Journal of Extension Education & Applied Sciences
Vol. 1, Issue 1,Oct-Dec.2024
ISSN – 3107-4960
JEEAS 2024; 1(1):09-11
DOI:10.48165/iaef.2024.1.01.3

Constraints Faced in the Usage of ICT Tools by Farmers in Buxar District of Bihar, India

Jai Prakash[1*], Alimul Islam[2] and Pradum Maurya[3]
Corresponding author email: jai.bxr.200@gmail.com

Received: 01-10-2023 Accepted: 12-10-2023 Published: 20-12-2023

Abstract
The study investigated into the constraints encounter by farmers while using information and communication technology (ICT) in the Buxar district of Bihar. The study was performed in a purposefully chosen district, and respondents were chosen via proportional random selection. They were given an interview schedule. The acquired data was analysed, and ranks were assigned based on frequency and percentages. One of the primary challenges facing to farmers using ICT tools was the high cost of ICT devices, such as smartphones and computers with 100% and I ranked as I followed by inadequate internet and wifi facilities with (99.17%) and II ranked, insufficient servicing centres of ICTs in villages (98.33%) and III ranked, high cost of servicing charges of ICTs gadgets (97.5%), difficulty comprehending the language of ICT devices (91.67%),lack of supports on ICT gadgets (79.16%), Low degree of education (76.67%) and Unawareness of the advantages of ICTs (66.67%), ICT devices and spare parts are not readily available in local marketplaces (64.16%). The major suggestion were reduce the costs of ICT tools percentage of 99.17% followed by provide subsidies on ICT gadgets was ranked as II with value 99.66 %, Create awareness campaigns about the benefits of ICT technologies 95%.

Keywords: ICT, Constraint, Information, Communication.

Introduction

India is an agricultural country and about 68% of the entire population of India is completely dependent on agriculture. Agriculture is a major industry in the Indian economy, accounting for around 18.3% of total GDP and employing more than 65% of the population. Indian agriculture has grown dramatically during the previous few decades. Food grain output has grown from 51 million tonnes (MT) in 1950-1951 to 285.71 million tonnes. (MT) during 2021-2022 (GOI 2021-22). ICT is an abbreviation for "Information and Communication Technology". Dennis Stevenson created the term information and communication technology in 1997. It refers to technologies that provide access to information via telecommunications. It is comparable to information technology (IT), but its primary concentration is on communication technologies. ICT is often used in the context of "ICT roadmap" to show the path that an association will take with their ICT needs. This includes the cell phones, wireless networks, internet and other communication medium. ICT has included a four "I"s to describe I- Information, I- Informatics, I- Interactivity, I- Identity. ICT fully depends on internet. ICT has the potential to address some of the challenges facing farmers in developing countries. It gives farmers access to real-time

[1,3]M.Sc. (Ag.) Ag. Ext. Institute of Agriculture and Natural Sciences, Deen Dyal Uppadhyay Gorakhpur University Gorakhpur U.P. India.
[2]Subject Matter Specialist, Agricultural Extension, Krishi Vigyan Kendra, Kishanganj, Bihar Agricultural University, Sabour, Bhagalpur, Bihar.

data on weather patterns, market pricing, and best agricultural practices. This information helps farmers to make informed decisions about crop selection, planting, harvesting, and marketing. ICT Information defined as the knowledge which we obtained from reading, investigation, study or research. Communication is the process by which two or more people share ideas, facts, sentiments, or impressions in manners that allow them to develop a common understanding of the meaning, intent, and application of communications. (Leagans, 1961). Previously, individuals communicated using sign language or symbols, as well as drama and poetry. ICTs can generate new chances to bridge the gap between the information haves and have-nots in developing countries (FAO, 1993).

Research Methodology

The current study was done in Buxar district of Bihar during the year 2023. The Buxar district was selected purposively for the study due to different reason like kvk and more number of farmer there are 11 blocks in Buxar district, out of that 2 blocks Buxar and Itarhi were selected randomly. Five towns from each block were chosen using a random sample procedure. From each village 12 farmers were selected by random sampling technique. So a total of 120 farmers were chosen for the research. Data was obtained using a well-structured interview schedule designed with the study's purpose in mind. The acquired information was coded, sorted, and tallied. Statistical methods such as frequency, percentage, mean, standard deviation, and rank-based quotient were utilized to meaningfully evaluate data and draw conclusions. The data are collected pertaining to the problems faced by the respondents with regard to ICT tools and also for suggestions given by the respondents was quantified in terms of the number of respondents who gave the rank.

Result and Discussion

From table 1 it can be revealed that constraint faced by respondent during access and usage pattern of ICTs by farmers. Similar findings also reported by Albert *et al.* (2014).The major constraints were found costly of ICT gadgets like smartphones, computers and laptops etc. with (100%) and I ranked as I followed by inadequate internet and wifi facilities with (99.17%) and II ranked, insufficient servicing centres of ICTs in villages (98.33%) and III ranked, high cost of servicing charges of ICTs gadgets (97.5%) with IV ranked, Having problems comprehending the language of ICT gear (91.67%) with V ranked, absence of subsidies on ICT gadgets (79.16%) with VI ranked, Low level of education (76.67%) with VII ranked, and Inadequate awareness of advantagesof ICTs (66.67%) with VIII ranked, Unavailability of ICT gadgets and spare parts in local marketplaces (64.16%) with IX ranked, poor connectivity of internet in gadgets (63.33%) with X ranked, insufficient training and practical exposure towards ICTs (40.83%) with XI ranked, Lack of uninterrupted power supply (32.5%) with XII ranked. It indices that the high cost of ICT gadgets like computers, smartphones and laptops etc. with frequency120 and (100%) is ranked as first it may be due to because of ICTs gadgets are very costly at a first time within all time when use an ICTs gadgets works on internet or wifi so recharge on monthly so costly. Similar findings also reported by Naik *et al.* (2022).

Based on the constraints, the suggestions were drawn from the respondent farmers to overcome them were presented in Table 2 based on their magnitude. Suggestions were ranked based on frequency percentage.

Table 2 it clearly revealed that respondent indicates suggestion by respondent during access and usage pattern of ICTs by farmers. The major suggestion were reduce the costs of ICT tools percentage of 99.17% with rank I followed by provide subsidies on ICT gadgets was ranked as II with value 99.66 %, and create awareness operations on the benefits of ICT tools 95% with ranked as III. Encourage to provide pieces of training on ICT tools usage 94.17% with IV ranked., provide pieces of training on the development of skills in usage of ICT tools 93.33% with V ranked, giving continuous power supply 92.5% with VI ranked, provide educational facilities near village 91.67% with VII ranked, providing of internet and wifi facilities 87.5% with VIII ranked, reduce servicing charges 85.83% with IX ranked, establish service centres in villages 82.5% 64 with X ranked, providing of messages in local languages 80.83% with XI ranked, strengthened the internet and wifi connectivity 70.83% with XII ranked. Similar findings also reported by Narendra *et al.* (2022) conducted about constraints faced by farmers and suggestions for effective utilization of ICTs in mitigating climate change effect in agriculture in the Eastern Dry Zone of Karnataka, India.

Table 1: Classification of respondents according to their Faced Constraints

Sl. No.	Constraints	Response		
		Frequency	Percentage (%)	Ranking
1	High cost of ICT gadgets like Smart phones, Computers & Laptops etc.	120	100	I
2	Low level of education	92	76.67	VII
3	Inadequate internet & Wifi facilities	119	99.17	II
4	Lack of uninterrupted power supply	39	32.5	XII
5	Insufficient training & practical exposure towards ICTs.	49	40.83	XI
6	Lack of awareness of benefits of ICTs.	80	66.67	VIII
7	Insufficient servicing centers of ICTs in Villages	118	98.33	III
8	High cost of servicing charges of ICTsgadgets	117	97.5	IV
9	Difficulty in understanding the language of ICT gadgets.	110	91.67	V
10	Non availability of ICT gadgets and spare parts in local markets	77	64.16	IX
11	Poor connectivity of internet in gadgets	76	63.33	X
12	Lack of subsidies on ICT gadgets.	95	79.16	VI
	Total	**120**	**100**	

Table 2: Classification of Respondents according to their Suggestions (N= 120)

Sl. No.	Suggestions	Response		
		Frequency	Percentage (%)	Ranking
1	Reduce the costs of ICT tools.	119	99.17	I
2	Provide trainings on development of skills in usage of ICT tools	112	93.33	V
3	Provide educational facilities near village	110	91.67	VII
4	Providing of internet & Wi-Fi facilities	105	87.5	VIII
5	Giving continuous power supply	111	92.5	VI
6	Provide trainings on ICT tools usage	113	94.17	IV
7	Create awareness campaigns on benefits of ICT tools	114	95	III
8	Establish service centers in villages	99	82.5	X
9	Reduce servicing charges	103	85.83	IX
10	Providing of messages in local languages	97	80.83	XI
11	Strengthen the internet & Wi-Fi connectivity.	85	70.83	XII
12	Provide subsidies on ICT gadgets	116	96.66	II
	Total	**120**	**100**	

Conclusion

According to the current study, farmers encountered a number of difficulties, including the expensive cost of ICT devices and their ongoing maintenance. In order to overcome these obstacles, the government should lower the cost of devices and subsidize the cost of acquiring ICT services, especially for rural farmers who cannot afford them. Farmers' usage level will rise if technology, including computers, internet, apps, and smartphones, is strengthened and encouraged to be used. Extension agents should instruct farmers on the use of ICT tools in accordance with recommendations made by farmers. Distribution, exploitation, and application of scientific agricultural information are likely to stall if contemporary ICT capabilities are not completely incorporated into the Indian agricultural extension system. Farmers now realize that using ICT tools can help them improve their farming endeavours more effectively. Similar findings reported by Mishra *et al.* (2020)

References

1. Albert CO. Constraints to effective use of ICT among extension professionals and farmers in extension delivery in Rivers Satate, Nigeria. Singaporean Journal of Business Economics, and Management Studies, 2014;2(11):136-142.
2. FAO Food agriculture Organisation, 1993. (http://www.fao.org.)
3. GOI. Agricultiral Statistics at Glance, Ministry of Agriculture, (2021-2022). (http://agricoop.nic.in/)
4. Leagans. Communication process in rural development, 1961. (http://www.eagri.org)
5. Mishra A, Yadav OP, Yadav V, Pratap S. Constraints faced by farmers and suggestions for effective utilization of ICT services in agriculture in central UP. The Pharma Innovation Journal. 2020;9(2):121-124.
6. Narendra VN, Prakash S, Singh AK. Constraints Faced by Farmers and Suggestions for Effective Utilization of ICTs in Mitigating Climate Change Effect in Agriculture: A Study of Eastern Dry Zone of the Karnataka, India. International Journal of Environment and Climate Change. 2022;12(12):204-212.
7. Naik BJ, Rao BM, Rambabu P, Rekha MS. Attitude of Farmers towards Information and Communication Technology (Ict) Tools. Current Journal of Applied Science and Technology, 2020;39(43):72-81.