

Effectiveness of Kisan Mobile Advisory Service in Dissemination of Agricultural Information in Gandhinagar District of Gujarat

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ABSTRACT

The revolution in ICT has made access to the information easy and cost effective to the rural masses in general and farming community in particular. Kisan Mobile Advisory (KMA) service is one among the several methods of ICTs working successfully for dissemination of latest information. KMA service was launched for sending information through mobile Short Message Service (SMS) in Gandhinagar District of the Gujarat State through Krishi Vigyan Kendra (KVK) during May 2014. The content of messages were typed in Gujarati language and information related to crop production, crop protection, vegetable and fruit production, dairy farming, weather forecasting, post harvest management, government Schemes and other enterprises sent to end users. Out of total registered 18750 users with us, 90 farmers, 25 Extension personnel and 15 input dealers were randomly selected for this study. After sending messages for two years (2017, 2018) feedback was sought during April-May 2019. Total 78 messages on different discipline were sent during study period. For collecting information, semi structured interview schedule was designed. The delivered messages were highly understandable for 80 per cent of extension personnel, 60 per cent of input dealers and 42.22 per cent of farmers. Messages were needful and timely as reported by 80 percent of farmers, 72 per cent of extension personnel and 66.66 per cent of Input dealers. The messages were fully applicable perceived by 51.11 per cent of farmers. It was found that 68 per cent messages were fully applicable for extension personnel and 46.66 per cent for input dealers. It was found that technology imposes high impact on 62.22 per cent of KMA members of farmer category, whereas 72 per cent and 60 per cent members of extension personnel and input dealers category reported technology impacted highly on them. Low impact was reported by 12.22 per cent by farmers, 8 per cent by extension personnel and 13.33 per cent by input dealers in Gandhinagar district of Gujarat state.

Keywords: Kisan mobile advisory (KMA), ICT, Short message service (SMS)

INTRODUCTION

Agriculture in our country is more than an occupation and considered as a tradition and a way of life as still around two-third of our population is actively practicing it. But, today in the era of information revolution, like other areas, the competitive agriculture also governed by access of information to the farmer's through various means. In past few years, the usefulness of Information Communication Technologies (ICTs) especially, Internet and cell phone has been realized in agriculture sector to

bridge the gap between scientific recommendations and its application by the farmers in relatively less time and cost. It is being discussed on various platforms that Information Communication Technologies (ICTs) are potential and promising tools for dissemination of technological information in the field of agriculture as well. The success of agricultural development programmes in country like India largely depends on the nature and extents of effective use of mass media to mobilize people and to disseminate newly evolved agricultural technologies (Birkenholtz and Maricle, 1991). The people living in 21st

century with the revolution of Information communication technology which is responsible for wide spread access of computer technology as well as mobile services in to the social structure. The technology is turn influenced the society, development and social environment (Manoj, 2006). In this age of information revolution, information technologies are being used in almost all walks of life. Today computer, internet and mobile are turning out to be extremely important, information and communication technologies (ICTs) are facilitating fast sharing of information and innovation and acting as a key agent for changing agrarian situation and farmers lives by improving access to agricultural information (Parganiha *et al.*, 2012).

The Kisan Mobile Advisory service through message is being used to deliver the needful agricultural information and specially to improve farmers' agricultural technical knowledge with decision making ability, so that, they may enable to increase their production and productivity to fulfill market demands with securing better quality life and income in present competitive agrarian economy. The advisory was sent to registered farmers covering the broad category of information like, crop production, crop protection, vegetable and fruit production, dairy farming, weather forecasting, extension activities, post harvest management and other agricultural and allied information.

METHODOLOGY

The present study was conducted in Gandhinagar District of Gujarat state in the year 2019-20. The majority farmers are come under small and marginal group. Kisan Mobile Advisory service was launched for sending information through Short Message Service (SMS) in Gandhinagar District by KVK during May 2014. The messages were sent related to crop production, crop protection, horticulture crop, dairy farming, weather, post harvest technology, value addition and other enterprises. After sending messages for two years (2017, 2018) feedback was sought during April-May 2019. Total 78 messages on different discipline were sent frequently during study period. For collecting information, semi structured interview schedule was designed on the basis of availability of literatures. Out of total registered 18750 users, 90 farmers, 25 extension personnel and 15 input

dealers were randomly selected for this study. To assess the overall impact of technology, semi structured interview schedule was developed and responses of the respondent were recorded on a four point continuum scale for each aspects and assigned a scores like; Understanding of the message (Highly-3, Medium-2, Low-1, Not-0), Need and time based information (Needful and timely-3, Needful but not timely-2, Not needful and timely-1, Not needful and not timely-0), Applicability of message (Fully-3, Medium-2, Partially-1, Not -0). Finally, an index was worked out to assess the overall impact of technology with the help of following equations.

$$TI = \frac{O}{S} \times 100$$

Where,

TI= Technology Impact index of a respondent

O= Total scored obtained by respondents

S= Total obtainable score

RESULTS AND DISCUSSION

Total 1 Mobile SMS was sent pertaining to agriculture and allied discipline during 2017 and 2018. Maximum 29.48 per cent SMS were sent in the field of plant protection followed by agronomy (crop production) 24.35 per cent and animal husbandry 20.51 per cent. Rest of 25.62 per cent SMS includes information on horticulture crops, extension, farm mechanization, weather forecast and other miscellanies.

Impact of Kisan Mobile Advisory (KMA) service on dissemination of transfer of agricultural technology was assessed. The results of Table 2 reveal that sent

Table 1: Number of SMS sent pertaining to different discipline

Discipline/Area	No. of SMS (%)
Agronomy (Crop production)	19 (24.35)
Plant protection	23 (29.48)
Horticulture	08 (10.25)
Animal Husbandry	16 (20.51)
Farm mechanization	03 (3.84)
Extension	05 (6.41)
Weather forecast	02 (2.56)
Miscellanies	02 (2.56)

Table 2: Distribution of the respondents according to understanding of the message

Category	Farmers (N=90)		Extension personnel (N=25)		Input dealers (N=15)	
	Number	Percentage	Number	Percentage	Number	Percentage
Highly Understandable	38	42.22	20	80.00	9	60.00
Medium Understandable	35	38.88	04	16.00	3	20.00
Low Understandable	09	10.00	01	4.00	2	13.33
Not Understandable	08	8.88	00	0.00	1	6.66
Total	90	100.00	25	100.00	15	100.00

advisory messages were medium understandable for maximum number (38.88%) of the farmers, it was highly understandable for 80 per cent and 60 per cent of extension personnel and input dealers respectively. Only 8.88 per cent farmers and 6.66 per cent input dealers reported that messages was not understandable for them.

The data presented in Table 3 indicate that advisory through messages was needful and timely for 80 per cent of the KMA received farmers and 72 and 66.66 per cent for extension personnel and input dealers respectively. Less numbers of farmers (8.8%), extension personnel (24%) and input dealers (20%) reported the messages were needful and not timely for them. Only 2.22 per cent farmers reported that advisory was not needful and not timely.

Table 4 reveals that advisory messages were fully applicable for 51.11 per cent farmers, 68 per cent for extension personnel and 46.66 per cent for input dealers, whereas medium applicable was reported by 37.77, 24.00 and 26.66 per cent farmers, extension personnel and input dealers respectively. Messages were partially applicable as reported by 7.77, 8.0 and 13.33 per cent of farmers, extension personnel and input dealers respectively. It was also found that messages were not applicable for 13.33 per cent of input dealers followed by 4.00 and 3.33 per cent of extension personnel and farmers respectively.

Table 5 indicates the overall impact of technology and it was found that technology imposed high impact on 62.22 per cent of KMA members of farmer category, whereas 72 per cent and 60 per cent members of

Table 3: Distribution of the respondents according to need and time based information

Category	Farmers (N=90)		Extension personnel (N=25)		Input dealers (N=15)	
	Number	Percentage	Number	Percentage	Number	Percentage
Needful and timely	72	80.00	18	72.00	10	66.66
Needful and not timely	08	8.80	06	24.00	03	20.00
Not needful and timely	08	8.80	01	4.00	02	13.33
Not needful and not timely	02	2.22	00	0.00	00	0.00
Total	90	100.00	25	100.00	15	100.00

Table 4: Distribution of the respondents according to applicability of message

Category	Farmers (N=90)		Extension personnel (N=25)		Input dealers (N=15)	
	Number	Percentage	Number	Percentage	Number	Percentage
Fully applicable	46	51.11	17	68.00	07	46.66
Medium applicable	34	37.77	06	24.00	04	26.66
Partially applicable	07	7.77	02	8.00	02	13.33
Not applicable	03	3.33	01	2.00	02	13.33
Total	90	100.00	25	100.00	15	100.00

Table 5: Distribution of the respondents according to overall impact of technology

Category	Farmers (N=90)		Extension personnel (N=25)		Input dealers (N=15)	
	Number	Percentage	Number	Percentage	Number	Percentage
Low (Score upto 1-3)	11	12.22	02	8.0	02	13.33
Medium (Score upto 3.1-6.0)	23	25.55	05	20.0	04	26.66
High (Score upto 6.1 to 9.0)	56	62.22	18	72.0	09	60.0
Total	90	100	25	100	15	100

extension personnel and input dealers category reported technology impacted highly on them.

CONCLUSION

Introduction of information and communication Technologies (ICTs) in the field of agriculture has brought many changes in traditional methods of extension. The study indicate that KMA service is one of the most useful tool for dissemination of agricultural technology and information to the farmers, extension personnel and also can play a major role in enhancing efficiency of extension service by reaching large number of peoples. Innovative information and improved communication are vital requirement for sustainable agriculture development in present scenario. Undoubtly, the ICT like KMA service offer great scope for dissemination of agricultural technology and information up to the farmers and extension personnel.

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