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Use of smartphone in agriculture by farm women of Udaipur district (RAJ.)

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Abstract

Smartphones have become an important source of agricultural information for farm women, enabling access to information related to crop production, livestock management, weather forecasting, market information, government schemes, and modern agricultural practices. The present study was conducted among 120 farm women from Gogunda and Badgaon Panchayat Samities of Udaipur district, Rajasthan, to assess the extent of smartphone usage for accessing agricultural information. The findings revealed that crop production information recorded the highest utilization (MPS = 45.28), followed by agricultural news, government schemes, and subsidies (MPS = 43.06). Comparatively lower utilization was observed for soil and water conservation (MPS = 34.00), farm implements (MPS = 34.44), and market information (MPS = 35.28). The majority of respondents (86.67%) belonged to the low category of smartphone usage for agricultural information, while only 10.00 per cent and 3.33 per cent exhibited medium and high levels of utilization, respectively. The results indicate that although smartphones are widely available among farm women, their potential for accessing agricultural information remains underutilized due to limited digital literacy, inadequate awareness of agricultural applications, and technical constraints. The study highlights the need for strengthening digital literacy programmes, promoting agricultural mobile applications, and improving access to digital extension services to enhance the effective use of smartphones in agriculture.

Keywords: Smartphone usage, farm women, agricultural information, digital literacy, ICT, agricultural extension, Rajasthan

Introduction

Agriculture continues to be the backbone of the Indian economy and remains the primary source of livelihood for a large proportion of the rural population. Farm women play a significant role in agricultural production and allied activities, contributing substantially to crop cultivation, livestock management, post-harvest operations, and household food security. In recent years, Information and Communication Technologies (ICTs), particularly smartphones, have emerged as powerful tools for improving access to agricultural information and enhancing agricultural productivity. Smartphones provide timely information related to crop production, weather forecasts, market prices, government schemes, pest and disease management, and modern agricultural practices. The rapid expansion of mobile networks and internet services in rural areas has increased smartphone accessibility among farm women. Smartphones have become an important medium for communication, learning, and information sharing

through applications such as WhatsApp and YouTube. Access to digital agricultural information helps farm women improve their knowledge, decision-making ability, and participation in agricultural activities. However, despite the growing availability of smartphones and internet facilities, several barriers continue to restrict their effective utilization. Challenges such as limited digital literacy, poor internet connectivity, lack of technical skills, language barriers, misinformation, and inadequate training often prevent farm women from fully utilizing smartphones for agricultural purposes.

Government initiatives such as Krishi Vigyan Kendras (KVKs), mobile advisory services, digital extension programmes, Self-Help Groups (SHGs), and Farmer Producer Organizations (FPOs) have played an important role in promoting digital agriculture and enhancing access to information among rural women. These efforts are gradually bridging the information gap and empowering farm women socially and economically.

Keeping these concepts in view, an exclusive study entitled “smartphone usage by farm women in accessing agricultural information. of Udaipur District, Rajasthan”

Methodology

The present study was conducted in Udaipur district of Rajasthan. Out of the 15 Panchayat Samities in the district, two Panchayat Samities namely Gogunda and Badgaon were selected randomly. Three villages from each Panchayat Samiti were selected randomly. Gurjaron Ka Gudda, Majawad and Rana villages were selected from Gogunda Panchayat Samiti, while Jhindoli, Madaar and Shukher villages were selected from Badgaon Panchayat Samiti. A list of farm women possessing smartphones was prepared with the assistance of Agriculture Supervisors and the Department of Agriculture. From each selected village, 20 farm women were selected randomly. Thus, the total sample size consisted of 120 farm women. Data were collected through personal interview method using a structured interview schedule. Appropriate statistical tools such as frequency, percentage, mean percent score (MPS), mean and standard deviation were used for analysis of the

data.

Results and Discussion

Smartphones have emerged as an important source of agricultural information among farm women, enabling them to access information related to crop production, livestock management, weather forecasting, market trends, soil and water conservation, farm implements, protected cultivation, government schemes, and other agricultural activities. The extent to which farm women utilize smartphones for obtaining agricultural information varies across different agricultural domains depending upon their information needs, awareness, accessibility, and digital skills. The present study was conducted among 120 farm women of Udaipur district to assess the frequency and pattern of smartphone usage for accessing agricultural information. The findings provide valuable insights into the areas where smartphones are most frequently used and highlight the gaps in utilization for advanced agricultural practices. The data pertaining to smartphone usage by farm women in accessing different categories of agricultural information are presented in Tables 1 to 2.

Table 1: Distribution of respondents by their frequency of using smartphone for obtaining crop production information n=120

S. No.	Items	Frequency of use												MPS
		Every day		2-3time in a week		Once in a week		Once in a fortnight		Monthly		Never		
		f	%	f	%	f	%	f	%	f	%	f	%	
1.	Seed variety	0	0	2	1.67	5	4.17	4	3.33	70	58.33	39	32.5	16.83
2.	Fertilizer	4	3.33	2	1.67	3	2.50	30	25.00	71	59.17	10	8.33	28.00
3.	Plant protection	6	5.00	4	3.33	5	4.17	16	13.33	35	29.17	54	45.0	21.33
4.	Use of input and output	3	2.50	4	3.33	2	1.67	8	6.67	20	16.67	83	69.17	12.16
5.	Harvesting	2	1.67	2	1.67	4	3.33	11	9.17	58	48.33	43	35.83	18.33
6.	Crop choice	4	3.33	6	5.00	2	1.67	5	4.17	23	19.17	80	66.67	13.83
7.	Any Other Crop pattern	1	0.83	4	3.33	3	2.50	2	1.67	4	3.33	106	88.33	6.33

The distribution of respondents based on their frequency of using the smartphone to obtain crop production information is presented in Table 9 below. From the results obtained, there were differences in smartphone usage by respondents for various agricultural activities.

Concerning information on seed varieties, the greatest percentage *i.e.* 58.33 per cent accessed the information from the use of smartphones monthly, while the rest of the respondents *i.e.* 32.50 per cent did not use smartphones at all to access the information on seed varieties. Very few respondents used smartphones weekly or fortnightly. The mean percent score (MPS) of seed variety information was 16.83, showing that the information was less accessed.

On fertilizer information, the largest number *i.e.* 59.17 per cent used smartphones monthly, and 25.00 per cent respondents used smartphones once in a fortnight. Only 8.33 per cent of the respondents did not use smartphones to access fertilizer information. The MPS for fertilizer information was 28.00, a comparatively high score compared to other aspects of crop production, showing that fertilizer information had more interests than others.

Regarding plant protection information, nearly half of then *i.e.* 45.00 per cent, never used smartphones to access information, but the rest, 29.17 per cent respondents accessed information monthly using smartphones. The MPS for plant protection was 21.33. As far as the use of input and output information is concerned, most of the respondents *i.e.*

69.17 per cent never used their smartphones to gain knowledge regarding input and output information, while others used them sporadically. The MPS attained in this regard was 12.16, means low usage.

For harvesting related information, 48.33 per cent respondents used their smartphones on a monthly basis, but at the same time, 35.83 per cent respondents never used their smartphones for any such information. The MPS for harvesting was found to be 18.33, which showed moderate usage.

For crop selection information, most of the respondents *i.e.* 66.67 per cent never used their smartphones, but 19.17 per cent respondents did so monthly. The MPS of this aspect was 13.83, means comparatively low usage.

Finally, for crop pattern information, most of the respondents *i.e.* 88.33 per cent never used their smartphones for such information. Moreover, only a very few respondents used such information weekly or monthly. The MPS of this particular aspect was 6.33, the least MPS among all the other aspects. The findings revealed that respondents used smartphones for accessing various types of crop production information, particularly fertilizer information, plant protection measures, harvesting practices and seed varieties. Similar findings were reported by Singh (2019) in a study entitled “Utilization Pattern of Mobile Phone among Farmers of Varanasi District”. The study revealed that farmers frequently used mobile phones for

obtaining information related to disease and pest identification and control measures (14.00%), crop varieties and hybrids (8.00%), animal husbandry (6.00%), sowing time (3.33%), fertilizer application (2.00%) and post-harvest operations and marketing (2.00%). The study further indicated that farmers preferred mobile phones for receiving

timely technical advice in their local language. These findings are in conformity with the present study, where respondents utilized smartphones to obtain information on seed varieties, fertilizer application, plant protection and harvesting-related practices.

Table 2: Distribution of respondents by their frequency of using smartphone for obtaining Livestock and poultry information n=120

S. No.	Items	Frequency of use										MPS
		Every day		2-3time in a week		Once in a fortnight		Monthly		Never		
		F	%	f	%	F	%	f	%	F	%	
1.	New breed	2	1.67	4	3.33	3	2.50	50	41.67	61	50.8	32.67
2.	Feed and fodder	5	4.17	8	6.67	7	5.83	30	25.00	70	58.33	34.67
3.	Disease management	0	0	3	2.50	8	6.67	10	8.33	99	82.5	25.83
4.	Other (Production details)	3	2.50	2	1.67	5	4.17	8	6.67	102	85.0	26.00

Table 2 illustrates distribution of the respondents based on the frequency of smartphone use in acquiring livestock and poultry information. According to the findings, the frequency of smartphone uses for livestock information differed in some aspects.

With regard to the acquisition of new breed information, majority of the respondents either used smartphones every month or did not use smartphones at all for this purpose. Almost 41.67 per cent respondents used smartphones every month to acquire new breed information, while 50.8 per cent respondents did not use smartphones for this purpose at all. Fewer respondents used smartphones every day or a couple of times a week. The mean percent score (MPS) in this aspect was 32.67, which indicates low usage.

With respect to the information regarding feeds and fodder, use of smartphones was relatively higher. Almost 41.67 per cent respondents did not use smartphones for this purpose,

while 25.00 per cent respondents used smartphones every month. Relatively fewer respondents used smartphones every day or a few times a week. The MPS in this respect was 34.67, which is the highest almost all the livestock-related aspects.

When considering disease management information, the largest proportion of the respondents, i.e. 82.5 per cent never used their smartphones to acquire such information. However, a small number of respondents occasionally utilized their smartphones to manage diseases. The MPS for this category was 25.83. In the same way, the other categories of livestock production details had 85.0 per cent respondents who never used their smartphones to acquire that information. Only (26.00%) of respondents occasionally or monthly utilized their smartphones. The MPS for this category

Table 3: Distribution of respondents by their frequency of using smartphone for obtaining Weather and forecasting information n=120

S. No.	Items	Frequency of use										MPS
		Every day		2-3 time in a week		Once in a fortnight		Monthly		Never		
		f	%	f	%	F	%	f	%	F	%	
1.	Monsoon	4	3.33	10	8.33	15	12.50	72	60.00	19	15.83	44.67
2.	Storms	2	1.27	9	7.50	5	4.17	28	23.33	76	63.33	32.17
3.	temperature	3	2.50	2	1.67	11	9.17	68	56.67	36	30.00	38.17

Table 3 presents the distribution of respondents based on how frequently they use their smartphones to get weather and forecast information. According to the results, there is variation in the extent to which the respondents use smartphones to get information about weather depending on factors such as monsoons, storms, and temperature.

Concerning the aspect of monsoon, most of the respondents 60.00 per cent used their phones on a monthly basis, 12.50 per cent respondents reported using their phones once every two weeks. Ten respondents (8.33%) used their smartphones 2-3 times a week while four respondents i.e. 3.33 per cent used them on a daily basis to acquire this information while 7.50 per cent respondents reported never using their smartphones to acquire monsoon information. The Mean

Percent Score (MPS) of the monsoon information was 44.67.

For information related to storms, majority of the respondents i.e. 63.33 per cent did not use smartphones. However, about 23.33 per cent respondents used smartphones monthly, and a (4.17%) respondents used smartphones occasionally or weekly. For storm information, the MPS was 15.00, which shows that smartphone use among respondents was at a low level. In terms of information related to temperatures, majority of the respondents i.e. 56.67 per cent used smartphones monthly, while 27.50 per cent respondents did not use smartphones. The MPS for temperature information is 38.37.

Table 4: Distribution of respondents by their frequency of using smartphone for obtaining Weather and forecasting information n=120

S. No.	Items	Frequency of use												
		Every day		2-3 time in a week		Once in a week		Once in a fortnight		Monthly		Never		MPS
		f	%	f	%	f	%	F	%	f	%	f	%	
1.	Price	3	2.50	4	3.33	8	6.67	9	7.50	24	20.00	72	60.00	16.16
2.	Demand	2	1.67	0	0	3	2.50	7	5.83	50	41.67	58	48.33	13.83
3.	Logistics	0	0	2	1.66	1	0.83	4	3.33	9	7.50	104	86.67	4.66
4.	Other Market trends	4	3.33	5	4.17	2	1.67	3	2.59	4	3.33	102	85.00	9.33

Table 4 illustrates distribution of the respondents in terms of how often they used smartphones to gain market information such as prices, demand, logistics, and market trends. Results reveals that there was varied use of smartphones in terms of gaining market information in different aspects.

On price information, the highest number of respondents *i.e.* 60.00 per cent indicated that they never used smartphones to obtain such information. About 20.00 per cent respondents utilized the use of smartphones on a monthly basis. Some small numbers used smartphones weekly and even more often. The Mean Percent Score (MPS) for price information was 16.16, which signifies low

to moderate use. On demand information, the highest number of respondents *i.e.* 48.33 per cent never used their smartphones. However, about 41.67 per cent respondents used smartphones on a monthly basis.

Concerning logistics information, there was a very high percentage of respondents (86.67%) who have never used their smartphones to obtain this kind of information. A few (4.17%) others had access to this information occasionally. For logistics information, the MPS was 4.66, which was the lowest for all other categories of information. Also, for market trends, a total of 85 per cent respondents had never used their smartphones to obtain this type of information. The MPS for market trends was 9.33.

Table 5: Distribution of respondents by their frequency of using smartphone for obtaining soil and water information n=120

S. No.	Items	Frequency of use												MPS
		Every day		2-3time in a week		Once in a week		Once in a fortnight		Monthly		Never		
		f	%	f	%	f	%	f	%	f	%	f	%	
1.	Reclamation of soil	2	1.67	3	2.50	7	5.83	9	7.50	44	36.67	55	58.3	17.5
2.	Weather harvesting measures	5	4.17	2	1.67	1	0.83	14	11.67	31	25.83	67	55.83	15.83
3.	Soil health	4	3.33	2	1.67	3	2.50	4	3.33	39	32.50	68	60.8	14.00
4.	Mulching	3	2.50	0	0	8	6.67	4	3.33	15	12.50	90	100	10.33

Table 5 shows distribution of the respondents based on their smartphone usage frequency in gathering information related to soil and water such as soil reclamation, weather harvesting measures, soil fertility, and mulching. Results shows that there was an overall low frequency of using smartphones for acquiring such agricultural information.

On the aspect of soil reclamation information, most of the respondents *i.e.* 58.33 per cent do not use smartphones at all in gathering information related to this topic. Meanwhile, about 36.67 per cent respondents gather soil reclamation information using smartphones once a month. Very (4.17%) respondents utilizes smartphones more often than that. The Mean Percent Score (MPS) for this item was 17.50, which reflects a low usage score. As for weather harvesting

measures, most of the *i.e.* 55.83 per cent respondents, do not use smartphones for this type of information.

In relation to the soil health information, 60.83 per cent respondents never used smartphones to get the information. While around 32.50 per cent respondents used their smartphones on a monthly basis, only a few individuals had more frequent access. The MPS of the soil health was 14.00, thus suggesting that this category of information was used least often. For the mulching information, 75.00 per cent respondents never used their smartphones. Just a (14.17%) respondents individuals used such information on an occasional or monthly basis. The MPS for the mulching was 10.33.

Table 6: Distribution of respondents by their frequency of using smartphone for obtaining farm implements information n=120

S. No.	Items	Frequency of use												MPS
		Every day		2-3time in a week		Once in a week		Once in a fortnight		Monthly		Never		
		f	%	f	%	f	%	f	%	f	%	f	%	
1.	Price	2	1.67	3	2.50	6	5.00	18	15.00	42	35.00	49	40.83	19.66
2.	New model	3	2.50	5	4.17	3	2.50	7	5.83	25	20.83	77	64.17	13.83
3.	Repairing	1	0.83	4	3.33	3	2.50	8	6.67	25	20.83	79	65.83	11.83
4.	Potential	2	1.67	1	0.83	2	1.67	3	2.50	18	15.00	94	78.33	7.33

Table 6 distribution of the respondents based on the frequency of usage of smartphones in gathering information about farm implements related to cost, new models, repairing, potential, and safety measures. The results shows that the frequency of smartphone usage for gathering farm machinery related information was generally low among the

respondents.

In gathering information about price, 40.83 per cent respondents did not use smartphones ever, whereas 35.00 per cent respondents used smartphones for the information monthly. Very few respondents used smartphones for the information weekly or even daily. The Mean Percent Score

(MPS) for the information related to price was 19.66.

As far as information about new models is concerned, 64.17 per cent respondents did not use smartphones ever, whereas 20.83 per cent respondents used smartphones for the information monthly. Very few respondents used smartphones for the information weekly or even daily. The MPS for the information about new models was 13.83.

In gathering information about repair, 65.83 per cent respondents did not use smartphones ever, where 20.83 per cent respondents used smartphones for the information monthly. Very few respondents used smartphones for the information weekly or even daily. The MPS for the

information about repair was 11.83

Regarding information on the possibility of farm implements, a very large *i.e.* 78.33 percentage of the respondents never used the smartphone for this purpose. Only a few used this information occasionally. The MPS in this case was 7.33, which is very low usage.

In relation to safety measures regarding farm implements, a very large percentage of the respondents *i.e.* 90.83 per cent never used their smartphones to obtain this information. Only a few respondents used their smartphones occasionally or monthly. The MPS in this regard was 5.00, which is the lowest of all categories.

Table 7: Distribution of respondents by their frequency of using smartphone for obtaining protection cultivation information n=120

S. No.	Items	Frequency of use												MPS
		Every day		23time in a week		Once in a week		Once in a fortnight		Monthly				
		f	%	f	%	f	%	f	%	f	%	f	%	
1.	Polyhouses	9	7.50	6	5.00	8	6.67	14	11.67	27	22.50	56	46.67	24.66
2.	Drips	4	3.33	8	6.67	11	9.17	9	7.50	40	33.3	48	40.00	23.83
3.	Sprinklers	2	1.66	4	3.33	2	1.67	14	11.67	34	28.33	64	53.33	15.66
4.	Fertigation	0	0	2	1.67	9	7.50	6	5.00	22	18.33	81	67.50	11.5

Table 7 describes the frequency of using smartphones to access protected cultivation information such as polyhouses, drip irrigation, sprinklers, and fertigation. From the data collected, it is evident that generally the use of smartphones to access information on the adoption of advanced technologies was not common among the respondents.

Concerning polyhouse information, it can be seen from Table 13 that 46.67 per cent respondents did not use their smartphones ever in search of such information while 22.50 per cent respondents used smartphones every month to access polyhouse information. The Mean Percent Score (MPS) for polyhouse was 24.66.

As far as information regarding drip irrigation is concerned, 40.00 per cent farm women never used smartphones for this purpose while 33.30 per cent farm women used smartphones

once a month. Only a few farmers used their smartphones regularly in searching for information on drip irrigation. The MPS for drip irrigation was 23.83.

Regarding sprinkler irrigation, 53.33 per cent respondents never used smartphones for obtaining such information. About 28.33 per cent respondents used smartphones monthly, while a small proportion accessed information more frequently. The MPS for sprinkler irrigation was 15.66, indicating low usage.

For fertigation-related information, the majority of respondents *i.e.* 67.50 per cent never used smartphones. Only 18.33 per cent respondents used smartphones monthly, while very few used them regularly. The MPS for fertigation was 11.50, which was the lowest among the categories, indicating minimal usage.

Table 8: Distribution of respondents by their frequency a using smartphone for obtaining other information n=120

S. No.	Items	Frequency of use												MPS
		Every day		2-3time in a week		Once in a week		Once in a fortnight		Monthly		Never		
		f	%	f	%	F	%	f	%	f	%	f	%	
1.	Agriculture news	14	11.67	11	9.17	26	21.67	17	14.17	30	25.00	22	18.33	42.66
2.	Government schemes	13	10.83	6	5.00	4	3.33	12	10.00	74	61.67	11	9.17	33.16
3.	Electricity	4	3.33	6	5.00	3	2.50	1	0.83	12	10.00	94	78.33	11.16
4.	Storage of produce	10	8.33	6	5.00	4	3.33	11	9.17	16	13.33	73	60.83	20.66
5.	Subsidies	7	5.83	3	2.50	1	0.83	12	10.00	75	62.50	22	18.33	24.83

Table 8 above shows the frequency distribution of respondents based on their usage of smartphones in seeking other forms of agricultural/rural information including agriculture news, government schemes, information about electricity, storage of produce, and subsidies.

Concerning agriculture news, the results show that 25.00 per cent respondents used smartphones monthly, while 21.67 per cent respondents used them weekly. Some 18.33 per cent respondents never used smartphones to access agriculture news. The MPS for agriculture news is 42.66 which shows comparatively high usage when compared to other items. Whereas in the case of government schemes, the highest number of *i.e.* 61.67 per cent respondents used smartphones monthly while some 9.17 per cent respondents

did not use smartphones at all to get information concerning government schemes. The MPS in government schemes is 33.16, which shows moderate usage.

Regarding electricity information, from the results obtained, majority of the respondents 78.33 per cent never accessed this type of information using their smartphones. A very small number of respondents accessed electricity information using smartphones. The MPS is 11.16. As far as product storage is concerned 60.83 per cent respondents never used their smartphones while 13.33 per cent respondents used their smartphones to access this type of information monthly. This shows that the usage level of smartphone for storing information about produce was low to moderate. For subsidies, 62.50 per cent respondents

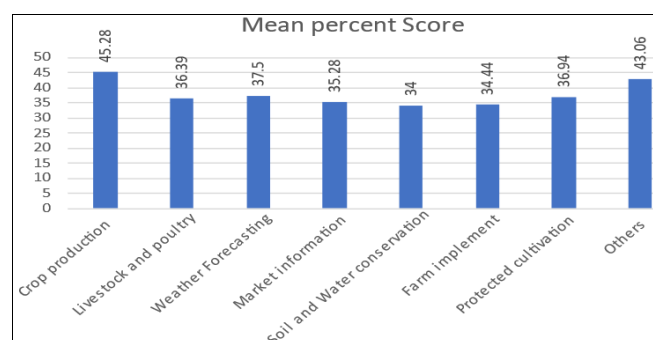
accessed subsidy information using smartphones monthly while 18.33 per cent respondents never used their smartphones. The findings indicate that smartphones were mainly used for accessing agriculture news, government schemes and subsidy-related information, whereas their use for obtaining information on electricity and storage of produce was comparatively low. Similar findings were reported by Singh (2025) in a study entitled “Study on the Use of Smartphones for Seeking Agricultural Information

by the Farmers in Bokaro District of Jharkhand”. The study revealed that smartphones were one of the most commonly used sources of agricultural information, with 86.25 per cent of the respondents utilizing smartphones for information seeking. The findings further showed that farmers actively used smartphones to access agricultural information and advisory services. Thus, the findings of the present study are in close agreement with those reported by Singh (2025)

Table 9: Distribution of respondents by the use of smartphone for agricultural information

S. No.	Items	Extent f (%)			Mean percent Score
		High	Medium	Low	
1.	Crop production	7 (5.83)	28 (23.33)	85 (70.83)	45.28
2.	Livestock and poultry	8(6.67)	5 (4.17)	107 (89.17)	36.39
3.	Weather Forecasting	4 ((3.33)	6 (5.00)	110 (91.67)	37.50
4.	Market information	2 (1.67)	10 (8.33)	108 (90.00)	35.28
5.	Soil and Water conservation	5 (4.17)	2 (1.67)	113 (94.17)	34.00
6.	Farm implement	1(1.67)	5 (4.17)	114 (95.00)	34.44
7.	Protected cultivation	4(3.33)	9 (7.50)	107 (89.17)	36.94
8.	Others	2(1.67)	30 (25.00)	88 (73.33)	43.06
	Overall	4(3.33)	12(10.00)	104 (86.67)	37.86

The distribution of respondents on the basis of the frequency of use of their smartphones to access agriculture-related information is shown in Table 9. According to the results, a large number of respondents showed a relatively low frequency of smartphone use for the purpose of accessing agriculture-related information. In comparison to other types of information, crop production information received the highest score in terms of frequency of access using smartphones, with a mean percent score of 45.28. Information on weather forecasting came second, with an MPS of 43.06. In the middle of the scale were agriculture-related information (MPS = 37.50), protected cultivation (MPS = 36.94), and livestock and poultry production (MPS = 36.39). Information on market operations (MPS = 35.28), farm machinery (MPS = 34.44), and soil & water conservation (MPS = 34.00) had relatively lower frequencies of smartphone usage. Out of the total number of respondents, 86.67 per cent used smartphones less frequently to access agricultural information, while 10 per cent and 3.33 per cent used them moderately and highly, respectively. The above findings demonstrate that despite the presence of smartphones among the farmers, there is under-utilization of the same technology as a means of disseminating agricultural information, showing that more needs to be done in terms of digital literacy and awareness of agricultural apps.



Conclusion

The present study revealed that smartphones have emerged as an important source of agricultural information among farm women in Udaipur district of Rajasthan. Farm women utilized smartphones for obtaining information related to crop production, livestock and poultry management, weather forecasting, market information, soil and water conservation, farm implements, protected cultivation, government schemes, subsidies, and agricultural news. However, the extent of smartphone utilization varied across different categories of agricultural information.

The findings indicated that crop production information recorded the highest Mean Percent Score (MPS = 45.28), followed by other agricultural information such as agricultural news, government schemes and subsidies (MPS = 43.06). Relatively lower utilization was observed for soil and water conservation (MPS = 34.00), farm implements (MPS = 34.44), and market information (MPS = 35.28). Overall, the majority of the respondents (86.67%) belonged to the low category of smartphone usage for accessing agricultural information, whereas only 10.00 per cent and 3.33 per cent respondents belonged to medium and high categories, respectively.

The study concludes that although smartphones are available among farm women, their potential for accessing agricultural information is not being fully utilized. Factors such as limited digital literacy, inadequate awareness about agricultural applications, poor internet connectivity, and lack of technical guidance may restrict effective smartphone use. Therefore, there is a need to strengthen digital literacy programmes, promote awareness regarding agricultural mobile applications, and enhance digital extension services through Krishi Vigyan Kendras, Self-Help Groups, and other agricultural institutions. Such initiatives can improve the effective utilization of smartphones and contribute towards empowering farm women and enhancing agricultural productivity.

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