

**COMMUNICATION BEHAVIOR OF UPAZILA LEVEL AGRICULTURE  
EXTENSION OFFICERS IN BANGLADESH**

**BY**

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*A thesis*

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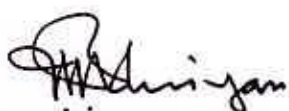
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*DEDICATED  
TO  
MY BELOVED  
FATHER GOLAM QUDDUS  
AND  
MOTHER SUFIA BEGUM*





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**CERTIFICATE**

This is to certify that the thesis entitled “**Communication Behavior of Upazila Level Agriculture Extension Officers in Bangladesh**” submitted to the Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of **Master of Science in Agricultural Extension and Information System**, embodies the result of a piece of bona fide research work carried out by **Din Mohammad Bappi**, Registration No. 04-01470 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.

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## **COMMUNICATION BEHAVIOR OF UPAZILA LEVEL AGRICULTURE EXTENSION OFFICERS IN BANGLADESH**

### **ABSTRACT**

The main objective of this study was to determine the communication behavior of upazila level agriculture extension officers including its relationship with their selected characteristics. Upazila agriculture offices all over Bangladesh were determined to be the study area. Out of 483 upazilas 227 were randomly selected which constituted the locale of the study. Four hundred and forty five (445) upazila level agriculture extension officers from the selected upazilas constituted the population. Only one hundred sixteen (116) officers returned their questionnaire. But sixteen (16) of them were excluded for sending them very late. Therefore, the sampling size became 100. Data collection was started from February to April, 2011. The independent variables were: official position, academic achievements, training exposure, leadership style, ability to land and production achievements of target, management ability, job satisfaction and personality. The dependent variable was the communication behavior of upazila level agriculture extension officers in Bangladesh. Among the respondents the highest (69.00 percent) of the respondents belonged to the low category to their extent of use of communication media compared to 13.00 percent medium and 11.00 percent high category to their extent of use of communication media. Official position and management ability had significant positive relationship with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh.

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## CHAPTER 1

### INTRODUCTION

গণপ্রজাতন্ত্রী বাংলাদেশ কৃষি বিশ্ববিদ্যালয় গনসাগর
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#### 1.1 General Background

The term communication comes from the Latin word 'communis' meaning common. According to Rogers and Shoemaker (1971), communication is the process by which messages are transferred from a source to receivers. Van den Ban and Hawkins (1988) defined communication as the process of sending and receiving messages through channels which establishes common meanings between a source and a receiver. Leagans (1961) defined communication as the process by which two or more people exchange ideas, facts, feelings or impressions in ways that each gains a common understanding of the meaning, intent and use of messages. So, communication then is a conscious attempt to share information, ideas, attitudes and the like with others. It is the exchange of thoughts, messages, or information, as by speech, signals, writing, or behavior.

According to Berlo (1960), the sole purpose of communication is to influence people with persuasive function of communication i.e. to induce people, is extremely important for extension in changing their behavior in the desirable direction. One of the most important recent developments in the way people look at organizations has been the increasing amount of attention paid to different aspect of communication (Downs and Conard, 1982). However, being able to communicate effectively at work requires two kinds of knowledge. First, it requires an understanding of the relationships that exist between communication and the operation of organizations. Since communication processes influence the way an organization operates and are simultaneously influenced by key characteristics of the organization, neither organizations nor organizational communication can be understood adequately if they are examined in isolation of each other. Secondly, effective communication depends on understanding how to choose appropriate communication strategies in different situations.

There are many agencies which provide extension support to the rural people of Bangladesh. These include government agencies, for example, the Department of Agriculture Extension (DAE), Bangladesh Rural Development Board (BRDB), Bangladesh Water Development Board, Bangladesh Agriculture Development Corporation (BADC), Forestry Department, Directorate of Livestock Services and Directorate of Fisheries.

The Department of Agriculture Extension (DAE) is the largest public sector extension agency in the country and is responsible for all the aspects of field and horticultural crop production. The main function of DAE is the transfer of technologies evolved in the research station along with education, training and motivation. The success of technology transfer largely depends upon how the DAE maintains public relations and how the public held attitudes towards the activities of DAE. To evolve better approach the DAE organized and reorganized several times.

Department of agriculture extension (DAE) is a large government organization. DAE have more than twenty four thousand (24,000) employees. Among them, more than two thousand five hundred (2,500) are Bangladesh Civil Service (BCS) cadre. Upazila level officers are near about one thousand fifteen hundred (1,500).

To achieve the DAE's mission, it works in the context of the New Agriculture Extension Policy (NAEP). The broad objective of the agriculture policy is to facilitate and accelerated technological transformation with a view to becoming self sufficient in food production and improve the nutritional status of the population.

Upazila level agriculture extension officers use different extension methods to communicate with other subordinate or superordinate officers. The extension methods are as follows:

- Letters writing
- Office calls attending
- Telephone calls attending
- Seminar and workshop

- Meeting
- Training
- Group discussion
- Farm and home visit
- Field days attending
- Agriculture fair conducting/attending
- Posters, Leaflet, Circular letter preparation and distribution
- Multi location testing
- Result demonstration
- TV programs conducting/attending
- Farm radio talks writing and broadcasting



The upazila level is the basic unit for planning, implementing, monitoring, and evaluating local extension programs. Upazila agriculture extension personnel such as Upazila Agriculture Officer (UAO), Agriculture Extension Officer (AEO), Assistant Agriculture Extension Officer (AAEO) and Sub Assistant Agriculture Officer (SAAO) are the grass root level workers of DAE. The success of extension service of DAE largely depends on the communication of upazila agriculture extension personnel. So it is very important for upazila agriculture extension personnel to perform their duties and responsibilities properly.

Viewing the role of extension service performed by DAE, it is apprehensive that its upazila personnel have good interaction with superordinate and subordinate in creating and sharing information about agriculture. The communication of upazila level agriculture extension officers largely aims to modernize field and horticultural crops using new agriculture technology. Communication is important to an organization for two reasons. First, communication is the means through which people acquire the information and develop the criteria by which they decide how to act. Second, communication is the process through which they put their choice into practice. That is, through communication members of organizations learn that there are precedents in their organization which constrain

their choices, and they learn what those precedents are. Through communication with others, they develop and express the purpose which guides their actions. They are able to consider the potential effects of different actions only because they are capable of communicating. In addition, it is through communication that members of an organization are able to coordinate their actions with other members of the organization. Because the complex arrays of tasks that must be performed in an organization are interdependent, each member of the organization can perform only if other members do also.

An organization is a stable system of individuals who work together to achieve through a hierarchy of ranks and a division of labour, common goals and objectives. Like human beings, organizations also establish and maintain themselves through communication with their environments and amongst their parts. Thomson (1967) points out that organizational communication refers to all of those data-flows that sub-serve the organization's communication and intercommunication processes in some ways. Organizational communication is the study of how people communicate within an organizational context and the influences and interactions within organizational structure. Group members depend on the flow of communication to establish their own identity within these structures and learn to function in the group setting. Although organizational communication, as a field of study, is usually geared toward companies and business groups, these may also be seen as communities. So, organizational communication broadly speaking is people working together to achieve individual or collective goals.

Effective communication practices in group and organizational settings are very important to the formation and maintenance of communities. How ideas and values are communicated within communities are important to the induction of new members, the formulation of agendas, the selection of leaders and many other aspects. Extension uses democratic methods in educating the farmers. Extension helps farmers change their behavior on a voluntary basis. Without communication

it is not possible to change the behavior of a farmer. So we can say that communication is extension and extension is communication.

Upazila level Agriculture Officers communicate with different communication system with subordinates and upper level officers by using different communication media. Upazila level Agriculture Officers exchange ideas of agriculture technology maintaining both top down and bottom up communication i.e. they communicate with farmers, subordinates and their super ordinates. They also visit farmers' field to know their problem and to transfer the knowledge of new technology. When a new technology is evolved, the best ways to transfer technology to the farmer level are method demonstration and result demonstrations. Printing materials (poster, leaflet, bulletins) distribution to the farmers is one of the effective ways to disperse innovation and information. Extension programs concentrate on meeting the needs of farm households in particular and help them to solve the key technical problems they face in farming and homestead activities. Most extension messages and activities are based on needs, problems that are identified at farm level.

In the context of agriculture and rural development, extension agent is the communicator who starts the process of communication. The extension agents obtain the required information from research and carry it to the audience, the farmers (Ray, 1990). The credibility of the communicator and the organization and the individual represents is important for effective communication. The scientists and extension agents having status, expertise, accomplishment, authority and experience are perceived as highly credible by the farmers in communicating information on agriculture and rural development.

Channel of communication constitutes the medium through which information flows from a sender to one or more receivers (Ray, 1990). Face-to-face, word-of-mouth is the simplest and yet one of the most widely used and effective means of communication, particularly for the developing countries. The channels of communication may be classified into a number of ways according to form,

according to nature of personnel involved, according to nature of contact with the people. The attitude of the audience toward the message largely depends upon who gives what message through which channel; to what extent the content of the message satisfy their needs and intentions; to what measures the suggestions contained in the message are in line with their pre held experiences and preexisting preferences; and how far the message is compatible with group norms and value system to which the audience belongs. In case the audience members feel that the communicator is trustworthy, dependable and find the person communicating the message through the medium of their choice, they are likely to receive the message, provided the presentation of the content appear to the audience as interesting and comprehensive (Dey, 1993).

Communication, to be successful, must be target oriented. The communicators must know the target, their needs, interests, resources, facilities, constraints and even their approximate number and location. The communicator should, therefore, be careful in selecting message which are relevant to the audience, choose channels compatible to their cultural pattern and make treatment of the message appropriate to their levels of interest and understanding. Organizational development depends upon the skillful communication of each personnel. Top level officers give instruction and pass order to their subordinates. They are linked by the interpersonal communication. Every extension officers has specific duties and responsibilities and they perform these for the sake of organizational development and the nation as well that demand for meaningful communication. A very few study was conducted on this issue. So the researcher is keenly interested to conduct study entitled: "Communication behavior of upazila level agriculture extension officers in Bangladesh".



## 1.2 Statement of the Problem

Upazila Agriculture Officers, Additional Agriculture Officers, Extension Officers are generally working in upazila agriculture office. They are the responsible person in the upazila level for information dissemination related to agriculture. In fact, communication behavior of upazila level agriculture extension officers in Bangladesh is an essential element for the development of agriculture of Bangladesh. Exposure to information pertaining to different aspects of agriculture is very essential for the farmers as Kashem and Halim (1991) found, "Contact with source of information is a pre-condition to receive information and the use of technology in real situation". Technology generation and its adoption are very much important for the improvement of agriculture production. To expand the cultivation of modern and high yielding crop in the country, the communication behavior of upazila level agriculture extension officers would be significantly contributory to design appropriate programs for widespread development of agriculture. In this regard, the answers to the following questions were supposed to be very much pertinent:

1. What is the extent of use of communication media by the upazila level Agriculture Extension Officers?
2. What characteristics of the upazila level Agriculture Extension Officers are responsible for their professional/organizational communication behavior?
3. What relationships exist between the upazila level Agriculture Extension Officers' selected characteristics and their communication behavior?

These questions obviously inspired the researcher for conducting a research study entitled "Communication behavior of upazila level agriculture extension officers in Bangladesh".



### **1.3 Specific objectives of the study**

1. To determine and describe the communication behavior of agriculture extension officers of upazila level.
2. To determine and describe the selected characteristics of upazila agriculture extension officers. The selected characteristics are;
  - i. Official Position
  - ii. Academic achievements
  - iii. Training exposure
  - iv. Leadership style
  - v. Achievement of land and production target
  - vi. Management ability
  - vii. Job satisfaction
  - viii. Personality
3. To determine the relationship between communication behavior of upazila level agriculture extension officers and their selected characteristics.
4. To determine the rank order of activities performed by upazila level agriculture extension officer in terms of their organizational communication behavior.

### **1.4 Justification of the Study**

To increase agriculture production it is necessary to get information by the farmers related to new technology. Now considerable effort is being made through research and extension delivery system to increase agriculture production in our country. But the actual increase in production will depend on the communication behavior of the extension officers. The communication behavior of upazila level agriculture extension officers is influenced by their personal, economic, social and psychological characteristics.

Exposure to information pertaining to different aspects of agriculture production is very essential for the farmers. Technology generation and its adoption are very much important for successfully practicing innovative technology for agriculture cultivation. At this end, the upazila level agriculture extension officers need to come in contact with various communication media for dissemination new and improved agriculture related technology for collecting necessary information.

But only a few researches home and abroad have conducted on this fundamental research topic. Considering the above facts in view and the practical usefulness of it researcher has become keenly interested to undertake the present research entitled- “Communication behavior of upazila level agriculture extension officers in Bangladesh”.

### **1.5 Scope of the Study**

The main focus of the study was to determine the communication behavior of upazila level agriculture extension officers in Bangladesh. The findings of the study would be specifically applicable to Bangladesh context. The investigator believes that the findings of the study would reveal the phenomenon related to diffusion of innovation. These would be of special interest to the policy makers and planners in formulating and redesigning the extension programs especially for upazila level agriculture officers. The findings are expected to be helpful to the field workers of different nation building departments and organizations to develop appropriate extension strategies for effective communication behavior for collecting information of modern agriculture technology.

### **1.6 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:

- 1) The agriculture extension officers included in the sample were capable of providing proper answer to the questions exerted in the interview schedule.
- 2) Data collected through mailed questionnaire were free from bias.
- 3) The responses furnished by the respondents were reliable and realistic.
- 4) Views and opinions furnished by respondents included in the sample were representative views about communication behavior of agriculture extension officers of DAE.
- 5) The respondents were more or less conscious about the use of communication media.

### **1.7 Limitations of the Study**

Considering the time, money and other necessary resources available to make the study manageable and meaningful, it was necessary to consider the following limitations:

1. The study was confined mainly to communication behavior of the upazila level agriculture extension officers.
2. The study was administered all over Bangladesh but there were some upazila level agriculture extension officers who could not provide any information.
3. The characteristics of upazila level agriculture extension officers are many and varied but only 08 characteristics were selected for investigation in this study.
4. Population of the study includes only the upazila level agriculture extension officers.
5. The researcher was dependent on the data furnished by the agriculture extension officers.
6. The sample of population was drawn from only the returned filled up questionnaire.



### **1.8 Statement of 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 seem contrary to, or in accord with common sense. It may prove to be correct or incorrect. In any event, however, it leads to an empirical test".

The following hypothesis is formulated to explore the relationship between the dependent and independent variables. The major research hypothesis for the study is: "There is relationship between communication behavior of upazila level agriculture extension officers in Bangladesh and their selected characteristics including official position, academic achievements, training exposure, leadership style, achievement of land and production target, management ability, job satisfaction and personality.

The research hypothesis was converted into null form for the purpose of statistical testing. The major null hypothesis states that "There is no relationship between communication behavior of upazila level agriculture extension officers in Bangladesh and their selected characteristics". Eight null hypotheses were formulated concerned with each of the selected characteristics.

### **1.9 Definition of Key Terms**

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

#### **Respondents**

Randomly selected people considered to be representable of the population of the study for a social survey are known as respondents. They are the people from whom a social research worker usually gets most data required for his research. In this study the respondents were the upazila level agriculture extension officers.

#### **Variable**

A variable is something which varies. More specifically, variables are those attributes of objects, events, things and beings which vary and can be measured. In

other words variables are the characteristics or conditions that can be observed, manipulated or controlled by the researcher. Some of the characteristics of upazila level agriculture extension officer are official position, academic achievements, training exposure, leadership style, achievement of land and production target, management ability, job satisfaction and personality etc..

### **Assumption**

An assumption is “The supposition that an apparent fact or principle is true in the light of the available evidence” (Goode and Hatt, 1952).

### **Hypothesis**

Defined by Goode and Hatt (1952), a proposition this can be put to “a test to determine its validity”. It may be true or false, it may seem contrary to or in accord with common sense. However, it leads to an empirical test.

### **Null hypothesis**

The hypothesis which we pick for statistical test is null hypothesis ( $H_0$ ). In this study the null hypothesis is stated that there is no relationship between the concerned variables.

### **Innovation**

An innovation is an idea or practice perceived as new by the individual. It is the newness of the idea to the individual that determines his reaction to it.

### **Communication**

Van den Ban and Hawkins (1988) defined communication as the process of sending and receiving message through channels which establishes common meaning between a source and a receiver. Rogers and Shoemaker (1971) defined communication is the process by which message are transferred from a source to receiver. Leagans (1961) defined communication as the process by which two or more people exchange ideas, facts, feelings or impressions in ways that each gains a common understanding of the meaning intent and use of message.

## **Communication Behavior**

Communication behavior means the way or the process by which a communicator communicates. It referred to a respond agriculture extension officer's behavior with different communication media or sources and other extension personnel for transfer of technologies. It has three parts-information seeking, information processing, and information dissemination. In this study communication behavior was concerned with extension personnel exposure to different communication media and there use for increasing communication knowledge.

## **Organizational Communication**

An organization is a stable system of individuals who work together to achieve through a hierarchy of ranks and division of labour, common goals and objectives. Like human beings, organizations also establish and maintain themselves through communication and amongst their parts. Organizational communications refers to all those data-flows that sub serve the organizations communication and inter communication processes in some way. Organizational communication, broadly speaking, is people working together to achieve individual or collective goals. In this study organizational communications means activities performed by upazila level agriculture extension officers, such as letters written to the high officials, letters written to the sister organizations (like- ULO, UFO, NGO's) and other upazila level officers, Letters written to the subordinates, Office calls attended, Telephone calls to the DD, AD, DG, telephone calls to the local offices, seminar and workshop attended, meetings attended at district or national level, Meetings attended at sister organizations(like-ULO,UFO,NGO's), field day etc.

## **Group contact**

The extension agent communicates with the people in groups and not as individual persons. Example: group meeting, small group training, field day or farmers' day, study tour etc.

**Individual contact**

The extension agent communicates with the people individually, maintaining separate identity of each person. Example: farm and home visit, farmer's call, personal letter etc.

**Upazila Agriculture Extension Officers**

The people who perform their jobs in upazila level under DAE are known as upazila agriculture extension officers such as Upazila Agriculture Officer (UAO), Additional Upazila Agriculture Officer (Adl.UAO), Agriculture Extension Officer (AEO), Assistant Agriculture Extension Officer (AAEO) and Sub Assistant Agriculture Officer (SAAO).

**Official Position**

Official position of a respondent upazila level agriculture officer is the position that he/she hold in upazila level. In upazila level there is probation for upazila agriculture officer, additional agriculture officers and extension officers.

**Academic achievements**

Academic education for adults can be defined as types of education that involves attainment of credit in a number of courses, is systematic and cumulative, and leading to a certificate, a diploma or a degree. In this study academic achievements are solely concerned with upazila level agriculture extension officers.

**Training exposure**

Training exposure referred to organized instruction aimed at improving knowledge, skill and attitude of upazila extension officer that they can perform his/her functions more effectively. Training experience referred to number of days the respondents received training in different aspects of agriculture from home and abroad.

**Leadership style**

Leadership may be defined as the activity of influencing people toward some desirable goal. In the broadest sense leadership refers to that process whereby an



individual directs, guides or controls the thoughts, feelings or behavior of other human beings. Leadership style means the leadership and the ability of upazila level agriculture officers to lead the organization. In this study leadership style were concerned with take decision & declare clearly by the upazila level agriculture extension officer, express of ideas to subordinates, describing ability to express the problems to subordinates and receiving their suggestions in decision making process, allow the immediate boss of subordinates to take necessary decision.

### **Management and administrative skill**

Management and administrative skill means the ability to manage his/her jobs and practicing administrative skill like how to organize activities of the plan, motivation and communication, evaluation and development activities. In this study management and administration skill were concerned with ability to organize activities of the plan, motivation and communication ability, evaluation and development activities of upazila level agriculture extension officers.

### **Job satisfaction**

Job satisfaction means the extent of satisfaction or displeasure or frustration derived by an individual with his or her job content and environment of work. The degree of satisfaction of upazila agriculture extension officers related to the various aspects of their job such as accomplishments in job, supervision advancement opportunity, and scope for using personal initiative, pay and enjoyment from works.

### **Personality**

The term personality is used to mean the sum totality of an individual's characteristics and way of behaving which determine his unique adjustment to his environment. Personality is the organization of biological, psychological and sociological factors which underlies the individual behavior. As the Wordwath and Marquis define 'Personality is the total quality of individual's behavior, personality of upazila level agriculture extension officers means the efficient performance of professional leadership, social interaction, skilled and effective communication behavior, accepting challenges, problem solving, hardworking and so on.

## CHAPTER 2

### REVIEW OF LITERATURE

This chapter deals with the review of past research works that relates to this investigation directly or indirectly. Despite frantic search, the researcher found only a few literatures related to this study. The researcher came across with some expert opinions and has tried his best to collect needful information through searching relevant studies, journals, periodicals, bulletins, leaflets, internet etc. These enhanced the researcher's knowledge for better and clear understanding of the present study. This chapter has been presented in four sections as follows:

Section 1: Organizational Communication

Section 2: General review of Communication behavior

Section 3: Selected Characteristics of respondents and communication behavior

Section 4: The development of conceptual framework of the study

#### **2.1 Organizational Communication**

Communication is important to an organization for two reasons. First, communication is the means through which people acquire the information and develop the criteria by which they decide how to act. Second, Communication is the process through which they put their choice into practice. That is, through communication members of organizations learn that there are precedents in their organization which constrain their choices, and they learn what those precedents are. Through communication with others they learn develop and express the purposes which guide their actions.

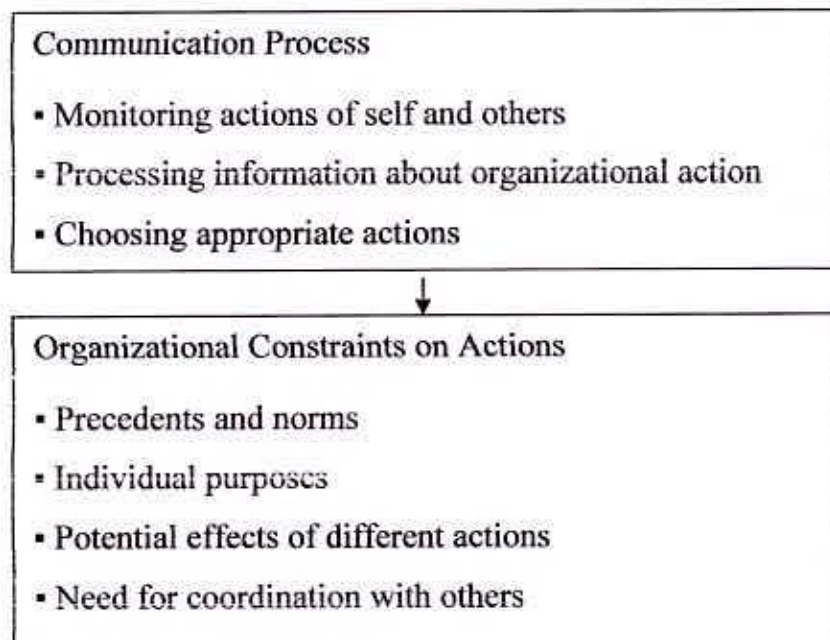
All upazila level agriculture officers communicate with their super-ordinate, sub-ordinate and the farmers in various ways like-letter, phone calls, meeting, training, seminar and workshop, group discussion, farm and home visit, field day, agriculture fair, posters, circular letter, leaflet, multi location testing,

result demonstration, articles written in magazine, newspaper, TV programs, farm radio talks.

Some important ways communication functions as tool members of organizations:

1. It allows them to issue, receive, interpret, and act on commands.
2. It allows them to create and maintain productive business and personnel relationships with other members of the organizations, and
3. It allows them to manage ambiguity and uncertainty.

Processes of Communication in Organizations:



## 2.2 General review of communication behavior

Field studies conducted by Wilson and Gallup (1955) on Extension Teaching Methods indicated wide differences in the influence of the various extension teaching methods upon the adoption of farm and home practices. The study showed that 81 practices out of 100 were adopted as the result of the various teaching methods, 25 were credited to individual contacts, 33 to group contacts, and 23 to mass media methods. The indirect influence resulting from the direct teaching effort accounted for 19 percent of the new practices.

Copp and others (1958) in a combined study on the function of communication media in farm practice adoption process found the following commonly used communication media as the farmers moved from one stage to another in the adoption process. In the awareness stage, magazines and printed extension materials were the commonly used media by the farmers. In the interest stage, printed and oral extension were the most cited media of farm information.

Ahmed (1977) in his study on the use of communication media in jute cultivation found that the role of group contact (38.72 percent) was much greater than those of mass contact (21.23 percent), informal contact (20.44 percent) and individual contact (19.61 percent). However, when the single communication was considered irrespective of categories, it was found that the highest proportion of citations was for the neighbors, friends and relatives (94 percent). The place of progressive farmer was second in order of individual citations (89 per cent). Islam and Halim (1975) determined that use of media by the respondents in adopting IRRI paddy at different stages of adoption. They found that media vary in relation to their standing on the stages in the adoption process. At awareness stage about 89 per cent of the respondents used personal of information while only 11 per cent used impersonal media. The percentage of citation of the informal media was much higher (58 percent) than that of the formal interpersonal media (31 percent).

In interest stage about 97 percent of the respondents cited interpersonal communication of information compared to only about 3 percent who cited use of impersonal media. At this stage also the informal personal media were cited to a greater extent (68 percent) than the formal personal media (29 percent). At evaluation stage the personal media of information were cited 90 times while the impersonal media were cited only 2 times. However, the formal personal media of information had a higher percentage of citations (63 percent) than the informal personal media (35 percent).

At trial and adoption stage it was observed that the citations of media were more or less like for all five practices. In each case the use of personal media fairly dominated over the use of impersonal media. Formal personal media always had a fairly higher percentage of citations compared to the informal personal media.

Rahman (1974) conducted a study on the use of communication by the registered jute seed growers of Meherpur Thana and he observed that the extension agent was used to the highest extent (99 percent) which was followed in descending order by friends and neighbors (96.8 percent), model farmer and manager (52 percent ) office call (52 percent), training at Thana Training and Development Centre (35 percent), farm and home visit (43 percent) publication (35 per cent), radio (21 percent), newspaper (13 percent) and demonstration (8 percent).

While conducting a study on the farmers' preference for mass media, Karim (1974) found that the farmers learned the selected farm practices from more than one mass media. Most of them became aware of the use of fertilizers' from the radio farm forum (71 percent). The other media such as poster (26 percent), agriculture exhibition (22 percent) and film show (20 percent) were partially successful in the awareness and interest stages. A small number of them consulted Krishikatha (18 percent), agriculture bulletin (11 percent) and circular letter (7 per cent) for technical information.

Quite a large number of growers heard about the importance of plant protection measure from radio (81 percent). The film show (25 percent), poster (19 percent) and agriculture exhibition (9 percent) worked as the auxiliary media. The cultivators also read Krishikatha (20 percent) circular letter (8 percent) and agriculture bulletin (7 percent) to meet their technical information about plant protection measure. On farmers preference, the mass media used expressed in descending order radio, film show, poster, agriculture exhibition, agriculture bulletin, Krishikatha and circular letter respectively.

Field studies conducted by Wilson and Gallup (1955) on Extension Teaching Methods indicated wide differences in the influence of the various extension teaching methods upon the adoption of farm and home practices. The study showed that 81 practices out of 100 were adopted as the result of the various teaching methods, 25 were credited to individual contacts, 33 to group contacts, and 23 to mass media methods. The indirect influence resulting from the direct teaching effort accounted for 19 percent of the new practices.

Jain and Caldwell (1970) studied the use of communication media in different stages of adoption which may be summarized as follows:

**Awareness stage-** mass media were the most important information media at this stage, followed by commercial and informal media.

**Interest stage-** informal media occupied the first position, followed by commercial and mass media.

**Evaluation stage-** Commercial media ranked first, followed by informal and mass media.

**Trial stage-** informal media ranked first, followed by commercial and mass media.

**Adoption stage-** Commercial media occupied the first position, followed by mass media.

Karim (1969) found that respondents mentioned more than one communication media for learning about improved rice farming. He found that 97 percent of the entire study group mentioned friends and neighbors as communication media, while 26 percent named result demonstration, field tour, method demonstration, meeting, and short course training as the sources of farm information. About one-fourth (23 percent) of the farmers cited farm visit and office call as sources of farm information and about one-fifth (19 percent) mentioned radio, motion

picture, poster, agriculture magazine, newspaper and pamphlets as information source for improved rice farming.

The situation was totally reversed at the information stage. Informal personal media were most frequently cited followed by formal personal media. Impersonal media received minimum citations. At the trial stage, however, formal personal media became the most frequently cited sources followed by informal media. There was no citation for impersonal media at this stage. Interestingly, some of the respondents consistently reported the use of same media from awareness to trial stages.

Impersonal media played a significant role in making people aware. Personal media remained a major media of communication for almost all the people at each stage of the adoption process. Among the personal media, the informal personal media (e.g. family, friends, neighbors and other persons within the community who have tried or adopted the practices) were the most important at the information stage. At the trial stage, the formal personal media were the most important ones.

In the acceptance stage, personal influence in face- to - face situations was the most commonly cited media. Therefore, oral extension and peer group influence were the most effective media at this stage.

Sarker (1995) in his study found that 99 per cent of the small farmer had low to medium use of communication media in receiving agriculture information for performing various farming operations. He also indicated that the small farmers mostly preferred localite and non-professional media for getting agriculture information.

## **2.3 Selected Characteristics of Respondents and communication behavior**

### **2.3.1 Official Position**

Hossain (1981) in his study found significant relationship between the official positions with communication behavior.

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

### **2.3.2 Academic achievements**

Both Contado (1969) and Paderes (1979) found in their respective studies that majority of the extension workers had at least 10 years of schooling. Contado further reported that 57 percent of the farm management technicians (FMTs) did not have college degree and Paderes found that only 25 percent of the technicians had finished from 11 to 14 years schooling.

Rahman (1974) found that the academic achievement of the respondents had significant influence on the use of communication media.

Ahmed (1977) found that academic achievement had no effect on the use of communication media in the adoption of recommended variety of jute, recommended dose of fertilizer but showed an effect of academic achievement on the use of communication media and the relationship was positive.

Mahboob *et al.* (1978) showed that the proportion of Union Assistants having medium academic achievement was the highest (41 percent) followed by 23 percent of high achievement 21 percent of no achievement and 15 percent of low achievement.

Roy (1981), in his study found that academic achievement contributed positive relationship in receiving information on the use of balanced fertilizer dose by the respondent.



Hossain (1981) in his study found that there was no relationship of academic achievement with adoption of improved practices.

Halim (1982) in his study on schooling, extension and agriculture production found that increase of educational level of the farm operators resulted increased per acre production of rice, jute and net farm income of the farm.

Huque (1986) found that 93 percent of Filipino change agents had education at the bachelor's level, 4 percent had above that level and only 3 percent had at the Secondary level, the latter being equivalent to SSC in Bangladesh.

Bhuiyan (1988) showed that academic achievement had positive and significant contribution on the comprehensive use of communication media.

Rahman (1991) in his study observed that academic merit score of the Block Supervisors ranged from 4 to 58, with a mean of 32. The respondents were classified into three categories on the basis of their academic merit score. The highest proportion (52 percent) of the respondents had very good merit (scores of 32 and above) followed by 34 percent of poor merit (score up to 19) and 14 percent of good merit (scores of 20 to 31).

Sarker (1995) found a highly positive significant relationship between academic achievement of the respondents and their use of communication media.

### **2.3.3 Training exposure**

Lazo (1963) in his study reported that mass media have been used by the Municipal extension workers to a considerable extent.

Beal and Sibley (1967) found that there was a positive relationship between communication behavior of the Indian Guatemala and their training and adoption of agriculture technology.

Ayaso (1978) claimed that his HMTs had up-to-date in service training in the areas of their job each having eight training within a six- year period.

Gapuz (1980) found that his FMTs, on the average, had attended two training during the last three years for 19 days, mostly in crop production.

Mabesa (1980) showed that only 3 and 15 percent technicians were exposed to scientific journal to "very often" and "often" respectively and 11 and 30 percent to other Agriculture publications, in that order of intensity.

Juliano (1981) observed that the technologists of Cagayan province seldom saw the agriculture publications and a few of them claimed to have read, but only some of those were especially exposed to mungo publication. A little over half of them read something within two years prior to data collection.

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. 7 percent of respondents had never attended any training courses.

Rahman (1991) observed that Block Supervisors exposure to newspaper ranged from 6 to 90 issues in a month, the average exposure level was 45 issues. Fourteen percent of the subjects were exposed to low (1-15 issues), 25 percent to moderate (16-30 issues) and 61 percent to high (over 30 issues) level.

Rahman (1991) in his study 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.

Kashem and Halim (1991) found in their study that training make them innovative that respondents had significant positive correlation with their (farmers) self confidence, use of communication media in adoption of modern rice technology, use of communication media in livestock production, use of communication media in adoption of total agriculture technology.

#### **2.3.4 Leadership style**

Ahmed (1977) found that leadership attitude of the respondents had significant effect on the use of communication media in the adoption of plant protection measures.

Roy (1981) showed that respondents leadership attitude to certain extent increase the receiving of information through different communication sources for the use of balanced fertilizer dose. He also found that the more the positive attitude of respondents, the greater was their tendency to use all possible communication media for getting modern farm technology like use of balanced fertilizer dose.

Sarker (1995) in his study revealed that the use of communication behavior by the respondents had significant positive correlation with their leadership attitude.

#### **2.3.5 Achievement of land and production target**

Ahmed (1977) found that ability of achievement of target had significant effect on the use of communication media in the adoption of plant protection measures that leads to highest production.

Mahboob *et al.* (1978) indicated that the highest proportion (58 percent) of the union Assistants had ability to achievement of target of their land and production.

Rahman (1991) observed that 73 percent of the Block Supervisors had ability to achievemnt their target of land for production and their target of production.

Kashem and Halim (1991) found in their study that ability of achievements of target had significant positive correlation with their self confidence, use of communication media in adoption of modern rice technology, use of communication media in adoption of total agriculture technology.

#### **2.3.6 Management ability**

Sawhney (1969) found that skilled respondents were more actively participating in formal organizations used for more cosmopolite media and less localite media than those who were participating less actively or not at all.

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

Roy (1981) in his study indicated that skill respondent had significant positive effect on their communication behavior receiving information on the use of balanced doses of fertilizer.

Bhuiyan (1988) observed that the regression coefficient of management skill towards use of communication media was statistically not significant and was concluded that organizational participation was not related to comprehensive use of communication media by the respondents.

### **2.3.7 Job satisfaction**

Kadam and Sabale (1983) observed in a study that satisfaction of the respondents had significant positive relationship with the extent of use of communication media.

Islam *et al.* (1986) carried out a survey on job satisfaction of the council officials of Barangay where they found that majority (68 percent) of the respondents were moderately satisfied while 11 percent highly satisfied and the same proportion slightly dissatisfied.

Bhuiyan (1988) in a study observed that the relationship between satisfaction level and the use of communication media was not significant.

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

Annisuzzaman (2003) concluded that the satisfaction of the respondents had significant positive relationship with their use of communication media.

### **2.3.8 Personality**

Kashem and Halim (1991) found in their study that knowledge and personality had significant positive correlation with competence, belief and attitudes towards agriculture technologies, behavior intent, innovativeness, self-confidences cosmopolitaness, use of communication media in the transfer of modern rice technologies, use of communication media in livestock production, use of communication media and use communication media in adoption of total agriculture technologies.

Sarker (1995) in his study on communication media used by the respondents in receiving agriculture information found that the acquaintance of the respondents is highly correlated with their communication behavior.

Annisuzzaman (2003) concluded that the personality of the respondents had significant positive relationship with their use of communication media.

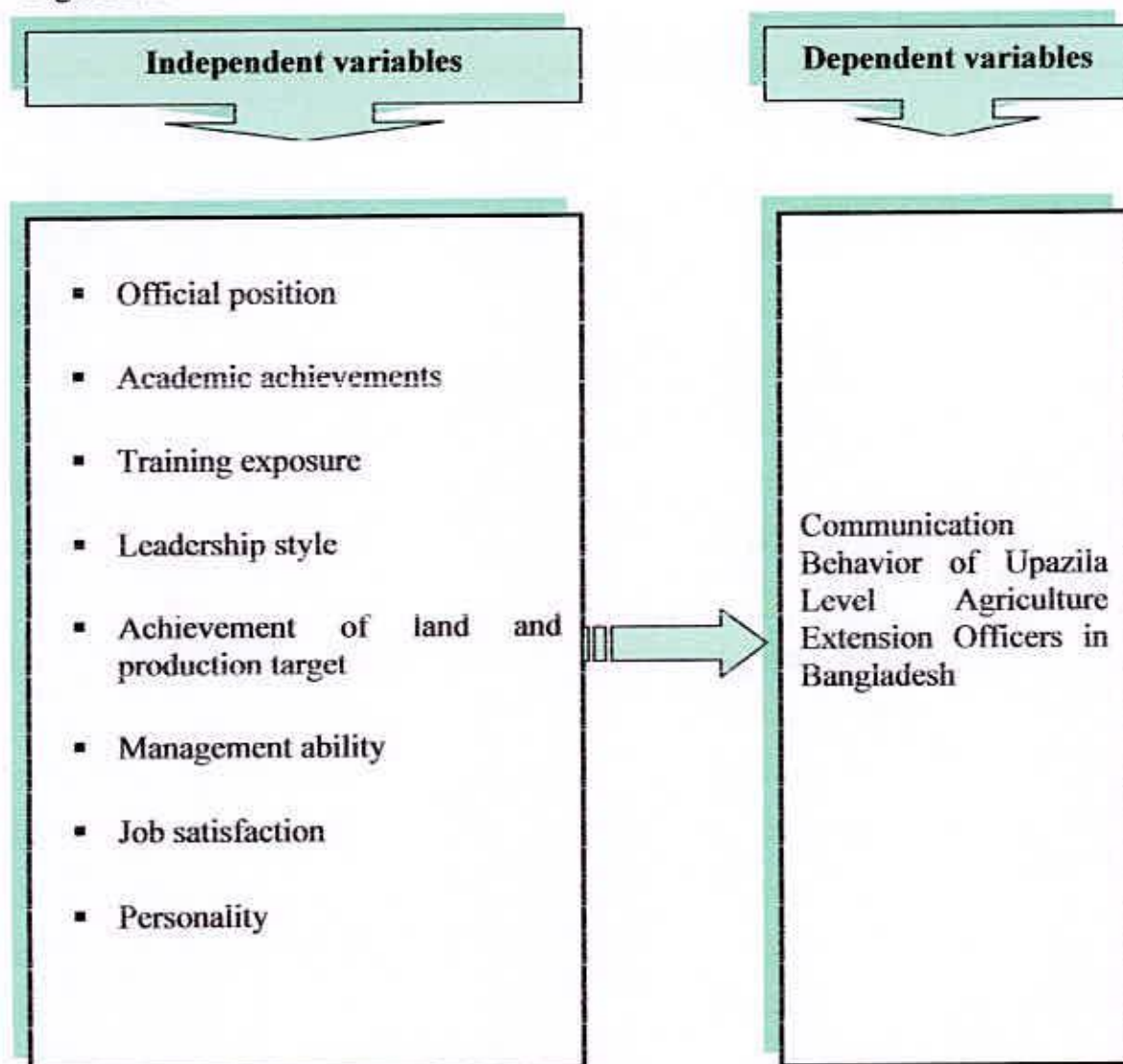
### **2.4 Conceptual Framework**

In scientific research, selection and measurement of variables constitute an important task. The hypothesis of a research while constructed properly consist at least two important elements i.e.: a dependent variable and an independent variable. A dependent variable is that factor which appears, disappears or varies as the researcher introduces, removes or varies the independent variables (Townsend, 1953). An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationship to an observed phenomenon. Variables together are the causes and the phenomenon is effect and thus, there is cause effect relationship everywhere in the universe.

The conceptual framework of Rosenberg and Hovland (1960) was kept in mind while making structural arrangements for the dependent and independent variables. This study is concerned with the communication behavior of upazila level agriculture extension officers in Bangladesh. Thus, the communication behavior of the upazila level agriculture extension officers in Bangladesh was the dependent variable and 08 selected characteristics of the upazila level agriculture

extension officers were considered as the independent variables. Communication behavior of an individual may be affected through interacting forces of many independent variables. It is not possible to deal with all independent variables in a single study. It was therefore, necessary to limit the independent variables. For this study official position, academic achievements, training exposure, leadership style, ability to land and production achievements of target, management ability, job satisfaction and personality included for this study as independent variables.

Considering the above mentioned discussion, a conceptual framework has been developed for this study, which is diagrammatically presented in the following Figure 2.1.



**Figure 2.1: The conceptual framework of the study**

## CHAPTER 3

### METHODOLOGY

Methodology deals with the methods and procedures for collection and analysis of valid information that gives emphasis on measurement of concerned variables. It is impossible to conduct research work smoothly without proper methodology and it is very difficult to address the objectives with a scientific manner. It requires a very careful consideration on the part of the researcher to collect valid and reliable data and to analyze the same for meaningful conclusion. A sequential description of the methodologies followed in conducting this study has been presented below:

#### 3.1 Locale of the study

Upazila Agriculture Offices all over Bangladesh were constituted to be the study area. Out of 483 upazila at the rate of 25% 227 were randomly selected which constituted the locale of the study. The map of Bangladesh showing the locale of the study in Figure 3.1.

#### 3.2 Sample size

There are 483 upazila agriculture offices all over Bangladesh. Each upazila consists of three extension officers – Upazila Agriculture Officer (UAO), Additional Upazila Agriculture Officer (Adl.UAO), and Agriculture Extension Officer (AEO). Accordingly, there are 1449 upazila level extension officers. The agriculture extension officers of the selected upazila constituted the population of the study. That is 445 extension officers of different level were the population of the study. Then 445 copies of questionnaire were sent to 445 extension officers. All the respondent extension officers did not return duly filled up questionnaire. Only 116 officers returned their questionnaire. But sixteen of them were excluded for sending them very late. Therefore, the sampling size became 100.

It would be mentioned that the posts of Additional Upazila Agriculture Officer (Adl.UAO) in most of the upazila are vacant. So, there have no filled questionnaire returned from them. That's why; the sample was constituted only Upazila Agriculture Officer (UAO) and Agriculture Extension Officer (AEO).



Figure 3.1 A map of Bangladesh showing the study area



### **3.3 The Research Instrument**

A well structured interview schedule was developed based on objectives of the study containing direct and simple questions in closed form keeping in view the dependent and independent variables of the study. Appropriate scales were developed to measure both independent and dependent variables.

The interview schedule was pre-tested with five upazila agriculture officers and extension officers in actual situation before finalized it for collection of data. Necessary corrections, additions, alternations, rearrangements and adjustments were made in the interview schedule based on pretest experience. The interview schedule was then multiplied by printing in its final form. A copy of the interview schedule is presented into Appendix I.

### **3.4 Data Collection Procedure**

The researcher sent the questionnaire to upazila agriculture offices by mail. After completion of the filling up of the questionnaire providing necessary information it was came back to the address of researcher. Out of 445 set only 116 questionnaires were sent back. Otherwise no serious problem was faced by the investigator during data collection rather obtained cooperation from the respondents. Data collection was started from February to April, 2011.

### **3.5 Measurement of variables**

The variable is a characteristic, which can assume varying, or different values in successive individual cases. A research work usually contains two variables viz. independent and dependent variables. An independent variable is that which is manipulated by the researcher in his attempt to ascertain its relationship to an observed phenomenon. A dependent variable is that factor which appears, disappears or varies as the researcher introduces, removes or varies the independent variable (Townsend, 1953). In the scientific research, the selection and measurement of variable is a significant task. According to this conception, the researcher reviewed literature to understanding about the natures and scopes of the variables relevant to this research. Finally, the researcher selected 08

independent and one dependent variable. The independent variables were: official position, academic achievements, training exposure, leadership style, achievement of land and production target, management ability, job satisfaction and personality. The dependent variable was the communication behavior of upazila level agriculture extension officers in Bangladesh. The methods and procedures in measuring these variables are presented below:

### **3.6 Measurement of independent variables**

The eight (08) characteristics of the respondent's upazila level agriculture officer mentioned above constituted the independent variables of this study. The following procedures were followed for measuring the independent variables-

#### **3.6.1 Official position**

Official position of respondent upazila level agriculture extension officers was measured on the basis of his/her official position in upazila level. A score 3 was assigned for the position of upazila agriculture officer, score 2 was assigned for the position of additional agriculture officers and score of three 1 was assigned for the position of extension officers. Official position score of upazila extension officers was assigned as follows:

<u>Official position</u>	<u>Assigned score</u>
Upazila Agriculture Officer (UAO)	3
Additional Upazila Agriculture Officer (Adl.UAO)	2
Agriculture Extension Officer (AEO).	1

#### **3.6.2 Academic achievements**

Academic achievement of a UAO was measured by considering his/her performance in examinations of Schools/College/University/Technical Institutions of Bangladesh. An academic achievement score of an individual was computed on the basis of two dimensions, namely, name of examinations and results of examinations.

The name of examination (E) was scored as follows:

<u>Name of Examination</u>	<u>Assigned score</u>
SSC and equivalent	1
HSC and equivalent	2
BSc. Ag. (Hons.)	3
MS	4
MBA	5
M.Phil	6
PhD	7



The result obtained (R) in each examination for the corresponding course was scored in the following manner:

<u>Result obtained</u>	<u>Sub-score</u>
1 <sup>st</sup> class/Division	3
2 <sup>nd</sup> class/Division	2

Academic achievement score of an upazila level agriculture officer was obtained by using the following formula:

$$\text{Academic achievement score} = \sum \{(E) \times (R)\}$$

Where,

E = Score for examinations

R = Score for the result of the examinations

The highest score would be  $3 \times 7 \times 3 = 63$  and the lowest score would be  $3 \times 2 \times 3 = 18$ .

### 3.6.3 Training exposure

Training home and aboard of an upazila level agriculture extension officer was measured in terms of total number of days participated in all of the in-service training. One score was assigned for each day of in-service training whether it is at home or in aboard. Score of training exposure were added together.

### 3.6.4 Leadership style

Leadership style of an upazila level agriculture officers was measured on the basis Autocratic-democratic continuum theory of leadership forwarded by Robins, 1985). Seven autocratic-democratic continuum statements were constructed with assigned score as follows:

#	<u>Autocratic – democratic continuum</u>	<u>Assigned score</u>
1.	I take decision myself and declare	1
2.	I declare my decision clearly as if it is decision of all	2
3.	I express my ideas to my subordinates and invite questions from them	3
4.	I express my decision to the subordinates which is changeable through discussion	4
5.	I describe the problems to my subordinates and ask their suggestions then take decision	5
6.	I state the limitation to my subordinates and ask them to take decision	6
7.	I allow the immediate boss of subordinates to take necessary decision	7

The highest leadership style would be 07 where as the lowest score would be 01.

### **3.6.5 Achievement of land and production target (%)**

Achievement of land and production target was measured on the basis of production plan for Boro and Aman rice cultivation. For example if an officer had a target to bring 100 ha of land under Aman cultivation and production target 5 Mt/ha but during implementation it was found that land target was achieved by 75% , i.e. she/he could bring 75 ha of land under Aman cultivation. In case yield it was 70% i.e. 3.5 Mt/ha. Both the target land were added and expressed in percentage.

### **3.6.6 Management ability**

Management and Administration skill of the upazila level agriculture officer was measured on the basis organizing the activities of the plan, motivation communication, evaluation and development activities.

#### **3.6.6.1 Organize activities of the plan**

Organizing activities of the plan was measured on the basis of 5 different types of activities and the frequency of practicing of these activities in every year. If the upazila level agriculture extension officer practiced one activity in a year then he/she was assigned score one. Upazila level agriculture extension officers organize different activities of plan like-Aman production plan, Boro production plan, preparation of forth nightly working schedule of sub-assistant agriculture extension officers (SAAO's), conduction meeting with SAAO, organization training for SAAO, Checking FINA activities, held meetings with other officers, organization farmers training etc.

#### **3.6.6.2 Motivation activities**

Motivation activities were measured on the basis of 4 different defined activities and the frequency of practicing of these activities in every year. If the upazila level agriculture extension officer practiced one activity in a year then the assigned score of motivation activities would be 1. Total score for motivation activities was measured by adding all the frequency of these activities for each year. Different type of motivational activities like-IPM training and ICM training of farmers,

Demonstration plot of newly realized crop varieties, collection or preparation or distribution of-posters, leaflets etc.

#### **3.6.6.3 Evaluation**

Evaluation of the management and administrative skill of the of upazila level agriculture extension officer was measured on the basis of 3 different defined activities and the frequency of practicing of these activities in every year. If the upazila level agriculture extension officer practiced one activity in a year then the assigned score of evaluation would be 1. Total score for evaluation was measured by adding all the frequency of these activities for each year. Different type of evaluation method is practiced by upazila level agriculture extension officers like-ACR, evaluation of sub-assistant agriculture extension officers (SAAO's) diary, suggestion training for sub-assistant officers, visit field for evaluating field work of sub-assistant agriculture extension officers (SAAO's) etc.

#### **3.6.6.4 Development activities**

Development activities of the management and administrative skill of the of upazila level agriculture extension officer was measured on the basis of 7 different types of activities and the frequency of practicing of these activities in every year. If the upazila level agriculture extension officer practiced one activity in a year than the assigned score of development activities would be 1. Total score for development activities was measured by adding all the frequency for each year. The development activities of upazila level agriculture officers are organization of upazila planning workshop, developing agriculture program, supervision of the field work, response to the official letters, grant leaves of subordinates, recognition of the best extension workers, maintain links with other extension provider

#### **3.6.7 Job satisfaction**

A total of 22 job items were listed to measure the extent of job satisfaction. The score were assigned on the basis of degree of job satisfaction high, medium, low and no satisfaction and score assigned as follows:

<u>Extent of job satisfaction</u>	<u>Weights</u>
High	3
Medium	2
Low	1
No satisfaction	0

Job satisfaction score of upazila level agriculture officer was determined by summing up the weights for their responses to all the 22 items. Thus, job satisfaction scores could range from 0 to 66, where 0 score indicates no job satisfaction and 66 indicates high job satisfaction.

### 3.6.8 Personality

Personality of upazila level agriculture extension officers was measured by computing a personality score. A total of 11 items of personality related statements were used for the calculation of personality measurement. Each upazila level agriculture extension officer was asked to indicate his/her degree of personality. Extent of personality was categorized with continuative degree as always, often, frequently and not at all with assigned score 3, 2, 1 and 0, respectively. For every statement, weights assigned to the 4 responses were as follows:

<u>Item</u>	<u>Weights</u>
Always	3
Often	2
Frequently	1
Not at all	0



Personality score of upazila level agriculture extension officer was determined by summing up the weights for their responses to all the 11 statements. Thus, personality scores could range from 0 to 33, where 0 score indicated no personality and 33 indicates very high personality.

### **3.7 Measurement of dependent variable**

Communication behavior of upazila level agriculture extension officer was measured in the following ways:

- (i) The media of communication used by the upazila level agriculture extension officers were first identified. In this regard 27 communication media used by the officers were recorded.
- (ii) Then each upazila level agriculture extension officers was asked to indicate the frequency of use of the identified communication media. The frequency number of the use of 27 communication media was added together.
- (iii) Then extent of use of communication media was categorized on the basis of summated frequency 'high use', 'moderate use' and 'low use'.

### **3.8 Hypothesis of the study**

In the present study the following null hypotheses were formulated:

“There are no relationships between 08 selected characteristics and communication behavior of upazila level agriculture extension officers in Bangladesh”.

### **3.9 Collection of data**

The investigator himself collected data with mail communication using courier services on the basis of objectives to test the hypothesis.

### **3.10 Data processing**

For data processing and analysis the following steps followed:

#### **3.10.1 Compilation of data**

After collection of 100 interview schedule that were compiled, tabulated and analyzed according to the objectives of the study. In this process all the responses in the questionnaire were given numerical coded values. The responses to the



question in the questionnaire were recorded and transferred to a master sheet to facilitate tabulation. Tabulation was done on the basis of categories developed by the investigator himself.

### **3.10.2 Categorization of respondents**

For describing the various independent and dependent variables, the respondents were classified into various categories. In developing categories the researcher was guided by the nature of data and general consideration prevailing on the social system. The procedures have been discussed while describing the variable in the sub-subsequent sections of next chapter.

### **3.11 Data analysis**

Data collected from the respondents were compiled, coded, tabulated and analyzed in accordance with the objectives of the study. Various statistical measures such as frequency counts, percentage distribution, average, and standard deviation were used in describing data. SPSS (version 11.5) computer program were used for analyzing the data. The categories and tables were used in describing data. The categories and tables were also used in presenting data for better understanding.

For determining the association of the selected characteristics of the upazila agriculture officer with the communication behavior Pearson Product Moment Correlation was used. Five percent (0.05) level of probability was used as the basis for rejecting any null hypothesis. In order to find out the relationship between the selected dependent and independent variables correlation co-efficient was done.



## CHAPTER 4

### RESULTS AND DISCUSSION

The findings of the study were presented in this chapter in accordance with the objectives. This chapter contains findings of the study and possible interpretation of the recorded information. The chapter has three (3) sections. The first section deals with the characteristics of the respondent upazila level agriculture extension officers. The second section deals with the extent of use of communication media of upazila level agriculture extension officers. The third section deals with the relationship between individual characteristics of the upazila level agriculture extension officers with the extent of use of communication media.

#### 4.1 Characteristics of the respondents

Different interrelated characteristics of the respondents of upazila level agriculture extension officers that influence the extent of use of communication media. It was therefore, hypothesized that the characteristics of the respondents under the study would have an effect on the extent of use of communication media of upazila level agriculture extension officers. However, the most important features of eight selected characteristics of the respondent upazila level agriculture extension officers such as official position, academic achievements, training exposure, leadership style, ability to land and production achievements of target, management ability, job satisfaction and personality are presented and discussed below:

##### 4.1.1 Official position

Although the respondents were supposed to be UAO, Additional UAO and AEO but from the returned filled up questionnaire it was found that no additional UAO returned filled up questionnaire. So the respondents were classified into two categories namely 'upazila agriculture officer (UAO)', and 'agriculture extension officer (AEO)' as official position. Mean and standard deviation of the upazila

level agriculture extension officers were 1.94 and 1.003 respectively. Considering the observed official position, the distribution of the respondent upazila level agriculture extension officers is presented in Table 4.1.

**Table 4.1 Distribution of upazila level agriculture extension officers according to their official position**

Categories	Respondents		Mean	Standard deviation
	Number	Percent		
Upazila Agriculture Officer (UAO)	53	53.00	1.94	1.003
Additional Agriculture Officer (Adl. UAO)	0	0		
Agriculture Extension Officer (AEO)	47	47.00		
Total	100	100.00		

Table 4.1 indicates that among the agriculture extension officers at upazila level 53 per cent were found to be UAO and 47% were AEO. The numbers and percent were supposed to be equal. But due to pre-occupation many officers could not return the duly filled up questionnaire. The posts of Additional Upazila Agriculture Officer (Adl.UAO) in most of the upazila are vacant. So, there have no filled questionnaire returned from them. So, the sample was constituted only Upazila Agriculture Officer (UAO) and Agriculture Extension Officer (AEO). That's why; Additional UAO's were totally remained aside from the study. Responding to the questionnaire can be considered as a criterion to measure respondents' communication behavior. In this regard the researcher can say safely that many of the officers are not skilled or give importance to written communication.

Upazila level agriculture extension officers being highly professional and shoulder the responsibility of national development should be more responsive and communicative.

#### **4.1.2 Academic achievement**

Academic achievement of the upazila level agriculture extension officer was measure by adding different examinations namely SSC & equivalent, HSC &

equivalent, BSc. Ag (Hons.), MS, MBA, PhD and if any others. Academic achievement score of the respondents ranged from 12 to 48 with the mean and standard deviation of 10.28 and 2.193, respectively. Based on their academic achievements, the respondents were classified into three categories such as 'low achievement (below 12), 'medium achievement (12-24), and high achievement (above 24). The distribution of the upazila level agriculture extension officers according to their academic achievement is presented in Table 4.2.

**Table 4.2 Distribution of upazila level agriculture extension officers according to their academic achievement**

Categories	Respondents		Mean	Standard deviation
	Number	Percent		
Low (below 12)	0	0.00	30.84	2.471
Medium (12-24)	23	23.00		
High (above 24)	77	77.00		
Total	100	100.00		

Data contain in the table 4.2 reveal that overwhelming majority (77%) of the upazila agriculture extension officers belong to high academic achievement category; where as about 23 percent of them had low academic achievement. It is appreciable that, agriculture extension officers recruited by DAE had good academic careers and who are supposed to perform their assigned jobs efficiently and effectively. Most of their assigned jobs are communicative along with planning, administrative, motivation and leadership which need high academic achievements. The success of DAE largely depends upon how the agriculture extension officers hold academic achievements and they are skilled in communication, administration, planning, motivation and leadership function. So it is assumed that higher the academic achievements excellent the communication behavior.

#### **4.1.3 Training exposure**

The training exposure score of the respondents ranged from 0 to 602, with an average of 172.20 and standard deviation of 123.116. Based on training exposure

score, the upazila level agriculture extension officers were classified into the three categories i.e., low, medium and high. The distribution is shown in the Table 4.3

**Table 4.3 Distribution of upazila level agriculture extension officers according to their training exposure**

Categories	Respondents		Mean	Standard deviation
	Number	Percent		
Low (below 200)	60	60.00	172.20	123.116
Medium (200-400)	36	36.00		
High (above 400)	4	4.00		
Total	100	100.00		

Data contains in the Table 4.3 reveal that the major percent (60%) upazila level agriculture extension officer had low training exposure whereas 36.00 percent had medium and negligible portion (4%) had high training exposure. However, only two-fifths of them had medium to high training exposure. The respondents upazila level agriculture extension officers training exposure indicate that the respondents of the study area needs to more training for their professional development. Most of the AEO are newly appointed and subsequently they received minimum number of training in their service tenure. DAE also play minimum role for training them. So it is necessary to organize more training by DAE for the professional development of the agriculture extension officer for performing their duties and responsibilities effectively. It has been proved from many research findings that make the training exposure more the organizational performance, especially with regard to communication behavior.

#### **4.1.4 Leadership style**

Leadership style score of the respondents ranged from 1 to 7 with the mean and standard deviation of 3.96 and 1.355, respectively. Considering the leadership style, the respondent upazila level agriculture extension officers were classified into three categories namely autocratic, semi autocratic and democratic group. According to the leadership style the respondent were classified into autocratic, semi-democratic and democratic leadership. Autocratic leader take decision

without given priority of others opinion. On the other hand, democratic leadership means by which one or more persons aid a group in setting and attending desirable goals. The distribution of the respondent according to their leadership style is presented in Table 4.4.

**Table 4.4 Distribution of upazila level agriculture extension officers according to their leadership style**

Categories	Respondents		Mean	Standard deviation
	Number	Percent		
Autocratic (1-2)	14	14.00	3.96	1.355
Semi-democratic (3-4)	44	44.00		
Democratic (above 4)	42	42.00		
Total	100	100.00		

Data in Table 4.4 reveal that according to continuation theory the upazila level agriculture extension officers ranged from autocratic to democratic through semi-democratic. Semi democratic and democratic categories are one almost equal in number and percentage i.e. 44% and 44% respectively. Only 14 percent upazila level agriculture extension officer showed autocratic leadership style. That is, almost all the officers performed their organizational functions in democratic way except a few.

#### **4.1.5 Achievement of land and production target**

The score of achievement of land and production target of the upazila level agriculture extension officers ranged from 21% to 113% with the mean and standard deviation of 86.52 and 25.398, respectively. According to achievement target, the respondents were classified into three categories viz. low, medium, high and there are some missing values. Missing value means that some respondents do not provided any the response on the issue. On the basis of their observed achievements in percentage the distribution of upazila level agriculture extension officers is presented in Table 4.5.

**Table 4.5 Distribution of upazila level agriculture extension officers according to their achievement of land and production target (%)**

Categories	Respondents		Mean	Standard deviation
	Number	Percent		
Low achievement (21-50)	9	9.00	86.52	25.398
Medium achievement (51-80)	11	11.00		
High achievement (above 80)	55	55.00		
Missing value	25	25.00		
Total	100	100.00		

Data in Table 4.5 indicate that major portion (55%) of the upazila agriculture extension officers had achievements of land and production target followed by medium (11.00 percent) and low (9.00 percent), respectively. One-fourth of the respondents did not answer accordingly and they were considered as missing value. From the data it was found that a significant number of respondents did not provide their information in this respect. However, the overall achievement of land and production target was satisfactory. The production plan with regard to land and production target is his precondition of achieving organizational goal which is considered as the fundamental aspect communication behavior of upazila level agriculture extension officers

#### **4.1.6 Management ability**

Management ability score of the respondents ranged from 5 to 7947. The mean and standard deviation of management ability score was 1171.4 and 1502.68, respectively. On the basis of the management ability, the respondents were classified into three categories namely, low, medium and high. The distribution of the respondents according to the management ability of upazila level agriculture extension officers is given in Table 4.6.

**Table 4.6 Distribution of upazila level agriculture extension officers according to their management ability**

Categories	Respondents		Mean	Standard deviation
	Number	Percent		
Low (below 2000)	78	78.00	1171.4	1502.68
Medium (2000-4000)	14	14.00		
High (above 4000)	6	6.00		
Missing value	2	2.00		
Total	100	100.00		

Data in Table 4.6 reveals that the highest (78.00 percent) proportion of the respondents had low management ability followed by 14.00 percent medium management ability and 6.00 percent of high management ability. Among the respondents 2.00 percent did not answer accordingly and they were considered as missing value. Overwhelming about 92.00% respondents had low to medium management ability of upazila level agriculture extension officers.

#### 4.1.7 Job satisfaction

Job satisfaction score of the respondents ranged from 19 to 66 against the possible range from 0-66 with a mean and standard deviation of 38.36 and 7.849, respectively. Based on job satisfaction, the respondents were classified into three categories. These categories were low, medium and high satisfaction group. The distribution of the respondents is presented in Table 4.7.

**Table 4.7 Distribution of upazila level agriculture extension officers according to their job satisfaction**

Categories	Respondents		Mean	Standard deviation
	Number	Percent		
Low (19-34)	30	30.00	38.36	7.849
Medium (35-50)	64	64.00		
High (above 50)	6	6.00		
Total	100	100.00		

Findings from the Table 4.7 revealed that near about two-third (64.00 percent) of the respondents had medium group in their job satisfaction compared to 30.00%



and 6.00% low and high job satisfaction group, respectively. Among the respondents 94.00 percent had low to medium job satisfaction but majority have medium satisfaction in their job as upazila level agriculture extension officers. It is necessary to improve the job satisfaction level of the respondents for the development of the agriculture of Bangladesh. For the increase of job satisfaction living standard of the upazila agriculture officer also take in consideration.

#### 4.1.8 Personality

Personality score of the respondent ranged from 13 to 33 with a mean and standard deviation of 27.92 and 3.971, respectively against the possible score range of 0-33. According to personality score the respondents were classified into three categories viz. Low, medium and high personality. The distribution of the upazila level agriculture extension officers according to their personality is presented in Table 4.8.

**Table 4.8 Distribution of upazila level agriculture extension officers according to their personality**

Categories	Respondents		Mean	Standard deviation
	Number	Percent		
Low (13-19)	5	5.00	27.92	3.971
Medium (20-26)	25	25.00		
High (27-34)	70	70.00		
Total	100	100.00		

Data in Table 4.8 indicates that majority (70.00 percent) of the respondents were the high personality compared to 25.00 percent in medium personality and 5.00 percent in low personality group. Overwhelming majority (95.00 percent) constitutes the high and medium personality group as upazila level agriculture extension officers. So, proper utilization of the personality of upazila level agriculture officer helps to improve agriculture development of Bangladesh.

#### 4.2 Extent of use of communication media

The observed score of the extent of use of communication media of upazila level agriculture extension officers were ranged from 0 to 16,898 with the average being

4020.5 and standard deviation 4291.6. The extent of use of communication media was measured on the basis of 27 statements - i. Letters written to the high officials; ii. Letters written to the sister organizations (like- ULO, UFO, NGO's) and other upazila level officers; iii. Letters written to the subordinates; iv. Office calls attended; v. Telephone calls to the DD, AD, DG; vi. Telephone calls to the local offices; vii. Seminar and workshop attended; viii. Meetings attended at district or national level; ix. Meetings attended at sister organizations (like- ULO, UFO, NGO's); x. Meetings called in upazila agriculture office; xi. Trainings attended during service life; xii. Group discussion meeting attended; xiii. Upazila planning workshop conducted; xiv. District extension planning committee attended; xv. Conduction of upazila agriculture extension co-ordination committee meeting; xvi. Farm and home visit made; xvii. Field days attended; xviii. Upazila or District agriculture fair organized and attended; xix. Posters and various agriculture issues prepared and distributed; xx. Circular letter circulated; xix. Leaflet prepared and distributed xxi. Multi location testing attended; xxii. Result demonstration meeting attended; xxiii. Demonstration plot visited; xxiv. Articles written in Magazine and Newspaper, xxv. TV programs conducted/attended; xxvi. No of farm radio talk written and broadcast; xxvii. Distribution of the respondents based on the extent of use of communication media of upazila level agriculture extension officer is shown in Table 4.9.

**Table 4.9 Distribution of upazila level agriculture extension officers according to their extent of use of communication media**

Categories	Respondents		Mean	Standard deviation
	Number	Percent		
Low (below 5000)	69	69.00	4020.5	4291.6
Medium (5000-10000)	13	13.00		
High (above 10000)	11	11.00		
Missing value	7	7.00		
Total	100	100.00		

Data in the table 4.9 revealed that the highest (69.00 percent) of the respondents belonged to the low category to their extent of use of communication media compared to 13.00 percent medium and 11.00 percent high category to their extent of use of communication media. There were 7.00 percent missing value among upazila level agriculture extension officers. It means that an overwhelming majority (82.00 percent) of the respondents had low to medium extent of use of communication media.

#### 4.3 Relationship of selected characteristics with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh

Pearson Product Moment Correlation co-efficient was computed to find out the extent of relationship between the dependent variable and independent variables (Table 4.10). To reject the null hypothesis 0.05 and 0.01 level of significance was used.

**Table 4.10 Results of Pearson's product moment correlation showing the relationship between the selected characteristics and the extent of use of communication media of upazila level agriculture extension officers in Bangladesh**

Dependent variable	Independent variables	Tabulated value		Value of co-efficient of correlation
		0.05 level	0.01 level	
Extent of use of communication media	Official position	0.184	0.240	0.288**
	Academic achievements			-0.021
	Training exposure			0.087
	Leadership style			-0.095
	Achievement of land and production target (%)			0.052
	Management ability			0.392**
	Job satisfaction			0.029
	Personality			0.072

\*\* : Correlation is significant at the 0.01 level

#### **4.3.1 Relationship between official position and the extent of use of communication media of upazila level agriculture extension officers in Bangladesh**

The coefficient of correlation between official position of the respondent upazila level agriculture extension officers and the extent of use of communication media is presented in Table 4.10. The coefficient of correlation between the concerned variables was found to be 0.288. The following observations were made on the basis of the value of correlation coefficient between the two concerned variables:

- *The calculated value between the concerned variables 'r' (0.288) was found to be greater than the tabulated value of 'r' (0.240) with 98 degrees of freedom at 0.01 levels of probability.*
- *The null hypothesis was rejected.*
- *The relationship between the concerned variables was statistically significant at 0.01 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that official position had significant positive relationships with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh. This represent that official position of the respondents was an important factor regarding the extent of use of communication media of upazila level agriculture extension officers.

#### **4.3.2 Relationship between academic achievements and the extent of use of communication media of upazila level agriculture extension officers in Bangladesh**

The coefficient of correlation between academic achievements of the respondent upazila level agriculture extension officers and the extent of use of communication media is presented in Table 4.10. The coefficient of correlation between the concerned variables was found to be -0.021. The following observations were made on the basis of the value of correlation coefficient between the two concerned variables:

- *The calculated value between the concerned variables 'r' (-0.021) was found to be smaller than the tabulated value of 'r' (0.184) with 98 degrees of freedom at 0.05 level of probability.*
- *The null hypothesis could not be rejected.*
- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a negative positive trend between the concerned variables.*

Based on the above findings it was concluded that academic achievements had no significant negative relationships with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh. This represent that academic achievements of the respondents was not an important factor regarding the extent of use of communication media of upazila level agriculture extension officers. Academic achievements do not influence the extent of use of communication media of upazila level agriculture extension officers.

#### **4.3.3 Relationship between training exposure and the extent of use of communication media of upazila level agriculture extension officers in Bangladesh**

The coefficient of correlation between training exposure of the respondent upazila level agriculture extension officers and the extent of use of communication media is presented in Table 4.10. The coefficient of correlation between the concerned variables was found to be 0.087. The following observations were made on the basis of the value of correlation coefficient between the two concerned variables:

- *The calculated value between the concerned variables 'r' (0.087) was found to be smaller than the tabulated value of 'r' (0.184) with 98 degrees of freedom at 0.05 levels of probability.*
- *The null hypothesis could not be rejected.*

- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that training exposure had no significant positive relationships with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh. This represent that training exposure of the respondents was not an important factor regarding the extent of use of communication media of upazila level agriculture extension officer.

#### **4.3.4 Relationship between leadership style and the extent of use of communication media of upazila level agriculture extension officers in Bangladesh**

The coefficient of correlation between leadership style of the respondent upazila level agriculture extension officers and the extent of use of communication media is presented in Table 4.10. The coefficient of correlation between the concerned variables was found to be -0.095. The following observations were made on the basis of the value of correlation coefficient between the two concerned variables:

- *The calculated value between the concerned variables 'r' (-0.095) was found to be smaller than the tabulated value of 'r' (0.184) with 98 degrees of freedom at 0.05 level of probability.*
- *The null hypothesis could not be rejected.*
- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a negative positive trend between the concerned variables.*

Based on the above findings it was concluded that leadership style had no significant negative relationships with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh. The data represent

that leadership style of the respondents not an important factor regarding the extent of use of communication media of upazila level agriculture extension officers. Leadership style does not influence the extent of use of communication media of upazila level agriculture extension officers.

#### **4.3.5 Relationship between achievement of land and production target and the extent of use of communication media of upazila level agriculture extension officers in Bangladesh**

The coefficient of correlation between achievement of land and production target of the respondent upazila level agriculture extension officers and the extent of use of communication media is presented in Table 4.10. The coefficient of correlation between the concerned variables was found to be 0.052. The following observations were made on the basis of the value of correlation coefficient between the two concerned variables:

- *The calculated value between the concerned variables 'r' (0.052) was found to be smaller than the tabulated value of 'r' (0.184) with 98 degrees of freedom at 0.05 levels of probability.*
- *The null hypothesis could not be rejected.*
- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that achievement of land and production target had no significant positive relationships with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh. This represent that achievement of land and production target of the respondents was not an important factor regarding the extent of use of communication media of upazila level agriculture extension officer.

#### **4.3.6 Relationship between management ability and the extent of use of communication media of upazila level agriculture extension officers in Bangladesh**

The coefficient of correlation between management ability of the respondent upazila level agriculture extension officers and the extent of use of communication media is presented in Table 4.10. The coefficient of correlation between the concerned variables was found to be 0.392. The following observations were made on the basis of the value of correlation coefficient between the two concerned variables:

- *The calculated value between the concerned variables 'r' (0.392) was found to be greater than the tabulated value of 'r' (0.240) with 98 degrees of freedom at 0.01 levels of probability.*
- *The null hypothesis was rejected.*
- *The relationship between the concerned variables was statistically significant at 0.01 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that management ability had significant positive relationships with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh. This represent that management ability of the respondents was an important factor regarding the extent of use of communication media of upazila level agriculture extension officers.

#### **4.3.7 Relationship between job satisfaction and the extent of use of communication media of upazila level agriculture extension officers in Bangladesh**

The coefficient of correlation between job satisfaction of the respondent upazila level agriculture extension officers and the extent of use of communication media is presented in Table 4.10. The coefficient of correlation between the concerned



variables was found to be 0.029. The following observations were made on the basis of the value of correlation coefficient between the two concerned variables:

- *The calculated value between the concerned variables 'r' (0.029) was found to be smaller than the tabulated value of 'r' (0.184) with 98 degrees of freedom at 0.05 levels of probability.*
- *The null hypothesis could not be rejected.*
- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that job satisfaction had non significant positive relationships with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh. This represent that job satisfaction of the respondents was not an important factor regarding the extent of use of communication media of upazila level agriculture extension officer.

#### **4.3.8 Relationship between personality and the extent of use of communication media of upazila level agriculture extension officers in Bangladesh**

The coefficient of correlation between personality of the respondent upazila level agriculture extension officers and the extent of use of communication media is presented in Table 4.10. The coefficient of correlation between the concerned variables was found to be 0.072. The following observations were made on the basis of the value of correlation coefficient between the two concerned variables:

- *The calculated value between the concerned variables 'r' (0.072) was found to be smaller than the tabulated value of 'r' (0.184) with 98 degrees of freedom at 0.05 levels of probability.*
- *The null hypothesis could not be rejected.*

- *The relationship between the concerned variables was statistically non significant at 0.05 level of probability.*
- *The relationship showed a positive trend between the concerned variables.*

Based on the above findings it was concluded that personality had no significant positive relationships with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh. This represents that personality of the respondents not an important factor regarding the extent of use of communication media of upazila level agriculture extension officer.

An important factor regarding the extent of use of communication media of upazila level agriculture extension officer.



## CHAPTER 5

### SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary of Major Findings

Upazila agriculture offices all over Bangladesh were determined to be the study area. Out of 460 upazila 115 were randomly selected which constituted the locale of the study. There are 460 upazila agriculture offices all over the Bangladesh. Each upazila consists of three extension officers – Upazila Agriculture Officer (UAO), Additional Upazila Agriculture Officer and Agriculture Extension Officer (AEO). Accordingly, there are 1380 upazila level extension officers. However, to constitute the population 115 upazilas were randomly selected. Therefore, 345 upazila level agriculture extension officers constitute the population. It was decided that 345 copies of questionnaire would be sent to 345 officers. Further, it was decided that the officers who had returned questionnaire having duly filling up would be the sampling size of the population. Thus only 102 officers returned their questionnaire. But two of them were excluded for sending them very late. Therefore, the sampling size became 100. The researcher sent the questionnaire to Upazila Agriculture Offices by mail. After completion of the filling up of the questionnaire providing necessary information it was came back to the address of researcher. Out of 345 set only 102 questionnaires were sent back. Data collection was started in February to April, 2011. The independent variables were: official position, academic achievements, training exposure, leadership style, ability to land and production achievements of target, management ability, job satisfaction and personality. The dependent variable was the communication behavior of upazila level agriculture extension officers in Bangladesh. Data collected from the respondents were compiled, coded, tabulated and analyzed in accordance with the objectives of the study. Various statistical measures such as frequency and percentage distribution, mean and standard deviation were used in describing data. Co-efficient of correlation test was used to explore the relationship between the concerned dependent and independent variables. The summary of the major findings of the study are summarized below:

### **5.1.1 Selected characteristics of the respondents**

**Official position:** Among the respondents upazila agriculture officer constituted the highest proportion (53.00 percent) and the lowest (43.00 percent) proportion constituted agriculture extension officer at upazila level.

**Academic achievement:** About 77.00 percent of the respondent's high academic achievements followed by 23.00 percent medium level academic achievements.

**Training exposure:** Among the respondents about 60.00 percent had low training exposure whereas 36.00 percent had medium training exposure score and only 4.00 percent had high level training both in home and aboard.

**Leadership style:** Among the respondents semi-democratic leadership style constitute the highest (44.00 percent) proportions followed by democratic leadership style (42.00 percent) and autocratic leadership style constitute the lowest proportion (14.00 percent).

**Ability to land and production achievements of target:** High ability to land and production achievements of target constituted the highest proportion (55.00 percent) of the respondents followed by medium (11.00 percent) and low (9.00 percent).

**Management ability:** The highest (78.00 percent) of the respondents derived low management ability followed by 14.00 percent medium management ability and 6.00 percent of high management ability.

**Job satisfaction:** More than two-third (64.00 percent) of the respondents had medium group in their job satisfaction compared to 30.00% and 6.00% low and high job satisfaction group, respectively.

**Personality:** Majority (70.00 percent) of the respondents were the high personality compared to 25.00 percent in medium personality and 5.00 percent in low personality group.

### **Extent of use of communication media**

Among the respondents the highest (69.00 percent) of the respondents belonged to the low category to their extent of use of communication media compared to 13.00 percent medium and 11.00 percent high category to their extent of use of communication media.

### **Hypothesis testing**

Official position and management ability had significant positive relationship with the extent of use of communication media of upazila level agriculture extension officers in Bangladesh. Training exposure, ability to land and production achievements of target, job satisfaction and personality had non-significant positive relationship with the extent of use of communication media of upazila level agriculture extension officers but academic achievements and leadership style had non-significant negative relationships.

### **5.2 Conclusions**

1. The findings indicate that about 69.00 percent of the respondents belonged to the low category to their extent of use of communication media. This fact leads to the conclusion that it is necessary to increase the extent of use of communication media by the upazila level agriculture extension officers.
2. Official position had significant positive relationships with the extent of use of communication media of upazila level agriculture extension officer. Among the respondents about 53.00 percent upazila agriculture officer constituted the highest proportion at upazila level. These facts lead to the conclusion that respondent official position could affect the extent of use of communication media of upazila level agriculture extension officer.
3. Academic achievement had non-significant negative relationships with the extent of use of communication media of upazila level agriculture extension officers. Among the respondents about 77.00 percent of the respondents had

high academic achievements. These facts lead to the conclusion that higher academic achievements of the respondent could not increase the extent of use of communication media of upazila level agriculture extension officers.

4. Training exposure had positive non significant relationship with the extent of use of communication media of upazila level agriculture extension officers. Among the respondents about 60.00 percent had low training exposure both in home and aboard. These facts lead to the conclusion that training exposure of the respondent could increase the extent of use of communication media of upazila level agriculture extension officers.
5. Leadership style had negative non-significant relationship with the extent of use of communication media of upazila level agriculture extension officers. Among the respondents semi-democratic leadership style constitute the highest (44.00 percent) proportions. These facts lead to the conclusion that respondent leadership style could not affect the extent of use of communication media of upazila level agriculture extension officers.
6. Ability to land and production achievements of target of the respondents had positive non-significant relationship with the extent of use of communication media of upazila level agriculture extension officers. High ability to land and production achievements of target constituted the highest proportion (55.00 percent) of the respondents. These facts lead to the conclusion that respondent ability to land and production achievements of target increase the extent of use of communication media of upazila level agriculture extension officers.
7. Management ability had positive significant relationship with the extent of use of communication media. The highest (78.00 percent) of the respondents had derived low management ability. These facts lead to the conclusion that respondent management ability significantly affects the extent of use of communication media of upazila level agriculture extension officers.

8. Job satisfaction had positive non-significant relationship with the extent of use of communication media of upazila level agriculture extension officers. Among the respondents near about two-third (64.00 percent) of the respondents had medium group in their job satisfaction. These facts lead to the conclusion that job satisfaction could increase the extent of use of communication media of upazila level agriculture extension officers.
9. Personality had positive non-significant relationship with the extent of use of communication media of upazila level agriculture extension officers. Majority (70.00 percent) of the respondents were the high personality. These facts lead to the conclusion that personality could increase the extent of use of communication media of upazila level agriculture extension officers.

### **5.3 Recommendations**

#### **5.3.1 Recommendations for policy implications**

Recommendations formulated on the basis of experience, observation and conclusions drawn from the findings of the study and have been prescribed to the concerned authorities, planners and executioners are given below:

1. Reasons behind the low and medium extent of use of communication media of upazila level agriculture extension officers need to be identified and necessary attempt should be made. To identify the possible reason, overcoming this situation through DAE with increasing supervision mechanism.
2. Official position could increase the extent of use of communication media of upazila level agriculture extension officers. Therefore, it may be recommended that defined official position should be increased to the extent of use of communication media. DAE should undertake proper initiative for the defined official position through regular and timely promotion.

3. Management ability could increase the extent of use of communication media of upazila level agriculture extension officers. Therefore, it may be recommended to organize proper training by DAE for the increase of management ability of upazila level agriculture extension officers for increase the extent of use of communication media.

### **5.3.2 Recommendations for further study**

On the basis of scope and limitations of the present study and observation made by the researcher, the following recommendations are made for future study.

1. Other factors might have influence the extent of use of communication media of upazila level agriculture extension officers, which needs to be identified by further study.
2. The study was conducted in 116 upazilas but there are 483 upazila agriculture offices all over the Bangladesh. Similar studies are required to be conducted in all over the country and also with district level agriculture extension officers.
3. The study investigated the direct and indirect effects of some selected characteristics of upazila level agriculture extension officers. Future studies should be conducted to explore the direct and indirect effects of all the variables under investigation.



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## APPENDIX

### Appendix I. An interview schedule for the study

#### COMMUNICATION BEHAVIOUR OF UPAZILA LEVEL AGRICULTURE EXTENSION OFFICERS IN BANGLADESH

Department of Agriculture Extension and Information System  
Sher-e-Bangla Agriculture University, Dhaka-1207

Sl. No. ....

Name of the respondent.....

Name of the Upazila.....District.....

Contact No.....Email.....

#### Please answer the following questions:

##### 1. Official Position:

Please put tick (√) mark about your official position?

Sl. No.	Position	Tick(√)
1.	UAO	
2.	UAO(additional)	
3.	AEO	

##### 2. Academic achievements:

Please indicate your level of educational and academic achievement by putting tick (√) mark:

Sl. No.	Name of examination	1 <sup>st</sup> Class/ Division	2 <sup>nd</sup> Class/ Division	3 <sup>rd</sup> Class/ Division
1.	SSC & equivalent			
2.	HSC & equivalent			
3.	BSc. Ag. (Hons.)			
4.	MS			
5.	MBA			
6.	PhD			
7.	Others(specify)			

##### 3. Training home and abroad:

Provide information of your in-service training attended during the tenure of your service life as per the following arrangements:

Sl. No.	Field of training/ Name of the training	Organization		Duration (in days)	
		Home	Abroad	Home	Abroad
1.					
2.					
3.					
4.					
5.					
6.					

#### 4. Leadership style:

Put tick (✓) mark to identify your leadership style from the following statements:

Sl. No.	Statement	Tick(✓)
1.	I take decision myself & declare	
2.	I declare my decision clearly as if it is decision of all	
3.	I express my ideas to my subordinates & invite question from them	
4.	I express my decision to the subordinates which is changeable through discussion	
5.	I describe the problems to my subordinates and ask their suggestions then take decision	
6.	I state the limitation to my subordinates and ask them to take decision	
7.	I allow the immediate boss of subordinates to take necessary decision	

#### 5. Ability to land and production achievements of target :

Please furnish the information in respect of agriculture production plan:

Sl. No.	Objective items	Date of plan and target					
		Date of plan	Date of implement	Production target		Actual production	
				Land	Yield	Land	Yield
1.	Boro production						
2.	Aman production						

#### 6. Management and Administrative skill

a) How did you organize activities of the plan?

Sl. No.	Activities	Number/Year
1.	Conducted meeting with SAAO	Meeting
2.	Organized training for SAAO	Training
3.	Checked FINA activities	FINA activities
4.	Held meetings with other officers	Meeting
5.	Organized farmers training	Training

b) Motivation & communication?

Sl. No.	Activities	Number/Year
1.	Farmers motivated to use improved technologies of Boro and Aman varieties	Motivated farmer
2.	Collected or prepared of posters and distributed	Collected posters
3.	Collected or prepared of leaflets and distributed	Collected leaflets
4.	Demonstration plots prepared	Demonstration plot

c) Evaluation:

Sl. No.	Activities	Number/Year
1.	Visited field to evaluate field work of staffs	Days
2.	Evaluated the performance of officers or field worker	ACR
3.	Suggested officers for training	Officers

d) Development activities:

Sl. No.	Activities	Number/Year
1.	Organized upazila planning workshop	Workshop
2.	Developed agriculture program	Agriculture program
3.	Supervise the field work	Supervision
4.	Response to the official letters	Official letter received
5.	Granted leaves of subordinates	CL/EL
6.	Recognition of the best extension workers	Extension worker
7.	Maintain links with other extension provider	Extension provider

**7. Job satisfaction:**

Please indicate your extent of job satisfaction with each of the following aspects of your job environment by putting a tick mark (✓) against each item of job satisfaction:

Sl. No.	Items of job satisfaction	Extent of job satisfaction			
		High	Medium	Low	No satisfaction
1.	Pay and allowance				
2.	Residential accommodation				
3.	Transport facility				
4.	Public relations				
5.	Office facilities like telephone, mobile, desk calendar, office decoration materials etc				
6.	Training facility				
7.	Relationship with high officials and subordinates				
8.	Promotion scope				
9.	Social recognition				
10.	Places of posting				
11.	Leave facility				
12.	Job security				
13.	Availability of inputs in time of need				
14.	Farmers' recognition of my service				
15.	Appreciations of my service by the high officials				
16.	Scope of foreign training				
17.	Direct involvement in crop production plan				
18.	Opportunity of exercise technical knowledge and skill				
19.	Independent decision-making scope				
20.	All staffs are very respectful				
21.	Recognition for the good works				
22.	It is a best professional job				



### 8. Personality:

Please mention your extent of personality on the following aspects as performed by you:

Sl. No.	Item	Extent of personality			
		Always	Often	Frequently	Not at all
1.	Leadership behavior: I can give professional leadership in upazila agriculture officer				
2.	Social interaction: I keep contact with all officers at upazila level				
3.	Communication behavior: I regularly communicate with high officials and own office staffs				
4.	Accept any challenge: I face agriculture problem as my challenge				
5.	Courage: Protest any anti social activities				
6.	Group participation: I take important decision having discussed with my colleagues				
7.	Empathy: I give priorities to farmers needs				
8.	Punctuality: I perform right work in right time				
9.	Quick decision: I can solve field problem immediately				
10.	Hard work: I can work hard as like as my need				
11.	Problem handling: I can face any problematic situation				



### 9. Communication behavior:

Please indicate the extent of use of the following communication media that you used in performing the official activities of last year:

Sl. No.	Communication media	Number/Year
1.	Letters written to the high officials	
2.	Letters written to the sister organizations (like-ULO,UFO,NGO's) and other upazila level officers	
3.	Letters written to the subordinates	
4.	Office calls attended	
5.	Telephone calls to the DD, AD, DG	
6.	Telephone calls to the local offices	
7.	Seminar and workshop attended	
8.	Meetings attended at district or national level	
9.	Meetings attended at sister organizations(like-ULO,UFO,NGO's)	
10.	Meetings called in upazila agriculture office	
11.	Trainings attended during service life	
12.	Group discussion meeting attended	
13.	Upazila planning workshop conducted	
14.	District extension planning committee attended	
15.	Conduction of upazila agriculture extension co-ordinatio committee meeting	
16.	Farm and home visit made	
17.	Field days attended	
18.	Upazila or District agriculture fair organized and attended	
19.	Posters and various agriculture issues prepared and distributed	
20.	Circular letter circulated	
21.	Leaflet prepared and distributed	
22.	Multi location testing attended	
23.	Result demonstration meeting attended	
24.	Demonstration plot visited	
25.	Articles written in Magazine, Newspaper	
26.	TV programs conducted/attended	
27.	Number of farm radio talks written and broadcast	

Thanks for your co-operation.

## Appendix II. Correlation Matrix

Variables	A	B	C	D	E	F	G	H	I
A	1.00								
B	-0.314**	1.00							
C	0.552**	-0.287**	1.00						
D	0.013	0.028	0.054	1.00					
E	0.053	-0.168	0.030	0.235*	1.00				
F	0.109	0.154	-0.001	0.002	0.244*	1.00			
G	.046	0.067	0.002	-0.070	-0.228*	0.115	1.00		
H	0.207*	-0.059	0.071	0.131	-0.071	0.072	0.127	1.00	
I	0.288**	-0.021	0.087	-0.095	0.052	0.392**	0.029	0.072	1.00

\*\* Correlation is significant at the 0.01 level (2-tailed); \* Correlation is significant at the 0.05 level (2-tailed).

A: Official Position

B: Academic achievements

C: Training exposure

D: Leadership style

E: Ability to achievements of target

F: Management ability

G: Job satisfaction

H: Personality

I: Extent of use of communication media



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