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Impact of Mobile based Messages through KVKs in Haryana

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ABSTRACT

The information and communication technologies like radio, TV, newspapers, telephones and magazines are playing a major role in sustainable agricultural development since early decades and now the modern ICTs as mobiles and computers and have created a revolution. Kisan mobile advisory service (KMAS) was launched for sending agricultural information through Short Message Service (SMS). The present study was undertaken to assess the impact of message in terms of information input, process and output delivered through mobile based advisory services (MBASs) by KVKs. Out of all, 12 Krishi Vigyan Kendras (KVKs) used mobile based advisory services (MBASs). Among them , two KVKs - Fatehabad and Sirsa were randomly selected for the assessment of impact. Out of that list, 150 registered farmers were selected randomly from each KVK, comprising total sample of 300 registered farmers. The overall information output pattern of the mobile based messages as received by registered farmers was found to be medium (61.00%) followed by high (23.67%) and low (15.33%) information output pattern.

Key word: Impact, information, KVK, messages, mobile based advisory service, SMS,

INTRODUCTION

In the 21st century in the era, cost-effective and efficient communication technologies are required to take lead in changing agricultural scenario. The use of Kisan Mobile Advisory Service scheme in main line extension system of Krishi Vigyan Kendras is new ICT initiatives to meet the needs and expectations of the farmers. The growing information needs of farmers due to diversification and commercialization need to be addressed immediately but at the same time extension system needs to continuously evaluate ICT initiatives to improve and improvise the delivery of information. Mobile phone based ICTs are being implemented across the country. For instance, farmers can raise queries related to agriculture and allied sectors using their mobile phone to a farmer call centre which has been operating in every state of

India. In another initiative called farm science centre, weekly SMS alerts are issued to farmers on various

agricultural developments like weather forecast, disease forecast, and market information (Saravanan, 2010, Ashutosh *et al.*, 2012). Information and communication technologies (ICTs) these days play a crucial role in agricultural extension services meeting the information requirement for farmers. There are several organizations extensively using modern information technology in India to promote communication between researchers, extension workers, and their farmer clients to transfer technologies and information more effectively (Saravanan, 2010). Keeping this scenario and importance in mind, the present study was planned with the following objectiv: To measure the impact of message in terms of information input, process and output delivered through mobile based advisory services (MBASs).

METHODOLOGY

The study was conducted in all Krishi Vigyan Kendras (KVKs) of Haryana state, purposively. There are 23 KVKs in Haryana state. Out of them ,12 KVKs used mobile based advisory services (MBASs). Among them, two KVKs -Fatehabad and Sirsa Krishi Vigyan Kendra (KVKs) were randomly selected for the assessment of impact. List of registered farmers (who have registered their mobile numbers with KVKs was procured from

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selected KVKs. Out of that list, 150 registered farmers were selected randomly from each KVKs, comprising total sample of 300 registered farmers. It was evaluated from experts and modified accordingly. The experts included scientists of extension education discipline. Statistical tools used for data analysis were frequency, percentages and weighted mean scores.

RESULTS AND DISCUSSION

Information Output Pattern

The results in Tables 1, 2 and 3 indicate that messages sent through mobile to the farmers were read by all of them farmers irrespective of district. It was observed that majority of messages were applied in field or as per situation by Fatehabad farmers (91.33 %) and Sirsa farmers (95.33%). It was also noted that 24 (5.99%) respondents even forwarded the messages. The findings of the study are in accordance with the study of Waverman *et al.* (2005). Matthews and Rizvi (2008). Marcel and Bart (2012) and Singh, *et al.* (2015)

Table 1: Information output pattern of the mobile based messages perceived by registered farmers

Date	Type of messages	Read	Discuss	Forward	Apply
		f	f	f	f
July 2015	Informational/Home science	150	30	7	130
	Agricultural	150	44	15	123
	Weather forecast	150	19	00	135
	Horticultural	150	17	12	123
August 2015	Agricultral	150	35	15	134
	Agricultral	150	44	17	150
	Horticultural	150	48	19	126
October 2015	Horticultural	150	26	00	131
	Horticultural	150	78	23	124
December 2015	Agricultural	150	31	00	123
January 2015	Informational	150	29	17	137
March 2016	Agricultural	150	27	12	122
	Kisan mela	150	97	39	150
April 2016	Summer moong	150	19	00	150
	Summer moong	150	26	3	139
	Crop harvesting	150	25	5	143
May 2016	Cotton	150	19	11	150
	Informational	150	69	7	150
	Cotton	150	35	00	150
June 2016	Informational	150	10	00	115
	Kisan mela	150	49	85	150
	Kisan mela	150	63	17	150
	Informational	150	29	00	122

Table 2: Information output pattern of the mobile based messages perceived by registered farmers (Sirsa)

n=150

Date	Type of messages	Read	Discuss	Forward	Apply
		f	f	f	f
July 2015	Educational	150	24	10	150
	Horticultural	150	27	00	112
	Kisan mela	150	32	12	150
	Educational	150	35	21	142
August 2015	Educational	150	44	12	150
	Weather forecast	150	96	34	150
	Educational	150	38	00	150
September 2015	Cotton	150	19	00	130
	Educational	150	25	00	133
October 2015	Cotton	150	22	8	142
	Kisan mela	150	35	25	150
	Kisan mela	150	39	32	150
	Agricultural	150	12	4	122
November 2015	Agricultural	150	18	9	150
December 2015	Informational/Home science	150	30	00	150
	Educational	150	15	12	136
	Agricultural	150	48	16	150
January 2016	Mustard	150	56	10	150
	Soil testing	150	85	16	150
	Mustard	150	35	7	129
February 2016	Weather forecast	150	56	16	136
	Nutritional	150	25	00	126
	Summer moong	150	26	12	143
March 2016	Mustard	150	11	00	142
	Informational	150	00	00	150
April 2016	Agricultural	150	22	12	150
	Kisan mela	150	59	26	150
	Kisan mela	150	65	36	150
	Horticultural	150	35	5	126
May 2016	Agricultural	150	55	00	144
	Informational	150	54	43	150
	Educational	150	35	00	150
	Informational	150	12	14	150
June 2016	Weather forecast	150	25	8	150
	Cotton	150	18	13	150

Table 3: Information output pattern of the mobile based messages received by registered farmers

n=300

Implementation of message	Fatehabad		Sirsa	
	Total	Percentage	Total	Percentage
	f	f	f	
Read	150	100	150	100
Discuss with another person	38	25.33	35	23.33
Forward to another person	13	8.66	11	7.33
Apply in the field	137	91.33%	143	95.33

Overall Information Output Pattern

The overall information output pattern of the mobile based messages as received by registered farmers was found to be medium (61.00%) followed by high (23.67%)

and low (15.33%) information output pattern. The findings of the study are similar with the study of Raj (2011), Kumar, *et al.* (2012), Parganiha *et al.* (2012) and Sharma *et al.* (2012).

Table 4: Overall information output pattern of the mobile based messages received by registered farmers

n=300

Categories	Fatehabad f	Sirsa f	Total	Percentage
Low	26	20	46	15.33
Medium	94	89	183	61.00
High	30	41	71	23.67

Overall Utility Pattern of The Mobile Based Messages Received by Registered Farmers

Table 5 reveals the overall utility pattern of mobile based messages as received by registered farmers. It is clear from that the information input, information process and information output were found medium in most of the cases as usual WMS range between 1.67 to 2.34. Overall weighted mean score also indicated clearly utility pattern with overall mean score 2.14. The findings of the study are accordance with the study of Aker (2010), Kameswari (2011), Mittal & Mehar (2012) and Martin and Abbott (2013).

Table 5: Overall utility pattern of the mobile based messages received by registered farmers

n=300

Aspects	High	Medium	Low	M. S.	W.M.S.	Overall mean score
Information input	115	139	46	669	2.23	2.14
Information process	77	184	39	638	2.12	
Information output	71	183	46	625	2.08	

Low = 1.00 -1.66
Medium = 1.67 - 2.34
High = 2.35 -3.00

Overall Impact of The Mobile Based Messages as Received by Registered Farmers

Table 6 reveals that overall impact of the mobile based messages as received by registered farmer's utility, quality and feasibility were found to be medium with WMS 2.15, WMS 2.08 and WMS 1.78, respectively (Fig. 1).

Table 6: Overall impact of the mobile based messages as received by registered farmers

n=300

Aspects	High (3)	Medium (2)	Low (1)	WMS	Overall mean score
Quality of the messages	65	196	39	2.08	
Feasibility of the messages	30	176	94	1.78	2.00
Utility of the messages	88	169	43	2.15	

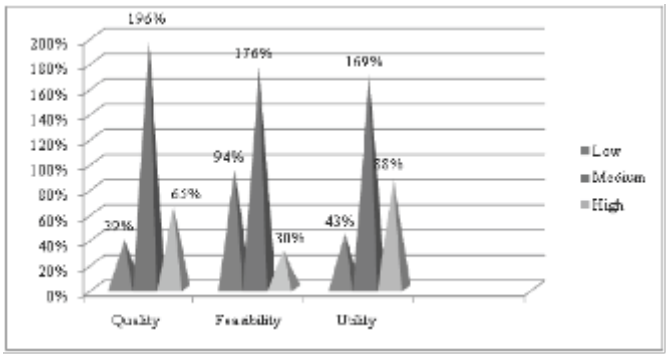

Fig. 1. Overall impact of registered farmers

CONCLUSION

It was concluded that the overall utility pattern of mobile based messages as received by registered farmers. It is clear from that the information input, information process and information output were found medium in most of the cases as usual WMS range between 1.67 to 2.34. Overall weighted mean score also indicated clearly utility pattern with overall mean score 2.14. Overall impact of the mobile based messages as received by registered farmer's utility, quality and feasibility were found to be medium with WMS 2.15, WMS 2.08 and WMS 1.78, respectively

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