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Relationship of Farmer's Profile with the Extent of Use of ICTs by the Farmers and Effectiveness of ICTs in Accessing Agricultural Information

M.V. Chaudhary[1], Keyur V. Gardhariya[2]

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ABSTRACT

Background: This study was conducted to examine the relationship of farmer's profiles with the extent of use of ICTs by the Farmers and the effectiveness of ICTs in accessing agricultural information.

Methods: Ex-post-facto research design were used in this investigation and we have selected total of 1400 farmers from different districts of Gujarat. We studied the relationship between socio-economic and extent of use of ICTs for accessing agricultural information.

Result: It observed that the association between education, extension participation, Training received, Mass media exposure, Information source accessibility, Innovativeness, Social participation and Economic motivation were found positively and highly significant with the extent of use of ICTs. The education, extension participation), Training received, Mass media exposure, Information source accessibility, Innovativeness, Social participation and Economic motivation were found positively and highly significant with the effectiveness of ICTs.

Key words: Effectiveness, ICTs, Relationship, Social status, Socio-economic profile.

INTRODUCTION

The agricultural cultivation was and is most important aspect for human survival and every year we are producing millions of tons agriculture produce by improving cultivation practices. Previously farmers have used traditional knowledge for cultivation. But, currently so many resources for information are there. Ex- KVKs, ATMA, Research Stations, SAUs *etc.* (Kumar and Babu, 2017). We have so many sources to receive information regarding agricultural cultivation, new varieties, cultivation practices, agronomic and protection measures *etc.* but, currently ICTs is gaining importance because information communication technology is faster and large-scale information transfer is possible and can cover millions of farmers at same time (Panchabhai *et al.,* 2017).

ICTs are back bone of agricultural information dissemination and currently internet are available at every place in country and so many farmers are also using that technology (Paliwal and Jat, 2018). If we see data than it suggests that more than 26 per cent farmers are using ICTs tools every day (Kabir and Roy, 2015 and Nenna, 2016). And all information transfer organizations are using ICTs to communicate with farmers and share knowledge and information with them (Singh and Sahdeo, 2021). So, to understand up to what extend our efforts are successful we have conducted this research to know the relationship between socio-economic profile and effectives of ICTs in agriculture (Poornima and Ayyanagowadar, 2018).

Raza *et al*. (2019) studied that most respondents (90.3%) in the study area were small farmers with a 45% literacy rate. About 85.0, 79.8 and 45.8% of respondents had mobile, TV and radio in their possession. While, internet, computers and landline phones had 17.8, 9.3 and 3.8% of respondents, respectively. Mobile, TV and Radio were greatly used ICT tools while internet, computer, helpline and landlines were least used. Mobile (M=4.06), TV (M=3.96) and Radio (M=3.96) were perceived as effective at almost a high level on the Likert scale (Kumar *et al*. 2013). Other tools including agri. websites, computers, helplines and landlines were comparatively less effective pertinent to high cost, accessibility and accuracy of information. According to this study presently modern ICTs can effectively communicate higher than traditional sources (Kumar *et al.,* 2017). This study recommends that information departments and agricultural directorates amend the contents of modern tools according to farmers' needs and socio-economic conditions for escalated usability.

[1]Department of Agricultural Economics and Extension, School of Agriculture, Lovely Professional University, Jalandhar-144 001, Punjab, India.

[2]Extension Education Institute, Anand Agricultural University Campus, Anand-388 110, Gujarat, India.

Corresponding Author: M.V. Chaudhary, Department of Agricultural Economics and Extension, School of Agriculture, Lovely Professional University, Jalandhar-144 001, Punjab, India.
Email: chaudhary.26063@lpu.co.in.

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Table 1: Relationship of farmers' profile with extent of ICTs use and effectiveness in accessing agricultural information. (n=1400)

Variables	Coefficient of correlation (*r*)	
	Extent of ICTs use	Effectiveness of ICTs
Age	-0.074	0.063
Education	0.193**	0.171**
Land holding	0.089	-0.017
Occupation other than agriculture	0.090	-0.026
Opinion leadership	0.134	0.139
Extension participation	0.223**	0.163**
Training received	0.185**	0.162**
Mass media exposure	0.217**	0.155**
Information source accessibility	0.223**	0.156**
Innovativeness	0.241**	0.176**
Scientific orientation	-0.129	0.100
Social participation	0.200**	0.167**
Economic motivation	0.196**	0.164**
Cosmopoliteness	-0.061	0.043NS

Significant at 0.01 level.

Objectives

To know the relationship of farmers profile with extent of use of ICTs by the Farmers and effectiveness of ICTs in accessing agricultural information.

MATERIALS AND METHODS

An Ex-post-facto research design was employed in this research study. Total fourteen district were selected for present study. And from each selected district, two taluka and from each selected taluka 50 farmer respondents were selected for present study. In this way 14 districts 28 talukas and 1400 farmer respondents were selected. The primary data were collected from each of the selected households by personal interview/enquiry method for the period 2019-20.

RESULTS AND DISCUSSION

Relationship of farmer's profile with their extent of ICTs use by the Farmers

The data manifested in Table 1 revealed that education (0.193), extension participation (0.223), training received (0.185), mass media exposure (0.217), information source accessibility (0.250), innovativeness (0.241), social participation (0.200) and economic motivation (0.196) had positive and highly significant correlation at 0.05 level of significance, with extent of use of ICTs. The results of test of significance can be inferred that the adoption of good agricultural practices was correlated with education level of the respondents. The education level of the respondents considerably influenced adoption of good agricultural practices. Adoption of good agricultural practices increased with increase in education level of the respondents (Kabir and Roy, 2015).

In contrast to the above results land holding (0.089), occupation (0.090) and Opinion leadership (0.134) were found positively and non-significant with extent of use of ICTs. Where as, age (-0.074), scientific orientation (-0.129) and cosmopoliteness (-0.061) were found negatively and non-significant with extent of use of ICTs. This indicated that land holding, occupation, opinion leadership had not significant influence on extent of utilization of TCTs; and extent of utilization of ICTs was independent of age, scientific orientation and cosmopoliteness. The relationship between farmers' profile and extent of utilization of ICTs is diagrammatically presented in above Table 1.

CONCLUSION

From above discussion we can conclude that the association between education, extension participation, Training received, Mass media exposure, Information source accessibility, Innovativeness, Social participation and Economic motivation were found positively and highly significant with extent of use of ICTs. While, education, extension participation), Training received, Mass media exposure, Information source accessibility, Innovativeness, Social participation and Economic motivation were found positively and highly significant with effectiveness of ICTs.

REFERENCES

Kabir, K.H. and Roy, D. (2015). Preferences of ICT tools by the Upazila Agriculture Officers (UAOs) for the information exchange in Bangladesh. Agriculture, Forestry and Fisheries. 4(2): 59-65.

Kabir, K.H. (2015). Attitude and level of knowledge of farmers on ICT based farming. European Academic Research. 2(10): 13177-13196.

Kumar, P.G. and Babu, G.P. (2017). Perceived benefits and constraints analysis of 'VASAT' an 'ICT' initiative in India. Agric. Sci. Digest. 37(3): 237-240. doi: 10.18805/asd.v37i03.8997.

Kumar, S., Singh, R., Rao, D.U.M. and Chauhan, J. (2017). Information needs of Indian farmers: An elixir for connect and disconnect of agriculture. Indian Research Journal of Extension Education. 18(1): 37-44.

Kumar, V., Prajapati, R.S. Ghintala, A., Singh, K. (2013). Source and channels of agricultural information used by the beneficiary Farmers of NAIP- 3. Gujarat Journal of Extension Education. 24:35-38.

Nenna, M. (2016). Assessment of information and communication technologies (ICTs) among Cassava farmers in Anambra state, Nigeria. British Journal of Research. 3(2): 041-054.

Paliwal, D. and Jat, S. (2018). Problem faced during use of information and communication technologies by farm women of Udaipur (Rajasthan), India. International Journal of Current Microbiology and Applied Science. 7(2): 351-354.

Panchabhai, G.J., Siddiqui, M.F., Sawant, M.N., Verma, A.P. and Parameswara naik, J. (2017). Correlation analysis of socio-demographic profile of dairy farmers with knowledge and adoption of animal husbandry practices. International journal of Current Microbial Applied Science. 6(3): 1918-1925.

Poornima and Ayyanagowadar, M.S. (2018). Internet of things in agriculture: A review. Agricultural Reviews. 39(4): 338-340. doi: 10.18805/ag.R-1836.

Raza, M.H., Khan, G.A., Shahbaz, B., and Saleem, M.F. (2019). Effectiveness of information and communication technologies as information source among farmers in Pakistan. Pakistan Journal of Agricultural Sciences. 57(1): 281-288. https://doi.org/10.21162/PAKJAS/19.8292

Singh, M. and Sahdeo, S.N. (2021). Nutrient Expert: An ICT Tool of Agricultural Institution for Economic Development of Maize Growing Farmers in Jharkhand. Agricultural Science Digest. doi: 10.18805/ag.D-5411.