Utilisation Pattern of ICT Projects by Farmers of North Karnataka

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ABSTRACT

This study was conducted in the year 2012- 2013 to know the utilisation pattern of ICT projects by farmers of Belgaum district of Karnataka. Among the various projects in operation four projects, Kisan Call Centre (KCC), e-Choupal, Krishi Marata Vahini, Raith Mitra Kendra's web portal were selected for the study. It was observed that out 140 respondents, 65.71 per cent of them were utilizing KCC, 61.43 per cent were utilising Krishi Marata Vahini, 55.71 per cent of the respondents were utilising e-Choupal and 35.71 per cent of respondents were utilising Raith Mitra Kendra's web portal for agriculture related information. Further, the study also revealed that farmers were utilising Kisan Call Centre for information regarding crop protection (47.86%), quality inputs (30.71%), weather information (30.71 %), cultivation practices (30.71%) and livestock (29.29%). In case of e-Choupal, farmers were utilising it mostly for information regarding market prices (46.43%), weather information (39.29%), cultivation practices (37.14%), crop protection (34.29%) and livestock (27.14%). Regarding Krishi Marata Vahini, 61.73 per cent of respondents were utilising its information service for market prices. With respect to Raith Mitra Kendra, most of the farmers were using its information for crop protection (32.14%), cultivation practices (27.14%), quality inputs (24.29%), weather information (22.86%) and Irrigation practices (20%).

Key words : *ICTs, Information Technology, Utilisation pattern, KCC, e-Choupal.*

The Information and Communication Technology (ICT) enabled extension systems acting as a key agent for changing agrarian situation and farmers' lives by improving access to information and sharing knowledge. At present, there are many ICT initiatives by government, non-government and private organisations in the field of agriculture. ICT projects like Kisan Call Centre 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. There is a need for research to know the utilisation pattern of ICT projects among the farmers and their major constraints in effective utilisation of ICTs. Therefore, the present study was undertaken with the above specific objectives.

METHOLOGY

The study was conducted in the Bailhongal taluk of Belgaum district and it was purposively selected as farmers of this taluk were exposed to most of the ICT projects. A total of 140 farmers were selected from ten villages randomly as a sample for the study. "Ex-post facto design" was employed for the 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. A detailed pre-tested schedule was prepared to know the extent of utilisation, utilisation pattern of services provided by the ICT projects under study and also a list of constraints was prepared by consulting farmers. The appropriate responses were collected from the respondents through personal interview.

RESULTS AND DISCUSSION

Socio-economic profile of farmers

It was revealed from the Table 1, that most of the farmers belonged to middle age (42.14%) followed by old age (36.43%). Considerable per cent of farmers were educated up to high school level (24.28%) followed by middle school (20.00%) and pre-university level (15.71%), which showed the growing interest in rural areas towards education. More per cent of the 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. Most of the farmers had 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 farmers possessed radio and television but they were utilising ICTs 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 cosmopoliteness. This showed that the farmers were shy, hesitant in meeting people and skeptical in trying out new things. These findings are in line with findings of Dhaka and Chayal (2010).

Extent of utilisation

The data in Table 2 indicated that majority of farmers (65.71%) were utilising services of Kisan Call Centre with 17.86 per cent of them using it weekly once, 23.57 per cent were using it monthly once and 24.29 per cent were using it whenever needed.

Table 1
Socio– economic characteristics of farmers

(n=140)

Sl. No.	Characteristics	Frequency	Percentage
I	**Age**		
1	Young (18-30 years)	30	21.42
2	Middle (31-50)	59	42.14
3	Old (>50)	51	36.43
II	**Education**		
1	Illiterate	17	12.14
2	Primary school	20	14.29
3	Middle school	28	20.00
4	High school	34	24.28
5	Pre university	22	15.71
6	Graduate and above	20	14.29
III	**Size of land holding**		
1	Marginal (up to 2.5 acres)	46	32.85
2	Small (2.51-5.00 acres)	26	18.57
3	Semi medium (5.01-10 acres)	31	22.14
4	Medium (10.01-25 acres)	24	17.14
5	Big (>25 acres)	13	9.28
IV	**Innovative proneness**		
1	Low (<18.30)	43	30.71
2	Medium (18.30 to 22.11)	57	45.00
3	High (> 22.07)	40	28.57
	Mean = 20.19 S.D. = 4.43		
V	**Extension contact**		
1	Low (< 7.3382)	48	34.29
2	Medium (7.3382 - 9.1475)	57	40.71
3	High (>9.1475)	35	25.00
	Mean= 8.24 SD= 2.12		
VI	**Mass media participation**		
1	Low (< 3.385)	48	34.29
2	Medium (3.385 - 5.001)	55	39.29
3	High (>5.001)	37	26.43
	Mean= 4.19 SD= 1.90		
VII	**Market orientation**		
1	Low (< 10.905)	46	32.86
2	Medium (10.905 - 13.351)	57	40.71
3	High (>13.351)	37	26.43
	Mean = 12.16 SD=2.80		
VIII	**Cosmopolitness**		
1	Low (<6.050)	54	38.57
2	Medium (6.050 to 7.192)	52	37.15
3	High (>7.192)	33	23.57
	Mean = 6.62 S.D. = 1.34		

Table 2
Extent of utilisation of ICT projects

Sl. No	ICT Projects	Extent Of Utilisation									
		Daily		Weekly once		Monthly once		Whenever needed		Never	
		F	%	F	%	F	%	F	%	F	%
1	Kisan Call centre	0	0	25	17.86	33	23.57	34	24.29	48	34.29
2	e-Choupal	8	05.71	20	14.29	25	17.9	27	19.29	62	44.29
3	Krishi Marata Vahini	12	08.57	25	17.86	23	16.43	26	18.57	54	38.57
4	Raith Mitra Kendra	0	0	6	04.28	17	12.14	27	19.29	90	64.29

Table 3
Utilisation pattern of ICT projects for specific information

Sl. No	Information	ICT Projects							
		Kisan Call Centre		e-Choupal		Krishi Maratha vahini		Raith Mitra Kendra	
		F	%	F	%	F	%	F	%
1	Crop protection	67	47.86	48	34.29	-	-	45	32.14
2	Quality inputs	59	42.14	27	19.29	-	-	34	24.29
3	Weather information	43	30.71	55	39.29	-	-	32	22.86
4	Cultivation practices	43	30.71	52	37.14	-	-	38	27.14
5	Livestock	41	29.29	38	27.14	-	-	23	16.43
6	Irrigation practices	36	25.71	22	15.71	-	-	28	20.00
7	Market prices	31	22.14	65	46.43	85	60.71	-	-
8	Alternate crops	30	21.43	25	17.86	-	-	20	14.29
9	Post-harvest	29	20.71	16	11.43	-	-	18	12.86

Frequency %

Moderate utilisation frequency is because of lack of awareness and also some farmers preferred face to face contact over phone contact. In case of e-Choupal, majority of farmers (55.71%) were utilising its services with 5.71 per cent of farmers using it daily 14.29 per cent using it weekly once, 17.90 per cent using it monthly once and 19.29 per cent using it whenever needed. Moderate utilisation was mainly because of inconvenient timings of opening of Kiosks and also Sanchalaks were concentrating on other services like procurement rather than advisory services. The majority of farmers (61.43%) were utilising Krishi Maratha Vahini services with 8.57 per cent of farmers using it daily, 17.86 per cent were using weekly once, 16.43 per cent using monthly once and 18.57 per cent were using it whenever needed. The moderate utilisation frequency is because of need of farmers for updated market prices in nearby market yards but lack of knowledge of services provided. In case of Raith Mitra Kendra, only 35.71 per cent of farmers were utilising services with 4.28 per cent, 12.14 per cent and 19.29 per cent were using it weekly once, monthly once and whenever needed respectively. Low utilisation is because of poor awareness among farmers and poor

maintenance of information kiosks at RSK. These findings were in line with research findings of Subhas singh et al. (2010), who noticed the usage of ICTs, were moderate to low in rural areas.

Utilisation pattern of ICT projects of specific information

The data in Table 3 indicated that most of the farmers (47.86%) were utilising Kisan Call Centre for information regarding crop protection followed by 42.14 per cent for quality inputs, 30.71 per cent for cultivation practices and weather information, 29.29 per cent for livestock information and 25.71 per cent for irrigation practices. Whereas, 22.14 per cent, 21.43 per cent and 20.71 per cent were using KCC for market prices, alternate crops and post-harvest practices information respectively. The reason for this pattern was because farmers were using KCC services as a substitute for extension officers, over telephone. The farmers were most interested in knowing information about crop protection practices, quality inputs and cultivation practices.

In case of e-Choupal, most of the farmers (46.43%) were utilising services for information regarding market prices followed by 39.29 per cent for weather information, 37.14 per cent for cultivation practices, 34.29 per cent for crop protection and 27.14 per cent for livestock information. Whereas, 19.29 per cent, 17.86 per cent, 15.71 per cent and 11.43 per cent were utilising e-Choupal for quality inputs, alternate crops, irrigation practices and post-harvest practices information respectively. The reason for this pattern was because farmers were interested in getting information which need regular update like market prices and weather information from e-Choupal.

The majority of farmers (60.71%) utilise Krishi Maratha Vahini services for regularly updating market prices information of various commodities at different markets. This was because it was the only service provided by the Krishi Maratha Vahini web portal and it was regularly updated.

In case of Raith Mitra Kendra, most of the farmers (32.14%) were utilising services for information on crop protection followed by 27.14 per cent for cultivation practices, 24.29 per cent for quality inputs and 22.86 per cent for weather information. Whereas, 20.00 per cent, 16.43 per cent, 14.29 per cent and 12.86 per cent were utilising Raith Mitra Kendra website for information on irrigation practice, livestock, alternate crops and post-harvest practices respectively. The reason for this may be because farmers were most interested in knowing information about crop protection practices, quality inputs and cultivation practices.

These findings are in line with research findings of Meena et al. (2010), who reported that most of the farmers expect information on high yielding varieties, plant protection practices and market information.

CONCLUSION

Information & Communication Technologies (ICTs) have a wide scope in providing information services to the farmers for the proper decision making regarding profitable farm businesses, given the low extension personnel to farmers' ratio in India. There are many ICT based initiatives which are trying to provide farm information, but among these very few projects are popular and effective among farmers. In this study it was observed that Kisan Call Centre and Krishi Marata Vahini were more popular than other projects because of its ease of accessibility and reliable information services, respectively. In case of e-Choupal and Rait Mitra kiosks were deeply penetrated up to hoobli level (village clusters), their popularity was comparatively low due to many constraints in operation and maintenance.

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