Constraints Faced by the Beneficiary Farmers in Obtaining the Technological Guidance through Kisan Mobile Advisory System in Khargone District (M.P.)

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Abstract:- The Kisan Mobile Advisory system (KMAs) through messages is being used to deliver the needful agricultural information, specially to improve farmers' agricultural technical knowledge with decision making ability, so that, they may be able 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 target farmers covering the broad category of information like, crop production, livestock management, weather forecast, marketing, general awareness and other enterprises etc. Keeping the issues of agriculture situation in area specific and the impact of Kisan Mobile Advisory system in enhancing the technological states of farms and economy of farmers, the present study under taken to identify the constraints faced by the beneficiary farmers in obtaining the technological guidance and their suggestions. In study it was observed that farmers are facing so many constraints in obtaining the proper information through Kisan Mobile Advisory system (KMAs). Hence, farmers need to be motivated through personal contact made by experts.

I. INTRODUCTION

Kisan Mobile Advisory system (KMAs) is one such initiative of ICT which provides location-specific and crop specific farm advisory services and facilities to the farming community in a particular area. Kisan Mobile Advisory Services has been considered as a communication service by which messages are being provided in the form of SMS through KVKs. Main features of Kisan Mobile Advisory Service is multi-language support (16 language) through SMS facility (160 characters) and sending of 2 SMS in a week based on urgent local needs covering all important components of farming like crop production, horticulture, plant protection & animal science etc.

Many initiatives have been taken in this regard to utilize mobile phones by private sector (Indian Farmers Fertilizer Cooperative Limited, Nokia, Airtel, Tata Consultancy Services, etc.) and public sector (Ministry of Agriculture, Agriculture Universities including KVKs.) in agricultural advisory service for agronomic practices, weather forecasts and market price. With increased dependency, the mobile phone is becoming a common communication platform of the world, especially for agriculture.

➢ *Objective*
To observe the constraints faced by the beneficiary farmers in obtaining the technological guidance and their suggestions.

➢ *Review Literature*

Purnomo and Lee (2010) found that technology and organization cultures were seen as the main barriers of ICT programme implementation. The findings show that the two demographic variables, regency and age, must also be considered when ICT programme are implemented.

Aker (2011) study notes a number of challenges associated with the use of mobiles in agricultural extension, such as the need for literacy skills and technological knowledge, the limits of mobiles to display complex information, and technical difficulties in developing voice-based systems. Das et al. (2011) suggested providing SMS in ICT in addition to voice mail as it could be stored, followed and shared with fellow farmers. Singh et al. (2011) found that ICTs can be used to increase the effectiveness and efficiency of extension work and also help the farmers to utilize such information in solving their problems. Kailash (2016) reported that the majority of the respondents (23.00%) reported poor connectivity as major problem followed by economic problem (21.00%), Lack of confidence in handling smartphone (19.00%), High cost internet services (9.75%) and Lack of updated information (8.75%). However, less than 8 per cent farmers reported that high cost for service provided, high cost of mobile phone and Low IT literacy were the other problems in using mobile phone for agricultural information. Rana (2017) reported that the major problems of the sample farmers i.e. reasons for not using mobile application. Study reported that though majority of the sample conveyed that lack of smart phone was the reason behind not using mobile application, lack of skills also turned out to be a reason. Also, some of them believed that they were managing well without application.

II. METHOD AND PROCEDURE

The present study has been conducted in Khargone districts of Madhya Pradesh. Kisan Mobile Advisory (KMA) system was launched in the year 2007-08 for farming community in the Khargone district. Presently this

programme has been working in all blocks of Khargone District. Kisan Mobile Advisory (KMA) system is one of the important extension system in the district for dissemination of agriculture technology, hence, its impact should be assess for further improvement. In this respect the district has been selected for present study. The Khargone district comprises of 9 blocks. Among the list of blocks, one block (i.e. Khargone block) of Khargone district has been selected randomly. A list of villages with Kisan Mobile Advisory system for the selected block Khargone have been prepared with the help of Kisan Advisory Personnel in the block. From this list five villages was selected randomly. List of beneficiary farmers of Kisan Mobile Advisory (KMA) of the five selected villages has been prepared. Among these list, 24 beneficiary farmers of KMAs was selected from each selected village by using simple random sampling method.

In this way 120 beneficiary farmers have been selected from consolidated list. The data was collected through the researcher himself. The task was accomplished through a door to door visit to the selected beneficiaries using the structured interview schedule. The data was collected for the year of 2016-17 through survey method.

III. RESULT AND DISCUSSION

➤ *Constraints faced by the beneficiary farmers in obtaining the technological guidance:*

During investigation, the beneficiaries expressed many problems in obtaining the technological guidance. The data on these problems were collected through opinion survey by beneficiaries. The detail constraint analysis has been expressed in table 1.

S.No.	Constraints	Frequency (n=120)			Mean score	Rank
		Never	Sometime	Always		
1.	Low education	35	40	45	2.08	X[th]
2.	Lack of training	31	41	48	2.14	IXth
3.	Financial crises	10	50	60	2.42*	I[st]
4.	Lack of infrastructure	40	42	38	1.98	XIIth
5.	Lack of computer and other media	14	50	56	2.35*	IVth
6.	Poor network and electricity	18	40	62	2.37*	IInd
7.	Lack of facilities for mass level utilization	41	40	39	1.98	XIIth
8.	Complex social structure	20	48	52	2.27*	VIth
9.	Lack of confidence	39	42	39	2.00	XIth
10.	Unavailability of subject mater in local language	18	50	52	2.28*	V[th]
11.	Lack of proper knowledge about communication facilities	39	49	32	1.94	XIIIth
12.	Improper guidance by officers related to programme	21	53	46	2.21*	VIIIth
13.	Lack of updated information	13	51	56	2.36*	IIIrd
14.	Lack of knowledge about helpline number	51	46	23	1.77	XIVth
15.	Difficult to operate mobiles	18	53	49	2.26*	VIIth
16.	Overall average	27	46	47	2.17	

Table 1:- Constraints confronted by beneficiaries in obtaining the technological guidance (*higher than average mean value)

The distribution of beneficiaries was planned according to mean score of frequency confronted by beneficiaries' i.e. serious constraints (higher value than average mean value) and normal constraints (lower value than average mean value). Among the serious constraints (higher than average mean value) were financial crises mean value 2.42 (ranked I[st]) followed by poor network and electricity mean value 2.37 (ranked IInd), lack of updated information mean value 2.36 (ranked IIIrd), lack of computer and other media mean value 2.35 (ranked IVth), unavailability of subject mater in local language mean value 2.28 (ranked V[th]), complex social structure mean value 2.27 (ranked VIth), difficult to operate mobiles mean value 2.26 (ranked VIIth), improper guidance by officers related to programme mean value 2.21 (ranked VIIIth) respectively. The study revealed that the nominal constraints (lower than

average mean value) were lack of training mean value 2.14 (ranked IXth) followed by low education mean value 2.08 (ranked X[th]), physiological no confidence mean value 2.00 (ranked XIth), lack of infrastructure and lack of facilities for mass level utilization mean value 2.26 (ranked XIIth each), lack of proper knowledge about communication facilities mean value 2.26 (ranked XIIIth) and lack of knowledge about helpline number mean value 2.26 (ranked XIVth) respectively.

➤ *Suggestions to overcome the problems:*

During the opinion survey the beneficiaries suggested many ideas to overcome the problems and to improve the utilization of Kisan Mobile Advisory services in the area. These suggestions have been presented in table; 2.

S.No.	Suggestions	Frequency (n=120)			Mean score	Rank
		Least important	Partial important	High important		
1.	The proper training should be provided	31	41	48	2.14	VIIth
2.	The subject matter and other facilities should be available at mass level regarding KMAs	41	40	39	1.98	VIIIth
3.	The network and electricity facilities should be available regularly	18	40	62	2.37*	Ist
4.	The all facilities should be available at village panchayat level with motivation factors	22	48	50	2.23*	IVth
5.	The subject matter should be available at local language	20	47	53	2.28*	IIIrd
6.	There should be proper information in time through officers	21	53	46	2.21	Vth
7.	The extension activities should be provided through demonstration	18	42	60	2.35*	IInd
8.	The communication personnel should be provided all the information time to time	30	40	50	2.17	VIth
	Overall average	25	44	51	2.22	

Table 2:- Suggestions given by beneficiaries to overcome the problems (*higher than average mean value)

➢ *Constraints faced by the beneficiary farmers in obtaining the technological guidance:*

Among the serious constraints (higher than average mean value) were "financial crises" mean value 2.42 (ranked Ist) followed by "poor network and electricity" mean value 2.37 (ranked IInd), "lack of updated information" mean value 2.36 (ranked IIIrd), "lack of computer and other media" mean value 2.35 (ranked IVth), "unavailability of subject mater in local language" mean value 2.28 (ranked Vth), "complex social structure" mean value 2.27 (ranked VIth), "difficult to operate mobiles" mean value 2.26 (ranked VIIth), "improper guidance by officers related to programme" mean value 2.21 (ranked VIIIth) respectively.

➢ *Suggestions to overcome the problems:*

Among the most important suggestions (higher than average mean value) were "the network and electricity facilities should be available regularly" mean value 2.37 (ranked Ist), followed by "the extension activities should be provided through demonstration" mean value 2.35 (ranked IInd), "the subject matter should be available at local language" mean value 2.28 (ranked IIIrd) and "the all facilities should be available at village panchayat level with motivation factors" mean value 2.23 (ranked IVth) respectively.

IV. SUGGESTIONS

In the light of findings of the study and from the personal experiences of researcher gained by the respondents, following suggestions and implications have been made for the effective improvement in utilization of Kisan Mobile Advisory system (KMAs). These suggestions would be feedback for financing institution, extension and field level personnel and policy makers.

● In study it was observed that farmers are facing so many constraints in obtaining the proper information through Kisan Mobile Advisory system (KMAs). Hence, farmer need to be motivated through personal contact made by KVK Scientists the field extension workers of Farmer Welfare and Agriculture Development, Agriculture Technology Management Agency, Department of Horticulture, Department of Veterinary, Department of Fisheries and Wider publicity in local daily news papers of district.

● It was observed during study that KMAs is indeed playing a crucial role in farms economy in respect to low cost incurred and high return realization with increasing profitability. Timely information from KMAs has helped farmer in taking decisions that are more informed. It directly and indirectly has consequences on the farm income. Farmers have saved a lot on the input cost as well as productivity is enhanced. Still the farmers do not use complete information regarding all the agricultural technology due to poor skills and hesitation of adopting newer things. So it is suggested that the proper guidance through training and demonstration should be given at village level at mass level to proper utilization system of KMAs.

● Agriculture is a biological process, hence, right information at the right time is the need our agriculture. Too early or too late advisory is of no use to the farmers. Effective information models need to be developed wherein need-based and timely information/alerts can be passed on to the farmers in local language and as per agroclimatic condition. Last minute dissemination of information may not be of that help. So, it is suggested for improvement of system as well as availability of network and electricity also.

● It is very important that the service developed should not be difficult to implement and difficult to use. End user has to be kept in mind while developing any service.

There is a need to address hidden constraints for farmers in emerging markets, including financial, cultural and technical barriers. There is need also to educate the farmers at village level with the help of farmers' field school.

- Effective feedback mechanism should be developed by KVKs in collaboration with mobile service providers to clarify doubts of the farmers and to give additional information needed by the farmers. On the other hand, to make KMAS service more meaningful and effective, proper orientation and regular training programmes on the use of mobiles may be organized by KVKs.

REFERENCE

[1]. Das,A.; Basu,D. and Goswami,R. (2011). Accessing agricultural information through Mobile phone. 6th National Extension Education Congress, ICAR Res. Complex for Goa, Old Goa. pp:212.

[2]. Kailash (2016). Study on Use of Mobile Phone Technology (Smartphone) by the Farmers of Nagaur District in Rajasthan. M.Sc. (Ag.) Thesis submitted to Institute of Agricultural Sciences, Banaras Hindu University, Varanasi.

[3]. Rana, Sheesham (2017). Mobile-based agro advisory services (MAAS) in India: An assessment of their effectiveness. Project Report ICAR- National Academy of Agricultural Research Management.

[4]. Singh, Geeta; Dixit,H. and Pathak, Renu (2013). Kisan Mobile Sandesh reaches to unreached. Techno Fame a Journal of Multidisciplinary Advance Research, (2):54-60.

[5]. Singh,K.R.; Tyagi,K.S.; Jainand,C.R. and Jain,K.Y. (2011). ICT-based Kisan Mobile Sandesh: An innovative approach. 6th National Extension Education Congress, ICAR Res. Complex for Goa, Old Goa. pp:232.