

Original Research Article

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## Access and Availability of ICT Tools Used by Farmers for Crop Practice in Bihar, India

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### ABSTRACT

In India in recent years have led to widespread capacity for dissemination of knowledge and information to the rural community. However, rural population in our country still have issues in accessing essential information in the forms they'll perceive so as to form timely decisions for better farming. In previous couple of years innovative ideas came in to existence. Indian farming community is at present facing multitude of problems to maximize crop productivity. The use of information is wide and multifarious. So, the study was conducted to assess the opportunity for using ICT. The present study was carried out in two district of Bihar state i.e. Samastipur and Katihar, in four villages. In total 100 respondents viz., 50 farmers from each district, 50 farmers from each block and 25 farmers from each village were selected for present study. Availability of mobile among the farmers was high followed by television, FM/Radio, internet, Whatsapp. Others like Video conferencing, Facebook, You tube, e-book/e-magazine, kisan help line, Personal computer/laptop, e-mail, Web portals (Internet) and CD/DVD available/access by the farmers.

#### Keywords

Accessibility,  
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Technology

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### Introduction

ICT is an umbrella term that includes any communication device or application, encircling radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, with the various services and applications connected with them, such as videoconferencing and distance learning. It also consist of a wide

range of technologies starting from radio, television and telephone to modern technologies like mobile phone, multimedia, internet and satellite based communication systems.

They consist of the "old" ICTs of radio, television and telephone, and the "new" ICTs consist of computers applications, satellite and wireless technology and the Internet.

These different tools are work together, and combinely form our “networked world” – a massive infrastructure comprises interconnected telephone services, standardized computing hardware along with the Internet, radio and television, which reaches into every corner of the globe (UNDP, 2001). ICT revolution is the consequence of integration of computer technology and communication technology. In this information age, the ICTs play a pivotal medium for knowledge dissemination between research systems and farming system.

According to the Food and Agriculture Organization, FAO (1993) ICTs was defined as those technologies are used to collect, process, store, retrieve, disseminate, and implement various data and information using microelectronics, optics, telecommunication and computers. There is a noticeable change from the old ways of delivering information to the modern ways of information delivery systems. Information and communication technology (ICT) is speedily achieving the hub for future world economic growth and development. While ICT is importance tool or an engine for economic growth as it also promises to have far reaching potential for the delivery of social services and enhancing the effectiveness of government organisations.

The main objectives of this study includes to access the availability of ICT tools used by farmers

### **Materials and Methods**

The study was conducted in Samastipur and Katihar districts of Bihar. Two blocks were selected from each block two villages were selected so total number of Respondents (farmer) were 100 for study purpose. Eleven independent variables of the study were: Age, Caste, Occupation, Education, Family type,

Actual Annual income, Social Participation, Farming system / Allied activities, Mass media exposure, Extension contact, Number of ICTs tool used. The dependent variables were: Accessibility and Availability of ICT and Use pattern of ICTs. All the variables were measured strictly under the set rule and procedure, with scale and schedule developed for the study. An interview schedule was prepared and face to face interview was carried out with respondents (farmer). An Appropriate statistical tests were used Percentage, weighted mean, SD, Coefficient of correlation, Multiple regression analysis etc for data analysis.

### **To access the availability**

It is the degree or the extent to which respondents possesses or use ICTs or its applications for the use of agriculture and rural development.it includes in ICT tools like radio television, mobile along with various services associated with mobile and internet i.e. whatsapp, kisan help line etc. A scoring of 1 and 0 was given to access or available i.e. ‘Yes’, ‘No’, the data thus got were analyzed and results are presented in table 1.

### **Results and Discussion**

The result highlights that majority of respondents had access or availability of mobile phone (91%) followed by television (87%), followed by radio (82%) while 80% respondents using internet i.e. google, etc.

So it was ranked as I, II, III, IV respectively according to mean wise whereas least used access or availability ICT tools were CD/DVD followed by web portal, email respectively ranked as XIV, XIII, XII according to mean wise, it may be because lack of knowledge about these tools as people were unaware about these tools like some agriculture app, email etc., that through this

they can also get information.

Majority of farmers were having mobile phone it may be because of farmers appreciated as mobile phone as easy, fast and convenient way to communicate and get relevant information of respective problems. Now a days, the mobile phone has generated an opportunity for the farmers especially to get the information about marketing and weather then television is widely seen as it may be because farmer cannot visit to KVK randomly so, with the various Television programmes in channels like DD Kisan,

Kisan TV etc. focused on identifying problems and controlling i.e. various crop related pests information, precautions and provide various information, same as radio programmes like Kheti-Grihasthi, Chaupal, do work provide relevant and update news about market commodity, weather etc. to farmers at ones door step.

It also depicts from the table 2, that majority of respondents have medium (63%) level of accessibility /availability of ICT tools followed by low (19%) and high (18%).

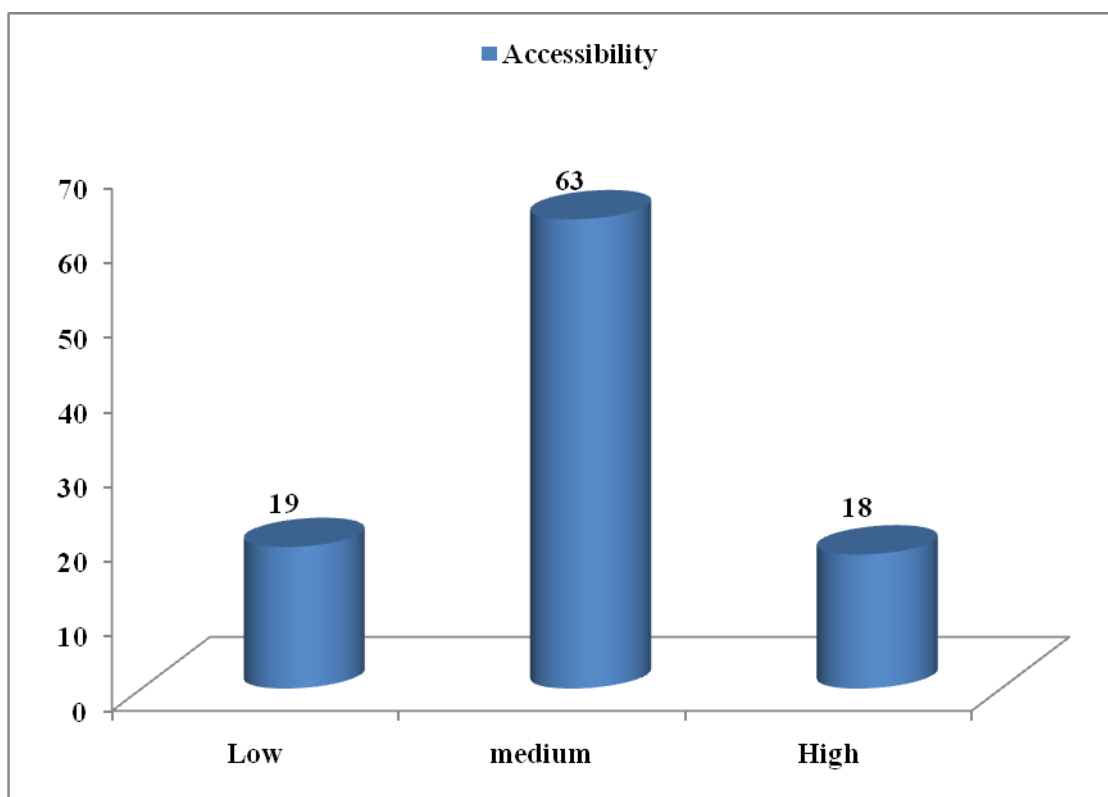
**Table.1** Percentage Distribution of respondents according to their access the availability of ICT tools by farmers

Sl No.	Tools	Percentage (%)	Mean	Rank order
1.	Community Radio /Farm Radio / AI Radio/FM	82	0.82	III
2.	Television	87	0.87	II
3.	Mobile phones	91	0.91	I
4.	Personal computer/laptop	7	0.7	XI
5.	Internet	80	0.80	IV
6.	Whatsapp	77	0.77	V
7.	Facebook	21	0.21	VII
8.	You tube	12	0.12	VIII
9.	Video Conference	39	0.39	VI
10.	e-mail	5	0.5	XII
11	CD/DVD	2	0.2	XIV
12	Web portals (Internet)	4	0.4	XIII
13.	E-Books, E-magazine, E-newspaper	9	0.9	X
14.	Kisan help line	13	0.13	IX

**Table.2** Percentage distribution of respondents according to their access the availability of ICT tools by farmers

S.No.	Categories	(%)
1	Low (<7.56)(Below mean – S.D.)	19
2	Medium (7.56-18.24)(Between mean ± S.D.)	63
3	High (>18.24)(Above mean + S.D.)	18
<b>Total</b>		<b>100</b>

Figures in parenthesis indicate percentage  
 Mean=12.9,SD=5.34



Conclusion of the study are as follows:

The result highlights that majority of respondent had access or availability of mobile phone having (91%) followed by television (87%) followed by radio (82%) while 80% respondent using internet. So it was ranked as I, II, III, IV respectively according to mean wise.

So it was concluded that that majority of respondent have medium (63%) level of accessibility /availability of ICT

tools followed by low (19%) and only 18 % respondents had high level of accessibility /availability of ICT tools respectively.

Majority of farmers were having mobile phone it may be because of farmers appreciate as mobile phone as easy, fast and convenient way to communicate and get relevant information of respective problems. Now a days, the mobile phone has generated an opportunity for the farmers especially to get the

information about marketing and weather

The use of mobile phone accessing internet has a greater impact on the awareness of the farmers to establish a greater change in their behavioural complex comprising of knowledge, access and skill. Present study also reflects that the awareness generation activities on ICT tools changes the perception of the farmers in a larger extent in case of promoting scientific agricultural practices, accessing the modern ICT tools for agricultural information and dealing with market-led agriculture.

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