The Pharma Innovation Journal 2022; SP-11(9): 325-327

www.ThePharmaJournal.com

The Pharma Innovation

ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2022; SP-11(9): 325-327

www.thepharmajournal.com
Received: 01-06-2022
Accepted: 05-07-2022

Amanish Kumar
M.Sc. Scholar, Department of Extension Education, College of Agriculture, Central Agricultural University, Imphal, Manipur, India

Angad Prasad
Professor & Head, Department of Extension Education, College of Agriculture, Central Agricultural University, Imphal, Manipur, India

Daya Ram
Assistant Professor, Department of Extension Education, College of Agriculture, Central Agricultural University, Imphal, Manipur, India

M Deepa Devi
Assistant Professor, Department of Extension Education, College of Agriculture, Central Agricultural University, Imphal, Manipur, India

NG Singh
Associate Professor, Department of Basic Science, College of Agriculture, Central Agricultural University, Imphal, Manipur, India

Corresponding Author:
Angad Prasad
Professor & Head, Department of Extension Education, College of Agriculture, Central Agricultural University, Imphal, Manipur, India

Utilization of mobile-based agro-advisory services by the farmers of Thoubal district, Manipur and their level of satisfaction

Amanish Kumar, Angad Prasad, Daya Ram, M Deepa Devi and NG Singh

Abstract
The present study was conducted to determine the utilization of mobile based agro-advisory services by farmers and their level of satisfaction. The ex-post-facto research design was employed for the study. Total 120 farmers were selected with simple random sampling from eight villages under two blocks of Thoubal district. The data was collected from these respondents with the help of structured interview schedule. Data were coded, tabulated, analyzed and interpreted using suitable statistical parameters. In utilization study, it was found that, almost third-fourth of the respondents regularly used messages delivered by mobile-based agricultural advisory services about sowing time (73.34%) and weather (71.67%). While, in case of overall utilization, majority of the respondents were moderately (72.50%) utilized the mobile based agro-advisory services. Out of 120 respondents, 70.00 percent were moderately satisfied followed by 15.83 percent and 14.17 percent were having high and low satisfaction, respectively.

Keywords: Utilization, agro-advisory services, satisfaction, ICT, mobile and utilization

Introduction
The Indian economy always has been depending on agriculture and its allied sectors. Seventy percent of Indian rural households still depend primarily on agriculture for their livelihood, with 82 percent of farmers being small and marginal. In 2017-18, total food grain production was estimated at 275 million tonnes (MT). With a population of 1.27 billion India is the world's second-most populous country (FAO, 2018) [2]. To feed the expanding population with the limited resources available, it needs to be strengthened significantly. Our agriculture must be more efficient, scientific and smart to accomplish this. Soft assets like, knowledge and expertise are just as vital as material assets like the inputs in modern agriculture. But, estimates show that 60 percent of farmers do not have access to any informational resources about sophisticated agricultural technologies, creating a significant adoption gap (Saravanan and Suchiradipta, 2015) [6]. In recent years, agriculture is facing severe challenges coupled with limited manpower of extension personnel due to which information needs of farmers are not met. As in India, the extension worker-farmer ratio is 1:1000 (Kaur *et al*., 2014) [5]. Almost everyone in the world today has a cell phone. If, it is used properly for agricultural extension, its enormous reach might completely alter how agriculture is practised in a developing country like India by serving as a platform for the multidimensional dissemination of agricultural expertise.

Materials and Methods
The present study was conducted in the Thoubal district of Manipur State. In the Thoubal district, there are 3 community development blocks, out of which two blocks namely Wangjing and Thoubal were selected. From each selected block four villages were selected and from that eight villages, 120 farmers were selected as respondents by taking 25 percent of the enrolled farmers under m4agriNEI from each village by simple random sampling without replacement. Ex-post-facto research design was used for the study. Keeping in view, the objectives of the study, the interview schedule was prepared and pretested on a sufficient number of non-sampled farmers. The utilization was studied on three-point continuum *i.e.*, regular, sometimes and never. The scores 2, 1 and 0 were assigned respectively. Likewise, satisfaction was also studied on three-point continuum *i.e.*, highly satisfied, somewhat satisfied and not satisfied. The scores 2, 1 and 0 were assigned respectively.

The total scores were obtained through the structural interview schedule with '0' and '40' being the minimum and maximum possible scores. Then, the respondents were categorized based on mean and standard deviation. Data were collected by personally interviewing the respondents with the help of a pretested structural schedule. Collected data were tabulated properly. Mean and standard deviation, frequency and percentage methods of statistics were used for the interpretation of data.

Results and Discussion

Utilization

It is defined as the level with which the farmers utilize information from mobile based agro-advisory services such as sowing, fertilizer application, irrigation, insect-pest, harvesting, marketing, weather, government programmes and many others.

Utilization pattern of information on different aspects

The results in Table 1 showed that the majority of the respondents regularly used messages delivered by mobile-based agricultural advisory services about sowing time (73.34%), weather (71.67%), pest and diseases (66.67%), variety selection (62.50%), soil testing (60.83%), vaccination of livestock (58.33%), seed rate (57.50%), manures and fertilizers (54.17%) and seed treatment (52.50%). While majority of the respondents never used information about food and feeder of livestock and poultry (91.67%), post-harvest handling (83.33%), input sources (75.00%), govt. schemes (54.17%), irrigation (54.17%) and nursery management (50.00%).

The reason for regular or never utilization of different information of advisory services might be the different level of focus of extension agencies and the awareness level of farmers. Further, the utilization pattern might be affected by the different attributes of the respondents. The results are somewhat consistent with the findings of Bhongle (2018) [1].

Table 1: Distribution of the respondents according to their utilization pattern of information on different aspects n=120

Sl. No.	Information related to	Utilization pattern					
		Regular		Sometime		Never	
		Freq.	%	Freq.	%	Freq	%
A.	**Crop production**						
1.	Soil testing	73	60.83	32	26.67	15	12.50
2.	Seed rate	69	57.50	26	21.67	25	20.83
3.	Nursery management	20	16.67	40	33.33	60	50.00
4.	Sowing time	88	73.34	16	13.33	16	13.33
5.	Variety selection	75	62.50	30	25.00	15	12.50
6.	Seed treatment	63	52.50	31	25.83	26	21.67
7.	Irrigation	25	20.83	30	25.00	65	54.17
8.	Weed management	20	16.66	50	41.67	50	41.67
9.	Manures and fertilizers	65	54.17	30	25.00	25	20.83
10.	Weather	86	71.67	19	15.83	15	12.50
11.	Post-harvest handling	0	0.00	20	16.67	100	83.33
B.	**Plant protection**						
1.	Pest and diseases	80	66.67	21	17.50	19	15.83
2.	Use of pesticides	55	45.83	42	35.00	23	19.17
3.	Use of bio-agents	25	20.83	50	41.67	45	37.50
C.	**Livestock and poultry**						
1.	Feed and fodder	0	0.00	10	8.33	110	91.67
2.	Disease management	58	48.33	17	14.17	45	37.50
3.	Vaccination	70	58.33	14	11.67	36	30.00
D.	**Others**						
1.	Input sources	15	12.50	15	12.50	90	75.00
2.	Financial institution	20	16.67	25	20.83	75	62.50
3.	Govt. schemes	25	20.83	30	25.00	65	54.17

Overall utilization of information of mobile based agro advisory services

Table 2, clearly indicates that overall utilization of the provided mobile-based agro-advisory services was moderate by 72.50 percent of the respondents, high by 15.0 percent, and low by 12.50 percent of respondents.

The overall utilization of mobile based agro-advisory depends on many factors like age, education, land holding, annual income, innovativeness, mass media exposure, social participation and extension contact of the farmers. The result is in line with the finding of Kanavi (2014) [4].

Table 2: Distribution of the respondents according to the overall utilization n=120

Sl. No.	Category	Range (score)	Frequency	Percentage
1	Low utilization	Less than15	15	12.50
2	Moderate utilization	15 to 25	87	72.50
3	High utilization	More than 25	18	15.00
	Total		120	100.00

$\bar{X}$ = 20.10, S. D. = 5.48

Satisfaction

It pertains to what farmers perceived about information provided under mobile-based agro-advisory services.

Satisfaction of the respondents about the information on different aspects

The results in Table 3 show that the majority of the respondents were highly satisfied with the information about seed rate (55.00%), seed treatment (50.00%), soil testing (48.33%), weather (48.33%) pest and disease (41.67%). Further, the majority of the respondents were somewhat satisfied with the information about weed management (54.17%), manures and fertilizers (50.00%), variety selection (47.50%), disease management of livestock (41.67%) and use of bio-agents (41.67%). The results are somewhat consistent with the findings of Bhongle (2018) [1].

Table 3: Distribution of the respondents according to their satisfaction about the information on different aspects n=120

Sl. No.	Information related to	Satisfaction					
		Highly satisfied		Somewhat satisfied		Not satisfied	
		Freq.	%	Freq.	%	Freq	%
A.	**Crop production**						
12.	Soil testing	58	48.33	41	34.17	21	17.50
13.	Seed rate	66	55.00	20	16.67	34	28.33
14.	Nursery management	12	10.00	53	44.17	55	45.83
15.	Sowing time	40	33.33	50	41.67	30	25.00
16.	Variety selection	15	12.50	57	47.50	48	40.00
17.	Seed treatment	60	50.00	33	27.50	27	22.50
18.	Irrigation	5	4.17	25	20.83	90	75.00
19.	Weed management	10	8.33	65	54.17	45	37.50
20.	Manures and fertilizer	10	8.33	60	50.00	50	41.67
21.	Weather	58	48.33	35	29.17	27	22.50
22.	Post-harvest handling	5	4.16	20	16.67	95	79.17
B.	**Plant protection**						
4.	Pest and disease	50	41.67	40	33.33	30	25.00
5.	Use of pesticides	20	16.67	40	33.33	60	50.00
6.	Use of bio-agents	25	20.83	50	41.67	45	37.50
C.	**Livestock and poultry**						
4.	Feed and fodder	5	4.17	16	13.33	99	82.50
5.	Disease management	25	20.83	50	41.67	45	37.50
6.	Vaccination	45	37.50	20	16.67	55	45.83
D.	**Others**						
4.	Input source	15	12.50	20	16.67	85	70.83
5.	Financial institution	20	16.66	35	29.17	65	54.17
6.	Govt. schemes	20	16.67	30	25.00	70	58.33

Overall satisfaction about mobile based agro advisory services

Table 4 clearly indicates the overall opinion about the information on mobile based agro-advisory services. Out of 120 respondents, 70.00 percent were moderately satisfied followed by 15.83 percent and 14.17 percent were having high and low satisfaction, respectively.

The finding is somewhat matching with the finding of Ganesan *et al.* (2013) [3].

Table 4: Distribution of the respondents according to the overall satisfaction n=120

Sl. No.	Category	Range (score)	Frequency	Percentage
1.	Low satisfaction	Less than11	17	14.17
2.	Moderate satisfaction	11 to 20	84	70.00
3.	High satisfaction	More than 20	19	15.83
	Total		120	100.00

$\bar{X}$ = 15.81, S. D. = 4.97

Conclusion

In the utilization study, it was found that, information about feed and fodder, input sources, post-harvest handling, financial institution, govt. schemes and nursery management were never utilized by the majority of the respondents. Therefore, the extra focus should be given to these pieces of information along with the information those were used regularly. Further, the overall utilization of the mobile based agro-advisory services was moderate by the majority of the respondents. In terms of satisfaction, most of the respondents were moderately satisfied with the mobile based agro-advisory services. Hence there is a gap to make it more efficient.

References

1. Bhongle SD. Opinion and utilization of mobile based agro advisory services by farmers in Nagpur district. M. Sc. (Agriculture) Thesis. Dr. Panjabrao Deshmukh Krishi Vidyapeeth, (Akola, Maharashtra) India; c2018.
2. FAO; c2018. https://www.fao.org/india/fao-in-india/india-at-a-glance/en/. 10 Feb 2022.
3. Ganesan M, Karthikeyan K, Prashant S, Umadikar J. Use of mobile multimedia agricultural advisory systems by Indian farmers: Results of a survey. Journal of Agricultural Extension and Rural Development. 2013;5(4):89-99.
4. Kanavi RS. An analysis of Kisan Mobile Advisory Service (KMAS) of Krishi Vigyan Kendra. M. Sc. (Ag.) Thesis. University of Agricultural Sciences, Dharwad; c2014.
5. Kaur P, Kaur K, Kumar P. Problems and prospects of privatization of extension services. Research Journal of Social Science and Management 2014;3(9):89-94.
6. Saravanan R, Suchiradipta B. mExtension–Mobile phones for agricultural advisory services. What Works in Rural Advisory Services?; c2015. p. 95.