Knowledge Level of Beneficiary Farmers Regarding the Activities of Agricultural Technology Information Centre, UAS, Bangalore

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Abstract

The study focusing on Agricultural Technology Information Centre (ATIC), UAS-B was conducted during 2019. Ninety beneficiary farmers who visited ATIC during the last three years were selected purposively to elicit the knowledge level of beneficiary farmers towards ATIC. It was found that nearly half (42.22%) of the beneficiary farmers belonged to medium level of knowledge category, while nearly one fourth (25.56 %) of them belonged to low and the remaining 32.22 per cent of them belonged to high level of knowledge category. Further a great majority of the beneficiary farmers (91.11 %) had knowledge that ATIC provides consultancy services, followed by 87.78 per cent of the beneficiary farmers who had correct knowledge with respect to areas of services provided by ATIC. More than three fourth of the beneficiary farmers (77.78%) had knowledge that ATIC provides recent varieties followed by 76.67 percent of beneficiary famers who had knowledge that ATIC provides ready made seed kits. only few of the beneficiary farmers had correct knowledge with respect to agri-portal service (16.67%) and availability of feedback services (17.78 %). More than 50 per cent of the farmers had correct knowledge with respect to availability of planting materials, biofertilizers, availability of literature related to agriculture and allied aspects. Variables such as scientific orientation, achievement motivation, innovative proneness and extension contact had significant association with knowledge level of beneficiary farmers regarding the activities of ATIC at one per cent level of significance. While farming experience, information seeking behaviour, extension participation, education and risk orientation had significant association at five per cent level of significance.

Keywords: Agricultural technology information centre, Knowledge and Beneficiary farmers

Development efforts over the last few decades have demonstrated that sustained improvements in the productivity and livelihood depend on the technological development and refinement made by the National Agricultural Research System in India. Information is considered to be a basic necessity for development in any sphere of activity. Communication of information has prime importance in the present information age. Hence, ATICs were established in different states with the main idea of providing a mechanism beyond the individual unit of a research institution and to contribute to the dissemination of information as a single window delivery system for research products and services.

ATIC was started at UAS, Bangalore during the year 1999 under the National Agriculture Technology Project (NATP) which is a single window system for agricultural information as well as products such as seeds, planting material, biofertilizers, nutrient mixtures,

value added products, bio-pesticides and other technologies developed by the University. In addition, a platform was created to allow optimistic interaction between farmers and Subject Matter Specialists for effective technology transfer and livelihood improvement. Thus, ATIC is functioning as a repository of agricultural information (Anon., 2019).

Indian Council of Agricultural Research is giving thrust to transform the agricultural technical know-how for increasing the productivity and to enhance the income. Recently, Government of India is giving much thrust to double the income of farmers through the adoption of the agricultural technologies. Therefore, providing advisory services becomes critical and vital to address both the productivity and doubling the income of famers. Among the several approaches, the ICAR is thriving hard to push these twin issues through Agricultural Technology Information Centre. Unless farmers know

the existence of ATIC and its activities, the purpose would not be served. Hence, a study was conducted to assess the knowledge level of the beneficiary farmers regarding the activities of Agricultural Technology Information Centre and to analyze the association between profile characteristics of beneficiary farmers with their knowledge towards Agricultural Technology Information Centre.

METHODOLOGY

The investigation was conducted during the year 2019 and an Ex-post facto research design was followed to assess the knowledge level of the beneficiary farmers regarding the activities of ATIC and to analyze the association between profile characteristics of beneficiary farmers with their knowledge level. The study was therefore carried out in involving ATIC, UAS, Bangalore. Ninety beneficiary farmers who visited ATIC during the last three years were selected purposively. Based on the objectives of the study interview schedule was prepared and the information was elicited from beneficiary farmers with the help of pre-tested interview schedule and the criteria to select the beneficiary was that he or she might have visited ATIC at least once during the last three years. In total, 18939 farmers have visited ATIC during the last three years. Later the collected data was analyzed by using frequencies, percentages, mean, standard deviation, chi square and regression analysis. To measure the knowledge level of beneficiary farmers, the knowledge test questions and answers were carefully framed in consultation with scientists of ATIC and Agricultural Extension. The answers obtained from the farmers for the knowledge test were quantified by giving a score of one and zero for correct and wrong answers respectively. Respondents were grouped in to low, medium and high categories, based on the total scores using mean and standard deviation as a measure of check.

RESULTS AND DISCUSSION

Overall knowledge level of beneficiary farmers regarding the activities of ATIC

The results presented in Table 1 revealed that, nearly half (42.22%) of the beneficiary farmers belonged to medium level of knowledge category, while nearly one

fourth (25.56%) of them belonged to low and the remaining 32.22 per cent of them belonged to high level of knowledge category. The reason might be that most of the beneficiary farmers had relatively high information seeking behavior and high scientific orientation which might have made them to visit ATIC more than once and hence the medium level of knowledge. The finding is in conformity with the findings of the studies conducted by Meena (2016), Shamshadunnisa (2017) and partially inline with the findings of Abdullah Faiz and Narayana Swamy (2012) & Gaikwad *et al.* (2013).

TABLE 1

Overall knowledge level of beneficiary farmers regarding the activities of ATIC (n=90)

Category	No.	%
Low (<16.97)	23	25.56
Medium (16.97-20.47)	38	42.22
High (>20.47)	29	32.22

Component wise knowledge level of beneficiary farmers regarding the activities of ATIC

The results depicted in Table 2 revealed that, a great majority of the beneficiary farmers (91.11%) possessed knowledge that ATIC provides consultancy services followed by 87.78 per cent of the beneficiary farmers who had correct knowledge with respect to areas of services provided by ATIC. Further more than three fourth of the beneficiary farmers (77.78%) had knowledge that ATIC sells recent varieties followed by 76.67 per cent beneficiary famers who had knowledge that ATIC provides readymade seed kits and very few of them had correct knowledge with respect to Agri portal service (16.67%), availability of feedback services (17.78%). More than 50 per cent of the farmers had correct knowledge with respect to availability of planting materials, bio-fertilizers and availability of literature related to agriculture & allied aspects.

Majority of the beneficiary farmers had knowledge with respect to consultancy services, areas of services provided by ATIC. The reason might be that majority

TABLE 2

Component wise knowledge level of beneficiary farmers regarding the activities of ATIC

(n=90)

Knowledge items	Knowledge	
	No.	%
I Inputs		
A) Seeds		
Availability of readymade seed kit	69	76.67
Availability of recent varieties	70	77.78
B) Fertilizers		
Availability of biofertilizers	45	50.00
Availability of farm manures	32	35.55
Availability of nutrient mixtures	30	33.33
C) Planting materials		
Availability of ornamental planting material	62	68.89
Availability of fruit plant sapling	54	60.00
Availability of medicinal planting material	49	54.44
Availability of flowering planting material	51	56.67
D) Farm implements		
Availability of farm implements	46	51.11
II Advisory services		
Areas of services provided by ATIC	79	87.78
Facility for diagnosing the infested plant	45	50.00
Availability of advisory services through phone calls	69	76.67
Availability of consultancy services	82	91.11
Availability of multidisciplinary team	60	66.67
Facility for diagnostic visit	39	43.33
Availability of literature related to agriculture and allied aspects in Kannada	51	56.67
III ICT		
Information/data base available in kiosk	43	47.78
Agri portal web address (e-krushiuasb.karnataka.gov.in)	15	16.67
Availability of WhatsApp group to quickly address farmers queries	31	34.44

Knowledge items	Knowledge	
	No.	%
Availability of CD related to agriculture and allied aspects	37	41.11
Need based video conference facility	18	20.00
IV Availability of value-added products	32	35.56
V Others		
Availability of feedback services provided by ATIC	16	17.78
Knowledge about mandate about ATIC	23	25.55
Knowledge about operational level of ATIC	24	26.67
Provision of training on request basis	16	17.78

of the beneficiary farmers belonged to medium category of information seeking behaviour (45.56%), extension contact (46.67%), achievement motivation (47.78%) and high category of scientific orientation (47.78%).

Association between profile characteristics of beneficiary farmers with their knowledge towards ATIC

The results indicated in Table 3 revealed that the characteristics of beneficiary farmers (independent variables) such as scientific orientation, achievement motivation, innovative proneness, extension contact had significant association with their knowledge level regarding the activities of ATIC at one per cent level of significance. Characteristics like farming experience, information seeking behaviour, extension participation, education, risk orientation, mass media exposure and cosmopoliteness had significant association at five per cent level of significance. The reason might be that farmers are educated and consult various sources for obtaining information related to crop production and allied activities during which time they might have come across the existence of ATIC and its activities. Similar findings were reported by Bar (2015) and Kaur & Garg (2017).

TABLE 3

Association between profile characteristics of beneficiary farmers and their knowledge regarding the activities of ATIC   (n=90)

Independent variables	Chi-square value	Contingency Co-efficient
Age	2.27 NS	0.15
Education	10.11 *	0.31
Family size	5.67 NS	0.24
Annual income	6.11 NS	0.25
Size of land holding	5.99 NS	0.24
Farming experience	9.86 *	0.31
Scientific orientation	22.67 **	0.44
Risk orientation	9.66 *	0.31
Achievement motivation	16.67 **	0.39
Innovative proneness	19.60 **	0.42
Cosmopoliteness	9.51 *	0.30
Mass media exposure	10.23 *	0.31
Extension agency contact	17.86 **	0.40
Extension participation	10.89 *	0.32
Information seeking behaviour	8.52 *	0.29
Distance from ATIC	4.66 NS	0.22

TABLE 4

Extent of contribution of characteristics of beneficiary farmers on knowledge regarding the activities of ATIC   (n=90)

Independent variables	Regression co-efficient (β)	Standard Error	't' value
Age	0.081	0.695	0.10
Education	0.296	0.897	0.12
Family size	0.193	1.105	0.34
Annual income	0.183	0.257	1.05
Size of Landholding	0.113	0.247	1.90
Farming experience	0.796	1.198	0.47
Scientific orientation	1.397	0.400	3.49 **
Risk orientation	0.632	0.897	1.70
Achievement motivation	0.494	1.122	0.82
Innovative proneness	0.389	0.776	0.93
Cosmopoliteness	1.386	0.398	2.98 **
Mass media exposure	0.121	0.175	1.36
Extension agency contact	0.315	0.558	0.63
Extension participation	0.362	0.558	0.631
Information Seeking Behaviour	0.783	0.335	2.37 *
Distance from ATIC	0.145	0.258	1.36

R^2 0.695
** Significant at 1 per cent level   * Significant at 5 per cent level
NS- Non-Significant

Extent of contribution of characteristics of beneficiary farmers on knowledge regarding the activities of ATIC

Data presented in the Table 4 revealed that, the variables like scientific orientation, information seeking behavior and cosmopoliteness had positive and significant relationship with their knowledge level regarding the activities of ATIC. However remaining variables indicated in the table did not show any significant relationship. The co-efficient of determination (R^2) of the independent variables was 0.695 meaning that 69.5 per cent of total variation in the knowledge was explained by the 16 selected independent variables put together. Hence, these variables could be considered as good predictors of knowledge level regarding the activities of ATIC. It also implied that there might be other variables contributing to the variation not included in the present study which would pave way for further probing.

Similar results were noted by Kavitha *et al.* (2014), Preethi *et al.* (2017) and Patel (2018).

More than one third of the beneficiary farmers belonged to medium knowledge category which means that majority of the beneficiary farmers still do not have complete knowledge regarding the overall activities of ATIC. It indicates that there is a scope to expand more approaches for increasing the knowledge level of farmers. Further, educational programmes about the activities of ATIC have to be strengthened. It was noticed that only few beneficiary farmers had knowledge with respect to agri-portal service and availability of feedback services. Hence there is a need to create awareness and enhance the knowledge about

the services of ATIC through workshops, interpersonal meetings and mass media. However, the results cannot be generalized since it is region specific and there is a need to conduct similar studies involving the established ATICs across the country.

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