



ISSN: 1991-0037 (print), 2710-3285 (online)

**SOUTH ASIAN JOURNAL OF AGRICULTURE**

www.saja.edu.bd

Agrotechnology Discipline, Khulna University

https://discipline.ku.ac.bd/at



*South Asian J. Agric.*

Research Article

Vol. 8, No. 1 & 2, 2020-'21: 6-12

Title: Exposure to Communication Media by the Poultry Farmers in Receiving Information

Authors: Iqbal Hossain, Mohammad Bashir Ahmed\* and Md. Shafiqul Islam  
Agrotechnology Discipline, Khulna University, Khulna-9208, Bangladesh

\*Corresponding Author: Mohammad Bashir Ahmed Email: mbaatku@gmail.com

Article Info:

## ABSTRACT

Received:

January 14, 2021

Accepted:

June 20, 2021

Online:

August 12, 2021

Keywords:

Communication, Media,

Poultry farmer,

Information.



Innovations are being diffused to the farmers' community through various communication media. However, which communication media is favorably utilized by the poultry farmers are not yet identified. The purpose of the study was to determine the extent of the exposure to communication media by the poultry farmers in receiving information. Attempts were also made to explore the relationship between the selected characteristics of the poultry farmers and their extent of exposure to communication media. Data were collected from randomly selected 60 poultry farmers of three villages of Jalma union under Batiaghata Upazilla of Khulna district, Bangladesh. Major percentage (58.3%) of the respondents showed medium exposure to individual media, however, most of them are little exposed to group and mass media (85% and 75% respectively). Irrespective of the type of media, lower level of exposure was expressed by most of the respondents (90%). Among the 16 communication media under three board categories, the respondents were highly exposed to neighbor and less exposed to radio. The personal characteristics of the poultry farmers as level of education, farm size and participation in training showed a positive significant relationship with their extent of use of communication media. Individual media (e.g. Information from neighbor) was most favorably utilized by the poultry farmers for receiving information regarding farming.

DOI: <https://doi.org/10.3329/saja.v8i1-2.59261>

To cite this article:

Hossain, I., Ahmed, M.B. and Islam, M.S. 2021. Exposure to Communication Media by the Poultry Farmers in Receiving Information, South Asian Journal of Agriculture, 8 (1 & 2): 6-12.



Copyright on any research article is transferred in full to South Asian Journal of Agriculture published by Agrotechnology Discipline of Khulna University, Khulna-9208, Bangladesh, upon publication in South Asian Journal of Agriculture.

## INTRODUCTION

Poultry is one of the most important and promising industrial sectors for the economic development of Bangladesh. It is becoming a leading industry in the country. The sector has been growing an annual rate of around 20 per cent for the last two decades (Islam et al., 2014). Traditionally poultry rearing was considered as a small-scale operation and an additional source of income for the rural people. At the doorstep of 21 century, there are many commercial sectors, which make the globalization concept to work and for strengthening the future economic development. Poultry industry is a developing sector of Bangladesh. The FAO (2017) estimated poultry population in Bangladesh to be around 156 million chickens and 13 million ducks.

FAO (2017) reported a total annual production of 1, 30,000 metric tons of eggs (1732.40 nos.) and 1, 10,000 metric tons of meat in Bangladesh from poultry (Anonymous, 2020). To reduce poverty and improve nutritional status, poultry can play a significant role in the subsistence economy of rural people by providing them sources of income, high quality nutrition and self-employment for vulnerable rural families including unemployed men, women and the youth. Government and non-government organization have undertaken

intensive programmes to increase poultry production by setting up poultry farms.

For increasing poultry production as well as to check morbidity and mortality in poultry farms at local and national level, latest scientific information is a necessity. To get updated information, the poultry farmers need to be exposed to different communication media. Considering the points in view, the entitled study was conducted to analyze the selected characteristics of poultry farmers; to determine their extent of exposure to communication media and comparing their choice of media for individual, group and mass contact. Attempt was also made to explore the relationships between the selected characteristics of the poultry farmers with their extent of exposure to communication media in receiving information regarding poultry farming.

## METHODOLOGY

### *Design and Locale of the Study*

The present study was a descriptive and diagnostic type of research. It was designed to study the extent of

exposure of the poultry farmers to communication media in receiving information. The study was based on collection of data through interviewing the respondents. The study was confined to purposively selected three villages namely Guptamari, Chayghoria, Par Batiaghata of Jalma union under Batiaghata Upazilla of Khulna district, Khulna, Bangladesh.

**Population and Sampling**

All commercial poultry farmers (60 in number) of the selected three villages were treated as population and also considered as sample for the study.

**Data Collection**

The primary data were collected through face to face interview using a pretested interview schedule during January–March, 2019. Reviewing past related studies (Ali and Ahmed, 1998; Ahmed, 2008; Amin et al, 2013; Amin et al, 2014; Rahman et al, 2012 and Sarker et al, 2009), the researchers considered some of the selected characters of the respondents as independent variables. These are age, level of education, family size, farm size, annual income, experience in poultry farming, time spent in poultry farming, knowledge on poultry farming, organizational participation, cosmopolitanism and training exposure. Extent of exposure of the poultry farmers to communication media in receiving information was considered as dependent variable in this study.

**Measurement of Selected Characteristics**

The measurement of selected characteristics (independent variables) has been shown in Table 1.

**Measurement of Dependent Variable**

Extent of exposure of the poultry farmers to communication media was treated as dependent variable. For this purpose, seven “individual”, four “group” and five “mass” communication media were selected. To determine the extent of exposure to communication media, scoring was done on four points rating scale such as regularly (3), sometimes (2), rarely (1) and not at all (0). The extent of exposure score was thus determined by adding all scores obtained by a respondent against each of the media as individual, group and mass media of communication. Based on communication exposure score, the respondents were classified into categories as mentioned in Table 2.

The relative position of each of the individual, group and mass media as well as the 16-media under those categories was determined by calculating a Communication Media Exposure Index (CMEI) as follows-

$$CMEI = N_1 \times 3 + N_2 \times 2 + N_3 \times 1 + N_4 \times 0$$

Where, CMEI = Communication Media Exposure Index

$N_1$  = No. of respondents regularly exposed to communication media

$N_2$  = No. of respondents sometimes exposed to communication media

**Exposure to communication media by the poultry farmers**

$N_3$  = No. of respondents rarely exposed to communication media

$N_4$  = No. of respondents not at all exposed to communication media

Communication media exposure index (CMEI) score could range between 0-180. Based on Communication Media Exposure Index (CMEI), the selected sixteen (16) as well as the individual, group and mass communication media were ranked.

For better understanding the CMEI score was converted into percentage using following equation:

$$\% \text{ CMEI} = \frac{\text{Observed CMEU score}}{\text{Possible CMEI score}} \times 100$$

**Data Analysis**

Data were compiled, tabulated and analyzed based on the objectives of the study. Different descriptive statistics such as number, mean, standard deviation, range, minimum, maximum, rank order and percentage were used to describe the variables. To explore relationship between any two variables, Pearson Product Correlation Coefficient (for interval and ratio type of data) and in some cases Spearman Rank Correlation Coefficient (for ordinal type of data) were used. Data analysis was done using the Statistical Package for Social Science (SPSS v. 20).

**RESULTS AND DISCUSSION**

**Facts on the Selected Characteristics of the Respondents**

Data presented in Table 3 indicate that major percentage (58.3%) of the respondents are middle aged and nearly half (48.3%) of the respondents obtained secondary level of education followed by primary (33.3%) level. Highest proportion (45%) of the respondents belongs to small sized family and majority of them (56.7%) have small farm with high income (53.3%). Most of the respondents having medium experience (73.3%) and involved in poultry farming for moderate duration (85.0%) and had high knowledge in poultry farming (98.3%). Majority of them have low organizational participation (66.7%) and moderate level of cosmopolitanism (53.3%).

Half (50.0%) of the respondents showed low training exposure related to poultry farming. Mosleh (2008) found in his research that majority (58.9 %) of the respondents were in the middle-aged category compared to young aged (39.1%) and 1% of the respondents comprised of old-aged categories. He also reported that 66.6% of the respondents have education of various degrees from primary to above secondary level and about one-third (33.4%) of them have no education at that time. These findings are almost consistent with the findings of the present study. The average family size of the study area (4.87) is higher

**Table 1. Measurement of selected characteristics (independent variables)**

Selected characteristics (independent variables)	Measuring Unit
1. Age	Actual years
2. Level of Education	Years of schooling
3. Family size	Number
4. Farm size	Hectare
5. Annual income	'000'BDT
6. Experience in poultry farming	Years
7. Time spent in poultry farming	Hours
8. Knowledge on poultry farming	Score
9. Organizational participation	Score
10. Cosmopolitanism	Score
11. Training exposure on poultry farming	Score

**Table 2. Categories of the respondents based on possible communication exposure score**

Categories	Scores			
	Individual	Group	Mass	Overall
Low exposure	1-7	1-4	1-5	1-16
Medium exposure	8-14	5-8	6-10	17-32
High exposure	15-21	9-12	11-15	33-48

**Table 3. Distribution of the respondents according to their selected characteristics**

Selected Characteristics	Categories	Score	Respondents (N=60)		Mean	SD	Range	
			Number	Percentage			Min.	Max.
Age (Years)	Young aged	≤35	22	36.7	39.02	9.97	21	62
	Middle aged	36-50	35	58.3				
	Old aged	>50	3	5.0				
Level of Education (Years of schooling)	Illiterate	0	3	5.0	6.88	4.55	0	13
	Primary	1-5	20	33.3				
	Secondary	6-10	29	48.3				
	HSC	11-12	4	6.7				
Family size (No. of members)	>HSC	>12	4	6.7	4.87	1.64	2	12
	Small	1-4	27	45.0				
	Medium	5-6	26	43.3				
Farm size (Hectare)	Large	≥7	7	11.7	0.58	0.58	0.01	3.27
	Landless	<0.02	1	1.7				
	Marginal	0.02-0.20	15	25.0				
	Small	0.21-1.0	34	56.7				
Annual family income (BDT "000")	Medium	1.01-3.0	9	15.0	180.540	135.425	13	700
	Large	>3	1	1.7				
	Low income	≤75	7	11.7				
Experience in poultry farming (Score)	Medium income	75.001-150	21	35.0	8.65	4.65	1	20
	High income	>150	32	53.3				
	Low exposure	<4	9	15.0				
Time spent in poultry farming (Hours)	Medium exposure	4-13.3	44	73.3	5.92	1.95	3	12
	High exposure	>13.3	7	11.7				
	Low duration	<3.95	2	3.3				
	Medium duration	3.95-7.85	51	85.0				
	High duration	>7.85	7	11.7				

**Table 3. Cont...**

Knowledge on poultry farming (Score)	Very Low knowledge	≤ 10	0	0	38.20	2.32	30	40
	Low knowledge	11-20	0	0				
	Medium knowledge	21-30	1	1.7				
	High knowledge	>30	59	98.3				
Organizational participation (Score)	No participation	0	20	33.3	0.85	0.70	0	3
	Low participation	1	40	66.67				
	Medium participation	2	0	0				
	High participation	≥3	0	0				
Cosmopolitanism (Score)	No	0	0	0	10.68	2.36	5	15
	Low	1-6	2	3.3				
	Medium	7-12	43	71.7				
	High	>12	15	25				
Training on poultry farming (No.)	No training	0	11	18.3	1.21	0.84	0	3
	Low training	1	30	50.0				
	Medium training	2	14	23.3				
	High training	≥3	5	8.3				

**Table 4. Distribution of the respondents on the basis of their use of communication media**

Types of communication media	Categories	Score	Respondents (N=60)		Mean	SD	Range	
			Number	Percentage			Min.	Max.
Individual communication Media	No use of Communication media	1-7	1	1.7	13.70	2.63	7	19
	Low use of communication media	8-14	24	40.0				
	Medium use of communication media	>14	35	58.3				
Group communication media	No use of Communication media	1-4	9	15.0	5.52	1.21	3	9
	Low use of communication media	5-8	51	85.0				
	Medium use of communication media	9	0	0				
Mass communication media	No use of Communication media	1-5	12	20.0	6.50	2.25	1	13
	Low use of communication media	6-10	45	75.0				
	Medium use of communication media	>10	3	5.0				
Overall communication media	No use of Communication media	1-16	5	8.3	25.56	4.72	12	37
	Low use of communication media	17-32	54	90.0				
	Medium use of communication media	0	0	0				
	High use of communication media	>32	1	1.7				

**Table 5. Rank Order of Media under Individual, Group and Mass Communication based on CMEI**

Type of Media	CMEI		Rank order
	Score	(%)	
<b>A. Individual Media</b>	<b><math>\bar{X} = 125</math></b>	<b>69.44</b>	<b>1st</b>
Neighbor	171	95	1 <sup>st</sup>
Relative	145	80.56	3 <sup>rd</sup>
Experienced farmer	161	89.44	2 <sup>nd</sup>
Upazila livestock officer	78	43.33	12 <sup>th</sup>
NGO Worker	140	77.78	4 <sup>th</sup>
Veterinarian Surgeon	88	48.89	10 <sup>th</sup>
Veterinarian Field Assistant	92	51.11	9 <sup>th</sup>
<b>B. Group Media</b>	<b><math>\bar{X} = 93.25</math></b>	<b>51.81</b>	<b>3rd</b>
Group discussion	138	76.67	5 <sup>th</sup>
Training	100	55.56	7 <sup>th</sup>
Tours	69	38.33	13 <sup>th</sup>
Lecture	66	36.67	14 <sup>th</sup>
<b>C. Mass Media</b>	<b><math>\bar{X} = 94.2</math></b>	<b>52.33</b>	<b>2nd</b>
Printed material (Booklet, leaflet, bulletin)	86	47.78	11 <sup>th</sup>
Newspaper	88	48.89	10 <sup>th</sup>
Radio	64	35.56	15 <sup>th</sup>
TV	136	75.56	6 <sup>th</sup>
Magazine (Krishikatha and Krishibarta)	97	53.89	8 <sup>th</sup>

\*\* CMEI= Communication Media Exposure Index,  $\bar{X}$  = Mean value

**Table 6. Relationships between the selected characteristics of the poultry farmers and their exposure to communication media in receiving information**

Characteristics (Independent variable)	Dependent variable	Correlation coefficient	
		(r/p)	Remarks
1. Age	Extent of Exposure to Communication Media by the Poultry Farmers in Receiving Information	-0.207 <sup>NS</sup>	PPCC
2. Level of education		0.258*	PPCC
3. Family size		0.130 <sup>NS</sup>	PPCC
4. Farm size		0.316*	PPCC
5. Annual income		0.200 <sup>NS</sup>	PPCC
6. Experience in poultry farming		-0.037 <sup>NS</sup>	PPCC
7. Time spend in farming		0.106 <sup>NS</sup>	PPCC
8. Knowledge on poultry farming		0.005 <sup>NS</sup>	PPCC
9. Organizational participation		0.033 <sup>NS</sup>	SRCC
10. Cosmopolitanism		0.119 <sup>NS</sup>	SRCC
11. Training Exposure on poultry farming		0.355*	PPCC

NS= Non-significant, \*\*Correlation highly significant at 1% level of probability and \*Correlation significant at 5% level of probability, PPCC = Pearson's Product Moment Coefficient of Correlation, SRCC = Spearman Rank Correlation Coefficient.

than that of national average of 4.5 (BBS, 2016). The average farm size was 0.5862 ha and family income was BDT 1,80,540 (US\$2140) of the farmers which were higher than those of the national average (0.24 hectare and US\$1752 respectively) (BBS, 2016). Meanwhile, Islam (1994); Rokeya (2007); Sarker (2004) and Mosleh (2008) found similar result on gardening experience, time spent in farming and homestead gardening knowledge, respectively. The findings of Hossain (2007) and Akanda (1994); Hamid (1997) and Rokeya (2007)

related to organizational participation, cosmopolitanism and agricultural training exposure, respectively have harmony with the findings from the current study.

#### *Extent of Exposure to Communication Media by the Poultry Farmers*

Data presented in Table 4 indicate that majority (58.3%) of the respondents maintain medium exposure to individual media while two-fifth (40.0%) and a very few

(1.7%) of them showed low and high exposure to individual media, respectively. Most (85.0%) of the respondents showed low contact with group media, while, 15.0% of them having no exposure to group media. Three-fourth (75.0%) of the respondents is less exposed to mass media while 20.0% and 5.0% of them are devoid of and with high exposure to mass media, respectively. Most (90.0%) of the respondents maintain low exposure to overall communication media which demands for strengthening and improving the communication exposure. Alam (2005) found similar results regarding overall media contact of the respondents.

#### ***Relative Position of Different Communication Media under Individual, Group and Mass Communication***

A number of sixteen (16) communication media were considered for study purpose under individual (7), group (4) and mass (5) media. A comparison was also made among the media under each of the individual, group and mass media. Data presented in Table 5 indicate that the respondents are highly exposed to neighbor followed by experienced farmer, relative and NGO workers. The respondents are less exposed to radio. Besides, the respondents are more exposed to individual media followed by mass and group media.

#### ***Relationships between the selected characteristics of the poultry farmers and their exposure to communication media in receiving information***

Data presented in Table 6 indicate that among 11 selected characteristics of the respondents' only level of education, farm size and training exposure showed positive significant relationship with their extent of exposure to communication media. It means that the higher in level of education, farm size and training exposure; the higher in the extent of exposure to communication media.

### **CONCLUSIONS**

The exposure of the poultry farmers to different communication media was not satisfactory. However, the poultry farmers were more exposed to individual media as compared to mass and group media. Among 16 communications media, the respondents were highly exposed to neighbor and were less exposed to radio. Out of 11 selected characteristics, education, farm size and training on poultry farming showed a significant positive relationship with their extent of exposure to communication media in receiving information.

### **Conflict of Interest**

The authors declare that there is no conflict of interests regarding the publication of this article.

### **REFERENCES**

Ahmed, M.B., Faruquzzaman, M., Hossain, S., Islam, M.N. and Amin, M.R. 2008. Communication media used by shrimp farmers in receiving information about

Exposure to communication media by the poultry farmers

- shrimp farming. *Journal of Agricultural Education and Technology*. 11(1&2): 87-94.
- Akanda, W. 1994. Participation of rural women in different farm and non-farm activities in two selected villages of Mymensingh district. M.S. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Alam, J. 2005. *Livestock Resources in Bangladesh: Present status and future potentials*. The University Press Limited.
- Ali, M.M. and Ahmed, M.B. 1998. Determining farmers' communication behavior and identification of its indicator attributes. *The Journal of Rural Development*. 28(2): 117-129.
- Amin, M.R., Adhikary, M.M., Ahmed, M.B. and Kashem, M.A. 2013. Farmers' exposure to agricultural programs broadcasted through radio. *Research Journal of Agricultural Sciences*. 4(4): 522-526.
- Amin, M.R., Adhikary, M.M., Ahmed, M.B. and Kashem, M.A. 2014. Farmers' exposure to agricultural programs broadcasted through television. *Research Journal of Agricultural Sciences*. 5(1): 42-47.
- Anonymous. 2020. Information related to meat, milk and egg (Livestock- at a glance in Bangladesh). *Krishi Diary*. Dhaka: Agriculture Information Service (AIS), Ministry of Agriculture, Govt. of the People's Republic of Bangladesh. pp. 2-3.
- BBS. 2016. *Statistics Year Book of Bangladesh*. Bureau of Statistics Division. Ministry of Planning, Government of the People's Republic of Bangladesh.
- FAO. 2017. *FAO Quarterly Bulletin of Statistics*. Food and Agricultural Organization. Rome. 12:2-4.
- Hamid, 1997. Participation of Women in Rural Development: An experience of comprehensive village development programme. *The Bangladesh Rural Development Studies*, 6(1): 47-57.
- Hossain, M.S. 2007. Participation of Rural Women in Homestead Agriculture. M.S. (Ag. Ext.Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Islam, M.K., Uddin, M.F. and Alam, M.M. 2014. Challenges and Prospects of Poultry Industry in Bangladesh. *European Journal of Business and Management*. 6(7): 116-127 (Available from [www.iiste.org](http://www.iiste.org) 2222-2839, Accessed January 14, 2021).
- Islam, M.S. 1994. Women's Participation in Selected Agricultural Income Generating Activities : Tinder Rural Development Program of BARC at Shibpur Thana in Narshingdi district. M.S. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Mosleh, 2008. Involvement of rural women in home gardening practices in SDS area of Shariatpur district. M.Sc. Thesis, Department of agricultural extension and information system. Sher-e-Bangla Agricultural University, Dhaka-1207.

- Rahman, M.M., Zohra, F., Ahmed, M. B., Amin, M.R. and Islam, M.R. 2012. Communication media used by the commercial flower cultivators of Panisara union of Jhikargacha Upazila under Jessore district. South Asian J. Agric. 5(1&2): 13-17.
- Rokeya, 2007. Communication exposure of rural women regarding homestead gardening. M.Sc. Thesis, Department of Agricultural Extension and Information System. Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka-1207.
- Sarker, M.T.A.R. 2004. Use of Selected Crop Technologies in Homestead Gardening by the Rural Women in a Selected Area of Mymensingh District. M.S. (Ag. Ext. Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Sarker. B., Ahmed, M.B., Islam, M.M., Maskawat, M.S., Islam, M.R. and Rashid, H.A.. 2009. Use of printed materials related to farm information by the students of Khulna University. South Asian J. Agric. 4(1&2): 72-75.