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Farmers' Exposure to Develop Communication Tools of Agriculture Information Service in Dinajpur, Bangladesh

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Abstract—The development communication tools (DCTs) of Agriculture Information Service (AIS) plays an important role in disseminating agricultural information. Farmers' exposure to these DCTs of AIS influences higher crop production and better farm management. The main purpose of this study was to determine and describe the exposure to DCTs of AIS by the farmers in receiving agricultural information. Polypragpur union under Birampur Upazila under Dinajpur district was selected as the study area. The study was conducted at each 5 villages of two unions under the above mention district during the period of 13th January, 2023 to 26th July, 2023. Data were collected from randomly selected 60 farmers from each of the study area by using a structured and pretested interview schedule through personal interview. Appropriate scales were used in order to measure the concerned variables. Pearson Product Moment Correlation Coefficient (r) was used to test the relationship between the independent and dependent variables. The farmers were exposed to 14 out of 14 DCTs of AIS in study area. However, majority (about 56.7%) of the respondents showed low exposure to DCTs of AIS. The respondents were highly exposed to Television program (score=203 stood 1st), while they were less exposed to ICT laboratory (score=46 stood 14th). Other important DCTs as highly exposed by the farmers were folder/leaflet/flipchart, agricultural fair and cinema/pramannochitro in the study area. And other DCTs as less exposed by the farmers were website, KCC and AIS-tube. In Dinajpur area among 13 selected characteristics of the respondents' level of education, family size, farm size, annual family income, extension media contact, organizational participation, cosmopoliteness, knowledge and attitude was positively and significantly correlated with the exposure to DCTs of AIS. The AIS authority could revise their policy for the improvement of DCTs on the basis of the findings from the current study.

Keywords: Farmers, Exposure, Development Communication Tools, Agriculture Information Service.

1. Introduction

Agriculture is the main source of revenue in Bangladesh and other underdeveloped countries (BBS, 2018). It accounts for 13.47% of the country's GDP and 40.62% of the labor force (BBS, 2020). However, in this most densely populated nation in the world, which is particularly susceptible to natural calamities, food security is a problem. Agriculture, the largest economic sector, is growing more and more information-sensitive every day. For agricultural development, information access has therefore become essential and a useful resource (Rodman, 2006).

The communication system used to carry out different agricultural programs has a significant impact on the success of increasing agricultural production, generating revenue and employment opportunities, and guaranteeing that the agricultural sub-sector fulfills its evident role in promoting rural and national development. Pulling rural residents out of their routines is crucial in order to raise awareness and prepare them for changes in behavior and attitude. It makes sense that mass communication offers a way to disseminate information more quickly and extensively than ever before (Neville, 1978). According to Schramm (1988), when discussing the role of mass media, "They have given the developing countries potential channels of information with which to reach fantastically large

audiences, to communicate with under-privileged masses, despite the literacy barrier, to teach different skills by 'showing how' they are done, to speak almost with the effectiveness of face-to-face communication." The possibilities and reality of mass media in emerging nations were also covered by Schramm. A third of the population is still illiterate, and around 75% of the population lives in rural areas. Agriculture is the main source of work for the great majority of our population. The amount of land accessible for agriculture is either decreasing or nearly constant in our nation.

Agricultural technology has changed significantly over time. In addition to adopting contemporary technology and techniques made available by specialists and scientists, the farmers have created their own innovations and gained knowledge from one another's experiences. To meet the needs of the quickly expanding population of today, the outdated approach is insufficient. Thus, technical transformation includes modifications to research, supply, and marketing organizations, farming methods, storage technologies, and material inputs. Nonetheless, the information flow is entwined with these activities.

There are differing views on what communication can and cannot do, despite the fact that it is generally accepted that communication is important in agriculture and development. Since Luis (1975) maintained that communication is essential to a country's growth but that it is merely an instrument, the mass media's role as a "magic multiplier" cannot be taken for granted. Despite its might, it is not magic and cannot produce progress on its own. To get improved agricultural technologies to the final consumers, extension agencies use a variety of mediums. According to Okwu and Daudu (2011), farmers' communication tools are crucial components for the successful transfer of innovations intended to increase agricultural productivity.

Farmers must first get access to this technology and learn how to apply them efficiently in agricultural systems and practices before they can reap the benefits. Global agricultural extension organizations ought to handle this. In general, communication methods are helpful for quickly reaching a large audience while disseminating agricultural information. They give farmers access to agricultural information and a means of communicating with them about emergencies and new developments. They might also play a significant role in igniting farmers' curiosity in novel concepts and methods (Ani *et al.,* 1997). According to Obinne *et al.* (2000), the mass media accomplishes this by establishing the agenda for significant conversation points, disseminating information, creating and modifying ideas, and changing opinions and changing behaviors. According to Nwachukwu (2003), the media is also seen to raise awareness and spread a personal value system that supports innovations, mobility, achievement, and consumption. Accordingly, extension is a communication processes that links and exchanges information between different stakeholders and participants in order to promote sustainable agricultural growth (Ani, 2007). Information and technology are being transferred from a research system to the client system in Bangladesh by the Department of Agricultural Extension and a few other government and nongovernmental organizations. Agricultural radio and television programs, progressive and contact farmers, local and opinion leaders, field tours, field days, and demonstrations of methods or results are just a few of the extension methods that extension staff use.

According to the current government's election promise, "Digital Bangladesh" is the goal of Vision 2041, which acknowledges ICT as a mainstream development instrument that may improve the economic and social standing of Bangladeshi citizens. Bangladesh is in a good position to begin utilizing ICT for agricultural extension in an efficient manner. Of particular note is the ongoing modification of the National Agricultural Extension Policy. In contrast to the 1996 original, e-agriculture is now included as one of the policy's nine guiding principles. Enhancing Public-Private Partnerships in Extension, strengthening the link between farmers and research extension, and creating a one-stop-shop approach with Farmers' Information and Advice Centers (FIAC), which ought to be situated at each Union Parishad, are all part of the policy.

Furthermore, the Prime Minister’s Office is spearheading the Digital Bangladesh concept, to link up each Union Parishad by internet to give better access to information and services (Nasiruddin, 2011). Many informative agricultural programes are broadcast through radio and public and private channels of television in Bangladesh. Mati o Manush, Banglar Krishi, Krishi Dibanishi, Bangladesh Krishi, SAARC Krishi, Hridoye Mati o Manush, Hridoye Mati o Manusher Dak, Fire Cholo Matir Tane, Shamol Bangla, Shabuj Bangla, Dipto Krishi, Matir Shubash, Shonali Din, Krishi Jog, Khamarbari etc. are broadcast on television. Desh Amar, Mati Amar, Krishi Samachar, Chashabad, Amar Desh, Shonali Fasal, Krishikatha etc. are broadcast on radio (DAE, 2016).

Alongside national and regional news, agricultural news is also aired. Bangladesh Betar, FM radio, and community radio are the three types of radio transmission that are now available in Bangladesh (DAE, 2016). There are seventeen community radio programs across the nation (DAE, 2016). "My Radio My Voice" is the slogan of the community radio station that was founded in Amtali, Barguna, and is devoted to airing agricultural programs (AIS, 2018). In order to raise awareness of improved technology among a large number of people in a short period of time and to encourage general motivation for agricultural and rural development in the area, the Department of Agricultural Extension and other agricultural government organizations typically organize agricultural fairs.

A committed staff at AIS prepares a large portion of the agricultural programming that airs on national TV and radio. AIS just began creating content in local languages for community and regional radio stations. Since they are new projects, the impact cannot yet be evaluated. Connecting directly with farmers through ICT text-based solutions like SMS or web-based written material is severely hampered by the low literacy rate, especially among the rural people (72%, CIA Website). Organizations that use ICT for extension know that using knowledgeable middlemen, like extension workers, may be the most effective way to implement text-based solutions. Direct communication with farmers, whether by audio or video, may be more successful.

The main issues facing extension, not only in Bangladesh, are how to:

- Strengthen the connection between research and extension;
- Make research and extension more sensitive to farmers' needs and priorities;
- Improve the connection between farmers and extension;
- provide more site technical/production Information regarding more diverse production systems (plant, animal, and fish based) for heterogeneous agro-ecological conditions; and
- Better integrate farmers into markets by providing market-related information such as prices in various local and national markets, market need, and market quality requirements like size, taste, color, hygiene, etc. (Afrad *et al.,* 2019).

The type and degree to which mass media is used to mobilize people for development is a major factor in the success of agricultural development initiatives in developing nations. The best media for communicating scientific knowledge to the general public are the press, radio, television, internet, mobile devices, and more (Nazari and Hassan, 2011). The choice of communication media is crucial in a nation with low literacy rates like Bangladesh. For the extension of development communication tools to be successful, it must fulfill a minimum of three requirements.

- Cost Effectiveness: Expanding access to the most information at the lowest feasible cost will be the aim.
- User-Friendliness: It is anticipated that the extension agents and farmers who would be the primary users of these technologies will be proficient users rather than ICT experts. It's also important to take into account the high rates of illiteracy and the usage of the Bangla language.
- Adaptation to Local Conditions: The requirement for phone and internet network connectivity, the risk of power surges, and the limited supply of electricity are some of the limitations.

The Ministry of Agriculture (MoA), Government of Bangladesh, is home to the Agriculture Information Service (AIS). This organization's primary goal is to provide farmers with up-to-date agricultural technologies and information at the grassroots level, particularly through the media. With the goal of "making available the modern agricultural information services," it was founded in 1961 as the Agriculture Information Agency and changed its name to the Agriculture Information Service in 1985. Eleven regional offices nationwide and the headquarters in Dhaka provide information services (AIS, 2018).

AIS serve as the Ministry of Agriculture's media hub for mass media campaigns pertaining to agricultural development. Producing and distributing demand-driven print and video products for the MoA and its agencies is a proud responsibility of AIS. According to AIS (1985), the organization's goal is to "create awareness by making agricultural information and technologies available using print, electronic, and ICT based mass media." In essence, the Agriculture Information Service gathers agricultural data from academic institutions, research, extension, and

other knowledge centers, transforms it in a way that farmers can understand, and then distributes it via various public media. To spread knowledge among farmers, a variety of development communication technologies are available.

Print, electronic, and ICT media are the three categories into which AIS's development communication tools fall. AIS are delighted to have contributed to the agricultural achievements of the current government's final years. AIS are adamant about continuing its work along the current government's development route in order to realize Bangabandhu Sheikh Mujibur Rahman's objective of creating "Golden Bangladesh" (AIS, 2018). Krishi katha, Krishi Diary, irregular publications, radio, television, agricultural news, agricultural video film, pramannochitro, agricultural training, the AIS website (www.ais.gov.bd), the ICT lab, the Agricultural Information and Communication Center (AICC), Community Rural Radio, Krishi Call Center (KCC), mobile apps, and the distribution of printed materials are just a few of the program/development tools that the AIS offers farmers. Islam (2019) investigated how farmers were exposed to the AIS Krishi Call Center. In addition to Ahmed (1994), studies on the effectiveness and exposure to agricultural programs broadcast on AIS and other satellite channels via radio and television were carried out by Shaikh *et al.* (2010), Hossain *et al.* (2012), and Amin et al. (2013a, 2013b, 2014a, 2014b). Given the coherence of their findings, it is now necessary to investigate how farmers are exposed to the various development communication programs and instruments provided by Bangladesh's Agriculture Information Service (AIS).

2. Methodology

Polypragpur union under Birampur Upazila under Dinajpur district was selected as the study area. The study was conducted at 5 villages of the union under the above mention district during period of 13th January, 2023 to 26th July, 2023. The name of the villages from Polyprayagpur union under Birampur Upazila is Chakharidas pur, Chakbosonto, Jotjoyram, Shaha para and Chaudhury para. The farmers of the study area who were exposed to DCTs of AIS were treated as population of this study. Sixty farmers were selected by accidental sampling method which constituted the sample for the study. The distribution of the sample farmers from the selected villages are shown in Table 2.1 and the map of the study area is shown in figure 2.1.

Table 2.1: Distribution of Sample Population of the Farmers from Polyprayagpur Union of Birampur Upazila under Dinajpur district

Name of Union	Name of Villages	Sampled Respondents
Polyprayagpur	Chakharidas pur	12
Polyprayagpur	Chakbosonto	10
Polyprayagpur	Jotjoyram	10
Polyprayagpur	Shaha para	15
Polyprayagpur	Chaudhury para	13
Total = 60		

To measure the exposure of DCTs a 5-point rating scales were used such as regularly, often, sometimes, rarely and not at all. A score of 4, 3, 2, 1 and 0 were assigned against the rating scales respectively (Table 2.2). The exposure score of a respondent was calculated by all the score obtained by his/her against the selected 14 DCTs of AIS.

Table 2.2. Scale of exposure to the DCTs of AIS of the respondents

Scale (Score)	Explanation
Regularly (4)	If the farmers are exposed to DCTs as regularly
Often (3)	If the farmers are exposed often to DCT
Occasionally (2)	If the farmers are exposed to DCTs as and when necessary
Rarely (1)	If the farmers are exposed very casually to DCTs
Not at all (0)	If the farmer does not expose to DCTs

The exposure score of a respondent could range from '0' to '56' where '0' indicates very low exposure and '56' indicates high exposure towards DCTs of AIS. Based on exposure score, the respondents were grouped into following categories as shown in Table 2.3.

Table 2.3. Categories of the respondents based on their Exposure to DCTs of AIS

Categories	Score
Very low exposure	1-14
Low exposure	15-28
Medium exposure	29-42
High exposure	>42

To compare the level of exposure of 14 DCTs of AIS exposure index (EI) was calculated by using the following formula:

$$(\%)\ EI = \frac{\text{Obtained EI Scores}}{\text{Highest Possible EI Scores}} \times 100$$

EI Score = $N_{re}\times4 + N_{of}\times3 + N_{oc}\times2 + N_{ra}\times1 + N_{na} \times 0$

Where, EI= Exposure Index

N_{re} = No. of the respondents exposed to DCTs of AIS regularly

N_{of}= No. of the respondents exposed to DCTs of AIS often

N_{oc}= No. of the respondents exposed to DCTs of AIS occasionally

N_{ra}= No. of the respondents exposed to DCTs of AIS rarely

N_{na}= No. of the respondents not at all exposed to DCTs of AIS

As there were 60 respondents, so Exposure Index (EI) score could range from 0 to 240. Where '0' indicates no exposure and '240' indicates high/ regular exposure. Based on EI score, DCTs of AIS were ranked to compare the level of exposure by the respondents**.**

Figure 2.1 Map of the Birampur Upazila Showing Study Area

After completion of field survey all the data of the interview schedule were compiled. Local units were converted into standard unit. Appropriate coding and scoring technique were followed to convert the qualitative data into quantitative forms. Statistical measure such as number, percentage, range, rank order, mean and standard deviation were used in describing the independent and dependent variables of the study. For clarity of understanding tables were used to present the data. For exploring the relationships between the selected characteristics of the respondents and their exposure to DCTs of AIS Pearson Product Moment Correlation Coefficient (r) was computed. Data were analyzed by using software named SPSS version 25^{+}.

3. Results and Discussion

3.1 Identification of Development Communication Tools Exposure by the Farmers

The farmers of the study exposed different extent towards of 14 DCTs AIS in study area (Figure 3.1). However, the farmers of the study area were highly exposed to television program (score=203), while they were less exposed to ICT labratory (score=46). Other the development communication tools as exposed by the farmers of Dinajpur area were; poster/sticker (score 198), folder/leaflet/flipchart (score=175), cinema/ pramannochitro (score=165) and krishi mela (score=154).

It is implied that most of the agricultural information reached to the farmers by poster/sticker and folder/leaflet/flipchart in both of the area. Because it could easily attract farmers about latest news of the farming without any cost incurred by the farmers whereas other DCTs require a minimum cost at least. Due to the technological advancement all over the country television takes the position of radio. So, radio programs are not doing well in dissemination of agricultural news.

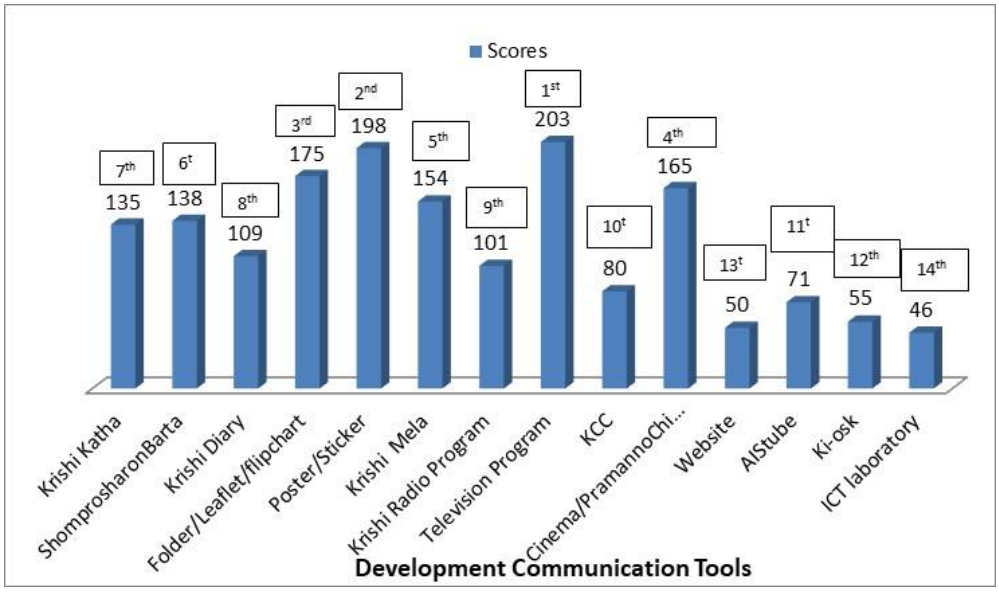

Figure 3.1 Graphical Representation of Development Communication Tools Index of AIS of the Farmers of Dinajpur

On the other hand, television program "*Banglar Krishi*" and "*Mati-O-Manush*" are also popular program among the farmers for getting new agricultural information. Majority of the farmers participate in the agricultural fairs organized by DAE with the collaboration of AIS which are held every year at upazila level. Most of the farmers in this area are not highly educated and belonged to low-income group. So, they are not well exposed to the *Kris Katha*, *Shomprosharon Barta* and *Krishi* Diary. Farmers are not well trained to use internet. So they cannot use website and AisTube to get agricultural information at the time of their need. Educated and trained farmers are well exposed to the *Krishi* Call Centre. According to their need they can get any help from *Krishi* Call Centre at any time. There are 11 ICT laboratories by AIS in this country. Farmers need to come to the city to use ICT lab for training which hindered them to expose in ICT laboratory more frequently. The researcher also found that farmers have much interest on agriculture related cinemas which is showed by AIS.

3.2 Farmers Extent of Exposure to DCTs of AIS

In study area, the exposure scores of the respondents ranged from 20-43 with a mean of 28.00 and standard deviation of 4.96. The distribution of farmers according to their extent of exposure towards DCTs of AIS is shown in Table 3.1.

Table 3.1 Distribution of respondents according to their exposure to DCTs of AIS in Dinajpur

Categories	Scores	Respondents (N=60)		Range		Mean	SD
		Number	Percentage	Min	Max		
Very low exposure	1-14	0	0	20	43	28.00	4.96
Low exposure	15-28	34	56.7				
Medium exposure	29-42	25	42.7				
High exposure	>42	1	1.7				
Total		60	100				

Data presented in Table 3.1 show that more than half of the respondents expressed low exposure whereas almost half of the respondents showed medium exposure towards DCTs of AIS**.**

3.3 Selected Characteristics of the Respondents

Thirteen characteristics of the farmer were selected to find out their relationship with the exposure to DCTs of AIS. The selected characteristics included age, level of education, family size, farm size, occupation, annual family income, farming experience, extension media contact, organizational participation, training exposure, cosmopoliteness, knowledge, and attitude of the respondents about DCTs tools of AIS. A summary of these characteristics of the farmers have been presented in Table 3.2.

Table 3.2 Salient features of the selected characteristics of the respondent of the Study Area (N=60)

SL. No.	Selected Characteristics	Unit of measurement	Possible range	Observed range	Mean	SD
1.	Age	Year	Unknown	20-66	41.20	10.01
2.	Level of Education	Year of schooling	Unknown	1-12	3.56	3.51
3.	Family size	No. of persons	Unknown	3-12	5.97	1.74
4.	Farm Size	Hectare	Unknown	0.20-5.0	1.25	1.89
5.	Occupation	Types of job	Score	1-4	1.63	0.96
6.	Annual family income	'ooo' taka	Unknown	21-321	77.02	69.91
7.	Farming Experience	Year	Unknown	3-32	14.68	6.10
8.	Extension Media Contact	Score	0-36	5-32	17.20	7.52
9.	Organizational Participation	Score	0-21	3-18	9.20	4.46
10.	Cosmopoliteness	Score	0-24	5-20	10.85	4.68
11.	Training Exposure	Yes/No	1/2	1 -2	1.35	0.48
12.	Knowledge about DCTs	Score	0-40	7-37	20.28	7.59
13.	Attitude	Score	26-130	39-89	53.92	9.76

Data indicate that about half of the respondents fall in the middle-aged category compared to young aged and old aged in the study area. Majority of the respondents had primary level of education. Data demonstrate that majority of the farmers belonged to the medium sized family. The findings revealed that majority of the farmers' possessed medium sized farm. The results of occupation in study area indicate that majority of the respondents who were exclusively involved in farming. Data indicated that the majority of the respondents belonged to low-income group. Data demonstrate that maximum respondents were low experienced. Data shows that majority of the farmers in Dinajpur district had medium extension contact. Data revealed that most of the respondents were belonged to medium organizational participation.

Data demonstrates that majority of the respondents showed low cosmopolitanism. Data shows that most of the farmers had no received any training while some received training on agricultural aspects. Data shows that majority of the respondents had low to medium knowledge about DCTs of AIS. The data emphasize that most of the respondents showed neutral attitude towards DCTs of AIS compared to favorable attitude and highly favorable attitude towards DCTs of AIS.

3.4 Relationship between the characteristics of the respondents and their Exposure to DCTs of AIS

Coefficient of correlation was computed by the Pearson Product Moment Correlation Coefficient (r) in order to explore the relationship between the selected characteristics of the respondents and their exposure DCTs of AIS. The selected characteristics of the farmers constituted independent variables and exposure to DCTs of AIS constituted the dependent variable of the study. In this section relationships between thirteen selected characteristics (independent variables) of the respondents and farmers' exposure (dependent variables) to DCTs of AIS have been described.

Table 3.3 Relationship between the selected characteristics of the farmers and their exposure to DCTs of AIS in the study area

Dependent Variable	Independent Variables	Correlation co-efficient "r" values with 58 df	Tabulated Values of "r"	
			At 0.05 level	At 0.01 level
Farmers' Exposure to Development Communication Tools of AIS	1. Age	-0.203^{NS}	0.250	0.325
	2. Level of education	0.553**		
	3. Family size	0.280*		
	4. Farm size	0.373*		
	5. Occupation	-0.004^{NS}		
	6. Annual family income	0.630**		
	7. Farming experience	0.061 ^{NS}		
	8. Extension media contact	0.698**		
	9. Organizational participation	0.732**		
	10. Cosmopoliteness	0.781**		
	11. Training exposure	0.235^{NS}		
	12. Knowledge	0.675**		
	13. Attitude	0.647**		

Source: Author`s calculation, 2023

NS= non-significant; **. Correlation is significant at the 0.01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed).

Pearson Product Moment Correlation Coefficient (r) has been used to test the hypothesis concerning the relationship between two variables. Five percent and one percent level of significance were used as the basis for rejection and acceptance of a hypothesis. The tabulated value of "r" was calculated at (60-2) = 58 degrees of freedom. The summary of the results of the co-efficient of correlation indicating the relationships between the selected characteristics of the respondents and their exposure to DCTs of AIS has been shown in Table 3.3.

Table 3.3 revealed that level of education, family size, farm size, annual family income, extension media contact, organizational participation, cosmopoliteness, knowledge and attitude was positively correlated with the exposure to AIS development communication tools. However, age, occupation, farming experience and training exposure of farmers having non-significant relationship with the DCTs of AIS in the study area.

3.5 Aspects wise attitude of the farmers of Dinajpur towards exposure to DCTs of AIS

Farmers' attitude towards DCTs is one of the major factors which influence them in exposure to DCTs of AIS. In the study area, identified 26 different aspects of attitude towards DCTs is one of the major factors which influence them in exposure to DCTs of AIS were ranked individually in an order list on the basis of individual attitude Index (AI) score. The AI score of individual aspect ranged from 82 to 255 against a possible range of 0 to 300. However, individual Attitude Index (AI)) of Dinajpur district is presented in Table 3.4.

Table 3.4 Rank order of the Farmers' Attitude towards DCTs of AIS according to Attitude Index (AI) of the Study Area

SL No	Statements	Extent of Attitude					AI	RO
		SA (5)	A (4)	Un (3)	DA (2)	SDA (1)		
1.	All agricultural problems of the farmers are solved by DCTs of AIS	0	5	0	12	43	87	20th
2.	"Krishi katha" provide useful information to thefarmers	4	8	14	13	21	141	9th
3	"Shomprosharon Barta" has all the agricultural news	1	4	5	28	22	114	14th
4.	Price of "Krishi Katha"and "Shomprosharon Barta" is high	2	3	3	23	29	106	15th
5	"Krishi Diary" has all the farming information	1	3	3	18	35	97	17th
6.	"Krishi diary" is costly	4	0	5	18	33	104	16th
7.	Folder/Leaflet/flipchart provides information of new technology in farming	16	16	20	8	0	220	1st
8.	Poster/Sticker provide ideas of new agricultural news	14	10	24	12	0	206	2nd
9.	"Krishi Mela" motivates farmer to gather new farming technique	17	9	18	12	4	203	3rd
10.	"Shamol Sylhet"/ Khete Khamare program provides useful information	9	7	4	18	22	143	8th
11.	"Ajker Chashabad"/ Krishi somachar program helps farmers to get knowledge about new farm technology	7	14	9	19	11	167	6th
12.	Experts in these program are well acknowledged about the problem	12	8	6	11	23	155	7th

13.	The schedule of telecasting "Shamol Sylhet" and " Ajker Chashabad" program in Bangladesh Betar is in comfortable time	10	3	22	23	2	176	5th
14.	"Banglar Krishi" and "Mati o Manush" program in BTV is a source of new information about agriculture for farmers	4	3	12	18	23	127	11th
15.	The timing of telecast and re-telecast "Mati o Manush" and "Banglar Krishi" in BTV is good	3	12	4	20	21	136	10th
16.	Experts' advice make the farmers enterprise activities productive	1	2	15	19	23	119	12th
17.	AICC is useful to watch cinema/ pramannochitro	1	1	6	15	37	94	18th
18.	KCC provide first-hand information about queries	3	0	1	15	41	89	19th
19.	Literate and illiterate both farmers can get help from KCC easily	0	0	3	13	44	79	22th
20.	AIS club technical officers are helpful	0	0	3	5	52	71	24th
21.	Cinema/ "Pramannochitro" is related to latest agricultural farming system	7	13	25	15	0	192	4th
22.	AIS website is a resourceful website	0	0	1	22	37	84	21th
23.	AIS-tube videos helpful to find any agriculture related solution	0	0	0	5	55	65	26th
24.	Ki-Osk is user-friendly to search any agriculture information	0	0	0	7	53	67	25th
25.	ICT laboratory provides adequate training of new farm technology	0	0	0	16	44	76	23th
26.	Regular attending in training program update agricultural knowledge	1	5	9	20	25	117	13th

*SA= Strongly Agree, A=Agree, Un= Undecided, DA= Disagree, SDA= Strongly Disagree, AI=Attitude Index, RO= Rank Order

4. Conclusions

The purpose of this study was to investigate the AIS beneficiaries and the contribution of AIS to agricultural trending knowledge. Despite being exposed to 14 AIS DCTs, the bulk of the study's farmers (about 56.7%) had little exposure to DCTs because of the DCTs' unavailability and unpopularity as well as their poor educational attainment. According to the correlation results, the farmers' exposure to DCTs of AIS in the research area was influenced by awareness, organizational involvement, attitude, education, contact with extension media, training exposure, and yearly income. To promote the receipt of agricultural information through AIS DCTs, extension professionals should appropriately focus on farmers across all categories. The Department of Agricultural Information Service (AIS) must focus more on ensuring that farmers are using AIS DCTs. According to several DCTs, the spread of agricultural innovation appeared to be significantly influenced by media, agricultural fairs, and posters/stickers in particular.

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