

## KNOWLEDGE OF THE EMPLOYEES ABOUT ICTS APPARATUS FOR EXPLORING AGRICULTURAL INFORMATION

Rajesh M. Bhuva<sup>1</sup>, G. R. Patel<sup>2</sup> and S. R. Kumbhani<sup>3</sup>

1 Assistant Extension Educationist, DEE, NAU, Navsari-396450 India

2 Ex. Director of Extension Education, NAU, Navsari-396450 India

3 Assistant Professor, Dept. of Extension Education, NMCA, NAU, Navsari-396450 India

Email: rmbhuva@nau.in

### ABSTRACT

*The study was conducted in Navsari, Valsad, Surat, Tapi, Narmada, Bharuch and The Dang districts of South Gujarat. A random sample of total 200 employees who engaged in welfare activities for the farming community from well-established institutions and organizations were selected for present study. The data were collected by personal contact. Ex-post-facto research design was used. Majority (96.00 per cent) of the employees of NAU, NGO and line departments as well as private stakeholders had high level of knowledge about ICTs apparatus. The knowledge level of the employees about ICTs apparatus was positively significant with utility pattern, source of information, training received, mass media utilization, innovative proneness, scientific orientation and accessibility while it was negatively significant with age and service experience.*

**Keywords:** knowledge, employees, ICTs apparatus

### INTRODUCTION

Agricultural extension largely depends on information exchange among the farmers. Knowledge of employees about ICTs apparatus and its utility pattern helps them to disseminate right information to the right user and at right time leads to modernization in agriculture. Beyond the tools like radio, television and telephone, the well established apparatus in present scenario are exploring wide range of agricultural information through internet based mobile services, computer, video conferencing, e-mails, e-farm magazines, e-newspaper, e-journals, agricultural portals, subject oriented websites and social networking. ICTs apparatus are offering need based and demand driven information to farming communities. This infers that the ICT generate a lot of hopes to exploring updated information for the farming community to overcome the barriers of distance. The introduction of relevant ICTs apparatus for exploring the agricultural information could help to the farmer's to access market information, land resources and services, management of pest and diseases, rural development programmes and help in broadening the orientation of farmers in production activities. It is therefore assumed that the higher level of knowledge of ICT's apparatus, the higher would be its extent of exposure. Considering the extension agents and their services are a crucial one to agricultural and rural development then the knowledge about use of various ICTs apparatus becomes important. This has prompted the researcher to study the knowledge level of the employees

about ICTs apparatus for exploring agricultural information.

### OBJECTIVES

- (1) To study the knowledge level of the employees about ICTs apparatus for exploring agricultural information
- (2) To ascertain the relationship between the profile of employees and knowledge level about ICTs apparatus for exploring agricultural information

### METHODOLOGY

The study was conducted in Navsari, Valsad, Surat, Tapi, Narmada, Bharuch and The Dang districts of South Gujarat. The well-established organizations and institutions of South Gujarat, the employees engaged in these organizations and institutions as well as the private stakeholders who engaged in welfare activities for the farming community were identified. Thus, total 200 employees from Navsari Agricultural University, Line Departments, Non-Government Organizations and Private stakeholders were randomly selected for present study. The data were collected by personal contact. Ex-post-facto research design was used. Knowledge of employees about ICTs apparatus was measured by asking various questions related to different ICTs apparatus. A set of 30 dichotomous questions was finalized by referring researches and consulting the experts of ICT discipline and faculties. The right responses of respondent were given 1

score and zero for wrong. The respondent score was ranging in between zero to 30. The total knowledge score for each respondent was obtained by adding all the scores of their responses of all the statements. By following the arbitrary method of calculation, the respondents were categorized into low, medium and high level of knowledge. The collected data were analyzed by using statistical tools viz; frequency, percentage and correlation coefficient (*r*).

## RESULTS AND DISCUSSION

### Knowledge of the employees about ICTs apparatus

Knowledge is the fact or condition of knowing something with familiarity and gained through experience or with certain association. The information was collected and grouped into three categories as (i) low level of knowledge (up to 10 score), (ii) medium level of knowledge (11 to 20 score) and (iii) high level of knowledge (above 20 score). The data in regards are showed in table 1.

**Table 1 : Distribution of employees according to their knowledge level about ICTs apparatus for exploring agricultural information** (n=200)

Sr. No.	Level of knowledge	NAU (n=60)	NGO (n=40)	Pvt. Stkh. (n=40)	Line dept. (n=60)	Total (n=200)
1	Low level of knowledge	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
2	Medium level of knowledge	4 (6.67)	3 (7.50)	0 (0.00)	1 (1.67)	8 (4.00)
3	High level of knowledge	56 (93.33)	37 (92.50)	40 (100.0)	59 (98.33)	192 (96.00)

(Figures in parentheses indicate percentage)

It is evident from the table 1 that majority (93.33 per cent) of the NAU employees had high level of knowledge about ICTs apparatus and only 6.67 per cent of them had medium level of knowledge about ICTs apparatus while none of them possessed low level of knowledge about ICTs apparatus.

In case of NGO, majority (92.50 per cent) of the employees had high level of knowledge about ICTs apparatus and only 7.50 per cent of them had medium level of knowledge about ICTs apparatus while none of them had low level of knowledge about ICTs apparatus.

All (100.00 per cent) the private stakeholders had high level of knowledge about ICTs apparatus while none of them had medium and low level of knowledge about ICTs apparatus.

The majority (98.33 per cent) of the employees of line departments had high level of knowledge about ICTs apparatus and only 1.67 per cent of them had medium level of knowledge about ICTs apparatus while none was found in lower category of knowledge about ICTs apparatus.

Overall, majority (96.00 per cent) of the employees of NAU, NGO and line departments as well as private stakeholders had high level of knowledge about ICTs apparatus and only 4.00 per cent of them had medium level

of knowledge about ICTs apparatus while none of them had low level of knowledge about ICTs apparatus.

Thus, it can be inferred from the table 1 that majority (96.00 per cent) of the employees of NAU, NGO and line departments as well as private stakeholders had high level of knowledge about ICTs apparatus. The probable reason might be due to that they have higher utility patterns of ICTs apparatus, mass media utilization, frequent need to access for relative information sources and enough service experience.

The finding is in line with the finding of Manty (2011), Pawar *et al.* (2011), Bansode and Narfide (2014) and Ragul (2015).

### Relationship between the profile of employees and knowledge level about ICTs apparatus

The association of employees profile viz., age, education, gender, landholding, service experience, annual income, source of information, training received, mass media utilization, social participation, innovative proneness, scientific orientation, accessibility and utility pattern with knowledge level of employees about ICTs apparatus for exploring agricultural information were worked out with the help of coefficient of correlation and findings are presented in table 2.

**Table 2 : Relationship between the profile of employees and level of knowledge about ICTs apparatus (n=200)**

Sr. No.	Characteristics	Coefficient of correlation (r)
X <sub>1</sub>	Age	-0.184**
X <sub>2</sub>	Education	0.101 <sup>NS</sup>
X <sub>3</sub>	Gender	-0.045 <sup>NS</sup>
X <sub>4</sub>	Landholding	-0.018 <sup>NS</sup>
X <sub>5</sub>	Service experience	-0.181**
X <sub>6</sub>	Annual income	-0.112 <sup>NS</sup>
X <sub>7</sub>	Source of information	0.164*
X <sub>8</sub>	Training received	0.176*
X <sub>9</sub>	Mass media utilization	0.149*
X <sub>10</sub>	Social participation	0.031 <sup>NS</sup>
X <sub>11</sub>	Innovative Proneness	0.143*
X <sub>12</sub>	Scientific orientation	0.156*
X <sub>13</sub>	Accessibility	0.171*
X <sub>14</sub>	Utility pattern (Overall)	0.232**

\* Significant at 0.05 level \*\* Significant at 0.01 level  
NS Non significant

The data manifested in table 2 reveals that the utility pattern (0.232\*\*) was positive and highly significantly correlated with the knowledge level of employees about ICTs apparatus.

Whereas, the age (-0.184\*\*) and service experience (-0.181\*\*) possessed negative but highly significantly correlation with the knowledge of employees about ICTs apparatus.

The source of information (0.164\*), training received (0.176\*), mass media utilization (0.149\*), innovative proneness (0.143\*), scientific orientation (0.156\*) and accessibility (0.171\*) were positive and significantly correlated with the knowledge level of employees about ICTs apparatus.

However, the education (0.101) and social participation (0.031) were found to be non-significantly associated with the knowledge while gender (-0.045), landholding (-0.018) and annual income (-0.112) were negatively and non-significantly associated with the knowledge level of employees about ICTs apparatus.

This finding is in conformity with the findings of Butani (2010), Biradar *et al.*, (2013) Rudroju (2013), Woreta *et al.* (2013), Proadhan and Afrad (2014), Baig (2015) and Bhimani *et al.*, (2020).

## CONCLUSION

On the basis of findings it can be concluded that majority of the employees of NAU, NGO and line departments as well as private stakeholders had high level of knowledge about ICTs apparatus. The knowledge of employees about ICTs apparatus was positively significant with their utility pattern, source of information, training received, mass media utilization, innovative proneness, scientific orientation and accessibility while it was negatively significant with age and service experience.

## REFERENCES

- Baig, R. (2015). Extent of utilization of ICT tools among field veterinarians of Andhra Pradesh. M.V.Sc. thesis (unpublished) submitted to Sri Venkateswara Veterinary University, Tirupati.
- Bansode, S. N. and Narfide, B. (2014). Information seeking behaviour of B- School faculty members in digital environment: a case study. *Inter. Journal of Information and Dissemination and technology*, 4(2): 130-134.
- Bhimani, Gita J., Bariya, M. K. and Rathod, J. H. (2020) Knowledge regarding food and nutrition among farm women. *Guj. J. Ext. Edu.* 31(1):18-21.
- Biradar, G.S., Vinaya Kumar, H. M., Nagaraj, and Goudappa, S. B. (2013). Knowledge level of farmers about chilli cultivation practices in North-Eastern Districts of Karnataka. *Environment and Ecology*. 31 (2B): 828-831
- Butani, K. D. (2010). A study of knowledge and use of ICT by the scientist of the Punjab Agricultural University. M.Sc. (Agri.) thesis (unpublished) submitted to Punjab Agricultural University, Punjab.
- Manty, H. (2011). Access and use of ICT tools by extension personnel for transfer of technology in North Karnataka. M.Sc. (Agri.) thesis (unpublished), University of Agricultural Sciences, Dharwad.
- Pawar. J. B., Badiger, C. A. and Hiremath, U. S. (2011). Opinion and knowledge of children and adolescents towards computer usage. *Karnataka Journal of Agriculture Science*, 24(4): 516-519.
- Proadhan, F. A. and Afrad, M. S. I. (2014). Knowledge and perception of extension workers towards ICT utilization in agricultural extension service delivery. *Int. J. Agril. Res. Innov. & Tech.*, 4(2): 46-52.
- Ragul, M. G. (2015). Use of ICT tools by the extension

personnel in North Gujarat. M.Sc. (Agri.) thesis (unpublished) submitted to Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar.

Rudroju, V. (2013). Awareness, accessibility and utilization pattern of Information and Communication Technology projects by farmers of Belgaum district.

M.Sc. (Agri.) thesis (unpublished) submitted to the University of Agricultural Sciences, Dharwad.

Woreta, S. A., Kebede, Y. and Zegeye, D. T. (2013). Knowledge and utilization of ICT among health science students at the University of Gondar, North Western Ethiopia. *BMC medical informatics and decision making*, 13(1): 31.

---

*Received : July 2021 : Accepted : September 2021*