

Original Research Article

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Constraints Faced by Farmers in the Use of ICTs District Prayagraj, (U.P.)

Antim^{1*}, E. P. K. Das¹ and Sunil Kumar²

¹Sam Higginbottom University of Agriculture, Technology, and Sciences (SHUATS),
Allahabad, India

²Department of Agriculture, IIAST, Integral University, Kursi road Lucknow, Uttar Pradesh,
India

*Corresponding author

ABSTRACT

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Most studies focus on evaluating critical adoption success factors while broadly discussing the failure to adopt information technology but now days, ICT has become one of the most important enabling forces for development. Previous studies have recognized the importance of the adoption processes. However they fail to define the principles and theory required in order to manage them successfully. This study is focused attempt to contribute to a better understanding of adoption problems of ICT in agriculture. It also highlights the constraints as an emerging field focusing on the enhancement of agricultural and rural development through improved information and communication processes. The study concludes that “End Users” are the key factor in defining the needs and critical success factors for ICT development and implementation.

Introduction

In order to transform agriculture sector into information driven, modern and competitive sector, the role of Information and Communication Technology (ICT) cannot be overruled. They provide faster and newer ways of delivering and accessing information. The people working in the agriculture sector are least equipped with proper tools to deal with rapidly changing agriculture production scenario and international competitive

environment. At present, the ratio of the farmers to the extension workers is 1000:1, also the existing transfer of technology mechanisms and extension programmes run by the government departments are slow and in many cases ineffective in view of the vast gaps between the research and farmers linkages. This is partly due to inadequate use of new areas of information dissemination in various development programmes. Apart from the conventional methods of information dissemination like traditional extension

methods, electronic and print media, the recent foray into information gateway is the initiative of ICT tools in Agriculture and allied sectors. The introduction of ICT helps in upgrading the information at least cost while substantial anecdotal evidence on the impact of mobile phones on farmers has been reported in the media, rigorous demonstration of its potential has only recently been attempted. The constraints in using mobile phone by respondents are presented in the table given below. To know the constraints faced by farmers in use of ICT the present investigation “A Study on impact of ICT (Electronic Media) on the adoption of improved agricultural practices in district Prayagraj (U.P.)

Materials and Methods

The study was conducted in the Prayagraj district of Uttar Pradesh. The block Chaka was selected for the selection of respondents. Those farmers only, who were receiving agricultural information technology i.e. television radio and mobile were treated as respondents for the present study. 10 respondents were selected from each of the

selected villages, making the total sample size of 300 respondents with proportionate random sampling method.

Table communicates that the major constraint was lack of the difficulty in clarification if any doubt arises in using ICT tools. This may be because of lack of human resources well versed in using ICT tools for the organizations and limited resources. The problems of lack of practical exposure for ICT tools and lack of locally relevant information of ICT tools were expressed by many of them. The problem of network availability has been encountered by farmers may be because the government has not still recognized the importance of ICT in agriculture. This trend also might be attributed to the reason that the importance of ICT has not been recognized by policy makers or they might have felt some more important areas to be given thrust for finance other than ICTs. The problem of cost of ICT tools may be due to lack of human resources for proper maintenance of ICTs and insufficiency of financial resources for the repairing and maintenance of ICT tools.

Table.1 Constraints faced by farmers to use ICT in agriculture

S.No.	Constraints	Responses	
		Frequency/ Per centage	Rank
Infrastructural constraints			
1.	Fluctuating telecommunication network	122 (67.77)	I
2.	Lack of electric supply	88 (48.75)	IV
3.	Lack of maintenance	60 (33.35)	V
4.	Lack of access to internet	116 (64.17)	II
5.	Non availability of recommended inputs in the market	108 (60.00)	III
6.	Non availability of regular ICT services on agriculture	23 (12.92)	VI
Technical Constraints			
1.	Inability to operate mobile phone	55 (30.83)	VIII
2.	Inability to read text SMS and e-mail (Illiteracy)	67 (38.33)	VII
3.	Inability to understand language of service provide	21 (11.67)	IX

4.	Inability to use GPRS and 3G/4G services	161 (89.17)	I
5.	Complexity in using internet and video messages	116 (64.17)	IV
6.	Non availability of details information given in text SMS format	102 (56.67)	V
7.	Difficulty in making use of given theoretical information	126 (70.00)	III
8.	Lack of practical knowledge about given new recommendation	101 (56.25)	VI
9.	Lack of timely availability of agriculture information	140 (77.50)	II
Economic Constraints			
1.	High cost of multimedia mobile phones	90 (50.00)	II
2.	High cost of telecommunication network services	76 (42.08)	III
3.	Inability to purchase recharge cards	102 (51.67)	I
Miscellaneous Constraints			
1.	Services on mobile phone	54 (30.20)	VIII
2.	Lack of satisfactory solution of individual problem	93 (51.67)	VI
3.	Absence of personal contact (trust) with information provider	110 (61.25)	I
4.	Result of earlier recommendation was not satisfactory	98 (54.58)	V
5.	Adoption of prescribed technologies by farmer is very low	98 (54.58)	V
6.	Busy network of Kisan Call Centre	109 (60.83)	II
7.	Lack of confidence in provided service / information	106 (58.75)	IV
8.	Lack of availability of timely and accurate marketing	88 (48.75)	VII
9.	Price Information	107 (59.58)	III
10.	Call drop problem	105 (58.58)	I
11.	Lack of knowledge about availability of agricultural advisory	107 (59.58)	III

The figures shown in parenthesis is percentage

The farmers reported the problems of languages might be because of non provision of regular updating of antivirus and provision of filters. There is problem of insufficient number of ICT tools in the organizations, which may be due to inadequate budget allotted for it. The problem of technical and infrastructure problems while using ICTs was expressed by the farmers. Technical constraint might be because of lack of human resources skilled in the usage of ICTs and infrastructure constraint might be because of non provision of infrastructure needed or supporting infrastructure. for example the need for UPS during power failures for the computers. The problem of lack of training to employees for using ICTs was expressed and

this could not be provided because of lack of time and also insufficient budget. They also reported the problem of lack of latest ICT infrastructure and this is due to insufficient funding for ICT. Farmers also reported the problem of erratic electric supply and this might be because of poor service by service providers of internet and lower bandwidth. The problem of fear to adopt technology of ICT equipment was expressed by many and this may be because the personnel are not trained or exposed on the usage of different equipment or the personnel may not be aware of the recent updates.

The study concluded that the economic impact of mobile is likely to be strongest

when the absence of inadequacy of existing telecommunications facilities acts as a barrier or bottleneck to private economic activities, but also when enough, other infrastructure exists to permit the effective use of telecommunications.

Information asymmetries are a well documented source for inefficient functioning of markets; farmers can bridge or alleviate the information gap at three major stages of the agricultural cultivation cycle by the use of mobile phones.

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