# Expectations of the Farmers from ICT in Agriculture

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## ABSTRACT

*Amongst the various means of information communication, satellite based internet communication are very efficient, accurate, quick and cheaper in the field of disseminating the information from research system to farmers. Internet communication has touched almost all the districts in our country and is mainly down up to the village levels. Internet offers a means for bridging the gap between developmental professional, rural people and agricultural producers through the initiation of interaction and dialogue. Keeping all the views in mind ,it was decided to study the expectations and opinion of the farmers regarding internet facility with the following specific objectives 1) to study the expectations and opinion of the farmers towards internet facility and 2) to ascertain the relationship between personal profile and opinion of the farmers towards internet facility. Farmers were expecting six sets of computer with agriculture graduate having computer knowledge as operator at CIC. It was also expected that Government should bear expenses to run CIC. The information on farmers' related sites was expected by most of the farmers in Gujarati language that too in the audio-visual form. The major purpose to have CIC explained by the respondents were to collect information on agriculture , government's programmes, and market prices. Majority of the respondents expressed their desire to use Internet daily or twice in a week by their own .All of them expressed positive response to have proper training about the use of Internet facility through government agency, at CIC. The results showed that majority of the farmers understood that internet is a rich source to collect world wide information on agriculture and it is the fastest way to exchange information in shortest time'. Majority farmers completely or to a certain degree felt that though internet is costly affair for the farmers but it is the best mean to collect information on market prices of agricultural products. 82.00 percent of the farmers were wishing their children to make positive use of internet at the same time 81.00 per cent of them had opinion that farmers should make use of internet. It can be concluded from the results that out of the 10 independent variables, five variables like Education, Land holding, Contact with NRI's, Experience of internet use and Mass media exposure are significantly and positively correlated with the opinion of the farmers about the use of Internet for farming community. More than 70 per cent of the farmers opined that internet is the rich source and fastest way of exchanging information in short time. It must be use by the farming community for their betterment.*

***Key words:*** *Information communication; Satellite; Internet communication; Community Internet Centre; Mass media exposure;*

***F***armers are more desirous and become anxious to get quick, exact and authentic information in the changing scenario of agriculture at global level. Dissemination of the required and recent agricultural information to the farmers in scattered villages at the variegated geographical situation in India is very difficult task.Transfer of technology to farmers is not a one time exercise because new farm technology is being constantly evolved (*Mehta, 2003*). A continuous flow of technologies in an appropriate manner is vital to provide quick benefit of this development to the farmers. There has been a technological explosion in the field of agriculture. This demands that the farmer has to know all aspects of technology prior to its adoption. It can only be possible through the use of satellite based Internet technologies. Many pilot projects to connect rural community to cyber-space are underway at various locations. The initial response of the rural people, particularly farmers has been very encouraging; many organizations are trying to establish internet connectivity to make best use to satellite based communication technology (*Chauhan, 2004*). Keeping all the things

in mind the present study has been undertaken with a view to know the Expectations of the farmers regarding Community Internet Centre (CIC) at village level as well as to study opinion of the farmers regarding internet facility in Anand district of Gujarat state.

## METHODOLOGY

The investigation was carried out in Anand district of Gujarat state because the district is agriculturally one of the more advanced districts. Four villages viz. Vasad, Mogar, Napad and Navli having more than 5000 population and comparatively sound infrastructure facilities were selected purposively. A list of progressive farmers was prepared with the help of village level worker from all the selected villages. Finally, 25 farmers were selected from each village using simple random sampling technique. Thus, the study was confined to 100 farmers. Keeping in view the objectives of the study, data were collected using structured interview schedule prepared for the purpose. Statistical tools such as frequency and percent and co-efficient of correlation were employed to analyze the data.

## RESULTS AND DISCUSSION

*Profile of the respondents :* It was observed that 64 per cent of the internet facility expecting farmers were from the middle age group, with a high school and higher secondary level of education (45 per cent) and had joint family. Sixty percent of the respondents belonged to the small category of farmers with mixed farming as main occupation. In order to earn additional income along with farming about 46 per cent of them possessed two or more animals. More than half of the respondents were found to be the member in one or more organizations.

*Expectation of the farmers about CIC:* The data presented in Table 1 indicates that cent percent of the respondents expected to have CIC at village level. It shows that farmers have realized importance of Internet facility in villages as an effective source of information as well as for the speedy communication.

Table 1. The expectation of CIC at village level (N=100)

| S. No | Type of Expectation | N | %age |
|---|---|---|---|
| 1 | Yes | 100 | 100.00 |
| 2 | No | 00 | 00.00 |
| | Total | 100 | 100.00 |

Table 2. Respondent according to choice of the place of CIC (N=100)

| S. No | Place | N | %age |
|---|---|---|---|
| 1 | Panchayat | 95 | 95.00 |
| 2 | Primary school | 81 | 81.00 |
| 3 | Co-operative Dairy | 76 | 76.00 |
| 4 | High school | 05 | 05.00 |
| 5 | Community hall | 03 | 03.00 |

It can be observed from the data in Table 2 that Building of Panchayat was preferred by 95.00 per cent of the respondents, followed by building of primary school by 81.00 per cent, building of co-operative dairy by 76.00 per cent and buildings of high school and community hall by only 5.00 and 3.00 percent respondents, respectively. The building of panchayat is such an informal place, where people feel much familiarity, thus it was preferred by great majority of the farmers to have CIC. The data in Table 3 indicate that operator or guide, printer, separate cabin, downloaded information in printed form and extra seating facilities were expected by 98.00, 72.00, 68.00, 63.00 and 53.00 per cent of the farmers, respectively.

Table 3. The respondents according to expectation of service (N=100)

| S. No | Expectation of service | N | %age |
|---|---|---|---|
| 1 | Operator/Person to Guide and help | 98 | 98.00 |
| 2 | Printer | 72 | 72.00 |
| 3 | Separate cabin | 68 | 68.00 |
| 4 | Collected information in printed form | 63 | 63.00 |
| 5 | Extra seating facilities | 53 | 53.00 |

Table 4. Respondents according to choice of person to manage CIC (N=100)

| S. No | Person | N | %age |
|---|---|---|---|
| 1 | Agriculture graduate with computer knowledge | 98 | 98.00 |
| 2 | Educated person of village | 76 | 76.00 |
| 3 | Expert of computer | 57 | 57.00 |
| 4 | Primary school teacher | 28 | 28.00 |

The data in Table 4 indicate that agriculture graduate with computer knowledge was preferred by nearly cent per cent (98.00 per cent) of the farmers as a manager of the centre, followed by any educated person of the village was preferred by 76.00 per cent, expert of computer by 57.00 per cent and primary school teacher by 28.00 per cent of the farmers.

Table 5. Respondents according to their expectation of provision of financial facility (N=100)

| S. No | Institution | N | Rank |
|---|---|---|---|
| 1 | Government | 2.00 | I |
| 2 | Co-operative societies | 0.92 | III |
| 3 | By villagers' sharing | 0.07 | V |
| 4 | Voluntary Donation | 0.65 | IV |
| 5 | Foreign relatives | 1.45 | II |

With a view to knowing farmers' choice of source to take initial financial support to start CIC, information was collected and presented in Table 5. The first choice of the farmers to take initial financial support to start CIC was Government agencies followed by co-operative societies, villagers sharing, voluntary donation and foreign relatives.

Table 6. The respondents as per the choice to bear expenses to run CIC (N=100)

| S. No. | Responsible for expenditure | N | Rank |
|---|---|---|---|
| 1 | Government | 1.60 | I |
| 2 | Village Panchayat | 1.02 | II |
| 3 | Co-operative Dairy | 0.92 | III |
| 4 | By collecting charges from users | 0.79 | IV |

The information regarding choice of the farmers to bear expenses to run CIC was also collected and presented in Table 6. It can be seen that respondents said that Government should bear expenses to run CIC, at the same time other preferences given by them to bear expenses to run CIC were village panchayat, co-operative dairy and collecting charges from users.

Respondents were also asked to give there expectation regarding number of internet connected sets of computers (Table-7). Majority of the farmers (78 per cent) suggested that more than six sets should be there at CIC while 22.oo per cent expected 5 to 6 sets of internet connected computer sets at CIC.

Table 7. Respondents' choice to have minimum computer sets at CIC (N=100)

| S. No. | Internet set | N | %age |
|---|---|---|---|
| 1 | 1 to 2 | 00 | 0.00 |
| 2 | 3 to 4 | 00 | 00.00 |
| 3 | 5 to 6 | 22 | 22.00 |
| 4 | More than 6 | 78 | 78.00 |
| | Total | 100 | 100.00 |

Table 8. Respondents choice on form of information on internet and ICT (N=100)

| S. No | Type of information | Meanvalue | Rank |
|---|---|---|---|
| 1 | In Gujarati language | 1.98 | I |
| 2 | Photographs with written form | 1.94 | II |
| 3 | Audio-visual form | 1.91 | III |
| 4 | Written information | 1.42 | IV |
| 5 | Audio form | 1.20 | V |

Table 9. Relationship between profile of the farmers and their opinion about internet

| S. No | Independent variables | Correlation coefficient ("r" value) |
|---|---|---|
| A | *Personal variable* | |
| 1 | Age | 0.1368 |
| 2 | Education | 0.3263* |
| B | *Economic variable* | |
| 3 | Occupation | -0.0092 |
| 4 | Land holding | 0.2459* |
| 5 | Animal wealth | 0.0195 |
| 6 | Modern agricultural equipment | -0.0087 |
| C | *Social and communication* | |
| 7 | Type of family | -0.2472* |
| 8 | Contact with NRI's | 0.2603* |
| 9 | Experience of internet use | 0.2718* |
| 10 | Mass media exposure | 0.2462* |
| 11 | Extension contact | 0.1239 |
| 12 | Organization participation | 0.1247 |

* = Significant at 0.05 level of probability

It can be seen from Table-8 that most of the farmers expected information in Gujarati language that too in the form of photographs and written form on agricultural related webs as well as on ICT. At the initial stage if it is difficult to provide information on most expected form, thus many of them were also expected information in audio-visual form, written form and audio form.

## CONCLUSION

Cent per cent respondents expected the Community Internet Centre (CIC) facilities at village level. Slightly less than cent per cent of them preferred panchayat office as the best place of CIC and they were expecting agriculture graduate with computer knowledge as operator or guide at CIC. The respondents expressed that there should be more than six sets of computer, further they expect that Government should bear

expenses to run CIC. The information on farmers' related sites was expected by most of the farmers in Gujarati language that too in the audio-visual form. The major purposes to have CIC explained by the respondents were to collect agricultural information, to collect information on government's programmes, to speedup communication, to exchange information, and to know more about market prices. Majority of the respondents expressed their desire to use Internet daily or twice in a week by their own. All the respondents expressed positive response to have proper training about the use of Internet facility through government agency, at CIC for sustainable agricultural development.

It can be concluded from the results that independent variables like education, land holding, Experience of internet use and Mass media exposure are significantly and positively correlated with the opinion of the farmers about the use of Internet for farming community. More than 70 per cent of the farmers opined that internet is the rich source and fastest way of exchanging information in short time. It must be use by the farming community for their betterment.

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