



Socio-Economic Characterization of Farmers Based on Content and Frequency of Messages Being Disseminated Through ICT Tools

Shiva^{1*}; Syed H. Mazhar¹; Dipak Kumar Bose¹

¹Department of Agricultural Extension and Communication, SHUATS, Prayagraj

*Corresponding email: singh2013.siva@gmail.com

DOI: 10.47856/ijaast.2021.v08i9.020

ABSTRACT

Socio-economic profile of farmers based on content and frequency of messages being disseminated through ICT tools was studied. ICT plays an important role among the farmers in the village of Pusa block as a source of keeping them updated and connected. The data has been collected from 120 farmers using ICT tools through face to face interview. Descriptive research design was followed for the study. The selection of block and villages was done purposively and randomly as per the ICT users. The study concludes that role of ICTs in agriculture development was influenced by content of information and the respondents age, caste, education, size of family, family type, social participation, family annual income, sources of information and size of land holding, high and medium level of knowledge about agricultural activities among farmers through ICT tools

Keywords: ICT, Farmers, e-Agriculture

INTRODUCTION

Agriculture in India is the core sector for food security, nutritional security and sustainable development and for poverty alleviation. It contributes approximately 16% of GDP. Milestone in agriculture development in India includes: Green Revolution, Blue Revolution and so on and the most recent one is Information and communication technology revolution. Information and Communication Technologies play an important role in disseminating information to farmers enabling them to decide on the cropping pattern, use of HYV seeds, fertilizer application, pest management and marketing. Information and Communication



Technology is a stretched term for information technology (IT) which emphasis the role of unified communication and homogenization of telecommunication, computer as well as necessary software, its storage and the audio-visual systems, which permit all the users to access, store, transmit and manipulate information. The term ICT is also used to refer to the combination of audio-visual and telephone network with the computer networks through a single cabling or link system (**aims.fao.org**)

ICT is the study, design, development, application, implementation, support or the management of computer based information system. The term is commonly used as a synonym for computers and computer network, but it also circumscribes other information distribution technologies such as television and telephones (**Rod *et al*, 2012**). ICT based on climate-smart agriculture can amplify agricultural productivity and sustainability mentioned in economic survey (2019). Information and communication technology help in dissemination or communication of information, transfer of technology, procurement of inputs and selling of output in way to help farmers by reducing their uses of material resources and manpower. Information and communication technology in agriculture also known as e-agriculture focuses on the enhancement of agricultural and rural development through improved information and communication process. Many ICT in agriculture or e-agriculture interventions have been developed and tested around the world to help agriculturists improve their livelihoods through increased agricultural productivity and income or by reducing risk.

This study shows that most of the respondents were receiving information related to climate change and agriculture. They received information on information on inputs, production technology, credit information, marketing information, weather information, and other agricultural information, which they regarded as very helpful for their awareness and better farming practices. More than 50% of the farmers using different ICT tools stated that availed information through ICTs is very much informative and necessary for enabling their resilience and adaptation to climate change.



RESEARCH METHOD

The present study has been carried out during 2020-21 in Samastipur district of Bihar, the district lies situated between 25°30'00" to 26° 05'00" latitudes north & 85°37'50" to 86°23'30" longitude east. Agriculture is the main economic occupation of the district and about 83% of the total working population depends on it. Samastipur had a total population of 4.25 million of which 2,228,432 were males and 2,026,350 were females. The literacy rate of the district is 63.81% (**Census, 2011**). Out of 20 blocks in Samastipur district, Pusa block has been selected by purposive sampling because awareness programmes is held by Rajendra Agriculture University regularly. In preparing the list, the help from resource personal and agricultural supervisor of the concerned area were taken for authenticity and counter check of the information. Out of 40 villages of Pusa block 8 villages has been selected for the study on the basis of no. of ICT users. Selection of farmers was done randomly from each village according to ICT users. The well structured interview schedule was developed for collection of data. The general of socio-economic attributes of the selected respondents i.e., age, education, land holding, annual income, family size, family type, sources of information, participation in extension activities were consisted as a first part of schedule, and in the second part of schedule appropriate statistical tools were used for data interpretation.

RESULT AND DISCUSSION

Distribution of socio-economic attributes of the selected respondent

The socio-economic attributes of the selected respondent were given in table: 1. Majority of respondents were belonged to the age group of 35-55 i.e. 37.50%, while 25% farmers belonged to above 55 years age group and those belonged to age group of 55 above i.e. 26.67%. The maximum ICT users (30%) were graduated and above followed by intermediate (25%), while 20.83% respondents had qualification upto high school, 16.66% respondents had qualification upto primary school, while 7.5% of respondents were illiterate respectively. When we talk about size of land holdings then it was found through survey that 69.1% of farmers had small size of land holdings followed by medium size of land holding (26.60%) ,



and 4.16% of farmers having large size of land holding. The majority of respondents (53.33%) had medium level of annual income i.e. 1,00,000 - 2,00,000. Followed by high level of annual income (29.16%) i.e. 50,000-90,000, and (25.83%) respondent had high level of annual income. Among all the respondents, majority of respondent (38.33%) belonged to large size of family. While 38.33% respondent belonged to small size of family. The majority of respondents (53.33%) had High level of knowledge about sources of information. And the majority of respondents were belonged to medium level of participation in extension activities.

Table: 1 Distribution of respondents according to their Socio- Economic Characteristics.

S.No.	Category	Percentage
1.	Age	
	25-35	37.5
	36-55	35.83
	Above 55	26.67
2.	Caste	
	UR	32.50
	BC	36.66
	SC/ST	30.83
3.	Occupation	
	Farming	74.17
	Employee cum Farming	25.83
4	Education	
	Illiterate	7.5
	Primary	16.66
	High School	20.83
	Intermediate	25
	Graduation and Above	30
5.	Size of land holding	
	Small Farmers up to 2 ha	69.1
	Medium 2-4hac	26.6
	Large Above 4 ha	4.16
6.	Annual income	
	Low	29.17
	Medium	53.33
	High	25.83



7.	Family Size	
	Small size	27.50
	Medium size	34.17
	Large size	38.33
8.	Family types	
	Nuclear	46.67
	Joint	53.33
9.	Mass media exposure	
	Low	14.17
	Medium	48.65
	High	37.18
10.	Participation in extension activities	
	Low	23.33
	Medium	46.66
	High	30

3.2 Content and frequency of messages

10 different kind of information were found to be frequently disseminated through these four ICT tools being used by the respondents about improved agricultural technology were identified in this study. The frequency of information been used by the respondents for application of the information effectively. For this purpose, data regarding content and frequency of messages being disseminated through ICT tools were collected.

Table: 2 Distribution of respondents into different categories with respect to information gained from different ICT tools.

S. No.	Content	Radio users (3)			Computer Users (10)		
		Daily	Sometimes	Never	Daily	Sometimes	Never
1	Info. On inputs	0	2	1	0	2	8
2	Production Technology	0	1	2	0	3	7
3	Credit Info.	0	1	2	0	0	10
4	Marketing Info.	0	0	0	0	1	9
5	Weather Info	0	2	1	0	0	10



6	Crop Insurance Info.	0	3	0	0	2	8
7	Govt. Schemes	0	3	0	0	0	10
8	PHT Info.	0	0	3	0	0	10
9	INM	0	3	0	0	1	9
10	IPM	0	2	1	0	0	10

Table: 3 Distribution of respondents into different categories with respect information gained from different ICT tools

S. No.	Content	Mobile Users (34)			TV & Mobile Users(73)		
		Daily	Sometimes	Never	Daily	Sometimes	Never
1	Info. On inputs	8	15	11	16	42	15
2	Production Technology	18	12	4	9	18	46
3	Credit Info.	12	12	10	18	14	41
4	Marketing Info.	16	12	6	8	21	44
5	Weather Info	20	10	4	42	17	14
6	Crop Insurance Info.	0	20	14	0	63	10
7	Govt. Schemes	5	16	13	0	32	41
8	PHT Info.	0	5	29	0	13	60
9	INM	13	8	13	0	14	59
10	IPM	8	10	16	0	16	57

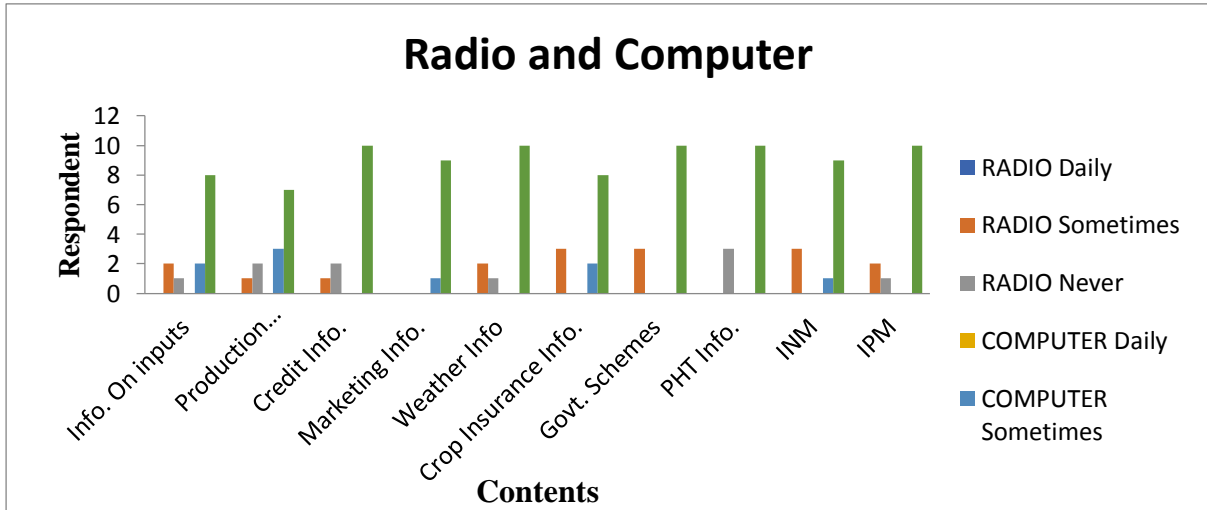


Fig: 1 Frequency of Information gained from Radio and Computer

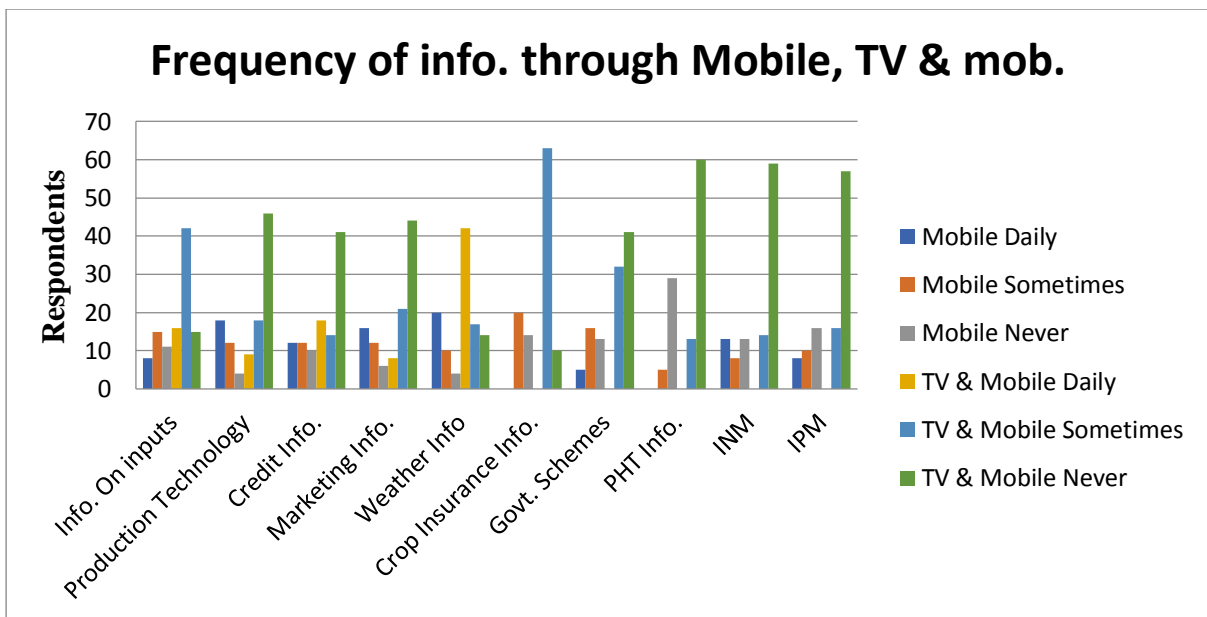


Fig: 2 Frequency of Information gained from TV and Mobile



Conclusion

Based on the findings of the study, it was concluded that majority of the respondents were young age group had medium size of land holding. Majority of respondents were qualified more than high school level. Maximum number of respondents had medium level of income. Majority of respondents possess high level of source of information and majority of respondents had optimum level of utilization of ICT tools in adoption of improved agricultural practices. Reason behind the optimum level of the utilization of ICT tools were because the majority of the ICT users were from young age group and the people were frequently using the ICT tools *viz* Radio, Computer, Mobile, TV. Therefore, ICT tools with help farmers moving towards e-Agriculture.

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