



# STUDY ABOUT THE ATTITUDE OF FARMERS TOWARDS ICT (INFORMATION AND COMMUNICATION TECHNOLOGY) TOOLS

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**ABSTRACT:** *The study was conducted in CHHATTISGARH state during the year 2019-20 to assess the attitude of farmers towards utilization of ICT tools in farm communication and to find out the relationship with socio-economic characteristics of farmers using these tools. Birkona and Biranpur villages were selected randomly from Bilha block of Bilaspur district. Most of the farmers of these districts are having access to different ICT tools and using both old and new ones. Among 120 farmers selected for the study, more than two-fifth (44.17%) of the farmers had favourable attitude towards ICT tools followed by 30.83 per cent had least favourable and 25.00 per cent had most favourable attitude. Variables such as education, land holding, annual income, economic motivation, risk orientation, scientific orientation and extension participation had positive and significant relationship with attitude of farmers towards ICT tools. Hence, it is high time prepare the farmers to use these ICT tools for their wellbeing through proper educational activities.*

**Keywords:** *Bilaspur, Attitude, ICT tools, Technology, Farmers*

## INTRODUCTION

The economy of the developing county like India predominantly depends on agriculture and development of its emphasizes on the need of related information to be transferred to the farmers. The farmers are also showing interest towards ICT. A positive attitude towards ICT will surely enhance this interest towards harnessing benefits out of it on a sustained basis. As attitude depends upon the socio-personal disposition of an individual, the present study tries to tress out those factors in relation to use of ICT. Attitude is the degree of positive or negative feeling of farmers towards the Information and Communication Technologies (ICTs). The favourable attitude of farmers towards ICT is very much required in obtaining benefit of effective and efficient information support tool which would lead to stronger conviction and efficient extension programme planning in changing agri-rural environment. ICT has tremendous potential in improving the livelihood of farmers via positive impact on factors such as farming efficiency, farm productivity, and farmers' income (Sangeetha et al., 2015 as cited in Sunil Kumar et al., 2017). Furthermore, agricultural services leveraged by ICT have been seen to provide a greater scope for incorporating the farmers' feedback into the agricultural knowledge system (Glendenning, 2010). Although the recent developments in ICT have facilitated flow of information to various stakeholders in agriculture, especially farmers; however, factors such as lack of awareness, not enough ICT infrastructure, nonstrategic location of information centres and lack lustre attitude towards ICT use continue to inhibit the potential of ICT for agricultural development (Maningas, 2006).



## MATERIALS AND METHODS

The present investigation is conducted in Bilaspur district of CHHATTISGARH state during the year 2019-20. Out of 27 districts in Chhattisgarh, Bilaspur district purposively selected due to the reason of BARRISTER THAKUR CHHEDILAL COLLEGE OF AGRICULTURE AND RESEARCH STATION is situated in Bilaspur district and it is a hub for agricultural training programs for the farmers to implement various improved agricultural practices. There are 7 blocks in Bilaspur district, out of which Birkona and Biranpur villages from Bilha block were randomly selected for the study. From each of the selected villages, initially a list of 120 farmers was prepared based on the farmers getting multi message services, attended video conference programs and using other ICT tools to get farm information. The primary data was collected with the help of well-structured and pre-tested interview schedule, designed especially in the light of objectives, whereas secondary data was collected from sources like thesis, journals, literature etc. It is conceived that the dependent variable attitude was influenced by the independent variables like age, education, land holding, family type, farming experience, material possession, annual income, innovativeness, social participation, extension participation, mass media exposure, economic motivation, risk orientation, scientific orientation and cosmopolitaness. The statistical measures like frequency, percentage, mean, standard deviation, correlation and multiple regression analysis were used to analyze the data to draw tangible inferences.

## RESULT AND DISCUSSION

**Statement wise analysis of Attitude of the respondents towards ICT tools:** A perusal of Table 2 presents the data obtained regarding attitude of farmers towards ICT tools. Statements strongly agreed by mostly respondents were, I like to use ICT tools (53.33%), ICT tools provide global information (74.17%), ICT provides wider information regarding agriculture (57.50%), ICT usage is socially, economically and culturally feasible (61.67%), usage of ICT tools lead to modernization (79.17%), ICT tools will build social capital among farmers (65.00%), ICT tools are only suitable to literate people (69.17%), ICT tools are costly (76.67%), youth will have more access to ICT tools (70.83%), ICT tools provide timely information (60.83%), it is very easy to get information from ICT tools (46.67%) and frequency of broadcasting/telecasting/ conferencing of ICT tools is not convenient (44.17%).

**Table 2: Statement wise analysis of attitude of farmers towards ICT tools (n = 120)**

Sl. No.	Statements	SA		A		DA	
		F	%	F	%	F	%
1	I like to use ICT tools.	64	53.33	48	40.00	8	6.67
2	ICT tools provide global information.	89	74.17	29	24.17	2	1.67
3	ICT tools provides wider information regarding agriculture	69	57.50	30	25.00	21	17.50



4	ICT usage is socially, economically and culturally feasible.	74	61.67	18	15.00	28	23.33
5	Use of ICT tools lead to modernization.	95	79.17	23	19.17	2	1.67
6	Use of ICT tools will build social capital among farmers.	78	65.00	14	11.67	28	23.33
7	ICT tools are only suitable to literate people.	83	69.17	12	10.00	25	20.83
8	ICT tools are costly.	92	76.67	16	13.33	12	10.00
9	ICT tools are more accessible to rich and upper-class people.	37	30.83	48	40.00	35	29.17
10	Youth will have more access to ICT tools.	85	70.83	17	14.17	18	15.00
11	It is difficult to use ICT tools by rural women.	47	39.17	53	44.17	20	16.67
12	Without any assistance I can get information from ICT tools.	23	19.17	56	46.67	41	34.17
13	ICT tools provide need-based information.	68	56.67	16	13.33	36	30.00
14	ICT tools provide timely information.	73	60.83	19	15.83	28	23.33
15	It is very easy to get information from ICT tools	56	46.67	38	31.67	26	21.67
16	Interactive discussion is possible through ICT tools	56	46.67	43	35.83	21	17.50
17	Socio cultural barriers can be overcome through ICT.	59	49.17	30	25.00	31	25.83
18	Frequency of broadcasting of ICT tools is not convenient.	53	44.17	23	19.17	44	36.67
19	Time of broadcasting of ICT tools is not convenient.	41	34.17	26	21.67	53	44.17
20	Sometime subject matter is not relevant in ICT tools.	28	23.33	34	28.33	58	48.33
21	Information provided through ICT is not in local language.	34	28.33	25	20.83	61	50.83

SA: Strongly Agree;A: Agree,DA: Disagree

Statements which agreed by mostly respondents were, ICT tools are more accessible to rich and upper-class people (40%), information can be obtained from ICT tools without any assistance (46.67%).

Statements which disagreed by mostly respondents were, Time of broadcasting of ICT tools is not convenient (44.17%), sometime subject matter is not relevant in ICT tools (48.33%), ICT not provide information in local language (50.83%).

**Overall Attitude of the respondents towards ICT tools:**The overall attitude of farmers towards ICT tools revealed that more than two-fifth (44.17%) of the farmers had favourable attitude towards ICT tools followed by 30.83 per cent had least favourable attitude and 25.00 per cent had most favourable attitude (Table 3). The findings of the present study are in line with the results obtained by Reddy and Reddy (1997) and Raghuprasad et al. (2012).



**Table 3: Overall attitude of farmers towards ICT tools (n = 120)**

Category	Score	Frequency	Percentage
Least favourable	<58.29	37	30.83
Favourable	58.29-60.82	53	44.17
Most favourable	>60.82	30	25.00
<b>Total</b>		<b>120</b>	<b>100.00</b>

**Relationship between different characteristics of the farmers with their attitude towards ICT tools:** It could be observed from the Table 4 the variables such as education, land holding, annual income, economic motivation, risk orientation, and scientific orientation had positive and significant relationship with attitude of farmers at one per cent level of significance whereas, extension participation had positive and significant relationship with attitude of farmers at five per cent level of significance.

**Table 4: Correlation between attitude of farmers about ICT tools with independent variables (n = 120)**

Sl. No	Variables	Correlation co-efficient
1	Age	0.012 NS
2	Education	0.359**
3	Land holding	0.383**
4	Family Type	0.071NS
5	Farming experience	0.098NS
6	Material possession	0.015NS
7	Annual income	0.386**
8	Innovativeness	0.021NS
9	Social participation	0.079NS
10	Extension participation	0.219*
11	Mass media exposure	0.063NS
12	Economic motivation	0.461**
13	Risk orientation	0.427**
14	Scientific orientation	0.283**
15	Cosmo-politeness	0.037NS

\*\*Significant at 0.01 level; \*Significant at 0.05 level; NS- Non-Significant

Other variables such as age, family type, farming experience, material possession, innovativeness, social participation, mass media exposure and Cosmo-politeness found to have non-significant relationship with attitude of the farmers. The results of the study are in conformity with the results obtained by Nagalakshmi and Narayana-Swamy (2008), Hall *et al.* (2003), Arun (2005) and Raghuprasad *et al.* (2012).

**Multiple Regression Analysis:** The regression test was applied to ascertain the contribution of independent variables on attitude of farmers about ICT tools. The results of this analysis were given in Table 5. The data show that all the fifteen



variables fitted together in the regression model explained 64.70 percent of the variation in the attitude of farmers about ICT tools. The calculated 't' value for each of the partial 'b' values are presented, and among them the four partial b values are significant at 0.01 level are related to annual income, extension participation, economic motivation and risk orientation. The calculated 't' value for each of the partial 'b' values are presented, and among them the three partial b values are significant at 0.05 level are related to education, land holding and scientific orientation. These seven partial b values had positive relationship. According to 't' test criterion, these seven variables had contributed most for variation in the attitude of farmers towards ICT tools. In most of the case attitude depends on prosperity they want to have constant income, less risks for this education and extension participation will help to broaden their horizon of thinking. Hence, they showed significant relation to the variables.

**Table 5: Multiple regression analysis of attitude of farmers about ICT tools with independent variables (n = 120)**

Sl. No.	Variables	Regression coefficient ( $\beta$ )	Std. Error	't' value
1	Age	0.045	0.371	0.106 NS
2	Education	0.345	0.171	2.395*
3	Land holding	0.198	0.045	2.487*
4	Family Type	0.462	0.439	0.756NS
5	Farming experience	0.106	0.182	0.197NS
6	Material possession	0.018	0.011	0.305NS
7	Annual income	1.950	0.527	3.971**
8	Innovativeness	0.294	0.161	1.527NS
9	Social participation	0.402	0.189	0.854NS
10	Extension participation	2.105	0.351	4.674**
11	Mass media exposure	0.096	0.125	0.278NS
12	Economic motivation	0.942	0.264	3.932**
13	Risk orientation	0.829	0.360	3.486**
14	Scientific orientation	1.304	0.516	2.267*
15	Cosmo-politeness	0.083	0.260	0.683NS

$R^2 = 0.647$ ; \*\*Significant at the 0.01 level; \*Significant at the 0.05 level; NS: Non-Significant

According to 't' test criterion, these seven variables had contributed most for variation in the attitude of farmers towards ICT tools. In most of the case attitude depends on prosperity they want to have constant income, less risks for this education and extension participation will help to broaden their horizon of thinking. Hence, they showed significant relation to the variables.



## SUMMARY AND CONCLUSION

The study revealed that nearly 40 per cent of the respondents had relatively favourable attitude towards ICT tools. Therefore, there is a need to make available these tools at village level along with creating awareness about the importance of ICT tools and types of services providing by these tools to the farming community. Providing such facilities at village level will further attract them to use these tools for doubling their income. Further providing services in local language and making the tools more users friendly which will result in developing positive attitude towards ICT tools. Variables like education and extension participation were found significant to the attitude of farmers. Hence, there is a strong need to educate the farmers during extension programmes regarding usefulness of ICT tools, type of information provided and authenticity of information to make them aware about these tools.

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