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EVALUATING THE ROLE OF AGRICULTURAL TELEVISION PROGRAMS IN ENHANCING FARMER KNOWLEDGE AND PRACTICES

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ABSTRACT

The purpose of this research is to assess how agricultural television shows in Bangladesh's Gurudaspur upazila in the Natore district have improved farmer practices and knowledge. The study evaluates the effects of these initiatives on farmers' agricultural practices and knowledge by conducting structured interviews with 100 farmers from randomly chosen communities. The research uses an extensive methodology that includes a planned interview schedule and several variables to quantify the characteristics of farmers, including age, income, farming experience, education, and attitude toward TV shows. A 4-point grading system was used to assess the efficacy of agricultural TV shows, and an Effectiveness Index (EI) was created to evaluate the various kinds of information that these shows delivered.

Results show that there are considerable differences in the efficiency of agricultural TV shows in distributing various kinds of agricultural information. Education level, agricultural expertise, attitude toward TV shows, inventiveness, and affluence are important elements affecting perceived effectiveness. The findings show that the perceived efficacy of these initiatives is positively connected with increased educational attainment, agricultural expertise, and innovativeness. According to the research, certain forms of information are more successful than others, including enhanced tree-planting technology. Examples of these sorts of information include household vegetable farming and animal raising. These observations highlight how important agricultural television content is for filling information gaps and encouraging farmers to use optimal practices. The study emphasises how crucial it is to modify TV show material to suit the various demands of farmers to have the greatest possible influence.

1. Introduction

Bangladesh's economy is based mostly on agriculture, with 85% of the people living in rural regions where farming and associated activities constitute the main source of income (Salam and Bauer 2022). Bangladesh's agriculture is mostly traditional, despite its crucial role in its failure to provide food security for its huge and expanding population. The poor productivity in this industry highlights the pressing need for adopting contemporary agricultural technology, which, if successfully distributed to farmers—the main users of these innovations—can greatly increase output (Khan et al. 2022).

Mass communication is essential to close the knowledge gap between rural people and agricultural research. Since television is a widely available medium, it is useful for agricultural extension (Kanak Pervez et al., 2015). It can transcend geographic and educational boundaries, catering to a varied viewership with visual and aural learning functions (Sanusi and Onijamowo 2023). It is often known that television plays a crucial role in the early phases of technology adoption, especially in terms of creating interest and increasing awareness. Television shows may encourage and assist farmers using contemporary methods by simplifying complicated agricultural processes into an easily understood style.

Television usage in rural Bangladeshi families has increased significantly, helped by the advent of battery-operated TV sets that lessen the problems associated with erratic energy supplies. Recognizing television's important role in the country's growth, the Bangladeshi government has included many educational initiatives in state-run broadcasts (Alam et al., 2023). These programs cover public health, family planning, and agriculture; agricultural material is given special attention because of its direct bearing on food security and rural development (Mokgomo, Chagwiza, and Tshilowa 2022).

Well-known agricultural television shows in Bangladesh, including Hridoye Mati-O-Manush (Channel I), Krishi Dibanishi (BTV), Shyamol Bangla (Bangla Vision), and Mati-O-Manush (BTV), are intended to teach farmers about contemporary farming techniques. The selection of relevant material, timeliness, sufficiency, and practical application are crucial variables influencing the efficacy of these programs, which play a crucial role in the transmission of agricultural production technologies (Mgendi, Mao, and Qiao 2021). Despite their broad availability and potential impact, there has been little study on the efficacy of these programs in changing farmer behavior and raising agricultural output.

By assessing how well agricultural television shows teach farmers in Bangladesh, this research seeks to close this knowledge gap. It aims to comprehend how farmers see the efficacy of these initiatives, pinpoint the traits that affect farmers' assimilation of knowledge, and investigate the connections between these traits and the perceived efficacy of the initiatives. The results of this research will provide important new information on how television may be used to promote agriculture and how it affects the level of farming knowledge and techniques in Bangladesh's rural areas (Uddin et al., 2024).

2. Review of literature

The research on agricultural television's efficacy emphasizes how important it is to provide farmers with information. According to recent research, shows like Krishi Darshan and Mati-O-Manush have had a significant influence on farmers' adoption of contemporary agricultural methods, as shown by their favorable effects on viewers' knowledge and behavior (Ahmad 2023). The Department of Agricultural Extension still favors using television and other mass media as a major element of their extension campaigns. The association between farmers' attributes—like level of education, wealth, and

farm size—and how successful they believe these initiatives to be varies. Age and farming experience yield contradictory results, suggesting that the impact of agricultural TV programs may be tempered by contextual and individual factors, even though education and income levels tend to increase the perceived usefulness of such programs (Steinke et al. 2021). All things considered, television is still a crucial instrument for agricultural extension (Spielman et al. 2021). However, the farmers' socioeconomic and demographic characteristics affect how successful it is.

3. Methodology

The methods and procedures used in conducting research need very careful consideration. The methodology should enable the researcher to collect and analyze valid information properly to make correct decisions. This chapter describes the methods and procedures used in conducting this research.

3.1. Study Area

Gurudaspur upazila of Natore district was purposively selected as the study area. Three villages of Gurudaspur upazila, namely Uttar Nari Bari, Narayonpur, and Hamlaykul, were chosen randomly for the study. The vast majority of the farmers of these villages are mainly dependent on agriculture; a very few are service holders and businessmen. The researcher conducted in-person interviews to gather data for this study between July 1 and August 15, 2021.

3.2. Population and Sampling Procedure

All the television-viewing farmers of the selected villages constituted the study population. For this purpose, an up-to-date list of the farmers was prepared with the help of Sub Assistant Agriculture Officers of the study area. The total number of television-viewing farmers in the selected three villages was 200. Fifty percent of the farmers were selected as the sample following a proportionately random sampling method. Thus, 100 farmers were selected as a sample of the study. In addition, a reserve list of 10 farmers was selected for collecting data in case of unavailability of the farmers of the sample. The distribution of the population sample farmers and those in the reserve list from the selected villages is shown in Table 1.

Table 1. Study area, population, sample size, and reserve list size

Sl. No.	Name of village	Total number of TV viewers	Sample size	Reserve list
1	Uttar Nari Bari	80	40	4
2	Narayonpur	60	30	3
3	Hamlaykul	60	30	3
Total		200	100	10

3.3. Research Instrument for Data Collection

A structured interview schedule was prepared to consider the objectives of the study and collect relevant information. The schedule was prepared in Bengali for a clear understanding of the respondents. The schedule obtained both closed and open-ended questions. Questions were included in the schedule to collect data on the selected dependent and independent variables. Appropriate scales were developed to operationalize some selected characteristics of the farmers and the dependent variable.

ndent variable.

The interview schedule was presented to ten farmers in an actual field situation before data collection was finalized. Based on the pretest experience, necessary corrections, modifications, alternations, and rearrangements were made to the schedule. The schedule was then cyclostyled in its final form for data collection.

3.4. Selection of Variables

A variable is any characteristic that can assume varying or different values in successive individual cases (Shrestha 2020). Organized research usually contains at least two important variables: independent and dependent. An independent variable is a factor the researcher manipulates to ascertain its relationship to an observed phenomenon. A dependent variable is a factor that appears, disappears, or varies as the researcher introduces, removes, or varies the dependent variables. In scientific research, selecting and measuring variables constitute a significant task. In this connection, the researcher reviewed the literature to widen his understanding of the nature and scope of the variables relevant to this research. She also discussed with departmental teachers and concerned researchers of the related fields. Ultimately, ten characteristics of the respondents were selected as the independent variables, and the effectiveness of agriculture-related television programs as perceived by the respondents was chosen as the dependent variable.

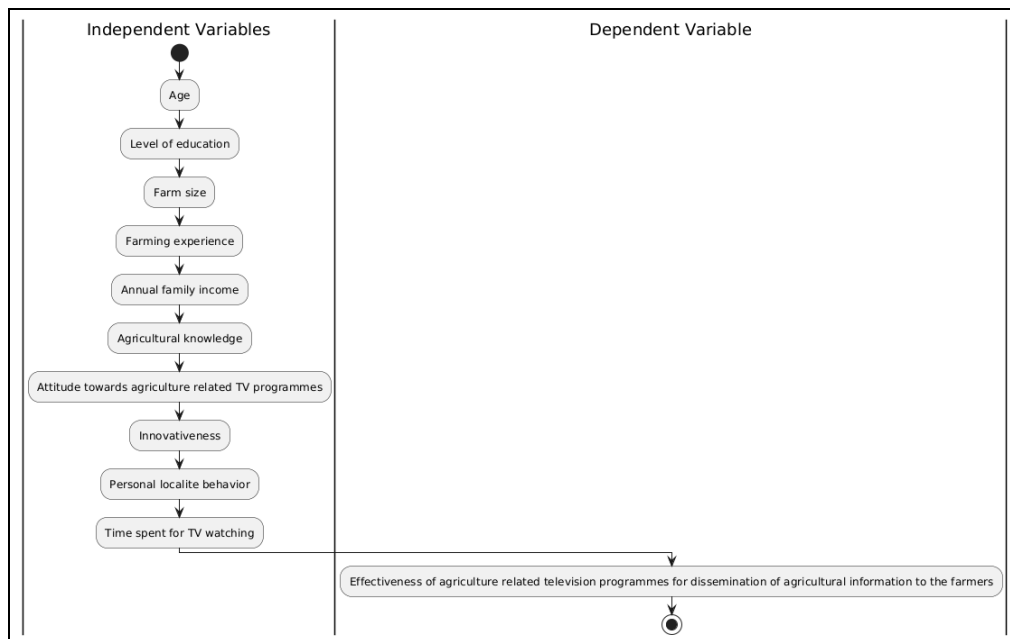


Figure 1. Conceptual framework of the study

3.5. Measurements of the Independent Variables

A range of techniques were used to assess the independent variables in this research to capture essential traits of the farmers. The years from the farmer's birth to the interview time were used to calculate their age. The years of formal education completed were used to measure education level; those who could only write their name received a score of 0.5. The whole land area under the farmer's control—including homestead land, land under cultivation, land donated or taken on barga (sharecropping), and property leased from others—was used to determine the size of the farm. The length of time a farmer has been involved in farming was used to measure their level of farming experience. The farmer and his family's combined annual revenue from all sources was added, and each thousand taka gained was given one score. This allowed for the measurement of annual family income.

The farmer's answers to 12 questions covering a range of agricultural issues were used to assess their level of farming knowledge. The correctness of the answers might result in a score of 0 to 24. A 12-state Likert-type scale was used to assess attitudes towards TV shows on agriculture. The scores indicated the degree of agreement or disagreement and ranged from 0 to 48. The farmer's adoption of seven enhanced agricultural practices served as a proxy for innovativeness, and scores ranging from 0 (never used) to 28 (maximum innovativeness) were allocated depending on how long it took the farmer to become aware of the technique and adopt it. The farmer's local behavior was assessed using a possible score range of 0 to 27 based on how often they interacted with nine categories of local people for information. Lastly, the farmer's weekly TV viewing hours were used to calculate how much time they spent watching, with a score ranging from 0 (not at all) to 5 (more than 8 hours per week). These many measures throughout they evaluate the factors affecting the study's results.

3.6. Measurement of Dependent Variables

The study's dependent variable was the effectiveness of agriculture-related TV Programs for disseminating agricultural information. It was measured based on the farmers' perception regarding the effectiveness of agriculture-related TV Programs for disseminating agricultural information to the farmers. The respondents assessed the effectiveness of information based on the extent of application in their real situation. In doing so, firstly 11 pieces of agricultural information that were disseminated through agriculture-related TV Programmes during the last year were selected. Secondly, the farmers were asked to give their opinion on the extent of effectiveness of information disseminated through agriculture-related TV Programmes. The program's effectiveness was measured using a 4-point rating scale with four alternative responses from the respondents such as most effective, effective, less effective, and not at all effective. Scores were assigned to these alternative responses as 3 for 'most effective', 2 for 'effective', 1 for 'less effective', and 0 for 'not at all effective'.

alternative responses as 3 for 'most effective', 2 for 'effective', 1 for 'less effective', and 0 for 'not at all effective'.

The effectiveness score was obtained by adding the assigned scores of 11 selected types of information of a respondent together. Thus, the effectiveness score of agriculture-related TV Programmes could

range from 0-33, where 0 indicates not at all effective and 33 indicates very high effective agriculture-related TV Programmes for disseminating information.

3.7. Measurement of Effectiveness Index of Different Information

To compare the effectiveness of different selected information, the Effectiveness Index (EI) was computed. The EI for each information was calculated by using the following formula:

$$EI = 3xf_m + 2xf_e + 1xf_l + 0xf_n$$

Where EI = Effectiveness Index

f_m = No. of respondents perceived most effective

f_e = No. of respondents perceived effective

f_l = No. of respondents perceived less effective

f_n = No. of respondents perceived not at all effective

Thus, the value of EI of each information could range from 0 to 300, where 0 indicates not at all effective and 300 indicates very effective.

3.8. Data Collection, Compilation, and Methods of Analysis

Interviews were conducted with the respondents in their homes during their leisure periods. Before going to the respondent for an interview, they were informed to ensure their availability. While starting the interview with any respondent, the researcher took all possible care to establish rapport with him so that he did not hesitate to furnish the data. The questions were explained and clarified whenever any respondent failed to understand. Excellent cooperation was obtained from all the respondents during the data collection.

the data collection.

After completion of the field survey, all the interview schedules were compiled, tabulated, and analyzed according to the study's objectives. In the procedure, all the responses in the interview schedule were given numerical coded values. Local units were converted into standard units. The responses to the questions in the interview scheduled were then transferred to a master sheet to conduct tabulation. Tabulation and cross-tabulations were done based on categories developed by the investigator herself. Data collected from the respondents were compiled, tabulated, coded, and analyzed by the objectives of the study. Various statistical measures such as number and percentage distribution, range, mean, and standard deviation were used in presenting data for clarifying understanding. For determining the relationship between the selected characteristics of the farmers and their perception of the effectiveness of agriculture-related TV Programs, the Pearson moment correlation test was used. A five percent (0.05) probability level was used as the basis for rejecting any null hypothesis.

4. Results and Discussion

In this chapter, findings have been conveniently presented in four sections according to the study's objectives. The first section deals with the selected individual characteristics of the farmers. The second section deals with the effectiveness of agriculture-related TV programs as perceived by the respondents. The third section deals with the relationship between the individual characteristics of the farmers and

their perceived effectiveness of agriculture-related TV programs in disseminating agricultural information. The last section deals with the comparative effectiveness of selected types of information disseminated through agriculture-related TV programs.

4.1. Selected Individual Characteristics of the Farmers

Farmers' characteristics play a vital role in adopting agricultural practices in the overall technology transfer process. Many interrelated and constituent attributes characterize an individual and form an integral part of the development of farmers' behavior and personality. It was, therefore, assumed that the effectiveness of agriculture-related TV programs as perceived by the farmers would be influenced by their various characteristics. Ten characteristics of the respondents were selected to find out their relationships with their perceived effectiveness of agriculture-related TV programs. Major findings of these selected characteristics have been described below:

Table 2. The sociodemographic factors of the farmers (respondents)

Characteristics	Categories	Respondents		Mean	S. D
		Frequency	Percent		
Age	Young (up to 30 years)	27	27	39.97	11.19
	Middle (31 to 45 years)	46	46		
	Old (46 and above)	27	27		
Education	Illiterate (0)	24	24	3.96	4.14
	Can sign only (0.5)	23	23		
	Primary (1-5)	21	21		
	Secondary (6-10)	25	25		
	Above secondary (11-14)	7	7		
Farm size	Marginal (below 0.2 ha)	14	14	.92	.96
	Small (0.21-1.0 ha)	55	55		
	Medium (1.01-3.0 ha)	28	28		
	Large (3.01 and above)	3	3		
Farming Experience	Low experience (5-15)	14	14	21.43	12.18
	Medium experience (16-30)	66	66		
	High experience (31 years and above)	20	20		
Annual family income	Low income (10-60)	63	63	61.90	54.51
	Medium income (61-120)	23	23		
	High income (121-405)	14	14		
Agricultural Knowledge	Medium Knowledge (9.00-16.00)	51	51	15.99	2.21
	High Knowledge (16.20-21.00)	49	49		
Attitude toward	Low favorable attitude	17	17	36.43	4.02

agriculture related TV programs	(28-32)				
	Medium favorable attitude (33-40)	62	62		
	High favorable attitude (41-45)	21	21		
Innovativeness	Low (0-9)	9	9	16.31	5.19
	Medium (10-18)	50	50		
	High (> 18)	41	41		
Personal locality behavior	Low exposure (1-9)	9	9	13.69	3.32
	Medium exposure (10-18)	84	84		
	High exposure (19-27)	7	7		
Time expends for TV watching	Short time viewer (up to 1 hour)	36	36	2.31	1.33
	Medium time viewer (1.1 to 4 hours)	56	56		
	Long time viewer (4.1 to 5 hours)	8	8		
Effectiveness of Agriculture Related TV programmes	Low (15-21)	15	15	24.32	2.70
	Medium (22-27)	76	76		
	High (28-32)	9	9		

The table provides descriptive information about the characteristics of the respondents who took part in the research on how farmer practices and knowledge are affected by agricultural television programming. With a mean age of 39.97 years and a standard deviation of 11.19, the age distribution of the respondents shows that 27% are young (up to 30 years old), 46% are middle-aged (31 to 45 years), and 27% are elderly (46 years and above). A mean of 3.96 and a standard deviation of 4.14 indicate the various levels of education among the population, with 24% illiterate, 23% able to sign only, 21% with primary education, 25% with secondary education, and 7% with above-secondary education. With a mean farm size of 0.92 ha and a standard deviation of 0.96, the percentage of farmers by size is as follows: 14% are marginal farmers (below 0.2 ha), 55% are small farmers (0.21-1.0 ha), 28% are medium farmers (1.01-3.0 ha), and 3% are big farmers (above 3.01 ha). With a mean of 21.43 years and a standard deviation of 12.18, the majority of farmers had medium experience, with 66% having 16–30 years under their belt, 20% having high experience (31 years and beyond), and 14% having poor experience (5–15 years).

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With a mean income of 61.90 and a standard deviation of 54.51, annual family income reveals that 63% of respondents are in the low-income category (10-60), 23% are in the medium-income range (61-120), and 14% are in the high-income range (121-405). 51% of respondents had medium knowledge (9.00–16.00) and 49% have high knowledge (16.20–21.00), with a mean score of 15.99 and a standard deviation of 2.21 in the agricultural knowledge category. With a mean score of 36.43 and a standard

deviation of 4.02, attitudes towards agricultural TV shows vary, with 17% having a low favourable attitude, 62% a medium favourable attitude, and 21% a high favourable attitude. The mean score for innovativeness among the respondents is 16.31, with a standard deviation of 5.19. Of them, 9% have low innovativeness, 50% medium, and 41% high innovativeness. Personal locality behaviour, with a mean score of 13.69 and a standard deviation of 3.32, shows that 9% have minimal exposure, 84% medium exposure, and 7% high exposure.

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Averaging 2.31 hours and with a standard deviation of 1.33, the percentage of people who watch television is as follows: 36% watch for up to an hour, 56% watch for medium to four hours, and 8% watch for four to five hours. With a mean effectiveness score of 24.32 and a standard deviation of 2.70, respondents view the efficacy of agricultural TV programming as low by 15%, medium by 76%, and high by 9%. These results provide a thorough picture of the behavioral and demographic traits of the research participants and offer insightful information about the variables that could affect how agricultural television shows affect farmer practices and knowledge.

4.2. Relationship between the selected characteristics of the farmers and their perceived effectiveness of agriculture-related TV programs in disseminating agricultural information

This section aims to examine the relationships of the 10 selected characteristics of the farmers with their perceived effectiveness of agriculture-related TV programs in disseminating agricultural information to the TV-viewing farmers. The selected characteristics included age, level of education, farm size, farming experience, annual family income, agricultural knowledge, attitude towards agricultural TV programs, innovativeness, personal locality behavior, and time spent watching TV. These characteristics constituted the independent variables, while the perceived effectiveness of agriculture-related TV programs in disseminating agricultural information to the farmers was the only dependent variable in this study.

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Pearson's product-moment correlation analysis was used to explore the relationships between the selected characteristics of the farmers and their perceived effectiveness of agriculture-related TV programs in disseminating agricultural information.

The relationship of each independent variable with the dependent variable is described in a separate subsection of this section. A null hypothesis was rejected when the observed 'r' value was equal to or greater than the tabulated value of 'r' at a 5% probability level.

Table 3. Summary of correlation test between each independent variable and the dependent variable (N = 100)

Dependent variable	Independent variable	The computed value of 'r'	Tabulated value	
			at 5% level	at 1% level

Effectiveness of agriculture-related TV programs for dissemination of agricultural information to the farmers	Age	0.152	0.196	0.256
	Level of education	0.200*		
	Farm size	0.184		
	Farming experience	0.176		
	Annual family income	0.258**		
	Agricultural knowledge	0.247*		
	Attitude toward agriculture-related TV programmes	0.256*		
	Innovativeness	0.311**		
	Personal locality behavior	0.206*		
	Time spent for TV watching	0.236*		

***Significant at $p < 0.05$; Critical value ± 0.196**

****Significant at $p < 0.01$; Critical value ± 0.256**

The efficiency of agriculture-related TV shows in providing farmers with agricultural knowledge is shown in the table along with the correlation coefficients (r) and tabulated values at the 5% and 1% significance levels for each independent variable. The degree of education ($r = 0.200$), agricultural knowledge ($r = 0.247$), attitude towards agriculture-related TV programs ($r = 0.256$), personal locality behaviour ($r = 0.206$), and amount of time spent watching TV ($r = 0.236$) all positively correlate with the effectiveness of these TV shows, and all correlations are significant at the 5% level. Furthermore, at the 1% level, there is a greater association between innovativeness ($r = 0.311$) and yearly family income ($r = 0.258$) and the efficacy of these initiatives.

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Other factors that show positive associations include age ($r = 0.152$), farm size ($r = 0.184$), and farming experience ($r = 0.176$). However, since their estimated r-values are below the threshold values at both the 5% and 1% levels, these factors are not statistically significant. These findings highlight the significance of these factors in enhancing the impact of televised agricultural information on farmer knowledge and practices. Specifically, higher levels of education, agricultural knowledge, innovativeness, income levels, and positive attitudes towards TV programs are associated with greater perceived effectiveness of agricultural TV programs.

4.3. Farmers' opinion on the effectiveness of information

The Effectiveness Index (EI) of each of the 11 selected types of information ranged from 85 to 100 against the possible range of 0 to 100. The rank order of each piece of information was based on the effectiveness index, as shown in Figure 2.

Figure 2 shows homestead vegetable cultivation ranked first based on EI, followed by livestock rearing and compost preparation. The 4th and 5th information were beef fattening and poultry rearing.

Preparation of nurseries and improved technologies of tree plantation were the less effective information ranked 10th and 11th. The rank order of other information may be seen in Figure 2.

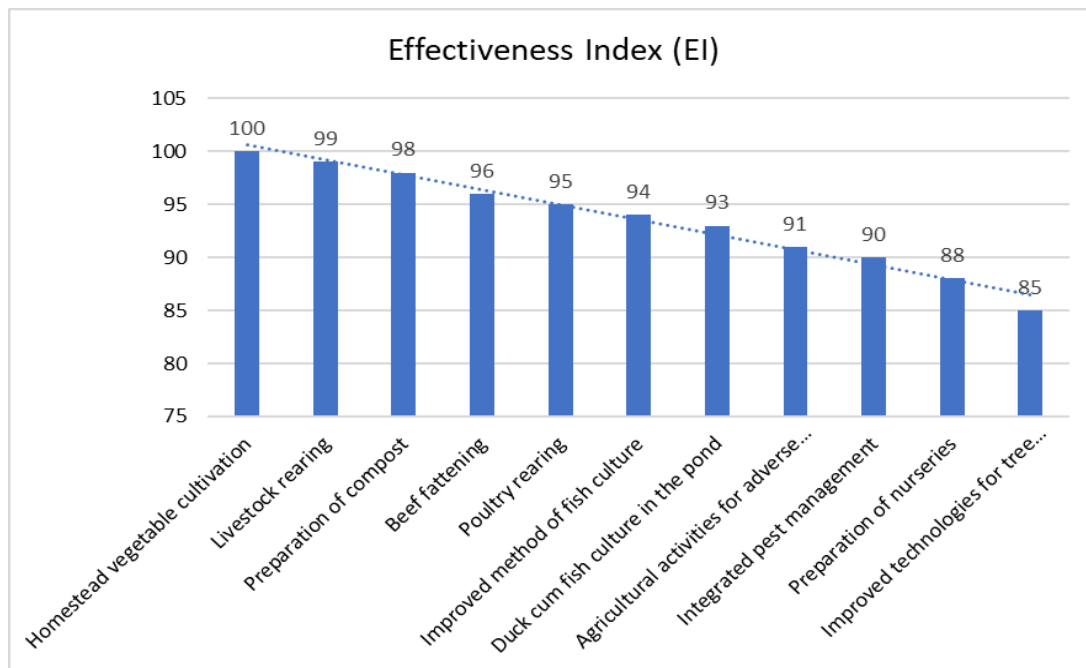


Figure 2. Comparative Effectiveness Index (EI) of the information with rank order

5. Conclusions

Based on the findings of this study, it is evident that the effectiveness of agriculture-related television programs in disseminating agricultural information to farmers is perceived predominantly as medium by the majority (76%) of the farmers, with only a small proportion (9%) perceiving high effectiveness. The study highlights several key factors that significantly influence this perceived effectiveness, including the farmer's education level, annual family income, agricultural knowledge, personal locality behavior, attitudes towards these TV programs, innovativeness, and TV-watching time. Each of these factors positively correlates with the perceived effectiveness of the programs, suggesting that better-educated farmers, those with higher incomes, more agricultural knowledge, favorable locality behavior, positive attitudes towards the programs, greater innovativeness, and more time spent watching TV are more likely to find these programs effective. These insights underscore the importance of tailoring agricultural TV programs to the needs and characteristics of the target audience to enhance their real-world applicability and impact on farming practices. Therefore, strategic efforts to improve the content and delivery of agricultural information through television, considering these influencing factors, are crucial for maximizing the potential of such programs in advancing farmer knowledge and practices.

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6. Recommendations

Based on the study's findings, the following policy recommendations are proposed:

1. **Improve Agricultural TV Programs:** Authorities should enhance the quality and accessibility of agriculture-related TV programs to better assist farmers in practical farming tasks.
2. **Cater to Lower-Educated Farmers:** TV programs should be designed to engage farmers with lower educational levels through simple, attractive content.
3. **Focus on Income-Enhancing Information:** Programs should provide information that can boost farm income, targeting higher financial returns for farmers.
4. **Promote Knowledge Development:** TV programs should offer content that helps increase farmers' agricultural knowledge and expertise.
5. **Foster Positive Attitudes:** Programs should build trust and a positive perception among farmers by delivering relevant and beneficial content.
6. **Enhance Local Community Engagement:** Extension services should encourage stronger local behavior to help farmers apply TV-provided knowledge effectively.
7. **Encourage Innovation:** TV content should focus on increasing farmers' knowledge to boost their innovativeness in adopting new practices.
8. **Optimize Program Scheduling:** Agricultural TV programs should air at least twice a week to ensure farmers have regular access to valuable information.

7. References

1. Ahmad, Md Sarwar. 2023. "Role of Television in Rural Development: A Study on Two Districts of Bangladesh." *Article in International Journal of Research and Innovation in Social Science*. <https://doi.org/10.47772/IJRIS.2023.70963>.
2. Alam, Md. J., Pervez, A. K. M. K., Kabir, Md. S., Amin, Md. R., & Bhuiya, R. A. (2023). The Challenges and Prospects of E-learning in Higher Education in Bangladesh- A Review. *Asian Journal of Education and Social Studies*, 43(1), 10–19. <https://doi.org/10.9734/ajess/2023/v43i1931>
3. Kanak Pervez, A. K. M., Gao, Q., & Uddin, Md. E. (2015). Rural Women's Awareness on Indigenous Technical Knowledge: Case of Northern Bangladesh. *The Anthropologist*, 21(3), 415–426. <https://doi.org/10.1080/09720073.2015.11891831>
4. Khan, Nawab, Ram L. Ray, Hazem S. Kassem, Farhat Ullah Khan, Muhammad Ihtisham, and Shemei Zhang. 2022. "Does the Adoption of Mobile Internet Technology Promote Wheat Productivity? Evidence from Rural Farmers." *Sustainability* 2022, Vol. 14, Page 7614 14 (13): 7614. <https://doi.org/10.3390/SU14137614>
5. Mgendi, George, Shiping Mao, and Fangbin Qiao. 2021. "Is a Training Program Sufficient to Improve the Smallholder Farmers' Productivity in Africa? Empirical Evidence from a Chinese Agricultural Technology Demonstration Center in Tanzania." *Sustainability* 2021, Vol. 13, Page 1527 13 (3): 1527. <https://doi.org/10.3390/SU13031527>

6. Mokgomo, Mahlako Nthabeleng, Clarietta Chagwiza, and Phathutshedzo Fancy Tshilowa. 2022. "The Impact of Government Agricultural Development Support on Agricultural Income, Production and Food Security of Beneficiary Small-Scale Farmers in South Africa." *Agriculture* 2022, Vol. 12, Page 1760 12 (11): 1760. <https://doi.org/10.3390/AGRICULTURE12111760>
7. Salam, Shakila, and Siegfried Bauer. 2022. "Rural Non-Farm Economy and Livelihood Diversification Strategies: Evidence from Bangladesh." *GeoJournal* 87 (2): 477–89. <https://doi.org/10.1007/S10708-020-10269-2/FIGURES/2>
8. Sanusi, Bernice Oluwalanu, and Romoke Omowumi Onijamowo. 2023. "THE ROLE OF EDUCATIONAL BROADCASTING IN BRIDGING LEARNING GAPS." *SAPIENTIA FOUNDATION JOURNAL OF EDUCATION, SCIENCES AND GENDER STUDIES* 5 (4): 2734–2514. <http://www.sfjesgs.com/index.php/SFJESGS/article/view/469>
9. Shrestha, Noora. 2020. "Detecting Multicollinearity in Regression Analysis." *American Journal of Applied Mathematics and Statistics* 8 (2): 39–42. <https://doi.org/10.12691/ajams-8-2-1>
10. Spielman, David, Els Lecoutere, Simrin Makhija, and Bjorn Van Campenhout. 2021. "Information and Communications Technology (Ict) and Agricultural Extension in Developing Countries." *Annual Review of Resource Economics* 13 (Volume 13, 2021): 177–201. <https://doi.org/10.1146/ANNUREV-RESOURCE-101520-080657/CITE/REFWOKS>
11. Steinke, Jonathan, Jacob van Etten, Anna Müller, Berta Ortiz-Crespo, Jeske van de Gevel, Silvia Silvestri, and Jan Priebe. 2021. "Tapping the Full Potential of the Digital Revolution for Agricultural Extension: An Emerging Innovation Agenda." *International Journal of Agricultural Sustainability* 19 (5–6): 549–65. <https://doi.org/10.1080/14735903.2020.1738754>.
12. Uddin, M. N., Akter, S., Roy, D., Dev, D. S., Mithun, Md. N. A. S., Rahman, S., Mahmud, Md. S., & Donaldson, J. L. (2024). An econometric analysis of factors affecting vegetable growers' interest in good agricultural practices: A case of rural Bangladesh. *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-024-04545-1>



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