# EFFECTIVENESS OF AGRICULTURE RELATED TELEVISION PROGRAMMES FOR DISSEMINATION OF AGRICULTURAL INFORMATION TO THE FARMERS

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**BY**

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*A Thesis*
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# *CERTIFICAT*

**This is to certify that the thesis entitled, "EFFECTIVENESS OF AGRICULTURE RELATED TELEVISION PROGRAMMES FOR DISSEMINATION OF AGRICULTURALINFORMATION TO THE FARMERS" submitted to the Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of *MASTER 0F SCIENCE IN AGRICULTURAL EXTENSION AND INFORMATION SYSTEM,* embodies the result of a piece of bona fide research work carried out by *Nazma Kfiatun, Registration No. 00806,* under my supervision and guidance. No part of this thesis has been submitted for any other degree or diploma.**

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

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*(Dedicated to My*
*<Beioved <*

*Parents*

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# ABSTRACT

The main focus of the study was to have an understanding on the perception of farmers regarding effectiveness of agriculture related TV programmes for the dissemination of agricultural information. Attempt was also made to explore the relationship between some of the selected characteristics of the farmers and their perceived effectiveness of agriculture related TV programmes for the dissemination of agricultural information. The characteristics of the farmers such as age, level of education, farm size, farming experience, annual family income, agricultural knowledge, attitude towards agriculture related TV programmes, innovativeness, personal localite behavior and time spent for TV watching of the farmers. Data were collected personally through interview schedule from one hundred randomly selected farmers of three selected villages like Uttar Nari Bari, Narayonpur and Hamlaykul of Gurudaspur upazila under Natore district. Data were collected during 1 July to 15 August, 2007. The Pearson's product moment correlation co-efficient was used to determine the relationship between the dependent and independent variables. Majority (76%) of the farmers perceived agriculture related TV programmes as medium effective while 9% high effective and 15% low effective, level of education, annual family income, agricultural knowledge, attitude towards agriculture related TV programmes, innovativeness, personal localite behavior and time spent for TV watching of the respondents had significant positive relationship with their perceived effectiveness of agriculture related TV programmes for the dissemination of agricultural information. Whereas age, farm size and farming experience of the farmers had no significant relationship with the effectiveness of agriculture related TV programmes for dissemination of agricultural information as perceived by the farmers. On the basis of Effectiveness Index (El), homestead vegetables cultivation ranked first followed by livestock raring and preparation of compost. The $4^{Ih}$ and $5^{th}$ information were beef fattening and poultry rearing. Preparation of nurseries and improved technologies of tree plantation were the less effective information those were ranked $_{10}$ and $_{11}$ .

# Cha ter 1

# Introduction

# CHAPTER I

# INTRODUCTION

## 1.1 General Background

About 85% of the total populations of Bangladesh live in the rural areas and their standard of living is very low. They are mainly involved in agriculture and related activities. But agriculture in our country remains to be almost traditional. That’s why Bangladesh can not produce sufficient food for her large population.

The rate of agricultural production in our country is very low. However, agricultural production can be increased if appropriate technologies are used by the farmers who are the primary unit of adoption of improved practices. Proper utilization of modem agricultural inputs, proper knowledge of the usefulness of inputs and the know-how of their use should reach to the farmers within a shortest possible time but that should be done very effectively. Further, diffusion of proper knowledge on modem agriculture among the rural people demands effective communication system. Now communication as a social process has attained so much importance that can hardly over emphasize its role. Communication media provides necessary information for the farmers to help them change their way of cultivations from traditional to modem one.

Television is an important means of extension communication media because it covers great distances and leaps all kinds of natural barriers. In the adoption of new ideas Television (TV) plays an important role especially in the awareness and interest stages (Kashem, 1992). It is not effective when the audiences are aware of or interest in an idea. Messages through television can motivate, stimulate, induce and change basic attitudes of the people. Thus, most important advantage of television is that it reaches at all cultural and age levels. Those who watch TV believe that it is a most important source of information, entertainment and company. Therefore, it has an audience that is not often reached, by other mass media.

Now a days, in Bangladesh the importance of television as a mass communication media cannot be denied especially with the advent of battery operated television. These have become very popular to the rural people. During the past decade or so, television sets have been produced rapidly in Bangladesh. In 1992 on an average, there is 4.2 TV sets per thousand of people in Bangladesh where there is 1.6 in Nepal and Mayanmer, 1.4 in

South Korea (Anon, 1992). As TV programming becomes a crucial factor in determining whether broadcasting helps national development or simply used for entertainment purpose. Government of Bangladesh, where TV broadcasting is state controlled, often feel obligated to broadcast non-formal educational development programmes on such topics as agriculture, public health, family planning, nutrition, etc.

It seems that television as an audio as well as a visual communication media provides tremendous educational value to our vast majority of illiterate farmers. Through such media changes in the behavior of the farmers, their knowledge in agriculture can be increased to a greater extent, modernize their practices into a practical way.

But no previous study attempted to find out the effectiveness of agriculture related television programmes. Therefore, in view of the importance of television in Bangladesh as a mass communication media the researcher felt necessity to conduct a research entitled "effectiveness of agriculture related television programmes for dissemination of agricultural information to the farmers".

**1.2Statement of the Problem**

This research was continued with some popular agriculture related television programmes of Bangladesh such as Mati-O-Manush (BTV), Krshi Diba- Nishi (BTV); Shayamol Bangla (Bangla Vision); Hridoya Mati-O-Manush (Channel I), Hridoya Mati O Manusher Dak (Channel I).

These weekly programmes responsible for transferring farm production technologies to the

TV viewing farmers. The dissemination of farm information through TV is highly dependent on the selection of information, timeliness of information, adequacy of information, usefulness and scope of application in the real situation. However, it was necessary to know how effective the agricultural TV programmes were in disseminating agricultural information to the farmers and also to know the following questions.

1. To what extent the agriculture related television programmes were effective as perceived by the TV viewing farmers in disseminating agricultural information?
2. What were the characteristics of the farmers that influence them in receiving information from agriculture related television programmes?
3. What relationships were exist between the selected characteristics of the farmers with their perceived effectiveness of agriculture related television programmes.

For getting clarification of above questions the researcher undertook a study entitled "effectiveness of agriculture related television programmes for dissemination of agricultural information to the farmers".

### 1.3 Specific Objectives

The following specific objectives were formulated in order to give proper direction to the research work:

1. To determine and describe some selected characteristics of the farmers. The selected characteristics include:

a) Age

b) Level of education

c) Farm size

d) Farming experience

e) Annual family income

f) Agricultural knowledge

g) Attitude towards agriculture related TV programmes

h) Innovativeness

i) Personal localite behavior

j) Time expend for TV watching

2. To measure the effectiveness of agriculture related TV programmes as perceived by the farmers in disseminating agricultural information

3. To explore the relationship between the selected characteristics of the farmers and their perceived effectiveness of agriculture related TV programmes

4. To compare the effectiveness of selected types of information

### 1.4 Limitations of the Study

Considering the time, money and other necessary resources available to the researcher and to make the study manageable and meaningful from the point of view of research, it

became necessary to impose certain limitations as mentioned below:

i) The study was confined to purposively selected three villages of Gurudaspur upazila under Natore district.

ii) The characteristics of the farmers were many and varied but only eleven characteristics of the farmers were selected for investigation in this study.

iii) Farmers use television in receiving information on different aspects such as agriculture, health, nutrition, family planning, mass education, religious affairs etc., but in this study it was confined only for receiving agriculture related information.

iv) There were many items of agricultural information those are delivered through agriculture related TV programmes. But only selected eleven items were considered in tlis study.

v) The investigator depended on the data furnished by the selected farmers during their interviews.

vi) Facts and figures collected by the investigator applied to the situation prevailing during the year 2007.

**1.5 Assumptions**

The following assumptions were made in conducting the study:

i) The information provided by the respondents was reliable.

ii) The respondents included in the sample were capable to satisfy the queries designed by the researcher.

iii) The views and opinion furnished by the farmers included in the sample were the representative of the population.

## 1.6 Statements of Hypotheses

The null hypotheses were formulated to explore the relationship existed between the selected characteristics of the farmers and their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information.

**Null hypotheses:** There is no relationship between the selected characteristics of the farmers and their perceived effectiveness of agricultural TV programmes in disseminating agricultural information. The selected characteristics were age, level of education, farm size, farming experience, annual family income, agricultural knowledge, attitude towards agriculture related TV programmes, innovativeness, personal localite behavior and time expend for TV watching.

## 1.7 Definition of Terms

### Agricultural information

Agricultural information refer to the information related to various aspects of agriculture such as better method of soil management, improved varieties of crops, use of fertilizers, control of pests and diseases of crops, irrigation, production of vegetables and fruits, raising of animals and poultry birds, management of fishery etc. Regarding this study these types of information were received by the farmers from agriculture related TV programmes.

**Television**

Television (TV) is a popular and powerful audio visual mass medium. It telecasts programmes from one station to all who watch the TV. It makes things exciting, alive and believable. It is an important means of extension communication media. It can motivate, accumulate, sell, induce, create and change basic attitude of the people. It is a most important source of information, entertainment and company. In this study TV channels and agril TV programmes represent Bangladesh Television (Mati-O-Manush, Krshi Diba-Nishi), Bangla Vision (Shayamol Bangla) and Channel I (Hridoya Mati-O-Manush, Hridoya Mati O Manusher Dak).

**Farmer**

Farmer, in this study referred to the heads of the households in the study area who provided data on the effectiveness of agriculture related TV programmes. Only the male farmers were taken under consideration in this study.

**Age**

Age of the respondents refers to the period of time from his birth to the time of interview.

**Level of education**

Level of education refers to the total production of desirable changes in individual behavior through the experience of reading, writing, observation and other related activities. It has been assumed that schooling in educational institutions helps production of such desirable changes.

**Farm size**

Farm size refers to the area on which farmers used to do his farming either possessed by him or taken up by borga from other or given out as borga by him to others including his households, ponds and gardens.

**Farming experience**

It means the experience which someone gains in farming. It means the experience of a farmer in years which he gained from direct farm activities.

**Annual family income**

It refers to the total earnings of a respondent and the members of his family both from agriculture and other sources during a year. It was expressed in Taka.

**Agricultural knowledge**

It refers to the knowledge gained by the farmers on different aspects of agriculture from different sources and also through their experiences of farming.

**Attitude towards agriculture related TV programmes**

Attitude means one's feelings, believes and actions towards an object. The attitude towards agriculture related TV programmes means farmers feelings, believes and actions towards an improved farm practices watched at TV programmes in respect of its adoption in real situation.

**Innovativeness**

The term innovativeness refers to the degree to which an individual is relatively earlier in

adopting new ideas than the other members of a social system (Rogers, 1983). Innovativeness of a respondent was measured on the basis of adoption of seven improved agricultural practices by the respondents.

**Personal localite behavior**

It refers to the extent of contact made by an individual with various media for receiving agricultural information. The communication exposure of farmer thus, refers to his extent of contact with various communication media for obtaining farming information.

**Time spent for watching TV**

It means the hour(s) spent by an individual to watch the TV programmes in a day 24 hours.

# Cha ter 2

# CHAPTER II

# REVIEW OF LITERATURE

The purpose of this study was to review the past studies about perception of the farmers regarding the effectiveness of agricultural information disseminated to them through agriculture related TV programmes. Literatures related to relationships between the selected characteristics of the TV viewing farmers and their perceived effectiveness of agriculture related TV programmes were also searched. No systematic study had so far been conducted on this aspect in Bangladesh. However, available literature conducted in home and abroad was reviewed in this chapter to search out related works and described in the following three sections:

Section I: Concept of usefulness of agriculture related TV programmes or related matters

Section II: Literatures related to relationship between selected characteristics of the respondents and their perceived effectiveness of agriculture related TV programmes or related matters

Section III: Conceptual framework of the study

## 2.1. Concept of usefulness of agriculture related TV programmes or related matters

Islam (1998) reported that the innovativeness of the farmers and their opinion on the 'Mati-o-Manush' TV programme in disseminating agricultural information was favorable and very

effective. It was very helpful to the farmers for adoption of innovations received from television programme.

Halim and Miah (1996) conducted a study and found that the women of modem villages with higher socio-economic status used more cosmopolite media of information rather than localite 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 categories of farm women, while TV was used by less number of women (26.9%).

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

# Media campaign including printed media, radio and television

# Upazila and district fair

# Traditional and folk media

# Group meeting

# Farmers training, motivational tour, farm walk, method demonstrations, field days, result demonstrations, individual farm visit etc. Printed media commonly used are bulletin, poster, leaflet circular letter, newspapers 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 are 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 districts and Upazilas with their extension publication

Teoh (1995) found that the mass approach in agricultural extension uses a single or combination of different communication media to a large client group, and are usually organized at the national level and decentralized for implementation at regional, district and upazila levels. They are aimed to create awareness and interest on issues that concern the majority of the population.

Galindo (1994) reported that television and radio were the most widely used communication media in Mexico, and talks, demonstrations and training courses were the preferred media for receiving information.

Kabir and Bhattachargee (1994) conducted a study on the impact of radio and television on rural people and found that the responses regarding the usefulness of TV programmes were similar to responses regarding the usefulness of radio broadcasts. All of the telecasts were of

average benefit to most of the male and female audience. No one of the respondents stated that many of the selected progammes had adequate use to him or her. That the programmes were of no use was said by none of the female TV audience. Among the need based telecasts “Apnar Shasthya” seems to be the most effective programme for male viewers. About 53 percent of the male respondents watch this programme. The next important one is “Mati-O-Manush”. This had a 35.25 percent audience.

Diaz-Knauf *et al.* (1993) stated in a study on consumer attitude towards food safety of product in Costa Rica that information sources on which consumers rely were television (92%), radio (73%) and newspapers (63%).

Laharia and Joshi (1992) found in a study on farm telecast viewing behavior of farmers in India that about two thirds of the respondents reported the Krishi Darshan Programme (KDP) of Delhi Doordarshan Kendra was very useful. The study implied that the perception of usefulness increased with the increase in one's periodicity of viewing the programme.

Stanturi (1992) found in a study that radio was the highest rated sources of agricultural information, followed by television.

De-la-Vega (1990) conducted a study in Philippines 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 every day and consider it as their main source of

news. The communication channels they preferred credible were radio, interpersonal sources and TV.

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

Joshi and Laharia (1990) reported that as many as about 70 percent of the items of Krishi Darshan Programme of Delhi Door Darshan Kendra were considered ‘Timely’. But it is sad that about one third of the times were either too early or too late. Because of untimely telecast these telecasts might not have much practical utility. As far as, relevancy of the message of the farmers of Haryana state is concerned, it was found that almost all the items were highly relevant. Only one item under field crop was reported to be of much utility.

Sauquet (1990) reported about an UNDP/ILO/FAO assisted Project in Brazil initiated a study (in 1987) on the experience of Brazilian extension service and reported that television plays an important role, where in every Sunday morning, an agricultural programme is watched by millions of farmers.

Cherian and Chandra (1989) reported that rural women took interests in watching the television programmes produced. The extent of watching the television programme was more frequent in case of men than women. The television helped women and men to gain significant amount of knowledge about green leafy vegetables, polio, vaccination and

laparoscopy. The gain in knowledge was more among females than males.

Khan (1989) conducted a study among three resource status group based on income, farm size and land holding in North-west Frontier and reported that about 40% of the farmers obtained agricultural information through radio and television broadcast. Less than 40% of the farmers read printed agricultural materials or attended extension sponsored group activities.

Ko and Kim (1988) found in a study on watching behaviors of Rural Television Programme (RTV) by extension workers that the RTV ratings of the respondents (143 extension workers) were not significantly related to their educational background. However, the older the watchers the more they tended to watch the RTV programmes. The old respondents thought that the contents of the RTV were pertinent to farming conditions of the community. The respondents who were more satisfied in their job thought that contents were pertinent to farming condition of the community, and they utilized the programme contents and they thought the RTV was helpful for the extension education. The RTV system perceived by the extension worker could be characterized by its stimulating equally, utility, credibility and publicity as the result of factor analysis. The extension workers responded that their role for the BTV were to watch and utilize the contents and to publicize broadcasting time and the contents in advance for the farmers. The factors to be improved as the extension workers responded were programme development which should be pertinent to community (24.7%),

crop to crop farming technology (21.8%), institutional channel (20.4%) and change of broadcasting item (16.1 %).

## 2.2 Literatures related to relationship between selected characteristics of the respondents and their perceived effectiveness of agriculture related TV programmes or related matters

### 2.2.1 Age and effectiveness

Islam (1998) reported that age of the farmers had no significant relationship with the effectiveness of agricultural TV programmes in dissemination of agricultural information.

Hossain (1996) observed that age of the farmers had no significant relationship with their usefulness of agricultural information.

Nahar (1996) revealed that the agricultural radio programme did not vary significantly among the farm women of various age levels.

Sarker (1996) found that age of the farmers had negative relationship with effectiveness of agricultural information through agricultural radio programmes.

Huque (1982) found no relationship between farmers' age and their perception of effectiveness of television as a medium of agricultural information.

### 2.2.2 Level of education and effectiveness

Islam (1998) found a significant relationship between educational level of the farmers and effectiveness of agricultural TV programmes in disseminating agricultural information.

Hossain (1996) reported that the education of the farmers had no significant relationship with their usefulness of agricultural information.

Sarker (1996) studied to measure the effectiveness of agricultural information disseminated to the farmers through agricultural radio programmes. He obtained highly significant positive relationship of the educational level of the farmers with effectiveness of agricultural information.

Nahar (1996) reported that education of the farm women had a significant positive influence on agricultural radio programmes.

Huque (1982) found no relationship between farmers' education and perception of effectiveness of Television as a medium of agricultural information.

### 2.2.3 Farm size and effectiveness

Islam (1998) observed no relationship of farm size of the farmers with the effectiveness of disseminating agricultural information through Television.

Sarker (1996) reported that farm size of the farmers had insignificant positive relationship

with the effectiveness of agricultural information through agricultural radio programmes.

Nahar (1996) found no significant relationship of farm size of the women with influence on agricultural radio programmes.

Hossain (1996) reported that the farm size of the farmers had no significant relationship with the usefulness of agricultural information from television.

Huque (1982) found no relationship between farm size of the farmers and the effectiveness of TV as a medium of disseminating agricultural information.

### 2.2.4 Farming experience and effectiveness

Islam (1998) found no significant relationship between farming experience and 'Mati-O-Manush' TV programme in disseminating agricultural information to the farmers.

Sarker (1996) reported that farming experience of the farmers had insignificant negative relationship with the effectiveness of agricultural information through agricultural radio programmes.

### 2.2.5 Annual family income and effectiveness

Islam (1998) fond a significant relationship between annual family income of the farmers and their opinion on the effectiveness of 'Mati-O-Manush' TV programme for disseminating agricultural information.

Nahar (1996) reported that the annual family income of the farm women were not significantly related with usefulness of agricultural radio programmes.

Hossain (1996) found in his study that the annual family income of the farmers had significant positive relationship with their usefulness of agricultural information from television.

### 2.2.6 Agricultural knowledge and effectiveness

Islam (1998) obtained no significant relationship between agricultural knowledge of the farmers and their opinion on effectiveness of 'Mati-O- Manush' TV programme for dissemination of agricultural information to the farmers.

Sarker (1996) found that agricultural knowledge of the farmers had significant positive relationship with the effectiveness of agricultural information through agricultural radio programmes.

### 2.2.7 Attitude towards agriculture related television programmes and effectiveness

Islam (1998) observed significant positive relationship of attitude towards agricultural technologies of the farmers with the effectiveness of disseminating agricultural information through television.

Sarker (1996) studied to measure the effectiveness of agricultural information disseminated to the farmers through agricultural radio programmes. He obtained non significant positive relationship between the farmers' attitude towards agricultural technologies and the effectiveness of agricultural information disseminated to the farmers.

Hossain (1996) reported that the attitude towards agricultural technologies of the farmers had no significant relationship with their usefulness of agricultural information from television.

Huque (1982) found no relationship between farmers' attitude towards agricultural technologies and their perception of effectiveness of television as a medium of agricultural information.

### 2.2.8 Innovativeness and effectiveness

Islam (1998) found a significant positive relationship between innovativeness of the farmers and their opinion on the effectiveness of Mati- O-Manush, an agricultural TV programme in disseminating agricultural information to the farmers.

Hossain (1996) observed in his study that the innovativeness of the farmers had significant positive relationship with their usefulness of agricultural information from television.

### 2.2.9 Personal localite behavior

Islam (1998) observed a significant positive relationship between individual contact of the farmers and their opinion on the effectiveness of Mati-O- Manush, an agricultural TV programme in disseminating agricultural information to the farmers.

Sarker (1996) reported that individual contact of the farmers with the media had significant positive relationship with the effectiveness of agricultural information through agricultural radio programmes.

Huque (1982) found no significant relationship between individual contact of the farmers with and the effectiveness of television for disseminating agricultural information.

### 2.2.10 Time expend for TV watching and effectiveness

Hossain (1996) reported that frequency of watching television of the farmers was not found to relate with their usefulness of agricultural information from television.

## 2.3 Conceptual Framework of the Study

The conceptual framework of Rogers and Havens (1960) was kept in mind while framing the structural arrangements of the variables. The study was concerned with effectiveness of agriculture related television programmes for dissemination of agricultural information to the farmers. Thus effectiveness of agriculture related television programmes as perceived by

farmers was considered as the dependent variable and selected characteristics of the farmers were considered as the independent variables.

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

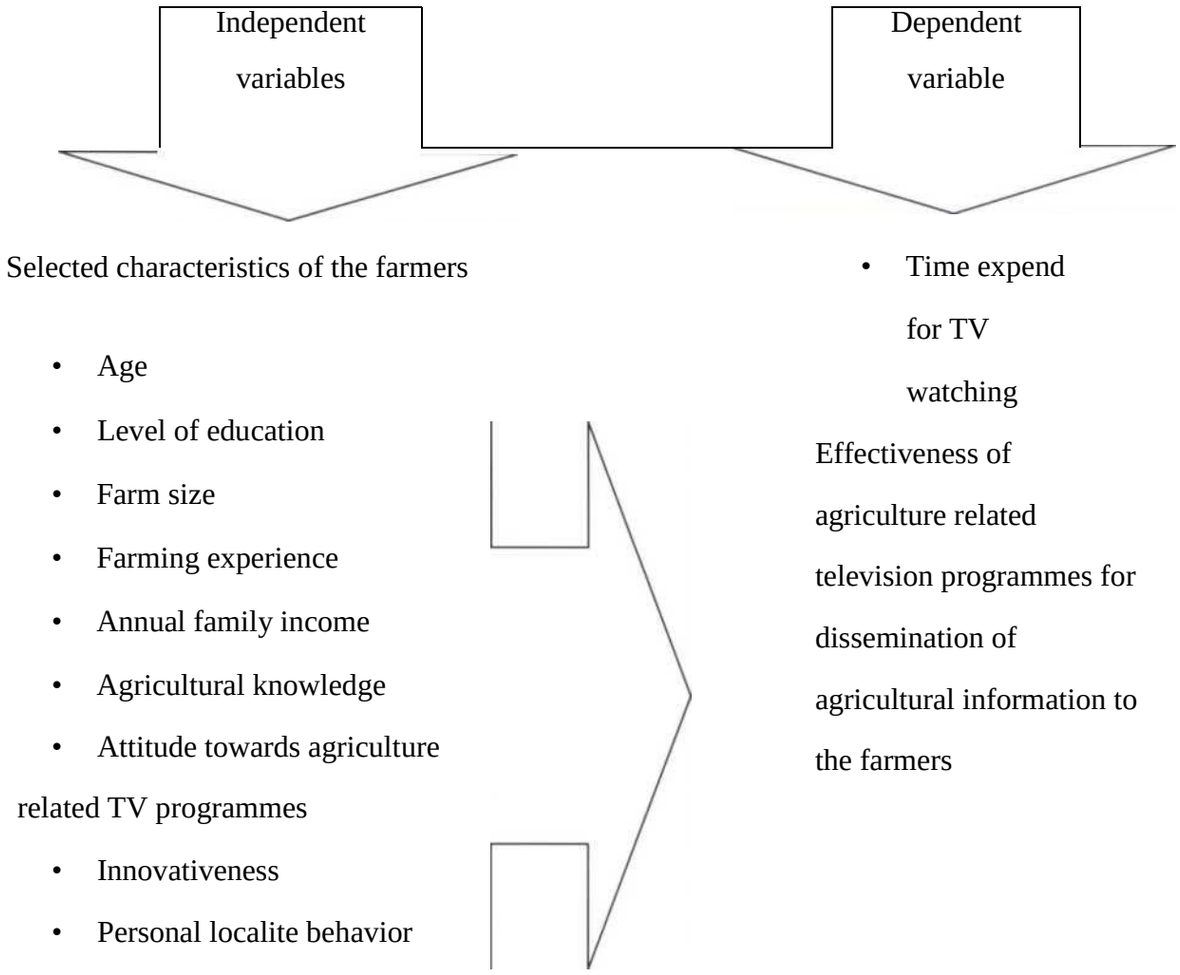


**Fig. 2.1 Conceptual framework of the study**

Cha ter 3

# I Methodology

# CHAPTER III

# METHODOLOGY

Methods and procedures used in conducting research need very careful consideration. Methodology should be such that enables the researcher to collect valid information and to analyze the same properly to arrive at correct decisions. The methods and procedures followed in conducting this research have been described in this Chapter.

## 3.1 Study Area

Gurudaspur upazila of Natore district was purposively selected as the study area. Three villages of Gurudaspur upazila, namely Uttar Nari Bari, Narayonpur and Hamlaykul were selected purposively for the study as these villages were near to upazilla proper and there were dish facilities in these villages. The farmers of these villages have facilities to enjoy different TV channels. Vast majority of the farmers of these villages are mainly dependent on agriculture, a very few are service holders and businessmen. The study area is depicted in the maps (Fig 1 & 2).

NATORE
DISTRICT

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**Fig: 1 A Map of Natore district showing the location of Gurudaspur Upazila**


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**Fig: 2 A Map of Gurudaspur upazila showing the study area**

### 3.2 Population and Sampling Procedure

All the television viewing farmers of the selected villages constituted the population of the study. For this purpose, an up-to-date list of the farmers was prepared with the help of Sub Assistant Agriculture Officers of the study area. The total numbers of the television viewing farmers in the selected three villages were 200. Fifty per cent of the farmers were selected as the sample following proportionately random sampling method. Thus, 100 farmers were selected as sample of the study and in addition a reserve list of 10 farmers was selected for collecting data in case of unavailability of the farmers of the sample. The distribution of the population sample farmers and those in the reserve list from the selected villages is shown in the Table

3.1.

**Table 3.1 Study area, population, sample size and reserve list size**

| SI. No. | Name of village | Total number of TV viewers | Sample size | Reserve list |
|---|---|---|---|---|
| 1 | Uttar Nari Bari | 80 | 40 | 4 |
| 2 | Narayonpur | 60 | 30 | 3 |
| 3 | Hamlaykul | 60 | 30 | 3 |
| Total | | 200 | 100 | 10 |

### 3.3 The Research Instrument for Data Collection

In order to collect relevant information, a structured interview schedule was prepared considering the objectives of the study.

The schedule was prepared in Bengali language for clear understanding of the respondents. The schedule obtained both closed and open form of questions. Questions were included in the schedule to collect data on the selected dependent and independent variables. Appropriate scales were developed to operationalize some selected characteristics of the farmers and the dependent variable.

The interview schedule was presented with ten farmers in actual field situation before finalizing the same for collection of data. Necessary corrections, modifications, alternations and rearrangements were made in the schedule based on the pretest experience. The schedule was then cyclostyled in its final form for collection of data. An English version of the interview schedule has been presented in Appendix A.

### 3.4 Selection of Variables

A variable is any characteristics which can assume varying or different values in successive individual cases (Ezekiel and Fox, 1959). An organized piece of research usually contains at least two important viz. an independent and a dependent variable. An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationships to an observed phenomenon. A dependent variable is that factor which appears, disappears or varies as the researcher introduces, removes or varies the dependent variables (Townsend, 1953). In the scientific research, the selection and measurement of variables constitute a significant task.

In this connection, the researcher reviewed literature to widen his understanding about the nature and scope of the variables relevant in this piece of research. She also discussed with departmental teachers and concerned researchers of the related fields. Ultimately selected 10 characteristics of the respondents were selected as the independent variables and effectiveness of agriculture related television programmes as perceived by the respondents was selected as dependent variable.

### 3.5 Measurements of the Independent Variables

The procedure followed for measuring the selected characteristics of the farmers (independent variables) are discussed below:

#### 3.5.1 Age

Age of a farmer referred to the period of time from his birth to the time of interview. It was measured in terms of actual years on the basis of his response to item no. 1 of the interview schedule.

#### 3.5.2 Level of education

Education was measured in terms of years of schooling completed by an individual in educational institutions. If a respondent did not know how to read and write, his literacy score was taken as zero (0). A score of 0.5 was given to that respondent who could sign his name only.

Besides this, the respondent got a score of one ($_1$) for his every year of schooling.

### 3.5.3 Farm size

Farm size was measured in terms of actual operating land a respondent had in his authority (item No. 3) and was computed by using the following formula:

Farm size = $A_t + A_2 + 1/2 (A_3 + A_4) + A_5$

Where,

Ai= Homestead land $A_2$ = Own land under own cultivation $A_3$ = Own land given to others on borga $A_4$ = Land taken from others on borga $A_5$ = Land taken from others on lease

### 3.5.4 Farming experience

Farming experience means the experience which was gained by an individual in participating farming activities directly. The experience of a farmer means the experience he gained directly by performing various farming activities and it was expressed in years (item no. 4). One score was given for one year of farming experience.

### 3.5.5 Annual family income

The income of a farmer is an important indicator of how much he can invest in his farming business. Usually a person who has more income can invest more in farming. Annual family income of a respondent was measured in thousand taka on the basis of total yearly earnings

from farm and other sources by the respondent as well as his family members. Income from all sources were added together to obtain total annual family income of a respondent. A score of 1 was given for each thousand taka. Data obtained in response to item No. 5 of the interview schedule were used to determine the annual family income of the respondents.

### 3.5.6 Agricultural knowledge

It referred to the knowledge gained by the farmers of different sources and also through their experiences of farming. The farmers were asked 12 questions on different aspects of agriculture. A score of two (2) was assigned for each question. Thus the total score for all the 12 questions was 24. A respondent answering a question correctly obtained the full score of 2, while for wrong answer or no answer he could obtain zero (0) score. Partial score was assigned for partially correct answer. Thus the agricultural knowledge score of the respondents could range from 0-24, where 0 indicates very low knowledge and 24 indicates very high agricultural knowledge. The total score obtained by a respondent was taken as the agricultural knowledge score of the respondent (item no. 6).

### 3.5.7 Attitude towards agriculture related TV programmes

For measuring the attitude towards agriculture related TV programmes, a scale containing 12 statements (6 positive and 6 negative) was used. These statements included the predisposition of farmers towards improved technology in agriculture. The statements were

selected after thorough consultation with the relevant experts. A 5 point modified Likert-type scale was used to measure the extent of agreement. By checking any one of the responses- strongly agree, agree, neutral, disagree and strongly disagree, the respondent indicated his extent of agreement. Weights were assigned to the responses were 4, 3, 2, 1 and 0 respectively for positive statement and the scoring system was reversed for the negative statements. The attitude score of a respondent was determined by adding up the weights for all the responses against all the 12 statements. Attitude score of a respondent could thus range form 0 to 48 while 0 indicating very unfavorable and 48 indicating highly favorable attitude towards agriculture related TV programmes.

### 3.5.8 Innovativeness

The term innovativeness referred to the degree to which an individual is relatively earlier in adopting new ideas than the other members of a social system (Rogers, 1983). Innovativeness of a respondent was measured on the basis of use of 7 improved agricultural practices. Score was assigned on the basis of length of time a respondent was using the specific practice. The scoring was done in the following manner:

| Nature of innovativeness | Assigned score |
|---|---|
| Never used | 0 |
| Used after 3 years of hearing | 1 |
| Used within 3 years after hearing | 2 |
| Used within 2 years after hearing | 3 |
| Used within 1 year after hearing | 4 |
| | |

Finally, the innovativeness score of a respondent was obtained by adding the score for all 7 items. Thus, innovativeness score of a respondent could range 0 to 28, where 0 indicates no innovativeness and 28 maximum innovativeness.

### 3.5.9 Personal localite behavior

Personal localite behavior referred to the contact of the farmers with some selected persons. It was measured on the basis of his extent of contact with 9 types of local individuals for receiving and sharing of information for performing various farming operations as mentioned in question No. 9 of interview schedule (Appendix A). The scale used for determining the personal localite behavior of a respondent is given below:

| Extent of contact | Assigned score |
|---|---|
| Not at all | 0 |
| Rarely | 1 |
| Occasionally | 2 |
| Regularly | 3 |

The personal localite behavior score of the respondent could range from 0- 27, where 0 indicates no personal localite behavior and 27 indicates very high personal localite behavior.

### 3.5.10 Time spent in TV watching

It referred to the degree to which the respondents watch television programmes in their homestead, neighbor's house, club room or other similar places. It was measured by the number of hours/week spent for TV watching. The following scale was use to compute the score for time expend for TV watching.

| Extent of communication | Assigned score |
|---|---|
| Not at all | 0 |
| Average up to 2 hrs/week | 1 |
| Average > 2-4 hrs/week | 2 |
| Average > 4-6 hrs/week | 3 |
| Average >6-8 hrs/week | 4 |
| Average > 8 hrs/week | 5 |

## 3.6 Measurement of Dependent Variables

Effectiveness of agriculture related TV Programmes for dissemination of agricultural information was the dependent variable of the study. It was measured on the basis of perception of the farmers regarding the effectiveness of agriculture related TV Programmes for dissemination of agricultural information to the farmers. The respondents assessed the effectiveness of information on the basis of extent of application in their real situation.

In doing so, firstly 11 agricultural information those were disseminated through agriculture related TV Programmes during the last year were selected. Secondly, the farmers were asked to give their opinion on the extent of effectiveness of information disseminated through agriculture related TV Programmes. The extent of effectiveness of the programmes was measured by using a 4 point rating scale with four alternative responses of the respondents such as most effective, effective, less effective and not at all effective. Scores were assigned to these alternative responses as 3 for 'most effective', 2 for 'effective', 1 for 'less effective' and 0 for 'not at all effective'.

By adding the assigned scores of 11 selected types of information of a respondent together, the effectiveness score was obtained. Thus, the score of effectiveness of agriculture related TV Programmes could range from 0-33, where 0 indicates not at all effective and 33 indicates very high effective agriculture related TV Programmes for dissemination of information.

**Measurement of Effectiveness Index of different information**

To compare the effectiveness of different selected information, Effectiveness Index (El) was computed. The El for each information was calculated by using the following formula:

$El = 3xf_m + 2xf_e + 1\ xf] + 0xf_n$

Where, El = Effectiveness Index

$f_m$ = No. of respondents perceived most effective $f_e$ = No. of

respondents perceived effective fi = No. of respondents

perceived less effective $f_n$ = No. of respondents perceived not at

all effective

Thus the value of FI of each information could range form 0 to 300, where 0 indicates not at all effective and 300 indicates very effectiveness.

### 3.7 Data Collection

Data for this study were collected through personal interview by the researcher herself during 1 July to 15 August 2007. All possible efforts were made to explain the purpose of the study to the respondents in order to get valid and pertinent information from them.

Interviews were conducted with the respondents in their homes during their leisure period. Before going to the respondent for interview they were informed to ensure their availability. While starting interview with any respondent the researcher took all possible care to establish rapport with him so that he did not feel hesitate to furnish the data. The questions were explained and clarified whenever any respondent failed to understand. Excellent co-operation was obtained from all the respondent during the data collection.

### 3.8 Compilation of Data

After completion of field survey all the interview schedules were compiled, tabulated and analyzed according to the objectives of the study. In the procedure, all the responses in the interview schedule were given numerical coded values. Local units were converted into standard units. The responses to the questions in the interview scheduled were then transferred to a master sheet to conduct tabulation. Tabulation and cross tabulations were done on the basis of categories developed by the investigator herself.

### 3.9 Methods of Analysis

Data collected from the respondents were compiled, tabulated, coded and analyzed in accordance with the objectives of the study. Various statistical measures such as number and percentage distribution, range, mean and standard deviation were used in presenting data for clarifying understanding. For determining the relationship of the selected characteristics of the farmers and their perception on the effectiveness of agriculture related TV Programmes, Pearson moment correlation test was used. Five percent (0.05) level of probability was used as the basis for rejecting any null hypothesis.

# Cha ter 4

# CHAPTER IV
# RESULTS AND DISCUSSION

In this Chapter, findings have been conveniently presented in four sections according to the objectives of the study. The first section deals with the selected individual characteristics of the farmers. The second section deals with the effectiveness of agriculture related TV programmes as perceived by the respondents. The third section deals with the relationship between individual characteristics of the farmers and their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information. The last section deals with the comparative effectiveness of selected types of information disseminated through agriculture related TV programmes.

## 4.1 Selected Individual Characteristics of the Farmers

Farmers' individual characteristics play a vital role in adopting agricultural practices in the overall technology transfer process. There are many interrelated and constituent attributes that characterize an individual and form an integral part in the development of farmers' behavior and personality. It was, therefore, assumed that effectiveness of agriculture related TV programmes as perceived by the farmers would be influenced by their various characteristics. Ten characteristics of the respondents were selected to find out their relationships with their perceived

effectiveness of agriculture related TV programmes. Major findings of these selected characteristics have been described below:

### 4.1.1 Age

The age of the respondents ranged from 20 to 65 years with the mean and standard deviation of 39.97 and 11.19 respectively. The respondents were classified into three categories on the basis of their age. The categories and distribution of respondents are shown in Table 4.1.1.

**Table 4.1 Distribution of the respondents according to their age**

| **Categories (Years)** | **Farmers** | | **Mean** | S. **D.** |
|---|---|---|---|---|
| | **Number** | **Percent** | | |
| Young (up to 30 years) | 27 | 27 | | |
| Middle (31 to 45 years) | 46 | 46 | 39.97 | 11.19 |
| Old (46 and above) | 27 | 27 | | |
| Total | 100 | 100 | | |

Data presented in the Table 4.1 indicate that highest proportion (46%) of the respondents felt in the middle aged category while 27% respondents felt in young and another 27% in old age category.

### 4.1.2 Level of education

The level of education scores of the respondents ranged form 0 to 14 with the mean and standard deviation of 3.96 and 4.14 respectively. On the basis of level of education, the respondents were classified into five categories. The categories and distribution of the respondents are shown in Table 4.2.

**Table 4.2 Distribution of the respondents by their level of education**

| Categories (Score) | Farmers | | Mean | S. D. |
|---|---|---|---|---|
| | Number | Percent | | |
| Illiterate (0) | 24 | 24 | 3.96 | 4.14 |
| Can sign only (0.5) | 23 | 23 | | |
| Primary (1-5) | 21 | 21 | | |
| Secondary (6-10) | 25 | 25 | | |
| Above secondary (11-14) | 7 | 7 | | |
| Total | 100 | 100 | | |

Data furnished in the Table 4.2 indicate that most of the farmers (25%) had secondary level of education, while 24% were illiterate, 23% had the ability of sign only, 21% had primary and 7% had above secondary level of education. Farmers need to have some education in order to use agricultural information properly. It is evident that 76% of the TV viewer farmers of the study area had education of various degrees from primary to above secondary level. It can be said that in the study area the education of the respondents was relatively higher compared to typical rural area in Bangladesh.

### 4.1.3 Farm size

The farm size of the respondents varied from 0.04 to 4.71 hectares. The respondents were classified into four categories on the basis of their farm size. The categories and distribution of farmers are shown in Table 4.3.

**Table 4.3 Distribution of the respondents on the basis of their farm size**

| **Categories (ha)** | **Farmers** | | **Mean** | S. **D.** |
|---|---|---|---|---|
| | **Number** | **Percent** | | |
| Marginal (below 0.2 ha) | 14 | 14 | | |
| Small (0.21-1.0 ha) | 55 | 55 | 0.92 | 0.96 |
| Medium (1.01-3.0 ha) | 28 | 28 | | |
| Large (3.01 and above) | 3 | 3 | | |
| Total | 100 | 100 | | |

Data presented in the Table 4.1.3 show that 55% of the farmers had small farm compared to 14% had marginal, 28% had medium and only 3% had large farm size.

### 4.1.4 Farming experience

The farming experience score of the respondents ranged from 5 to 52 with an average of 21.43 and a standard deviation of 12.18. The respondents were classified into 3 categories (Table 4.4) on the basis of their farming experiences.

**Table 4.4 Distribution of the respondents on the basis of their farming experience**

| **Categories (Year)** | **Farmers** | | **Mean** | S. D. |
|---|---|---|---|---|
| | **Number** | **Percent** | | |
| Low experience (5-15) | 14 | 14 | | |
| Medium experience (16-30) | 66 | 66 | 21.43 | 12.18 |
| High experience (31 years and above) | 20 | 20 | | |
| Total | 100 | 100 | | |

Above data in Table 4.4 show that the highest proportion (66%) of the respondents was medium experienced farmers, 14% were low experienced and 20% of the respondents had high experience in farming activities. The farming experience is a factor which enhances demand of knowledge and improves skills on various aspects of crop production. The demand of information of the farmers motivates them to use mass media such as radio, TV etc. as a source of information.

### 4.1.5 Annual family income

The annual income of the respondents varied from 108.8 to 405 thousand taka with the mean and standard deviation of 61.90 and 54.51 respectively. The farmers were categorized into three classes, namely low, medium and high on the basis of their annual income. The categories and distribution of the farmers are shown in Table 4.5.

**Table 4.5 Distribution of the respondents according to their annual family income**

| **Categories (Taka)** | **Farmers** | | **Mean** | S. **D.** |
|---|---|---|---|---|
| | **Number** | **Percent** | 61.90 | 54.51 |
| Low income (10-60) | 63 | 63 | | |
| Medium income (61-120) | 23 | 23 | | |
| High income (121-405) | 14 | 14 | | |
| Total | 100 | 100 | | |

Data contained in Table 4.5 revealed that 63% of the farmers had low family income while 23% had medium and only 14% had high annual family income.

### 4.1.6 Agricultural knowledge

The agricultural knowledge score of the farmers ranged from 9 to 21 against the possible range of 0-24. The average was 15.99 and the standard deviation was 2.21. According to agricultural knowledge scores, the respondents were classified into two categories (Table 4.6).

**Table 4.6 Distribution of the respondents on the basis of their agricultural knowledge**

| **Categories (Score)** | **Farmers** | | **Mean** | **S. D.** |
|---|---|---|---|---|
| | **Number** | **Percent** | 15.99 | 2.21 |
| Medium Knowledge (9.00-16.00) | 51 | 51 | | |
| High Knowledge (16.00-21.00) | 49 | 49 | | |
| Total | 100 | 100 | | |

Table 4.6 focus 51% of the respondents had medium knowledge and the rest 49% of the respondents had high agricultural knowledge. Agricultural knowledge plays an important role in motivating the farmers in the adoption of improved farming practices. The information of the above table indicates that the farmers had moderate to high agricultural knowledge which may be helpful for better understanding of the information of agricultural TV programmes.

### 4.1.7 Attitude towards agriculture related TV programmes

It was found that attitude towards agriculture related TV programmes score of the farmers ranged form 28 to 45 against the possible range of 0 to 48 with the mean and standard deviation of 36.43 and 4.02 respectively. The farmers were classified into three categories based on their obtained scores considering mean and standard deviation.

The categories and the distribution of the farmers are shown in Table 4.7.

**Table 4.7 Distribution of the respondents according to their attitude towards agriculture related TV programmes**

| **Categories (Score)** | **Farmers** | | **Mean** | **S.** D. |
|---|---|---|---|---|
| | **Number** | **Percent** | | |
| Low favorable attitude (28-32) | 17 | 17 | | |
| Medium favorable attitude (33-40) | 62 | 62 | 36.43 | 4.02 |
| High favorable attitude (41-45) | 21 | 21 | | |
| Total | 100 | 100 | | |

The data presented in the Table 4.7 show that majority of the respondents (62%) had medium favorable attitude towards agriculture related TV programmes and 17% and 21% had low and highly favorable attitude respectively. It implies that most of the television viewer farmers were aware of modem technologies and practices.

The attitude towards agricultural technology is the belief, feeling and action of the farmers towards the technology. It depends largely on the knowledge and awareness of the farmers. The information of the table reveal that a good number (83%) of the farmers possesses moderate to highly favorable attitude towards agricultural TV programmes may influence the farmers in improving their understanding of the information they receive through various agricultural TV programmes.

### 4.1.8 Innovativeness

The innovativeness score of the respondents ranged from 3-26 against the possible range of 0 to 28 with the mean and standard deviation of 16.31 and 5.19 respectively.

On the basis of the observed data, the respondents were classified into three categories. The categories and distribution of the respondents are shown in Table 4.8.

**Table 4.8 Distribution of the respondents on the basis of their innovativeness scores**

| **Categories (Score)** | **Farmers** | | **Mean** | **S. D.** |
|---|---|---|---|---|
| | **Number** | **Percent** | 16.31 | 5.19 |
| Low (0-9) | 9 | 9 | | |
| Medium (10-18) | 50 | 50 | | |
| High (> 18) | 41 | 41 | | |
| Total | 100 | 100 | | |

Analysis of the data presented in Table 4.8 indicate that 50% of the farmers had medium innovativeness compare to 9% having low innovativeness and 41% had high innovativeness. The highest proportion (91%) of the farmers in this study had either medium or high innovativeness. This indicates that the overall innovativeness among the farmers in the study area is satisfactory.

### 4.1.9 Personal localite behavior

Personal localite behavior score of the respondents ranged form 7 to 22 against the possible range of 0-27 with an average of 13.69 and the standard deviation 3.32. According to personal localite behavior, the respondents were classified into three categories (Table 4.9).

**Table 4.9 Distribution of the respondents on the basis of their personal localite behavior**

| Categories (Score) | Farmers | | Mean | S. D. |
|---|---|---|---|---|
| | Number | Percent | 13.69 | 3.32 |
| Low exposure (1 -9) | 9 | 9 | | |
| Medium exposure (10-18) | 84 | 84 | | |
| High exposure (19-27) | 7 | 7 | | |
| Total | 100 | 100 | | |

Data contained in Table 4.9 indicate that 9% of the respondents fell in the low personal localite behavior category. Again, 84% of them fell in the medium personal localite behavior category and 7% of the respondents fell in the high personal localite behavior category. It is a common understanding that a person having better personal localite behavior may have better exposure/orientation to TV in getting necessary information. The level of existing personal localite behavior of the farmers implies that the respondents running with sufficient contact with information sources.

### 4.1.10 Time expend for TV watching

The score of the respondents regarding duration of watching TV varies from 1 hour to 5 hours per week with the mean and standard deviation of 2.31 and 1.33 respectively. The hour(s) spent by a respondent to watch the TV programmes in a week made his duration of watching TV scores. The farmers were classified into three categories based on their individual scores. The categories and distribution of farmers are shown in Table 4.10.

**Table 4.10 Distribution of the respondents according to their time expend for TV watching**

| Categories (hours/week) | Farmers | | Mean | S. D. |
|---|---|---|---|---|
| | Number | Percent | 2.31 | 1.33 |
| Short time viewer (up to 1 hour) | 36 | 36 | | |
| Medium time viewer (1.1 to 4 hours) | 56 | 56 | | |
| Long time viewer (4.1 to 5 hours) | 8 | 8 | | |
| Total | 100 | 100 | | |

Data presented in Table 4.10 focus that majority (56%) of the farmers watched TV programmes for moderate duration while 8% for long time and rest 36% for short time in a week. This means that most of the TV viewers (64%) watched the TV programmes for moderate to long time in a week.

## 4.2 Effectiveness of Agriculture Related TV programmes

Television plays an important role in disseminating agricultural information to its intended audiences, usually the viewer farmers. The effectiveness of agriculture related TV programmes in disseminating agricultural information was measured on the basis of perception of the farmers. The perception was made by the farmers based on the application of information in their field situation. The effectiveness of information score of the farmers ranged from 15 to 32 against the possible range of 0 to 33. The mean and standard deviation were 24.32 and 2.70 respectively. Considering the effectiveness score of the respondents, they were classified into three categories and are presented in Table 4.11.

**Table 4.11 Distribution of farmers on the basis of the effectiveness of agriculture related TV programmes as perceived by them**

| **Categories** | **Farmers** | | **Mean** | S. D. |
|---|---|---|---|---|
| | **Number** | **Percent** | | |
| Low (15-21) | 15 | 15 | 24.32 | 2.70 |
| Medium (22-27) | 76 | 76 | | |
| High (28-32) | 9 | 9 | | |
| Total | 100 | 100 | | |

Table 4.11 indicates that the agricultural information disseminated to the farmers through the agriculture related TV programmes was perceived medium effective by a large (76%) number of farmers while 9% perceived high effective and 15% of the farmers perceived low effective. This means that the information presented to the farmers were mostly low to medium effective in terms of their application in the real situation.

## 4.3 Relationship between the selected characteristics of the farmers and their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information

The purpose of this section is to examine the relationships of the 10 selected characteristics of the farmers with their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information to the TV viewing farmers. The selected characteristics included: age, level of education, farm size, farming experience, annual family income, agricultural knowledge, attitude towards agricultural TV programmes, innovativeness, personal localite behavior and time expend for TV watching.

These characteristics constituted the independent variables while the perceived effectiveness of agriculture related TV programmes in dissemination of agricultural information to the farmers was the only dependent variable in this study.

In order to explore the relationships between the selected characteristics of the farmers and their perceived effectiveness of agriculture related TV programmes in dissemination of agricultural information, Pearson's product-moment correlation analysis was used.

The relationship of each independent variable with the dependent variable has been described in the separate sub-section of this section. The null hypotheses formulated for this study have already been described in chapter 1. A null hypothesis was rejected when the observed ‘r’ value was equal or greater than the tabulated value of ‘r’ at 5% level of probability.

A summary of correlations between each independent variable with the dependent variable has been presented in Table 4.12. Correlation matrix among the variable has also been shown in appendix B.

**Table 4.12 Summary of correlation test between each independent variables and the dependent variable (N = 100)**

| Dependent variable | Independent variables | Computed value of 'r' | Tabulated value | |
|---|---|---|---|---|
| | | | at 5% level | at 1% level |
| Effectiveness of agriculture related TV programmes for dissemination of agricultural information to the farmers | Age | 0.152 | 0.196 | 0.256 |
| | Level of education | 0.200[1] | | |
| | Farm size | 0.184 | | |
| | Farming experience | 0.176 | | |
| | Annual family income | 0.2582 | | |
| | Agricultural knowledge | 0.247* | | |
| | Attitude towards agriculture related TV programmes | 0.256* | | |
| | Innovativeness | 0.311** | | |
| | Personal localite behavior | 0.206* | | |
| | Time spent for TV watching | 0.236* | | |

### 4.3.1 Relationship between the age of the farmers and their perceived effectiveness of agriculture related TV programmes

The relationship between age of the farmers and their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information was examined by testing the null hypothesis: "There is no relationship between age of the farmers and their perceived effectiveness of agriculture related TV programmes in

1 Significant at $p<0.05$; Critical value ±0.196

2Significant at $p<0.01$; Critical value± 0.256

disseminating agricultural information."

The computed value of the coefficient of correlation (r) between age of the farmers and their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information was found to be

0. 152 which was smaller than the table value (0. 196) with 98 degrees of freedom at 0.05 level of probability (Table 4.12). So, the null hypothesis was accepted and hence, the researcher concluded that age of the farmers had no significant relationship with the effectiveness of agriculture related TV programmes in disseminating agricultural information. However, the trend of relationship between age and the effectiveness of agricultural TV programmes in disseminating agricultural information was positive. Huque (1982) found no relationship between farmers' age and their perception of effectiveness of television as a medium of agricultural information. Islam (1998) also reported that age of the farmers had no significant relationship with the effectiveness of agricultural TV programmes in dissemination of agricultural information.

### 4.3.2 Relationship between level of education of the farmers and their perceived effectiveness of agriculture related TV programmes

The relationship existing between the level of education of the farmers and their

perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information was examined by testing the null hypothesis: “There is no relationship between the level of education of the farmers and their perceived effectiveness of agriculture related TV programmes in dissemination of agricultural information.” The coefficient of correlation (r) between the concerned variables was found to be 0.200 which was greater than the tabulated value (0.196) at 5% level of probability with 98 degree of freedom as shown in Table

4.12. The relationship showed a tendency in the positive direction between the concerned variables. Based on the above findings, the null hypothesis was rejected and hence, the researcher concluded that the level of education of the farmers had significant positive relationship with their perceived of the effectiveness of agriculture related TV programmes in disseminating agricultural information.

The finding of the present study has agreement to that of Islam’s findings and disagreement with Huque’s findings. Islam (1998) found a significant relationship between educational level of the farmers and effectiveness of agricultural TV programmes in disseminating agricultural information. Huque (1982) found no relationship between farmers’ education and perception of effectiveness of Television as a medium of agricultural information.

### 4.3.3 Relationship between farm size of the farmers and their perceived effectiveness of agriculture related TV programmes

The relationship between farm size of the farmers and their opinion on the effectiveness of agriculture related TV programmes for dissemination of agricultural information was

tested by the null hypothesis: “There is no relationship between farm size of the farmers and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information.” Computed value of coefficient of correlation (r) between farm size of the farmers and their perceived effectiveness of agriculture related TV programmes in disseminating of agricultural information was found to be 184 which was smaller than the table value (0.196) with 98 degrees of freedom at 0.05 level of probability (Table 4.12). So, the null hypothesis could not be rejected and therefore, it may be concluded that the farm size had no significant relationship with the effectiveness of agriculture related TV programmes for dissemination of agricultural information. However, the trend of relationship was positive. Huque (1982) and Islam (1998) also found no relationship between farm size of the farmers and the effectiveness of television as a medium of disseminating agricultural information.

### 4.3.4 Relationship between farming experience of the farmers and their perceived effectiveness of agriculture related TV programmes

The relationship between farming experience of the farmers and their perceived effectiveness of agriculture related TV programmes in dissemination of agricultural information was examined by testing the null hypothesis: “There is no relationship between farming experience of the farmers and their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information.”

Computed value of the coefficient of correlation (r) between farming experience of the farmers and their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information was found to be 0.176 which was smaller than the

tabulated value (0.196) with 98 degrees of freedom at 0.05 level of probability (Table 4.12).

So, the null hypothesis was accepted and hence, the researcher concluded that the farming experience of the farmers had no significant relationship with the effectiveness of agriculture related TV programmes in disseminating agricultural information. Islam (1998) agreed with the present findings. He found no significant relationship between 'Mati-O- Manush' TV programme in disseminating agricultural information to the farmers.

### 4.3.5 Relationship between annual family income of the farmers and their perceived effectiveness of agriculture related TV programmes

The relationship between annual family income of the farmers and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information was tested by the null hypothesis: "There is no relationship between annual family income of the farmers and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information."The coefficient of correlation (r) between the concerned variables was found to be 0.258 which was greater than the tabulated value (0.256) at 1% level of probability with 98 degree of freedom as shown in Table

4.12. The relationship showed a tendency in the positive direction between the concerned variables.

Based on the above findings, the null hypothesis was rejected and hence, the researcher concluded that the annual family income of the farmers had significant positive relationship with their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information.

The present finding was supported by Islam (1998) who fond a significant relationship between annual family income of the farmers and their opinion on the effectiveness of 'Mati-O-Manush' TV programme for disseminating agricultural information.

### 4.3.6 Relationship between agricultural knowledge of the farmers and their perceived effectiveness of agriculture related TV programmes

The relationship between agricultural knowledge of the farmers and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information was tested by null hypothesis: "There is no relationship between agricultural knowledge of the farmers and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information."

The coefficient of correlation (r) between the concerned variables was found to be 0.247 which was greater than the tabulated value (0.196) at 5% level of probability with 98 degree of freedom as shown in Table

4.12. The relationship showed a tendency in the positive direction between the concerned variables.

Based on the above findings, the null hypothesis was rejected and hence, the researcher concluded that the agricultural knowledge of the farmers had significant positive relationship with their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information.

Islam (1998) disagreed with the present findings. He obtained no significant relationship between agricultural knowledge of the farmers and their opinion on effectiveness of 'Mati-O-Manush' TV programme for dissemination of agricultural information to the farmers.

### 4.3.7 Relationship between farmers' attitude towards agriculture related TV programmes and their perceived effectiveness of agriculture related TV programmes

The relationship between farmers' attitude towards agriculture related TV programmes and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information was tested by the null hypothesis: "There is no relationship between farmers' attitude towards agriculture related TV programmes and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information."The coefficient of correlation (r) between the concerned variables was found to be 0.256 which was greater than the tabulated value (0.196) at 5% level of probability with 98 degree of freedom as shown in Table

4.12. The relationship showed a tendency in the positive direction between the concerned variables.

Based on the above findings, the null hypothesis was rejected and hence, the researcher concluded that farmers' attitude towards agriculture related TV programmes had significant positive relationship with their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information.

### 4.3.8 Relationship between innovativeness of the farmers and their perceived effectiveness of agriculture related TV programmes

The relationship between innovativeness of the farmers and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information was tested by the null hypothesis: "There is no relationship between innovativeness of the farmers and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information."

The coefficient of correlation (r) between the concerned variables was found to be 0.311 which was greater than the tabulated value (0.256) at 1% level of probability with 98 degree of freedom as shown in Table

4.12. The relationship showed a tendency in the positive direction between the concerned variables.

Based on the above findings, the null hypothesis was rejected and hence, the researcher concluded that innovativeness of the farmers had significant positive relationship with their perceived effectiveness of agriculture related TV programmes in disseminating agricultural information. The finding of the present study was well supported by Islam (1998) who found a significant relationship between innovativeness of the farmers and their opinion on the effectiveness of Mati-O-Manush, an agricultural TV programme in disseminating agricultural information to the farmers.

### 4.3.9 Relationship between personal localite behavior of the farmers and their perceived effectiveness of agriculture related TV programmes

The relationship existing between personal localite behavior of the farmers and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information was examined by testing the null hypothesis: "There is no relationship between the level of education of the farmers and their perceived effectiveness of agriculture related TV programmes in dissemination of agricultural information."

The coefficient of correlation (r) between the concerned variables was found to be 0.206 which was greater than the tabulated value (0.196) at 5% level of probability with 98 degree of freedom as shown in Table

4.12. The relationship showed a tendency in the positive direction between the concerned variables.

Based on the above findings, the null hypothesis was rejected and hence, the researcher concluded that personal locality behavior of the farmers had significant positive relationship with their perceived of the effectiveness of agriculture related TV programmes in disseminating agricultural information.

### 4.3.10 Relationship between time spent for watching TV of the farmers and their perceived effectiveness of agriculture related TV programmes

The relationship existing between time spent for watching TV of the farmers and their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information was examined by testing the null hypothesis: “There is no relationship between time expend for watching TV of the farmers and their perceived effectiveness of agriculture related TV programmes in dissemination of agricultural information.”

The coefficient of correlation (r) between the concerned variables was found to be 0.236 which was greater than the tabulated value (0.196) at 5% level of probability with 98 degree of freedom as shown in Table

4.12. The relationship showed a tendency in the positive direction between the concerned variables.

Based on the above findings, the null hypothesis was rejected and hence, the researcher concluded that time expend for watching TV of the farmers had significant positive relationship with their perceived of the effectiveness of agriculture related TV programmes in disseminating agricultural information.

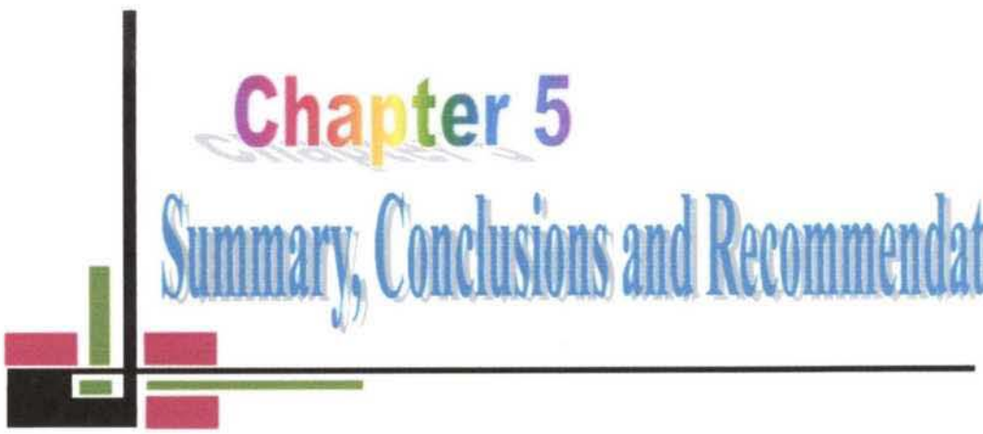
### 4.4 Farmers opinion on the effectiveness of information

The Effectiveness Index (El) of each of 11 selected types of information ranged from 85 to 100 against the possible range 0 to 100. The rank order of each of the individual information was made on the basis of effectiveness index and shown in Table 4.13.

Table 4.13 shows that homestead vegetables cultivation ranked first on the basis of El followed by livestock raring and preparation of compost. The $4^{th}$ and $5^{th}$ information were beef fattening and poultry rearing. Preparation of nurseries and improved technologies of tree plantation were the less effective information those were ranked $10^{th}$ and $11^{th}$. Rank order of other information may be seen in Table 4.13.

**Table 4.13 Comparative Effectiveness Index (El) of the informations with rank order**

| Information | Frequency of extent of effectiveness | | | | El | Rank |
|---|---|---|---|---|---|---|
| | Most effective | Effective | Less effective | Not effective at all | | |
| Homestead vegetable cultivation | 67 | 33 | 0 | 0 | 100 | 1 |
| Livestock raring | 61 | 38 | 0 | 0 | 99 | 2 |
| Preparation of compost | 56 | 42 | 0 | 0 | 98 | 3 |
| Beef fattening | 15 | 69 | 12 | 0 | 96 | 4 |
| Poultry raring | 23 | 66 | 6 | 0 | 95 | 5 |
| Improved method of fish culture | 23 | 66 | 5 | 0 | 94 | 6 |
| Duck cum fish culture in pond | 27 | 57 | 9 | 0 | 93 | 7 |
| Agricultural activities for adverse condition | 10 | 71 | 10 | 0 | 91 | 8 |
| Integrated pest management | 15 | 63 | 12 | 0 | 90 | 9 |
| Preparation of nurseries | 13 | 60 | 15 | 0 | 88 | 10 |
| Improved technologies of tree plantation | 20 | 23 | 42 | 0 | 85 | 11 |



# Chapter 5

# Summary, Conclusions and Recommendations

# CHAPTER V

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Summary

### 5.1.1 Introduction

Agricultural production can only be increased if appropriate technologies are used by the farmers who are the primary unit of adoption of improved practices. Proper utilization of modem agricultural inputs, proper knowledge of the usefulness of inputs and the know-how of their use should reach to the farmers within a shortest possible time but that should be done very effectively.

Television is an important means of extension communication media. In the adoption of new ideas television can play an important role. It is not most effective when the audience aware of or interest in an idea. Messages through television can motivate, simulate, induce and change basic attitudes of the people. Thus, most important advantage of television is that it reaches at all cultural and age levels. Therefore, it has an audience that is not often reached by other mass media.

The purpose of this study is to have an understanding about the effectiveness of agriculture related TV programmes in disseminating

agricultural information through Bangladesh Television (Mati-O-Manush, Krshi Diba-Nishi), Bangla Vision (Shayamol Bangla) and Channel I (Hridoya Mati-O-Manush,

Hridoya Mati O Manusher Dak) by farmers of Gurudaspur upazila under Natore district. The study also aims to explore the relationship of the selected personal and socio-economic characteristics of the farmers with the perceived effectiveness of agriculture related TV programmes. It is expected that this will be helpful for preparing the agricultural programmes by various TV channels of Bangladesh.

### 5.1.2 Specific Objectives

The following specific objectives were formulated in order to give proper direction to the research work:

0. To determine and describe some selected characteristics of the farmers. The Selected characteristics include:

a) Age

b) Level of education

c) Farm size

d) Farming experience

e) Annual family income

f) Agricultural knowledge

g) Attitude towards agriculture related TV programmes

h) Innovativeness

i) Personal localite behavior

j) Time expend for TV watching

1. To measure the effectiveness of agriculture related TV programmes as perceived by the farmers in disseminating agricultural information

2. To explore the relationship between the selected characteristics of the farmers and their perceived effectiveness of agriculture related TV programmes

3. To compare the effectiveness of selected types of information

### 5.1.3 Findings

#### 5.1.3.1 Selected characteristics of the farmers

Findings in respect of ten selected characteristics of the farmers are summarized below:

**Age**

The highest proportion (46%) of the farmers were middle aged (31-45 years), 27% were young aged (upto 30 years) and 27% were old (above 45 years) aged.

**Level of education**

Most of the farmers (25%) had secondary level of education while 24% were illiterate, 23% had the ability of sign only, 21% had primary and 7% had above secondary level of education.

**Farm size**

Majority proportion (55%) of the farmers had small farm size compared to 14% marginal, 28% medium and only 3% large farm size.

**Farming experience**

Majority proportion (80%) of the respondents had low to medium farming experience and only 20% had high farming experience.

**Annual family income**

Majority proportion (86%) of the farmers had low to medium family income and only 14% had high annual income.

**Agricultural knowledge**

About half (51%) of the respondents had medium knowledge and the rest 49% of the respondents had high agricultural knowledge.

**Attitude towards agriculture related TV programmes**

Majority (79%) of the respondents had medium to low favorable attitude towards agriculture related TV programmes and 21% had highly favorable attitude towards agriculture related TV programmes.

**Innovativeness**

Majority proportion (59%) of the farmers had medium to low innovativeness and 41% high innovativeness.

**Personal localite behavior**

An overwhelming majority proportion (93%) of the respondents had medium to low personal localite behavior and 7% had high personal localite behavior.

**Time expend for TV watching**

Majority (56%) of the farmers watched TV programmes for moderate duration while 8% for long time and rest 36% for short time in a week. This means that most of the TV viewers (64%) watched the TV programmes for moderate to long time in a week.

### 5.1.3.2 Effectiveness of agriculture related TV programmes in disseminating agricultural information as perceived by the farmers

The score for effectiveness of agriculture related TV programmes in disseminating agricultural information as perceived by the farmers was ranged from 15 to 32 against the possible range of 0 to 27. The mean and standard deviation were 24.32 and 2.70 respectively. An overwhelming majority (85%) of the farmers perceived medium to low effectiveness and

15% perceived high effectiveness of the agriculture related TV programmes in disseminating agricultural information.

### 5.1.3.3 Relationship between dependent and independent variables

Correlation analysis indicate that level of education, annual family income, agricultural knowledge, attitude towards agricultural TV programmes, innovativeness, personal localite behavior and time expend for TV watching of the farmers had significant positive relationship with their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information to the farmers. Age, farm size and farming experience of the respondent had no significant

relationship with their perceived effectiveness of agriculture related TV programmes for dissemination of agricultural information to the farmers.

#### 5.1.3.4 Comparative effectiveness of selected types of information

The Effectiveness Index (El) was used to compare the effectiveness of 11 selected types of information. Homestead vegetables cultivation ranked first on the basis of El followed by livestock raring and preparation of compost. The 4th and 5th information were beef fattening and poultry rearing. Preparation of nurseries and improved technologies of tree plantation were the less effective information those were ranked 10th and 11th.

## 5.2 Conclusions

Conclusions drawn on the basis of the findings of this study and their logical interpretation in the light of the other relevant factors are furnished below:

1. A majority proportion (76%) of the farmers perceived medium effectiveness, while 9% perceived high and 15% perceived low effectiveness of the agriculture related TV programmes for dissemination of agricultural information. This means that the information presented to the farmers through TV programmes were mostly low to medium effective in terms of their application in the real situation.

2. Level of education of the farmer had positive significant relationship with their perceived effectiveness of agriculture related TV programmes. Therefore, it may be concluded that more the level of education of the farmers, the more was their perceived effectiveness of agriculture related TV programmes.

3. The annual family income of the farmers had positive significant relationship with their perceived effectiveness of agriculture related TV programmes. This leads to the conclusion that the farmers having more annual family income perceived more effectiveness of agriculture related TV programmes.

4. Agricultural knowledge of the farmers had positive significant relationship with their perceived effectiveness of agriculture related TV programmes. Therefore, it may be concluded that more the agricultural knowledge of the farmers, the more was their perceived effectiveness of agriculture related TV programmes.

5. Personal localite behavior of the farmers had positive significant relationship with their perceived effectiveness of agriculture related TV programmes. This leads to the conclusion that farmers having higher personal localite behavior perceived more effectiveness of agriculture related TV programmes.

6. Farmers' attitude towards agriculture related TV programmes had positive significant relationship with their perceived effectiveness of agriculture related TV programmes.

Therefore, it may be concluded that more favorable attitude towards agriculture related TV programmes of the farmers, the more was their perceived effectiveness of agriculture related TV programmes.

7. Innovativeness of the farmer had positive significant relationship with their perceived effectiveness of agriculture related TV programmes. Therefore, it may be concluded that more innovativeness of the farmers, the more was their perceived effectiveness of agriculture related TV programmes.

8. Time spent for TV watching of the farmers had positive significant relationship with their perceived effectiveness of agriculture related TV programmes. This leads to the conclusion that the farmers having more time expend for TV watching perceived more effectiveness of agriculture related TV programmes.

## 5.3 Recommendations

### 5.3.1 Recommendations for policy implications

On the basis of findings and conclusions of the study the following recommendations for policy implications are made:

1. As majority of the farmers had perceived low to medium effectiveness of agriculture related TV programmes, it is recommended that appropriate care should be given by the concerned authority to present good agriculture related TV programmes which would be helpful to the farmers in performing various farming operations.

2. Level of education of the farmers had positive significant relationship with their perceived effectiveness of agriculture related TV programmes,ie more the level of education more the perception of the TV programmes. Therefore, it may be recommended that TV programmes should be very carefully selected considering the level of education of the viewers.

3. As farmers having more family income perceived more effectiveness of agriculture related TV programmes, the TV programmes should broadcast such types of agricultural information those application could increase the income of the farmers.

4. As farmers having more agricultural knowledge perceived more effectiveness of agriculture related TV programmes, the TV programmes should delivered such types of information that can increase the knowledge of the farmers.

5. Farmer having more favorable attitude towards agriculture related TV programmes perceived more effectiveness of agriculture related TV programmes,i.e. favourable agricultural information could create favorable attitude towards agriculture related TV programmes. Therefore, TV programmes should provide such types of information that can make more favorable attitude towards TV programmes.

6. Personal localite behavior of the farmers had positive significant relationship with their perceived effectiveness of agriculture related TV programmes. Therefore, it may be recommended that concerned authorities like DAE and other extension providers increase contact with the farmers, so that they could increase their personal localite behavior.

7. Innovativeness of the farmers was found to have significant positive relationship with the effectiveness of agricultural TV programmes for dissemination of agricultural information. Therefore, it is

   agricultural TV programmes of different channels should increased and appropriate technologies should be telecasted that will obviously increase the innovativeness of the farmers.

### 5.3.2 Recommendations for further study

A small piece of study cannot provide all information for the proper understanding of the effectiveness of television as an agricultural information media. Therefore, the following suggestions are put forwarded for further studies/researches.

1. The present study was concerned only on the selected agricultural activities. Further studies should be undertaken giving in depth activities^"overage to other subject matter of agriculture related by TV channels.

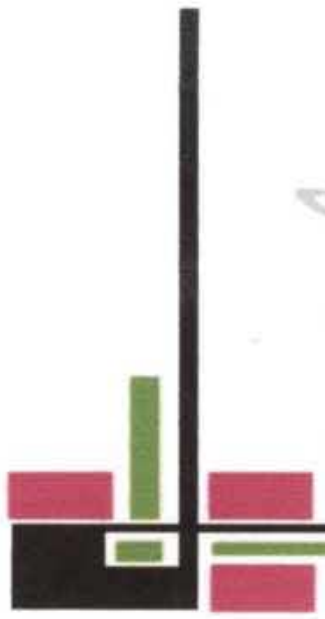
2. The study was conducted in a selected upazila of Natore district. Findings of this study need verification by similar research in other parts of the country.

3. Relationships of ten selected characteristics of the fanners with the effectiveness of agriculture related TV programmes for the dissemination of agricultural information were investigated in this study. Further research should be conducted to explore relationships of

   other characteristics of the farmers with different aspects of television broadcasting.

4. The effectiveness of agriculture related TV programmes for the dissemination of agricultural information was investigated only by considering 11 information. But such study may also be conducted by taking other aspects of agriculture.

5. More research should be conducted to investigate the comparative effectiveness of television with other mass media and also identify the factors influencing the use of television.



# Chapter 6

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# Appendices

## APPENDIX A

(English Version of the Interview Schedule)

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

Interview schedule of the study on "Effectiveness of agriculture related TV programmes for dissemination of agricultural information to the farmer"

Sample No.

Name of the respondent:

Village:

Union:

Upazilla:

District:

(Please answer the following questions)

1. Age

What is your present age? .....years

2. Level of education

Please mention your educational level

(i) Don't know reading and writing ----------

(ii) Can sign only ----------

(iii) I have passed class

3. Farm size

| Types of land | Local unit ( ) | Hectare |
|---|---|---|
| Homestead land | | |
| Own land under own cultivation | | |
| Own land given to others on borga | | |
| Land taken from others on borga | | |
| Land taken from others on lease | | |
| Total | | |

4. Farming experience

How long are you involved in agricultural farming? _____years

5. Annual family income

Please mention the annual income of your family for last year

| Sources of income | Amount (Tk.) |
|---|---|
| Agriculture | |
| Poultry | |
| Livestock | |
| Business | |
| Service | |
| Others (if any) | |
| Total | |

6. Agricultural knowledge

| Questions | Total marks | Marks obtained |
|---|---|---|
| a. Name two summer and two winter vegetables | 2 | |
| b. What are the qualities of good seed? | 2 | |
| c. What is crop rotation? | 2 | |
| d. Name two year round growing fruits? | 2 | |
| e. Name two forest trees? | 2 | |
| f. What do you mean by IPM? | 2 | |
| g. What is bio-fertilizer? | 2 | |
| h. Name two beneficial insects | 2 | |
| i. Name two harmful insects of rice | 2 | |
| j. What is true potato seed? | 2 | |
| k. Name two improved varieties of tomato | 2 | |
| 1. Name two insecticides of rice | 2 | |
| Total | 24 | |

7. Attitude towards agriculture related TV programmes

Please mention your level of agreement on the following statements

| SI. No. | Statements | Nature of opinion | | | | |
|---|---|---|---|---|---|---|
| | | Strongly agree | Agree | Neutral | Strongly Disagree | Disagree |
| l( - ) | Agriculture related TV programmes are not suitable media for providing information to the farmers (-) | | | | | |
| 2- (-) | Agriculture related TV programmes can not help farmers because the broadcasting time is not suitable for the farmers. | | | | | |
| 3- (-) | Agriculture related TV programmes are not effective as it is not always presented in attractive way. | | | | | |
| 4- (-) | Agriculture related TV programmes generally broadcast once for information. So, farmers can not realize it properly. | | | | | |
| 5- **(+)** | Farmers are motivated quickly by agriculture related TV programmes as it is live and practical. | | | | | |
| 6. (-) | Agriculture related TV programmes are not effective as it is broadcast for a while. | | | | | |
| 7. (+) | Agriculture related TV programmes are very effective as it is broadcast season wise practical information in time. | | | | | |
| 8. (+) | Farmers can be benefited by receiving information about the present market price of their agril. products through agriculture related TV programmes. | | | | | |
| 9. (+) | Farmers can increase awareness about misuse of chemicals such as formalin, insecticides, pesticides etc. | | | | | |
| 10. (-) | Agriculture related TV programmes are not effective to the mass people; it is suitable only for the big farmers. | | | | | |
| ll.(+) | Farmers can be inspired by viewing success stories of other farmers through agriculture related TV programmes. | | | | | |
| 12. (+) | TV programmes can disseminate innovation rapidly than other media. | | | | | |

8. Innovativeness

Please indicate the extent of your use of the following technologies-

| Name of the technologies | Duration | | | | |
|---|---|---|---|---|---|
| | Within 1 year after hearing | Within 2 years after hearing | Within 3 years after hearing | After 3 years of hearing | Never used |
| a. Biogas | | | | | |
| b. Tree plantation in recommended way | | | | | |
| c. Cattle fattening | | | | | |
| d. Artificial insemination of cattle | | | | | |
| e. Roadside agroforestry | | | | | |
| f. Wheat cultivation | | | | | |
| g. Poultry duck cum fish culture in pond | | | | | |

9. Personal localite behaviour

Please indicate the extent of your exposure with the following media

| Information sources | Extent of communication | | | |
|---|---|---|---|---|
| | Regularly | Occasionally | Rarely | Not at all |
| 1 .Sub assistant Agriculture Officer (SAAO) | 6-7 times/ 6 months () | 4-6 times/ 6 months () | 1-3 times/ 6 months () | 0 time/6 months () |
| 2. Assistant Agriculture Extension Officer (AAEO) | 5-6 times/ 6 months () | 3-4 times/ 6 months () | 1-2 times/ 6 months () | 0 time/6 months () |
| 3. Agricultural Extension Officer (AEO) | 4-5 times/ 6 months () | 2-3 times/ 6 months () | 1-2 times/ 6 months () | 0 time/6 months () |
| 4. Upazilla Agricultural Officer (UAO) | 3-4 times/ 6 months () | 1 -2 times/ 6 months () | 1 time/ 6 months () | 0 time/6 months () |
| 5. NGO workers | 5-6 times/ month () | 3-4 times/ month () | 1 -2 times/ month () | 0 time/ month () |
| 6. Farm input dealer (seed, fertilizer etc.) | 1 time/ month () | 1 time/ 3 months () | 1 time/ 6 months () | 0 time/ month () |

| | | | | |
|---|---|---|---|---|
| 7. Neighbor | 2 times/ day () | 1 time/ day () | 1 time/ 2 days () | 0 time/ day () |
| 8. Relatives | 3 times/ month () | 2 times/ month () | 1 time/ month () | 0 time/ month () |
| 9. Friends | 2-3 times/ month () | 2 times/ month () | 1 time/ month () | 0 time/ month () |

**10.** Time expend for TV watching

Please mention how much time you use for TV watching?

a) Not at all ()

b) Average up to 2 hours per week

c) Average > 3-4 hours per week

d) Average > 4-6 hours per week

e) Average > 6-8 hours per week

f) Average > 8 hours per week

**11. Please mention the effectiveness of Agriculture related TV programmes for dissemination of following agricultural information to the farmers**

| **Informations** | **Extent of effectiveness** | | | |
|---|---|---|---|---|
| | **Most effective** | **Effective** | **Less effective** | **Not effective at all** |
| **a) Homestead vegetable cultivation** | | | | |
| **b) Agricultural activities for adverse condition** | | | | |
| **c) Preparation of compost** | | | | |
| **d) Preparation of nurseries** | | | | |
| **e) Poultry raring** | | | | |
| **f) Livestock raring** | | | | |
| **g) Integrated pest management** | | | | |
| **h) Duck cum fish culture in pond** | | | | |
| **i) Improved method of fish culture** | | | | |
| **j) Beef fattening** | | | | |
| **k) Improved technologies of tree plantation** | | | | |

## APPENDIX B

CORRELATION MATRIX

| VARIABLE | X, | $X_2$ | $X_3$ | $X_4$ | $X_5$ | $X_6$ | $X_7$ | $X_8$ | $X_9$ | Xio | $X_{11}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, | 1 | | | | | | | | | | |
| $X_2$ | -.061 NS | 1 | | | | | | | | | |
| $X_3$ | .392** | .223* | 1 | | | | | | | | |
| $X_4$ | .641** | -.272** | .159 NS | 1 | | | | | | | |
| $X_5$ | .288** | .507** | 494** | -.013 NS | 1 | | | | | | |
| $X_6$ | . 177 NS | . 187 NS | .363** | .063 NS | .418** | 1 | | | | | |
| $X_7$ | -.079 NS | . 131 NS | .098 NS | -.125 NS | .156 NS | . 111 NS | 1 | | | | |
| $X_8$ | .022 NS | .108 NS | .185 NS | -.048 NS | .202* | .369** | .071 NS | 1 | | | |
| $X_9$ | . 110 NS | .234* | .411 ** | -.015 NS | .138 NS | .148 NS | .047 NS | . 132 NS | 1 | | |
| X\|o | .211* | .229* | .185 NS | .172 NS | .253* | .392** | -.018 NS | . 179 ns | .230* | 1 | |
| X„ | . 152 NS | .200* | . 184 NS | .176 NS | .258** | .247* | .256* | .311** | .206* | .236* | 1 |

= Correlation is not significant * = Correlation is significant at the 0.05 level (2-tailed) ** = Correlation is significant at the 0.01 level (2-tailed)

X, = AGE
$X_2$ = LEVEL OF EDUCATION $X_3$ = FARM SIZE $X_4$ = FARMING EXPERIENCE $X_5$ = ANNUAL FAMILY INCOME $X_6$ = AGRICULTURAL KNOWLEDGE
$X_7$ = ATTITUDE TOWARDS AGRICULTURE RELATED TV PROGRAMMES $X_8$ = INNOVATIVENESS
$X_9$ = PERSONAL LOCALITE BEHAVIOR
$X_{,0}$ = TIME EXPEND FOR TV WATCHING $X_{11}$ = EFFECTIVENESS OF AGRICULTURE RELATED TV PROGRAMMES