INFORMATION SEEKING BEHAVIOR OF SUB-ASSISTANT AGRICULTURE OFFICERS (SAAOs) OF DEPARTMENT OF AGRICULTURE EXTENSION (DAE)

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CERTIFICATE

This is to certify that the thesis entitled ***"Information Seeking Behavior of Sub-Assistant Agriculture Officers (SAAOs) of Department of Agricultural Extension (DAE)"*** *submitted to the Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka-1207, in partial fulfillment of the requirements for the degree of* ***MASTER OF SCIENCE*** *in* ***AGRICULTURAL EXTENSION****, embodies the result of a piece of bona fide research work carried out by* ***Md. Hossain-Al-Mufthi, Registration No. 07-02426*** *under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.*

I further certify that any help or source of information, received during the course of this investigation has been duly acknowledged.

Dated: JUNE, 2014
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DEDICATED TO
MY
BELOVED PARENTS

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The Author

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ABSTRACT

The main objective of this study was to assess the extent of information seeking behavior of SAAOs and to explore the relationship between the selected characteristics of the SAAOs and their information seeking behavior. Chawgacha, Jhikargacha and Jessore Sadar upazila under Jessore district were the study area. There were 70 Sub Assistant Agriculture Officers (SAAOs) in these three upazilas, all of them were selected as the sample of the study. Data were collected through interview schedule during 15 April to 30 April 2015. The study revealed that 64.30% of the respondents were frequent information seeker compared to 18.60% were rare and 17.10% were regular information seeker. Coefficient of correlation (r) was computed to explore the relationships between the selected characteristics of the SAAOs and their information seeking behavior. Findings revealed that among eight characteristics, job satisfaction and aspiration for training had positive significant relationship with information seeking behavior while age, experience of extension work, annual expenditure, motivation for seeking job related information, organizational problem confrontation and technical knowledge had no significant relationship with information seeking behavior.

CHAPTER I

INTRODUCTION

1.1 General Background

Bangladesh is predominantly an agricultural country, and about 80 percent of her population lives, directly or indirectly on income derived from agriculture. Economy of this country is almost entirely dependent on agriculture. Agriculture sector contributes about 19% of GDP (BBS, 2014-15). Though Bangladesh is an agriculture based country but it is not self sufficient in agriculture yet. Different research organizations are trying to make it self sufficient by generation of modern technologies. Among them BARI, BRRI, BJRI, SAU, BAU etc are mentionable. All recommended technologies are being disseminated to grass-root level by Department of Agricultural Extension (DAE) especially by the extension workers.

An extension worker of Department of Agricultural Extension (DAE) at grass-root level designated as Sub-Assistant Agriculture Officer (SAAO). He/she is posted at a block with duties and responsibilities of agricultural development including diffusion of technologies and information and collection of feedback from the farmers. Using information is a key issue in the information age. The real challenge of our time is not producing information or storing information only, but also getting people to use information. Information is a critical resource in the operation and management of organizations. To be successful, any kind of organizational activity requires efficient management of human and material resources. This cannot be done unless accurate, timely, and relevant information is available to decision makers (Waheed, 1990). In extension organization, like other organizations, information has its own importance to the individuals who are working in any position in the organization to make right decisions.

The DAE encourages and supports planning and implementation of all agricultural extension activities at the grass-root level and works in partnership

with government organizations, non-government organizations and private sectors. To provide high quality extension services, the DAE employs 12,640 Sub-Assistant Agriculture Officers (SAAOs) at the field level (The Results of a National Extension Coverage Survey, 2003). According to the DAE guidelines each SAAO has to provide extension services to around 1,200 farm households in his/her assigned service area. Since the extension coverage of each SAAO is very large, the success or failure of his/her extension services largely depends on his/her communication or information seeking skill.

Sub Assistant Agriculture Officers (SAAOs) are the block level workers of DAE. They are directly communicating with the rural people. The success of extension service of DAE largely depends on SAAOs. So it is very important to see how SAAOs seeking information for performing their duties and responsibilities.

In the information age, extension has a major role in pointing the way to increasing the use of knowledge and information through its people orientation. Agricultural extension depends to a large extent on information exchange between and among farmers. Extension, along with education and research is typically seen as a service, public or private, that responds to the needs of farmers and rural people for knowledge that they can use to improve their productivity, incomes and welfare and to manage the natural resources, on which they depend in a sustainable way. Considering this situation, extension has little choice but to become information-based.

Information seeking behavior is a broad term encompassing the ways individuals articulate their information needs, seek, evaluate, select, and use information. In other words, information-seeking behavior is purposive in nature and is a consequence of a need to satisfy some goal (Wilson, 2000). Information seeking behavior involves personal reasons for seeking information, the kinds of information which are being sought and the ways and sources with which needed information is being sought (Pettigrew, 1996).

1.2 Statement of the Problem

SAAOs regularly seek information to carry out their day-to-day work. They frequently communicate with a variety of information sources. Prominent among these were: farmers, other SAAOs, extension specialists, their immediate supervisor, local news agencies, input dealers, officers of research institute and NGO workers. Viewing the role of extension service performed by SAAOs, it is apprehensive that they have good interaction with rural people in sharing any kind of agriculture related information. However, SAAOs face different problems and barriers in collecting information properly as well.

SAAOs face unique challenges in finding precise information when trying to meet the specific needs of their clientele. Serving as a liaison between extension organization and the general public i.e. farmers is a daunting task, particularly when an agent is trying to decipher what information is most credible. Radhakrishna and Thomson (1996) and Shin and Evans (1991) recognized the inevitable impact of the seeking behavior would have an extension agents' information gathering techniques, but few follow-up studies have been conducted to assess the magnitude of that change. Technological advances have changed the way of professionals' access to information in every field, and extension is no exception. But very few studies were conducted on it. So, the researcher is keenly interested to conduct a research entitled: "Information seeking behavior of Sub-Assistant Agriculture Officers (SAAOs) of Department of Agricultural Extension (DAE)".

Sub-Assistant Agricultural Officers (SAAOs) are responsible for providing extension services to the farm families within a block as well as for planning and programming of related activities. As, SAAOs are working for the dissemination of technology and collection of feedback among the farmers, the success of extension work largely depends on their information seeking behavior. In this regard, the answers to the following questions were supposed to be very much pertinent:

a. What is the information seeking behavior of SAAOs?
b. Which characteristics are related to the information seeking behavior of the SAAOs?

1.3 Objectives of the Study

In order to find proper direction of the present study, following specific objectives were formulated:

1. To determine and describe the following selected characteristics of the SAAOs:
    i. Age
    ii. Experience of extension work
    iii. Annual expenditure
    iv. Job satisfaction
    v. Motivation for seeking job related information
    vi. Organizational problem confrontation
    vii. Aspiration for training
    viii. Technical knowledge
2. To determine and describe the information seeking behavior of Sub-Assistant Agriculture Officers (SAAOs) of DAE.
3. To explore the relationship between the selected characteristics of Sub Assistant Agriculture Officers (SAAOs) and their information seeking behavior.

1.4 Justification of the Study

Information seeking behavior is closely related to technology generation and diffusion. Department of Agricultural Extension (DAE) plays key role in disseminating agricultural technology generated from research institutes of Bangladesh. On the other hand, DAE collects feedback from the end users of those technologies and conveys that to the research institutes. The Sub Assistant Agriculture Officers (SAAOs) are not only responsible for bridging research institute and farmers but also key facilitators for agricultural

development in rural areas. However, very few researches have so far been conducted for studying the information seeking behavior of the SAAOs in Bangladesh.

The present study was undertaken to have an understanding about the information seeking behavior of the SAAOs of DAE. Findings of the present study would specify the roles of intra and inter-system communication as well as highlight the bottlenecks in effective transfer of technology in the government extension organization i.e. DAE. It was also expected that the findings of the study would be useful for designing a communication strategy for achieving the organizational goal through SAAOs. The findings of the study would also help in identifying some of the personal and situational characteristics of SAAOs to assess their information seeking behavior. To the academicians, it may help in further conceptualization for analyzing the entire information seeking behavior pattern. In addition, the findings of this study may have other empirical evidence to all aspects of information seeking behavior of extension workers which may be used to build up adequate theory of behavior.

1.5 Assumptions of the Study

An assumption is the supposition that an apparent fact or principle is true in the light of available evidence (Goode and Hatt, 1952). The researcher had the following assumptions in mind while undertaking this study:

i. Sub-Assistant Agriculture Officers were capable of providing proper answer to the questions presented in the questionnaire.
ii. Data collected through questionnaire were free from bias.
iii. The responses furnished by the respondents were reliable.
iv. Views and opinions furnished by respondents included in the sample were representative views and opinions of the whole population of the concerned area.

v. The respondents were more or less conscious about the nature of information sources and the use of communication media.

1.6 Limitations of the Study

The present study was undertaken with a view to know the information seeking behavior of the SAAOs. Considering the time, money, labor and other necessary resources available to the researcher, the following limitations have been observed throughout the study:

i. The study was confined to three upazilas namely Chawgacha, Jessore Sadar and Jhikargacha of Jessore district.
ii. Characteristics of the SAAOs were many and varied but only eight characteristics were selected for investigation in this study.
iii. There are many types of information for which SAAOs seek information. But only 19 types of information were selected for the study.
iv. There are many communication media through which SAAOs seeks information. But only 22 communication media were selected for the study.
v. The findings could be applicable for the study area and similar situations in physical, socio-economic, cultural and geographic conditions only.
vi. Finally, for collection of information, the researcher had to depend on the data furnished by the respondents during their interview with him/her. Most of the SAAOs do not keep details records of their activities; they furnished information to the different questions by recall.
vii. In some cases, the researcher faced unexpected interference from the over interested side talkers while collecting data from target respondents. However, the researcher tried to overcome the problems as far as possible with sufficient tact and skill.

1.7 Definition of Key Terms

Certain terms had been used in this research which are defined and interpreted as follows for clarity of understanding.

Sub-Assistant Agriculture Officer (SAAO)

Sub-Assistant Agriculture Officer is grass-root level extension agent of Department of Agricultural Extension (DAE) working in the block for agricultural development.

Age

Age of a respondent defined as the span of his/her life and is operationally measured by the number of years from his/her birth to the time of interviewing.

Experience of Extension Work

Literally experience means practical knowledge or what one knows about a subject, fact, person etc. Experience of extension work referred to understanding or practical knowledge of the extension service in different aspects. As, all SAAOs got similar technical education and do the similar type of works, so their experience of extension works varies only with their length of services. This is why experience of extension work was defined as length of extension service of SAAOs.

Annual Expenditure

Annual expenditure referred to the total annual expenses for all the dependent family members of a respondent for food, education, house rent, treatment etc.

Job Satisfaction

Job satisfaction means the extent of satisfaction derived by an individual with his or her job content and environment of work. The degree of satisfaction of Sub-Assistant Agriculture Officers related to the various aspects of their job such as accomplishments in job, scope for using personal initiative, pay and enjoyment from works.

Motivation for Seeking Job Related Information

Internal and external factors that stimulate desire and energy in people to be continually interested and committed to collect job related information or to make an effort to attain a goal calls motivation for seeking job related information.

Motivation results from the interaction of both conscious and unconscious factors such as the (1) intensity of desire or need, (2) incentive or reward value of the goal, and (3) expectations of the individual and of his or her peers.

Organizational Problem Confrontation

Problem confrontation means the extent to which an individual faces difficulties in his/her work-situation. In this study, organizational problem confrontation referred to organizational barriers faced by the Sub-Assistant Agriculture Officers in seeking information.

Aspiration for Training

Aspiration for training referred to a respondent's strong desire or ambition for developing job related skills. It meant an individual’s strong mental condition to do something better.

Technical Knowledge

Technical knowledge referred to the respondents’ knowledge and abilities needed to accomplish any practical oriented tasks like agriculture,

mathematical, engineering, scientific or computer-related duties, as well as other specific tasks. Here, technical knowledge meant SAAOs' knowledge and abilities to perform agricultural extension services.

Information Seeking Behavior

Information seeking behavior referred to the way people search for and utilize information. Information seeking behavior involves personal reasons for seeking information, the kinds of information which are being sought and the ways and sources with which needed information is being sought (Pettigrew, 1996).

CHAPTER II

REVIEW OF LITERATURE

To carry out the research work review of literature gives the clear and concise direction to the researcher. In this purpose, review of literature relevant to the objectives of this study is discussed. This is mainly concerned with information seeking behavior of SAAOs. There was serious dearth of literature with respect to research studies on this aspect. So, the directly related literatures were not readily available for this study. Some researchers addressed various aspects of SAAOs role, their opinion, attitude and behavior towards different aspects regarding extension program and its effect on client group and suggesting strategies for their emancipation from socio-economic deprivation. In this chapter, the first section is concerned with concept, definition and measurement of information seeking behavior. The second section contains the review of past studies concerning relationship of different variables with information seeking behavior. The third section deals with the conceptual framework of the study.

2.1 Review of Literature Related to Information Seeking Behavior

It has been often accepted that information needs and information seeking processes depend on worker's tasks (Belkin, 1982).

According to Shin and Evans (1991) the main reason for seeking information by Illinois agriculture and horticulture extension advisors was to answer client inquiries.

A complex task may require several of information seeking processes. If the needs are satisfied, the task (or one step through it) can be completed. If the needs cannot be satisfied, the task cannot be completed at all or it must be reformulated. If further information is still needed, new seeking actions are initiated. The process may be interrupted at any time if the worker sees no way to proceed (Bystrom and Jarvelin, 1995).

According to Franz and Townson (2008) extension agents share similar work roles. These roles affect the tasks performed on a daily basis, which then influence the information needs of the professional. To address these needs, professionals use known information resources and select preferred resources based on a number of factors, including personal, professional and external.

Aasen (1990) revealed that role players at government level are motivated to seek information in cases where development-aid funding is available.

According to Malek-Mohammadi (2000) Provincial Extension Specialists who were working for the Ministry of Jihad-e Sazandegi, Iran reported radio, TV, computer, seminars and training courses as their five most used information sources and channels.

2.2 Review of Past Studies Relating to the Selected Characteristics of SAAOs with their Information Seeking Behavior

Eight characteristics of the SAAOs were selected as independent variables of the study. The researcher made utmost effort to search out studies dealing the relationship of the selected characteristics of the SAAOs with the information seeking behavior and found that there was very few research work related to the title which are cited below:

2.2.1 Age

Austman (1961) in a study found that there was a positive relationship between age and information behavior of the beginning male country extension agents both as perceived by the agent themselves as well as district leaders.

Haque (1972) observed in a study that statistically there is no relationship between age and use of information source.

Islam (1997) found that the age of Block Supervisors (BS) was correlated with their information seeking efficiency.

Kherde and Shaya (1972) conducted a study to determine the role performance of village level workers in Intensive Agricultural District Programme (IADP) of two districts of India such as Union Territory of Delhi and Karnal IADP of Haryana state. They found that age of the VLWs was positively related to their seeking behavior.

2.2.2 Experience of extension work

Austman (1961) found that professional experience had significant relation with information exposure.

Bhatia (1975) found that the experience of Village Level Workers in the same blocks was positively related with their job effectiveness. This may be due to the fact that longer tenure in the same Blocks enables the VLW to better understand his clienteles and the problem of the area.

Dhillon and Sandhu (1977) reported that the length of the service of the extension agents was not significantly related to their job effectiveness in case of technology transfer, information seeking, and data collection.

Gholamreza and Zamani (2006) described that there is negative relationship between experience of extension work and information-seeking behavior of Iranian extension agents.

Akhouri (1973) reported that the positive relationship of information seeking behavior and work experience. He stated that those who have sufficient experience of extension work are most efficient in information seeking.

2.2.3 Annual expenditure

Rahman (1973) reported that expenditure of a personnel was positively related with behavior pattern in information receive and diffusion.

Karim (1994) found a positive and significant relationship between expenditure and information behavior of extension workers.

2.2.4 Job satisfaction

Rahman (2007) found that 46 percent of the SAAOs possessed medium job satisfaction compared to 30 and 24 percent of them having low and high job satisfaction respectively.

Ahmed (2007) showed that highest proportion (58.3%) of the SAAOs belonged to medium satisfaction as compared to 25 percent being low satisfaction and 16.7 percent high satisfaction.

Kashem et al. (1994) focused on the Block Supervisors roles, perception and job satisfaction revealed that about two thirds (64 percent) of the respondents were highly satisfied with their job.

Sarker (1995) found a highly positive significant relationship between job position of the respondents and their use of information collection media.

2.2.5 Motivation for seeking job related information

According to Gholamreza and Zamani(2006), "motivations for seeking job-related information is one of the components of information-seeking behavior and influence the behavior positively, and also influence other concepts of this behavior."

Rahman (1991) observed that the achievement motivation score of the Block Supervisors ranged from 15 to 23 with a mean score of 19. A little over half (57 percent) of the subjects had high achievement motivation (scores of 20 or above) compared to 43 percent who had low motivation.

2.2.6 Organizational problem confrontation

Gholamreza and Zamani (2006) observed that organizational barriers have negative relationship with information-seeking behavior in case of Iranian extension agents.

Adomi et al. (2003) reported that problems such as extension officers not being in a position to disseminate information due to problem of staff shortages, literacy level of the farmers and poor infrastructure in most of the rural communities.

According to Omekwu (2003) problem in information seeking is compounded by scarcity of reliable statistics, data and information. Where information is available there is often the problem of data confusion where different sources feed in different estimates for the same crop and time period.

A number of authors, such as Ozowa (1995) identified features of information that could act as barriers to the usefulness of information as a resource for the development of potential users. These are as follows:

i. Language
ii. Format
iii. Acceptability criteria
iv. Credibility
v. Observability
vi. Relevance
vii. Relative advantage
viii. Ease of understanding and installation
ix. Compatibility

2.2.7 Aspiration for training

Tareque (2009) showed that overwhelming majority (90.48 percent) of the respondents had no to low training exposure group and only 9.52 percent had medium level training. Nobody had high training group under the study area.

Sanoria (1977) in his study conducted in India found that training of the agricultural extension personnel was associated with their communication efficiency.

Pandey (1979) revealed that in-service training of extension personnel was significantly and positively correlated with information input process. This statement was also established by Ambastha (1974), Akhouri (1973) and Shete (1979) who reported that information processing had significantly positive correlation with output among the extension personnel.

Rahman (2007) reported that the majority (38 percent) of the SAAOs had low in service training compared to 36 and 26 percent having medium and high training respectively.

Rahman (1991) observed that 73 percent of the Block Supervisors had attended training in short duration followed by 16 and 4 percent of the BSs who attended to moderate and long duration of training. Seven percent of respondents had never attended any training courses.

2.2.8 Technical knowledge

Foster and Allen (2005) stated that technical knowledge has become the most important factor in information exposure and information seeking for an extension personnel.

Haque (1972) found a high positive relationship between technical skill and use of communication media.

Roy (1981) in his study indicated that skill respondent had significant positive effect on their communication behavior in receiving information on the technical task.

Bhuiyan (1988) observed that the regression coefficient of management skill towards use of communication media was statistically non significant.

2.3 Conceptual Framework of the Study

Information seeking behavior of Sub-Assistant Agriculture Officers (SAAOs) of DAE was the main focus of the study. It may be influenced by the many characteristics of the Sub-Assistant Agriculture Officers. It is not possible to deal with all the characteristics in a single study. It was, therefore, necessary to limit the characteristics, which included age, experience of extension work, annual expenditure, job satisfaction, motivation for seeking job related information, organizational problem confrontation, aspiration for training and technical knowledge.

Based on this discussion and the review of literature, the conceptual framework of this study has been formulated and shown in Figure 2.1.

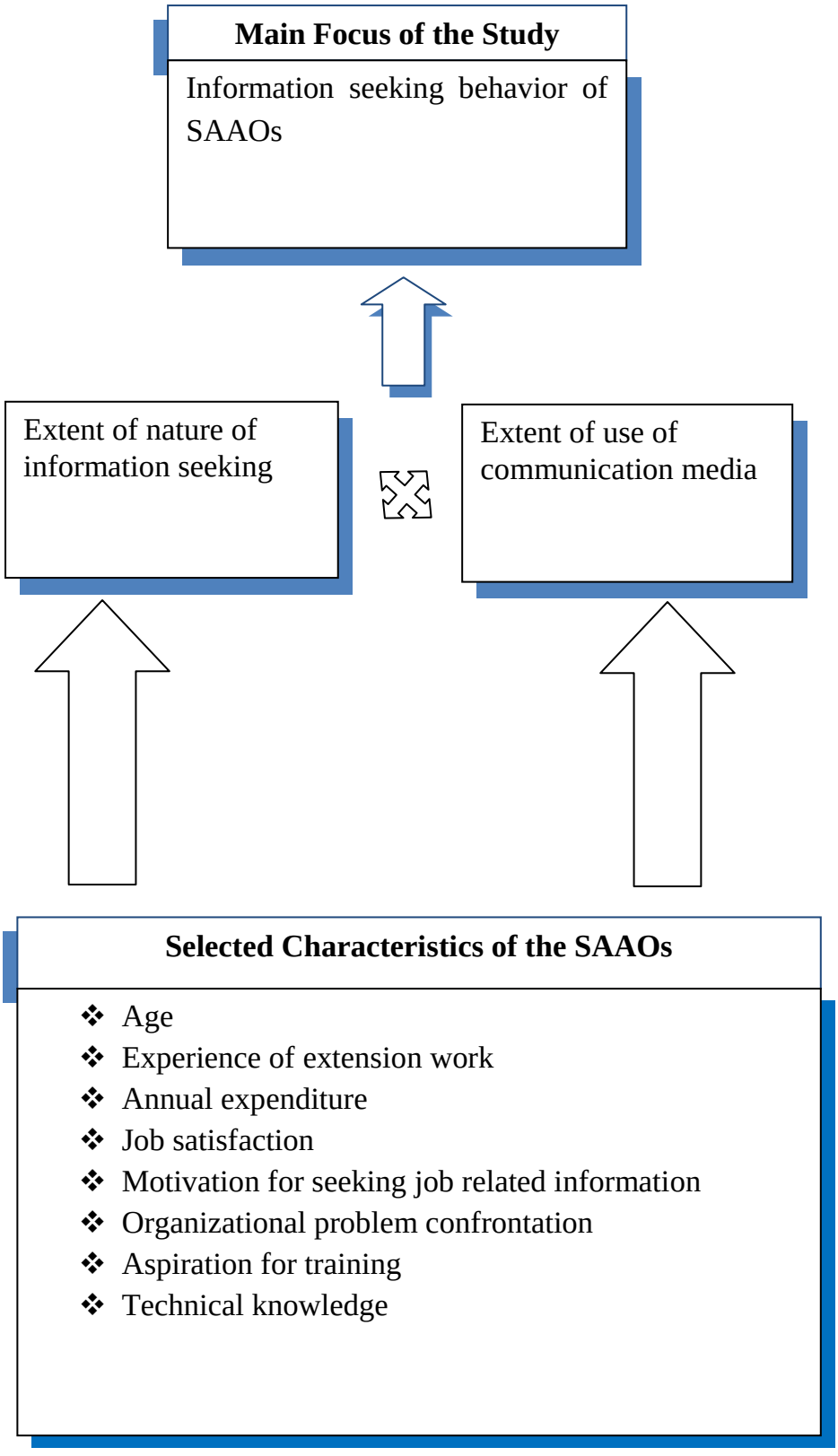

Figure 2.1. Conceptual framework of the study

CHAPTER 3

METHODOLOGY

Methods and procedures used for collection and analysis of data are very important in any scientific research. It requires a careful consideration before conducting a study. The researcher has great responsibility to clearly describe as to what sorts of research design, methods and procedures he would follow in collecting valid and reliable data and to analyses and interpret those to arrive at correct conclusion. The methods and procedures followed in conducting this study have been discussed in this chapter. Further, the chapter includes the operational format and comparative reflection of some variables used in the study. Also statistical methods and their use have been mentioned in the later section of this Chapter.

3.1 The Locale of the Study

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. A map of Jessore district showing the study upazilas is presented in Figure 3.1.

Fig 3.1. A map of Jessore district showing the study upazilas

3.2 Population and Sampling of the Study

The Sub-Assistant Agriculture Officers (SAAOs) of Jessore district were the population of the study. The total of 185 SAAOs were working in different blocks of Jessore district which constituted the population of the study. In the selected three upazilas, 70 SAAOs were posted in different blocks. All of the 70 SAAOs were constituted sample of the study. The distribution of the sample population of the study areas are given in Table 3.1

Table 3.1 Distribution of sample population

Name of the Upazila	No. of SAAOs
Chawgacha	22
Jessore sadar	26
Jhikorgacha	22
Total	70

3.3 The Research Instrument

An interview schedule was used as the research instrument in order to collect relevant information from the respondents. The interview schedule was prepared considering the objectives of the study in mind. The questions and statements contained in the schedule were simple, direct and easily understandable by the SAAOs without giving rise to doubt and misunderstanding in their minds. The schedule contained closed form of questions adopting the technique for measuring selected characteristics (age, experience of extension work, annual expenditure, job satisfaction, motivation for seeking job related information, organizational problem confrontation, aspiration for training, technical knowledge, and their information seeking behavior). Before finalization the interview schedule a pre-test was run in the study area in actual field situations. The pre-test was helpful to locate faulty questions. Alterations and adjustment were done in the schedule on the basis of experience of the pre-test. During modification of the schedule the researcher incorporated valuable suggestions from his research supervisor and co-supervisor into it.

3.4 Operationalization of Variables

3.4.1 Variable selection

Success of a research to a considerable extent depends on the successful selection of the variables. Irrational, inappropriate and inconsistent selection of variables may lead to misleading and unfruitful results. The researcher keeping all these in mind took adequate care in selecting the variables of the study. Before the onset of the study the researcher visited the study area several times and talked to the SAAOs intimately. Moreover, by staying in the study area for 3 months, he was able to observe the personal, socio-economic, socio-cultural and psychological factors of the SAAOs which the researcher assumed might have influenced on the behavioral pattern of the SAAOs. Based on this practical knowledge, side by side an extensive literature review and discussions with relevant experts and academicians, the researcher selected eight characteristics of the SAAOs which were considered as the independent variables of this study while information seeking behavior was selected as the dependent variable.

3.4.2 Measurement of variables

3.4.2.1 Measurement of independent variables

Age

The age of the respondents was measured in terms of actual years from his/her birth to the time of interview on the basis of his/her statement. A score of one (1) was assigned for each years of age.

Experience of Extension Work

Experience of extension work was measured by the years of involvement in extension work activities. This was expressed in terms of years i.e. a score of one was given for each year of extension work.

Annual Expenditure

All the expenditure of last year on different sectors of an individual respondent was added together. The expenditure was measured in taka. A score of 1 (one) was given for every one thousand taka.

Job Satisfaction

In this study, job satisfaction score was computed for each respondent on the basis of his responses on 17 selected job satisfaction factors. A four-point rating scale ranging from “not at all satisfied” to “very satisfied” was used for this purpose. The scoring technique used for computing the job satisfaction score of the respondent is given below:

Level of satisfaction	Score assigned
Low satisfied	0
Moderately satisfied	1
Very satisfied	2
Not at all satisfied	3

Job satisfaction score was determined by summing the scores of all the 17 items which is shown in item no. 5 in the interview schedule. Thus job satisfaction score of a respondent could range from 0 to 51, where zero (0) indicated not at all satisfied and 51 indicated highly satisfied.

Motivation for Seeking Job Related Information

In this study, motivation for seeking job related information score was computed for each respondent on the basis of his/her responses on 10 selected motivational factors. A four-point rating scale ranging from "not at all to high" was developed for this purpose. The scoring technique used for computing the motivation for seeking job related information score of the respondent is given below:

Extent of motivation	Score assigned
Not at all	0
Low	1
Medium	2
High	3

Motivation for seeking job related information score was determined by summing the scores of all the 10 motivational factors which is shown in item no. 6 in the interview schedule. Thus motivation for seeking job related information score of a respondent could range from 0 to 30, where zero (0) indicated no motivation and 30 indicated highest motivation.

Organizational Problem Confrontation

Problem confrontation by the SAAOs' was measured by using of closed form of questions as shown in item no.7 of the interview schedule. The SAAOs were asked to give their opinion on 13 selected organizational problems, which were identified during pre-testing of the questionnaire along with their information seeking behavior. A four point scale was used for computing the problem confrontation score of a respondent. The weights were assigned 0 for "no problem" 1 for "low" 2 for "medium" and 3 for "high" problem. The weights of responses of all the problems they faced were added together to obtain the problem confrontation score. Thus the problem confrontation score of the respondents could range from 0 to 39 where 0 indicating no problem confrontation and 39 indicating highest problem confrontation.

Aspiration for Training

In this study, aspiration for training score was computed for each respondent on the basis of his/her 12 selected subjects which are shown in item no. 8 in the interview schedule. A four-point rating scale ranging from "not at all necessary" to "very necessary" was developed for this purpose. The scoring

technique used for computing the aspiration for training score of respondent is given below:

Extent of aspiration for training	Score assigned
Not at all necessary	0
Not so necessary	1
Necessary	2
Very necessary	3

Aspiration for training score was determined by summing the scores of the entire 12 subject included in item no. 7 in the interview schedule. Thus, aspiration for training score of a respondent could range from 0 to 36, where zero (0) indicated no aspiration for training and 36 indicated highest level of aspiration for training.

Technical Knowledge

It was measured by using a number of multiple choice questions as shown in the item no. 9 of the interview schedule. There were four different answers which were set in each question. The answers were "wrong" and "accurate".

Type of answers	Assigned scores
Wrong	0
Accurate	1

There were 30 questions in the interview schedule. Thus, the technical knowledge score of a respondent ranged from 0 to 30, 0 indicating no technical knowledge and 30 indicating high technical knowledge.

3.4.2.2 Measurement of dependent variable

Information seeking behavior of SAAOs was the dependent variable of the study. Information seeking behavior score was measured by multiplying two sub scores, such as nature of information seeking sub score and communication media use sub score. Through literatures review, consultation with experts and pre-tests findings nineteen types of information were selected to measure the nature of information seeking sub score while twenty two communication media were identified to measure the communication media use sub score. A four point rating scale ranging from "not at all" to "regularly" was developed for determining the score of both sub scores. The scoring technique used for computing both sub scores is given below:

Extent of nature of information seeking / Extent of use of communication media	**Score assigned**
Not at all	0
Rarely	1
Frequently	2
Regularly	3

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

3.5 Procedure of Data Collection

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 researcher could realize it very well that the collected data would be of no value if they are not valid. It also acted in the mind of the researcher that people, particularly in a traditional society, might view an outsider with suspicious. This might have unfavorable effect in obtaining valid and pertinent information from the respondents. Having comprehended all these, the researcher had purposively chosen his present geographic location to overcome the difficulties. This made the researcher come closer to the respondents easily as he was not regarded as an outsider in almost all cases. In the case where the respondent was found an unknown individual, the researcher made all possible efforts to establish proper rapport with him. That was not a difficult task for the researcher since he was well-conversant in the local language. All possible efforts were made by the researcher to explain the purpose of the study to the respondents and their answers were carefully recorded. Whenever any respondent faced difficulty in understanding a question, care was taken to explain the same adequately. Moreover, at the time of data collection, the researcher was also careful about side-talking and tried to avoid that problem tactfully. The entire process of data collection took half a month from 15 April to 30 April 2015.

3.6 Processing of Data

3.6.1 Editing

The collected raw data were examined thoroughly to detect errors and omissions. As a matter of fact the researcher made a careful scrutiny of the completed interview schedules to make sure that they were entered as complete as possible and well arranged to facilitate coding and tabulation. Very minor mistakes were detected by doing this which was corrected promptly.

3.6.2 Coding and tabulation

Having consulted with his research supervisor and co-supervisor the investigator prepared a detailed coding plan. In case of qualitative characteristics, suitable scoring technique was followed by putting proper weightage against each of the traits to transform the data into quantitative forms. These were then tabulated in accordance with the objectives of the study.

3.7 Categorization of Data

Following coding operation, the collected raw data were classified into various categories to facilitate the description of selected characteristics of the SAAOs and their information seeking behavior. These categories were developed for each of the variables by considering the nature of distribution of the data and extensive literature review. The procedures for categorization have been discussed while describing the variables under consideration in Chapter 4.

3.8 Analysis of Data

Analysis was performed using some statistical treatments as described below: statistical measures such as number, frequency count, percentage, range, mean, standard deviation were used in describing the selected variables. In order to test the formulated hypothesis of the study, Pearson's product-moment correlation co-efficient (r) was used.

3.9 Statement of the Hypothesis

As defined by Goode and Hatt (1952) "A hypothesis is a proposition, which can be put to a test to determine its validity". It may prove correct or incorrect of a proposition. In any event, however, it leads to an empirical test. In studying relationship between variables, research hypotheses are formulated which state anticipated relationships between variables. However, for statistical test it becomes necessary to formulate null hypothesis. A null hypothesis states that there is no relationship between the variables. If a null hypothesis is

rejected on the basis of a statistical test, it is assumed that there is a relationship between the concerned variables.

The following null hypotheses were formulated for this study:

“There is no relationship between each of the selected characteristics of the SAAOs and their information seeking behavior”.

CHAPTER 4

RESULTS AND DISCUSSION

In this Chapter, the findings of the study and logical interpretation of the results have been presented according to the objectives of the study. Data obtained from respondents by interview were measured, analyzed, tabulated and statistically treated according to the objectives of the study. The chapter contains three sections. The first section of this chapter deals with the characteristics of the Sub Assistant Agriculture Officers (SAAOs). The second section deals with the information seeking behavior of SAAOs. The last section deals with the relationship between selected characteristics of SAAOs and their information seeking behavior.

4.1 Selected Characteristics of the SAAOs

Eight selected characteristics of the SAAOs were considered for the present study. Descriptive statistics regarding the eight characteristics have been presented in Table 4.1.

Table 4.1 Salient features of the respondents selected characteristics

Characteristics	Measuring Unit	Possible range	Observed range	Mean	Standard deviation
Age	No. of years	Unknown	23 to 60	42.88	11.23
Experience of extension work	Years of profession as SAAO	Unknown	1 to 39	19.50	12.82
Annual expenditure	('000' Taka)	Unknown	100.5 to 658	280.28	190.62
Job satisfaction	Score	0 to 51	20 to 47	33.27	5.83
Motivation for seeking job related information	Score	0 to 30	14 to 30	25.52	2.82
Problem confrontation	Score	0 to 39	15 to 35	27.48	4.72
Aspiration for training	Score	0 to 36	15 to 36	29.67	4.13
Technical knowledge	Score	0 to 30	17 to 28	24.12	2.48

4.1.1 Age

Age of the respondents ranged from 23-60 years, the mean being 42.88 years, standard deviation was 11.23. Based on their age, the respondents were classified into three categories as shown in Table 4.2. Data contained in Table 4.2 indicated that the highest proportion (37.1 percent) of the SAAOs were in old aged category while 27.2 percent and 35.7 percent belonged to middle aged

and young aged categories respectively. The data in the table also showed there was a good combination of young and old aged SAAOs of the organization.

Table 4.2 Distribution of the respondents according to their age

Categories	SAAOs		Mean	Standard deviation
	Number (N=70)	Percent		
Young aged (up to 35 years)	25	35.7	42.88	11.23
Middle aged (36-50 years)	19	27.2		
Old aged (above 50 years)	26	37.1		
Total	70	100		

4.1.2 Experience of extension work

The experience of extension work of the respondents ranged from 1-39 years with a mean of 19.50 and standard deviation of 12.82. On the basis experience of extension work, the respondents were classified into two categories as shown in Table 4.3. Data presented in Table 4.3 revealed that majority (70 percent) of the respondents had high experience of extension work compared to (30 percent) of low experience of extension. With the increase of experience, SAAOs become more equipped with job related information and as a result they pine less training as well as faces less problem in their job.

Table 4.3 Distribution of the respondents according to their experience of extension work

Categories	SAAOs		Mean	Standard deviation
	Number (N=70)	Percent		
Low experience of extension work (<10 years)	21	30	19.50	12.82
High experience of extension work (≥10 years)	49	70		
Total	70	100		

4.1.3 Annual expenditure

The annual expenditure of the respondents ranged from 100.5-658 thousand taka with a mean of 280.28 and standard deviation of 109.62. On the basis of annual expenditure the respondents were classified into three categories as shown in Table 4.4. Data presented in Table 4.4 indicates that highest proportion (40 percent) of the SAAOs had medium annual expenditure compared to 35.7 percent had low and 24.3 percent had high annual expenditure. If an individual's annual expenditure is less than his income, then he/she can devote himself/herself to his/her duties and responsibilities, otherwise he/she have to make room for extra job related activities to meet up his/her extra expenditure.

Table 4.4 Distribution of the respondents according to their annual expenditure

Categories	SAAOs		Mean	Standard deviation
	Number (N=70)	Percent		
Low(<225)	25	35.7	280.28	109.62
Medium(225-335)	28	40		
High(>335)	17	24.3		
Total	70	100		

4.1.4 Job satisfaction

The job satisfaction level of the respondents ranged from 20-47 whereas the expected range was 0 to 51 with a mean of 33.27 and standard deviation of 5.83. Based on the job satisfaction scores, respondents were classified into three categories as shown in Table 4.5. Data presented in Table 4.5 indicates that highest proportion (75.7 percent) of the SAAOs had medium job satisfaction compared to 14.3 percent had low and 10 percent had high job satisfaction. Job satisfaction is the key determinant that influences individuals to perform their job very well.

Table 4.5 Distribution of the respondents according to their job satisfaction

Categories(Scores)	SAAOs		Mean	Standard deviation
	Number (N=70)	Percent		
Low satisfaction (<28)	10	14.3	33.27	5.83
Medium satisfaction (28-40)	53	75.7		
High satisfaction (>40)	7	10		
Total	70	100		

4.1.5 Motivation for seeking job related information

The scores of motivation for seeking job related information of the respondents ranged from 14 to 30 whereas the expected range was 0 to 30 with a mean of 25.52 and standard deviation of 2.82. On the basis of motivation scores the respondents were classified into two categories as shown in Table 4.6. Data presented in Table 4.6 indicates that highest proportion (91.4 percent) of the SAAOs were highly motivated compared to 8.6 percent were medium motivated for seeking job related information. Motivated SAAOs seek more information and face more problems in seeking information.

Table 4.6 Distribution of the respondents according to their motivation for seeking job related information

Categories	SAAOs		Mean	Standard deviation
	Number (N=70)	Percent		
Medium motivated (<23)	6	8.6	25.52	2.82
High motivated (>23)	64	91.4		
Total	70	100		

4.1.6 Organizational problem confrontation

The scores of problem confrontation of the respondents ranged from15 to 35 whereas the expected range was 0 to 39 with a mean of 27.48 and standard deviation of 4.72. The respondents were classified into two categories based on their problem confrontation score shown in Table 4.7. Data presented in Table 4.7 indicates that highest proportion (85.7 percent) of the SAAOs confronted high problem compared to 14.3 percent confronted medium problem.

Table 4.7 Distribution of the respondents according to their problem confrontation

Categories(Scores)	SAAOs		Mean	Standard deviation
	Number (N=70)	Percent		
Medium problem (<23)	10	14.3	27.48	4.72
High problem (>23)	60	85.7		
Total	70	100		

4.1.7 Aspiration for training

The score of aspiration for training of the respondents ranged from15 to 36 whereas the expected range was 0 to 36 with a mean of 29.67 and standard deviation of 4.13. Based on the scores of aspiration for training the respondents were classified into two categories as shown in Table 4.8. Data presented in Table 4.8 indicates that highest proportions (87.1 percent) of the SAAOs were highly aspired for training compared to 12.9 percent were medium aspired for training. The SAAOs who face problems in seeking information as pine more for training. They belief that training program will satisfy their information needs.

Table 4.8 Distribution of the respondents according to their aspiration for training

Categories(Scores)	SAAOs		Mean	Standard deviation
	Number (N=70)	Percent		
Medium aspiration (<25)	09	12.9	29.67	4.13
High aspiration (>25)	61	87.1		
Total	70	100		

4.1.8 Technical knowledge

The scores of technical knowledge of the respondents ranged from17 to 28 whereas the expected range was 0 to 30 with a mean of 24.12 and standard deviation of 2.47. Based on their technical knowledge scores the respondents were classified into two categories as shown in Table 4.9. Data presented in Table 4.9 indicates that highest proportion (85.7 percent) of the SAAOs had high technical knowledge compared to 14.3 percent had medium technical knowledge. The SAAOs who got more technical knowledge seek less information and vice versa.

Table 4.9 Distribution of the respondents according to their technical knowledge

Categories(Scores)	SAAOs		Mean	Standard deviation
	Number (N=70)	Percent		
Medium technical knowledge (<22)	10	14.3	24.12	2.47
High technical knowledge (>22)	60	85.7		
Total	70	100		

4.2 Information Seeking Behavior of SAAOs

Information seeking behavior of SAAOs referred to the extent of nature of information seeking through use of different communication media. Information seeking behavior was measured by multiplying extent of nature of information seeking with extent of use of communication media by the SAAOs. To explain the information seeking behavior of SAAOs, findings are presented below in three headings:

4.2.1 Classification of the SAAOs according to their information seeking behavior

Information seeking behavior scores of SAAOs ranged from 1200 to 3648 whereas the expected range was 0 to 3762. The average was 2062.22 with a standard deviation of 507.03. Based on the observed information seeking behavior scores, the SAAOs were classified into three categories as shown in Table 4.10.

Table 4.10 Categorization of the SAAOs according to their information seeking behavior

Categories	SAAOs		Mean	Standard deviation
	Number (N=70)	Percent		
Rare information seeker (<1555)	13	18.6	2062.22	507.03
Frequent information seeker (1555-2569)	45	64.3		
Regular information seeker (>2569)	12	17.1		
Total	70	100		

Data contained in Table 4.10 indicated that height proportions (64.3 percent) of the respondent were frequent information seeker as compared to 18.6 percent rare information seeker and 17.1 percent were regular information seeker. The findings revealed that almost two-thirds (64.3 percent) of the respondents frequently seek information to solve their job related problems.

4.2.2 Comparison of nature of information seek by the SAAOs

To compare the nature of information seek by the SAAOs, information seeking index (ISI) was calculated. 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 4.11 on the basis of their ISI. The observed ISI ranged from 149 to 205.

Table 4.11 Rank order of nature of information seek by the SAAOs

Sl. No.	Nature of information	Information seeking index (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

On the basis of computed ISI, it was observed that the insect management (205) information were seek by the SAAOs to the highest extent and it was closely 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 seeks by the SAAOs to the lowest extent. The findings of Table 4.11

prompted to conclude that insect and disease are common problem of farmers. To solve those problems, high technical knowledge is required and for that reason SAAOs regularly seek information on insect and disease management. Besides, farmers' problem solving is a routine work of SAAOs. This is why they seek farmers' problem regularly. On the other hand, information like weed management, irrigation management, there is little new information and for that reason SAAOs do not seek these so frequently.

4.2.3 Comparison of communication media used by the SAAOs

Extents 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 SAAOs, media use index (MUI) was calculated. A media use index (MUI) for each communication media could range from 0 to 210 but the observed MUI ranged from 192 to 28. The twenty two communication media have been arranged in rank order in Table 4.12 on the basis of their media use index (MUI).

Table 4.12 Rank order of communication media used by SAAOs

Sl. No.	Communication media	Combined media use index (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

Data in Table 4.12 indicates that the progressive farmer were used as the communication media to the highest extent (192) and it was closely followed by the farmers (191), Upazila Agricultural Officer (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 seeking. Main job responsibility of SAAOs is to identify and solve the farmer's problem. That's why SAAOs regularly contact with farmers including progressive farmers. On the other hand most of the SAAO are not familiar with internet due to lack of availability of internet facilities and practice. And use of Radio is almost banished by the TV. That's why most of the SAAOs do not use radio for information seeking.

The findings of Table 4.12 also prompted to conclude that SAAOs use the most easily available and most reliable sources of information. For that reason, the SAAOs used media like progressive farmers, farmers, input dealers, local

leaders for searching problem related information. On the contrary media like Upazila Agricultural Officer (UAO), other SAAOs, Agriculture Extension officer (AEO) and leaflets/folder, television, newspaper were used for searching technical information.

4.3 Relationship between the Selected Characteristics of the SAAOs with their Information Seeking Behavior

This section deals with the relationship between each of the eight selected characteristics of the SAAOs and their information seeking behavior. The selected characteristics were: age, experience of extension work, annual expenditure, job satisfaction, motivation for seeking job related information, organizational problem confrontation, aspiration for training and technical knowledge. To explore the relationships between each of the selected characteristics and their information seeking behavior Pearson's Product Moment co-efficient of correlation (r) has been used. The relationships of each the selected characteristics of the respondents with their information seeking behavior have been shown in Table 4.13. However, a correlation matrix for all variables has been presented in *Appendix-B.*

Table 4.13 Computed co-efficient of correlation (r) between selected characteristics of the SAAOs and their information seeking behavior (N = 70)

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

NS Not Significant

** Correlation is significant at 0.01 level of probability

* Correlation is significant at 0.5 level of probability

4.3.1 Relationship between age and information seeking behavior

The relationship between age of the SAAOs and their information seeking behavior was examined by testing the following null hypothesis: “There was no relationship between age of the SAAOs and their information seeking behavior". The computed value of ‘r’ (0.139) was found smaller than that of the tabulated value (r = 0.254) with 68 degrees of freedom at 0.05 level of probability as shown in Table 4.10. Based on the above findings, the null hypothesis was accepted and it was therefore, concluded that SAAOs age had no significant relationship with their information seeking behavior. So, one can say that age and information seeking behavior were not associated, they were independent.

4.3.2 Relationship between experience of extension work and information seeking behavior

The relationship between experience of extension and their information seeking behavior was examined by testing the following null hypothesis: “There was no relationship between experience of extension and their information seeking behavior”. The computed value of ‘r’ (0.124) was smaller than the tabulated value (r = 0.254) with 68 degrees of freedom at 0.05 level of probability as shown in Table 4.10. Based on the above findings, the null hypothesis was accepted and it was therefore, concluded that SAAOs experience of extension work had no significant relationship with their information seeking behavior. So, one can say that experience of extension work and information seeking behavior was not associated, they were independent.

4.3.3 Relationship between annual expenditure and information seeking behavior

The relationship between annual expenditure of the SAAOs and their information seeking behavior was examined by testing the null hypothesis: "There was no relationship between annual expenditure of the SAAOs and their information seeking behavior". The computed value of 'r' (0.071) was found

smaller than the table value (r = 0.254) with 68 degrees of freedom at 0.05 level of probability as shown in Table 4.10. Hence, the concerned null hypothesis was accepted. The findings indicate that annual expenditure of the SAAOs had no significant relationship with their information seeking behavior.

4.3.4 Relationship between job satisfaction and information seeking behavior

The relationship between the SAAOs job satisfaction and their information seeking behavior was studied by testing the following null hypothesis: "There was no relationship between job satisfaction of the SAAOs and their information seeking behavior". The computed value of 'r' (0. 246) was greater than the tabulated value of 'r' (r = 0.195) with 68 degrees of freedom at 0.05 level of probability as shown in Table 4.10. The relationship between the two concerned variables also showed positive trend. Hence the concerned null hypothesis was rejected. The findings indicate that SAAOs job satisfaction had positive significant relationship with their information seeking behavior. Hence, one can say that higher the job satisfaction of the SAAOs higher their information seeking behavior. Therefore it is quite logical that individuals having high job satisfaction perform their duties and responsibilities very well. For that reason, they have to seek information frequently to solve job related problems.

4.3.5 Relationship between motivations for seeking job related information and information seeking behavior

The relationship between motivations for seeking job related information of the SAAOs and their information seeking behavior was examined by testing the following null hypothesis". There was no relationship between motivations for seeking job related information of the SAAOs and their information seeking behavior". The computed value of 'r' (0.071) was smaller than the tabulated value (r = 0.254) with 68 degrees of freedom at 0.01 level probability as shown in table 4.10. Therefore, the concerned null hypothesis was accepted. Hence,

there was no significant relationship between motivations for seeking job related information and information seeking behavior.

4.3.6 Relationship between organizational problem confrontation and information seeking behavior

The relationship between organizational problem confrontation of the SAAOs and their information seeking behavior was examined by testing the following null hypothesis: "There was no relationship between organizational problem confrontation of the SAAOs and their information seeking behavior". The calculated value of 'r' (0.051) was smaller than the tabulated value (r = 0.254) with 68 degrees of freedom at 0.51 level of probability as shown in the Table 4.10. Therefore, the concerned null hypothesis was accepted. Hence, there was no significant relationship between organizational problem confrontation and information seeking behavior.

4.3.7 Relationship between aspiration for training and information seeking behavior

The relationship between aspiration for training of the SAAOs and their information seeking behavior was examined by testing the following null hypothesis: "There was no relationship between aspiration for training of the SAAOs and their information seeking behavior ". The computed value of 'r' (0.300) was greater than the tabulated value (r =0.195) with 68 degrees of freedom at 0.05 level of probability as shown in Table 4.10. Thus the null hypothesis could be rejected. It was concluded that there was positive significant relationship between aspiration for training of the SAAOs' 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 seek information regularly.

4.3.8 Relationship between technical knowledge and information seeking behavior

The relationship between technical knowledge of the SAAOs and their information seeking behavior was examined by testing the following null hypothesis: "There was no relationship between technical knowledge of the SAAOs and their information seeking behavior ". The computed value of 'r' (0.042) was smaller than the tabulated value (r = 0.254) with 68 degrees of freedom at 0.05 level of probability as shown in Table 4.10. Thus the null hypothesis was accepted. It was concluded that there was no significant relationship between technical knowledge of the SAAOs' and their information seeking behavior.

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

5.1.1 Characteristics of the SAAOs

Age: 37.1 percent of the SAAOs were old aged, 35.7 percent were young and 27.2 percent were middle aged.

Experience of extension work: The highest proportion (70 percent) of the SAAOs' had high experience compared to 30 percent had low experience in extension work.

Annual expenditure: Among the respondents, 40 percent had medium annual expenditure compared to 35.7 percent had low annual expenditure while 24.3 percent had high annual expenditure.

Job satisfaction: Among the respondents, 75.7 percent had medium job satisfaction compared to 14.3 percent had low job satisfaction while 10 percent had high job satisfaction.

Motivation for seeking job related information: Among the respondents, 91.4 percent had high motivation compared to 8.6 percent had medium motivation.

Organizational problem confrontation: Among the respondents, 85.7 percent had high problem confrontation compared to 14.3 percent had medium problem confrontation.

Aspiration for training: Among the respondents, 87.1 percent had high aspiration for compared to 12.9 percent had medium aspiration for training.

Technical knowledge: Among the respondents, 85.7 percent had high technical knowledge compared to 14.3 percent had medium technical knowledge.

5.1.2 Information seeking behavior of SAAOs of DAE

Almost two thirds (64.3%) of SAAOs were frequent information seeker compared to 18.6% occasional information seeker and 17.1% were regular information seeker.

5.1.3 Findings of hypothesis testing

The null hypothesis was tested to examine the relationship of eight each of the selected characteristics of the SAAOs with their information seeking behavior. The results of hypothesis testing are briefly presented below:

Job satisfaction and Aspiration for training of the SAAOs' had positive significant relationship with their information seeking behavior while others had no significant relationship with their information seeking behavior.

5.2 Conclusions

Findings of the study and the logical interpretations of their meanings in the light of other relevant facts prompted the researcher to draw the following conclusions:

1. The findings of the study revealed that majority (81.4%) of the SAAOs were frequent to regular information seeker. This fact leads to the conclusion that SAAOs are regularly facing job related problems that they have to solve through seeking information.
2. Information like insect management, disease management and modern varieties was sought by the SAAOs to the highest extent. This leads to the conclusion that farmer face pest management problems to the highest extent that is why SAAOs seek this type of information.

3. The findings of the rank order of communication media used by the SAAOs prompted to conclude that the SAAOs usually use communication media like progressive farmer, farmer, input dealers, local leaders etc for seeking their problems where as for seeking technical knowledge they use media like Upazila Agricultural Officer (UAO), other SAAOs, Agriculture Extension Officer (AEO), leaflet/folder, television, newspaper.
4. Job satisfaction of the respondents had significant positive relationship with their information seeking behavior. The majority (87.5%) of the respondents in the study area had medium to high job satisfaction compared to 14.3% had low satisfaction. This fact leads to the conclusion that majority of the respondents performed their duties and responsibilities quite well and for that reason they regularly seek job related information.
5. Aspiration for training of the respondents had significant positive relationship with their information seeking behavior. The majority (87.1%) of the respondents were highly aspirated for training. Therefore it may be concluded that most of the SAAOs have high desire for updating them with latest technical know-how of the agriculture extension service.

5.3 Recommendations

5.3.1 Recommendations for policy implications

1. The extent of information seeking behavior of the SAAOs was encouraging. It is recommended to the authority of DAE to take initiative for increasing SAAOs' frequency of contact with farmers and UAOs through proper strategies, because SAAOs prefer localite media than cosmopolite media.
2. Pest management information was sought by the SAAOs to the highest extent. For better understanding and clarity of pest management,

authority of DAE can prepare and disseminate colored printed materials as well as audio-visual materials for the SAAOs.

3. As job satisfaction of SAAOs had significant relationship with their information seeking behavior, the authority of DAE should take necessary steps to convent low to medium satisfaction group to high job satisfaction group through increasing job related facilities among the SAAOs.
4. It was observed that most of the respondents (87.1%) are highly aspired for training. So, concerned authorities should arrange necessary training for the SAAOs to increase their efficiency on subject like pest management, modern varieties, report writing etc.
5. Findings of the study revealed that most of the respondent (91.4%) belongs to high of motivation for seeking job related information. This result indicates that SAAOs are highly motivated. Necessary steps should be taken to utilize this condition for achievement of organization's goal.
6. From the study it was observed that most of the respondent faced high (85.7%) organizational problem. This is an alarming situation. To overcome the situation DAE should initiate necessary steps like increase physical and other logistic facilities as early as possible.

5.3.2 Recommendations for further research

1. This study was conducted only in three upazilas under Jessore district. It is essential to make scope for further study in other places of the country to justify the findings of the present study.
2. The investigation explored the relationship of the 8 selected characteristics of the respondents with their information seeking behavior. Further research may be conducted to explore relationships of other characteristics of the respondents with their information seeking behavior.

3. Research should be undertaken to study the effectiveness of DAE in helping SAAOs to solve their problems in information seeking.

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APPENDICES

Appendix – A

DEPARTMENT OF AGRICULTURAL EXTENSION AND INFORMATION SYSTEM

SHER-E- BANGLA AGRICULTURAL UNIVERSITY

SHER-E- BANGLA NAGAR, DHAKA-1207.

INTERVIEW SCHEDULE FOR A RESEARCH STUDY ENTITLED

"Information seeking behavior of Sub-Assistant Agriculture Officers (SAAO) of Department of Agricultural Extension (DAE)"

Serial No: ……

Respondent Name:……

Present place of posting i.e. Upazilla : .....

District : .....

Contact Number: ……

(Please provide following information. Your information will be kept confidential and be used for research purpose only)

1. Age

What is your age? ..... Years

2. Experience of extension work

a) Please mention your years of service as SAAO…….

b) As other ……..

3. Annual expenditure

Please mention your expenditure in tk.:

SL NO.	Expenditure Head	Amount (BDT)
1.	Food	
2.	Education	
3.	House rent	
4.	Treatment	
5.	Cloths	
6.	Others	
7.	Total	

5. Job satisfaction:

Please indicate your level of satisfaction with the following items {put tick marks (✓) in appropriate places)}:

Items	Level of satisfaction			
	Very satisfied	Moderately satisfied	Low satisfied	Not at all satisfied
1. Meaningfulness of job				
2. Recognition for good works				
3. Promotion opportunities				

4. Social status				
5. Autonomy and independence				
6. Benefits of job				
7. Salary				
8. Physical facilities				
9. Relationship with coworkers				
10. Relationship with immediate supervisor				
11. Opportunities to use skills				
12. Flexibility to balance life and work issues				
13. Feeling safe in the work environment				
14. Career development opportunities				
15. Networking				
16. The variety of work				
17. Contribution of work to organization’s goals				

6. Motivation for seeking job related information

Please indicate your extent of motivation with the following items {put tick marks (✓) in appropriate places}:

Motivational factors	Extent of motivation			
	High	Medium	Low	Not at all
1. Helping poor farmers				
2. Responsibility				
3. Increasing technical knowledge				
4. Updating with new knowledge				
5. Desire for recognition				
6. Solving problems of farmers				
7. Gathering diversified knowledge				
8. Successfulness in solving problem				
9. Independence in extension work				
10. Importance of extension work				

7. Organizational problem confrontation:

Please indicate the extent to which you are facing the following problems {please put tick marks (✓) in appropriate places}:

List of problem	High problem	Medium problem	Low problem	No problem at all
1. Misunderstanding among the officers of upazilla agriculture office				
2. Misunderstanding within the SAAOs				
3. Lack of co-ordination between agricultural extension personnel & other personnel of Upazila administration				
4. Lack of appropriate information & guidance from supervisory officer				
5. Accommodation problem				
6. Inadequate travel allowance (TA)				
7. Want of training materials & equipments				
8. Lack of laboratory and land for practical training				
9. Inadequate facilities for soil testing & other field trials				
10. Political influence				
11. No appropriate support from high officials				

List of problem	High problem	Medium problem	Low problem	No problem at all
12. Lack of accountability				
13. No remuneration for good works/ success				

8. Aspiration for training

Please indicate the extent of aspiration for the following training topics {please put tick marks (✓) in appropriate places)}:

Subject/ Topic of in-service training	Extent of aspiration for training			
	Very necessary	Necessary	Not so necessary	Not at all necessary
1. Soil and Fertilizer Management				
2. Crop Production Management				
3. Pest Management				
4. Agro-forestry				
5. Motivation and Leadership				
6. Technology Transfer				
7. Extension Program Planning				
8. Training Methodology and Management				
9. Disaster Management				
10. Adaptation to Climate Change				
11. Seed Technology				
12. Nursery Management				

9. Technical knowledge (Multiple choice 30 questions)

1. Which one is the last released variety by BRRI?

A. BRRI Dhan 66 B. BRRI Dhan 67

C. BRRI Dhan 68 D. BRRI Dhan 69

2. What is the percentage of Organic Matter of an ideal soil?

A. 4% B. 5%

C. 6% D. 7%

3. Which fertilizer can reduce salinity of soil?

A. UREA B. TSP

C. MOP D. GYPSUM

4. Which one is the deficiency symptom of Sulphur?

A. Yellowing of older leaf B. Yellowing of younger leaf

C. Purple color of leaf D. Margin burning of older leaf

5. Which one is cross-pollinated crop?

A. Rice B. Tomato

C. Brinjal D. Maize

6. What is the label tag color of Foundation seed ?

A. White B. Green

C. Yellow D. Blue

7. Spindle shaped (Eye shaped) spot is related with-

A. Foot & root rot of Lentil B. Late blight of Potato

C. Blast of Rice D. Red rot of Sugarcane

8. Golden rice is rich of –

A. Vitamin-A B. Vitamin-B

C. Vitamin-C D. Vitamin-E

9. Which one is most short duration rice variety?

A. BRRI Dhan-52 B. BRRI Dhan-50

C. BRRI Dhan-49 D. Bina-7

10. What type of crop improves the soil fertility?

A. Cereal B. Cash crop

C. Pulse crop D. Horticulture crop

11. SRI is a technique used in –

A. Groundnut B. Maize

C. Wheat D. Rice

12. Photosynthesis mostly occurs in-

A. Root B. Stem

C. Branch D. Leaf

13. “Shatabdi” is the variety of-

A. Rice B. Wheat

C. Jute D. Lentil

14. Which one is the seed treating chemical?

A. Thiram B. Ripcord

C. Furadan D. Thiovit

15. Aman rice grows in-

A. Kharif-1 B. Kharif-2

C. Rabi D. None of these

16. Which one can be considered as intercultural operation?

A. Seeding B. Transplanting

C. Weeding D. Harvesting

17.'Daimant' is the variety of-

A. Tomato B. Potato

C. Brinjal D. Onion

18. Which one causes damage at early stage of rice?

A. Rice bug B. Rice yellow stem borer

C. Brown plant hopper D. White fly

19. BT-Brinjal is resistance to-

A. Aphid B. Fruit & shoot borer

C. White fly D. Jassid

20. Which one is natural enemy?

A. Lady bird beetle B. Rhinocerous Beetle

C. Mango Hopper D. Brown plant hopper

21. What is the % of Nitrogen in UREA?

A. 44% B. 46%

C. 48% D. 52%

22. Position of Bangladesh in world in case of rice production?

A. 2nd B. 3rd

C. 4 th D. 5 th

23. “Mati O Manush” is the Agricultural program of-

A. BTV B. Bangla Vision

C. Baishakhi TV D. ATN Bangla

24. The origin of NERICA rice is-

A. Asia B. Europe

C. Africa D. America

25. Gutte UREA reduces use of UREA-

A. 10-15% B. 25-30%

C. 35-40% D. 45-50%

26. The term “Ribbon Retting” related to-

A. Rice B. Jute

C. Wheat D. Maize

27. Which crop requires maximum amount of Nitrogen?

A. Potato B. Wheat

C. Rice D. Sugarcane

28. Element of communication is-

A. Message B. Feedback

C. Channel D. All of these

29. Which one is salt tolerant variety of rice-

A. BRRI Dhan-67 B. BRRI Dhan-39

C. BRRI Dhan-49 D. BRRI Dhan-33

30. What is the best moisture percentage for rice storage-

A. 12% B. 15%

C.18% D. 20%

10. Information seeking behavior

A. Please mention the extent to which you seek the following information {please put tick marks (✓) in appropriate places}:

Types of information	Regularly	Frequently	Rarely	Not at all
1. Farmers' problems	≥ 3 Times/ week [ ]	2 Times/ week [ ]	1 Time/week [ ]	[ ]
2. Modern varieties	≥ 3 Times/season [ ]	2 Times/season [ ]	1 Time/season [ ]	[ ]
3. Seed rate	≥ 5 Times/season [ ]	2-4 Times/season [ ]	1 Time/season [ ]	[ ]
4. Fertilizer management	≥ 5 Times/season [ ]	2-4 Times/season [ ]	1 Time/season [ ]	[ ]
5. Irrigation management	≥ 3 Times/season [ ]	2 Times/season [ ]	1 Time/season [ ]	[ ]
6. Insect management	≥ 5 Times/season [ ]	2-4 Times/season [ ]	1 Time/season [ ]	[ ]
7. Disease management	≥ 10 Times/season [ ]	5-9 Times/season [ ]	1-4 Time/season [ ]	[ ]

8. Biological control	≥ 3 Times/season [ ]	2 Times/season [ ]	1 Time/season [ ]	[ ]
9. Seed technology	≥ 3 Times/season [ ]	2 Times/season [ ]	1 Time/season [ ]	[ ]
10. Production technology	≥ 5 Times/season [ ]	2-4 Times/season [ ]	1 Time/season [ ]	[ ]
11. Post harvest technology	≥ 3 Times/season [ ]	2 Times/season [ ]	1 Time/season [ ]	[ ]
12. Nursery management	≥ 3 Times/month [ ]	2 Times/month [ ]	1 Time/month [ ]	[ ]
13. Soil management	≥ 3 Times/season [ ]	2 Times/season [ ]	1 Time/season [ ]	[ ]
14. Weather	≥ 3 Times/month [ ]	2 Times/month [ ]	1 Time/month [ ]	[ ]
15. Weed management	≥ 3 Times/season [ ]	2 Times/season [ ]	1 Time/season [ ]	[ ]
16. IPM/ICM	≥ 3 Times/season [ ]	2 Times/season [ ]	1 Time/season [ ]	[ ]
17. Report writing	≥ 1 Time/year [ ]	1 Time/2 year [ ]	1 Time/3 year [ ]	[ ]
18. Pesticide products	≥ 3 Times/month [ ]	2 Times/month [ ]	1 Time/month [ ]	[ ]
19. Monitoring and surveying tools	≥ 1 Time/year [ ]	1 Time/2 year [ ]	1 Time/3 year [ ]	[ ]

B. Please mention the extent to which you seek job related information by using following communication media {please put tick marks (✓) in appropriate places}:

Communication media	Regularly	Frequently	Rarely	Not at all
1. Farmers	≥ 5 days/ week [ ]	3-4 days/ week [ ]	1-2 days/week [ ]	[ ]
2. Progressive farmers	≥ 3 days/ week [ ]	2 days/ week [ ]	1 day/week [ ]	[ ]
3. Local leaders	≥ 3 days/ week [ ]	2 days/ week [ ]	1 day/week [ ]	[ ]
4. Input dealers	≥ 3 days/ week [ ]	2 days/ week [ ]	1 day/week [ ]	[ ]
5. Other SAAOs	≥ 3 days/ week [ ]	2 days/ week [ ]	1 day/week [ ]	[ ]
6. Agricultural Extension Officer (AEO)	≥ 1 day/ week [ ]	1 day/ 2 weeks [ ]	1 day/3weeks [ ]	[ ]
7. Upazilla Agricultural Officer (UAO)	≥ 1 day/ week [ ]	1 day/ 2 weeks [ ]	1 day/3weeks [ ]	[ ]

Communication media	Regularly	Frequently	Rarely	Not at all
8. District level specialists of DAE	≥ 3 days/ season [ ]	2 days/ season [ ]	1 day/season [ ]	[ ]
9. Officers of research institute	≥ 3 days/season [ ]	2 days/ season [ ]	1day/season [ ]	[ ]
10. Officers of BADC	≥ 3 days/season [ ]	2 days/ season [ ]	1 day/season [ ]	[ ]
11. NGO workers	≥ 3 days/month [ ]	2 days/month [ ]	1 day/month [ ]	[ ]
12. Training sessions	≥ 4 days/month [ ]	2-3 days/ month [ ]	1 day/month [ ]	[ ]
13. Seminar/symposium/ workshop/conference	≥ 3 days/year [ ]	2 days/year [ ]	1 day/year [ ]	[ ]
14. Field day/Method demonstration/Result demonstration	≥ 3 days/season [ ]	2 days/6 season [ ]	1 day/season [ ]	[ ]
15. Leaflets/Folders	≥ 5 days/season [ ]	2-4 days/season [ ]	1 day/season [ ]	[ ]

Communication media	Regularly	Frequently	Rarely	Not at all
16. Agricultural Bulletin/Magazine	≥ 3 days/month [ ]	2 days/ month [ ]	1 day/month [ ]	[ ]
17.Books/Booklets	≥ 5days/season [ ]	2-4 days/season [ ]	1 day/season [ ]	[ ]
18. Newspaper	≥ 1 day/ week [ ]	1 day/2 weeks [ ]	1 day/3 weeks [ ]	[ ]
19. Training manuals/handouts	≥ 5 days/season [ ]	2-4 days/season [ ]	1 day/season [ ]	[ ]
20. Radio	≥ 5 days/month [ ]	2-4 days/ month [ ]	1 day/month [ ]	[ ]
21. Television	≥ 5 days/month [ ]	2-4 days/ month [ ]	1 day/month [ ]	[ ]
22. Internet	≥ 5 days/season [ ]	2-4 days/season [ ]	1 day/season [ ]	[ ]

Thanks for your co-operation

……..

Signature of the interviewer with date

Appendix - B

Correlation matrix showing inter correlations between dependent and independent variables

Varia-bles	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	1.000								
X_2	0.980**	1.000							
X_3	0.504**	0.479**	1.000						
X_4	0.138	0.101	-0.033	1.000					
X_5	-0.371**	-0.362**	-0.034	-0.128	1.000				
X_6	-0.253*	-0.243*	0.036	-0.157	0.476**	1.000			
X_7	-0.639**	-0.614**	-0.468**	0.062	0.321**	0.264*	1.000		
X_8	-0.043	-0.037	-0.200	-0.121	0.027	-0.064	-0.041	1.000	
X_9	-0.139	-0.124	-0.071	0.246*	0.071	0.051	0.300*	-0.042	1.000

* Correlation is significant at 0.05 level of probability

** Correlation is significant at 0.01 level of probability

Independent variables:

X_1 = Age
X_2 =experience of Extension work
X_3 = Annual Expenditure
X_4 = Job Satisfaction
X_5 = Motivation for seeking job related information
X_6 = Organizational problem confrontation
X_7 = Aspiration for training
X_8 = Technical knowledge

Dependent variable

X_9 = Information seeking behavior