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## Relationship between characteristics of extension personnel and their extent of ICT utilization

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**Abstract**

The present study was conducted in Saurashtra region of Gujarat. Out of eleven districts, six districts were selected randomly and 120 extension personnel were selected proportionately from each districts. Fifteen independent variables were taken in this study and the dependent variable chosen was the extent of ICT utilization. It was found that there was a positive and highly significant association between educational status, innovation proneness, attitude, knowledge about ICT and extent of ICT utilization. Age had highly significant and negative association with extent of ICT utilization. Social participation, mass media liveliness, training undergone, infrastructure facilities had a significant and positive correlation with extent of ICT utilization. The relationship between gender, work experience, native place, achievement motivation, job commitment, professional zeal and extent of ICT utilization was non-significant.

**Keywords:** Extension personnel, extent of ICT utilization, correlation

**Introduction**

Agricultural extension service delivery all over the world has been concerned with communicating research findings and improved agricultural practices to farmers. The efficiency with which these information and practices are conveyed to farmers to a large extent would determine the level of agricultural productivity. Farming is becoming a more time-critical and information-intense business. So timely dissemination of valuable information to farmers is very important.

In recent times, there has been revolution with regards to ICT in agriculture particularly in extension service delivery. ICT can help the villages from not being isolated and connect them in various information and marketing sources. The extension service profession demands certain characteristics for the effective transfer of technology. Now as the world is becoming digitalised, the extension personnel has to acquire more ICT based skills. Hence the present study was conducted to assess the relationship between characteristics of extension personnel and their extent of ICT utilization in Saurashtra region of Gujarat.

**Methodology**

The present study was conducted in the Saurashtra region of Gujarat state during 2018-2019. The region consists of eleven districts; out of them six districts namely Junagadh, Gir Somanath, Rajkot, Jamanagar, Surendranagar and Bhavnagar were selected randomly. A total of 120 extension personnel in state department of agriculture was selected proportionately from each six districts. The characteristics of extension personnel selected for the study were age, gender, educational status, work experience, native place, social participation, achievement motivation, innovation proneness, job commitment, attitude, knowledge about ICT, mass media liveliness, professional zeal, training undergone and infrastructure facilities. The dependent variable chosen for the study was the extent of ICT utilization by the extension personnel. The data was collected through structured interview schedule by arranging personal interview or mailed questionnaire. "Ex-post Facto" research design was used for this study. The collected data were classified, tabulated, analysed and interpreted to make the finding meaningful.

**Results and discussion**

The extent of ICT utilization is the range over which the extension personnel exposed to various ICT tools for his or her knowledge or skill or for the benefit of his or her profession. The personal characteristics of the extension personnel may also influence their extent of ICT utilization. In order to ascertain the relationship between characteristics of the extension

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personnel and their extent of ICT utilization, the correlation coefficient ('r') was calculated. The findings in this regard is presented in Table 1.

**Table 1:** Correlation between selected characteristics of extension personnel and their extent of ICT utilization (n=120)

Sr. No.	Name of the independent variable	'r' value
1.	Age	-0.2616**
2.	Gender	0.1185 <sup>NS</sup>
3.	Educational status	0.3076**
4.	Work experience	0.0054 <sup>NS</sup>
5.	Native place	0.0147 <sup>NS</sup>
6.	Social participation	0.1994*
7.	Achievement motivation	0.1534 <sup>NS</sup>
8.	Innovation proneness	0.3753**
9.	Job commitment	0.0989 <sup>NS</sup>
10.	Attitude	0.3178**
11.	Knowledge about ICT	0.3081**
12.	Mass media liveliness	0.2234*
13.	Professional zeal	0.1195 <sup>NS</sup>
14.	Training undergone	0.2058*
15.	Infrastructure facilities	0.2193*

\* = Significant at 0.05 level

\*\* = Significant at 0.01 level

NS = Not significant

#### Age and extent of ICT utilization

There was highly significant and negative relationship between the age and extent of ICT utilization. The probable reason for this might be the young generation has better knowledge and high interest on ICTs compared to their elder generation. This result was same with the results of Sharma (2018)<sup>[6]</sup>.

#### Gender and extent of ICT utilization

There was no relationship between gender and extent of ICT utilization of extension personnel. The reason might be due to the equal access, opportunities and knowledge of ICTs among male and female extension personnel. This finding was similar with that of Tanko *et al.* (2013)<sup>[7]</sup> and Agha (2018)<sup>[1]</sup>.

#### Educational status and extent of ICT utilization

There was a positive and highly significant association between educational status and extent of ICT utilization. The reason might be that the extension personnel with higher educational status had better understanding and knowledge about ICTs and they would be more specialised and professionalised for the extension service related skills. This finding was in line with the findings of Raksha (2014)<sup>[4]</sup>.

#### Work experience and extent of ICT utilization

It can be inferred that work experience of extension personnel did not play any key role in the extent of ICT utilization. It can be due to that the intense use of ICTs in extension and daily life of extension personnel is a recent trend and both experienced and less experienced extension personnel have got equal opportunities to use them. This result was in consonance with the result of Raghava and Punna (2014)<sup>[3]</sup>.

#### Native place and extent of ICT utilization

There was no significant association between native place and extent of ICT utilization of extension personnel. Now a days there is equal access of various ICTs in urban, semi-urban and rural area and people in rural area are also aware about the role of ICTs in their daily life. Similar finding was reported by Roshan (2015)<sup>[5]</sup> and Agha (2018)<sup>[1]</sup>.

#### Social participation and extent of ICT utilization

There was a significant and positive correlation between social participation and extent ICT utilization of extension personnel. The reason for this might be as the social participation increases they will be more dependent on ICTs for organizational communication and various other organizational activities. This finding was in line with the findings of Yakubu *et al.* (2013)<sup>[9]</sup> and Jha *et al.* (2014)<sup>[2]</sup>.

#### Achievement motivation and extent of ICT utilization

Achievement motivation role did not have any significant association with extent of ICT utilization of extension personnel. The probable reason might be that the people with low achievement motivation also had to use ICTs due to the great impact and influence of ICTs in their day to day life. This result was similar to the findings of Raksha (2014)<sup>[4]</sup>.

#### Innovation proneness and extent of ICT utilization

The relationship between innovation proneness and extent ICT utilization of extension personnel were positive and highly significant. This might be due to that the extension personnel with high innovation proneness will be first to adopt modern ICTs and they act as role models for effective utilization of ICTs to their colleagues and farmers. This result was in line with the findings of Raksha (2014)<sup>[4]</sup> and Roshan (2015)<sup>[5]</sup>.

#### Job commitment and extent of ICT utilization

There was no significant relationship between job commitment and ICT utilization of extension personnel. It can be due to the fact that regardless the job commitment of extension personnel they had to use the ICTs in their ordinary business of life due their influence and requirement in daily life especially for the communication and entertainment.

#### Attitude and extent of ICT utilization

The relationship between attitude and extent of ICT utilization of extension personnel were found highly significant and positively correlated. This might be due to that the person with positive attitude towards ICTs make him mentally more concerned about it and he or she will be more interested in the use of ICTs in their professional and personal life. This finding was in line with the findings of Sharma (2018)<sup>[6]</sup>.

#### Knowledge about ICT and extent of ICT utilization

There was a highly significant and positive relationship between knowledge and extent of ICT utilization. The probable reason might be that the person with more knowledge on ICT will have more technical know how about the ICTs and they will aware of the scope of ICTs in their personal and work life. Similar finding was reported by Woreta *et al.* (2013)<sup>[8]</sup> and Roshan (2015)<sup>[5]</sup>.

#### Mass media liveliness and extent of ICT utilization

The relationship between mass media liveliness and extent of ICT utilization was found significant and positively correlated. The probable reason might be that the people with high mass media liveliness will be in need of updated information and they will be depending on various ICTs for these updates. This finding was similar with that of Jha *et al.* (2014)<sup>[2]</sup>.

#### Professional zeal and extent of ICT utilization

There was no significant association between professional zeal and ICT utilization of extension personnel. It can be due

to the fact that irrespective of participation in various seminars, symposia and journals the extension personnel are using various ICTs in due to their professional and personal requirement.

#### Training undergone and extent of ICT utilization

The training undergone and extent of ICT utilization of extension personnel were positively correlated. It might be due that the as the number of training increases the extension personnel becomes more skilled and efficient users of ICTs. This finding was similar with the findings of Woreta *et al.* (2013)<sup>[8]</sup> and Yakubu *et al.* (2013)<sup>[9]</sup>.

#### Infrastructure facilities and extent of ICT utilization

There was a significant and positive correlation between infrastructure facilities and extent of ICT utilization of extension personnel. The probable reason might be that the extension personnel with good infrastructure facilities are available with modern ICTs and they had better environment and opportunities for efficient utilization of ICTs. This finding was similar to the findings of Yekkini and Akinbile (2014)<sup>[10]</sup>.

#### Conclusion

It can be concluded that some of the selected characteristics of extension personnel has an influence on their extent of ICT utilization. The characteristics *viz.*, social participation, mass media liveliness, training undergone and infrastructure facilities had positive and significant relationship with ICT utilization of extension personnel. The characteristics of extension personnel namely educational status, innovation proneness, attitude, knowledge about ICTs had positive and highly significant relationship with ICT utilization of extension personnel. Age had highly significant and negative association with ICT utilization of extension personnel. There was a non-significant association between gender, work experience, native place, achievement motivation, job commitment and professional zeal and extent of ICT utilization of extension personnel.

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