriculture began in the early 2000s with the proliferation of mobile phones and the advent of GSM networks in rural areas (Bumbler, 2020). Initial applications were simple, often limited to voice calls and text messages. With the advancement of mobile internet and smartphone technology, a wide array of agricultural apps and services have been developed, ranging from precision farming tools to online marketplaces for agricultural products (Mapiye *et al.* 2023).

“The Government of India spent nearly USD 60 million on public agricultural extension programs from 2009 to 2010. The Indian Council of Agricultural Research, state agricultural universities, and networks of public extension agents make up the government's extensive research and development infrastructure. However, fewer than 10% of farmers say they receive agricultural technology information from public extension agents. One potential alternative to costly individual extension agents going from village to village is to deliver agricultural information to farmers via low-cost information and communications technologies (ICT) like mobile phones” (Cole, 2012). The study was taken up with following objectives.

- To study the profile characteristics of farmers using mobile phones.
- To access the attitude of farmers about agricultural services disseminated through mobile phone.

- To study the relationship between profile of the farmers and their attitude.

2. METHODOLOGY

The study was conducted in Dindigul district of TamilNadu, since the district had highest, production and productivity. Hence, the study was conducted in Veda sandur taluk of Dindigul district. Snowball sampling procedure was followed to select the respondents of the study. The study was an ex-post-facto survey research. Standardized data collection tools were utilized to collect the data from farmers. The responses were coded, tabulated and subjected to descriptive statistical analysis comprising percentage analysis. Correlation coefficient was used to find out the relationship between profile of the farmers and their attitude.

3. RESULTS AND DISCUSSIONS

3.1. Profile of Farmers using Mobile phone

3.1.1. Age

Majority (58.33 %) of the respondents belonged to the middle age group followed by 33.33 per cent belonged to old age group and 8.34 per cent were found in young age group. This finding is in line with findings of Hashemi (2012).

3.1.2. Educational status

As regards with education, the majority (54.16%) of the respondents had higher secondary school followed by primary school (33.33 %) and collegiate (12.50%). It may be inferred that majority of the respondents had completed the school education.

3.1.3. Occupational status

“It is evident from the Table 1 that cent per cent of the respondents were engaged in agriculture and opting as their main occupation for their livelihood. It is needless to say that farmers had agriculture as the major occupation since ages. This finding is in parallel with the findings of Priyanka and Jayasankar” (2020).

3.1.4. Farm size

As regards with farm size, majority (53.33%) of respondents belonged to the category of small farmers followed by 25.83 per cent of the respondents were big farmers and 20.83 per cent of the respondents were marginal farmers.

3.1.5. Farming Experience

On the facet (56.66 per cent) of respondents had medium level of farming experience followed by 25 per cent of respondents belonged to low level of farming experience and 18.33 per cent exhibited to high level of farming experience

3.1.6. Mass media exposure

Major portion (58.33 %) of respondents had medium level of mass media exposure followed by 25 per cent of the respondents with low level of mass media exposure and 16.66 per cent with high level of exposure towards mass media.

3.1.7. Extension agency contact

As regards with extension agency contact, major portion (54.16 %) of respondents had medium level of extension agency contact followed by low level (25 %) and 20.83 per cent had high level of extension agency contact. This finding is in line with the findings of Priyanka and Jayasankar (2022).

3.1.8. Economic motivation

The results revealed from Table 1, that majority (68.33 %) of the respondents were observed to have medium level of economic motivation followed by 24.16 per cent of the respondents spotted in high level of economic motivation and remaining 7.50 per cent of respondents had low level of economic motivation.

3.1.9. Innovativeness

From Table 1 the results concluded that, majority (54.16 per cent) of the respondents were attained to medium level of innovativeness whereas 29.16 per cent of respondents had low level of innovativeness and remaining 16.66 per cent of the respondents had high level of innovativeness.

3.1.10. Training Undergone

It is evident from the Table 1 that more majority (53.33 %) of the respondents have attended two trainings, followed by 30 per cent of respondents undergone one training and 16.66 per cent of respondents had attended more than two trainings

Table 1. Profile of farmers using Mobile phone

(n = 120)

S.No	Variables	Categories	No of respondents	Percentage
1	Age	Young	10	8.33
		Middle	70	58.33
		Old	40	33.33
2	Educational status	Primary	65	54.16
		Higher secondary	40	33.33
		College	15	12.50
3	Occupation	Agriculture	120	100
		Labour	0	00.00
4	Farm size	Small	64	53.33
		Marginal	25	20.83
		Big	31	25.83
5	Farming Experience	Low	30	25.00
		Medium	68	56.66
		High	22	18.33
6	Mass media Exposure	Low	30	25.00
		Medium	70	58.33
		High	20	16.66
7	Extension agency contact	Low	30	25.00
		Medium	65	54.16
		High	25	20.83
8	Economic Motivation	Low	9	7.50
		Medium	82	68.33
		High	29	24.16
9	Innovativeness	Low	35	29.16

		Medium	65	54.16
		High	20	16.66
10	Training Undergone	One training	36	30.00
		Two training	64	53.33
		More than two training	20	16.66

3.2. Attitude of farmers towards agricultural services disseminated through mobile phone

The results observed from Table 2 reveal that majority of the farmers 43.33 per cent had favourable attitude towards agricultural services disseminated through mobile phone. However, 29.17 per cent of farmers had most favourable attitude followed by 27.50 per cent had least favourable attitude. This finding is accordance with the findings of Pudkeet *al* (2018).

Table 2. Attitude of farmers towards agricultural services disseminated through mobile phone

(n = 120)

Sl. No.	Category	Frequency	Per cent
1.	Least Favourable	33	27.50
2.	Favourable	52	43.33
3.	Most Favourable	35	29.17
	Total	120	100.00

The reason may be the farmers are getting timely and accurate messages from mobile phone based on their needs and the scientists are also sending correct messages to the farmers and obtaining feedback from them about efficiency of various applications used in mobile phone.

3.3. Relationship between profile of the farmers and their attitude

Table 3. Relationship between profile of the farmers and their attitude

(n = 120)

S.No	Independent Variable	Correlation Coefficient r value
1	Age	-0.154NS
2	Educational Status	0.327**
3	Occupation	-0.075NS
4	Farm Size	0.052NS
5	Farming Experience	0.0137NS
6	Mass Media Exposure	0.255**
7	Extension Agency Contact	0.227**
8	Economic Motivation	0.253**
9	Innovativeness	0.031**
10	Training Undergone	0.081NS

Out of ten characteristics studied, five characteristics namely educational status, mass media exposure, extension agency contact, economic motivation and Innovativeness were found to have positive and significant relationship with the attitude of farmers towards the agricultural services disseminated by mobile phone . The remaining characteristics like Age, occupation, farm size, farming experience, innovativeness and training undergone were found to be non- significant. This finding is in line with the findings of Chauhan (2010) and Jaswanth Naik *et al* (2020).

4. CONCLUSION

The study concluded that majority of the farmers 43.33 per cent had favourable attitude about agricultural services disseminated by mobile phone. And the relationship of profile characterises revealed that out of ten characteristics studied, five characteristics namely educational status, mass media exposure, extension agency contact economic motivation and Innovativeness were found to have positive and significant relationship with the attitude of farmers towards the agricultural services disseminated by mobile phone. Thus the study concluded mobile phone had positive attitude among the farming community and in the field of agricultural extension. Mobile ICT devices and services are rapidly becoming available to rural agriculture communities worldwide, including the poorest and also providing easy timely and convenient access to customized content.

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Details of the AI usage are given below:

1. Nil

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