

Original Research Article

<https://doi.org/10.20546/ijcmas.2019.807.020>

## Socio Economic Profile Characteristic of Farmers Regarding Use of ICT Tools

Vishakha Bansal\* and Vandana Joshi

AICRP – EECM, College of Community and Applied Sciences, Maharana Pratap University  
of Agriculture and Technology, Udaipur, India

\*Corresponding author

### ABSTRACT

#### Keywords

ICT, ICT tools,  
Socio-economic

#### Article Info

Accepted:

04 June 2019

Available Online:

10 July 2019

The objective of the study was to know the profile characteristic of farmers regarding use of ICT tools. The study was conducted in village Gudli of Mavli block from Udaipur district of Rajasthan State. The data was collected from 50 farmers. Frequency and percentage were used for analysis of data. Majority of the respondents (56%) belonged to young age group, had OBC caste, more than one fourth of them (26-30%) had education up to higher secondary and middle level subsequently. A majority of them (92-44%) didn't have any participation in other organizations viz. Gram Panchayat and Zilapanchayat subsequently.

### Introduction

Agriculture is one of the most important sectors in India, and could benefit tremendously with the applications of ICTs especially in bringing changes to socio-economic conditions of poor in backward areas. Agriculture constitutes a major livelihoods sector and most of the rural poor depend on rain-fed agriculture and fragile forests for their livelihoods. Farmers in rural areas have to deal with failed crops and animal illness frequently and due to limited communication facilities, solutions to their problems remain out of reach. The service role of ICTs can enhance rural communities'

opportunities by improving their access to market information and lower transaction costs for poor farmers and traders. Though India has a strong and fast Growing IT industry, access to ICTs remains very low particularly in rural areas. The present indicators of IT penetration in Indian society are far from satisfactory.

ICT in the agriculture sector facilitates knowledge sharing within and among a variety of agriculture networks including researchers, exporters, extension services and farmers. ICT enables vital information flows by linking rural agricultural communities to the internet, both in terms of accessing information and

providing local content (Jayathilake *et al.*, 2008).

The National Policy for Farmers emphasizes the use of Information and Communication Technology (ICT) at village level for reaching out to the farmers with the correct advisories and requisite information. ICT can play a key role in providing extensionists and rural people with all information needed for their work including crop production, credits, input supply, pest and disease control, post-harvest techniques and improving market access. Information and communication technologies offer the ability to increase the amount of information provided to all participants in the agricultural sector and to decrease the cost of disseminating the information (Kurtenbach and Thompson, 2000). ICT in the agriculture sector facilitates knowledge sharing within and among a variety of agriculture networks including researchers, exporters, extension services and farmers. The use of ICT as a tool for enabling innovation in South Asia and found that the potential of ICT as a communication tool had not been adequately utilized. They argue ICTs could better reach their potential by acknowledging and integrating the roles of intermediaries and their capacities for innovation, and by enabling networks so that communities can make use of the information provided (Sulaiman *et al.*, 2012).

The effective use of ICTs would not only improve the performance of farmers at work but also help them to do more better work in a shorter time. Thus there is a need to know that up to what extent farmers are utilizing information and communication technologies for onward transfer of technology. In this digital era ICT has become a part and parcel of our daily life. It has also explored the field of agriculture. Thus, the study focused on Socio economic profile characteristic of farmers regarding use of ICT tools.

## **Materials and Methods**

The study was conducted in village Gudli of Mavli block from Udaipur district of Rajasthan. The research methodology used here is interpersonal in-depth interview. The interpersonal in-depth interview allows the interviewer to delve deeply into social, personal information and organization participation. Data also includes use of ICT tools by the farmers and Extension contact to farmers. For this, the data was collected from 50 farmers based on the farmers getting multi-message services and using one or more ICT tools for getting information.

## **Results and Discussion**

Data presented in table 1 reveals that a majority of the respondents (56%) belonged to young age group, had OBC caste, more than one fourth of them (26-30%) had education up to higher secondary & middle level subsequently. Majority (94%) were married & had Business (42%) as their main occupation. More than three fourth of them had Farming (82%) as their occupation. They belonged to joint family (60%) however 40percent were from nuclear family. Fifty per cent (50%) had medium sized family. Majority of the respondents (44%) had no membership and 42percent of the respondents was member of different organizations gram panchayat & Zilapanchayat however 14 per cent of the respondents were office bearers.

The findings of Kafura (2016) indicate that most of the respondents were young aged (54%), having secondary education (48%), small family (65%) and farm size (53%) followed by short-term service experience (62.2%)

Kumawat and Bansal (2017) also reported in their study, 47 per cent respondents belonged to age group of 31-45 years.

**Table.1** Distribution of the respondents according to their profile

n= 50

SI No.	Characteristics/Attributes	Category	f	(%)
1	Age	Young(18-35yrs.)	28	56
		Middle(36-50 yrs.)	17	34
		Upper middle (50 yrs. and above)	5	10
2	Caste	Gen	9	18
		OBC	34	68
		ST	2	4
		SC	5	10
3.	Education	Illiterate	2	4
		Can read and write	0	0
		Primary	3	6
		Middle	15	30
		Up to class x	6	6
		HSLC passed	0	0
		Higher secondary passed	13	26
		Graduate	11	22
		Post Graduate	0	0
4.	Marital status	Married	47	94
		Unmarried	3	6
		Widow	0	0
		Divorcee	0	0
5.	Occupation	<b>i) Main occupation</b>		
		Farming	9	18
		Service	0	0
		Farm allied	20	40
		Business	21	42
		Daily wage earner	0	0
		<b>ii) Subsidiary occupation</b>		
		Farming	41	82
		Service	4	8
		Farm allied	0	0
Business	5	10		
Daily wage earner	0	0		
6.	Type of family	Nuclear	20	40
		Joint	30	60
		Extended	0	0
7.	Size of family	Small	25	50
		Medium	21	42
		Large	4	8
8.	Organizational participation (n=79)	<b>i) Type of membership</b>		
		Member	21	42
		Office bearer	7	14
		None	22	44

**Table.2** Percent distribution of respondents according to organizational participation  
n= 50

Organization	Extent of participation					
	Regularly		Occasionally		Never	
	f	(%)	f	(%)	f	(%)
Self Help Group	-	-	-	-	-	-
Anganwadi centre	-	-	-	-	-	-
Mahilamandal	-	-	-	-	-	-
Gram Panchayat	4	8	0	0	46	92
Zilapanchayat	18	36	10	20	22	44
Talukpanchayat	-	-	-	-	-	-

**Table.3** Distribution of respondents according to their Mass media ownership and Frequency of use  
n= 50

Mass media	Owned %		Other Source (use owned by others)		Frequency of use							
					Always		Sometimes		Rarely		Never	
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)
Radio	20	40	-	-	6	12	12	24	2	4	0	0
Television	50	100	-	-	32	64	16	32	2	4	0	0
News paper	11	22	-	-	11	22	0	0	0	0	0	0
Magazines	-	-	-	-	-	-	-	-	-	-	-	-
Others (Journals, leaflets, booklets etc.)	-	-	-	-	-	-	-	-	-	-	-	-

**Table.4** Distribution of respondents according to extension contact  
n= 50

Extension Agent	Regularly		Occasionally		Never	
	f	(%)	f	(%)	f	(%)
VLEW	14	28	29	58	7	14
Extension Officer	0	0	0	0	50	100
University Personnel	0	0	0	0	50	100
NGO Personnel	0	0	0	0	50	100
Bank Personnel	2	4	34	68	14	28
Block Personnel	10	20	22	44	18	36

Majority of the respondents were married (88%) and illiterate (55%). Majority of the respondents (70%) belonged to the category of low socio-economic status.

Kafura (2016) reveals that most of the respondents were young aged (54%), having secondary education (48%), small family (65%) and farm size (53%) followed by short-

term service experience (62.2%). It is also found that majority of had low farming experience (57%) and medium annual income (69%). It was also indicating that most of them had medium organizational participation (57%), medium cosmopolitaness (65%), and medium innovativeness (68%).

Perusal of table 2 reveals that 36 per cent of the respondents were participating in Zilapanchayat regularly, very few of them (8%) in gram panchayat. A majority of them (92-44%) didn't have any participation in other organizations viz. Gram Panchayat and Zilapanchayat subsequently.

Kafura (2016) also observed that majority (81.0%) of the respondents use ICT tools at low extent and only 19.0 percent of the respondents use ICT tools at medium extent. High extent of use was not observed among the respondents. Therefore, the extent of use of ICT tools was low to medium. Use of any tool depends on awareness and knowledge on the tool. The low and medium extent of use of different ICT tools might be due to lack of awareness and knowledge on the ICT tools.

Rangi *et al.*, (2002) in a study conducted in Fatehgarh Sahib district of Punjab reported that women participated in planning, implementation and monitoring activities of village level bodies such as panchayats, zillaparishads, village committees and samities. Similarly Dayya *et al.*, (2016) reported 89 per cent of the respondents had no organizational membership whereas, 11 per cent respondents were member of formal organization (SHGs).

Data presented in table 3 reveal that all of the respondents (100%) owned television set, 40percent radio and 22percent respondents owned newspaper. Television was used by 64percent respondents always while 32percent used it sometimes. While radio was

sometimes (24%) used by majority of the respondents, 12 percent respondents used it always and only 4 percent respondents used it rarely. Newspaper was used by 22 percent respondents always. Radio (IS=2418.3) stands out as an important information source for farmers, which is especially due to the frequency of contact (FC). The FC for radio is high because it is controlled by the farmer, but also because rural radios have special transmissions dedicated to farming topics (Okryet, 2013; Van Mele *et al.*, 2013).

The study found that mobile phones, television were also used very frequently by the farmers. It was also reported that the use of radio is lower as compared to mobile phones and television since the level of availability and accessibility of ICTs is also lower as compared to other ICTs. It was also found that FM radio was accessed by almost half of the respondents included in the study. This indicated that the presence of radio applications in mobile phones could help in educating the farmers, especially if programmes on agriculture and rural development are broadcast as most of the farmers have access to FM radio via mobile phones (Syiem and Saravanan, 2015).

The findings of the study showed that majority of the farmers in rural areas used mobile phones as a tool of connecting with people and friends. Thus ICTs are widely used mainly for the purpose of social communication (Mittal and Mehar, 2012).

Lokeswari (2016) reveals that farmers use the ICT services frequently as and when they needed information. It was observed that exposure of farmers to mass media was found conducive to utilization of ICT by farmers.

Table 4 reveals that nearly half of the respondents (44-68%) occasionally contacted various extension officials. VLEWs were

contacted regularly by 28 per cent respondents. But the extension officer, university personnel and NGO personnel were not at all contacted by them.

Sousa (2016) study found that the number of farmers who have ever had access to a particular information source, and Frequency of contact is the number of contacts with a particular source in one year. The most widespread information source is 'family', with 423 references, followed by 'other farmers' with 408; 'radio' with 358. If we look at the Frequency of contact column, radio (2527) has the highest frequency of contacts, followed by other farmers (2449), TV (1705), extension agents (1294), farmer trainings (877), and internet with zero.

It can be concluded that majority (94%) were married & had Business (42%) as their main occupation. More than three fourth of them had Farming (82%) as their occupation. They belonged to joint family (60%) however 40percent were from nuclear family. Regarding 36 per cent of the respondents were participating in Zilapanchayat regularly, very few of them (8%) in gram panchayat. Television was used by 64 percent respondents always while 32 percent used it sometimes. While radio was sometimes (24%) used by majority of the respondents. Nearly half of the respondents (44-68%) occasionally contacted various extension officials. VLEWs were contacted regularly by 28 per cent respondents.

## References

Dayya, P. and Bansal, V. (2016) Socio economic profile of NGOs Trainees in Udaipur District. *International Journal of Science, Environment and Technology*, 5 (6): 4219 – 4224.

Jayathilake, H.A.C.K., B.P.A. Jayaweera and E.C.S. Waidyasekera. (2008). ICT

adoption and its' implications for agriculture in Sri Lanka. *J. of Food and Agriculture*. 1(2): 54 & 57-60

Kafura A. R. (2016) Use of ICT as Extension Tool by The Farmers of Gazipur District in Bangladesh, M.S. Thesis, Department of Agricultural Extension and Rural Development, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur-1706, Bangladesh.

Kumawat, P. and Bansal, V. (2017) A Study on Empowerment of Rural Women through Self Help Groups in Udaipur District. M.Sc. Thesis, Maharana Pratap University of Agriculture and Technology, Udaipur.

Kurtenbach, T. and S. Thompson. (2000). Information technology adoption: implications for agriculture. [Cited from - <<https://www.ifama.org/conferences/9/1999/1999%20Congress/Forum%20PapersProceedings/KurtenbachTammy.PDF>>]

Lokeswari K. (2016) A study of the use of ICT among rural farmers, *International Journal of Communication Research*, Vol. 6 (3) : 232-238.

Mittal, S. and Mehar. M. (2012) How mobile phones lead to growth of small farmers? Evidence from India. *Quarterly Journal of International Agriculture* 51 (3):227-244.

[http://ageconsearch.umn.edu/bitstream/155478/2/2\\_Mittal.pdf](http://ageconsearch.umn.edu/bitstream/155478/2/2_Mittal.pdf).

Okry, F., Van Mele, P. and Houinsou, F. 2013. Forging New Partnerships: Lessons from the Dissemination of Agricultural Training Videos in Benin. *The Journal of Agricultural Education and Extension*. 20(1): 27-47.

Patel, S. and Sayyed I.U. (2014) Impact of information technology in agriculture sector. M.Sc, Thesis, Department of Computer Science, Pooana College of Arts, Science and Commerce, Camp. Pune-411001(MS), India

- Raghuprasad K. P., Devaraja S.C and Gopala Y. M (2013) An analysis of knowledge level of farmers on utilisation of ICT tools for farm communication, *Journal of rural development Nird, Hyderabad*, Vol. 32, no. (3) pp. 301 – 310.
- Rangi, P.S., Sidhu, M. S. and Singh, H. (2002) Economic empowerment of rural women through self-help groups: A case study of Fategarh Sahib district (Punjab), *Man and Development*, 24(3): 65-78.
- Sousa F., Nicolay G. and Robert (2016) Information technologies as a tool for agricultural extension and farmer to-farmer exchange: Mobile-phone video use in Mali and Burkina Faso. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, Vol. 12, Issue 3, pp. 19-36.
- Sulaiman V., Hall, A., Kalaivani, N., Dorai, K. and Reddy, T. 2012. Necessary, But Not Sufficient: Critiquing the Role of Information and Communication Technology in Putting Knowledge into Use. *The Journal of Agricultural Education and Extension*. 18: 331-346.
- Syiem R., Saravanan R. (2015) Access and Usage of ICTs for Agriculture and Rural Development by the tribal farmers in Meghalaya State of North-East India. *Journal of Agricultural Informatics*. Vol. 6 (3): 24-41.

**How to cite this article:**

Vishakha Bansal and Vandana Joshi. 2019. Socio Economic Profile Characteristic of Farmers Regarding Use of ICT Tools. *Int.J.Curr.Microbiol.App.Sci*. 8(07): 164-170.  
doi: <https://doi.org/10.20546/ijcmas.2019.807.020>