

Knowledge of Karnataka farmers about information and communication technology (ICT) projects

R VISHWATEJ, JG ANGADI* and SAIKAT MAJI

**Divison of Dairy Extension, National Dairy Research Institute
Karnal 132001 Haryana, India**

***Department of Agricultural Extension Education, College of Agriculture
University of Agricultural Sciences, Dharwad 580005 Karnataka, India**

Email for correspondence: vishwatejrudroju@gmail.com

ABSTRACT

The study was conducted to elicit the knowledge of farmers of Belgaum district of Karnataka about information and communication technology (ICT) projects. Among the various ICT projects in operation, four projects namely Kisan call centre (KCC), e-Choupal, Krishi Marata Vahini and Raith Mitra Kendra's web portal were selected for the study. A sample of 140 respondents was selected randomly and was personally interviewed using pre-tested schedule. It was revealed that most of the respondents had high knowledge of KCC (40.00%) followed by medium of e-Choupal (39.29%) and Krishi Marata Vahini (37.14%) but low knowledge of Raith Mitra Kendra (30.71%). It was also observed that most of the farmers with high knowledge of all four ICT projects were young (53.33%) followed by middle age (22.03%) and old (15.69%). Most of the farmers were having low knowledge of ICT projects that needed special attention to make them well informed of functioning of these projects.

Keywords: ICT projects; information technology; knowledge; farmers

INTRODUCTION

The information and communication technology (ICT) enabled extension systems are acting as a key agent for changing agrarian situation and farmers' lives by improving access to information and sharing knowledge. Access to ICT is now considered as one of the important determining factors for the development of a country. In recent times there are many

ICT initiatives by government, non-government and private organisations in the field of agriculture. ICT projects like Kisan call centre (KCC) initiated by Government of India, Raita Mitra Kendras' info kiosks of Karnataka State Department of Agriculture, Krishi Marata Vahini kiosks developed by Karnataka Agricultural Marketing Board and e-Choupals, a private initiative of ITC Limited are delivering information to the grass root level

and are widely popular in Karnataka. These ICT projects are providing information to farmers related to crop management, weather forecasting, market prices, organic farming and other latest technologies in local languages and at farmers' convenience. There is a need for research to know the extent of knowledge of these ICT projects among the farmers. Therefore the present study was undertaken with a specific objective of assessing the knowledge about ICT projects of the farmers and getting suggestions from farmers to improve effectiveness of ICTs.

MATERIAL and METHODS

The study was conducted in the Belgaum district of Karnataka which was purposively selected as farmers of this Taluk were exposed to all ICT projects under study. A total of one hundred and forty farmers selected randomly from ten villages formed sample for the study. Ex post-facto design was employed for the present research study as the ICT projects had already started working in the area. Kisan call centre, Raita Mitra Kendra, Krishi Marata Vahini and e-Choupal were purposively selected for study as all of these projects were providing agricultural information in Kannada (local) language in the study area. A questionnaire containing twenty two questions regarding each of the ICT projects was framed to test the knowledge of the respondent farmers. A list of suggestions was prepared by consulting

farmers during pre-test and respondents were asked to mark their opinion on them. The data were collected from the respondents through personal interview using a pre-tested interview schedule.

RESULTS and DISCUSSION

Socio-economic profile of farmers

It is revealed from Table 1 that most of the farmers belonged to middle age (42.14%) followed by old age (36.43%). Considerable number of farmers were educated up to high school level (24.28%) followed by middle school (20.00%) and pre-university level (15.71%) which shows the growing interest in rural areas towards education. More number of farmers possessed marginal (32.85%) and semi-medium (22.14%) land holdings which was due to the fragmentation of ancestral land over generations.

Most of the farmers had medium (45.00%) and low (30.71%) innovative proneness, medium extension contact (40.71%) followed by low extension contact (34.29%). Considerable number of farmers had medium mass media participation (39.29%) as majority of them possessed radio and television sets but their utilisation was mostly for entertainment purpose. Most of the farmers (40.71%) were moderately market-oriented and less market-orientated (32.86%). Most of the farmers (38.57%) had low cosmopolitanism. This shows that the

Farmers' knowledge about ICT

Table 1. Socio-economic characteristics of farmers (n= 140)

Characteristics	Frequency	Percentage	Mean	SD
Age				
Young (18-30 years)	30	21.42		
Middle (31-50)	59	42.14		
Old (>50)	51	36.43		
Education				
Illiterate	17	12.14		
Primary school	20	14.29		
Middle school	28	20.00		
High school	34	24.28		
Pre-university	22	15.71		
Graduate and above	20	14.29		
Size of land holding				
Marginal (up to 2.5 acres)	46	32.85		
Small (2.51-5.00 acres)	26	18.57		
Semi medium (5.01-10 acres)	31	22.14		
Medium (10.01-25 acres)	24	17.14		
Big (>25 acres)	13	9.28		
Innovative Proneness			20.19	4.43
Low (<18.30)	43	30.71		
Medium (18.30 to 22.11)	57	45.00		
High (> 22.07)	40	28.57		
Extension contact			8.24	2.12
Low (< 7.3382)	48	34.29		
Medium (7.3382 - 9.1475)	57	40.71		
High (>9.1475)	35	25.00		
Mass media participation			4.19	1.90
Low (<3.385)	48	34.29		
Medium (3.385-5.001)	55	39.29		
High (>5.001)	37	26.43		
Market orientation				
Low (< 10.905)	46	32.86	12.16	2.80
Medium (10.905 - 13.351)	57	40.71		
High (>13.351)	37	26.43		
Cosmopolitanism			6.62	1.34
Low (<6.050)	54	38.57		
Medium (6.050 to 7.192)	52	37.15		
High (>7.192)	33	23.57		

farmers were shy and hesitant in meeting new people and sceptical in trying out new things. These findings are in line with the findings of Dhaka and Chayal (2010).

Knowledge of farmers about ICT projects

It is clear from Table 2 that most of the farmers (40.00%) were possessing high knowledge about Kisan call centre (KCC) followed by 35.71 per cent with medium knowledge and 24.29 per cent with low knowledge. Extensive campaigning about the KCC in mass media like radio, television and film theatres etc was the prime reason for high knowledge among farmers.

In case of e-Choupal, 39.29 per cent of the farmers had medium knowledge and 32.86 per cent of farmers having high knowledge regarding their operations. The possible reason for this could be that the Sanchalak who operated the e-Choupal kiosk was a local person having extensive contact with many farmers of the village and

also the e-Choupal centre provided additional services like input supply and produce procurement which farmers utilised regularly.

In case of Krishi Marata Vahini, 37.14 per cent of farmers had medium knowledge followed by 33.57 per cent having low knowledge. The farmers who regularly searched for market prices had known about Krishi Marata Vahini as it is the official source which gives updated information of market prices in local language.

In case of Raith Mitra Kendra, most of the farmers (37.86%) had low knowledge followed by 32.14 per cent having medium knowledge. The reason for this could be the poor advertising and promotion of the project among farmers. The poor maintenance of information kiosks by the Raith Samparka Kendra (RSK) staff who themselves were having poor computer skills could be the other reason.

Table 2. Knowledge of ICT projects among farmers (n= 140)

Knowledge level	ICT project									
	Kisan call centre		e-Choupal		Krishi Marata Vahini		Raith Mitra Kendra		Total	
	f	%	f	%	f	%	f	%	f	%
Low	34	24.29	39	27.86	47	33.57	53	37.86	43	30.71
Medium	50	35.71	55	39.29	52	37.14	45	32.14	51	36.43
High	56	40.00	46	32.86	41	29.29	42	30.00	46	32.86

These findings are in line with research findings of Subhashsingh et al (2010) who observed that most of the farmers had high knowledge of Kisan call centre and Nagalakshmi and Narayanaswamy (2011) who identified that most of farmers had medium level of knowledge of ICTs.

CONCLUSION

In the era of market driven agriculture, farmer will have better relative advantage in the market economy if they knew right information at right time which is only possible through ICTs. Most of the farmers were having low knowledge of ICT projects that needs special attention to make them well informed of functioning of various ICT projects. Popular media like television and newspapers should be used to make

farmers aware of the various ICT projects for increasing their knowledge connectivity. Training should be provided to farmers to improve their knowledge and skills for utilising ICTs effectively in getting up to date agricultural information.

REFERENCES

- Dhaka BL and Chayal K 2010. Farmers' experience with ICTs on transfer of technology in changing agri-rural environment. Indian Research Journal of Extension Education **10(3)**: 114-118.
- Nagalakshmi G and Narayanaswamy BK 2011. Perception, awareness, attitude and knowledge of extension personnel about information communication technologies. Mysore Journal Agricultural Sciences **45(2)**: 421-426.
- Subhashsingh P, Bharat M and Rai DP 2010. Sustainable models of information technology for agriculture and rural development. Indian Research Journal of Extension Education **10(1)**: 20-23.

Received: 6.4.2015

Accepted: 12.10.2015