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Farmer's reaction and implementation of mobile advisory service in farming

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Abstract

Kisan Mobile Advisory (KMA) is proving as important tool for dissemination of agricultural technologies, innovations and information up to the farmers in crucial time of urgent need without any hindrances that also seems the need of hour. KMA was found the novel step to transform the present agricultural information communication system at grass root level very quick and worth (Singh, 2015). Keeping these facts in mind, the present study was conducted in Jind District of Haryana state with objective- - Farmer reaction and implementation of mobile based advisory services by farmers in farming. A list of farmers and messages was procured from Krishi Vigyan Kendras (KVK), Jind and total 100 farmers from 10 villages were selected for the study. A total of 75 messages were delivered through KVK in a year. Out of which 82.66 percent messages were sent on Agriculture while rest of the messages were related to Home science (10.66%) and only 4.00 percent for miscellaneous/information like Pardhan Mantri Fasal Beema Yojana and Kisan mela. Farmers reacted towards received messages related to agriculture and allied areas that 63.00 percent of the farmers always discussed with KVK scientists as soon as they received messages, read the message (61.0%) whereas 61.0 percent of farmers sometimes discussed these messages with other farmers (ms 2.11). Regarding implementation pattern of messages 69.00 percent of farmers reported that sometimes they apply the direction of message as such in the field (m.s. 2.19, rank Ist) followed by further forwarding the message to fellow farmers (34.00%, rank II). Whereas 25.00 percent of farmers reported that they always apply the direction of message as such in the field while 51.00 percent of farmers reported that never apply in the field with very little alterations (m.s.1.66 rank III).

Keywords: Mobile advisory service, KVK, farmer reaction, implementation

Introduction

In the past decade, there has been a rapid growth of mobile phone usage all over the world. As of 2018, while the world population is 7.6 billion, the international telecommunication union estimated that there were 6.8 billion mobile phones subscribers worldwide. The mobile telephony has been most widely accepted mode of delivering information not only in India but throughout the world. Increasing mobile phone and its services help in improving awareness, education, better adoption of technology, better health and efficiency, reduced transaction costs, better market efficiencies, etc. These in turn will catalyze the rural agricultural sector development and economic growth. Farmers need information on a variety of topics, at a variety of stages, before adopting a new technology (De Silva and Ratnadiwakara, 2008 and Mittal, *et al.*, 2010) [2, 4]. They also needs information regarding each stage of the process, ranging from weather forecasts, pest attacks, inputs, cultivation practices, pest and disease management and prices and they need to access a wide range of information related to production technologies, post harvest processes, remunerative markets, credit and weather (Glendenning *et al.*, 2010) [3]. For this extension has to play expanded role including improved access to markets, research, advice, credit, infrastructure, farmer organization development and business development services (Sulaiman, 2003) [1]. Kisan Mobile Advisory (KMA) is proving as important tool for dissemination of agricultural technologies, innovations and information up to the farmers in crucial time of urgent need without any hindrances that also seems the need of hour. KMA was found the novel step to transform the present agricultural information communication system at grass root level very quick and worth (Singh, 2016) [5]. Keeping this in mind, the present study has been planned with objectives- Farmer reaction and implementation of mobile based advisory services by farmers in farming.

Methodology: Present study was conducted in Jind District of Haryana state. Study was carried out in two phases. In first phase, a list of farmers and list of messages (which were

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delivered through KVK) was procured from KVK, Jind. In 2nd Phase five blocks (Jind, Julana, Uchana, Narwana and Pillukhera) were selected randomly. Out of these five blocks, 10 villages i.e. two villages from each block were selected randomly- Nidani, Kinana, Julana, Dhigana, Mandikalan, Surbra, Narwana, Surjakhera, Dhatrath and Mandi. Further, 10 registered farmers from each village were selected randomly. Thus a total of 100 farmers from 10 villages were selected for the study.

Results and Discussion

Table 1: Personal profile of the registered famrers

N= 100

Characteristics/ Attributes	Category	Jind	
		Frequency	Percentage
Age	18-35yrs.	21	21.00
	36-50 yrs.	73	73.00
	Above 50 yrs.	6	6.00
Caste	Gen	89	89.00
	OBC	11	11.00
	SC/ST	-	-
Education	Illiterate	-	-
	Can read and write	16	16.00
	Primary	21	21.00
	Middle	37	37.00
	Up to high school	13	13.00
	Higher secondary passed	11	11.00
	Graduate	2	2.00
Land holding	Post Graduate	-	-
	No land	0	00
	1-2 acre	51	51.00
	2.1 -5 acre	29	29.00
	5.1-10 acre	18	18.00
Mobile phone possession	>10 acres	02	02.00
	Simple mobile	84	84.00
	Smart phone	16	16.00

Table 3: Information processing of the messages received by the farmers

N=100

S. No.	Discuss with	Response				
		Always	Sometimes	Never	MeanScore	Rank
1.	Family members/relatives	59.00	34.00	7.00	2.52	II
2.	Progressive farmers	25.00	31.00	44.00	1.81	V
3.	Friends and neighbours	46.00	39.00	15.00	2.31	IV
4.	Agriculture Expert	57.00	31.00	12.00	2.45	III
5.	KVK Scientist	63.00	29.00	8.00	2.55	I
6.	HAU Toll free Number	6.00	9.00	85.00	1.21	IX
7.	Private agencies related to agriculture	19.00	37.00	44.00	1.75	VI
8.	National Seed Corporation	11.00	21.0	68.00	1.43	VII
9.	Agriculture Cooperative society	5.00	8.00	87.00	1.18	X
10	Agriculture NGO's	7.00	9.00	84.00	1.23	VIII

Information processing pattern of mobile advisory service in Table-3 reveals that 63.00 percent of farmers reported that they always discussed these messages with KVK Scientists (MS. 2.55, rank Ist), followed by family members / relatives (59.00%), rank IInd and with Agriculture experts of their

Table -1 reveals that 73.00 percent of the respondents were in the age group of 36-50 yrs., educated up to middle standard (37.00%), belonged to General caste (89.00%), 51.00 percent of the respondents were having 1-2 acre land holding and 84.00 percent of respondent had simple mobile phone.

Table 2: Subject Wise distribution of messages sent under Mobile Advisory service

N=75

Component	Total no. of message	
	Frequency	Percentage
1. Agriculture		
Resource conservation technique	15	20.00
Integrated nutrient management	08	10.66
Integrated pest management	07	9.33
Crop residue management	07	9.33
Agronomy	10	13.33
Soil and Water testing	04	5.33
Horticulture/vegetable crops	11	14.66
Total	62	82.66
2. Home Science	08	10.66
3. Agroforestry	02	2.66
4. Miscellaneous/ information	03	4.00
Total	75	

Table -2 depicts that a total of 75 messages were sent in Jind district in a year. Out of which 82.66 percent messages were sent on Agriculture covering the aspects on Resource Conservation Technique (20.00%) followed by horticulture and vegetable crops (14.66%), Agronomy (13.33%) and on integrated nutrient management (10.66%), respectively. While rest of the messages were related to Home science (10.66%) and miscellaneous/information like Pardhan Mantri Fasal Beema Yojana and Kisan mela, only (4.00%). Similar pattern was also reported by Dahiya *et al.* (2018)^[7].

respective areas (57.00%, got rank IIIrd). Whereas 46 percent of farmers also discussed these messages to their Friends and neighbours. Similar pattern was also reported by Saroj Kumari (2017)^[6].

Table 4: Farmers Reaction about messages received under Mobile Advisory Service

N=100

Farmer Reaction	Response				Rank
	Always	Sometimes	Never	MS	
Read the message	61.00	29.00	10.00	2.51	II
Read but delete immediately	13.00	39.00	48.00	1.65	VI
Further forward	23.00	31.00	46.00	1.77	IV
Discuss with other farmers	25.00	61.00	14.00	2.11	III
Discuss with KVK scientist	63.00	29.00	8.00	2.55	I
Record in note book	21.00	27.00	52.00	1.69	V

Table-4 shows the farmers reaction towards received messages related to agriculture and allied areas. It was observed that 63.00 percent of the farmers always discussed with KVK scientists as soon as they received messages, read the message (61.0%, M.S. 2.51) whereas 61.0 percent of

farmers sometimes discussed these messages with other farmers (ms 2.11). While only 8.00 percent of farmers reported that they never discussed with KVK, scientist. The findings is in line with the findings of Dahiya *et al.* (2018)^[7] and Patra *et al.* (2016)^[5].

Table 5: Implementation pattern of messages received by farmers

N=100

Parameters	Jind				Rank
	Always	Sometimes	Never	MS	
Further forwarding	20.00	34.00	46.00	1.74	II
Apply in the field as such	25.00	69.00	6.00	2.19	I
Discard the message and never apply	5.00	23.00	72.00	1.33	IV
Apply in the field with very little alterations	17.00	32.00	51.00	1.66	III

A-Always S-Sometimes N-Never

Table-8 shows the implementation pattern of messages by the farmers that 69.00 percent of farmers sometimes they apply the direction of message as such in the field (m.s. 2.19, rank Ist) followed by further forwarding the message to fellow farmers (34.00%, rank II). Whereas 25.00 percent of farmers reported that they always apply the direction of message as such in the field and 51.00 percent of farmers reported that never apply in the field with very little alterations (m.s.1.66 rank III). The findings is supported by the findings of Dahiya *et al.* (2018)^[7] and Saroj Kumari (2017)^[6].

Conclusion

Majority of farmers read the message, discussed with KVK Scientist, family members / relatives and Agriculture experts of their respective areas. They also followed the direction of the messages as such in the field. So in nut shell KVK Scientist enables the dissemination of requisite information at right time to the right people to make farming more profitable and sustainable.

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