Journal of Pharmacognosy and Phytochemistry

Available online at www.phytojournal.com

E-ISSN: 2278-4136
P-ISSN: 2349-8234
www.phytojournal.com
JPP 2020; Sp 9(3): 32-35
Received: 20-04-2020
Accepted: 24-05-2020

Shahrukh Khan
M.Sc. Student, Department of Agril. Extension and Communication, RVSKVV, RAK Collage of Agriculture Sehore, Madhya Pradesh, India

KN Pathak
Professor, Department of Agril. Extension and Communication RVSKVV, RAK College of Agriculture Sehore, Madhya Pradesh, India

Nishi Jain
M.Sc. Student, Department of Agril. Extension and Communication, RVSKVV, RAK Collage of Agriculture Sehore, Madhya Pradesh, India

Abhilasha Sharma
Contractual Teacher, Department of Agril. Extension and Communication, RVSKVV, RAK College of Agriculture Sehore, Madhya Pradesh, India

Reena Bhawel
M.Sc. Student, Department of Agril. Extension and Communication, RVSKVV, RAK Collage of Agriculture Sehore, Madhya Pradesh, India

HR Nagar
M.Sc. Student, Department of Agril. Extension and Communication, JNKVV Collage of Agriculture Tikamgarh, Madhya Pradesh, India

Corresponding Author:
Shahrukh Khan
M.Sc. Student, Department of Agril. Extension and Communication, RVSKVV, RAK Collage of Agriculture Sehore, Madhya Pradesh, India

Effectiveness of mobile Agro-advisory services in extension delivery system

Shahrukh Khan, KN Pathak, Nishi Jain, Abhilasha Sharma, Reena Bhawel and HR Nagar

Abstract
The present study was carried out in sehore district of M.P.in the year 2018-19 with an aim to know the effectiveness of Mobile Agro-Advisory Services in Extension Delivery System. For this the 110 respondents selected randomly from ten villages. The major findings of the study showed that 44.55 per cent had medium effectiveness of mobile based agro-advisory services.

Keywords: Effectiveness, mobile agro-advisory services, extension delivery system

Introduction
Agriculture is the backbone of our economy so it needs to be strengthened more in order to support and sustain the growing population with scarce resources. In order to achieve this agriculture needs to be more precise, judicious and intelligent. In present day in agriculture, soft resources like knowledge and skills are as important as hard resources like inputs, and sometimes more important. However, estimates indicate that 60 per cent of farmers do not access any source of information for advanced agricultural technologies resulting in huge adoption gap (Mobile Phone Applications for Agricultural Extension in India (Saravanan and Suchira dipta Bhattacharjee 2014) [5]. To bridge this gap information and communication technologies (ICTs) have provided immense opportunities for the social and economic development of rural people. Mobile telephonic is single such technology that has developed extensively in the past few years.

In today's world, almost everybody owns a mobile phone. This huge reach, if harnessed in agricultural extension, can change the face of agriculture altogether in a developing country like India by using it as a medium to disseminate agricultural information in multimodal form. Presently the Kisan Mobile Advisory Services (KMAS) is becoming the largest ICT initiative in Madhya Pradesh by providing need based and regular farm advisory services to the farmers in shortest time. The Kisan Mobile Advisory Service (KMAS) delivers real-time based agricultural information and customized knowledge to improve farmers' decision making ability so that they may enable to increase their production and productivity, better aligning the farm output to market demands; securing better quality and improved price recovery. Keeping in pace with the current digitization initiatives, our farming is also moving towards digitalization. Keeping this in view the present investigation was carried out with the following ojectives-

- To study the profile of the farmers.
- To find out the effectiveness of information of mobile based agro-advisory services provided by extension agencies.
- To know the association between profile of the respondents with their effectiveness of mobile based agro-advisory services.

Material and Methods
The present investigation was carried out in Sehore district of Madhya Pradesh. Sehore district comprises 5 blocks i.e. Ashta, Budni, Ichhawar, nasrullaganj, Sehore. Out of which Sehore block was selected purposively because this block has higher number of the beneficiaries of Mobile Agro-Advisory Services Users. Sehore block consist of 157 Village Panchayat. Out of which ten villages were selected on the basis of higher number of (50%) registered users of Kisan Agro Advisory Services Utilized. As per the list provided by K.V.K Sehore, farmers of each selected villages, who have registered under Mobile Agro-Advisory Services users. From this list of the registered farmers, respondents were selected from each village through

proportionate random sampling method to make a sample of 110 farmers. The data were collected personally through well structured interview schedule. The collected data were coded, quantified, classified, tabulated and analyzed with the help of frequency, percentage and χ^2test respectively.

Result and Discussion

A. Profile of the farmers

Table 1: Socio-personal, economical, communicational and psychological characteristics of the farmers N=110

S. N.	Categories		Frequency	Percentage
1	Age	Young (21-35)	32	29.09
		Middle (35-49)	41	37.27
		Old (Above 49)	37	33.64
2	Education	Up to primary	19	17.28
		Up to middle	26	23.64
		Up to high school	41	37.28
		Up to graduates	24	20.00
3	Occupation	Agriculture	43	39.10
		Agriculture &labour	39	35.45
		Agriculture & allied occupation	28	25.45
4	Size of land holding	Marginal (up to 1 ha)	21	19.09
		Small (1 to 2 ha)	39	35.45
		Medium (2 to 4 ha)	24	21.82
		Large (Above 4 ha)	26	23.64
5	Social participation	Low (Score up to 7)	48	43.63
		Medium (8-15)	41	37.27
		High (Above 15)	21	19.10
6	Annual income	Low (Up to Rs. 50,000)	48	43.63
		Medium (50,001 to 70,000)	41	37.27
		High (Above Rs. 70,000)	21	19.10
7	Caste	S.C/ S.T	31	28.19
		O.B.C	47	42.72
		General	32	29.09
8	Source of information	Low (Up to 11)	37	33.66
		Medium (12-17)	42	38.12
		High (Above 17)	31	28.12
9	Extension contact	Low (Up to 18)	44	40.00
		Medium (19-24)	27	24.55
		High (Above 24)	39	35.45
10	Mass media exposure	Low (Up to 5)	32	29.10
		Medium (6-8)	40	36.36
		High (Above 8)	38	34.54
11	Cosmopoliteness	Low (Up to 4)	43	39.10
		Medium (5 -7)	39	35.45
		High (Above 7)	28	25.45
12	Risk orientation	Low (Up to 23)	27	24.54
		Medium (24-30)	48	43.64
		High (Above 30)	35	31.82
13	Innovativeness	Low (Up to 11)	27	24.55
		Medium(12-15)	47	42.73
		High(Above 16)	36	32.72
14	Economic motivation	Low (Up to 11)	41	37.23
		Medium (12-16)	36	32.77
		High (Above 16)	33	30.00

The data Presented in Table 1 represents the socio-personal, economical, communicational and psychological characteristics of Mobile Agro-Advisory User farmers is considered the results shows that higher percentage of the farmers were in the age Category of Middle age (37.27%), educated up to high school (37.28%), agriculture as the main source of occupation (39.10%), small size of land holding (35.45%), low level of social participation (43.63%), low annual income (43.63%), majority of them were OBC category (42.72%), medium source of information (38.12%), having low extension contact (40.00%), medium mass media exposure (36.36%), having low level of cosmopolitness (39.10%), medium level of risk orientation (43.64%), low economic motivation (37.23%) and having medium level of innovativeness.

B. Effectiveness of information of mobile based agro-advisory services provided by extension agencies.

Table 2: The data present in table 2 effectiveness of information of mobile based agro-advisory services provided by extension agencies. N=110

S. N	Aspect of KMA	Level of effectiveness			Total score	Mean score
		High	Medium	Low		
1	Crop production	74	30	16	178	1.48
2	Vegetable production	70	29	21	169	1.40

3	Fruit production	65	27	28	157	1.30
4	Improved variety	58	30	32	146	1.21
5	Seed rate	48	31	41	127	1.05
6	Weed management	55	30	35	140	1.16
7	Irrigation management	50	29	41	129	1.07
8	Disease management	54	28	38	136	1.13
9	Insect management	60	31	29	151	1.16
10	Manure and fertilizer management	45	32	43	122	1.01
11	Harvesting	44	30	46	118	0.98
12	Storage	30	37	53	97	0.80
13	Whether forecasting	24	29	67	77	0.64
14	MandiBhav	36	33	51	105	0.87
15	Seed treatment	43	27	50	113	0.94
16	Animal management	40	44	36	124	1.03

The effectiveness of the individual technological aspects of mobile based agro-advisory services was identified and the selected component wise effectiveness of Mobile based agro-advisory services among the farmers was assessed and presented in Table 2.

The level of effectiveness of the respondents were observed in the descending order as crop production (1.48), vegetable production (1.40), fruit production (1.30), improved variety (1.21), weed management and insect management (1.16), disease management (1.13), irrigation management (1.07), seed rate (1.05), animal management (1.03), manure and fertilizer management (1.01), harvesting (0.98), seed treatment (0.94), mandibhav (0.87), storage (0.80) and whether forecasting (0.64).

Table 3: Distribution of the respondents according to their effectiveness of Mobile based agro-advisory services

S. No.	Category	Number of respondents	Percentage
1.	Low	25	22.73
2.	Medium	49	44.55
3.	High	36	32.72
Total		110	100

The data present in table 3 that the out of 110 respondents,44.55 per cent indicate medium effectiveness of mobile based agro-advisory services followed by 32.72 per cent high effectiveness of mobile based agro-advisory services. It is evident from the data that 22.73 per cent respondents showed low effectiveness of mobile based agro-advisory services. This finding is similar to the finding of Patel *et al.* (2015) [4].

C. Association between profile characteristics of the respondents with their effectiveness of mobile based agro-advisory services

Table 4: The data present in table 4 association between independent variables with profile characteristics of the respondents with their effectiveness of mobile based agro-advisory services chi-square (χ^2) values were computed N=110

S. N.	Characteristics	χ^2 value	C	Degree of association
1.	Age	8.33*	0.13	Negligible
2.	Education	17.36**	0.35	Fair
3.	Size of land holding	14.69**	0.33	Fair
4.	Social participation	9.24*	0.15	Negligible
5.	Occupation	11.31**	0.31	Fair
6.	Annual income	11.32**	0.31	Fair
7.	Caste	4.28*	0.11	Negligible
8.	Source of Information	12.48**	0.32	Fair
9.	Mass media exposure	10.02**	0.30	Fair
10.	Extension contact	12.81**	0.32	Fair
11.	Cosmopolitness	11.31**	0.31	Fair
12	Risk orientation	15.17**	0.34	Fair
13.	Economic motivation	15.74**	0.34	Fair
14.	Innovativeness	15.92**	0.34	Fair

**Significant at 5% level of significance, *NS-Non Significant, C: Degree of association

It is clear from the results that out of the fourteen variables, eleven *viz*. education, size of land holding, occupation, annual income, source of information, mass media exposure, extension contact, cosmopolitness, risk orientation, economic motivation
and innovativeness were significant and positively associated with effectiveness of mobile based agro-advisory services, whereas age, social participation and caste had no association with the effectiveness of mobile based agro-advisory servicesat 5% level of significance.

Education was found to be significantly associated with the effectiveness of kisan mobile agro-advisory services. Similar finding were reported by Grover *et al*. (2007) [2].

Annual income, sizes of land holding, risk orientation, cosmopolitness were found to be significantly associated with the effectiveness of kisan mobile agro-advisory services. This finding is similar to the finding of Bhagat *et al*. (2004) [1].

As regards source of information and Mass media exposure were found to be significant associated with the effectiveness

of kisan mobile agro-advisory services. This finding is similar to findings of Shinde and Mall (2009) [6].

The positive and significant association of extension contact, innovativeness and economic motivation with the effectiveness of kisan mobile agro-advisory services is in line with the finding of Mukherjee *et al*. (2012) [3].

Further, other three variablesnamely age, social participation and caste were not found to have any association with the effectiveness of kisan mobile agro-advisory services.

Conclusion

The finding of the study shows that majority of respondents were in the age category of 35-49 years, educated up to high school, agriculture as the main source of occupation, had small size of land holding, low level of social participation, low annual income, majority of them were OBC category, medium source of information, having low extension contact, had medium mass media exposure, having low level of cosmopolitness, medium level of risk orientation, low economic motivation and having medium level of innovativeness. Further effectiveness of information of mobile based agro-advisory services provided by the respondents were observed out of 110 respondents,44.55 per cent indicate medium effectiveness of mobile based agro-advisory services followed by 32.72 per cent high effectiveness of mobile based agro-advisory services. It is evident from the data that 22.73 per cent respondents showed low effectiveness of mobile based agro-advisory services. Regarding association between profile characteristics of the respondents with their effectiveness of mobile based agro-advisory services eleven attributes i.e. education, size of land holding, occupation, annual income, source of information, mass media exposure, extension contact, cosmopolitness, risk orientation, economic motivation and innovativeness were significant and positively associated with effectiveness of mobile based agro-advisory services, whereas age, social participation and caste had no association with the effectiveness of mobile based agro-advisory services.

References

1. Bhagat GR, Nain MS, Narda R. Information sources for agricultural technology. Indian Journal of Extension Education. 2004; 40(1&2):111-112.
2. Grover I, Verma V, Sethi N. Adoption of information and communication technologies by farming households in Haryana, India. Paper for Annual Conference of European Federation of IT in Agriculture and the World Congress on Computers in Agriculture, Glasgow. Scotland, 2007, 2-5.
3. Mukherjee A, Bahal R, Burman RR, Dubey KS, Jha KG. Effectiveness of Tata KisanSansar in technology advisory and delivery services in Uttar Pradesh. 6th National Extension Education Congress, Dec.17-19, 2011 at ICAR Res. Complexfor Goa, Old Goa, 2012, 204.
4. Patel MR, Patel MV, Patel RA. Assessment of Kisan Mobile Advisory (KMA) Service for Dissemination of Agriculture Information in Mehsana District; Gujarat International Journal on Recent and Innovation Trends in Computing and Communication. 2015; 7(3):459-4602.
5. Saravanan R, SuchiradiptaBhattacharjee. Mobile Phone Applications for Agricultural Extension in India, In:Saravanan, R (Ed.). Mobie Phones for Agricultural Extension: Worldwide mAgri innovations and Promise for Future, New india Publishing Agency, New Delhi, 2014, 1-75.
6. Sinde, Mall. Electronic Media use behaviour of Farm Scientiests for Agricultural development in national senior on ICT for agricultural and rural development aranachal Pradesh, 2009, 9-11.