

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

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Abstract

This study assessed the information searching behaviour of root level extension workers (SAAOs) to explore the relationships between the selected characteristics of the root level extension workers and their information searching behaviour. Chawgacha, Jhikargacha and Jessore Sadar upazila under Jessore district were the study area. All the 70 Sub Assistant Agriculture Officers (SAAOs) in these three upazilas participated in the study. The study revealed that 64.30% of the respondents were frequent information searcher. Findings reveal that job satisfaction and aspiration for training had positive significant relationship with information searching behaviour while age, experience of extension work, annual expenditure, and motivation for searching job related information, organizational problem confrontation and technical knowledge had no significant relationship with information searching behaviours.

Keywords: Information searching behaviour, root level extension worker, Sub-Assistant Agriculture Officer (SAAO), DAE

Introduction

The job of the Department of Agricultural Extension (DAE) is to provide resourceful, operative, devolved, site specific, demand responsive and integrated extension services to all categories farmer in retrieving and utilizing resources to increase sustainable and profitable crop production through their grass root level extension workers. According to the Bangladesh new agriculture extension policy (2012) the sub assistant agriculture officers (SAAOs) are the root level extension workers under DAE. Despite of planning, programming, dissemination of technology and collecting feedback from farmers SAAOs are also play as the key facilitator to develop agriculture in rural areas as well as the bridging between research institute and farmers are also maintained by them. Wulandari (2010) reported that one of the important factors that contribute to agricultural development is information. Timely and availability of relevant information is vital for effective performance of managerial functions such as planning, organizing, leading, and controlling (Babu, *et al.* 1997). 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. /In narrow sense, information seeking behaviour may be defined as the extent to which individual seeks different information through extent of using different communication media.

To maintain the proper flow of work SAAOs usually communicates frequently 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 searching behaviour of individuals and organizations. Kamba (2013) found that Nigerian extension workers and specialists' main motivation for searching job-related information was interest in developing their own job-related information. The findings also show that the most used information sources by 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 analysed types of information search, extent of information search by the extension workers. Moreover, these studies conducted in other countries than Bangladesh. Because of location and socio-cultural differences, a behaviour 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 gap of the previous studies, the present study was undertaken to answer the following research questions:

- a) Which characteristics are related to the information seeking behaviour of the root level extension workers?
- b) What is the extent of information seeking behaviour of root level extension workers?
- c) Which type of information is sought by root level extension workers?
- d) Which type of communication media are used by the root level extension workers in seeking job-related information?

Methodology

Study area and Sampling Procedure

Jessore district of Khulna division was selected purposively as the area for this research work. There are eight upazilas in Jessore district within which three upazilas were randomly selected which were- Chawgacha, Jessore Sadar and Jhikargacha. The total of 185 SAAOs were working in different upazilas of Jessore district which constituted the population of the study. In the selected three upazilas, 70 SAAOs were posted in different blocks. All the 70 SAAOs participated the study. Data were collected by the researcher himself. The task was accomplished through a three group's interview with the SAAOs 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 below:

Measurement of Variables

The selected characteristics of the 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 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 on 12 selected subjects using 4-point rating scale. Technical knowledge of the SAAOs was measured by using 30 multiple choice questions.

Information seeking behaviour of root level extension workers was the dependent variable of the study. Information searching behaviour score was measured by multiplying two sub scores, such as information searching sub score and communication media sub score. Through literatures review, consultation with experts and pre-tests findings 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 developed for determining the score of both sub scores. The information seeking sub scores of a respondent could range from 0 to 57 and communication media sub scores range from 0 to 66. Thus, the information searching behaviour of a respondent could range from 0 to 3762 (0 to 57 × 0 to 66).

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

Results and Discussion

Characteristics of the Root Level Extension Workers

Table1 shows there was a good combination of young and old aged root level extension workers in the organization, among which 70.00% had high experience in extension work.

Table 1: Salient features of the respondents selected characteristics

Characteristics	Possible range	Observed range	Category	Percent	Mean	SD
Age	Unknown	23 to 60	Young aged(up to 35 years)	35.70	42.88	11.23
			Middle aged(36-50 years)	27.20		
			Old aged(above 50 years)	37.10		
Experience of extension work	Unknown	1 to 39	Low experience (<10 years)	30.00	19.50	12.82
			High experience (≥10 years)	70.00		
Annual expenditure	Unknown	100.5 to 658	Low(<225)	35.70	280.28	190.62
			Medium(225-335)	40.00		
			High(>335)	24.30		
Job satisfaction	0 to 51	20 to 47	Low satisfaction (<28)	14.30	33.27	5.83
			Medium satisfaction (28-40)	75.70		
			High satisfaction (>40)	10.00		
Motivation for searching job related information	0 to 30	14 to 30	Medium motivated (<23)	8.60	25.52	2.82
			High motivated (>23)	91.40		
Problem confrontation	0 to 39	15 to 35	Medium problem (<23)	14.30	27.48	4.72
			High problem (>23)	85.70		
Aspiration for training	0 to 36	15 to 36	Medium aspiration (<25)	12.90	29.67	4.13
			High aspiration (>25)	87.10		
Technical knowledge	0 to 30	17 to 28	Medium technical knowledge (<22)	14.30	24.12	2.48
			High technical knowledge (>22)	85.70		

More than three fourth (75.70%) of the respondents had low to medium annual expenditure whereas 24.30% had high annual expenditure although highest proportion (75.70%) of them had medium job satisfaction compared to 14.3 percent had low and 10 percent had high job satisfaction. The highest proportion (91.40%) of the root level extension workers was highly motivated for searching job related information except a few (8.60%), among which an overwhelming majority (85.70%) of them confronted high organizational problem. The highest proportion (87.10%) of the root level extension workers highly aspired for training as they face problems in seeking information aspire more for training. They belief that training programme will satisfy their information needs. Table 1 indicates that the majority (85.70%) of the root level extension workers had high technical knowledge compared to 14.3 percent had medium technical knowledge. The root level extension workers who got more technical knowledge seek less information and vice versa.

Information Seeking Behaviour of Root Level Extension Workers

The observed information searching behaviour scores, the root level extension workers were classified into three categories as shown in Table 2.

Table 2: Distribution of the SAAOs according to their information seeking behaviour

Categories	Percent (%)	Mean	SD
Rare information seeker (<1555)	18.6		
Frequent information seeker (1555-2569)	64.3	2062.22	507.03
Regular information seeker (>2569)	17.1		
Total	100		

Table 2 indicates that highest proportions (64.30%) of the respondent were frequent information searcher as compared to 18.6 percent rare information seeker and 17.1 percent were regular information searcher. The findings reveal that an overwhelming majority (81.4%) of the respondents were frequent to regular information searcher. Root level extension workers had to search information for identifying farmers' problems as well as giving solution to those problems that might be a reason for frequent to regular information searching behaviour. Other reason might be high use of interpersonal communication media to search information.

Comparison of Nature of Information Searched by the Root Level Extension Workers

An information seeking index 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.

Table 3: Rank order of nature of information searched by the root level extension workers

Nature of information	Information searching index (ISI)	Rank order
Insect management	205	1
Farmers' problems	200	2
Disease management	200	2
Modern varieties	192	3
Report writing	190	4
Biological control	184	5
Pesticide products	182	6
IPM/ICM	181	7
Seed rate	179	8
Soil management	174	9
Fertilizer management	174	9
Post-harvest technology	171	10
Monitoring and surveying tools	168	11
Seed technology	164	12
Production technology	163	13
Nursery management	158	14
Weather	154	14
Irrigation management	151	16
Weed management	149	17

On the basis of computed ISI, the insect management (205) information were searched by the root level extension workers to the highest extent followed by farmers' problem (200), disease management (200), modern varieties (192) and report writing (190). On the other hand, information like weed management (149), irrigation management (151) and weather (154) were sought by the root level extension workers 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 for that reason root level extension workers regularly search information on insect and disease management. Besides, farmers' problem solving is a routine work of root level extension workers. This is why they search farmers' problem regularly. On the other hand, information like weed management, irrigation management, there is little new information and for that reason root level extension workers do not search these so frequently.

Communication Media Used by the Root Level Extension Workers

The twenty-two communication media have been arranged in rank order in table 4 on the basis of their media use index (MUI).

Table 4: Rank order of communication media used by root level extension workers

Communication media	Combined media use index (MIU)	Rank order
Progressive farmers	192	1
Farmers	191	2
Upazila Agricultural Officer (UAO)	188	3
Input dealers	180	4
Local leaders	173	5
Other SAAO's	169	6
Leaflets/Folders	158	7
Television	157	8
Agricultural extension officer (AEO)	154	9
Newspaper	154	9
Seminar/symposium/workshop/conference	147	10
Field day/Method demonstration/Result demonstration	147	10
Training manuals/handouts	135	11
Books/Booklets	121	12
NGO workers	120	13
District level specialists of DAE	113	14
Agricultural bulletin/magazine	108	15
Training sessions	103	16
Officers of research institute	100	17
Officers of Bangladesh Agricultural Development Corporation (BADC)	84	18
Internet	74	19
Radio	28	20

Table 4 indicates that the progressive farmer was 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 the farmer's problem. That's why root level extension workers regularly contact with farmers including progressive farmers. On the other hand, most of the 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 banished by the TV. That's why most of the root level extension workers do not use radio for information searching. Root level extension workers use media like UAO, other SAAOs, AEO, leaflets/folder, television, newspaper for searching technical information.

Relationship Between Characteristics of Root Level Extension Workers with Information Seeking Behaviour

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

Table 5. Correlation between selected characteristics of the root level extension workers and their information searching behaviour

Selected characteristics of root level extension workers	Values of 'r' with 68 df
Age	-0.139
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

* $P \leq 0.5$

The findings indicate that job satisfaction of root level extension workers had significant positive relationship with their information searching behaviour. Hence, one can say that higher the job satisfaction of the SAAs higher their information seeking behaviour. 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. On the contrary, there was positive significant relationship between aspiration for training of the root level extension workers and their information searching behaviour. 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 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 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 Upazila Agricultural Officer (UAO), other SAAOs, Agriculture Extension Officer (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 behaviour. Any arrangement to increase job satisfaction and provide training of the SAAOs would be an important step towards increasing information seeking behaviour as well as job performance of the SAAOs.

References

- Babu, A.R., Singh, Y.P., and Sachdeva, R.K. (1997). Establishing a management information system. In B. E. Swanson, R. P. Bentz, & A. J. Sotranko. (Eds.), *Improving Agricultural Extension (A reference manual)*. Food and Agriculture Organization, Rome. 161-169.
- Diekmann, F., Loibl, C. and Batte, M. T. (2009). The Economics of Agricultural Information: Factors Affecting Commercial Farmers' Information Strategies in Ohio. *Review of Agricultural Economics*, 31 (4), 853–872.
- Kamba, M.A. (2013). Information Seeking Behaviour of Extension Workers and Specialists in Nigerian Rural Communities with Special Reference to Job Satisfaction. *Samaru Journal of Information Studies*, 13 (1&2): 1-12.
- Majid, S., Anwar, M.A. and Eisenschitz, T.S. (2000). Information needs and information seeking behavior of agricultural scientists in Malaysia. *Library and Information Science Research*. 22(2):145-163.
- New Agriculture Extension Policy. (2012). Ministry of Agriculture. Peoples Republic of Bangladesh.
- Pettigrew, K. E. (1996). Modeling the information seeking of professionals. *Library Quarterly*. 66(2): 161-193.
- Pezeshki-Rad, G. and Zamani, N. (2005). Information-seeking behaviour of Iranian extension managers and specialists. *Information Research*. 10(3):229.
Retrieved from: <http://InformationR.net/ir/10-3/paper229.html>
- Singh, B., Narwal, R. S., and Malik, S. J. (2003). Communication sources used by extension personnel and farmers. *Indian Journal of Extension Education*, 39(1/2): 26-30.
- Wulandari, R. (2010). Information Need and Information-Seeking Behaviour of Agricultural Extension Workers in Daerah Istimewa Yogyakarta, Indonesia. Master's Thesis, University of Putra Malaysia.