



Use of radio by the farmers in receiving agricultural information

Subrata Kumar Das¹, Md. Mosaraf Hossain², Partha Sarathi Das³, Md. Sojib Kabiraj⁴

¹Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh-2202

²Department of Soil Science, Bangladesh Agricultural University, Mymensingh-2202

³Department of Fisheries, Bangamata Sheikh Fojilatunnesa Mujib Science & Technology University

⁴Department of Agronomy, Bangladesh Agricultural University, Mymensingh-2202

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*Corresponding Author

Subrata Kumar Das
✉ das.subrata.bd@gmail.com

ABSTRACT

The main purposes of the study were to determine and describe the use of radio by the farmers in receiving agricultural information; to explore the relationships of farmers' with their nine selected characteristics and also other related matters. The objectives of the study were (i) to find out the extent of use of radio by the farmers in receiving agricultural information; (ii) to explore the relationship between some of the selected characteristics of the farmers and their extent of use of radio in receiving agricultural information and (iii) to identify the problems faced by the farmers in using radio and in receiving agricultural information. Data were collected from a sample of randomly selected 80 farmers from a total of 750 farmers. The data were collected by the researcher himself during 11 September to 30 September, 2009 by using a pre-tested personal interview schedule. Simple and direct questions with different scales were used to obtain information. Pearson's product moment co-efficient of correlation (r) were computed in order to explore relationship between the dependent and independent variables. Each of nine selected characteristics of the farmers namely age, education, family size, farm size, annual family income, organizational affiliation, cosmopolitanness, attitude towards radio, agricultural knowledge constituted independent variables while use of radio by the farmers in receiving agricultural information was the dependent variable. The highest proportion (48.8 percent) of the farmers belonged low and 40 percent belonged to the medium category and only 11.3 percent of the farmers were the high category for using radio in receiving agricultural information. The correlation test showed that among nine characteristics of farmers, four of these namely education, innovativeness, attitude towards radio showed significant and positive relationship with their use of radio in using agricultural information. On the other hand, only age had negative significant relationship. Farmers' five characteristics, viz., family size, farm size, organizational affiliation, cosmopolitanness and Agricultural knowledge had no significant relationship in using radio by the farmers in receiving agricultural information. According the problem facing index (PFI) do not know the appropriate time of the radio programme (PFI = 181) was constitute the first rank and do not have own radio set (PFI = 86) was constitute the last rank order.

INTRODUCTION

Communication is a process through which two or more people exchange their ideas, facts, and feelings in ways that both senders and receivers gain common understanding of the meaning and act accordingly (Rogers, 1995). No society can exist without communication. In agricultural extension services it has been observed that extension, diffusion of innovation and communication are interrelated. That is, there is no extension without diffusion of innovation and

there is no diffusion of innovation without communication. Further, it can be said that communication must occur extension education to take place and extension education must occur communication to take place.

Radio is an important means of extension communication media. Among other mass media, it is considered as a cheap source of sending useful and practical information to the farmers. Radio is the most effective communication medium which becomes evident during disasters and at the

inaccessible locations like sea, hilly areas and other remote areas. In Asian countries large number of poor farmers uses radio to get agricultural information (Baig and Aldosari, 2013). Presence of radio and/or television in the farmer's home has positive effect on adoption of agricultural technologies (Abebe et al., 2013). Around 300,000 farmers were benefitted from the information broadcasted in the agricultural programmes of four TV Channels in Bangladesh (Katalyst, 2018).

In the adoption of new ideas, radio plays an important role specially in awareness and interest stages. From different researches on radio, it is observed that it can motivate, stimulate, induce, and create changes in the attitudes of the people. The most important advantages of radio are that it reaches people at all cultural and age levels. Therefore, it has an audience that is not often reached by other mass media. Those who listen radio believe that radio is most important source of information, entertainment and company. In Bangladesh the value of radio as an extension communication media, entertainment and company cannot be denied. With the advent of transistorized set radio has become popular to our rural people. It seems that radio as spoken communication media provides tremendous educational value to our many less educated farmers. Through such media changes in the behaviour of the farmers and their knowledge in agriculture can be increased to a large extent.

Since Bangladesh is a developing country and agricultural development is primary necessity for the country's smooth economy, all interventions should be focused on this issue. So the radio and television as the mass media channels are very much essential in agricultural technology dissemination.

The present study was undertaken to i) find out the extent of use of radio by the farmers in receiving agricultural information; ii) explore the relationship between some of the selected characteristics of the farmers and their extent of use of radio and in receiving agricultural information and iii) identify the problems faced by the farmers in using radio and in receiving agricultural information.

METHODOLOGY

The study was conducted in two selected villages namely Silashi and Rouha under Gafargaon Upazila of Mymensingh district. These villages were selected as the study area because these villages had a good communication facility with Mymensingh town and also with Bangladesh Agricultural University, Mymensingh. The present study was conducted on the population of 750 farm family heads of selected two villages. A list of farm family heads of these villages was prepared with the help of local SAAO (Sub Assistant Agriculture Officer). Then 10.67 percent of the farm family heads were randomly selected from each of the villages so as to constitute a sample size of 80. A reserve list of 10 farmers was also prepared, so that the farmers of this list could be used for interviewing if the farmers included in the original sample were not available during collection of data. The village wise distribution of population and sample of the farm family heads are shown in Table 1.

Table 1: Village wise distribution of population and sample of the farm family heads

SL. No.	Name of villages	No. of farm family head (Population)	No. of farm family heads (Sample size)	No. of farm family heads (Reserve least)
1	Silashi	350	35	5
2	Rouha	400	45	5
Total		750	80	10

In the present study, 9 characteristics of the farmers were selected as the independent variables. The characteristics included age, education, family size, farm size, annual family income, organizational affiliation, cosmopolitaness, attitude towards radio, agricultural knowledge. Use of radio by the farmers in receiving agricultural information was the dependent variable of the study. Use of radio by the farmers in receiving agricultural information was measured on the basis of some radio programs about agricultural information. The selected major topics included crops, cattle, goat/sheep, poultry, fisheries and other agricultural programmes.

The programs broadcasted by the Radio Bangladesh and the impact of these programs on the farmer through disseminating agricultural information were also investigated,

To determine the extent of use of radio by the farmers in receiving agricultural information was measured by computing a use score on the basis on his extent of exposure with the selected programmes broadcasted through radio. Each respondent expressed the extent of use of radio in receiving agricultural information by indicating any one of the four responses with score, i.e., not at all (0), rarely use (1), occasionally use (2) and frequently use (3).

Finally, the summation of the total number of weights against each of the responses of the farmers in using radio in receiving agricultural information was measured. In the study, nine possible problems were selected which each respondent was asked to indicate the extent to which he considered each of the selected problems as problematic to his along a 4-point scale with score: "Not at all (0)", "Low (1)", "Moderate (2)" and "High (3)" respectively. The possible problem confrontation scores of the respondents ranged from 0 to 27, where 0 indicated that the respondent had no problem and 27 indicated highest problem. For clear understanding of problems faced by the farmers in receiving agricultural information in using radio a Problem Facing Index (PFI) was calculated. The research hypotheses were put forward to test the relationships between each of 9 selected characteristics of the farmers and their use of radio in receiving agricultural information. Each of the 9 selected characteristics (age, education, family size, farm size, annual family income, organizational affiliation, cosmopolitaness, attitude towards radio, agricultural knowledge) of the farmers was related to their use of radio in receiving agricultural information. In order to collect the desired information, an interview schedule was prepared keeping the objectives of the research in view. It contained both open and closed form questions.

Data were collected personally by the researcher himself from the sample by using interview

schedule. Data collection was started on 11 September, 2009 and completed on 30 September, 2009. For exploring the relationships between the use of radio by the farmers in receiving agricultural information and the selected characteristics of the farmers, Pearson's Product Moment Correlation (r) was computed. Five percent level of probability was used as a basis to reject any null hypothesis.

FINDINGS AND DISCUSSION

Radio Bangladesh broadcasts five and a half hours daily on national and regional agricultural programs. The national program is "Desh Amar Mati Amar", and the regional programs are: "Sonali Fasal" (Dhaka), "Krishi Khamar" (Chittagong), "Chasabad" (Khulna), "Khetey Khamarey" (Rangpur), "Sabuj Bangla" (Rajshahi), "Shyamaol Sylhet" (Sylhet), "Krishi Khamar" (Rangamati), "Krishi Katha" (Barisal), "Sonali Prantor" (Cox's Bazar) and "Kishan Mati Desh" (Thakurgaon).

Selected characteristics of the farmers

The selected 9 characteristics of the farmers were selected to find out the relationship with their use of radio in receiving agricultural information. These selected characteristics were age, education, family size, farm size, annual family income, organizational affiliation, cosmopolitaness, attitude towards radio, agricultural knowledge. The salient features of the characteristics have been presented in Table 2.

Use of radio by the farmers in receiving agricultural information

The computed overall use of radio by the farmers in receiving agricultural information score ranged from 7 to 37. The observed mean, standard deviation and CV were 20.56, 8.04 and 39.11% respectively. The farmers were classified into three categories on the basis of observed data. The categories and distribution of the respondents have been shown in Table 3

Table 2: Salient features of the selected characteristics of the farmers

Characteristics	Scoring system	Range		Categories	Respondents		Mean	SD	CV
		Possible Score	Observed Score		No.	(%)			
Age	Years	Unknown	18-55	Young (≤ 35)	45	56.3	36.37	9.77	26.86
				Middle (36-50)	29	36.3			
				Old (>51)	6	7.5			
Education	Schooling years	Unknown	0-13	Illiterate (0)	6	7.5	7.56	2.89	38.23
				Only can sign (0.5)	9	11.3			
				Primary level (1-5)	13	16.3			
				Secondary level (6-10)	42	52.5			
				Above secondary (>10)	10	12.5			
Family size	Number	Unknown	3-14	Small (upto 4)	46	57.5	5.96	2.59	43.46
				Medium (5-7)	25	31.3			
				Large (>8)	9	11.3			
Farm size	Hectors	Unknown	0.20-2.93	Small (>0.64)	10	12.5	1.34	0.70	52.24
				Medium (0.64-2.04)	57	71.3			
				Large (>2.04)	13	16.3			
Annual family income	Thousand taka	Unknown	30-190	Low (upto 50)	19	23.8	78.77	34.85	44.24
				Medium (50-100)	43	53.8			
				High (>100)	18	22.5			
Organizational affiliation	Scores	0-24	0-22	No participation (0)	43	53.8	3.51	4.56	129.91
				Low (upto 9)	27	33.8			
				Medium (9-16)	9	11.3			
				High (>16)	1	1.3			
7. Cosmopoliteness	Scores	0-18	5-16	Low (upto 6)	28	35.0	9.60	3.36	35
				Medium (7-12)	37	46.3			
				High (>13)	15	18.8			
8. Attitude towards radio	Scores	0-40	10-39	Low favourable (upto 12)	7	8.8	25.87	7.07	27.33
				Moderately favourable (13-25)	35	43.8			
				Highly favourable (>26)	38	47.5			
9. Agricultural knowledge	Scores	0-36	8-31	Low (upto 10)	32	40.0	16.37	6.29	38.42
				Medium (11-20)	36	45.0			
				High (>20)	12	15.0			

Table 3: Categories and distribution of the respondents

Categories	Respondents = 80		Mean	Standard deviation
	Number	Percentage		
Low (7-12)	39	48.8	20.56	8.04
Medium (13-24)	32	40.0		
High (25-37)	9	11.3		

Data of contained in Table 3 revealed that highest proportion (48.8 percent) of the farmers belonged to the low category for using radio in receiving agricultural information, 40 percent were in the

medium category and 11.3 percent of the farmers were the high category. Thus, a great majority (88.8 percent) of the farmers had low to medium use of radio in receiving agricultural information.

Relationship between the selected characteristics of the farmers and their use of radio in receiving agricultural information

The relationship between 9 selected characteristics of the farmers and their use of radio in receiving agricultural information was performed. Each of the characteristics constituted the independent variables while the use of radio by the farmers in receiving agricultural information was only the dependent variable in this study. The selected independent variables included age, education, family size, farm size, annual family income, organizational affiliation, cosmopolitaness, attitude towards radio, agricultural knowledge. In order to explore the relationship between the selected characteristics of the farmers and their use of radio in receiving agricultural information, Pearson's product moment correlation coefficient 'r' has been used.

The relationships between the variables have been described in the separate sub section of the section (each dealing with one independent and one dependent variable). Significant relationship as determined by co-efficient correlation test 'r' was examined (Table 4).

Table 4: Results of the correlation coefficient between dependent and independent variables

Dependent variable	Independent variables	Computed values of 'r' df = 78
Use of radio in receiving agricultural information	Age	- 0.228*
	Education	0.417**
	Family size	- 0.126
	Farm size	0.170
	Annual family income	0.361**
	Organizational affiliation	- 0.10
	Cosmopolitaness	- 0.095
	Attitude towards radio	0.561**
	Agricultural knowledge	- 0.057

* Significant at 0.05 level of probability

** Significant at 0.01 level of probability

Problems Faced by the farmers in using radio

The farmers of the study area faced some problems in using radio in receiving agricultural information as mentioned by them. The distributions of the farmers according to facing of problems were presented in Table 5.

Table 5: Distributions of the farmers according to facing of problems

Sl. No	Problems	Extent of problem				PFI	Rank order
		Not at all	Low	Moderate	High		
1	Do not know the appropriate time of the radio programme	1	15	26	38	181	1
2	Dislike to go to others' house to listen radio	7	13	24	36	169	2
3	Radio programme broadcasting is not done at the suitable time	13	21	19	27	140	3
4	Do not have radio in neighbors' house	34	16	19	11	87	4
5	Do not have own radio set	35	15	19	11	86	5

The Problem Faced Index (PFI) for an individual problem could range from 0 to 240, where 0 indicated no problem faced and 240 indicated highest problem faced. Among them, lack of awareness of about timing of agricultural programmes and unavailability of radio set one the major problems faced by the farmers in receiving information from radio (Table 5).

CONCLUSION

The study revealed that a good number of respondents in Saltia union under Gafargaon upzilla in Mymensingh district used radio and in receiving agricultural information. The highest proportion (56.3 percent) of the respondents was young aged using radio in receiving agricultural information.

A majority of the farmers gained agricultural knowledge by using radio. Their knowledge about social, political, economical consciousness have been improved due to use radio. They regarded radio as the important and potential media/sources of agricultural information.

The respondents of the study area listened radio programmes like “Desh Amar Mati Amar”, “Amar Desh”, “Sonali Fasal”, “Krishi Samachar”, “Uttaron”, “Path-O-Patheo”, “Shukhi Paribar”, “Pushti Kotha” in receiving agricultural information. This means these programmes are likely to be informative to the farmers.

A great majority (88.8 percent) of the farmers had low to medium extent of use of radio in receiving agricultural information and possessed a moderate attitude towards electronic media as the sources of agricultural information.

The major problems faced by the farmers in using radio in receiving agricultural information were ownership of radio, lack of awareness about timing of farm broadcasting programmes in radio programmes, and electricity disturbances. This means an effort in this regard could change the media use behaviour of the farmers.

It is suggested from the study that need based information should be broadcasted through radio so that farmers can apply them in their real situation. In doing so, during planning of farm broadcasting programmes, relevant expert opinion should be taken. In some cases experienced farmers should be invited during broadcasting of agricultural information through radio and for better communication of information to the farming community, the broadcasting and time, duration, types of programmes, and preferences should be made considering the leisure time of the farmers, so that the farmers can make good use of the media, radio plays an important role in the dissemination of information by broadcasting different farming programs. These programs can

be broadcasted on different topics. The present study revealed that significant proportion of the respondents was not highly attentive to listening their agricultural programmes. Therefore, it is recommended that the quality of programs should be improved so as to attract more farmers in using radio for getting agricultural information.

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