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# Profile characteristics association with the utilization pattern of ICT tools and the suggestions to overcome the constraints faced by the ICT tools user farmers

**Sagar S Pujar, K Amaresh Kumar, Kavyashree C, SV Suresha and D Shashikalabai**

**Abstract**
The study was conducted in the year 2017-18 in Shivamogga and Chikamagaluru district of Karnataka state with a sample size of 120 farmers. Simple random sampling procedure was used to select the sample. The data was collected with the help of structured interview schedule. The socio-economic profile of the respondents revealed that majority of the respondents belong to middle age group (51.70%), high school education (41.67%), small land holding category (32.50%), 10-20 years of farming experience (40.83%) and high-income level (61.70%). Whereas, majority of the respondents had medium and low cosmopoliteness (35.00%), medium innovative proneness (55.83%), medium economic motivation (45.00%), medium mass media exposure (37.50%), medium information seeking behaviour (52.50%) and farmers had low political participation (58.34%). Unaware of the origin of the information generated, Risk in adoption of technology and Poor network connectivity were the major constraints faced by the farmers and the suggestions were Region wise information need to shared (94.17%), Expert's information (90.83%), Proper network speed (88.33%) and Information on the burning problems (85.83%). The variables like education, innovative proneness, economic motivation and mass media participation had significant association with utilization of ICT tools at 0.01 level. Whereas, age, land holding, farming experience, annual income, Cosmopoliteness, extension participation, information seeking behaviour and political participation had non-significant association with utilization of ICT tools.

**Keywords:** constraints, suggestions and utilization pattern

## Introduction
The positive sign in recent years can be observed in the Indian agriculture due to the transformation of framing from traditional to modern one through adopting the advanced agricultural technology with the production accomplishment. The transfer of new ideas and convincing it to the farmers is a crucial aspect in the agricultural sector but now a days it is easy due to the innovations of many communication channels and mediums. There are many advanced mediums which are very effective in the transfer of agricultural technology. The telephone, computer and internet and other ICT services are more effective for the transfer of agricultural technologies. ICT plays a essential component role for sustainable economic development in rural areas. ICT, when applied to rural-based businesses, can help improved communications, increase participation, and disseminate information and share knowledge among the small business community (Narula & Arora, 2010) [3]. ICT in agriculture is an emerging field which paves focus on the enhancing the socio-economic, agricultural and over development of the rural population. In broad terms, ICT is an umbrella term that covers all advanced technologies in manipulating and communicating information. ICT infrastructure has the potential to drastically improve the quality of life and thus it has become an increasingly essential dimension of rural development.

## Methodology
The study was conducted in Shivamogga and Chikamagaluru districts of Karnataka State. In Shivamogga district the whats app group of KSDA and Kissan call centre were selected. Similarly, e-Krushika app and KVK Kissan mobile agro advisory services in Chikamagaluru district were selected purposively. Under each district two taluks were selected. Under each taluk two villages were selected with a minimum of 5 km and maximum of 15 km radius from the taluk headquarters, where 15 farmers were randomly selected from each village.

Thus, the total sample constituted to 120. The data was collected using pretested interview schedule. The responses were scored, classified, analysed and tabulated with the help of frequency and percentage techniques

**Selection of the population:** The farmers using the ICT tools in the Shivamogga and Chikamagaluru districts were constituted as population of the study.

**Selection of respondents:** From each village, fifteen farmers were selected by using simple random sampling technique. Thus 120 ICT user farmers were selected for the study.

## Results and Discussion

### Relationship with the profile of the ICT tool user farmers and their Utilization pattern of ICT tools

Table 1 reveals the association between utilization of the ICT tools with the profile of the farmers. There was a significant association between farmer's education and Utilization of ICT tools. The reason for this might be that the formal education for the individual makes improve upon various aspects of life particularly increasing knowledge, attitude and skill. Higher the education leads to better decision-making ability that might be the reason education showed a significant association with the utilization of ICT tools.

The possible reason for the significant relationship between utilization of ICT tools and innovative proneness was that the farming experience helps farmers to adopt new crops and innovative technologies. So normally farmers they always look forward for new things and new ways of doing things. Hence, they possess high innovative proneness.

Economic motivation of the farmer found to be significantly related to utilization of ICT tools, this is due to the fact that farmers who got higher income their economic status is also good in the society, which is possible only when the new, innovative technologies are tried from after obtaining information from different ICT sources. Thus, economic motivation had significant association with the utilization of ICT tools. These findings are in agreement with the findings of Anandaraja (2002) [2] and Senthil Kumar (2003) [7].

There was a significant association between farmer's mass media exposure and utilization of ICT tools. The reason for this was may be that the Mass media exposure made farmers to explore new areas of farming and provides the opportunities for experiences in new areas it is happened through utilization of ICT tools. Thus, farmers had significant association with the mass media exposure.

**Table 1:** Association between Utilization of ICT tools with profile of the farmers

(n = 120)

| Categories | Chi-square |
|---|---|
| Age | $3.93^{NS}$ |
| Education | 7.98** |
| Land Holding | $0.41^{NS}$ |
| Farming Experience | $0.13^{NS}$ |
| Annual Income | $68.84^{NS}$ |
| Cosmopoliteness | $0.21^{NS}$ |
| Innovative Proneness | 13.77** |
| Extension Participation | $8.01^{NS}$ |
| Economic Motivation | 12.24** |
| Information seeking behaviour | $4.27^{NS}$ |
| Political Participation | $1.91^{NS}$ |
| Mass media Participation | 18.03** |

*significant at 5% level of significance,
**Significant at 1% level of significance,
NS-Non-Significant

### Constraints faced and the suggestions by the ICT tool user farmers

A glance at the Table 2 reveals about the constraints faced by the ICT tool user farmers. Majority 90.83 per cent of the ICT tools users expressed that 'unaware of the origin of the information generated' as first highest problem. The probable reason for this may be that the farmers were unable to get complete information by many of the farmers. Eighty-five per cent of the ICT tool user farmers expressed their constraint was "Irrelevant information was received". The probable reason may be that the farmers received general information which is not required by them and they felt this information was not related to agriculture. Hence, they opined irrelevant information was received.

**Table 2:** Constraints faced by the ICT tool user farmers

(n=120)

| Constraints | Frequency | Percentage |
|---|---|---|
| Difficult to operate the gadgets | 70 | 58.33 |
| Clarification of the ambiguous messages | 77 | 64.16 |
| Lack of practical exposure regarding technology shared | 71 | 59.17 |
| Risk in adoption of technology | 82 | 68.33 |
| Poor network connectivity | 97 | 80.83 |
| Irrelevant information is received | 102 | 85.00 |
| Information is not timely | 46 | 38.33 |
| Less reliability of the information | 83 | 69.17 |
| Lack of feed back | 69 | 57.50 |
| Unaware of origin of the information generated | 109 | 90.83 |

**Responses are mutually inclusive**

The third highest problem expressed by the ICT tool user farmers was "Poor network connectivity" (80.83%). The probable reason might be that the wind currents and rainfall hampers network speed which made the connectivity poor. About 69.17 per cent of the ICT tools user respondents expressed problem of "Reliability of the information". The probable reason was that few information in the ICT tools are not factual one but farmers expect more specific and reliable updated information from authorized source. Hence, farmers expressed reliable information was required. The data presented in the Table 3 depicted the suggestions offered by the respondents to overcome the constraints faced in using the ICT tools *i.e.*, Region wise information need to share (n=113), Experts information need to provide (n=109), Proper network speed is required (n=106), Need information on burning problems (n=103), Use simple language (n=89), Information on farmers experience (n=87), Need information on particular

crop and technology (n=79), Need-based information need to shared (n=78), Develop user friendly gadgets (n=43) The suggestions provided by the farmers shall be considered by the information providing institutions, network providers, Agricultural universities etc., in order to make agricultural information more useful and utilized by the farmers. Most of the above suggestions are in conformity with the findings of Vishwatej R., (2013).

**Table 3:** Suggestions to overcome from the constraints faced by ICT tool user farmers

(n=120)

| Suggestion | Frequency | Percentage |
|---|---|---|
| Develop user friendly gadgets | 43 | 35.83 |
| Proper network speed is required | 106 | 88.33 |
| Information on farmers experience | 87 | 72.50 |
| Need information on particular crop and technology | 79 | 65.83 |
| Experts information need to provide | 109 | 90.83 |
| Use simple language | 89 | 74.17 |
| Need-based information need to shared | 78 | 65.00 |
| Region wise information need to shared | 113 | 94.17 |
| Need information on burning problems | 103 | 85.83 |

Responses are mutually inclusive

## Conclusion

Every technology in the world is like the two sides of the coin, each and everything's has benefits as well as constraints. It is beyond any doubt that ICT is the gift of science. Along with the numerous advantages there are certain constraints to be faced by the users. Results of the above study indicated that profile, constraints and the suggestions faced by the Information and Communication Technology user farmers. All these constraints should be overcome through implementing the suggestions by farmers like; proper and improved infrastructural facilities at the village level, providing relevant information at a time and skill development updating with training, creating awareness regarding use of ICTs for agricultural purpose

## Reference


1. Amaresh Kumar K. A study on performance of panchayat raj institutions in Karnataka. Ph.D. thesis, Univ. Agric. Sci., Bangalore, Karnataka 2004.
2. Anandaraja N. Developing Farmer Friendly Interactive Multimedia Compact Disc and Testing its Effectiveness in Transfer of Farm Technology. Ph.D. thesis, TNAU, Coimbatore, Tamil Nadu 2002,
3. Narula SA, Arora S. Identifying stakeholders needs and constraints in the adoption of ICT services in rural areas: the case of India. Social Responsibility J 2010;6(2):222-236.
4. Sagar S Pujar, Amaresh Kumar K *et al*. Socio-economic Characteristics of Information Communication Technology Tools User Farmers and their Association with the Usefulness of the Messages through ICT Tools. Int. J. Curr. Microbiol. App. Sci 2020;10:736-742.
5. Satyanarayan K, Jagadeeswary V. A study on knowledge and adoption behaviour of livestock farmers. Ind. J Animal Res 2010;44(2):100-106.
6. Sen V. A study on Radio listening behaviour of farmers in relation to agriculture information technology programme broadcasted through All India Radio in Rewa district. M.Sc. (Agri.) thesis, JNKVV, Jabalpur, Madhya Pradesh 2008.
7. Senthil kumar M. Field Testing Cyber Extension Techniques for Transfer of Farm Technology-A Feasibility Study. Ph. D. thesis, TNAU, Coimbatore, Tamil Nadu 2003.