

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: <u>www.ijirset.com</u> Vol. 8, Issue 7, July 2019

# Awareness and Use of Information Communication Technology among Farmers of Pithoragarh District

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**ABSTRACT:** Effective communication and influential technology transfer among farmers are the only backbones of Krishi Vigyan Kendras. The study was undertaken to determine the awareness and use of information and communication technology/tools for assessing agriculture-related information among farmers of Pithoragarh district in Uttarakhand state concerning gender, locality, and medium of communication. The survey method of research has been used in the present study. Out of 8 blocks, 04 blocks of Munacot, Bin, Kanalichina, and Berinag were selected randomly. A total of 160 farmers were randomly chosen from 10 villages. An index was developed for the use of ICT tools by the respondents. Most farmers prefer communication in the regional language Kumauni, with access to television and second-generation mobile phones. The use of android phones and the internet was available to 24% of farmers only. KVK scientists and all India radio mainly provided the source of information related to agriculture.

KEYWORDS: Awareness, Communication, Information Communication Technology, Pithoragarh

### I. INTRODUCTION

Knowledge is power, and education is the basic necessity in developing a dynamic society capable of participating in the developmental activities of today's global economy. Information Communication Technology is the combination of hardware and software that takes data as input, processes it, and produces information as output. With the evolvement of Information Communication Technology (ICT), the delivery of education and training is changing rapidly. ICT is affecting the mode of communication /education at all levels. It is likely to bring substantial change in society. The primary method of communication in print and electronic media, the electronic media maybe radio, television, use of mobile phones and computers. These phones may belong to the second generation or above. The ICT tools integrate technology using the computer or mobile phones in the form of doing text messages, using video conferencing, surfing websites, weblogs, using social media tools or mobile applications, watching YouTube videos, etc. These sources of communication have proved effective in contacting local farmers while imparting training and technology transfer or updating them with current knowledge/information, or making self-help groups for promoting agriculture and marketing activities. Therefore the communication should be robust and should be able to develop bonds between farmers and technology providers. The exceptional communication creates interest, understanding, proper evaluation, and motivation for technology adoption timely [1]. Most farmers use second-generation mobile phones to share information among relatives, dealers, extension workers, traders, and other government agencies [2]. In order to streamline the farming operations, technical inputs, it is mandatory for farmers and extension workers to connect them with the mainstream.

Due to the importance of ICT tools, there is an urgent need to assess the awareness level of farmers regarding their knowledge and usage as the mode of communication and technology transfer.



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Pithoragarh district is divided into eight blocks and is one of the biggest districts of Uttarakhand state that shares an international border with China and Nepal. A study was proposed to find out the most effective mode of communication, ICT literacy, awareness level on a gender basis, and frequently used tool. This study may help create a communication profile of farmers that may help extension workers and researchers to identify and provide platforms comfortably used by farmers for technology dissemination.

### **Objectives of the Study:-**

1. To find out the level of ICT Awareness among farmers of Pithoragarh district.

2. Effective mode of communication.

3. To find out whether any significant difference between ICT Awareness of farmers based on Gender, medium of communication (Kumauni/Hindi)

### The hypothesis of the study:

There is no significant difference between Awareness of ICT among prospective teachers based on selected variables.

### **II. MATERIALS AND METHODS**

The study was undertaken by adopting the survey method of research and Simple random sampling techniques. Out of 160 respondents, 67 females and 93 males from 04 blocks Munacot, Bin, Kanalichina, and Berinag, were selected randomly from 10 villages. An index was developed for the use of ICT tools by the respondents. The data were collected through a semi-structured schedule and analyzed with the help of statistical tools on various parameters like mean, standard deviation, frequency, and percentage.

### **III. RESULTS AND DISCUSSION**

#### Null Hypothesis:

There is no significant difference between Awareness of ICT among farmers with respect to Gender and Mode of communication.

Variables	Male (N=93)		Female (N=67)		Calculated value of t	Remarks at 5% level	
	Mean	SD	Mean	SD	2.26	S	
ICT Awareness	51.7	11.45	48.29	9.31			
Variable	Kumauni=8	8	Hindi=72		Calculated value of t	Remarks at 5% level	
	Mean	SD	Mean	SD			
ICT Awareness	48.89	9.93	52.75	10.33	3.25	S	

## Table 1:- Significant difference between Awareness of ICT among farmers with respected to Gender and Mode of communication. (At 5% level of significance the table value of 't' is 1.96)

It is concluded from the above table 1 that there is significant difference between male and female farmers in their ICT Awareness. Also there is significant difference between modes of communication. While comparing the mean scores of Kumauni and Hindi communication females prefer using Kumauni language (Mean =52.75) while male prefer Hindi (Mean =48.89).

### **Ownership of ICT tools by the farmers**

The television set occupies a commonplace in homes, businesses, and institutions, particularly as a medium for



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advertising, as the source of entertainment, and listening to the news. Similarly, owning the third generation mobile phone by an individual can be considered as a status symbol or a necessity as well. The data (Table 2) showed that 89.16 percent of respondents owned mobile/telephone followed by television (85.00 %), radio (25.00 %), newspaper (13.33%), and computer (6.66%). Similarly, It has also been earlier reported [2] in the sample villages in Kapurthala district of Punjab that 98.3 percent of the farmers possessed mobile phones and out of which 78.0 percent were using this device for getting information from traders, dealers, relatives, scientists, extension workers, banks personnel, etc. However, only 66.7 percent of marginal farmers were using it for agricultural purposes. It was also revealed that 57.5 percent of farmers possessed radio sets, but only 37.7 percent of them were using this medium for getting information related to agriculture.

Sr. No.	Owner of ICT source	No. of respondents	Percentage
1.	Radio	40	25.00
2.	Mobile/Telephone	143	89.16
3.	Newspaper	21	13.33
4.	Television	136	85.00
5.	Computer	11	6.66

 Table 2: Distribution of respondents according to the ownership of ICT (N=160).

### **Purpose of using ICT tools**

The data (Table 3) revealed that the majority (77.50 %) of the respondents were using television for entertainment, with very few (7.50%) were using it for information purposes. The majority (89.16%) of the farmers were using 2g mobile phones for communication, whereas 10.83 percent of the respondents were reading newspapers for information purposes, with only 2.50 percent for educational purposes. A similar type of findings was reported by [3]. The data in the Table revealed that the majority (89.16%) of the respondents were regularly using the mobile/telephone to talk to their friends/ relatives etc., to discuss their personal problems. The majority (85.00%) of the respondents were viewing television regularly.5.83 percent of the respondents were reading newspapers occasionally, while 4.16 percent were reading regularly, and 3.33 percent of the respondents were rarely reading the newspapers. Only 4.16 percent of the radio occasionally, and 10.83 percent of the respondents were rarely listening. The results were in inline with the results [4]. The values given in Table 4 reveal that majority (95.83 %) of the respondents had credibility on the Extension Personnel followed by radio (91.66%), television (83.33%), Newspaper (81.66%), and computer (79.16%).

Sr. No.	ICT source	Information	Entertainment	Education	Others
1.	Radio	15(9.16)	9(7.50)	16(8.33)	0.0
2.	Mobile/Telephone	-	-	-	143 (89.16)
3.	Newspaper	18 (10.83)	-	3(2.50)	-
4.	Television	31 (7.50)	105 (77.50)	-	-
5.	Computer	11(6.66)	-	-	-

Table 2: Number and percentage of respondents as per need of ICT tool (N=160).



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Sr. No.	ICT source	Frequency of use						
		Regularly		Occasionally		Rarely		
		Ν	Percentage	N	Percentage	Ν	Percentage	
1	Radio	5	4.16	12	10.00	13	10.83	
2	Mobile/Telephone	107	89.16					
3	Newspaper	5	4.16	7	5.83	4	3.33	
4	Television	102	85.00					
5	Computer	3	2.5	3	2.5	2	1.66	

Table 3: Number of respondents according to the purpose of use of ICT (N=160). (Figures in parentheses indicate percentage)

Sr. No.	ICT source	Crediblity	Less Credible
1	Radio	91.66	8.33
2	Newspaper	81.66	25.00
3	Television	83.33	16.66
4	Computer	79.16	20.83
5	Extension Personnel's	95.83	4.16

Table 4: Number of respondents according to the ICT credibility (N=160).

### **IV. CONCLUSION**

It is concluded that mostly the farmers had television and mobile phones as the source of information at their homes. The majority of the farmers were using the television for entertainment purposes. Extension personnel were considered as the most credible source of information, followed by radio, television, newspaper, and computer. Hence, the use of information and communication technologies is necessary for the development of the farming society to connect them into the mainstream.

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