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Utilization of Agricultural Technology Information Centre (ATIC) Facilities by Farm Families in Udham Singh Nagar District (Uttarakhand)

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Abstract: ***The objective of the present study was to find out the extent of utilization of Agricultural Technology Information Centre (ATIC) facilities by farm families. The sample consisted of randomly selected 95 respondents including 80 farmers and 15 farm women from 8 villages of two panchayat samities of Udham Singh Nagar district of Uttarakhand state who were regularly in contact with the ATIC functionaries for last 5 years. Personal interview technique was used for collecting data from the respondents. Frequency distribution, percentage and mean per cent score were used for analysis of data. The outcome of the study reveals that utilization of ATIC facilities by the respondents was poor as depicted by overall mean per cent utilization score (13.48). Majority of the respondents (65.26%) were in the category of low level of utilization whereas, 34.73 per cent respondents belonged to medium level of utilization of ATIC facilities. None of the respondents was in the high utilization category.***

Keywords: ATIC, utilization, facilities, farm families (farmers and farm women)

1. Introduction

ATIC are established under the Innovations in Technology Dissemination component of NATP to provide greater interaction between the researchers and technology users beyond what individual researcher can attempt to disseminate information to farmers. As the gesture of follow up of 'single window system' in State Agricultural Universities under NATP, ATIC at Govind Ballabh Pant University of Agriculture and Technology (GBPUAT), Pantnagar came into existence on 26th August, 2001. Three-dimensional performance viz. products disposal, services and information dissemination are the foundation pillars of ATIC through which the technology transmission occurs at this centre. Under technological inputs, breeder seeds of latest variety of cereals, pulses, spices, vegetables etc. are sold at the centre. Under diagnostic services, plant clinic, veterinary clinic, soil and water testing, seed quality testing are undertaken. These activities are coupled with information to farmers through farm literature, folders, helpline, computer kiosk, frontline demonstration, personnel visit, letters and ATIC stall in farmer's fair. The ATIC, Pantnagar not only provides the technological information, services and products but also offers solution of various agricultural and related problems. Since, the ATIC, Pantnagar has already completed twelve years of its establishment in the district hence, it is a high time to find out upto what extent farm families are utilizing ATIC facilities? How far they have been benefited by this single window delivery approach in terms of information, products and diagnostic services. Therefore, the present study was undertaken with the objective to know the extent of utilization of ATIC facilities by farm families.

2. Method and Materials

The present study was conducted in Udham Singh Nagar district of Uttarakhand where the ATIC (located at GBPUAT, Pantnagar) has been in operation since 2001. Of seven panchayat samities, two namely *Rudrapur* and *Gadarpur* were selected on random basis. From each panchayat samiti, one village from each direction (North, East, West, and South) which was within a radius of 50 km from the ATIC was selected on random basis. Thus, total eight villages were taken from selected panchayat samities. The total sample of the study consisted of 95 respondents including 80 farmers and 15 farm women who were regularly in contact with the ATIC functionaries for last 5 years. Personal interview technique was used for collecting data from the respondents. The data collected from the respondents was scored, tabulated and analyzed by using suitable statistical tools such as frequency distribution, percentage and mean per cent score.

3. Results and Discussion

Background Information of the Respondents

More than 40 per cent respondents belonged to the age group of 46-60 years and 28.42 per cent were between 31-45 years of age. More than half of the respondents were under reserve caste categories which included SC/ST (38.94%) and OBC (11.57%). Regarding education, 34.73 per cent respondents were educated upto graduation level and nearly one fourth of them had the education upto higher secondary level. Agriculture was the main occupation of all the respondents however, majority of them were also involved in some subsidiary occupation along with agriculture. Majority of the respondents (61.05%) were from joint family having 5-8 members. More than 40 per cent of them had land holding of 5.1-10.0 acres while more than one third respondents had land holding between 2.6-5.0 acres. With regard to annual income, 33.68 per cent respondents had estimated annual income between Rs 1.6-2.5 lakhs whereas, more than one fourth of the respondents (28.42) had annual income between 1.0- 1.5 lakhs.

Overall Utilization

To know the extent of utilization of ATIC facilities by the respondents, they were grouped into three categories viz. low, medium and high utilization on the basis of their mean per cent scores.

Perusal of Table1 reveals that the utilization of ATIC facilities by the respondents was found to be poor as depicted by overall mean per cent utilization scores 13.48. Majority of the respondents (65.26%) were in the category of low level of utilization whereas, 34.73 per cent respondents belonged to medium level of utilization of ATIC facilities. None of the respondents was in the high utilization category. The findings are in conformity with the findings of Seshadri *et al.* (2013) who reported poor utilization of Rashtriya Swasthya Bima Yojna (RSBY) by majority of the respondents. The major reasons found behind the poor enrolment of the respondents in RSBY were lack of awareness of the people, poor past experiences with the scheme, confusion and ignorance of where to go to avail the benefits, inadequate and ineffective awareness campaigns and poor governance of the scheme.

Table 1: Distribution of respondents by their overall utilization of ATIC facilities

n=95

S. No.	*Category (Mean Per cent Scores)*	*f*	*%*
1.	Low (0-0.67)	62	65.26
2.	Medium (0.68-1.33)	33	34.73
3.	High (1.34-2.0)	0	0

Mean per cent utilization score: 13.48

Component-wise utilization:

Component-wise utilization of ATIC facilities by the respondents was assessed in order to identify the factors that are restricting them to utilize the facilities available at ATIC so that necessary modifications can be made in order to improve the functioning and effectiveness of the centre.

Perusal of **Table 2** reveals the frequency of visit of farm families to ATIC. The table shows that nearly one third of the respondents visited ATIC on regular basis i.e. once in a month whereas, 76.84 per cent respondents visited the centre sometimes only i.e. in every 3-4 months. The results coincided with the findings of Sharma *et.al* (2008) that throws a light on the usage pattern of ATIC by beneficiaries and reported frequent visit of the farmers to ATIC (IARI) for the purpose of availing the centre facilities. The findings revealed that majority of the farmers (68%) visited ATIC in every two to six months.

With regard to purchase of different products available at ATIC, Pantnagar, data in **Table 2** clearly depict that majority of the respondents (93.67%) purchased seeds of different crops from the centre (90.00 MPS). This was because of the availability of disease resistant and high yielding varieties of seeds available at the centre. A few respondents gave reason that the distance of the ATIC from their home was less so it was convenient for them to purchase the seeds from the centre. It was discouraging to note that none of the respondents purchased other products like plant materials, livestock species, processed products, tools and equipment etc. from the ATIC. The reason for this was non availability of these products at the centre. When the scientists were asked for the same, they stated that due to lack of infrastructure facilities they were not in a position to provide these products from the centre itself. Hence, these products were provided from the other research units of the university associated with the ATIC. Sharma *et.al* (2008) reported alike that most of the farmers visited ATIC, IARI for the purpose of purchasing products. According to the findings, maximum number of enquires are for seeds of different varieties (19,624) followed by horticulture (10,637).

Table 2: Component wise utilization of ATIC facilities by the respondents

n=95

S. No.	*Items*	*Extent of Utilization*			
		Always (f/ %)	Sometimes (f/ %)	Never (f/ %)	MPS
I	Frequency of visit to the ATIC	22 (23.15)	73 (76.84)	0	61.50
Ia.	Products Seeds	82 (86.31)	7 (7.36)	6 (6.31)	90.00
b.	Plant materials	0	0	95(100.00)	0
c.	Livestock species	0	0	95 (100.00)	0
d.	Processed products	0	0	95 (100.00)	0
e.	Tools and equipment	0	0	95 (100.00)	0
f.	Other agro products	0	0	95 (100.00)	0
IIa.	Diagnostic Services Soil Testing	19 (20.00)	25 (26.31)	51 (53.68)	33.00
b.	Water Testing	0	13 (13.68)	82 (86.31)	6.50
c.	Seed Quality Testing	19 (20.00)	24 (25.26)	52 (54.73)	32.50
d.	Plant Clinic	23 (24.21)	26 (27.36)	47 (49.47)	37.50
e.	Veterinary Clinic	48 (50.52)	10 (10.52)	37 (38.94)	55.50
f.	Testing and calibration of small equipment	0	0	95 (100.00)	0
IIIa.	Information AV aids	0	12 (12.63)	83 (87.36)	6.00
b.	Farm Literature	44 (46.31)	33 (34.73)	18 (18.94)	63.50
c.	Farmer's Fair	78 (82.10)	7 (7.36)	10 (10.52)	85.50
d.	Kisan Gosthi/ Krishi Samelan	20 (21.05)	30 (31.57)	45 (47.36)	36.50

e.	Frontline Demonstration	0	22 (23.15)	73 (76.84)	11.50
IV a.	Technical Guidance Helpline	35 (36.84)	43 (45.26)	17 (17.89)	59.00
b.	Information Kiosk	0	5 (5.26)	90 (94.73)	2.50
c.	Personnel visit	6 (6.31)	29 (30.52)	60 (63.15)	21.50
e.	Through letters	3 (3.15)	22 (23.15)	70 (73.68)	14.50

The data in **Table 2** further reveal the utilization of diagnostic services of ATIC by farm families. Veterinary clinic was found to be utilized more by the respondents (61.04%) with MPS-55.50. Majority of the respondents stated that they usually visit veterinary clinic either for the vaccination of their cattle or for treatment or diagnosis of any ailment or disease. Similarly, more than half of the respondents (51.57%) were utilizing plant clinic as and when needed (37.50 MPS). The respondents expressed that they visited plant clinic in order to check any nutrient deficiency in their plants, to know the amount of fertilizer used in the plants or for insect-pest management. However, the other testing facilities viz. soil testing (33.00 MPS), seed quality testing (32.50 MPS) and water testing (6.50 MPS) were utilized by only a limited number of respondents. This was due to the reason that the testing laboratories were located far away from the centre. Besides, high cost of testing, inadequate and improper soil and water testing facility due to lack of equipment or poor condition of equipment were some of the other reasons reported by the respondents behind not availing these facilities of the centre. The facility of testing and calibration of small equipment was not provided by the centre hence, none of the respondents has ever utilized this service.

Under the third main component of ATIC viz. 'dissemination of information', data in **Table 2** reveal that farmer's fair (85.50 MPS) and farm literature (63.50 MPS) were extensively utilized by majority of the respondents in order to get information related to agriculture and allied aspects. Majority of the respondents (82.10%) revealed that they use to attend the farmer's fair which were organized by the university regularly (twice in a year). The reason given by them behind this was that at the time of *kisan mela*, they had good opportunity to personally interact with subject matter specialists and have face to face discussion regarding their problems. Besides this, they also obtained multiple information in other aspects of agriculture along with printed literature. The utilization of farm literature was found to be more by the respondents because most of them had taken the membership of monthly magazines released through ATIC. The respondents further reported that they also purchased farm bulletins, kisan diary, krishi calendar, booklets etc. from the centre.

The G.B. Pant University of Agriculture and Technology, Pantnagar has an Organic Farming Association and most of the respondent farmers were the member of this association. The Association organizes kisan gosthies and krishi sammelan from time to time in which the member farmers and farm women are invited. Hence, these gosthies and sammelan become the source of information particularly related to organic farming for more than half of the respondents (52.62%). There were only 23.15 per cent respondents who had obtained agriculture related information from the frontline demonstrations organized by the ATIC functionaries on the farmer's field. Regarding obtaining information through audio-visual aids, it was found that majority of the respondents (87.36%) were not utilizing this source for getting information related to agriculture and allied areas due to unavailability of these aids at the centre. When the ATIC scientists were asked about this they reported that due to lack of technical staff for last 6-7 years, they were not in a position to prepare the audio-visual aids at the centre.

With regard to technical guidance, the table further reveals that the helpline service of ATIC, Pantnagar was proved to be fruitful and liked by majority of the farming community. This was due to the reason that for sorting out the small problems, they need not to visit the centre personally. It was found that more than one third of the respondents (36.84%) were making use of this service on regular basis whereas, 45.26 per cent respondents were seeking advice or guidance from the helpline on agriculture and allied areas sometimes only. Findings further reveal that only a few respondents obtained technical guidance from the visit of ATIC functionaries to the field. When the ATIC functionaries were asked for the reason, they stated that due to lack of transportation facilities at the centre, they were not in a position to visit the field on regular basis. Likewise, more than one fourth of the respondents (26.30%) got technical advice from the ATIC scientists through personal letters. However, majority of the respondents (94.73%) never used information kiosk established at ATIC, Pantnagar because of lack of knowledge about this facility. The findings of the study are in line with the findings of Parihar *et al.* (2010) who reported that more than one third of the respondents were using Kisan Call Centre (KCC) and University helpline (37%) in Kanpur-Dehat of U.P. for seeking technical guidance in agriculture and allied aspects.

4. Conclusion

Based on the findings it can be concluded that the extent of utilization of ATIC facilities by the respondent was poor as depicted by mean per cent scores 13.48. The probable reason behind not using the ATIC facilities by the respondents was lack of knowledge about ATIC facilities and inadequate provision of inputs due to lack of infrastructure facilities at the centre. Hence, there is a need to create awareness about ATIC. This can be done by giving wide publicity to the ATIC through various educational means and mass media sources. Similarly, adequate budget should be provided to ATIC for the development of infrastructure facilities so that the centre makes provision of all the facilities to the farmers timely and in required amount as per the mandate.

5. Future Scope (Recommendations)

At present, the ATIC Pantnagar is providing only the seeds of different crops. However, there was also the demand of other products like plant materials, processed products, livestock species and tools and equipment etc. among the farming community. Hence, efforts should be made to have the availability of all the products at the centre. Secondly, as per the findings, it was found that a very few farm women were aware or utilizing the ATIC facilities, so effort should be made to aware or educate the farm women in rural areas and made them understand the significance of the ATIC. The functionaries should take due care in first educating them to realize the importance of the ATIC and then motivate them to utilize its services. Efforts should also be made to incorporate the suggestions given by farmers/ farm women for improving the effectiveness of ATIC.

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