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Colloquium II
Synopsis

"Farmer's Perception and Utilization of Services from Agricultural Technology Information Centre, UAS, Bangalore."

Introduction:

In the present scenario, where modern agricultural technologies are emerging quickly and the nation is moving forward with its goal of economic liberalization and privatization, there is a scope to think seriously about making information readily accessible at the doorstep of the farmers. The availability of improved varieties of cereals, oilseeds, pulses, breeds of livestock, including poultry and fisheries, horticultural plant materials, and improved management practices for increasing productivity, sustainability, and stability of various crops and livestock enterprises have served as the cornerstone of India's agricultural revolution. Farmers are now more interested in future seed, planting, and other material availability, simple access to diagnostic services for soil fertility and plant protection, availability of appropriate information through leaflets and pamphlets and increased scope in sale of consultancy services. Farmers frequently don't know who or where to turn for help with field issues (Yadav, 2005). The ICAR has therefore initiated ATIC as an innovation in technology dissemination process under NATP for increasing the overall productivity in agriculture while also taking into account the information, input, services and other needs of small and resource-poor farmers in agriculture and related fields.

The ATIC is a "Single Window" support system linking the various units of a research institution with intermediary users and end users (farmers) in decision-making and problem-solving exercise (Dass, 2002). There are total 44 Agricultural Technology Information Centers under ICAR and State Agricultural Universities. ATICs are created as part of NATP's Innovations in Technology Dissemination component to increase contact between researchers and technology users and go 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 and ICAR Institutes under NATP of ICAR, Agricultural Technology Information Centre at UAS, Bangalore came into existence in 1999.

Indian Council of Agricultural Research is giving more importance to transform the agricultural technologies to know how far increasing the productivity and to enhance the income. Recently Government of India is giving much importance to double the farmers income through the adoption of the new agricultural technologies. Therefore, providing advisory services becomes critical and vital to address both the productivity and doubling the farmers income. Among the several approaches, the ICAR is thriving hard to push these twin issues through Agricultural Technology Information Centre. Hence, the present investigation entitled "**Farmer's Perception and Utilization of Services from Agricultural Technology Information Centre, UAS, Bangalore**" was undertaken with following objectives:

Objectives of the study:

1. To know the profile characteristics of beneficiary farmers of ATIC.
2. To study the farmer's perception about ATIC services.
3. To study the extent of utilization of ATIC services by the farmers.
4. To study the relationship between the famers profile characteristics with perception and extent of utilization.
5. To document the constraints faced by farmers and suggestions to overcome them, in utilizing ATIC services.

Methodology:

Locale of the study: Agricultural Technology Information Centre, UAS, Bangalore.

Selection of Respondents: The study focusing on Agricultural Technology Information Centre, UAS-B was conducted during 2021-22. Ninety beneficiary farmers who utilized services from ATIC during 2021-22 were selected purposively to elicit the Perception and Utilization level of beneficiary farmers towards services of ATIC. Among ninety beneficiary farmers data was collected from the farmers who visit ATIC to purchase agricultural inputs (30), to get advisory services (30) and e-krishi portal visitors (30).

Research design: Ex-post facto research design was adopted

Collection of data: Data was collected using pre-tested interview schedule by personal interview method.

Variables considered for the study and their empirical measurement

Sl. No.	Variables	Empirical Measurement
A.	**Dependent variables**	
1	Perception	Schedule was developed for the study by Teacher made test
2	Extent of Utilization of ATIC services	Procedure followed by Manisha Pandey
B.	**Independent variables**	
1	Age	Chronological age completed in years
2	Education	Procedure followed by Ganesha (2013)
3	Family size	Procedure followed by Chitrashree Kannur (2019)
4	Size of land holding	Govt. of Karnataka land reforms Act 1966
5	Annual family income	Schedule was developed
6	Farming experience	Schedule was developed
7	Distance from ATIC, UAS-B	Procedure followed by Dhanraj with slight modification (2010)
8	Farm scientist contact	Procedure followed by Lakshminarayan (1998)
9	Number of visits to ATIC in a year	Procedure followed by Neelam Yadava (2005)
10	Achievement motivation	Procedure followed by Sushma (2007)
11	Cosmopoliteness	Scale developed by Chaudhari (2006)
12	Information seeking behaviour	Procedure followed by Chitrashree Kannur (2019)
13	Extension participation	Procedure followed by Hiremath (2000)

Statistical tools: Appropriate and suitable statistical tools like Mean, Frequency, Percentage, Standard Deviation, Correlation test were used for data analysis.

Salient findings

1. Nearly half (46.66%) belonged to middle age group followed by old age (27.78%) and young age (25.56%) group.

2. The majority (60.00%) of the farmers were educated up to graduation followed by PUC (15.56%), high school (14.44%), post graduate (6.66%), middle school (2.22%) and only 1.12 per cent were primary school.

3. More than half (56.66%) of the farmers belonged to medium level of family size followed by more than one third (37.78%) were belonged to small family size and only 5.56 per cent of the farmers belonged to large level of family size.

4. Nearly half (48.88%) of the farmers were big farmers in regard with size of land holdings followed by 25.56 per cent were marginal farmers and small farmers.

5. More than one third (38.88%) of the farmers were belonged to medium category of annual family income, followed by high (37.78%) and low (23.34%) categories.

6. With regard to farming experience, more than half (52.22%) of the farmers belonged to more farming experience category followed by less (27.78%) category and moderate (20.00 %) category.

7. More than one third (36.67%) of the farmers visits ATIC from less than 35 km followed by 34.45 from 35-75 km and 28.88 per cent from far distance that is more than 75 km.

8. Nearly half (42.22%) of the farmers had high level of farm scientist contact followed by 35.56 percent medium level and 22.22 percent had low level.

9. With regard to number of visits to ATIC in a year, majority (80.00%) of the input buyers had low level category followed by 14.44 per cent of medium level category and only 5.56 per cent were belonged to high level category.

10. Nearly half (43.33%) of the farmers belonged to medium level of achievement motivation category followed by high (32.22%) and low (24.45%) category.

11. Nearly half (44.44%) of the farmers belonged to medium level of cosmopoliteness category followed by high level (30.00%) and low level (25.56%) of cosmopoliteness categories.

12. With regard to information seeking behaviour, more than one third (36.67%) of the farmers belonged to medium level category followed by 34.45 per cent were high level and 28.88 per cent were low level category.

13. More than one third (38.89%) of the farmers belonged to medium level extension participation category and 33.33 per cent were belonged to high level and 27.78 per cent were belonged to low level category.
14. Nearly half (46.66%) of the input buyers had better perception followed by slightly less than one third (30.00%) had good perception and slightly less than one fourth (23.34%) of the input buyers had poor perception towards agricultural input services of ATIC.

15. More than one third (40.00%) of the advisory consultant farmers had good perception followed by one third (33.33%) belonged to poor perception and 26.67 per cent of the farmers had better perception towards consultancy services of ATIC.

16. More than one third (43.33%) of the e-krishi portal respondents had better perception followed by one third (33.33%) had good perception and 23.34 per cent had poor perception towards e-krishi portal services of ATIC.

17. More than one third (43.34%) of the input buyers of ATIC belonged to medium level of utilization followed by slightly less than one third (30.00%) belonged to low level and 26.66 per cent were belonged to high level of utilization of agricultural inputs of ATIC.

18. More than one third (40.00%) of advisory consultant farmers had low level of utilization followed by one third (33.33%) were belonged to high level and 26.67 per cent were belonged to medium level of utilization of consultancy service of ATIC.

19. Nearly half (46.67%) of the e-krishi portal visitors had low level of utilization followed by one third (33.33%) were belonged to high level and 20.00 per cent were belonged to medium level of utilization of e-krishi portal service category.

20. The findings of relationship between profile characteristics of input buyers with their perception towards ATIC services reveals that, the variables such as annual family income, farming experience and farm scientist contact had highly significant relationship at one percent level. While education, size of land holding, distance from ATIC, UAS-B, achievement motivation, information seeking behaviour and extension participation had significant relationship at five percent. Whereas age, family size, number of visits to ATIC in a year and cosmopoliteness were not having significant relationship.

21. The findings of relationship between profile characteristics of advisory consultant farmers with their perception towards ATIC services reveals that, the variables such as achievement motivation, information seeking behaviour and extension participation had highly significant relationship at one percent level. While education, size of land holding, annual family income, farming experience, distance from ATIC, UAS-B, farm scientist contact and cosmopoliteness had significant relationship at five percent level. Whereas age, family size and number of visits to ATIC in a year were non significant relationship.

22. The findings of relationship between profile characteristics of e-krishi portal respondents with their perception towards ATIC services reveals that, the variables such as education, achievement motivation and information seeking behaviour had highly significant relationship at one percent level. While age, cosmopoliteness and extension participation had significant relationship at five percent level. Whereas, family size, size of land holding, annual family income, farming experience, distance from ATIC, UAS-B, farm scientist contact and number of visits to ATIC in a year were non significant relationship.

23. The findings of relationship between profile characteristics of input buyers with their extent of utilization of ATIC services reveals that, the variables such as education, size of land holding, farm scientist contact, information seeking behaviour and extension participation had highly significant relationship at one percent. While annual family income and distance from ATIC, UAS-B, had significant relationship at five percent level. Whereas age, family size, farming experience, number of visits to ATIC in a year, achievement motivation and cosmopoliteness were not having significant relationship.

24. The findings of relationship between profile characteristics of advisory consultant farmers with their extent of utilization of ATIC services reveals that, the variables such as size of land holding, annual family income and farm scientist contact had highly significant relationship at one percent level. While education, farming experience, distance from ATIC UAS-B, information seeking behaviour and extension participation had significant relationship at five percent level. Whereas age, family size, number of visits to ATIC in a year, achievement motivation and cosmopoliteness were not having significant relationship.

25. The findings of relationship between profile characteristics of e-krishi portal respondents with their extent of utilization of ATIC services reveals that, the variables such as education, and information seeking behaviour had highly significant relationship at one percent level. While age, achievement motivation, cosmopoliteness and extension participation had significant relationship at five percent level. Whereas, family size, size of land holding, annual family income, farming experience, distance from ATIC, UAS-B, farm scientist contact and number of visits to ATIC in a year were not having significant relationship.

26. No provision for digital payments at ATIC ranked first (70.00%) and high cost of agricultural inputs was ranked second (53.33%) were major constraints faced by input buyers. Non-availability of subject matter specialist at the time of visit to ATIC ranked first (20.00%) was the major constraint faced by advisory consultant farmers. Lack of latest information in the portal ranked first (66.66%) and 36.66 per cent expressed web irresponsive/hang issues were major constraints faced by e-krishi portal respondents.

27. Digital payments should be made available at ATIC (70.00%) and agricultural inputs should be provided at reasonable rate (53.33%) were major suggestion expressed by input buyers. Visit of scientists to the farmers field should be more (56.66%) was the major suggestion given by the advisory consultant farmers. Latest information in the portal should be updated frequently (73.33%) and wide publicity of the portal should be done (60.00%) were major suggestions given by the e-krishi portal respondents.

Implications of the study

1. Majority of the beneficiary farmers belonged to better perception category which means that majority of the beneficiary farmers still do not have good perception regarding the services of ATIC. It indicates that there is a scope to expand more approaches for increasing the perception level of farmers. Further, services and activities of Agricultural Technology Information Centre have to be strengthened.

2. The study indicated that, majority of the beneficiaries of ATIC were belongs to low and medium level category of utilization of services. Hence, the centre may focus on organizing more number of awareness programmes on the availability of agricultural inputs and advisory consultancy services of ATIC.

3. As majority of the beneficiaries suggested that there is a need for wide publicity of UAS-B, e-krishi portal. Therefore, the centre can strengthen the links with other line departments so that more number of farmers can be reached.

4. Beneficiary farmers faced major constraints such as no provision for digital payments at ATIC, high cost of agricultural inputs, lack of latest information in the portal and Web irresponsive/hang issues of e-krishi portal. Hence, ATIC should consider these major constraints and efforts should be made to overcome these constraints.

Suggestions for future research

1. The present study was conducted on limited sample, so it can be conducted covering large sample to understand the farmers views about ATIC along with variables related to ATIC
2. Comparative study of ATICs of different locations can be conducted
3. An intensive study to find out the impact of the single window extension approach on farming community can also be conducted.