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Information Seeking Behavior of Grass Root Level Extension Workers of the Department of Agricultural Extension in Bangladesh

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Abstract:

This study assessed the information seeking behavior of grass root level extension workers, known as Sub-Assistant Agriculture Officers (SAAOs) of the Department of Agricultural Extension (DAE) of Bangladesh who work in the lowest administrative unit of a upazila called block and responsible for carrying out extension service to the rural clienteles. Attempts were also made to explore the relationships between the selected characteristics of the grass root level extension workers and their extent of information seeking behavior. Chawgacha, Jhikargacha and Jessore Sadar upazila under Jessore district of Bangladesh were selected as the study area. Seventy (70) SAAOs were working in the selected three upazilas and all of them were interviewed for the purpose of the study. The findings reveal that 64.30% of the respondents were frequently seeking information for updating their knowledge and skills. Pearson Product-Moment Correlation Co-efficient (r) reveals that job satisfaction and aspiration for training had positive significant relationship while age, experience of extension work, annual expenditure, motivation for searching job related information, organizational problem confrontation and technical knowledge had no significant relationship with SAAOs' information seeking behavior.

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INTRODUCTION

The job of DAE is to provide resourceful, operative, devolved, site specific, demand responsive and integrated extension services to all categories farmers in retrieving and utilizing resources to increase sustainable and profitable crop production. In the New Agriculture Extension Policy (NAEP) (2012), SAAOs are considered as the grass root level extension workers under DAE. They are not only play vital roles in planning, formulating and executing of agricultural extension program at the grass root level but also play the role of facilitators in the linkage between research and extension. In fact, availability of time sensitive information has been proven vital for successful agricultural production (Wulandari, 2010). Concerning this, SAAOs roles in reaching farmers with that information are noteworthy. However, in doing so, SAAOs need to be updated themselves with latest farm-related scientific information and equipped themselves with modern service delivery approaches. Upazila level extension personnel like Agricultural Extension Officer (AEO), Upazila Agriculture Officer (AEO), training and farm publications are the common sources of information for SAAOs. Nonetheless, information needs and information-seeking patterns of individual are dynamic and changing (Majid, Anwar, & Eisenschitz, 2000). Technological advancements are also expected to alter the ways information was previously identified, acquired, and utilized by the individual community. Information seeking behavior of an individual may be defined as the extent of seeking information using different information sources ranging from inter-personal to mass media. To maintain the proper flow of work SAAOs usually communicate with a variety of information sources in order to carry out their day to day work. Information must be relevant and meaningful to farmers, in addition to being packaged and delivered in a way preferred by them (Diekmann, Loibl, and Batte 2009). In that case they face inimitable contests in finding that precise information ought to meet the needs of their clients. Barriers that prevent individuals from seeking and getting information are also of great importance in understanding the information seeking behavior of individuals and organizations. Kamba (2013) found that the most used information sources by Nigerian extension workers and specialists were books, magazines and technical reports. Pezeshki-Rad and Zamani (2005) found similar findings among Iranian extension managers and specialists. They also reported that interpersonal communication with colleagues, in-service training courses and scientific-technical conventions were ranked respectively as the three top communication channels used by extension personnel. In exploring communication sources used by extension personnel in cotton and wheat technologies, Singh, *et al.* (2003) found that the most important source of acquisition of farm technology was state department of agriculture and the most important communication mode was staff specialists, while the least used mode was personal correspondence with researchers. Pezeshki-Rad and Zamani (2005) in their studies identified that lack of time flexibility for doing job tasks as the main barrier that prevented them from information seeking. Kamba (2013) reported that lack of time flexibility for doing job tasks and job complexity and ambiguity in tasks were two main barriers for seeking information by the extension personnel. However, these studies have been identified or highlighted the motivation for searching job-related information, sources or channels used for searching information and barriers for searching information rather analyzed types of information search, extent of information search by the extension workers. Moreover, these studies conducted in other countries than Bangladesh. Due to the geographical and socio-cultural differences, a behavior which exists in a locality at one time might be found differently in

another locality at the same or different time. Therefore, a country specific study is always required. In this line, to fill up the gap of the previous studies, the present study was undertaken to answer the following research questions:

- What are the characteristics that influence grass root level extension workers' information seeking behavior in updating their knowledge and skills?
- To what extent grass root level extension workers seek information using different information sources?
- Which specific type of information grass root level extension workers mostly seek using different information sources?
- Which type of communication media grass root level extension workers mostly used for updating their work-related knowledge and skill?

METHODOLOGY

Study area and Sampling Procedure

Jessore district of Khulna division was selected purposively as the study area for this research work. There are eight upazilas in Jessore district within which three upazilas namely Chawgacha, Jessore Sadar and Jhikargacha were randomly selected as the locale of the study. In the selected three upazilas, 70 SAAOs were posted in different blocks. All the 70 SAAOs were interviewed for the purpose of the study. Data were collected in a face-to-face situation by the third author of this paper using the structured interview schedule. The entire process of data collection took half a month from 15 April to 30 April 2015. The methodology followed for measuring the dependent and independent variables are described in the following sections.

Measurement of Variables

The selected characteristics of the grass root level extension workers such as age, experience of extension work, annual expenditure, job satisfaction, motivation for searching job related information, organizational problem confrontation, aspiration for training and technical knowledge were the independent variables of the study. Age of the respondents was measured in terms of actual years from birth to the time of interview. Experience of extension work was measured by the years of involvement in extension works. Annual expenditure was measured on the basis of last year respondent's expenditure on different sectors and expressed in thousand taka. Job satisfaction was computed for each respondent on the basis of his responses on 17 selected job satisfaction factors using 4-point Likert-type rating scale. Motivation for seeking job related information was computed for each respondent on the basis of his/her responses on 10 selected motivational factors. Organizational problem confrontation by the grass root level extension worker was measured on the basis of his/her responses on 13 selected organizational problems. Aspiration for training was computed for each respondent on the basis of his/her desire for training in 12 selected subjects using 4-point rating scale. Technical knowledge of the SAAOs was measured by using 30 multiple choice questions.

Information seeking behavior of the grass root level extension workers was the dependent variable of the study. Information searching behavior score was measured by multiplying two sub-scores, such as information seeking sub-score and communication media sub-score. Through literatures review, consultation with experts and based on the pre-test, nineteen types of information were selected to measure the information seeking sub-score while twenty two communication media were identified to measure the communication media sub-score. A 4-point rating scale (0-3) ranging from "not at all" to "regularly" was used for determining the score of both sub-scores. The information seeking sub-score of a respondent could range from 0 to 57 and communication media sub-score range from 0 to 66. Thus, the information seeking behavior of a respondent could range from 0 to 3762 (0 to 57 × 0 to 66).

To identify the important information, an information seeking index (ISI) was calculated. All the 70 SAAOs gave their opinion on a 4 point (0-3) rating scale for particular information. Thus, ISI of particular information could range from 0 to 210. Similarly, to identify the important communication media, a media uses index (MUI) was calculated. Thus, MUI of a particular medium could range from 0 to 210.

RESULTS AND DISCUSSION

Selected Characteristics of the Grass Root Level Extension Workers

The salient features of respondents' characteristics were presented in Table 1 which shows that around one-third of the respondents were young and old aged while one-fourth were middle aged workers. Among the respondents, 70 percent had high experience in extension work.

Table 1. Respondents' selected characteristics

Characteristics	Possible range	Observed range	Category	No. (N=70)	Percent	Mean	SD
Age (in years)	Unknown	23 to 60	Young (<36)	25	35.70	42.88	11.23
			Middle (36-50)	19	27.20		
			Old (>50)	26	37.10		
Experience (in years)	Unknown	1 to 39	Low (<10)	21	30.00	19.50	12.82
			High (≥10)	49	70.00		
Annual expenditure (thousand taka)	Unknown	100.5 to 658	Low (<225)	25	35.70	280.28	190.62
			Medium (225-335)	28	40.00		
			High (>335)	17	24.30		
Job satisfaction (in scores)	0 to 51	20 to 47	Low (<28)	10	14.30	33.27	5.83
			Medium (28-40)	53	75.70		
			High (>40)	7	10.00		
Motivation (in scores)	0 to 30	14 to 30	Medium (<23)	6	8.60	25.52	2.82
			High (≥23)	64	91.40		
Problem confrontation (in scores)	0 to 39	15 to 35	Medium (<23)	10	14.30	27.48	4.72
			High (≥23)	60	85.70		
Aspiration for training (in scores)	0 to 36	15 to 36	Medium (<25)	09	12.90	29.67	4.13
			High (≥25)	61	87.10		
Technical knowledge (in scores)	0 to 30	17 to 28	Medium (<22)	10	14.30	24.12	2.48
			High (≥22)	60	85.70		

More than three-fourths (75.70 percent) of the respondents had low to medium annual expenditure whereas nearly one-fourth (24.30 percent) had high annual expenditure. Highest proportion (75.70 percent) of them had medium job satisfaction compared to 14.3 percent had low and 10 percent had high job satisfaction, respectively. An overwhelming majority (91.40 percent) of the grass root level extension workers was highly motivated for seeking job related information except a few (8.60%) were moderately motivated. However at the same time an overwhelming majority (85.70%) of the respondents reported high problem confrontation. In addition, the highest proportion (87.10%) of the extension workers highly aspired for training and had high technical knowledge (85.70 percent) compared to 14.3 percent had medium technical knowledge.

Information Seeking Behavior of the Grass Root Level Extension Workers

Based on the observed information seeking behavior score, the respondents were classified into three categories as shown in Table 2.

Table 2. Distribution of the SAAOs according to their information seeking behavior

Categories	SAAOs		Mean	SD
	Number	Percent (%)		
Infrequent information seeker (<1555)	13	18.6	2062.22	507.03
Frequent information seeker (1555-2569)	45	64.3		
Very frequent information seeker (>2569)	12	17.1		
Total	**70**	**100**		

Table 2 indicates that highest proportion (64.30 percent) of the respondents frequently seek information as compared to 18.6 percent infrequently and 17.1 percent very frequently seek information using different communication media. The findings reveal that an overwhelming majority (81.4%) of the respondents were frequent to very frequent information seeker. SAAOs had to search information for identifying farmers' problems as well as giving solutions to those problems that might be a reason for frequent to very frequent information seeking behavior. Other reason might be the high use of interpersonal communication media to search information.

Type of Information Searched by the Grass Root Level Extension Workers

An ISI for each of the information could range from 0 to 210. The 19 types of information have been arranged in rank order in Table 3 on the basis of their ISI. The observed ISI ranged from 149 to 205. On the basis of computed ISI, the insect management (205) information were searched by the grass root level extension workers to the highest extent followed by farmers' problem (200), disease management (200), modern varieties (1920) and report writing (190). On the other hand, information like weed management (149), irrigation management (151) and weather (154) were sought by the SAAOs to the lowest extent. The findings conclude that insect and disease are common problem of farmers. To solve those problems, high technical knowledge is required and that is why grass root level extension workers regularly search information on insect and disease management. Besides, solving farmers' problem is a routine work of them. Hence, they seek farmers' problem regularly. On the other hand, information like weed management, irrigation management, there is little

new information and for that reason grass root level extension workers do not search those information so frequently.

Type of Communication Media Used by the Grass Root Level Extension Workers

Extent of use of communication media for seeking information have been studied. To identify the important communication media and compare the communication media used by the grass root level extension workers, MUI was calculated. MUI for each communication media could range from 0 to 210 but the observed MUI ranged from 28 to192. The twenty-two communication media have been arranged in rank order in Table 4 on the basis of their MUI.

Table 3. Rank order of the type of information searched by SAAOs

Sl. No.	Nature of information	ISI	Rank order
1	Insect management	205	1
2	Farmers' problems	200	2
3	Disease management	200	2
4	Modern varieties	192	3
5	Report writing	190	4
6	Biological control	184	5
7	Pesticide products	182	6
8	IPM/ICM	181	7
9	Seed rate	179	8
10	Soil management	174	9
11	Fertilizer management	174	9
12	Post-harvest technology	171	10
13	Monitoring and surveying tools	168	11
14	Seed technology	164	12
15	Production technology	163	13
16	Nursery management	158	14
17	Weather	154	14
18	Irrigation management	151	16
19	Weed management	149	17

Table 4. Rank order of communication media used by SAAOs

Sl. No.	Communication media	MIU	Rank order
1	Progressive farmers	192	1
2	Farmers	191	2
3	Upazila Agricultural Officer (UAO)	188	3
4	Input dealers	180	4
5	Local leaders	173	5
6	Other SAAO's	169	6
7	Leaflets/Folders	158	7
8	Television	157	8
9	Agricultural extension officer (AEO)	154	9
10	Newspaper	154	9

11	Seminar/symposium/workshop/conference	147	10
12	Field day/Method demonstration/Result demonstration	147	10
13	Training manuals/handouts	135	11
14	Books/Booklets	121	12
15	NGO workers	120	13
16	District level specialists of DAE	113	14
17	Agricultural bulletin/magazine	108	15
18	Training sessions	103	16
19	Officers of research institute	100	17
20	Officers of BADC	84	18
21	Internet	74	19
22	Radio	28	20

Table 4 indicates that the progressive farmers were used as the communication media to the highest extent (192) followed by the farmers (191), UAO (188), input dealers (180) and local leader (173). On the other hand radio (28), internet (74), officers of BADC (84) were used relatively to a lower extent. Progressive farmers and farmers are the common media for information searching. Main job responsibility of SAAOs is to identify and solve farmers' problem. That is why grass root level extension workers regularly contact with farmers including progressive farmers. On the other hand, most of the grass root level extension workers are not familiar with internet due to lack of availability of internet facilities and practice. Besides, use of radio is almost replaced by the TV. That is why most of the grass root level extension workers do not use radio for information seeking. Grass root level extension workers use media like UAO, other SAAOs, AEO, leaflets/folder, television, newspaper for searching technical information.

Relationship between Selected Characteristics of the Grass Root Level Extension Workers with their Information Seeking Behavior

Co-efficient of correlation results revealed that out of eight selected characteristics of the grass root level extension workers only two had significant positive relationships shown in Table 5.

Table 5. Co-efficient of correlation (r) between selected characteristics of SAAOs and their information seeking behavior

Selected characteristics of root level extension workers	Values of 'r' with 68 df	Table value of 'r' with 68 d.f.	
		0.01	0.05
Age	-0.139	0.254	0.195
Experience of extension work	-0.124		
Annual expenditure	-0.071		
Job satisfaction	0.246 *		
Motivation for seeking job related information	0.071		
Problem confrontation	0.051		
Aspiration for training	0.300 *		
Technical knowledge	-0.042		

*P≤ 0.5

The findings indicate that job satisfaction of SAAOs had significant positive relationship with their information seeking behavior. Hence, one can say that higher the job satisfaction of the SAAOs higher their information seeking behavior. The reason may be that individuals having high job satisfaction perform their duties and responsibilities very well. For that reason, they have to search information frequently to solve their job related problems. Kamba (2013) also found similar finding in his studies. There was positive significant relationship between aspiration for training of the grass root level extension workers and their information seeking behavior. It is quite logical that individuals having higher aspiration for training face many job related problems. To overcome those problems, they have to search information regularly. Those who search information aspire more for training to get right information at the right time.

CONCLUSION AND RECOMMENDATIONS

The grass root level extension workers are regularly facing job related problems and they are solving their problems through searching information. Information like insect management, disease management and modern varieties was sought by the grass root level extension workers to the highest extent. This leads to the conclusion that farmers face pest management problems to the highest extent that is why root level extension workers search this type of information. The findings of the rank order of communication media used by the root level extension workers prompted to conclude that they usually use communication media like progressive farmer, farmer, input dealers, local leaders, etc. for searching their problems whereas for searching technical knowledge they use media like UAO, other SAAOs, AEO, leaflet/folder, television, newspaper. The findings lead to suggest that attempt should be made by the authority of DAE to make available of information and increase their easy accessibility which would ultimately help root level extension workers to solve their job related problems. Job satisfaction and aspiration for training of the SAAOs had significant positive relationship with their information seeking behavior. Any arrangement to increase job satisfaction and provide training of the SAAOs would be an important step towards increasing information seeking behavior as well as job performance of the SAAOs.

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