 https://doi.org/10.56572/gjoee.2022.si.0009

CONSTRAINTS FACED BY FARMERS IN SAURASHTRA REGION IN USING SMART PHONES FOR AVAILING AGRICULTURAL INFORMATION

P. S. Gorfad[1], H. R. Vadar[2] and K. P. Gorfad[3]

1 Associate Professor and Head, Dept. of Agril. Ext. and Communication, CoA, JAU, Khapat (Porbandar) - 360579
2 Principal, College of Agriculture, JAU, Khapat (Porbandar) - 360579
3 Ph. D. Scholar, Shri Somnath Sanskrit University, Veraval - 362265
E-mail: psgorfad@gmail.com

ABSTRACT

The present era is a "Smart Phone Era". The mobile phone became an inevitable gadget for everyone and also for farmers to know the latest agricultural technology. But there were many problems which hinder the maximum use of smart phone to get the scientific information of agricultural field. Keeping this in view, the present study was undertaken to identify the constraints faced by farmers in the use of smart phone for agricultural information. This study was undertaken in Porbandar district of Gujarat state. 120 farmers who had minimum three years' experience in the use of smart phone were selected from 12 randomly selected villages of Porbandar district. Results indicated that, unavailability/fluctuation of network connectivity in rural area is the major constraint in the use of smart phone. Some other important constraints were; lack of technical know-how to operate smart phone properly, language barrier i.e. majority of information is available in English not in vernacular language and the cost of smart mobile phones is high. The network service provider should give priority for strong network connectivity in rural areas, farmers should be trained to improve their smart phone use efficiency, agricultural information should be available in local/vernacular language and the government should provide smart phones at low cost to farmers were crucial suggestions given by the respondents to overcome the constraints faced by farmers in the use of smart phone for agricultural information.

Keywords: *constraints, smart phone, agricultural information, suggestions*

INTRODUCTION

Nowadays smart phones have been become a powerful tool in agriculture because their different applications are useful to get agricultural related information. Moreover, smartphones are equipped with various types of physical sensors which make them a promising tool to assist diverse farming tasks. The different mobile applications can help agriculture development faster and hustle free (Kalsariya *et. al.* 2018). The mobile has been become a prime necessity for every one as inevitable gadget not only for communication but also it includes camera, map, calculator, clock, GPS and much more. The present era is a "Smart Phone Era". There are many apps developed for farmers. Through these apps farmers could get information regarding cultivation practices, marketing, plant protection measures, weather forecasting, etc (Patel and Kumar 2021).

There are so many mobile applications used all over the world for various purposes, including the farming. Even though, the usage of smart phone in agriculture field in India and especially in Porbandar district is still limited. Because there were many problems which hinder the farmers for maximum use of smart phone to get the information of agricultural field. Therefore, to increase the use of smart phone and make it popular among the farmers, one should know about the problems or constraints faced by them. Keeping this in view, the present study was undertaken to identify the constraints faced by the farmers in the use of smart phone for agricultural information.

OBJECTIVES

(1) To identify the constraints faced by the farmers in the use of smart phone for agricultural information

(2) To seek suggestions to overcome the constraints faced by the farmers in the use of smart phone for agricultural information

METHODOLOGY

For this study the ex-post-facto research design was used. Porbandar district of Saurashtra region was selected purposively. All three talukas *viz.* Porbandar, Ranavav and Kutiyana of Porbandar district were undertaken for this study. From each taluka, 4 villages were selected randomly.

Thus, total 12 villages were included in the study. From each selected village, 10 farmers who were using smart phone since last three years selected purposively.

For knowing the constraints faced by farmers in use of smart phone for agricultural information, they were asked to state about the constraints actually faced by them. To record the suggestions to overcome constraints, they were requested to give their valuable suggestions. For the collection of data an interview schedule was prepared according to the objectives of study and the data were collected by personal interview method. The collected data were classified, tabulated and analyzed in order to make the findings worthwhile. A simple ranking method was utilized to measure the constraints and suggestions to overcome the constraints faced by farmers in the use of smart phone for agricultural information. The statistical tools used in analyzing the data were percentage, frequency and mean score in this study.

RESULTS AND DISCUSSION

As far as the constraints confronting the farmers in the use of smart phone for agricultural information, there are some certain circumstances, which hinder the use of the smart mobile phone technology. The farmers were asked to express their constraints faced by them in the use of smart phone to get different information of agriculture. For assigning the rank to each constraint, the frequency and percentage were calculated and it is presented in the table 1.

Table 1 : Constraints faced by the farmers in use of smart phone for agricultural information (n=120)

Sr. No.	Constraints	Frequency	Per cent	Rank
1	Unavailability of network connectivity in rural areas is the major constraint in the use of smart phone.	105	87.50	I
2	Language barrier i.e. majority of information is available in English not in vernacular language	100	83.33	II
3	Lack of technical know-how to operate smart phone properly	97	80.83	III
4	Unawareness about the details of agricultural advisory system (i.e. contact number, website, portal, etc.)	90	75.00	IV
5	Insufficient knowledge about availability of agricultural advisory services on mobile phone	89	74.17	V
6	Tendency of farmers to use social sites for general information and very less for agricultural information	88	73.33	VI
7	Poor response from the service provider	85	70.83	VII
8	Difficulties in getting the satisfactory solution of individual problem	81	67.50	VIII
9	High cost of telecommunication network services	80	66.67	IX
10	The cost of smart mobile phones is high	75	62.50	X
11	Lack of availability of timely and accurate marketing and price related information	73	60.83	XI
12	Many information available through smart phone are sometimes not relevant to the situation	72	60.00	XII
13	Call drop problem	70	58.33	XIII

It is apparent from Table 1 that the most crucial constraint faced by the farmers in smart phone use for agricultural information was unavailability of network connectivity in rural areas (87.50 per cent) with first rank, followed by language barrier i.e. majority of information is available in English not in vernacular language (83.33 per cent), lack of technical know-how to operate smart phone properly (80.83 per cent), unawareness about the details of agricultural advisory system (i.e. contact number, website, portal, etc.) (75.00 per cent) and insufficient knowledge about availability of agricultural advisory services on mobile phone (74.17 per cent) were ranked second, third, fourth and fifth respectively.

Whereas, tendency of farmers to use social sites for general information and very less for agricultural information (73.33 per cent), poor response from the service provider (70.83 per cent), difficulties in getting the satisfactory solution of individual problem (67.50 per cent), high cost of telecommunication network services (66.67 per cent) and the cost of smart mobile phones is high (62.50 per cent) were the constraints perceived by the farmers ranked sixth, seventh, eighth, ninth and tenth respectively in the use of smart phone for agricultural information. In addition to these, lack of availability of timely and accurate marketing and price related information (60.83 per cent), many information available through smart phone are sometimes not relevant to the situation (60.00 per cent) and call drop problem (58.33

per cent) were the constraints faced by the farmers which ranked eleventh, twelfth and thirteenth in the use of smart phone for agricultural information.

Table 2 : Suggestions offered by the farmers to overcome the constraints faced by them in use of smart phone for agricultural information n=120

Sr. No.	Suggestions	Frequency	Per cent	Rank
1	The network service provider should give priority for strong network connectivity in rural areas	102	85.00	I
2	Agricultural information should be available in local/vernacular language	99	82.50	II
3	Farmers should be trained to improve their smart phone use efficiency	95	79.17	III
4	The government should provide smart phones at low cost to farmers	87	72.50	IV
5	The charges of network service should be reduced	83	69.17	V
6	The farmers should be awaked through mass communication about the agricultural advisory services	77	64.17	VI
7	To overcome the call drop problem, the network service should be updated	74	61.67	VII

From the table 2 it is observed that the most important suggestions given by the farmers to overcome the constraints faced by them in the use of smart phone for agricultural information were; the network service provider should give priority for strong network connectivity in rural areas (85.00 per cent) ranked first followed by agricultural information should be available in local/vernacular language (82.50 per cent) and farmers should be trained to improve their smart phone use efficiency (79.17 per cent) ranked second and third respectively. More than two third farmers (72.50per cent) suggested that the government should provide smart phones at low cost and the charges of network service should be reduced (69.17 per cent). 64.17 and 61.67 per cent farmers suggested that they should be awaked through mass communication about the agricultural advisory services and the network service should be updated to overcome the call drop problem to overcome the constraints faced by them in the use of smart phone for agricultural information.

CONCLUSION

The smart phone technology is spreading very fast in India and also among farming community for communication and information. The farmers were facing some problems in the use of smart phone for getting the agriculture related information. The major constraints faced by farmers in the use of smart phone for agricultural information were; unavailability/fluctuation of network connectivity in rural area is the major constraint in the use of smart phone, lack of technical know-how to operate smart phone properly, language barrier i.e. majority of information is available in English not in vernacular language and the cost of smart mobile phones is high. While the crucial suggestions given by the farmers were; network service provider should give priority for strong network connectivity in rural areas, farmers should be trained to improve their smart phone use efficiency and agricultural information should be available in local/vernacular language to overcome the constraints faced by farmers in the use of smart phone for agricultural information.

IMPLICATION

The findings of the study revealed that the major constraints faced by farmers in the use of smart phone for agricultural information were; unavailability/fluctuation of network connectivity in rural area, lack of technical know-how to operate smart phone properly and language barrier. Therefore, the results of the study should be taken into consideration by policymakers and different stake holders involved in the agricultural information technology transfer to overcome these problems so that farmers could access the smart phones for availing the agricultural information efficiently and timely.

CONFLICT OF INTEREST

There is no conflict between author.

REFERENCES

Kalsariya, B. N.; Rankja, N. J. and Gorfad, P. S. (2018). Constraints faced and suggestion offered by farmers in accessing the required information through SMS and voice messages. *Guj. J. of Ext. Edu.* 29(1):99-101.

Patel, Pratik K. and Vinaya Kumar H. M. (2021) Farmers socio-economic status and constraints using social media for sustainable agriculture development. *Guj. J. Ext. Edu.* 32(2):34-39.

Received : April 2022 : Accepted : July 2022