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Use of Mass Communication Channel by the Farmers in Receiving Farm Information

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Abstract

The purpose of this study was to determine the use of mass communication channel in receiving farm information by the farmers, and to ascertain the constraints faced by the farmers in receiving farm information and their suggestions to overcome the constraints. Data were collected using interview schedule from a sample of 256 farmers selected by multistage random sampling procedure from 15 villages of Birganj Upazila of Dinajpur district during February to June 2008. The use of a mass communication channel was determined initially on four dimensions viz. contact, understanding, interaction, and application, and finally a use of mass communication channel index (UMCCI) was computed. The UMCCI ranged from 23.18 to 164.31 with a possible range of 0 to 400. The UMCCI was the highest in case of television while it was the lowest in case of radio. The important constraints as mention by the farmers was "regular load shedding of electricity" during watching television programmes (78.91 percent). Repetition of the telecast agricultural television programme (77.34 percent) appeared to be the most important suggestion to overcome the constraints.

Keywords: *Use, mass communication channel, farm information.*

Introduction

Bangladesh is regarded as Asian's 6th and world's 9th most populous country. Agriculture contributes about 21.10 percent of the country's Gross Domestic Product (GDP) and provides employment of about 63 percent. Most of the people live (76.47 percent) in rural area. The per capita income is about US$520 and average life expectancy is 65 years (BBS, 2007). Bangladesh though an over populated country, it is blessed with fertile land. But, due to poverty and limited application of modern technology and inputs it's per hectare yield of crop is still very low. There is a big gap between actual and potential yield of many crops in Bangladesh, and hence, there is an ample scope to increase yield of many crops (Anonymous, 2004). Livestock plays an important role in the national economy of Bangladesh with a direct contribution of 2.92 percent to the agricultural GDP (GOB, 2007). On the other hand, fishery is one of the important sub-sector of agriculture in agro-based Bangladesh, which play very significant role in her economy and contributes 5.9 percent of the total GDP (BBS, 2007). Most of the farmers still use local varieties of fish in their backyard ponds. However, the farmers who have already adopted some aquaculture technologies in their pond often do not get desired yield (Karmakar, 2004).

Mass communication channel has a vital role to carry the messages from the source to the intended receiver. However, there exists a wide gap between the technologies available at the research and its use in the farmer's field. Hence, it is the paramount importance that this new technology generated should immediately be disseminated to the farmer's field so that the so called techno-extension gap is reduced to the minimum (Khan, 2002). Communication channels in receiving farm

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information have been considered as an important input for increased farm productivity. The farmers of our country are prone to use various communication channels for obtaining farm information. Effective communication channels must have to be used for this purpose (Karim, 2005). The extension field practitioners often disseminate the technological messages to the farmers either individually or in groups. However, through this approach messages very often fail to reach majority of the farmers who are spread across the country. Farmers' need is much more diversified and the knowledge required to address them is beyond the capacity of the grass root level extension functionaries (Sharma, 2003). In view of the advancement of technology and importance of communication, its swiftness in the 21th century, it is necessary to explore the use of mass communication channel as the important means for accelerating dissemination of farm information among the farmers. Keeping in view the present study was undertaken with the following objectives: (i) to determine the use of mass communication channel by the farmers in receiving farm information in respect of crop cultivation, livestock production and fish culture. The mass communication channel include– radio, television, newspaper and *krishi katha* and (ii) to ascertain the constraints faced by the farmers in receiving farm information from the selected mass communication channel and probable suggestions to overcome the constraints.

Methodology

Three unions of Birganj upazila under Dinajpur district were the locale of the study. Multi-stage random sampling procedure was followed in this study. The literate farmers of the study areas having at least 0.405 hectare of land and had electricity in residence constitute the population of the study. A total of 256 farmers were selected randomly from a population of 1025 farmers constituted the sample of this study. The data were collected during the period from February to June 2008 using interview schedule. For measuring the use of mass communication channel, farmers' contact, understanding, interaction and application were determined. Farmers contact with a mass communication channel was measured by computing the contact sub-score (CSS). The farmers were requested to indicate their contact with each of the selected channel. A 4-point scale such as 'high', 'moderate', 'low' and 'none' were used in this purpose and weights were assigned to each of the scale responses as 3 for 'high', 2 for 'moderate' 1 for 'low' and 0 for 'none' contact. The contact of a respondent was therefore determined by adding the score against the four selected mass communication channel. Thus, the CSS of a respondent in receiving farm information could range from 0 to 12. A similar procedure were followed to measure understanding sub-score (USS), interaction sub-score (ISS) and application sub-score (ASS) for each of the farmers.

For making comparative analysis of the four mass communication channel with respect to contact, understanding, interaction and application, an index was calculated for each of the dimensions. First of all a contact index (CI) was calculated using the following formula:

$$CI = \frac{P_h \times 3 + Pm \times 2 + P_l \times 1}{3}$$

Where,

P_h = Percentage of farmers for high contact
P_m = Percentage of farmers for moderate contact
P_l = Percentage of farmers for low contact
CI= Contact index

Thus, the value of comparative contact index (CCI) for each of the four channels could range from 0 to 100, where 0 indicated none contact with mass communication channel and 100 indicated high contact with mass communication channel. A similar procedure was followed to calculate the understanding index (UI), interaction index (II) and application index (AI). The use of mass communication channel index (UMCCI) for the selected channels were the summation of CI, UI, II and AI values. Thus the possible value of UMCCI could range from 0 to 400, where 0 indicated none use of mass communication channel and 400 indicated high use of mass communication channel.

Findings and Discussion

The farmers initially make contact with the mass communication channels in receiving their farm information which may or may not be understood by them. Afterwards they interact with other selected channels for verification of the received information.

Farmers' contact with the selected mass communication channel

The findings reveal that farmers had contact with four selected mass communication channel with varying degrees for seeking their farm information. Farmers were classified into four categories on the basis of their contact with each of the channel such as 'high', 'moderate', 'low' and 'none'. In order to get comprehensive information about the farmers' contact and CI were computed against each of the channel (Table 1).

Table 1. Percentage distribution of the farmers according to their contact with the mass communication channel

Channels	Percentage of farmers				CI
	High	Mode-rate	Low	None	
Radio	5.08	2.34	3.13	89.45	7.68
TV	59.38	18.36	1.17	21.09	72.00
Newspaper	18.36	26.95	3.91	50.78	37.63
Krishi katha	4.68	7.42	0.40	87.50	9.77

Data in Table 1 indicate that about four-fifths of the farmers (78.91 percent) made contact with TV, in which 59.38 percent had high, 18.36 percent had moderate and a negligible proportion (1.17 percent) had low contact. The second most important contact of the farmers (49.22 percent) was found newspaper, in which about one-fourth (26.95 percent) had moderate, 18.36 percent had high and only 3.91 percent had low contact. The next contact channel of the farmers (12.50 percent) was found *krishi katha*, in which 7.42 percent had medium, 4.68 percent had high and a negligible proportion (0.04 percent) had low contact. The farmers had least contact (10.55 percent) with radio, in which 5.08 percent had high, 3.13 percent had low and only 2.34 percent had moderate contact. The finding implies that the contact of the farmers with the mass communication channel varied to a great extent.

Farmers' understanding of information received from the selected mass communication channel

For understanding of the message, farmers usually make further contact with other reliable persons to clarify the information as they received. As of contact of the farmers with the mass media farmers were also classified into four categories (Table 2).

Table 2. Percentage distribution of the farmers according to under-standing of information received from the mass communication channel

Channels	Percentage of farmers				UI
	High	Mode-rate	Low	None	
Radio	1.95	5.86	2.74	89.45	6.77
TV	24.61	23.44	30.86	21.09	50.52
Newspaper	14.45	16.02	18.75	50.78	31.38
Krishi katha	1.96	1.56	8.98	87.50	5.99

The UI indicates that TV was the highest understandable channel by the farmers (78.91 percent). However, although TV appeared as the most important channel for understanding the information, the highest proportion of them (30.86 percent) had low understanding of information while had the highest contact (59.38 percent) with the TV. Similar is the case of newspaper (cf. Table 1 & 2). The radio and *krishi katha* followed almost similar trend in respect of contact and understanding of information.

Farmers' interaction with the selected mass communication channel

After understanding of the information, farmers usually interact with the reliable channel for verification and confirmation of the information. The interaction with each of the channels by the farmers were also classified into four categories as were used in case of contact and understanding (Table 3).

Table 3. Percentage distribution of the farmers according to their interaction with the mass communication channel

Channels	Percentage of farmers				II
	High	Mode-rate	Low	None	
Radio	1.95	4.30	0.40	93.35	4.95
TV	3.13	21.48	29.69	45.70	27.34
Newspaper	1.17	10.55	18.75	69.53	14.45
Krishi katha	0.78	6.25	3.13	89.84	5.98

Farmers had the highest interaction with others regarding the information they received from TV followed by newspaper. Radio ranked the lowest in respect of interaction on the information they received from this. However, in respect of interactions of the farmers with others on the information they received from TV and newspaper, the highest proportion of them had low interaction followed moderate interaction (cf. Table 3).

Farmers' application of information received form the selected mass communication channel

The farmers normally apply the messages to their farming activities after interacting with different mass communication channels. Similar to contact, understanding and interaction it was also classified into four categories (Table 4).

Table 4. Percentage distribution of the farmers according to their application of information received from the mass communication channel

Channels	Percentage of farmers				AI
	High	Mode-rate	Low	None	
Radio	0	2.73	5.86	91.41	3.78
TV	0	7.03	29.30	63.67	14.45
Newspaper	0	2.73	12.50	84.77	5.99
Krishi katha	0	1.57	8.98	89.45	4.04

The highest of the farmers was applied the information received from TV which was also found to be same in the position in case of interaction. The lowest of the farmers was applied the information received from radio. The possible reason for lowed application of information than that of interaction might be due to the reason that the knowledge of the farmers were more or less similar to them in relation to modern technological information and they did not posses the capability or

specialization of technical information like the selected mass communication channel.

The use of mass communication channel by the farmers in receiving farm information

The use of mass communication channel index (UMCCI) for each of the four mass communication channel were the summation of contact index (CI), understanding index (UI), interaction index (II) and application index (AI). The UMCCI value of each of the selected channels ranged from 23.18 to 164.31 against the possible range of 0 to 400 (Table 5).

Table 5. Distribution of index value of four dimensions for calculation of use of mass communication channel index

Channels	Dimensions index value				UMCCI
	CI	UI	II	AI	
Radio	7.68	6.77	4.95	3.78	23.18
TV	72.00	50.52	27.34	14.45	164.31
Newspaper	37.63	31.38	14.45	5.99	89.45
Krishi katha	9.77	5.99	5.98	4.04	25.78

The findings show that the highest portion of the farmers used TV followed by newspaper and *krishi katha*. The least used channel was radio. A more or less similar finding was reported by Nuruzzaman *et al.* (2003). They found that in respect of mass media television secured highest score followed by radio, folk song, agricultural fair, poster, newspaper, and leaflet. Television appeared as the most frequently used channel now in the rural areas of Bangladesh. This might be due to the rural electrification in the study area, wide introduction of colour TV and awareness about the telecasting of the most useful and appropriate farm programmes from TV. At present from Bangladesh Television (BTV) two agricultural programmes (*Mati-O-Manush* and *Krishidibanishi*) are displayed weekly. It may be noted here that an Indian TV Channel (DD-1) can easily be watched in the study area without satellite. An agricultural programme named '*Annyadata*' is displayed from DD-1 which is very popular in the study area. Probably these are the reasons for high contact with TV in the study area. The second most important used channel of farm information by the farmers was the newspaper. This might be due to literacy of the farmers. The next used channel by the farmers was the *krishi katha*, this might be due to the reason at present the number of subscribers of *krishi katha* in the Birganj upazila are about 120. The least used channel by the farmers was radio. This reason behind this may be that it is a traditional channel and had lost its earlier appeal because of availability of modern electronic channel like mobile phone. Therefore, it may be concluded that the farmers have more use of those mass communication channels which are close to them and are easily available

Constraints faced by the farmers in receiving farm information

The farmers of a community usually do not use all the mass channels in receiving their farm information to an equal extent because the mass media have some inherent constraints to reach the farmers. For easy understanding of the channel's constraints faced by the farmers in receiving farm information, number of citation, percent and rank order were calculated. The findings are presented in Table 6.

Table 6. Rank order of constraints faced by the farmers in receiving farm information from mass communication channel

Constraints in getting information from the selected mass media	No. of citation	Percent	Rank
Regular load shedding of electricity during watching TV programmes	202	78.91	1
Lack of appropriate information telecast from TV	183	71.48	2
Lack of interest of watching agricultural TV programmes by the family members	151	58.98	3
Lack of regular publication of farm information from the daily newspapers	123	48.05	4
Lack of newspapers highlighting on different issues	102	39.84	5

The findings at Table 6 indicates that due to load shedding it is not possible to watch agricultural TV programme regularly and it was the topped (78.91 percent) the list of constraints. Due to load shedding the farmers could not watch the agricultural TV programmes which could have essential for receiving farm information from TV. Lack of appropriate information telecast from TV was the second most important constraint. This may be due to the fact farmers are interested to watch need based agricultural programmes, but in practice, may be their wishes are not adequately fulfilled. Lack of regular publication of farm information from the daily newspapers was another constraint of the farmers. The reason may be due to the fact that very few newspapers regularly publish agricultural information (except Prothom-Alo, Naya Diganta etc.), other newspapers rarely publish farm information.

Suggestions offered by the farmers to overcome the constrains

Each respondent was asked to suggest important measures that would reduce the constraints in using the mass communication channel. The suggestions are sought separately and the results are presented in Tables 7.

Table 7. Rank order of suggestions provided by the farmers to overcome the constraints related to the use of mass communication channel

Suggestions to overcome the constraints as suggested by the farmers	No. of citation	Percent	Rank
Repetition of the telecasted agricultural TV programme	198	77.34	1
Telecasting different regional crop based TV programme	174	67.97	2
Telecasting farm information from TV through amusement programme like drama, folk song etc.	143	55.86	3
Arranging to allocate a full page farm information in the national dailies, at least once in a week	114	44.53	4

The findings of Table 7 demonstrates that the "repetition of telecast agricultural TV programme" was cited by the highest proportion of the farmers (77.34 percent) to overcome the constraints in using mass media as channels of communication. This implies that farmers often cannot watch the useful TV programmes on agriculture due to frequent load shedding. Repetition of previously telecasted TV programme would increase the farmers' opportunities to watch the programme which they had missed before. Possibly due to this reason farmers suggested this measure to overcome the constraint. Telecasting different regional crop based TV programme was the second most important (67.97 percent) suggestion offered by the farmers. Programmes of agriculture are generally cast from BTV on national scale. Had there been any provision for casting local crop based programme from the BTV channel, the farmers would have got the most applicable information easily. Telecasting farm information from TV through amusement programme like drama,

folk song etc. was another suggestion provided by the farmers. Many farmers in rural areas watch television for recreation and amusement. If the farm programmes are displayed in the TV along with amusement and recreational issues the watching of TV would be increased. May be due to these factor farmers suggested for incorporation of recreation and amusement items during the display of farm information in the television.

Conclusion

The farmers received their farm information from the selected mass communication channels; the highest proportion of the farmers used TV in receiving their farm information. The second most important used channel of farm information by the farmers was the newspaper. The next used channel by the farmers was the *krishi katha*. The least used channel by the farmers was radio. The findings promote the researcher to conclude that the farmers will use of those channels which are close to them, credible, easily available, provide more appropriate as well as need based information to their farming situation. On the other hand, the farmers in all mentioned five constraints and also cited four suggestions to overcome these constraints in receiving farm information from the mass communication channels. Therefore, it may be concluded that the farmers were relatively conscious of their constraints in the use of communication channel as well as to the measures to overcome their constraints.

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