



## **Relationship between profile characteristics of the farmers and their Perception towards Mobile SMS in Thiruvananthapuram district, Kerala**

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### **ABSTRACT**

*Advantages of Information and Communication Technologies (ICT's) can be extended to the disordered and impeded farming community by accomplishing their accessibility to ICT's like Mobile SMS and utilizing them as a stage for spreading of farm messages and innovations. The study was taken up with an objective of assessing the relationship between the profile characteristics of farmers and their Perception towards the Mobile SMS. The study revealed that majority of the farmers obtaining information from the Mobile SMS reported medium perception (58.33%) of the messages followed by low perception (40.00%) and high perception (18.33%). Relationship between the profile characteristics and the Perception of farmers towards Mobile SMS yielded positive correlation with the variables such as exposure to ICT, awareness of the farmers about Mobile SMS, effectiveness of the Mobile SMS and information dissemination ways of the farmers and negative correlation with constraints faced by the farmers while utilizing Mobile SMS.*

**Keywords:** Information and Communication Technology, Mobile SMS, Perception

Received 05.08.2017

Revised 13.08.2017

Accepted 21.08.2017

### **INTRODUCTION**

The ICT aided extension systems act as crucial agents for changing current farming situation by improving access to information, sharing knowledge, providing incredible opportunities and enabling the empowerment of farming communities. One of the best ICT services is to use mobile phones as a platform for dissemination of agricultural technology through Short Message Service (SMS) which had been started in various states through various projects. Hence, the present study was taken up with an objective of developing an index for measuring the effectiveness of these Mobile SMS to improve its perception and utility to the farmers. Every Tuesdays and Fridays, a voice message in Malayalam language followed by text message in English language are being pushed to the farmers and extension personnel about various agriculture related information such as package of practices, departmental services etc., through the project, 'Content development for Agri Kiosk and networking through Mobile SMS' which was initiated by Department of Agricultural Extension, College of Agriculture, Vellayani and Indian Institute of Information Technology and Management Kerala, Trivandrum. Hence, the study was taken up with an objective of assessing the relationship between the profile characteristics of the farmers and their Perception towards the Mobile SMS.

### **MATERIALS AND METHODS**

The study was conducted in the Thiruvananthapuram district of South Kerala region during 2013-2014. Ex-post facto research design is employed. Sixty farmers were selected through random sampling method from Thiruvananthapuram district of Kerala as respondents. Perception is the process of understanding sensation or attaching meaning based on experience to signs (Taneja, 1989)<sup>1</sup>. Perception was operationalized as the farmer's opinion towards the features of the messages of Mobile SMS. The method used by Balasubramani (2010)<sup>2</sup> with necessary modifications was used. Ten statements were

administered to the respondents of which eight statements are positive and two are negative in a three point continuum namely, most satisfied, satisfied and not satisfied with a scoring of three, two and one respectively. Summation of the score of all items gave the score of the respondents. Based on the scores, the Perception Index was calculated using the formula.

$$\text{Perception Index (PI)} = \frac{\text{Individual subject's score}}{\text{Total score}} * 100$$

The data was coded, classified and tabulated and subjected to percentage, quartiles to meaningfully interpret the findings. Profile characteristics of the farmers like age, education, Exposure to ICT, awareness about Mobile SMS, information dissemination ways of the farmers, frequency of use of messages, information needs of the farmers, attitude of the farmers, constraints faced by the farmers while accessing Mobile SMS, effectiveness of Mobile SMS, Advantages of Mobile SMS were correlated with the farmers perception towards Mobile SMS to know the significant and non-significant relationship between the variables

## RESULTS AND DISCUSSION

The results are presented along with the inferences drawn in the light of the objective set forth for the study.

### *Perception towards Mobile SMS*

The respondents are categorized according to their perception towards Mobile SMS into low, medium and high perception category based on quartiles. The distribution of farmers for perception towards Mobile SMS is presented in Table 1.

It is clear from the Table 1 that majority of the farmers obtaining agricultural information from the Mobile SMS reported medium perception (58.33%) of the messages followed by low perception (40.00%) and high perception (18.33%). Majority of the farmers opined medium level of perception because majority of the attributes of the Mobile SMS were only observed to be satisfied by the farmers. Very few farmers reported as most satisfied. This is due to the fact that many farmers contact extension personnel, Department officials in case of emergency and contingencies.

### *Correlation between profile characteristics and Perception of farmers towards Mobile SMS*

Correlation analysis was employed to assess relation between profile characteristics of the farmers utilizing information from Mobile SMS with their Perception towards Mobile SMS. The correlation coefficients were worked out and the significance was tested by comparing with the table values. The results are represented in Table 2.

**Table 1. Distribution of farmers according to their perception towards Mobile SMS**

S. No	Extent of perception	Number of respondents	Percentage
1	Low	14	40
2	Medium	35	58.33
3	High	11	18.33
	Quartile 1	150	
	Quartile 2	200	
	Quartile 3	233.3	
	Range	112.2-462.9	

**Table 2. Correlation between profile characteristics and Perception of farmers towards Mobile SMS**

S. No	Profile characteristics of farmers	Perception towards Mobile SMS (Correlation Coefficient r values)
1	Age	-0.145 <sup>NS</sup>
2	Education	0.147 <sup>NS</sup>
3	Exposure to ICT	0.326 <sup>**</sup>
4	Information dissemination ways	0.411 <sup>*</sup>
5	Awareness	0.680 <sup>**</sup>
6	Frequency of use of messages	0.075 <sup>NS</sup>
7	Information needs	0.029 <sup>NS</sup>
8	Attitude of the farmers	0.086 <sup>NS</sup>
9	Constraints	-0.357 <sup>*</sup>
10	Effectiveness	0.514 <sup>**</sup>
11.	Advantages	0.220 <sup>NS</sup>

“\*” Significant at 5% level, “\*\*” Significant at 1% level, Not Significant “NS”

It indicates that Exposure to ICT (0.326\*\*), Awareness of farmers towards Mobile SMS (0.680\*\*), Effectiveness of Mobile SMS (0.514\*\*) are positively correlated and are significant at 1 % level. Information dissemination ways of the farmers (0.411\*) is positively correlated and is significant at 5 % level. Constraints faced by farmers while accessing and utilizing Mobile SMS is negatively correlated and insignificant at 5% significance level. The r values of profile characteristics such as Age of the farmers (-0.145<sup>NS</sup>), Education status of the farmers (0.147<sup>NS</sup>), Frequency of use of messages by the farmers received through Mobile SMS (0.075<sup>NS</sup>), Information needs of the farmers (0.029<sup>NS</sup>), Attitude of the farmers towards Mobile SMS (0.086<sup>NS</sup>), Advantages of Mobile SMS (0.220<sup>NS</sup>) were having non-significant relationship with Perception of farmers towards Mobile SMS.

From the table 2, it can be observed that Exposure to ICT tools such as Computer, Internet, Telephone, Radio, Television, Mobile phone develops a positive perception of timely and anytime accessible agricultural messages provided through Mobile SMS which increases its Perception. Information dissemination ways such as letters, by word of mouth, telephone, email, by adopting the content obtained from Mobile SMS provides information about the Mobile SMS to other farmers. Sharing of messages obtained through Mobile SMS by the benefited farmers among his fellow members or groups aids in communication of information support provided through Mobile SMS to farmers and makes it feasible for developing a positive perception towards this ICT tool. Awareness acquired by farmers by different sources about Mobile SMS such as Canvassing through Project staff, knowing about Mobile SMS through friend/relative, newspaper, extension personnel facilitated in developing a positive perception towards Mobile SMS. As awareness of the farmers about the Mobile SMS increases the Perception towards the Mobile SMS also increases. Effectiveness of Mobile SMS includes its conversational ability, quick availability, ability to exploit a considerable amount of knowledge, reliability, scalability, Preservation and improvement in its knowledge content. They play an important role in realizing its use as a significant agricultural information source for the of farmer's benefit. Hence, as Effectiveness of Mobile SMS increases it also increases the Perception of the farmers towards the Mobile SMS. Constraints faced by the farmers while accessing and utilizing the messages provided through Mobile SMS such as incompatible with the culture, incompleteness of subject matter, negative mindset in accepting new things, illiteracy, content problems posed a negative impact on the perception of the Mobile SMS.

## CONCLUSION

Exposure to ICT increases the knowledge about the Mobile SMS services and information dissemination ways, increase the credibility of the Mobile SMS which in turn increases the Perception about the Mobile SMS. More usage of the SMS will lead to better understanding of the SMS services and increases the Perception. Effectiveness and advantages increase the Perception about the Mobile SMS. Constraints decrease the accessibility of the Mobile SMS service and decrease its Perception. Hence focusing on these attributes will have a positive impact on the Perception of the Mobile SMS.

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## CITATION OF THIS ARTICLE

Hinduja. N. A., N. Kishore Kumar, R. Prakash, Allan Thomas .Relationship between profile characteristics of the farmers and their Perception towards Mobile SMS in Thiruvananthapuram district, Kerala. Bull. Env. Pharmacol. Life Sci., Vol 6 Special issue 1, 2017: 457-459