USE OF MASS MEDIA BY AGRICALTURAL PROFESSIONAL LEADERS

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This is to certify that thesis entitled ***"USE OF MASS MEDIA BY AGRICALTURAL PROFESSIONAL LEADERS"*** *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,*** *embodies the result of a piece of bona fide research work carried out by* ***FERDOUS AHMAD, Registration No. 27584/00739*** *under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.*

I further certify that such help or sources of information, as has been availed of during the course of this investigation has duly acknowledged.

Dated: June 30, 2008
Place: Dhaka, Bangladesh

(Prof. Md. Shadat Ulla)
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Dedicated To My

Beloved Parents

ABBREVIATIONS AND ACRONYMS

AEO	= Agriculture Extension Officer
ATI	= Agriculture Training Institute
BBS	= Bangladesh Bureau of Statistics
DAE	= Department of Agriculture Extension
DDAE	= Deputy Director of Agricultural Extension
d.f.	= Degree of Freedom
e.g	= For Example
et al	= Et alia (and others)
etc.	= etcetera
GDP	= Gross Domestic Product
$\mathbf{H_0}$	= Null hypothesis
IPM	= Integrated Pest Management
IJCS	= Intensive Jute Cultivation Scheme
IRCP	= Intensive Rice Cultivation Program
MMUI	= Mass Media Use Index
MS	= Master of Science
No./ N	= Number
NARS	= National Agricultural Research System
NGO	= Non Government Organization
NS	= Not Significant
r'	= Co-efficient of correlation
SAAO	= Sub Assistant Agriculture Officer
SD	= Standard deviation
SPSS	= Statistical Package for Social Science
TV	= Television
T&V	= Training and Visit
US	= United states
VAID	= Village Agricultural and Industrial Development

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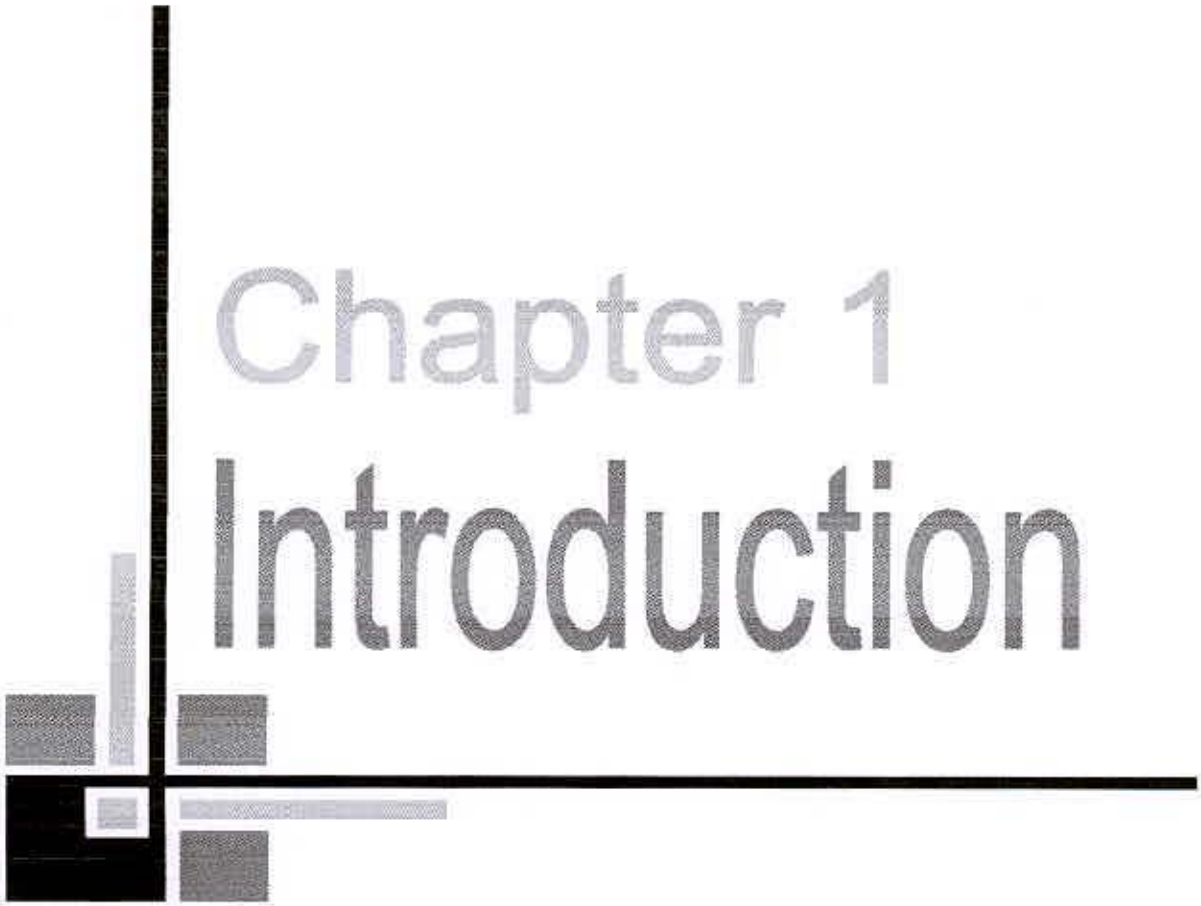
USE OF MASS MEDIA BY AGRICULTURAL PROFESSIONAL LEADERS

ABSTRACT

The main objective of this study were to determine and describe the use of mass media by the Sub Assistant Agriculture Officers (SAAOs) in receiving agricultural information and the characteristics of the SAAOs and also to explore the relationship between the use of mass media and selected characteristics of professional leaders. The selected characteristics were age, family size, annual income, rural orientation, tenure of service, training received, social participation, cosmppoliteness and Job satisfaction. Data were collected from 80 SAAOs of three upazillas (Sadar, Kendua, Purbadhala) under Netrokona district through using a structured interview schedule during 3rd February to 24th March 2008. Appropriate scales were developed in order to measure the concerned variables. A statistical software package named SPSS was used to analyze the data and Karl Pearson Product Moment Correlation Co-efficient were used to test the relationship between the independent and dependent variables. The findings revealed that 66.3 percent of the respondents had medium use of mass media, while 20 and 13.7 percent had high and low use respectively. The preferences of use of mass media by the SAAOs were leaflet, television, SAAO diary, poster, krishi kotha, bulletin, folder, booklet, prothom alo, radio, jugantor, krishi biplob, amardesh, nayadaganta and internet. The findings also revealed that annual income, tenure of service, training received, social participation, cosmppoliteness and job satisfaction had significant positive relationship with the use of mass media by the SAAOs. However, rural orientation of the respondent had significant negative relationship while age and family size of the SAAOs had no relationship with their use of mass media in receiving agricultural information. Nonetheless findings reveal that 76.3 percent of the SAAOs fell into the medium problem faced category while 17.5 and 6.2 percent SAAOs faced low and high problems respectively.



Chapter 1
Introduction

CHAPTER 1

INTRODUCTION

1.1 General Background

Bangladesh is an agro-based developing country with an area of 1, 47, 570 square kilometer. Its economy is vastly depends on different agricultural activities. Agriculture contributes directly and indirectly about 21.1% of Bangladesh's Gross Domestic Product (GDP) and accounts for 62% employment opportunity. The total population of the country is 148.1 million with annual growth rate of 1.54 (BBS, 2007). The country has been made considerable progress in increasing food grain production to meet the basic needs of her population from its net cultivable land which is estimated around 8.29 million hectare but still now agricultural productivity of Bangladesh is one of the lowest in the world.

Agricultural production can be increased if information about technologies is properly delivered to the farmers and properly used by the farmers. Diffusion of technological knowledge on modern agriculture among the rural people demands effective communication system which is largely ensured by government extension agency, the Department of Agricultural Extension (DAE). In addition, immediacy and effectiveness of technologies is also valuable dimension for communication of technological messages. This suggests that the flow of information should be as fast as possible and also should be understandable, well interpreted, accepted and liked by the farming community.

The Department of Agricultural Extension (DAE) and some other government and non government organizations are working at grass root level in transferring information from research system (source of technology) through an extension system (interpreter and dissemination of technology) to the client system (Kashem and Halim, 1991).

Sub Assistant Agriculture Officers (SAAOs) are the field level change agents of DAE and play a vital role in disseminating any innovation or practices among the farmers. As SAAOs are trying to bring about changes in behavior of farmers through motivation and communication, their own attitude towards a practice is a vital determinant for its smooth diffusion. As mass media are not yet well accessions among farmers as a means of getting agricultural information it is necessary to investigate the issues regarding their attitude towards conveying of agricultural information to the farming community by using mass media.

In most of the cases, the effectiveness of extension educational programmes depends to a large extent on the proper selection and use of the communication media. Mass media show better result to create awareness and increase knowledge, attitude and practices level (Adhikarya, 1994).

Mass media channels are those means of transmitting messages involves television, radio, internet, leaflet, booklet, bulletin, folder, poster, newspaper, magazine etc. Extensive use of electronic media in support of agricultural extension, diffusion of information technology, social reform, education and health and so on are seen all over the world. Mass media provide accurate, motivating, credible and distortion free information.

Advancement of technology and communication process belongs to the same phenomenon and goes hand in hand. All communication media would not be appropriate to serve the people. Mass media used by the SAAOs are extremely useful to the farmers. In most of the cases, the effectiveness of extension educational programme depends to a large extent on how effectively SAAOs use mass media. The mass media like printed and electronic media can be used for accelerating dissemination of information on various aspects of agricultural and rural development. Considering the above facts the researcher felt a thrust to conduct a study with the hope to identify the appropriate mass media channels that farmers can have access and use them in getting agricultural information.

1.2 Statement of the Problem

Many national programs and projects such as Village Agricultural and Industrial Development Program (VAID), Intensive Rice Cultivation Program (IRCP), Training and Visit (T&V), Intensive Jute Cultivation Scheme (IJCS) etc. were undertaken for agricultural development since 1950s, but they resulted very limited success in the transfer of agricultural technology (Haque and Gupta, 1996).

In order to expedite the process of technology transfer, the donor agencies now give more emphasis on mass contact media. (Amur, 1994 and Adhikarya, 1994) which can develop a considerable acquaintance with the ultimate users very rapidly. National Agricultural Research System (NARS) has generated a lot of technologies, but due to the lack of proper extension service the technologies did not properly reach to its clients. Therefore, the present mechanism for the transfer of technology should be reviewed for

better methods of linkage and cross fertilization of ideas among farmers, extension workers and scientists.

In view of the foregoing discussion the researcher undertook a study entitled "Use of Mass Media by Agricultural Professional Leaders". In this study mass media included printed media and electronic media. The printed media included on leaflet, bulletin, folder, booklet, poster, newspaper, krishi kotha, krishi biplob, SAAO diary and radio, television, internet were considered as the electronic media. This study also tried to explore the relationship of some selected characteristics of the SAAOs such as age, family size, annual income, rural orientation, tenure of service, training received, social participation, cosmopoliteness, job satisfaction by the SSAOs in receiving agricultural information. The purpose of the study was to answer the following research questions,

(i) What are the mass media usually used by the SAAOs to receive agricultural information ?

(ii) What are the characteristics of the SAAOs ?

(iii) What relationship exists between the selected characteristics of the respondents (SAAO) and their use of printed materials in receiving agricultural information ?

(iv) What are the constraints being faced by the SAAO in using mass media for dissemination of agricultural information by the farmers ?

(v) How the respondents prefer the mass media in receiving agricultural information ?

1.3 Objectives of the Study

In order to accomplish the purpose of the present study, the following specific objectives were formulated:

1. To ascertain the extent use of the mass media by the SAAOs in receiving agricultural information.
2. To identify the preferences of mass media by the SAAOs in receiving agricultural information.
3. To determine and describe some of the selected characteristics of the SAAOs.
4. To explore the relationship between use of mass media by the SAAO in receiving agricultural information and their selected characteristics. The selected characteristics are age, family size, annual income, rural orientation, tenure of service, training received, social participation, cosmopoliteness and job satisfaction.
5. To examine the problem faced in using mass media by the SAAOs in receiving agricultural information.

1.4 Scope and limitation of the study

The study was undertaken with a view to have an understanding about the use of printed materials by the SAAOs in receiving agricultural information. But considering the time and money the study was conducted with the following limitations:

i. The study was confined to Sadar, Kendua, and Purbadhala Upazillas under Netrokona district.

ii. The characteristics of the SAAOs are many and varied. Only nine

characteristics were selected for investigation in the study.

iii. The facts and figures collected by the investigator applied to the situation prevailing during February to March 2008.

iv. The Sub Assistant Agriculture Officer furnished their correct opinion without hesitation.

v. Population of the study was limited to the heads of the SAAOs of the selected area.

1.5 Assumption of the Study

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

i. The respondents included in the sample were competent enough to furnish proper responses to the questions included in the interview schedule.

ii. The responses furnished by the SAAOs were reliable. They expressed the truth about their convictions and awareness.

iii. The printed materials included in the study were known to the SAAOs of the area concerned.

iv. Information furnished by the SAAOs included in the sample was the representative of the whole community

v. The data collected by the researcher were unbiased and normally distributed.

1.6 Definition of Terms

Different terms used through the study are defined and interpreted for clarity of understanding.

Information

Information is something that reduces uncertainly (Thomson's, 1967). The basic requirement of adapting and adjusting one self to environment is information.

Internet

Publicly accessible computer network connecting many smaller networks from around the world. The internet is widely regarded as a development of vast significant that will affect nearly every aspect of human culture and commerce in ways still only dimly discernible. Also it is known as information gateway.

Professional Leaders

They are the persons who carry in specialized knowledge by profession such as Agricultural Extension Officer, Doctor, Scientist, Banker etc.

Agricultural Professional Leaders

The leader who have performed in condition and employed by government to serve the people with the limited of profession e.g. Agricultural Extension Officer, Sub Assistant Agriculture Officer etc. In this study Sub Assistant Agriculture Officer as Agricultural Professional Leader.

Sub Assistant Agricultural Officer

Frontline extension workers of Department of Agricultural Extension (DAE) known as Sub Assistant Agriculture Officer (SAAO). They inspire the

farmers in the rural area to increase agricultural production by using modem agricultural technologies. They communicate extension message to the farmers and motivate them to adopt innovation.

Mass media

The mass media are the means of communication or instrument or apparatus through which messages are transmitted towards relatively large, heterogeneous and anonymous audience within a relatively shorter timed form the source to the audience. Mass media included in the study were television, radio, internet, newspaper, leaflet, folder, booklet, bulletin etc.

Television

Television is an audio visual media for diffusing information and fall under mass media along with news, various educational programmes, and Mati-O-Manus-one important agricultural programme, are displayed through TV. It is a media that can support the effects of extension staff in spreading awareness, giving warnings, facilitating farmers to farmer's communication etc.

Radio

Radio is a powerful and popular audio media which falls in mass media. It conveys message from one station to all who listen radio programme. It makes things excitingly alive and believable. Furthermore, it can motivate, stimulate, induce belief, create and change basic and attitudes and it reaches to a large number of people inexpensively.

Leaflet

It is a single printed sheet of paper of small size, containing preliminary information relating to a topic.

Folder

It is a single printed sheet of paper of big size, folded once or twice and give essential information relating to a particular topic.

Bulletin

It is a printed bound booklet with a number of pages, containing comprehensive information about a topic.

Poster

Poster is a placard displayed in a public place with the purpose of creating awareness amongst the people.

Newspaper

Newspaper is a bunch of loose printed papers properly folded, which contains news, views, advertisements etc. and is offered for sale at regular intervals, particularly daily on weekly.

Age

Age of the respondents (SAAO) refers to the period of times from his birth to the time of interview. It was measured in terms of year.

Family size

Family size refers to the actual number of members in the family of the SAAO including himself, his wife, spouse children and other dependents, who live and cat together in a family unit.

Annual family income

Annual family income refers to the total earning of a respondent himself from service, agriculture, business, bank interest, house rent and other

sources during a year. It was expressed in thousand taka.

Rural Orientation

It refers to how many years the SAAO had spent at the rural area during his/her study and service period.

Tenure of service

It referred to the years of work experience of SAAO as an extension worker in an extension related agency till the time of data collection.

Training received

It referred to the number of days of previous training received by the individual in his service career, excluding the pre-service training and regular official training courses.

Social participation

Social participation of SAAO referred to his taking part in different social activities with different frequency.

Cosmopolitencss

It referred to the degree or the frequency of movement of SAAOs to outside places from his/her own working place.

Job satisfaction

It referred to the feeling to fulfillment or contentment of the SAAOs with various aspects of their job such as accomplishment in job enjoyment from work scope of using personal initiatives, co-operation, supervision, recognition, prestige, pay and advancement opportunity etc.

Problem faced in using mass media

It referred to the extent of various difficulties, phenomena and situation

faced by SAAOs in using mass media which caused hindrance in the way of performing her/his duties and responsibilities.

Preference of mass media

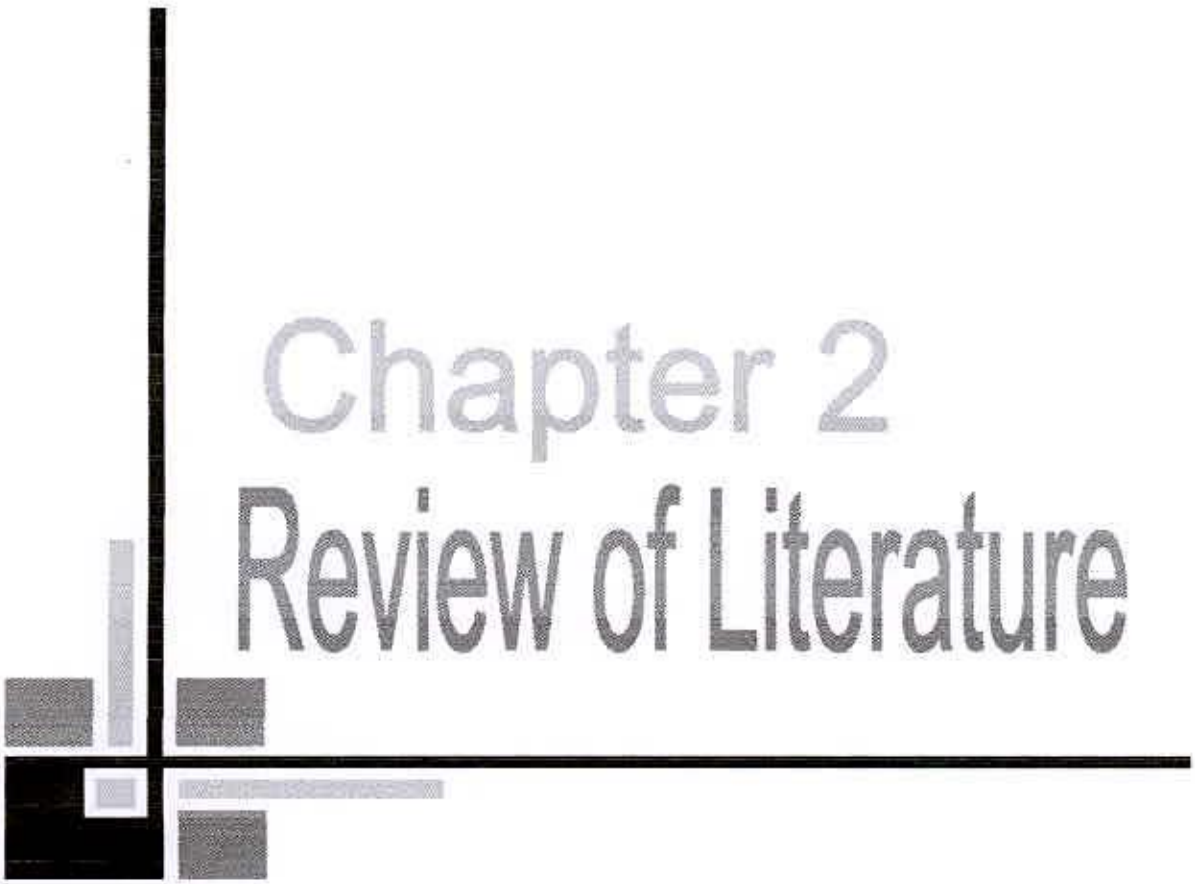
It was referred to the fascination of using mass media in getting agricultural information in comfortable for working ambience by the SAAOs.

Hypothesis

Define by Goode and Hatt (1952), a proposition this can be put to "a test to determine its validity". 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 null hypothesis is stated as there is no relationship between the concerned variables.



Chapter 2
Review of Literature

CHAPTER 2

REVIEW OF LITERATURE

Mass media generally convey messages to a large group of audience irrespective of distance and acts as distance learning mode to the farming community in its simple form. The purpose of this chapter is to present a brief review of literature having relevance to the present investigation.

In order to focus the pertinent reviews, this chapter has been divided into major two sections. First section deals with the findings on the use and preference of mass media by the SAAOs and second section is devoted to a discussion on the findings of studies exploring relationships between the selected characteristics of the SAAOs and their use of mass media.

2.1 Use of Mass Media

Nataraju and Channegowda (1985) found in a study that respondents used radio (54%), newspaper (46%), neighbors (23.3%), demonstrations (10.6%) and group meetings (6%) in receiving information on improved dairy management practices.

Mekabutra (1985) conducted a study in Thailand and reported that among the mass media that offered more knowledge in agriculture was radio, followed by television and newspaper respectively. Considering knowledge gained form mass media that were applicable to their work farmers opined that television provided about 83.5 percent, radio 78 percent and newspaper 77 percent.

Sinha (1985) in a study in Bihar on mass media and rural development found that television has a very positive role to play in village development, but that it is essential to support it with appropriate development infrastructure and on site advisory officer.

Samanta (1986) reported that mass communication channels involved different mass media such as radio, TV, magazine, newspaper etc. which enable a source of one or a few individuals to reach a large audience rapidly. These media are effective in the developed countries, while in the developing world their effectiveness is limited due to many factors. The modern media of communication like radio, TV, magazines, newspapers, etc. are available mainly to urban people and elites and the coverage of rural programme by mass media are also inadequate.

Chidanandappa and Veerabhadraiah (1988) examined different mass media sources used by extension personnel and reported that extension personnel made use of the package of practices like booklets, extension folders, radio, newspaper and farm magazine to a large extent as media of information.

Kashem and Jones (1988) observed that small farmers had highest contact with individual sources and the lowest contact with group contacts. They had comparatively higher percentages of contact with mass media except for those that needed literacy. Among individual contacts small farners had the highest contacts with ideal farmers, seed and fertilizer dealers and relatively little contact with the local extension workers, i.e., SAAOs.

Tabbada (1988) in his study in Philippines found that radio vision was superior over radio, and the dialogue type broadcast was more effective than lecture type.

Van den Ban Hawkins (1988) reported that in industrialized countries people spend more time with television and radio than printed word. Radio is most important mass medium for less industrialized countries. The urban middle class in less industrialized countries now also spend considerable time watching television but it is not yet a very important medium in rural areas of these countries.

Dinampo (1989) conducted a study in philippines to determine communication need and preferences. He observed that farmers were found to prefer an interpersonal media (extension agent) rather than mass media. Among mass media, first preference was radio followed by printed materials and audio visual sources.

Reisner and Hays (1989) reported that the agricultural press is a vital link in transplanting information to US farmers.

De la Vega (1990) conducted a study in philippiens and found that in terms of availability of mass communication media channels, radio and TV were the most available. A great majority of the respondents listen the radio everyday and consider it is their main source of news. The communication channels they preferred as credible were radio, interpersonal source and TV.

Hoque (1990) in his paper concluded that mass media can perform a better role in technology diffusion that what those do today. Therefore, planned efforts to introduce more of mass media strategies that proven effective by experiments are highly recommended.

Sauquet (1990) based on the experience of Brazilian extension service reported that television plays an important role, where in every Sunday morning; an agricultural programme is watched by millions of farmers.

Singh (1990) found that most of the contact farmers received information from progressive farmer; some of them received information from radio.

Chough (1991) in a study observed that press, radio and television were regarded as important vehicles of information which can help ensure the supply of inputs to those really who need them.

Malik (1991) in a study in Pakistan reported that radio was the only medium which broadcasted regular agricultural progammes for the farming community of Pakistan. The largest segment of population listened to radio programme. Radio solves the problems of inaccessibility of media.

Wate and Rivera (1991) in their study examined the application of new technologies in agricultural information transfer process explored future perspective of new technologies as force of change in developing countries. They found that print media, electronic media, radio, television, satellite computers and mobile audio-visual media were the important sources of spreading information.

Sianturi (1992) conducted a study in a rubber development project and observed that radio was the highest rated sources of agricultural information followed by television.

Gunzales (1993) reported that among the mass media, radio was the most available and preferred source of development information.

Galindo (1994) in his study in Mexico on communication media revealed that television and radio were the most widely used communication media and talks, demonstration and training courses were the preferred media for receiving information.

Khan and Paracha (1994) conducted a study in two villages in Pakistan, one innovative and other non-innovative, among the farmers of a cotton producing district and reported that the main channel of communication. The mass media were centrally organized and included radio, television and newspapers.

Kabir and Bhattachargee (1994) conducted a study on the impact and television on rural people and found that the responses regarding the usefulness of TV programme were similar to responses regarding usefulness of radio broadcast. All of the telecasts were of average benefit to most of the male and female audiences. Among the need based telecast "Apnar Shastha" seems to be most effective programme for the male viewers. About 53% of the male respondent watched this programme. The next important one was "Mati-O-Manus" having 35.25% viewers.

Molinar *et al.* (1994) in their paper conducted that radio would remain the most significant medium in the pacific for some time because of the geographical nature of the islands. Continued training radio, video and print are vital if they are to meet the spatial dimension of the communication process.

DAE (1995) in order to achieve the objectives consider the following extension methods and strategies:

- Media campaign including printed media, radio and television
- Thana and district fair
- Traditional and folk media
- Group meeting

Farmers training; motivational tour, farm walk, method demonstrations, field

days, result demonstration, individual farm visit etc. Printed media commonly used are bulletins, posters, leaflet, circular letters, newspaper and magazines.

DAE (1995) further reported that the media cell has been established within the Department having responsibility for overseeing all media issues. The main tasks of the media cell arc to:

- Coordinate the production and dissemination of technical bulletins
- Assist Radio Bangladesh and Bangladesh Television in the production of farm broadcast
- Create publication formatted for the DAE
- Assist district and upazilas with their extension publication

Rahman (1995) in his paper reported that the rural press can serve the farmers and families in the villages by providing timely information regarding farming and harvest. The rural press by proving up-to date market prices of agricultural products can help the local farmers.

Khan (1996) conducted a study on the use of information sources by the poor farmers and conducted that 75% of the respondents had medium use of various information sources for receiving agricultural information.

Halim and Miah (1996) conducted a study and found that the women of modern villages with higher socio-economic status used more cosmopolite media. Cosmopolite media included radio, television extension agents etc. Among the mass media, they used radio and television as a vital source of information. Radio was very frequently (69.7%) used by all category of farm women, while TV was used by less number of women (26.9%).

Islam (1996) in study found that the highest proportion of the respondents (44.55) belonged to medium media exposure category and 38.18% belonged to low exposure and 17.27% belonged to high exposure group. He also found that among 15 media, radio ranked in 6, television 7, fair 8, agricultural publication 15 and the rank 1-5 was for individual media.

Wabhitkar *et al.* (1998) reported that contact with extension agencies and mass media exposure were found to be significantly related to adoption. Age and scientific orientation were significantly related to adoption.

Egbule and Njoku (2001) in their study on mass media for adult education in Nigeria found that mass media have performed poorly in disseminating requisite agricultural information to farmers, although there is a positive correlation between mass media use and farm yield. Farmers' preference for television over other mass media channels.

Perianayagam and Arokiasamy (2002) conducted a study in the northern states in India and reported that women's education and exposure to the mass media are two important developmental indicators that bear a highly significant positive correlation with contraception and a negative relationship with fertility through all regions.

Mazher (2003) in a study in Pakistan reported that pamphlets, magazines and newspapers were suitable for dissemination of sugarcane production technologies.

2.2 Review of Studies on the Relationship between Selected Characteristics of SAAOs and Use of Mass Media

2.2.1 Age

Bhuiyan (1988) found in his study that age of the farmers had a significant negative correlation with the use of communication media.

Chakraborty (1992) found that there was no significant relation with age of the farmer and radio listening habit.

Galindo (1994) found that the exposure to the communication media was closely related with the age of the farmers.

Sarker (1995) in his study concluded that age of the farmers had negative and insignificant effect on the use of communication media.

Islam (1995) found that the age of the farmers had negative and significant relation with the use of communication media.

Khan (1996) concluded that age of the farmers had a negative and insignificant effect on the use of information sources.

Islam (2005) in his study concluded that age of the respondents had no significant relationship with their use of printed materials.

Roy (2006) in his study concluded that age of the farmers had a negative and non significant effect on the effectiveness of mass media.

2.2.2 Family size

Latif (1974) observed that there was no relationship between family size of the farmers and their communication exposure in receiving agricultural information.

Kadam and Sabale (1983) found in a study that size of family of the farmers has no association with the extent of use of communication media.

Sarker (1995) found that family size of small farmers had no significant relationship with their use of communication media.

Islam (1995) found that family size of the farmers had a positive and significant relationship with their of communication media.

Anisuzzaman (2003) concluded that the family size of the farmers had no significant relationship with their use of communication media.

2.2.3 Annual income

Bhuiyan (1988) in his study observed that income of the farmers had no significant relationship on the use of communication media.

Uddin (1993) reported that there was strong and highly significant relation between income of the sugarcane growers and their reception of information.

Hossain (1996) found that income of the farmers had positive and significant relationship with their use of television as agricultural information medium.

Anisizzaman (2003) related that the annual income of the respondents had no significant relationship with their use of communication media.

Islam (2005) in his study concluded that the annual income the respondents had no significant relationship with their use of printed materials.

Roy (2006) in his study conducted that the annual income of the farmers had no significant relationship with their effectiveness of mass media.

2.2.4 Rural orientation

Azad (2001) reported that field level extension officers belonging to more rural oriented were found to be relatively more effective than those belonging to less rural oriented.

Hossain (2004) observed that rural orientation of SAAOs had no significant relationship with their use of printed materials in getting agricultural information.

1.2.5 Tenure of service

Setty (1973) indicated that there was no association between the Gramsevaks' overall knowledge of extension programme planning and their length of service. Similarly, their length of service had no influence on the knowledge of various aspects of extension programme planning.

Jha and Sharma (1973) in their study analyzed the relationship between gain in knowledge and tenure of service of the village level workers. They found that there was a strong and positive correlation between the number of years put in as village level workers and the amount of knowledge gained as a result of training in applied nutrition.

2.2.6 Training received

Setty (1973) reveled that there was no association between overall knowledge of Gramsevaks about extension programme planning and their frequency of in-service training. Similar was the case with their specific knowledge of various aspects of extension programme planning.

Hossain (2004) concluded that the training received by SAAOs had positive significant relationship with their use of printed materials.

2.2.7 Cosmopoliteness

Latif (1974) found that the relationship between cosmopoliteness and communication exposure was positively significant.

Kadam and Sabale (1983) observed in a study that cosmopoliteness of the farmers was significantly associated with the extent of use of communication media.

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

Islam (2005) in his study concluded that the cosmopoliteness of the respondents had positive significant relationship with their use of printed materials.

2.2.8 Social participation

Based on the review of three studies Chapin (1939) concluded found that higher degree of community and personality adjustments are associated with higher degree of social participation in groups and institutions surrounding the

community. He recommended that a measure of one's social participation in organized groups and institutions of a community might be used as a rough measure of social intelligence defined as the ability to deal with people or to get long with people

Hossain (2004) observed that social participation of SAAOs had significant relationship with their use of printed materials.

2.2.9 Job satisfaction

Weitz (1952) and Lawler (1967) found that job satisfaction and communication channels go together.

Koriloff (1963) job satisfaction and job facilities felt by a worker in doing his job tends to enhance his work output.

Alam (2006) job satisfactory of the SAAOs were positively and significantly related with their communication exposure.

2.3 The Conceptual Framework of the study

The conceptual framework was kept in mind while farming the structural arrangement for the dependent and independent variables. This study was concerned with dependent variable of use of mass media by SAAOs.

Based on the past literature and findings as well as main theme of the study, the researcher constructed a conceptual model which is self explanatory and is presented in figure 2.1

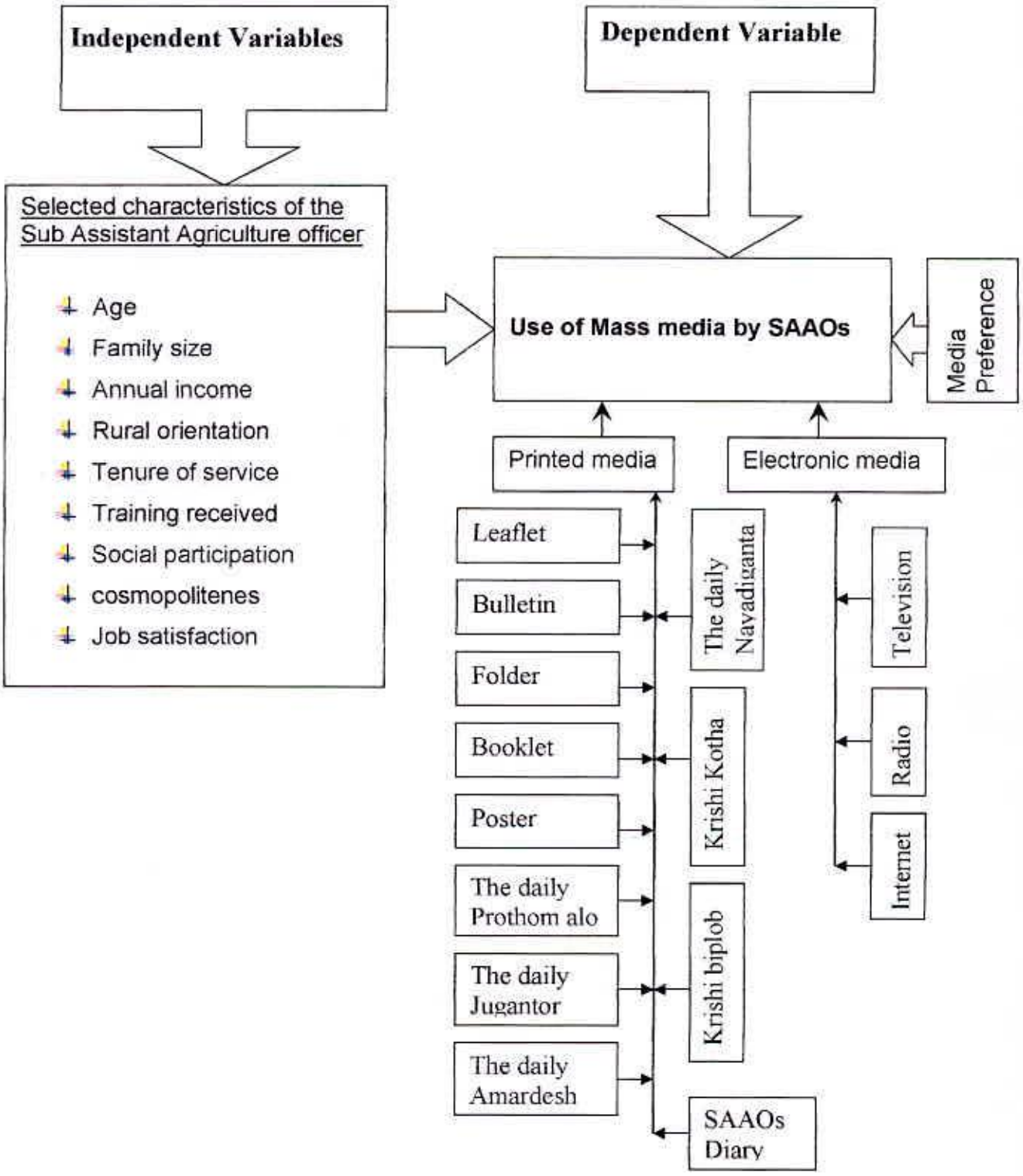


Figure 2.1 The conceptual framework of the study

Chapter 3
Methodology

CHAPTER 3

METHODOLOGY

Methodology plays an important role in a scientific research. A researcher should be careful in formulating methods and procedures in conducting research. Methodology should be such that enables the researcher to collect valid data and reliable information and to analyze that information to arrive at correct decision. The methods and procedures followed in this study are described in this chapter.

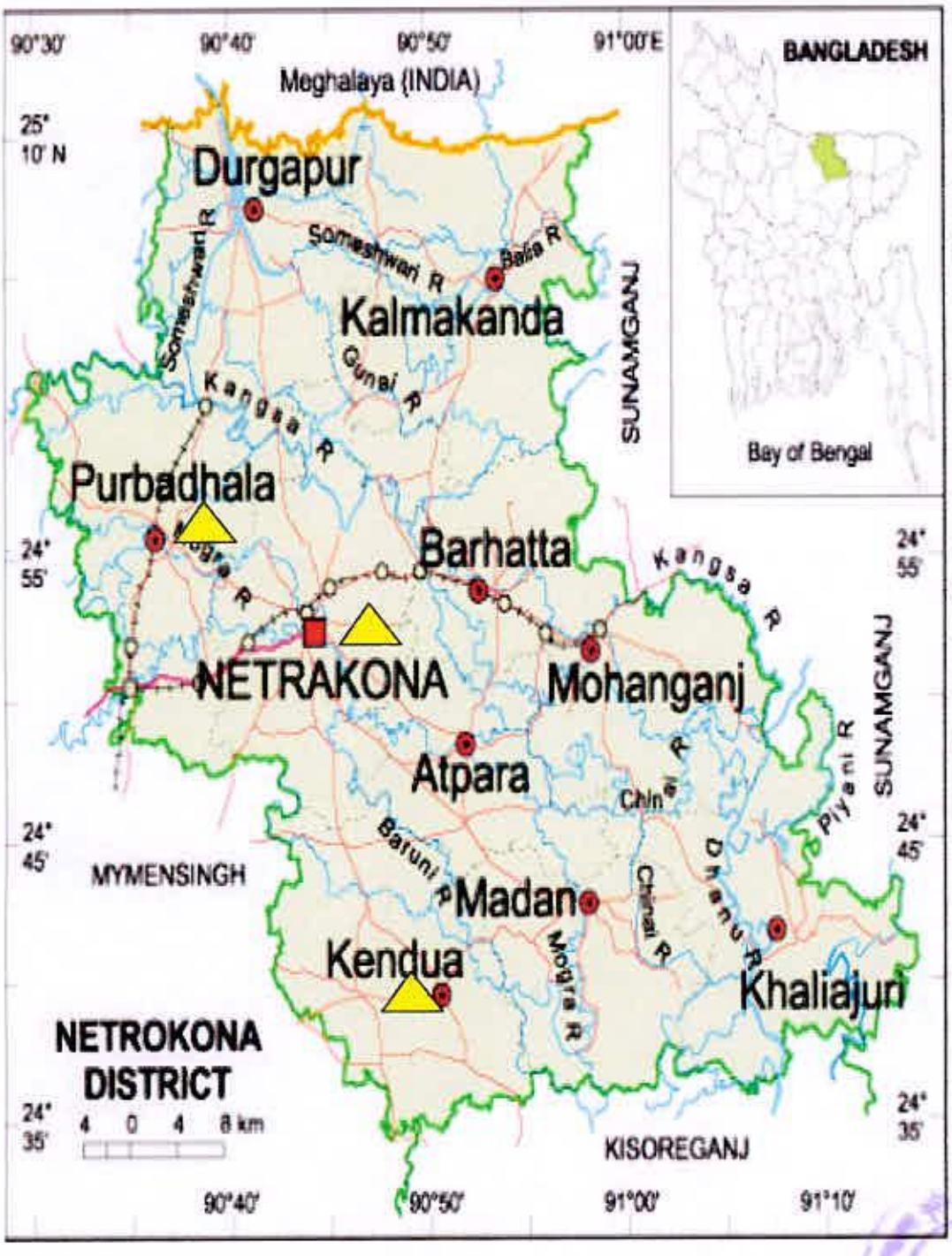
3.1 Locale of the Study

Netrokona district was purposively selected as study area. This district has 10 upazilas. In this study three upazilas were randomly selected. The randomly selected upazilas namely Sadar, Kendua and Purbadhala. A map of Netrokona district showing the study area has been presented in Fig.3.1

3.2 Population and sampling procedure

All the Sub Assistant Agricultue Officer (SAAO) of Netrokona district was the population of the current study. This district consists of ten Upazilas namely Sadar, Atpara, Durgapur, Purbadhala, Barhatta, Kendua, Kalmakanda, Khaliajuri, Madan and Mohangang. In order to make the research manageable, three Upazilas were randomly selected, namely Sadar, Kendua and Purbadhala. The SAAOs, who were working in these three selected Upazilas constituted the population of the study.

An up to date and complete list of the SAAOs working in Netrokona district was collected from the office of Deputy Director of Agricultural Extension (DDAE)



Study area

Figure 3.1 A map of Netrokona district showing study Upazilas

There were 106 SAAOs in the three selected Upazilas at the time of the study. However, despite repeated attempts, it was not possible to collect data from 106 listed SAAOs. Thus, actual respondent number for the study was 80. Upazila wise distribution of SAAOs included in the sample along with actual interviewes is shown in Table 3.1

Table 3.1 Upazila wise number of SAAOs included in the study

Sl. no.	Name of the upazila	Total number of SAAOs	Number of SAAOs inteviewed
1	Sadar	39	32
2	Kendua	39	30
3	Purbadhala	28	18
	Total	106	80

3.3 The Research Instrument

In order to collect valid and reliable information from the SAAOs, an interview schedule was carefully designed and prepared keeping the objectives of the study in mind. Simple and direct questions and different scales were used to obtain information. Direct questions were included to collect information like age, family size, annual income, rural orientation, tenure of service and training received. Scales were used to measure the social participation, cosmopoliteness, job satisfaction, use of mass media and problem faced in mass media.

The questionnaire was prepared in bangla for clear understanding of the respondents. However, an English version of the same is presented in Appendix-A. The schedule was pre-tested during 6th to 10th january 2008 through interviewing fifteen SAAOs of Netrokona sadar. Necessary corrections,

additions and alterations were made in the questionnaire on the basis of the results of the pre-test. The questionnaire was then printed in its final form.

3.4 Variables of the Study

The hypothesis of a research contains generally two variables, an independent variable and a dependent variable. An independent variable is that factor which is manipulated by an experimenter in his attempt to determine its relationship to an observed phenomenon. A dependent variable is that factor which appears, disappears or varies as the experimenter introduces remove or varies the independent variables.

- **Independent variable**

In the study 9 selected characteristics of the SAAOs constituted the independent variables. These are: age, family size, annual income, rural orientation, tenure of service, training received, social participation, cosmopoliteness and Job satisfaction.

- **Dependent variable**

Use of mass media by the SAAOs in receiving agricultural information was the dependent variables. The mass media included were printed materials and electronic media. In this study the printed media were leaflet, bulletin, folder, booklet, poster, the daily prothom alo, the daily jugantor, the daily amardesh, the daily nayadiganta, krishi kotha, krishi biplob, SAAO Diary and the electronic media were television, radio and internet.

3.4.1 Measurement of independent variables

Procedures used in measuring these selected independent variables are described bellow:

3.4.1.1 Age

The term used to refer to the period from one's birth to the time of interview. It was measured in terms of complete years. Age of a SAAO this study was measured in terms of actual years given by the respondent from his birth to time of interview. A score of one was assigned for each year of age.

3.4.1.2 Family size

The family size of a SAAO was determined on the basis of the number of members in his/her family including himself/herself, children and other dependents. A score of one was given for each member of one SAAO's family.

3.4.1.3 Annual income

Annual income of a respondent means the annual gross income in taka from different sources. Income is a crucial factor for one's development as well as for his/her knowledge, awareness and use of mass media in getting agricultural information. Total earning of a respondent from the different sources were added together to determine his/her annual income. However, a unit score of 1 was taken for Tk. 1,000/- (taka one thousand only). For fraction below 0.5 was not considered but 0.5 and above 0.5 was given score 1.

3.4.1.4 Rural orientation

It refers to how many year the respondent had spent at the rural area during his/her childhood, study and service period. A score of one was assigned to one respondent's each year of living period at the rural area. It appears in item no.4 in the interview schedule as presented in Appendix-A

3.4.1.5 Tenure of service

It was measured by the number of years, for which a SAAO had worked field work the in Department of Agricultural Extension (DAE) and other agency prior to joining DAE. The total length of service was calculated based on the joining date of his/her service to the time of interview. A score of 1 was assigned for each year of service. For fraction below 0.5 was not considered but 0.5 and above 0.5 was given score 1.

3.4.1.6 Training received

It was operationalized by the number of days a SAAO received short term in-service training in his/her professional career, excluding the fortnightly training that is held at upazila headquarter and the training course held at Agricultural Training Institute (ATI) leading to Diploma. It appears in item no 6 in the interview schedule as presented in Appendix-A.

3.4.1.7 Social participation

It was measured on the basis of the nature of participation in seven selected social activities as mentioned in the questionnaire presented in Appendix-A. Scoring was made in the following manner for participation in each activity.

Nature of participation	Score assigned
No participation	0
Seldom participation	1
Occasional participation	2
Frequent participation	3

Social participation score of a SAAO was determined by summing the participation scores for all seven social activities that she/he participated. Thus

social participation score of a respondent could range frame 0 to 21, 0 indicating no social participation, while 21 indicating highest level of social participation.

3.4.1.8 Cosmopolitencss

An individual develop a heterophilous link whom he/she visits a new place. The heterophilous links of low proximity play a crucial role in the flow of information about an innovation (Rogers, 1995). Cosmopoliteness of a respondent was measured by computing a cosmopoliteness score based on his/her frequency of visits seven different places external to his/her visits to those places, weights assigned to his/her responses were different and was measured in actual scores according to the nature and extent of visits as presented below.

Nature of Visit	Score assigned
Regularly	4
Often	3
Moderately	2
Rarely	1
Never	0

The scores obtained for visit to each of the seven categories of places were added together to obtain the cosmopoliteness score of a respondent. This score of a respondent could range from 0 to 28, 0 indicating no cosmopoliteness and 28 indicating high cosmopoliteness.

3.4.1.9 Job satisfaction

The job satisfaction of a SAAO was measured by computing a job satisfaction score by using a likert type scale. In computing this score, nine job aspects of job environment were selected by discussing with the supervisory officers of SAAOs and review of available literature (question no. 9 of the questionnaire in Appendix-A. Each SAAO was asked to indicate the extent to which he felt satisfied to each of the nine selected aspects of job environment along 4 point rating scale, highly satisfied, moderately satisfied, fairly satisfied and dissatisfied. Weights assigned to these 4 responses were 3, 2, 1 and 0 respectively.

Nature of satisfaction	Score assigned
Highly satisfaction	3
Moderately satisfaction	2
Fairly satisfaction	1
Dissatisfaction	0

The job satisfaction score of a SAAO was obtained by summing me weights for his/her responses against all the nine items. Thus, the job satisfaction score of the SAAO could range from 0 to 27, where 0 indicated being highly dissatisfied and 27 indicated being highly satisfied.

3.4.2 Measurement of dependent variable

Use of mass media by the SAAOs in receiving agricultural information was measured through five point rating scale. In this study mass media was measured in two dimensions (a) printed media and (b) electronic media. In case of printed media twelve selected materials namely leaflet, bulletin,

folder, booklet, poster, the daily prothom alo, the daily jugantor, the daily amardesh, the daily nayadiganta, krishi kotha, krishi biplob, SAAO diary and incase of electronic media television, radio and internet were taken into consideration. The SAAOs were asked to indicate their extent of use of mass media by indicating whether the medium was regularly, often, moderately, rarely and never use. A weight of 4, 3, 2, 1 and 0 was given for regularly, often, moderately, rarely and never use respectively. The mass media scale for a respondent was calculated by the following formula:

$$M\,S = \Sigma\,SPM + \Sigma\,SEM$$

where,

M S = Mass media Score

SPM = Score of Printed media

SEM = Score of Electronic media

Thus mass media use score of a SAAO could vary for 0 to 60, where 0 indicate no use and 60 indicate very high use.

3.5 Preferences of mass media

For making a preference use of different media frequency distribution of SAAOs were calculated. In order to make a better comparison a Mass Media Use Index (MMUI) was computed by the using the following formula:

$$MMUI = Nr_e \times 4 + No \times 3 + Nm \times 2 + Nr_a \times 1 + Nn \times 0.$$

Where,

Nr_e = Number of SAAOs using the media regularly

No = Number of SAAOs using the media often

Nm = Number of SAAOs using the media moderately

Nr_a = Number of SAAOs using the media rarely

Nn = Number of SAAOs using the media never

Thus MMUI of a mass media could vary from 0 to 320 (respondents no x highest scale; 80 x 4=320) where, 0 indicates no use and 320 indicate regular use of the medium.

3.6 Problem Faced in Using Mass Media

It was measured by constricting a four point rating scale consisting thirteen aspects of constraints in use of mass media. The scale contained four possible constraints which the SAAOs thought as the hindrance regarding use of mass media. Each SAAO was asked to indicate the extent of difficulty caused by each of the constraints by checking any of the four responses, namely "high constraint", "moderate constraint", "less constraint" and "not at all constraint", while score were assigned as 3, 2, 1 and 0, for them respectively.

Extent of effectiveness	Score assigned
high constraints	3
moderate constraints	2
less constraints	1
Not at all constraint	0

The score obtained by a SAAO from all the selected thirteen items were added together to constitute his/her problem facing score. Therefore, the score in this regard could range from 0 to 39, where 0 indicate no problem faced and 39 indicated high problem confrontation.

3.7 Categorization of Data

For describing the data various independent and dependent variables, the respondents were classified into several categories in respect of each variable. These categories were developed by considering the nature of distribution of the data and general under standing prevailing in the social system. The procedures for categorization of data in respect of different variables will be elaborately discussed while describing those variables in chapter 4.

3.8 Collection of Data

Data were collected personally by the researcher himself from the sample by using interview schedule. Data collection was started on 03rd February and completed on 24th March 2008. Before starting the collection of data, the researcher met the respective Agriculture Extension Officer, other Officers and concerned SAAOs. The researcher explained the purpose of the study and requested the respondents to provide actual information and necessary cooperation in collecting data. Most of the data were collected during a week conference day by distributing the questionnaire to the SAAOs as collected later at the respective upazilla Officer and the rest were collected on the other days by individual interviewing. No serious difficulty was faced by the researcher during the collection of data.

3.9 Data Processing and Statistical Analysis

Collected data were coded, compiled, tabulated and analyzed in accordance with the objectives of the study. In this process, all the responses in the questionnaire were given numerical coded values and were transferred to a

master sheet to facilitate tabulation. Tabulation and cross tabulation were done on the basis of which categories were developed by the investigator himself. The SPSS (Statistical Package for Social Science) computer package was used to perform the data analysis. Descriptive analysis such as mean, range, percentage, standard derivation, rank order were used, Person's Product Moment Co-efficient Correlation (r) was used in order to explore the relationship between the concerned variables.

3.10 Statement of the hypothesis

As defined by Goode and Hatt (1952) "a hypothesis is a proposition which can be put to 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 vent, however, it leads to an empirical test."

3.10.1 Research hypothesis

In the light of the objectives of the study and variables selected, the following research hypotheses were formulated to test them in the present research investigation. The research hypotheses were stated in positive form, the hypotheses were as follows:

"There are relationships between the selected characteristics of the SAAOs and their use of mass media."

3.10.2 Null hypothesis

In order to conduct statistical tests, the research hypotheses were converted to null form. Hence, the null hypotheses were as follows:

"There are no relationships between the selected characteristics of the SAAOs and their use of mass media."

Chapter 4
Results and Discussion

CHAPTER 4

RESULTS AND DISCUSSION

This chapter deals with the findings of the research according to the objectives of the study. For convenience, the chapter is divided into three sections. First section deals with the selected characteristics of the SAAOs. Second section deals with the use of mass media by the SAAOs in receiving agricultural information. Third and last section deals with the relationships between dependent variables as well as independent variables.

4.1 Selected Individual Characteristics of the SAAOs

There are many interrelated and constituent attributes or traits that characterize an individual and from an integral part in the development of one's behaviour and personality. It is the expressed behaviour or the sum totality of individual characteristics and ways of behaving which determines his unique adjustment to his environment. The selected, characteristics included age, family size, annual income, rural orientation, tenure of service, training experience, cosmopoliteness and job satisfaction. The aforesaid characteristics of Sub Assistant Agricultural Officers are described in this section.

4.1.1 Age

The age of the sample SAAOs ranged from 30 to 55 years with an average 43.91 and a standard deviation of 5.95. The respondents were classified into three categories on the basis of their age. Distribution of the SAAOs according to their age was shown in Table 4.1

Table 4.1 Distribution of the respondents according to their age

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Age (year)	Unknown	30-55	Young (up to 35)	10	12.5	43.91	5.95
			Middle (36 -50)	60	75		
			Old above 50	10	12.5		

The data presented in Table 4.1 indicate that the highest proportion (75.0 percent) of the respondents were middle aged compared to 25 percent young and old aged. Young and middle aged are generally more receptive to new idea and practices. In Bangladesh, they are usually the decision maker in farming affairs.

The findings are also supported by the previous and contemporary studies of Bhuiyan (1988), Sarker (l995), Islam (1995) and Khan (1996).

4.1.2 Family size

The family size of the SAAOs under study ranged from 3 to 13 members, the average being 5.59 with standard deviation 2.1. Based on their family size, the respondents were classified into three categories, which have been shown in Table 4.2

Table 4.2 Distribution of the respondents according to their family size

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Family size	Unknown	3-13	Small (up to 4 members)	26	32.5	5.59	2.1
			Medium (5-7 members)	42	52.5		
			Large (above 7 members)	12	15		

Data contained in Table 4.2 reveal that highest proportion (52.5 percent) of the SAAOs belonged to the medium family category, 32.5 and 15.0 percent

of SAAOs belonged to the small and large family category respectively. The findings indicate that majority of the SAAOs had medium to large family size and they are likely to maintain better contact with varies channels of mass media for getting agricultural information.

4.1.3 Annual income

Annual income of the SAAOs varied from 131.00 to 421.00 thousand with a mean of 264.23 and a standard deviation of 71.42. Based on their income, the SAAOs were classified into three categaories is shown in Table 4.3

Table 4.3 Distribution of the respondents according to Annual income

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Annual income (tk. In thousand)	Unknown	131-421	Low (tk. 131-193)	14	17.5	264.23	71.42
			Medium (tk.193-335)	51	63.8		
			High (above tk. 335)	15	18.7		

Above half (63.8 percent) of the SAAOs had medium annual income. A considerable proportion of SAAOs (18.7) having high income. The proportion of SAAOs having low income was 17.5 percent. The SAAOs who had higher income generally were older in age and had long tenure of service.

4.1.4 Rural orientation

Time spent in rural area by the respondents ranged from 15 to 51 years with an average of 36.96 and standard deviation 8.19. Based on their rural orientation, the respondents were classified into three categories, which have been shown in Table 4.4

Table 4.4 Distribution of the respondents according to their Rural orientation

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Rural Orientation (years)	Unknown	15-51	Short (up to 32)	21	26.3	36.96	8.19
			Medium (33-41)	32	40		
			Long (above 42)	27	33.7		

Data presented in the Table 4.4 indicate that the majority (40.0 percent) of the SAAOs fell in medium duration category, while 33.7 percent of long duration and only 26.3 percent of them in short duration category.

The findings indicate that majority of the SAAOs had medium to long rural orientation and they are unlikely to maintain better contact with varies channels of mass media for getting agricultural information.

4.1.5 Tenure of service

The tenure of service of the respondents ranged from 6 to 35 years with an average and standard deviation of 20.79 and 7.28 respectively. The respondents were classified into three categories on the basis of their tenure of service has been shown in Table 4.5

Table 4.5 Distribution of the respondents according to their tenure of service

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Tenure of service (years)	Unknown	6-35	Short tenure (up to 14)	22	27.5	20.79	7.28
			Medium tenure (15-28)	44	55		
			Long tenure (above 28)	14	17.5		

Data presented in the Table 4.5 indicate that majority (55.0 percent) of the SAAOs ware found to have medium service length and 27.5 percent SAAOs short service length and 17.5 percent SAAOs had long service length. The length of service is a factor which enhances demand of knowledge and improves skill on various aspects of using mass media. The demand of information of the SAAOs motivates them to use mass media in receiving agricultural information. Rahman (1991) and Kashem (1992) also in their studies found that highest proportion of the Extension Officer (55 percent) had moderate tenure of service.

4.1.6 Training received

In this study, the SAAOs attended training of varying duration, ranging from 5 to 131 days. Average duration of training received by the SAAOs was 39.38 days, with standard deviation 24.72. The respondents were, on the basis of the duration of training received, classified into three categories were shown in Table 4.6

Table 4.6 Distribution of the respondents according to their training received

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Training received (days)	Unknown	5-131	Short duration (up to 30)	37	46.3	39.38	24.72
			Medium duration (31-60)	33	41.2		
			Long duration (above60)	10	12.5		

Majority portion (46.3 percent) of the SAAOs has received short duration of training while 41.2 percent SAAOs having medium and only 12.5 percent SAAOs have received long duration of training. Most of the training attended by SAAOs were either short or medium duration. Training received

is a vital factor which enhances skill and knowledge improves on various aspects of using mass media. The SAAOs influenced them to use mass media in receiving agricultural information.

4.1.7 Social participation

The social participation scores of the respondents ranged from 3 to 15 with an average of 10.48 and standard deviation 2.95 against the possible range 0-21. Based on the scores participation score, the respondents were classified into two categories were shown in Table 4.7. Low category could not found behind the causing of SAAOs had joined more social participating activities.

Table 4.7 Distribution of the respondents according to their social participation

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Social participation	0-21	3-15	Medium participation (up to 7)	11	13.8	10.48	2.95
			High participation (above 7)	69	86.2		

Data presented in Table 4.7 indicate the highest proportion (86.2percent) of the SAAOs had high social participation where, 13.8 percent of the SAAOs had medium participation in different social and voluntary organizations. More participation in social activities make a person cooperative, active, cosmopolite and innovative. The SAAOs with more social participation scores were expected to use more mass media in receiving agricultural information.

4.1.8 Cosmopoliteness

Cosmopoliteness scores of the SAAOs ranged from 8 to 23 against the possible range 0-28 with an average of 15.1 and a standard deviation 3.09. Based on the cosmopoliteness score, the respondents were classified into three categories which has been shown in Table 4.8

Table 4.8 Distribution of the respondents according to their cosmopoliteness

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Cosmopoliteness	0-28	8-23	Low (up to 10)	3	3.8	15.1	3.09
			Medium (11-19)	67	83.7		
			High (above 19)	10	12.5		

Data presented in Table 4.8 indicate that the highest proportion (83.7 percent) of the SAAOs had medium cosmopolite, 12.5 percent of the SAAOs were high cosmopolite and 3.8 percent of the respondents had low cosmopolite. It is therefore, likely that cosmopolitenes might have favorable effect on the use on mass media in receiving agricultural information.

4.1.9 Job satisfaction

The job satisfaction scores of the respondents ranged from 8 to 22 against the possible range 0-27 with an average of 16.39 and standard deviation 2.56. Based on the Job satisfaction score, the respondents were classified into three categories and shown in Table 4.9

Table 4.9 Distribution of the respondents according to their Job satisfaction

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Job satisfaction	0-27	8-22	Low (up to 9)	3	3.8	16.39	2.56
			Medium (10-18)	57	71.2		
			High (above 18)	20	25.0		

Data presented in the Table 4.9 indicate that the highest proportion (71.2 percent) of the SAAOs had medium job satisfaction, 25.0 percent of the SAAOs having high job satisfaction and only 3.8 percent of the SAAOs had low job satisfaction. More Job satisfied person could create easy communicates capability and coordinate capacity to using mass media. The SAAOs with more Job satisfaction scores are expected to use more mass media in receiving agricultural information.

4.2 Use of Mass Media by the SAAOs in Receiving Agricultural Information

Use of mass media by the SAAOs in receiving agricultural information was the dependent variables. The use of mass media score of the respondent ranged from 19-43 against the possible range of 0-60. The average use of mass media score was 30.58 and the standard deviation was 5.17. The use of mass media was classified into three categories namely low, medium and high. The categories and distribution of the respondents shown in Table 4.10

Table 4.10 Distribution of the respondents according to their use of mass media in receiving agricultural information

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Use of Mass Media	0-60	19-43	Low (up to 25)	16	20.0	30.58	5.17
			Medium (26-31)	53	66.3		
			High (above 31)	11	13.7		

Data presented in Table 4.10 indicated that about 66.3 percent of the SSAOs had medium use while 20 percent having high use and the rest 13.7 percent fell in low user category. Thus, about 86.3 percent of the SAAOs had medium to low use of mass media in receiving agricultural information.

The findings revealed that all the SAAOs were moderate users of mass media. The use of mass media by the SAAOs should be increased, because they are literate and grass root level extension agent. They should be well equipped with current farming information. Mass media can play a vital role in this regard. The more use of mass media, the more chance of having agricultural information by the SAAOs. This would enable them to disseminate demand driven information to the SAAOs to the time of need.

4.3 Problem Faced in Using Mass Media by SAAOs

Problem faced in using mass media scores ranged from 8 to 28, with an average of 17.96 and a standard deviation 5.3. Based on the Problem faced in using mass media, the SAAOs were classified into three categories has been shown in Table 4.11

Table 4.11 Distribution of the respondents according to Problem faced in using mass media

Characteristics	Possible range	Observe range	Categories	SAAOs		Mean	SD
				Number	Percent		
Problem faced in using mass media	0-39	8-28	Low (up to 13)	14	17.5	17.96	5.3
			Medium (14-26)	61	76.3		
			High (above 26)	5	6.2		

Data contained in Table 4.11 reveal that majority (76.3 percent) of the SAAOs felt in the medium problem faced category while 17.5 percent and 6.2 percent SAAOs faced in low and high problems in using mass media respectively.

4.4 Preferences of Mass Media by SAAOs

The Mass Media Use Index (MMUI) regarding the use of mass media by the farmers in receiving agricultural information on different items shown in Table 4.12

Table 4.12 SAAOs preferences of mass media according to Mass Media Use Index (MMUI)

Sl. no.	category of Mass media	No of respondent against extent of use					Total score (MMUI)	Mean	Rank
		Regularly	Often	Moderately	Seldom/ Rarely	Never			
1	Leaflet	61	10	7	2	0	290	3.6	1
2	Television	29	40	11	0	0	258	3.23	2
3	SAAO diary	27	41	11	1	0	254	3.18	3
4	Poster	25	22	30	3	0	229	2.86	4
5	Krishi kotha	31	21	15	10	3	227	2.84	5
6	Bulletin	6	51	21	2	0	221	2.76	6
7	Folder	10	33	35	2	0	211	2.64	7
8	Booklet	8	32	36	4	0	204	2.55	8
9	Prothom Alo	23	12	18	4	23	168	2.1	9
10	Radio	2	11	47	20	0	155	1.94	10
11	Jugantor	5	7	19	2	47	81	1.01	11
12	Krishi biplob	0	0	31	10	39	72	0.9	12
13	Amardesh	1	1	14	6	58	41	0.51	13
14	Nayadaganta	2	2	3	12	61	32	0.4	14
15	Internet	0	0	1	1	0	3	0.04	15

There were variations in the extent of use of mass media. The highest score was 290 and the lowest score was 3, against the possible score 320 for each mass media. The mass media use score for Leaflet was the highest score

(290) followed by Television (258), SAAO diary (254), Poster (229), Krishi kotha (227), Bulletin (221), Folder (211), Booklet (204), Prothom alo (168), Radio (155), Jugantor (81), Krishi biplob (72), Amardesh (41), Nayadaganta (32) and Internet (3). The graphical representation of Mass Media Use Index (MMUI) of different media are shown (Figure 4.1).

Figure 4.1 Bar graph showing preference of mass media

In this study the researcher found that Leaflet is the highest score than other mass media component. Amongst Television, SAAO diary, Poster, krishi

kotha, bulletin etc. were mostly important according to rank order for the SAAOs for receiving agricultural information. It is interesting to use that leaflet has became the top ranked information source followed by other media. This may be due to the reason that the leaflet contains information having newness and timeliness. It could be concluded that different sources of information played a vital role for upgradation of agricultural information to the SAAOs.

4.5 Relationship between Independent and Dependent Variables

As mentioned earlier, the ten selected characteristics of the SAAOs were the independent variables of the study. The variables were age, family size, annual income, rural orientation, tenure of service, training received, social participation, cosmopoliteness and job satisfaction. Each of the characteristics of the SAAOs constituted independent variables while use of mass media by the SAAOs in receiving agricultural information was the dependent variable in this study.

The purpose of the section is to examine the relationship of each of the independent variables with the dependent variables. Pearson Product Moment Co-efficient of Correlation (r) was computed to determine the relationship between any two variables concerned (Table 4.12).

Summary results of the test of co-efficient of correlation between the dependent and the independent variables are shown in Table 4.3. However, the detailed interrelations between the selected characteristics (i.e. independent variables and dependent variable have been presented at Appendix B.

Table 4.13 Computed coefficient of correlation (r) between SAAOs selected characteristics and their use of mass media (N=80)

Dependent variable	Independent variables	Values of 'r' with 78 d.f	Table value of 'r'	
			0.05 level	0.01 level
Use of mass media	Age	0.202^{NS}	0.22	0.286
	Family size	0.005^{NS}		
	Annual income	0.283*		
	Rural orientation	-0.293**		
	Tenure of service	0.248*		
	Training received	0.291**		
	Social participation	0.306**		
	Cosmopoliteness	0.480**		
	Job satisfaction	0.530**		

*Correlation is significant at 0.05 level of probability
**Correlation is significant at 0.01 level of probability
^{NS} = Not significant

4.5.1 Age and use of Mass Media

The relationship between age of the SAAOs and use of mass media was examined by testing the following hypothesis:

"*There is no relationship between the age of the* SAAOs *and their use of mass media.*"

The computed value of correlation was found to be 0.202 as shown in Table 4.13. Following observations were made regarding the relationship between these two variables under consideration:

(a) The relationship showed a positive trend.

(b) The computed value of r (0.202) was found to be smaller than the tabulated value (r=0.22) with 78 degree of freedom at 0.05 level of probability.

Based on the findings the null hypothesis could not be rejected and hence it is concluded that the age of the respondents had no significant relationship with their use of mass media in receiving agricultural information.

Similar findings were reported by Bhuiyan (1988), Galindo (1994), Sarker (1995), Hossain (1996) and Islam (2005) in their respective studies. This all of the studies bear a consistency in the findings with that of present one.

4.5.2 Family size and Use of Mass Media

The relationship between family size of the SAAOs and use of mass media was examined by testing the following hypothesis:

"*There is no relationship between the family size of the* SAAOs *and their use of mass media.*"

The computed value of correlation was found to be 0.005 as shown in Table 4.13. Following observations were made regarding the relationship between these two variables under consideration:

a) The relationship showed a positive trend.

b) The computed value of r (0.005) was found to be smaller than the tabulated value (r=0.220) with 78 degree of freedom at 0.05 level of probability.

Based on the above findings the null hypothesis could not be rejected and hence, it is concluded that the family size of the respondents had no significant relationship with their use of mass media. Similar findings were also found by Sarker (1995) and Islam (1996).

4.5.3 Annual income and Use of Mass Media

The relationship between annual income of the SAAOs and use of mass media was examined by testing the following hypothesis:

"There is no relationship between the training received of the SAAOs *and their use of mass media."*

The computed value of correlation was found to be 0.283 as shown in Table 4.13. Following observations were made regarding the relationship between these two variables under consideration:

a) The relationship showed a positive trend.

b) The computed value of r (0.283) was found to be greater than the tabulated value (r=0.220) with 78 degree of freedom at 0.05 level of probability.

Based on the above finding, the null hypothesis was rejected and hence, the researcher concluded that the annual income of the respondents had positive significant relationship with their use of mass media. This means that the more the income of the respondent the more will be their use of mass media in receiving agricultural information. Besides, increasing of earning capability respondent could more achieve from getting agricultural information in using mass media.

Similar findings were also found by Uddin (1993), Hossain (1996) and Rahman (2003) in their studies. This all of the studies bear a consistency in the findings with that of present one.

4.5.4 Rural orientation and Use of Mass Media

The relationship between rural orientation of the SAAOs and use of mass media was examined by testing the following hypothesis:

"There is no relationship between the rural orientation of the SAAOs *and their use of* mass media."

The computed value of correlation was found to be -0.293 as shown in Table 4.13. Following observations were made regarding the relationship between

these two variables under consideration:

a) The relation showed a negative trend.

b) The computed value of r (-0.293) was found to be greater than the tabulated value (r=0.286) with 78 degree of freedom at 0.01 level of probability.

Based on the above finding, the null hypothesis was rejected and hence the researcher concluded that rural orientation (time spent in rural area) of the respondents had negative significant relationship with their use of mass media in getting agricultural information. This indicates that the rural orientation of the SAAOs had an important factor in using mass media. Indeed, rural areas are characterized by low facility of using mass media comparatively to urban area. Urban people could express more fascinating for getting new technology, knowledge, communicating media as well as mass media due to geographical advancement than rural people.

4.5.5 Tenure of service and Use of Mass Media

The relationship between tenure of service of the SAAOs and use of mass media was examined by testing the following hypothesis:

"*There is no relationship between the tenure of service of the SAAOs and their use of mass media.*"

The computed value of correlation was found to be 0.248 as shown in Table 4.13. Following observations were made regarding the relationship between these two variables under consideration:

a) The relationship showed a positive trend.

b) The computed value of r (0.248) was found to be greater than the tabulated value (r=0.220) with 78 degree of freedom at 0.05 level of

probability.

From the above findings, the null hypothesis was rejected and hence, the researcher concluded that the tenure of service of the respondents had significant relationship with their use of mass media.

This indicates that the training received increase of the SAAOs and their use of mass media in receiving agricultural information is also increased. Enhancing length of service closely related in experience. Longer tenure of service could make more experienced to SAAOs and they likely to use of mass media more for getting agricultural information.

Similar findings were also found by Kashem and Halim (1991), Islam (1995), Sarker (1995), Anisuzzaman (2003), Hossain (2006) and Roy (2006) in their studies. This all of the studies bear a consistency in the findings with that of present one.

4.5.6 Training received and Use of Mass Media

The relationship between training exposure of the SAAOs and use of mass media was examined by testing the following hypothesis:

"*There is no relationship between the training received of the* SAAOs *and their use of mass media.*"

The computed value of correlation was found to be 0.291 as shown in Table 4.13. Following observations were made regarding the relationship between these two variables under consideration:

a) The relationship showed a positive trend.

b) The computed value of r (0.291) was found to be greater than the tabulated value (r=0.286) with 78 degree of freedom at 0.01 level of

probability.

Based on the above finding, the null hypothesis was rejected and hence, the researcher concluded that the training received of the respondents had positive significant relationship with their use of mass media. Training is responsible for improving skills of an individual. The existing relationship suggested that the more training received by SAAO more likely to use of mass media by him for getting agricultural information.

4.5.7 Social participation and Use of Mass Media

The relationship between social participation of the SAAOs and use of mass media was examined by testing the following hypothesis:

"There is no relationship between the social participation of the SAAOs and their use of mass media."

The computed value of correlation was found to be 0.306 as shown in Table 4.13. Following observations were made in that regards.

a) The relationship showed a positive trend

b) The computed value of r (0.306) was found to be greater than the tabulated value (r=0.286) with 78 degree of freedom at 0.01 level of probability.

Based on the above finding, the null hypothesis was rejected and hence, the researcher concluded that the social participation of the respondents had significant relationship with their use of mass media. This indicates that with the increase of organizational participation, there was a corresponding increase in the use of mass media in receiving agricultural information. Thus the social participation of the SAAOs helped them improve their outlook which leads them to use mass media getting farm information.

Similar findings were also found by Bashar (1993), Islam (1995), Nuruzzaman (2003) and Roy (2006) in their studies. This all of the studies bear a consistency in the findings with that of present one.

4.5.8 Cosmopoliteness and Use of Mass Media

The relationship between cosmopoliteness of the SAAOs and use of mass media was examined by testing the following hypothesis: *"There is no relationship between the cosmopoliteness of the SAAOs and their use of mass media."*

The computed value of correlation was found to be 0.254 as shown in Table 4.13. Following observations were made in that regard.

a) The relationship showed a positive trend

b) The computed value of r (0.480) was found to be greater than the tabulated value (r=0.286) with 78 degree of freedom at 0.01 level of probability.

Based on the above finding, the null hypothesis was rejected and hence, the researcher concluded that the cosmopoliteness of the respondents had significant relationship with their use of mass media. A cosmopolite person communicates with different external sources. He/she used to visit his/her own union, other upazila and important places. This helps to be exposed to different media. In fact, use of mass media, social participation and cosmopolitencss are closely related in other words a person who has more social participation, likely to be more cosmopolite.

4.5.9 Job satisfaction and Use of Mass Media

The relationship between job satisfaction of the SAAOs and use of mass media was examined by testing the following hypothesis:

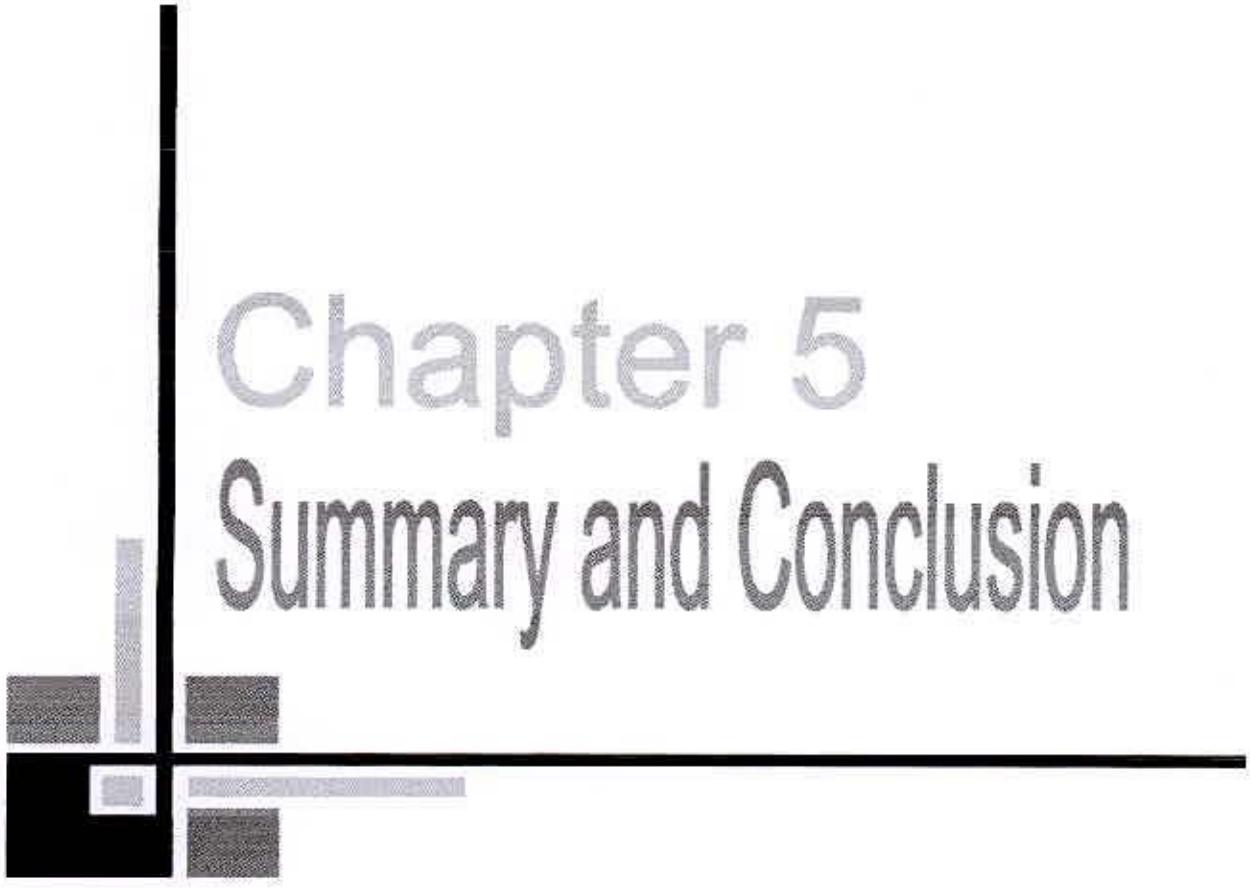
"There is no relationship between the job satisfaction of the SAAOs and their use of mass media."

The computed value of correlation was found to be 0.530 as shown in Table 4.13. Following observations were made regarding the relationship between these two variables under consideration.

a) The relationship showed a positive trend

b) The computed value of r (0.530) was found to be greater than the tabulated value (r=0.22) with 78 degree of freedom at 0.01 level of probability.

Based on the above findings the null hypothesis was rejected and hence, the researcher concluded that job satisfaction of SAAOs had positive significant relationship with their use of mass media. Job satisfaction in a driving force in an individual to perform better. The existing relationship indicated that the use of mass media is increases with the increase of job satisfaction.



Chapter 5
Summary and Conclusion

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Findings

Data were collected from randomly 80 respondents of three selected upazilas namely Sadar, Kendua, and Purbadhala Upazillas under Netrokona district. Data were collected by using an interview schedule from the SAAOs during 3rd February to 24th March, 2008. Co-efficient of correlation test was used to explore relationship between the concerned variables. The major findings of the study are summarized below:

5.1.1 Selected characteristics of the SAAOs

Age: Age of the SAAOs ranged from 30 to 55 years, with an average of 43.91. Majority of the SAAOs (75.0 percent) were middle aged compared to 25.0 percent young and old aged.

Family size: Family size of the SAAOs ranged from 3 to 13, the average being 5.59. Majority of lhe SAAOs (52.5 percent) had medium family, while 32.5 and 15.0 percent had small and large family size respectively.

Annual income: Annual Income of the SAAOs ranged from 131.00 to 421.00 thousand with a mean of 264.23. The proportion of the SAAOs having low, medium and high income were 17.5, 63.8 and 18.7 percent respectively.

Rural orientation: Time spent of SAAOs in rural area ranged from 15 to 51 years, with an average of 36.96. Majority of the SAAOs (40.0 percent) had medium orientation, while 33.7 percent and 26.3 percent of the SAAOs had

long and short duration rural orientation respectively.

Tenure of service: The tenure of service of the SAAOs ranged from 6 to 35 years, with an average of 20.79. Majority (55.0 percent) of the SAAOs had medium tenure of service, while 27.5 percent and 17.5 percent had short and long tenure of service respectively.

Training exposure: The training exposure of the SAAOs ranged 5 to 131 days, with an average of 39.38. Majority 46.3 percent of the SAAOs had short training exposure, while 41.2 percent and 12.5 percent of the SAAOs had moderate and long duration of training exposure respectively.

Social participation: The social participation of the SAAOs ranged from 3 to 15 against possible range of 0 to 21, the average being 10.48. Majority (86.2 percent) of the SAAOs had high social participation, while 13.8 percent of the SAAOs had medium social participation.

Cosmopoliteness: The cosmopoliteness score of the SAAOs ranged from 8 to 23 against possible range of 0 to 28, the average being 15.1. Majority (83.7 percent) of the SAAOs had medium cosmopoliteness, while 12.5 percent and 3.8 percent had high and low cosmopoliteness respectively.

Job satisfaction: Job satisfaction of the SAAOs ranged from 8 to 22 against possible range of 0 to 27. the average being 16.39. Majority (71.2 percent) of the SAAOs had medium job satisfaction, while 3.8 percent and 25.0 percent had low and high job satisfaction, respectively.

5.1.2 Relationship between the selected characteristics and use of mass media by the SAAOs in receiving agricultural information.

The null hypotheses were tested to examine the relationship of nine selected characteristics of the respondents with their use of mass media in receiving agricultural information. The results of hypothesis testing are briefly presented below:

Age and use of mass media

There was no relationship between age of SAAOs and their use of mass media in receiving agricultural information.

Family size and use of mass media

There was no relationship between family size of SAAOs and their use of mass media in receiving agricultural information.

Annual income and use of mass media

Annual income of the respondents had a positive and significant relationship with their use of mass media in receiving agricultural information. That indicates with the increase of annual income the use of mass media also be went up in receiving agricultural information.

Rural orientation and use of mass media

Rural orientation of the SAAOs had highly negative significant relationship with their use of mass media in receiving agricultural information. That means with the increase of Rural orientation their use of mass media was decreased.

Tenure of service and use of mass media

Tenure of service of the respondents had positive and significant relationship with their use of mass media in receiving agricultural information. That means Tenure of service had influence on the use of mass media in receiving agricultural information.

Training received and use of mass media

Training received of the respondents had a positive and highly significant relationship with their use of mass media in receiving agricultural information. That indicates that with the increase of training the use of mass media also be went up in receiving agricultural information.

Social participation and use of mass media

Social participation of the respondents had a positive and highly significant relationship with their use of mass media in receiving agricultural information. That means Social participation of SAAOs had a great influence on the use of mass media in receiving agricultural information.

Cosmopolitenes and use of mass media

Cosmopolitenes of the respondents had a positive and highly significant relationship with their use of mass media in receiving agricultural information. That indicate Cosmopolitenes of the SAAOs had a great influence on the use of mass media in receiving agricultural information.

Job satisfaction and use of mass media

Job satisfaction of the respondents had a positive and highly significant relationship with their use of mass media in receiving agricultural information. That indicate Job satisfaction of the SAAOs had a great influence on the use of mass media in receiving agricultural information.

5.2 Conclusions

Based oh the findings of this study and logical interpretation of their meaning in the light of other facts, the researcher drew the following conclusions:

1. The study indicated that age of the majority user of mass media were middle aged and its relationship was non significant. This fact indicates to the conclusion that age of the SAAOs and their use of mass media in getting agricultural information are independent to each other.

2. Family size of the SAAOs had positive and insignificant relationship with the use of mass media in receiving agricultural information. This fact leads to the conclusion that family size of the SAAOs and their use of mass media in getting agricultural information are independent to each other.

3. Annual income of the respondents had a positive and significant relationship with their use of mass media in receiving agricultural information. That indicates that with the increase of annual income the use of mass media also be increased in receiving agricultural information.

4. Rural orientation (time spent of rural area) of the SAAOs had negative and highly significant relationship with their use of mass media in receiving agricultural information. This fact leads to the conclusion that rural orientation of the SAAOs and their use of mass media in getting agricultural information are dependent reversely to each other.

5. Tenure of Service of the SAAOs had a positive and significant relationship with the use of mass media which leads to the conclusion that SAAOs with long tenure of service arc positively influenced in their use of

printed materials in getting agricultural information.

6. Training received of the SAAOs had positive and highly significant relationship with their use of mass media which leads to the conclusion that more training received of the SAAOs the more is their use of mass media for obtaining agricultural information.

7. Social participation of the SAAOs had a positive and highly significant relationship with their use of mass media in receiving information. This indicates that with the increase of social participation of the SAAOs the use of mass media is also increased.

8. Cosmopolite people come in contact with new people and new ideas in through traveling outside their own social system. Cosmopoliteness, therefore, helps an individual to collect new ideas and information.

In this study cosmopoliteness of the respondents had a positive and highly significant relationship with their use of mass media. This implies that with the rise of cosmopoliteness, their use of mass media also increased which is turn is helpful for getting agricultural information.

9. There was a positive and highly significant relationship between job satisfaction of the SAAOs and their use of primed materials. The statistical analysis leads to the conclusion that with the increases of the job satisfaction of the SAAOs make them of mass media.

5.3 Recommendations

Recommendations have been divided into two sub sections, viz. recommendation for policy implication and recommendation for the further study.

Based on the findings and conclusion of the study the following recommendation for policy implications are presented below:

5.3.1 Recommendations for policy implications

1. The Department of Agricultural Extension (DAE) needs to pay more attention to ensure the use of various printed materials to show clear difference between traditional and recommended practices and as such create more confidence among the SAAOs about printed materials

2. The characteristics of the SAAOs such as age, family size, annual income, rural orientation, tenure of service, training received, social participation, cosmopoliteness, and job satisfaction were related with the mass media. In view of the above facts it may be recommended that the extension and development agencies should strengthen extension activities considering these characteristics and situational factors in view in producing and supplying agricultural information through printed materials.

3. Policy development is needed for improvement of the programmes disseminated and broadcasting of programmes through newspaper, poster, leaflet, TV and other mass media.

4. The existing mass media coverage on agricultural activities should be increased. The printed materials of mass media, such as newspaper, poster, leaflet, bulletin farm publication should give more coverage on agricultural information and it should be administered on regular basis instead of occasional basis. The demand driven farm information needs to be given priority so that the printed materials could benefit the SAAOs.

5. The Department of Agricultural Extension (DAE) needs to pay more attention to ensure the use of mass media. Seemed to have great impact in supplying/broadcasting agricultural information of the extension provides.

6. Agricultural booklet, leaflet, bulletin, folder and other printed materials should be well circulated among the SAAOs. DAE should take responsibility to distribute the printed materials to the SAAOs properly and in time.

7. Sub Assistant Agricultural Officer training has an important role for the increased use of printed materials in getting agricultural information. So, more training programme should be undertaken for SAAOs so that they can use the printed materials effectively in receiving agricultural information.

5.3.2 Recommendations for further study

The following suggestions are put forwarded for further research studies:

1. Further study should consider more activities of SAAOs regarding the use of mass media in receiving agricultural information.

2. The use of mass media in receiving agricultural information was conducted in three selected Upazilas namely Sadar, Kendua, Purbadhala under Netrokona district. Findings of the study need verification by similar research in other parts of Bangladesh.

3. Relationship of nine characteristics of the SAAOs with the use of mass media in receiving agricultural information was investigated in this study. Further research should be conducted to explore relationship of other characteristics of the SAAOs with the use of mass media in receiving agricultural information.

4. Similar Study may also he replicated in future for studying any change of pattern regarding use of mass media among the same population of the present study area.

5. On the basis of the characteristics pattern of SAAOs , more researches should be conducted to investigate the comparative use of mass media with other extension methods and also identify the factors influencing the use of printed materials.

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Appendix- A

Department of Agricultural Extension & Information System

Sher-e-Bangla Agricultural University

Dhaka-1207

An Interview Schedule for a Research Study entitled:

"USE OF MASS MEDIA BY AGRICALTURAL PROFESSIONAL LEADERS"

Sl. No.....

Name of the respondent.....
Date.....

Village.....Union.....
Upazilla.....District.....

(Please answer the following questions)

[The information collected through this interview schedule will be kept confidential and only be used for academic purpose]

1. Age

How old are you? .....years

2. Family Size

Please the number of your family members including you.

a. Male.....nos.
b. Female.....nos.

Total.....nos.

3. Annual Income

Please mention your annual income from the following different sources.

Sl. no.	Source of Income	Taka
1	service	
2	Business	
3	Agriculture	
4	Mortgage/ lease	
5	House rent	
6	Bank interest	
7	Any other sources	
Total income		

4. Rural Orientation

Please mention your living place on the following table

Description	Living period (years)	
	Rural area	Urban area
1. Childhood		
2. Study period		
3. Service period		
Total period		

5. Tenure of Service

Please give information of your tenure of service

.....years

6. Training Received

Please give information about the training received by you during the tenure of service:

Sl. No.	Subject/ topic of the training	Sponsoring organization	Duration (days)
1			
2			
3			
4			
5			
Total duration			

7. Social Participation

Sl. No.	Activities	Frequency of participation			
		Frequent participation	Occasional participation	Seldom participation	No participation
1	Participation in social function such as marriage, birth day etc.				
2	Helping neighbors in solving different agricultural problems and emergency such as delivery, death etc.				
3	Work with people to fight situations like cyclone, flood, fire etc.				
4	Participation in village meeting				
5	Advising others (e.g. Keep clean, good health, sanitation, education etc.)				
6	Participation in educational programme				
7	Mutual local conflict				

8. Cosmopoliteness

Please indicate the extent of your visit to the following places:

Sl. No	Place of visit	Extent of visit (time)				
		Regularly (4)	Often (3)	Moderately (2)	Rarely (1)	Never
1	Another block	>9 times/ month ( )	6-9 times/ month ( )	4-6 times/ month ( )	1-3 times/ month ( )	0 time/ month ( )
2	Other upazila	>9 times/ month ( )	6-9 times/ month ( )	4-6 times/ month ( )	1-3 times/ month ( )	0 time/ month ( )
3	Own district	>6 times/ month ( )	5-6 times/ month ( )	3-4 times/ month ( )	1-2 times/ month ( )	0 time/ month ( )
4	Other district	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )
5	Capital city	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )
6	DAE head office	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )
7	Agricultural Research Institute	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )

9. Job Satisfaction

Please mention your satisfaction level for doing job in rural areas as a SAAO:

Sl. no	Statements	Highly satisfied	Satisfied	Fairly satisfied	Dissatisfied
1	Posting Place				
2	Working atmosphere				
3	Co-operation from colleagues				
4	Co-operation from higher authority				

5	Co-operation from Farmer				
6	Salary				
7	Official status				
8	Accommodation				
9	Vehicle				

10. Use of mass media

Sl. no.	Name of Mass media	Extent of use				
		Regularly (4)	Often (3)	Moderately (2)	Rarely (1)	Never
	a. Printed media					
1	Leaflet (Rice, Jute, Wheat, Vegetables, Fruits, Seed, Fertilizer & pest control related information)	>9 times/ month ( )	6-9 times/ month ( )	4-6 times/ month ( )	1-3 times/ month ( )	0 time/ month ( )
2	Bulletin (Rice, Jute, Wheat, Vegetables, Fruits, Seed, Fertilizer & pest control related information)	>9 times/ month ( )	6-9 times/ month ( )	4-6 times/ month ( )	1-3 times/ month ( )	0 time/ month ( )
3	Folder (Rice, Jute, Wheat, Vegetables, Fruits, Seed, Fertilizer & pest control related information)	>9 times/ month ( )	6-9 times/ month ( )	4-6 times/ month ( )	1-3 times/ month ( )	0 time/ month ( )
4	Booklet (Rice, Jute, Wheat, Vegetables, Fruits, Seed, Fertilizer & pest control related information)	>9 times/ month ( )	6-9 times/ month ( )	4-6 times/ month ( )	1-3 times/ month ( )	0 time/ month ( )
5	Poster (Rice, Jute, Wheat, Vegetables, Fruits, Seed, Pest control & fertilizer related information)	>9 times/ month ( )	6-9 times/ month ( )	4-6 times/ month ( )	1-3 times/ month ( )	0 time/ month ( )

6	SAAO Diary (Rice, Jute, Wheat, Vegetables, Fruits, Seed, Fertilizer & pest control related information)	>9 times/ month ( )	6-9 times/ month ( )	4-6 times/ month ( )	1-3 times/ month ( )	0 time/ month ( )
7	The Daily Prothom alo (Keth khamr)	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )
8	The Daily Jugantor (krishi kotha)	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )
9	The Daily Amardesh (Chashbash)	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )
10	The Daily Nayadiganta (Chashabad)	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )
11	Monthly Krishi Kotha	>3 times/ 4 months ( )	3 times/ 4 months ( )	2 times/ 4 months ( )	1 time/ 4 months ( )	0 time/4 months ( )
12	Fortnightly Krishi biplob	>3 times/ 2 months ( )	3 times/ 2 months ( )	2 times/ 2 months ( )	1 time/ 2 months ( )	0 time/2 months ( )
	b. Electronic media					
1	Television (Mati-o-manush, Redoya mati-o-manush, Shamol bangla etc.)	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )
2	Radio (Desh amar mati amar, Sonali fasal, Krishi samachar etc.	>21 times/ month ( )	15-21 times/ month ( )	8-14 times/ month ( )	1-7 times/ month ( )	0 time/ month ( )
3	Internet	>3 times/ month ( )	3 times/ month ( )	2 times/ month ( )	1 time/ month ( )	0 time/ month ( )

11. Problem faced in using mass media

Sl. no.	Constraints	Extent of constraints			
		Severe	Moderate	Low	Not at all
1	Non availability of mass media timely				
2	Lacking of recent information				
3	Inadequate information of a particular topic				
4	Wrong information due to printing mistakes				
5	Inadequate supply of all sorts of information				
6	Non availability of mass media for all crops				
7	Vocabulary Problem				
8	Unavailability of printed materials at hand due to the lack of preservation facilities				
9	Inappropriate use of information due to lack of training				
10	Ineffective communication of officers & others with SSAO				
11	Use of electronic media due to unable technical knowledge				
12	Use of electronic media due to unable technical knowledge				
13	Agricultural programme could not broadcast on due time				

Thank you, for your kind co-operation.

.....

(Signature of the respondent)

Date:

Appendix B

Correlation matrix of the independent and dependent variables (N = 80)

Variables	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	Y_{10}
X_1	1									
X_2	0.075	1								
X_3	0.496**	0.129	1							
X_4	0.617**	-0.057	0.297**	1						
X_5	0.824*	0.094	0.580**	0.606**	1					
X_6	0.239*	-0.135	0.208	0.034	0.207	1				
X_7	0.318**	0.314**	0.246*	0.122	0.504**	0.260*	1			
X_8	0.066	-0.291**	0.039	-0.337**	-.091	0.217	-0.006	1		
X_9	0.237*	0.039	0.201	-0.083	0.237*	0.187	0.279*	0.307**	1	
Y_{10}	0.202^{NS}	0.005^{NS}	0.283*	-.293**	0.248*	0.291**	0.306**	0.480**	0.530**	1

Note: * Correlation is significant at 0.05 level of probability (2-tailed)
** Correlation is significant at 0.01 level of probability (2-tailed)
^{NS} Not significant

Legend:

Independent variables:

X_1 = Age
X_2 = Family size
X_3 = Annual income
X_4 = Rural orientation
X_5 = Tenure of service
X_6 = Training received
X_7 = Social participation
X_8 = Cosmppoliteness
X_9 = Job satisfaction

Dependent variable:

Y_{10} = Use of Mass Media by agricultural professional Leaders

Table value at 0.05 level = 0.22, at 0.01 level = 0.286 with 78 df