Original Research Article

RELATIONSHIP BETWEEN CHARACTERISTCS OF FARMERS AND IMPACT OF ICT ENABLED WEB PORTAL (KRISHINET)

Abstract

ICT can be used reasonably in transferring the modern agricultural technologies to the farmers. ICT has many applications in agricultural extension most especially in accessing required information and knowledge. Hence, the present investigation was carried out in Jabalpur, patan, sihora and panagar blocks of Jabalpur district of Madhya Pradesh. The main objective of the study was to analyse the relationship between selected profile characteristics of farmers and impact of Krishinet Portal. A total 280 respondents were purposively selected for the study. The results of the study shown that majority of the respondents (48.57%) were middle aged (38-51 years), educated upto higher secondary level (24.64%), had medium family size (51.79%), had lower income (Rs. 33000 to 55000 p.a.) (38.22%), had small (2.5 to 5 acre) land holding (43.57%), had medium information seeking behavior (58.21%), had positive attitude towards KGK (61.78%), had positive attitude towards ICT (69.29%), had medium innovativeness (52.14%) and medium economic motivation (62.50 %). The relationship between selected profile characteristics and impact of Krishinet portal indicated that education, annual income, operational land holding, information seeking behavior, attitude towards KGK and attitude towards ICT were positively significantly related.

Key words: Profile characteristics, Impact of krishinet, Relationship

Introduction

ICT can be used reasonably in transferring the modern agricultural technologies to the farmers. ICT has many applications in agricultural extension most especially in accessing required information and knowledge. Information and Communication Technologies are key enablers of globalization (McNamara, 2009). They allow for the efficient and cost-effective flow of information, products, people and capital across national and regional boundaries. The emergence of new agricultural development paradigms has led to challenging the conventional methods of delivering important services and the transformation of traditional societies into knowledge societies. ICTs have been developed as a tool for achieving meaningful societal transformation, which is believed to provide a reliable network in agricultural sector.

ICT has been utilized as an extension tool, which has enhanced the information flow between agricultural extension services and their clients (Meera *et al,* 2004). The application of ICT in agricultural extension has significantly increased in several countries where it has provided a medium to adequate access to agricultural information5. In the changing scenario of Agriculture, the role of Agricultural related website and portal has significantly increased. Hence, there is a need for impact assessment of such type of ICT related portal and website specially designed for agriculture to fulfilling the need of farmers. Hence, the present study was undertaken with an objective to find out the relationship between the selected profile characteristics of farmers and impact of Krishinet Portal.

Material and methods

The present study was purposively conducted in Jabalpur, patan, sihora and panagar block of Jabalpur district of Madhya Pradesh to study the relationship between profile characteristics of farmers and impact of krishinet portal on farmers. Total 280 farmers were selected for the present study to simple random sampling by using chit method. Eight percent farmers from the registered list of users from the selected blocks were chosen for the study. In the present study, score was calculated to measure the impact of the portal and for correlation analysis with socio-economic, communication and psychological characteristics of farmers. For calculation of total score, responses were recorded in one of the following manner (a). Increase, no change or decrease with a corresponding score of +1, 0 and -1 respectively (b). Yes or No with a corresponding score of +1 or -1 respectively.

Result and discussion

Selected profile characteristics of farmers towards use of Krishinet Portal: It is clear from table 1 that majority of the respondents (48.57%) were middle aged (38-51 years) followed by 37.50 percent belonged to young age group and rest 13.93 percent were from old age group. It was also found that maximum number of respondents were educated upto high school level (33.93%) followed by 24.64 percent respondents who were educated upto higher secondary level and 16.07 percent were educated upto graduate level. It was found that 13.93 percent respondents were educated upto primary level and only 11.43 percent respondents were educated upto middle school level. None of the represents were illiterate. It also showed that more than half of the respondents (51.80%) belonged to medium size family (8-11 members). The respondents belonging to small size families (4-7 members) accounted for only 26.79 percent of the sample and those with large families (12-15 members) were merely 21.42 percent in

number. Data regarding total family income of respondents shows that maximum number of respondents (38.22%) belonged to lower income category followed by 31.43 percent respondents who belonged to lower middle income category. A sizeable number of respondents (15.71%) belonged to extreme lower income category and 7.86 percent respondents belonged to upper middle income category. Only 6.78 percent respondents belonged to high income category. It was also found that maximum number of respondents (43.57%) had small size landholding followed by 23.57 percent respondents had semi-medium size land holding. It was also found that that 20.72 percent respondents had marginal size land holding and 8.21 percent respondents had medium size land holding and only 3.93 percent respondents had large size of land holding (above 25 acres). Information seeking behaviour of respondents reveals that majority (58.21%) of the respondents had medium level of information seeking behaviour, 21.43 percent of the respondents had high level of information seeking behaviour and only 20.36 percent respondents had low level of information seeking behaviour. It was found that (Table 1) majority of the respondents (61.78%) had positive attitude towards KGK and 21.43 percent respondents had neutral attitude towards KGK. It was also found that only 16.79 percent respondents had negative attitude towards KGK. As shown in Table 1, it was found that majority of the respondents (69.29%) had positive attitude towards ICTs and 17.50 percent respondents had neutral attitude towards ICTs. It was also found that 13.21 percent respondents had negative attitude towards ICTs.

Table.1: Selected profile characteristics of farmers towards use of Krishinet Portal

S. No.	Independent variable	Frequency	Percentage
1.	Age		
a)	Young (24-37 years)	105	37.50
b)	Middle (38-51 years)	136	48.57
c)	Old (52-65 years)	39	13.93
2.	Education		
a)	Illiterate	0	0
b)	Primary Level	39	13.93
c)	Middle Level	32	11.43
d)	High School	95	33.93
e)	Higher Secondary	69	24.64
f)	Graduate Level	45	16.07
3.	Family size (Total Numbers)		

a)	Small (4-7)	75	26.79
b)	Medium (8-11)	145	51.79
c)	Large (12-15)	60	21.42
4.	Annual income		
a)	Extreme Lower Income (< Rs.33000 p.a.)	44	15.71
b)	Lower Income (Rs. 33001-Rs. 55000p.a.)	107	38.22
c)	Lower Middle Income (Rs. 55001-Rs. 88800p.a.)	88	31.43
d)	Upper Middle Income (Rs. 88801-Rs. 150000p.a.)	22	7.86
e)	High Income (>Rs. 150000 p.a.)	19	6.78
5.	Operational land holdings		
a)	Marginal (<2.5 acre)	58	20.72
b)	Small (2.5-5.0 acre)	122	43.57
c)	Semi-Medium (5.1 – 10.0 acre)	66	23.57
d)	Medium (10.1 -25.0acre)	23	8.21
e)	Large (>25 acre)	11	3.93
6.	Information seeking behavior		
a)	Low	57	20.36
b)	Medium	163	58.21
c)	High	60	21.43
7.	Attitude towards KGK		
a)	Negative (14-18)	47	16.79
b)	Neutral (19-23)	60	21.43
c)	Positive (24-28)	173	61.78
8.	Attitude towards ICT		
a)	Negative (16-22)	37	13.21
b)	Neutral (23-29)	49	17.50

c)	Positive (30-36)	194	69.29
9.	Innovativeness		
a)	Low (15-19)	51	18.21
b)	Medium (20-24)	146	52.14
c)	High (25-29)	83	29.65
10.	Economic motivation		
a)	Low (12-18)	38	13.57
b)	Medium (19-25)	175	62.50
c)	High (26-32)	67	23.93

Relationship between selected profile characteristics of farmers and impact of Krishinet Portal: An attempt has been made to find out the association between independent variables and dependent variables through correlation coefficient (r) values and t-test was used to test the significance. The results are presented in Table 2 indicated that Education (0.1982), annual income (0.1895), operational land holding (0.1355), information seeking behavior (0.1405), attitude towards KGK (0.1513), Attitude towards ICT (0.1239) were positively significant related. Age (-0.0072), family size (0.0135), Innovativeness (-0.0049), Economic motivation (-0.0022) and family size (0.0135) showed non significant relationship with impact of Krishinet Portal. The positive relationship between education and impact of the portal was due to the fact that people with more education are generally more conversant with technology and are less apprehensive of it. They are also able to explore various features of the portal without any difficulty and as a result desire greater benefits. Findings of the study are similar to that of Warren *et al* (2000). The significant positive relationship between annual income of the respondents and impact of portal because the respondents whose annual income was more were more prone to adopt new technology in their farming and they were also ready to take risk in their farming. The findings of the study are similar to that of Rebekka and Saravanan (2015). The significant positive relationship between size of the operational land holding and impact of the portal because the farmers with more operational land holding are always searching for more income through new experiments in their farming and for that seek information from different sources including ICTs (Krishinet portal in this case). The fact that most of the content on the portal is related to agriculture and allied activities helps in the farm operations. As a result, respondents with larger holdings use the portal to get more benefits from their agricultural land. The results of the study are in line with that of Dhaka and Chayal (2010). The significant relationship between information seeking behaviour of the respondents and the impact of portal because more the number of sources used

by the farmers to get agricultural information more is the impact of the portal. This is because people seeking information from various sources (including Krishinet portal) do so with the intention of applying that knowledge, which leads to greater benefits. The significant positive relationship between attitude of the farmers towards KGK and impact of portal because respondents having positive attitude towards KGK were likely to experience greater impact of portal. *Krishi Gyan Kendra* was the main locally available training centre of farmers not only for farm related activities but also different government schemes, Kaushal Vikas Kendra and it was found that the staff of KGK were very cooperative. This led to a positive attitude of the farmers towards them and they frequently visit to KGK. The results of the study are similar to that of Jain (2013).

Table.2: Relationship between characteristics of farmers and impact of Krishinet Portal

S. No.	Independent variable	r-value	t_{cal} value
1.	Age	-0.0072	-0.1167
2.	Education	0.1982	3.3697*
3.	Family size (Total Numbers)	0.0135	0.2250
4.	Annual income	0.1895	3.2171*
5.	Operational land holdings	0.1355	2.2790*
6.	Information seeking behavior	0.1405	2.3535*
7.	Attitude towards KGK	0.1513	2.5475*
8.	Attitude towards ICT	0.1239	2.0656*
9.	Innovativeness	-0.0049	-0.0833
10.	Economic motivation	-0.0022	-0.0366

* Significant at $p<0.05$ level

The positive and significant relationship between attitude towards ICTs and impact of portal because respondents having positive attitudes towards ICTs experience greater impact of the portal. This may be due to the fact that farmers already using ICT tools for other purposes such as mobile recharge, electricity bill payment, making caste and domicile certificate, land records, etc. are already aware of the benefits of ICTs. A positive opinion towards the source of information leads to greater acceptance and application of the information provided. Farmers with positive attitude experience greater impact/change due to use of the portal. The findings of the study was in line with that of Rebekka and Saravanan (2015).

Conclusion

The application of Information and Communications Technologies (ICTs) in agriculture has become increasingly important. It is an emerging field focusing on the enhancement of agricultural and rural development through improved information and communication processes. In the field of agriculture ICT enabled web portal plays important role in providing need based and specific information to farmers. There is need to study such type of portal in different way so purpose of designed ICT enabled web portal must be fulfilled.

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