

Relationship of Characteristics of the Respondents with the Extent of Utilization Pattern of ICT Tools

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Abstract

Forty percent (40.00 per cent) of the world's population is under 20 years of age and over 1 billion people are between the ages of 15 and 25. In some developing countries, youth constitute more than two-thirds of the population. The median age in India in 2010 was just 25.2 years, compared to 34.5 years in China. Young people are the world's largest resource in development. India has the largest population of youth in the entire world - 66.00 per cent of the total population in the country is below the age of 35. Nearly 40 per cent of the Indian population is aged 13 to 35 years. Young people who are given early access to information and communications technologies (ICT) tend to become early adopters and adopters of the technologies, skills valued for spurring innovation and economic growth.

Key words: Farm youth, Relationship of Characteristics, Extent of Utilization Pattern, ICT tools

Introduction

Indian agriculture contributes 16 per cent of our GDP and approximately 60 per cent of Indians derive their livelihood from the agricultural sector. The performance of agriculture basically means the performance of small holder farming. It is only by empowering small and marginal farmers to overcome their handicaps they can become instruments of evergreen revolution and growth in agricultural sector. The limiting factors of farmers in maximizing their farm income are access to technology, resources, markets, institutions and service. In spite of successful research on new agricultural practices, majority of farmers are not getting anticipated yield due to several reasons. One of the reasons is that expert scientific advice on crop production and marketing is not reaching the farming community in time. There is a concern that the gap between the information rich and information poor is getting wider. Generally, farmer follow the advice of local shopkeepers/agents who sells him seeds, fertilizers, insecticides, pesticides, etc.

Information and communication technologies (ICTs) are used by researchers to communicate with each other and as tools for data and information management. Efforts are

being made to deliver research outcome to farmers and other stakeholders through its effective use. ICTs enable interactivity and access to even the illiterates. With information available through ICTs, agriculture can be improved to be more sustainable, economically viable and ecologically balanced. Information and communication have always mattered in agriculture. Ever since people have grown crops, raised livestock and caught fish, they have sought information from one another. Recent development in the field of Information and Communication Technologies (ICTs) are indeed revolutionary in nature. ICT, when used as a broad tool for educating the communities especially farm youth, business graduates and managers, heralds the formation of a new class of society—the Knowledge Society.

Methodology

A comprehensive interview schedule covering all the aspects of ICT tools was developed. The study was taken up in Tiruvannamalai district of Tamil Nadu. A total sample size of 120 farm youth were selected. The collected data were analysed with the help of SPSS software. Zero order correlation and multiple regressions were employed to determine the factors influencing the extent of utilization pattern of ICT tools.

Findings and Discussion

Correlation and regression were computed to know the relationship between the characteristics of the respondents and their extent of utilization of ICT tools.

Association of characteristics of the respondents with extent of utilization pattern of ICT tools.

The zero order correlation coefficient was worked out to study the relationship of characteristics of the respondents with their extent of utilization of ICTs.

It could be seen from the Table1, that out of fifteen independent variables studied four variables viz., farm size (x3), information sharing behaviour (x7), social participation (x9) and innovativeness (x14) had shown a positive and significant relationship with the utilization pattern of ICT tools at 0.05per cent level of probability, while the variables viz., educational status (x1), membership in social networks (x8) and achievement motivation (x13) had exhibited a positive and significant relationship with the utilization pattern of ICT tools at 0.01 per cent level of probability. The significant variables only were considered for discussion. All the other variables were found to be non-significant.

Table. 1 Correlation and multiple regression analysis on the extent of utilization of ICTs

Variable No.	Variables	'r' value	Regression Co-efficient	Standard error	't' value
X ₁	Educational status	0.246**	0.150	0.99	1.772*
X ₂	Occupational status	0.110 NS	0.429	0.725	0.254 NS
X ₃	Farm size	0.185*	0.234	1.865	2.462**
X ₄	Annual income	0.097 NS	0.040	0.006	0.404 NS
X ₅	Farming experience	0.140 NS	-0.148	1.346	-0.468NS
X ₆	Ownership of ICT gadgets	0.098 NS	-0.158	0.118	0.875 NS
X ₇	Information sharing behaviour	0.189*	-0.170	0.181	0.741 NS
X ₈	Membership in social networks	0.257**	0.150	0.299	1.864*
X ₉	Social participation	0.218*	0.100	0.102	2.563**
X ₁₀	Extension agency contact	0.126 NS	0.098	0.160	1.101 NS
X ₁₁	Perceived attributes ICT	0.136 NS	0.095	0.162	1.122 NS
X ₁₂	ICT credibility	0.098 NS	0.030	1.034	0.333 NS
X ₁₃	Achievement motivation	0.315**	0.221	0.074	2.832**
X ₁₄	Innovativeness	0.218*	0.077	0.062	1.870**
X ₁₅	Comopoliteness	0.142NS	0.037	0.148	1.210NS

** -significant at 0.01 per cent level

* -significant at 0.05 per cent level

NS - Non- significant,

$R^2 = 0.681$

F=10.44

There was a positive influence of information sharing behaviour with the utilization of ICTs tools among the respondents. In order to gain knowledge one has to expose himself to different experience provided by information providing sources. Hence, the variable information sharing behaviour would have shown a positive and significant relationship at 0.05 per cent level of probability. This finding is in line with the findings of Ganesan *et al.*, (2013).

Educational status had significant relationship with the utilization pattern of ICT. This means that higher education would certainly enhance the awareness, knowledge and utilization pattern of ICTs tools among farm youth. This finding is in line with the findings of Akoijam (2015).

The results revealed that there was a positive and significant correlation of farm size with the extent of utilization of ICTs at 0.05 per cent level of probability. The possible reason might be due to the fact that size of landholding provides the economic base for farmers to practice new agricultural technologies for achieving maximum profit.

Social participation exhibited a positive and significant relationship towards the utilization pattern of ICT tools. Social participation helps to bring the farm youth into an atmosphere of broader perspective where there is better scope for them to exchange ideas, facts, feelings etc., among the farm youth. The farm youth with local setting would also educate the other farm youth about the technologies disseminated through ICT tools. This finding is in line with the findings of Akoijam (2015).

Innovativeness showed a positive and significant association with the utilization of ICT tools among farm youth at 0.05 per cent level of probability. More than half of the respondents possessed medium level of innovativeness and this situation might have also motivated the farm youth to use more number of ICT tools for getting agricultural information. Hence, the variable innovativeness would have shown a positive relationship with the utilization of ICT tools.

Achievement motivation was found to have a positive and significant relationship with the utilization pattern of ICT. This means that achievement motivation is directly proportional to the utilization of ICT tools among farm youth. This finding is in line with the findings of Shivappa (2014).

Contribution of characteristics of the respondents towards their extent of utilization of ICTs

According to Guilford (1954) the actual relationship between the measured variables in social science are by no means as simple as above. The variable might be associated with or dependent upon several other variables at the same time and hence multiple regression analysis was carried out and the results are furnished in Table 1.

The data in Table 1 shows that 'F' value was found to be significant and 'R²' value was 0.681 which is interpreted as 10.44 per cent variation in the extent of utilization which was explained by fifteen independent variables selected for the study.

Of the fifteen variables taken for the analysis, two variables viz., educational status and membership in social networks contributed positively and significant at 0.05 per cent level of probability, whereas farm size, social participation, achievement motivation and innovativeness contributed at 0.01 per cent level of probability. All the other variables were found to be non-significant.

Hence, it may be concluded that a unit increase in educational status, farm size, membership in social networks, social participation, achievement motivation and innovativeness

would increase the extent of utilization by 1.772, 2.462, 1.864, 2.563, 2.832 and 1.870 units respectively.

Educational status had significant relationship with the utilization pattern of ICT. This means that education is a pre-requisite for information gain. Educated people may have better perceptual ability to grasp the things in a better way. This might have enabled them to seek the information to a higher extent. This finding derives support from the findings of Raman (2014).

The results revealed that the farm size had exhibited a positive and significant contribution towards the extent of utilization of ICT. The size of landholding provide the economic base for farmers to practice new agricultural technologies disseminated through ICT tools for achieving maximum profit. Big farm size often operated farmers with high socio-economic status would have enabled the farmers to utilize ICT tools to a greater extent.. This finding derives support from the findings of Devaraja (2011).

Social participation exhibited a positive and significant contribution towards the extent of utilization of ICT. This factor is also considered to be another important variable related to information seeking behaviour of farm youth. Participation in social organizations would have provided farmers to obtain the information from different sources. This trend of significant relationship is in line with the views expressed by Siranjeevi (2013).

Achievement motivation was found to have positive and significant relationship with the utilization pattern of ICTs. This means that achievement motivation is directly proportional to the utilization of ICT tools among farm youth. This finding is in line with the findings of Shivappa (2014).

Innovativeness showed a positive and significant association with utilization of ICT tools among farm youth at 0.01 per cent level of probability. More than half of the respondents possessed medium level social participation, extension agency contact and innovativeness; this situation would also have increased their utilization of ICT tools.

Hence, it could be inferred that the extent of utilization of ICTs would have been significantly contributed by educational status, membership in social networks, farm size, social participation, achievement motivation and innovativeness of farm youth.

Conclusion

The characteristics of the respondents viz., education and social participation were found to have significant relationship with the utilization pattern of ICT tools. 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. The study inferred that majority of the farmers expressed that the major constraint in utilizing the ICTs was lack of awareness on ICT tools. Even though the government was taking all efforts to establish knowledge centre in all the villages, but till now, it was not implemented and hence, there is necessity in establishing Information kiosks with touch screen mode and make it available to the farmers so that they can get upto date information. Awareness has to be created about the functioning of call centres (Kisan Call Centre) and their importance in clearing the doubts on agriculture and allied areas.

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