

Original Research Article

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## Socio-personal Profile and Problems Faced by Farmers of Banda District of Uttar Pradesh in using ICTs

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### ABSTRACT

#### Keywords

Education level, ICT tools, Information seeking behavior, Land holding and Mass medium exposure

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The Information and Communication Technology (ICT) enabled extension system plays a crucial role in seeking the various information in general and agricultural information in particular. The study was conducted in the Banda district of Uttar Pradesh with 120 farmers to analyze their socio-economic and communication profile and the problem faced by them in the utilization of ICTs tools. The Ex-Post-Facto research design and multi-stage random sampling technique were used in the present study. It was revealed from the study that majority of the farmer belonged to the middle age group (54.16 %) and OBC category (75.83%). Majority of farmers (23.32%) had education up to high school level having medium landholding (45.50%), 54.16 per cent of the farmers belonged to low-level income and 90.84 percent of the farmers were having only farming as an occupation. Majority of the farmers (55.00 %) belonged to medium farming experience, information-seeking behavior (53.33%), mass medium exposure (51.66%), Extension agency contact (51.66%), level Achievement Motivation (50.00 %) and level of innovativeness (45.00%). The problems in using the ICTs tools among the farmers divulges that out of the total respondents, 73.34 per cent of farmers perceived 'low awareness about ICTs tools' as the most serious problems among all the problems.

### Introduction

The Information and Communication Technology (ICT) enabled extension system plays a crucial role in seeking agricultural information in the context of crop production and improve the access to information and knowledge sharing. ICT (Information and Communication Technology) in simple terms can be defined as the basket of technologies, which assist or support in storage, processing of Data or dissemination of information, or both. The desire to promote better information

access to improve the socio-economic condition of the farmers has always the top priority of Agricultural Extensionists and rural advisory service (source: FAO-2011), the digital revolution in India started in the late 90s. The introduction of computers, internet facilities, and mobile phone services created sea-changes at both individual and organizational levels. New and advanced Information and Communication Technology (ICT) tools such as the internet and mobile phones have tremendous potential to facilitate technology transfer to the farming community

(Sivabalan *et al.*, 2013). ICTs defined as forms of technology that are used to transmit, process, store, create, and display, share or exchange information by electronic means.” It includes not only traditional technologies like radio and television, but also modern ones like cellular phones, computers and network, hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing (UNESCO).

The use of ICTs is an essential pillar of Agricultural Extension and acts as an essential mechanism for delivering the information (knowledge) related to the modern farming. The effective awareness campaign on ICTs use, the involvement of local self-governments, value-added information and the combination of services provision proved as strategic factors behind the success of ICTs initiatives.

The domestic ratio of extension workers and farmers is roughly 1156:1. Extension employees are challenging the dissemination of fresh technology. DFI Committee believes, that the required minimum ratio of the extension service provider to the farming family can be revisited. Based on its analysis, the Committee recommends that ratios between Extension functionaries to Farm families desired are as follows: (i) Hilly areas – 1:400 (ii) Irrigated areas – 1:750 (iii) Rainfed areas- 1:1000 (source, DFI volume - 11). ICTs provide essential access to data linked to multiple aspects such as marketing by linking rural poor, urban and marginalized to the world's data resources and possibilities. Where ICTs provide flexibility in offering data linked to internet farming methods, including all input associated plants, cost data, commodities, companies, and all other data, concerning technological developments and monitoring worldwide competitiveness.

## **Materials and Methods**

The present study was conducted in the Banda district of Uttar Pradesh. The district comprises eight blocks namely Baberu, Badokher Khurd, Bisanda, Jaspura, Kamasin, Mahua, Naraini and Tinduwari. Out of which two blocks namely Baberu and Kamasin were selected randomly. The Ex-Post-Facto research design and multi-stage random sampling technique were used in the present study. From these selected blocks, five villages from each block were selected randomly. Thus altogether, 10 villages were selected for the study. From each selected village 12 pulse growers were selected purposively. Thus, the total sample size was 120.

The primary data was collected from pulse growers with the help of structured and pre-tested interviews schedule through personal interviews. The data were analyzed with the help of mean, standard deviations and coefficient of variation.

## **Results and Discussion**

### **Age**

A cursory look at Table 1 revealed that out of the total respondents, 54.16 percent of farmers belonged to the middle age group, followed by old age group (33.34%) and young age group (12.5%).

The probable reason might be that usually farmers of middle age are enthusiastic and having moderate experience in farming and have more work efficiency than younger and older ones. Further, middle-aged farmers possess more physical vigour and more family responsibilities than younger ones. The finding supports the work of Vishwatej and Angadi (2014), Mishra *et al.*, (2020).

### Caste

It is evident from Table 1 that out of the total farmers, the majority of the respondents (75.83 %) belonged to the OBC category followed by the General category (15.00 %) and SC/ST category (9.17 %) respectively. The finding finds support with the work of Bansal and Joshi (2019).

### Education

It is obvious from Table 1 that out of the total farmers, majorities of farmers (23.33%) were educated up to high school, 18.33 percent had intermediate and primary schooling, 16.66 percent had middle school schooling and the remaining 3.33 percent were graduates. The finding finds support with the work of Vishwatej and Angadi (2014), Mishra *et al.*, (2020).

### Land holding

It is clear from Table 1 that majority (45.5%) of farmers belonged to medium-level (4.00-

10.00 ha) holdings of 18.33% Semi-medium (2.00- 4.00 ha), 22.5% Small (1.00-2.00 ha) and the remaining 11% of big and marginal farmers respectively.

### Annual income

Table 1 reveals that majority of farmers (54.16 %) belonged to low-level income followed by medium (24.16 %) and high level (21.66 %) of income. The reasons behind this finding might be because in the study area the primary sources of income of the farmers were farming, very few of them had services, cast occupation and independent profession.

### Occupation

Regarding the distribution of respondents as per their occupation, it is observed from Table 1 that majority of the farmers (90.84 %) were having only farming and 11.66 percent farmers belonged to farming and service both and remaining farmers 8.34 present farming and business, 3.34 percent of the respondent were engaged the other occupation.

**Table.1** Socio-economic and communication profiles of farmers

Particulars	Number of Farmers	Percentage	Mean	SD	CV
<b>Age</b>					
Young (up to 40)	15	12.5	49.34	9.28	18.81
Middle (41-58)	65	54.16			
Old (Above 59)	40	33.34			
<b>Caste</b>					
General	18	15			
OBC	91	75.83			
SC/ST	11	09.17			
<b>Educations</b>					
Primary	22	18.34	6.73	3.42	50.71
Middle	20	16.67			
High School	28	23.33			
Intermediate	22	18.33			
Graduates	4	03.33			
<b>Land holding</b>					
Marginal (below 1.00 ha)	5	04.16	5.87	3.23	54.96

<b>Small (1.00-2.00 ha)</b>	27	22.5			
<b>Semi -medium (2.00-4.00 ha)</b>	22	18.34			
<b>Medium (4.00-10.00 ha)</b>	57	45.5			
<b>Large (10.00 ha &amp; above)</b>	9	07.5			
<b>Annual family income</b>					
<b>Low (up to 60,000INR)</b>	65	54.17	83613.33	80037.83	95.72
<b>Medium (60,001 to 1,20,000INR.)</b>	29	24.17			
<b>High (Above 1,20,000INR)</b>	26	21.66			
<b>Occupation</b>					
<b>Only farming</b>	109	90.84			
<b>Farming and service</b>	14	11.66			
<b>Farming &amp; Business</b>	10	08.34			
<b>Any other</b>	4	03.34			
<b>Farming Experience</b>					
<b>Low (up to 5 years)</b>	43	35.84	19.23	9.74	50.65
<b>Medium (6-10 years)</b>	55	45.83			
<b>High (Above 10 years)</b>	22	18.33			
<b>Information Seeking Behavior</b>					
<b>Low</b>	31	25.84	14.61	1.95	13.37
<b>Medium</b>	64	53.33			
<b>High</b>	25	20.83			
<b>Mass Media Exposure</b>					
<b>Low</b>	28	23.34	15.73	1.95	12.39
<b>Medium</b>	62	51.66			
<b>High</b>	30	25			
<b>Extension Agency Contact</b>					
<b>Low</b>	28	23.34	15.73	1.95	8.07
<b>Medium</b>	62	51.66			
<b>High</b>	30	25			
<b>Achievement Motivation</b>					
<b>Low</b>	27	30	24.31	5.20	21.40
<b>Medium</b>	60	50			
<b>High</b>	24	20			
<b>Scientific Orientation</b>					
<b>Low</b>	31	25.84	6.88	2.56	37.21
<b>Medium</b>	60	50.00			
<b>High</b>	29	24.16			
<b>Innovativeness</b>					
<b>Low</b>	36	30	11.87	3.63	30.58
<b>Medium</b>	54	45			
<b>High</b>	30	25			

**Table.2** Distribution of the farmer according to their Problems faced by farmers in using the ICTs Tools

Sl.No.	Problems	Frequency	Percentage	Rank
1	Languages problems	87	72.5	II
2	Network problem	70	58.33	VII
3	Problems related to the content of Message	74	61.67	V
4	Use of complex word	60	50.00	VIII
5	Lack of resource input	50	41.66	IX
6	Low availability of electricity/Short duration supply of electricity	78	65.00	III
7	Lack of extension activity	75	62.50	IV
8	Low awareness about ICTs tools	88	73.34	I
9	Feel difficulties to using in ICTs tools	72	60.00	VI

### Farming experiences

The data of Table 1 indicates that majority of the farmers (55.00 %) belonged to medium (6-10 years) farming experience followed by 35.83 percent of Low (up to 5 years) and the remaining 18.33 percent belonged to High (Above 10 years) level farming experience respectively.

### Information seeking behavior

The data of Table 1 indicate that majority (53.33 %) of the farmers belonged to medium information-seeking behavior followed by low (17.5 %) and the remaining 12.50 percent farmers belonged to high information-seeking behavior. The finding is in line with the work of Mishra, *et al* (2020).

### Mass media exposure

A perusal of data presented in Table 1 indicates that majority of farmers (51.66 %) belonged to medium mass medium exposure followed by high (25.00 %) and the remaining 23.33 percent belonged to low mass media exposure respectively. Exposure to various media helps farmers to acquire the latest information on pulse crop growers. Exposure to media indicates the degree of progressiveness of the farmers. The finding

finds support with the work of Vishwatej and Angadi (2014), Mishra *et al.*, (2020).

### Extension agency contact

The data depicted in Table 1 reveals that, majority of farmers (51.66%) belonged to medium Extension agency contact followed by high (25.00%) and remaining 23.33 percent low Extension agency contact respectively. Smart and effective transfer of technologies takes place through the regular/frequent extension agency contact of the farmers with various change agents. In extension, the change agent is considered as the technology motivator. The finding finds support with the work of Vishwatej and Angadi (2014).

### Achievement motivation

The data of Table 1 indicates that majority of farmers belonged to medium (50.00 %) level achievement motivation followed by high (25.00 %) and remaining 23.33 percent low achievement motivation respectively.

### Scientific orientation

The data of Table 1 indicate that majority of farmers (60.00 %) belonged to medium level Scientific Orientation followed by low (25.84

%) and remaining 24.16 percent low Scientific Orientation respectively.

### **Innovativeness**

The perusal of Table 1 reveals that, majority of farmers (45.00 %) belonged to medium level innovativeness followed by low (30.00 %) and remaining 25.00 percent low level innovativeness respectively. The finding finds support with the work of Vishwatej and Angadi (2014), Mishra, *et al.*, (2020). An attempt has been done to find out the problems in using the ICTs tools among the respondents. Table 2 divulges that out of the total respondents, 73.34 per cent of farmers perceived 'low awareness about ICTs tools' as the most serious problems among all the problems followed by Languages problems (72.50 %), Low availability of electricity/ Short duration supply of electricity (65.00), Lack of extension activity (62.50 %), Problems related to the content of Message (61.67 %), Feel difficulties to using in ICTs tools (60.00 %), Network problem (58.33%), Use of the complex word (50.00 %) and Lack of resource input Use of complex word (41.66 %) respectively.

In conclusion the information and Communication Technology (ICTs) have a huge/wide scope for providing the services of the farming community. The desire to promote better information access to improve the socio-economic condition of the farmers has always the top priority of Agricultural Extensionists. ICTs will change demand for more participatory technologies in Agricultural Extension Systems. The

domestic ratio of extension workers and farmers is roughly 1156:1 Extension employees are challenging the dissemination of fresh technology. So that, ICTs can play a crucial role in disseminating the fresh/ new technology in very little time. There are many information services available online service at the grass-root level. Some of them like mobile phones, smartphone, internet, WhatsApp and different apps related to agriculture, different website, etc. related to agriculture for transfer of technology work.

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