

## Research Article

# Attitude of Farmers towards ITC's *e-Choupal*: Comparison between Users and Non-Users

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### ABSTRACT

A large number of information and communication technology (ICT) initiatives have been taken up at the national as well as state level for dissemination of knowledge and information to the rural population. ITC Ltd. initiated *e-choupal* in June 2000 to cater to agriculture-related needs of the farmers. One major factor that directly affects adoption of any ICT initiative and success is the attitude of the audience towards it. Thus, an effort has been made to study the attitude of the user farmers and non-user farmers towards this programme. The study has been carried out in the Tarai region of Uttarakhand. Purposive sampling was done to select the Udham Singh Nagar district and simple random sampling was done to select the centres from two hubs - Kashipur and Kichcha. In all, 220 farmers (110 users and 110 non-users) were selected for the study. The findings indicate that *e-choupal* has considerably provided some insights into the attitude of farmers towards the programme. The attitude of the users was better than that of the non-users towards *e-choupal* and its components, as majority of the users had moderately favourable attitude towards the ITC Ltd. *sanchalak* as well as services provided at the *e-choupal*, whereas comparatively less number of non-users felt so.

**KEYWORDS:** Attitude of farmers, ICT, *e-Choupal*, Innovations in agriculture, Agricultural Development.

### INTRODUCTION

Information and communication technologies (ICTs) hold the key to rural development, as they are capable of reaching many people simultaneously, overcoming geographic boundaries, providing frequency and repetition of contact, storage of information, on-demand access, capturing the reality of events by depicting them geographically and in real-time and greater efficiency (lower costs) in sending and receiving information (Colle and Roman, 2003).

Recent efforts to improve smallholder access to agricultural information have seen increased application of ICT technologies in developing agriculture. These efforts use ICT-based market information to reduce transaction costs of smallholder participation in markets, promote commercialisation and improve household food security.

The ITC's '*e-choupal*' is one such initiative that caters to the different needs of farmers simultaneously, which can be grouped into five headings: agricultural inputs,

extension education, agricultural technology, agricultural credit and marketing. *Choupal* is a Hindi word, which means 'village meeting place'. This initiative was launched in June 2000 by the ITC Limited and now comprises about 6500 installations, covering nearly 40,000 villages and serving over four million farmers. Currently, the '*e-Choupal*' website provides information to farmers across the 10 states of *Madhya Pradesh, Haryana, Uttarakhand, Uttar Pradesh, Rajasthan, Karnataka, Maharashtra, Andhra Pradesh, Kerala and Tamil Nadu*. Various services provided by *e-choupal* are as follows: selling consumer products Fast Moving Consumer Goods (FMCG/non-FMCG), loan, insurance, weather, pricing, best practices, question and answer, agri-inputs, purchasing of the farmers' produce, *Choupal pradarshan khet* and *e-choupal haat*.

The *e-choupal* model has been specifically designed to tackle the challenges posed by the unique features of Indian agriculture. The project *e-choupal* is ITC's unique click and mortar initiative. *e-Choupal* is an ICT

platform for carrying out trade at a number of locations. ITC accumulates information regarding weather, modern farming practices and market prices from sources like the Meteorological Department, Agricultural Universities, *mandis* (regional market), etc., and uploads all information on to the *e-choupal* website. All information is customised according to the local farmers' requirements and provided in the local language through a computer set up by the ITC in the *sanchalak's* house. The *sanchalak* access this information and facilitates its dissemination to the farmers.

The scope of ICTs is vast, as it can be and is being customised as per the need of the target groups, which specially applies to the ICT initiatives for agricultural development because of varied needs of the farmers. Various factors attribute for the success of any such ICT initiative, but one major factor that directly affects its adoption and success is the attitude of the audience towards it.

As *e-choupal* is one of the important ICT initiatives, even after 8 years of its launch, it is running well and considerations for its expansion are due. Popularity and expansion without benefitting the clients is not feasible. To survive and grow, any initiative has to have positive effect on its client to ensure its continuous use by them, which is directly affected by the attitude of the farmers, as it is their attitude that decides the fate of programmes by affecting the adoption process. Further, Ansari and Yogeshwar (2009) reported that a large majority of farmers were satisfied with the *e-choupal* services. Moreover, it is obvious that there will be difference in the attitude of people, which results in adoption by some and not all. Thus, the study was carried out to compare the attitude of users and non-users with the following objectives:

- To study the attitude of user farmers towards ITC's *e-choupal*.
- To study the attitude of non-user farmers towards ITC's *e-choupal*.
- To compare the attitude of user and non-user farmers towards ITC's *e-choupal*.

## METHODOLOGY

### Research Design

The present study was a non-experimental field study with a descriptive and comparative research design. The

study was focused on the attitude of the user and non-user farmers towards ITC's *e-choupal* and comparing them.

### Sampling

The study was carried out in the Udham Singh Nagar district of the Uttarakhand state, as the programme is carried out in this single district of the state. At present, there are 111 centres in total under two hubs, namely, Kashipur and Kichcha (initially working from *Sitarganj*). There are 67 centres under the *Kichcha* hub and 44 under the *Kashipur* hub. A total of 10% of the centres from both the hubs were selected using the chit method of simple random sampling, accounting for 11 centres in all. Every centre covers villages located within 5 kilometre radius, which comes out to be four to five villages under each centre; out of these, only one village where the centre was located was selected. Thus, total 11 villages were selected. From each village, 10 users and 10 non-users of *e-choupal* were selected using systematic random sampling, making a total of 220 farmers from 11 villages.

### Variables and their Measurement

The attitude of the farmers was the variable analysed in the study. Thurstone (1946) mentioned attitude as the degree of positive and negative effects associated with some psychological objects like symbol, phrase, slogan, person, institution, ideal or idea towards which people can differ in varying degrees. In the present study, attitude refers to positive or negative effect towards services and information provided by *e-choupal*. The attitude of the farmers was studied under the following heads: attitude towards ITC Limited, attitude towards the *sanchalak*, attitude towards services provided at the *e-choupal* and overall attitude of the respondents towards *e-choupal*.

### Tools and Techniques

To study the attitude towards *e-choupal*, no scale was available; hence, a scale was developed for the purpose. The initial draft was framed with the help of experts, which was pilot tested and standardised. After revision, the final draft was developed consisting of 30 statements in all.

### Hypothesis Tested

H<sub>0</sub>: There is no significant difference between the attitude of the user and non-user farmers of *e-choupal*.

H<sub>1</sub>: There is significant difference between the attitude of the user and non-user farmers of *e-choupal*.

### Statistical Measures

To test the hypothesis, the raw scores were tabulated in frequency distribution table and to analyse the data, various statistical measures were adopted, viz., percentage, mean and standard deviation. The comparison of scores of the user and non-user farmers was done by applying the z-test.

## RESULTS AND DISCUSSIONS

### Attitude towards *e-Choupal*

On the basis of the attitude score obtained, farmers were classified into three categories, viz., highly favourable, moderately favourable and least favourable. The three categories were formed using mean and standard deviation of the scores.

#### a. Attitude towards ITC Limited

Regarding the attitude of the farmers, it is revealed from Table 1 that more than four-fifth majority of the respondents had moderately favourable attitude, followed by 17.27 and about 10% who had least favourable and highly favourable attitudes, respectively.

**Table 1. Distribution of respondents on the basis of their attitude towards ITC Limited**

Category	Users (n=110)		Non-users (n=110)		Total (n=220)	
	N	%	N	%	N	%
Least favourable (< 9)	-	-	19	17.27	19	17.27
Moderately favourable (9-15)	99	90	81	73.64	180	81.82
Highly favourable (> 15)	11	10	10	9.09	21	9.55

Looking at the user and non-user groups separately in Table 1, it is revealed that a large majority of the user group had moderately favourable attitude and only one-tenth had highly favourable attitude, whereas less than three-fourth (73.64%) of the non-users had moderately favourable attitude, while 9.09% had highly favourable

attitude. None of the user respondents had least favourable attitude towards ITC, on the other hand, 7.27% of the non-users had least favourable attitude.

In general, the attitude of the farmers towards ITC Limited was affected by satisfaction or dissatisfaction from the use of its different products. Regarding the attitude of users, the major effect was because of fulfilment of their expectations from the services of *e-choupal* availed by them. However, the attitude of the non-users was built on the feelings or expressions of others, especially the users, which was ultimately governed by their satisfaction level, as they themselves did not have any direct interaction with the various components of *e-choupal*.

#### b. Attitude towards the *Sanchalak*

From Table 2, it is evident that three-fourth of the respondents had moderately favourable attitude towards the *sanchalak* and 11.82% had a least favourable attitude, whereas 12.27% had highly favourable attitude towards the *sanchalak*.

**Table 2. Distribution of respondents on the basis of attitude towards the *sanchalak***

Category	Users (n=110)		Non-users (n=110)		Total (n=220)	
	N	%	N	%	N	%
Least favourable (< 19)	3	2.73	23	20.91	26	11.82
Moderately favourable (19-25)	94	85.45	73	66.36	167	75.91
Highly favourable (> 25)	13	11.82	14	12.73	27	12.27

Table 2 also revealed that more than four-fifth (85.45%) of the user respondents had moderately favourable attitude towards the *sanchalak*, whereas two-third (66.36%) of the respondents from the non-user group belonged to this group. Around 11.82% of the users and 12.73% of the non-users had highly favourable attitude towards the *sanchalak*. Only 2.73% users had least favourable attitude. On the other hand, one-fourth of the non-users had least favourable attitude towards the *sanchalak*.

The attitude towards the *sanchalak*, in general, was affected by his image in the village, which in turn was

affected by his behaviour with the fellow farmers. With respect to users, it is very clear that their attitude was affected by factors like response of the *sanchalak* when they visit him, his seriousness for *e-choupal* and its clients and initiatives taken by him to help them. The attitude of the non-user farmers was based on word of mouth of the user farmers because of lack of direct contact with the *sanchalak* of *e-choupal*. In other words, the non-user farmers developed their attitude towards the *sanchalak* on the basis of the user's reactions. The findings are found to be in harmony with those made by Barala (2006), who reported that most of the farmers felt that the rural knowledge centres were highly reliable because the *sanchalak* belonged to their own village, whereas the extension agent was not personally known to them.

### c. Attitude towards Services of *e-Choupal*

Regarding the attitude of the respondents towards services of *e-choupal*, Table 3 revealed that less than two-third of the respondents had moderately favourable attitude, whereas only 14.09% had highly favourable attitude towards the services of *e-choupal*.

Table 3 also revealed that about four-fifth of the users (81.82%) had moderately favourable attitude towards the services provided at the *e-choupal* and more than two-fifth non-users belonged to this category. Around 14.55 and 13.64% of users and non-users, respectively, had highly favourable attitude for the services, while only 3.64% of the users had least favourable attitude. Around 41.82% of the non-users belonged to this category.

**Table 3. Distribution of respondents as per their attitude towards the services of *e-choupal***

Category	Users (n=110)		Non-users (n=110)		Total (n=220)	
	N	%	N	%	N	%
Least favourable (<36)	4	3.64	46	41.82	50	22.73
Moderately favourable (36-73)	90	81.82	49	44.55	139	63.18
Highly favourable (>73)	16	14.55	15	13.64	31	14.09

Mostly, the favourable attitude was recorded for the 'purchase of produce' service of the *e-choupal*, under

which the ITC Limited purchased farmers' produce through *e-choupal* and users were eagerly waiting for the ITC limited to get license for making the purchase. On the other hand, market price and weather information services mostly fetched unfavourable responses due to unavailability of updated and accurate information.

The attitude towards the services of *e-choupal* of the user farmers was based on their first-hand experience of the services availed by them and their fellow user farmers, whereas the attitude of the non-users was based on the reflections made by the user farmers and the perceived benefits of the services of *e-choupal*.

### d. Overall Attitude

Looking at Table 4 for cumulative attitude of the respondents, it is evident that more than two-thirds of the respondents had moderately favourable attitude, followed by 18.18% having least favourable attitude and only 12.27% had highly favourable attitude.

About four-fifth of the users and about half of the non-users had moderately favourable attitude towards *e-choupal*. On one hand, where only 1.82% of the users were having least favourable attitude, on the other, more than one-third of the non-users belonged to this category. More than one-tenth of the users (14.55%) and non-users (10%) had highly favourable attitude towards *e-choupal*.

**Table 4. Distribution of respondents on the basis of their overall attitude towards *e-choupal***

Category	Users (n=110)		Non-users (n=110)		Total (n=220)	
	N	%	N	%	N	%
Least favourable (<67)	2	1.82	38	34.55	40	18.18
Moderately favourable (67-110)	92	83.64	61	55.45	153	69.55
Highly favourable (>110)	16	14.55	11	10	27	12.27

Difference in the attitude of the users and the non-users can be attributed to the fact that users have been through it closely and have observed the things, they have also known the limitations and problems faced by them and the *sanchalak* in providing and availing the services of which they were unaware.

### Comparison of the Attitude of the User and Non-User Farmers towards e-Choupal

The mean scores for different variables with their  $Z_{cal}$  have been presented in Table 5. To compare the attitude of the user and non-user groups,  $z$ -test was used. From Table 5, it is clear that value of  $z$  calculated is greater than the table value of  $z$ . Thus, the null hypothesis that no significant difference exists between the attitude of the user and non-user groups for e-choupal was rejected and an alternate hypothesis, i.e. there was significant difference between the attitude of the user and non-user farmers was accepted.

Findings show that there existed highly significant difference in the mean scores of the user and non-user groups for attitude towards ITC limited, attitude towards the *sanchalak*, attitude towards services of e-choupal and the overall attitude. The difference in the attitude of the users and the non-users towards ITC's e-choupal was due to direct interaction of the users with it, while that of non-users was based on the satisfaction level expressed by the users and feelings of the rest of the farmers. Although the attitude of the non-users was not much inclined in the negative direction, but considerable difference indicates that direct use of technology had more effect rather than over-heard feelings of others.

**Table 5:  $Z_{cal}$  for difference in means of attitude of the user and non-user groups**

Variable	Mean score (User)	Mean score (Non-user)	$Z_{cal}$
Attitude towards ITC	12.64545	11.33636	3.581666**
Attitude towards <i>sanchalak</i>	22.99091	21.39091	3.765151**
Attitude towards services	61.27273	47.78182	5.83499**
Overall attitude	97.09091	80.69091	6.177727**

\*\*Significant at 0.01 level of significance ( $z_{tab} = 2.33$ )

### CONCLUSION

The ICT is one of the effective media for agricultural development. To ensure the efficiency of ICT, the farming community must have positive attitude towards it. Chauhan (2010) in his study 'Farmers' Perception about ICT Application: A Case study of Gujarat state' found that farmers have positive attitude towards the use of Internet and perceive it as a rich source to collect world wide

information on agriculture and the fastest way to exchange information in shortest time. More than three-fourth of the respondents expressed their desire to use Internet daily or twice in a week by their own.

The findings indicate that e-choupal has considerably provided some insights into the attitude of farmers towards the programme. Based on the above findings, it can be concluded that the attitude of the users was better than that of non-users towards e-choupal. This shows the positive impact of e-choupal in terms of attitude change in the rural users. The user farmers, due to their regular exposure to e-choupal and contact with the *sanchalak*, have acquired this attitude as they make out the benefits to them from e-choupal and the hitch faced by the *sanchalak* in making the services available to them. The non-users, on the other hand, hardly get any opportunity to interact with the *sanchalak* and know the facts. Thus, the main reason behind difference in the attitudes of the user and non-user farmers was the firsthand experience of the user farmers. It is important to note that e-choupal can change the attitude of the non-users towards the programme and ICT and can enhance their knowledge and skills in the field of agriculture if little efforts are made.

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