PROBLEM FACED BY THE POULTRY FARMERS OF MONGLA UPAZILA UNDER BAGERHAT DISTRICT

BY

PRODIP SARKER

Registration No. 07-02623

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Approved by:

.....

Prof. Dr. Md. Rafiquel Islam

Supervisor

.....

Dr. Md. Sekender Ali

Co-supervisor

.....

Chairman of the Examination Committee

Department of Agricultural Extension & Information System

Sher-e-Bangla Agricultural University,

Dhaka-1207

CERTIFICATE

This is to certify that the thesis entitled **"PROBLEM FACED BY THE POULTRY FARMERS OF MONGLA UPAZILA UNDER BAGERHAT DISTRICT"** submitted to the Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka-1207, in partial fulfillment of the requirements for the degree of **Master of Science in Agricultural Extension**, embodies the result of a piece of bonafide research work carried out by **PRODIP SARKER**, Registration No. **07-02623** under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.

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

Dated:
Dhaka, Bangladesh

Prof. Dr. Md. Rafiquel Islam
Agricultural Extension and Information System
Sher-e-Bangla Agricultural University
Dhaka-1207
Supervisor

DEDICATED
TO
MY BELOVED PARENTS

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ABSTRACT

The main purpose of the study was to determine the extent of problems faced by the poultry farmers in poultry production as well as to explore the relationship between the selected characteristics of the farmers and their problem faced in poultry farming. Data were collected from randomly selected 100 poultry farmers of three selected unions of Mongla Upazila under Bagerhat district through personal interview by using an interview schedule during March 10 to March 30, 2009. Majority of the respondents (57%) faced to high problem compared to 17% medium problem and 26% low problem. Pearson Product Moment Correlation co-efficient showed that among the selected eleven characteristics of the poultry farmers, family size, poultry farm size and annual income had significant positive relationship with their problem faced in poultry farming and age of the respondents had a significant negative relationship with their problem faced in poultry production. Other characteristics of the farmers had no significant relationship with their problem faced in poultry production.

CHAPTER I

INTRODUCTION

1.1 General Background

Bangladesh is one of the developing countries of South-Western Asia. About 60 percent people are engaged in agriculture. That is Bangladesh is mainly an agricultural country. Agriculture contributes more than 22% to the gross domestic product of the country where as crops contributes 12.28%, animal farming contributes 2.92%, forest and related services contributes 2.92% and fishing contributes 4.86% (BBS, 2009). GDP growth rate of Bangladesh mainly depends on the performance of the agricultural sector. The present GDP in Bangladesh is 20.87%with per capita income 47,396 Taka (690$) (BBS, 2009). This GDP is poor comparing other countries. So this is not a standard amount.

Livestock solely provides 3.15 percent in the GDP of Bangladesh (Islam, 2008). Livestock has a great contribution in the agricultural economics, rural economics and nutritional status of the people of this country. If we observe the statistics of the poultry birds in our country Weill are able to understand that how important the poultry sector of our country is.

Major portion of the population of this country, both in the rural areas are characterize as, mainly landless and marginal farmers and unemployed young men are their household to earn money for their livelihood. About 52.50 percent people of the population are rearing poultry birds in their household (BBS, 2006). Considering the employment condition of the country, it is observed that about 20 percent people are engaged fully and 50 percent people are engaged part timely with the livestock (Islam, 2008).

Poultry production is now a very common term in our country. Within few years a lot of poultry farms have been developed in this country. Now days, poultry birds have taken a great portion of meat market.

There is a great lacking in the want of protein requirement of the people of Bangladeshi men. To meet the protein requirement of the poor population of this country we can introduce the poultry farm in the village areas. As poultry birds are less expensive our poor people can afford them and thus they can meet their nutritional requirement.

Now it is clear that there is a huge gap between the want and production of poultry producers. So poultry sector has a great scope to develop in our country. But these poultry farmers face various problems to rear the poultry birds. It is necessary to identify the problems of these farmers as poultry sector has great scope to develop in our country.

Now there is a great problem in poultry production in this study area. Among them chick related, marketing and unavailability of vaccine and medicine are major problem.

To increase the production of poultry produces it is necessary to ensure the timely supply of chicks with reasonable price. It is also necessary to help them regarding the health and management practices of poultry birds. For this purpose it is essential to identify the problems faced by poultry farmers along with the severity of problems. Considering these points in view this study was undertaken with the following specific objectives.

1.2 Specific objectives of the study

The specific objectives of the study were as follows

- To determine and describe the selected characteristics of the poultry farmers. The selected characteristics include:
    - ❖ Age
    - ❖ Education
    - ❖ Experience in farming
    - ❖ Experience in poultry farming
    - ❖ Family size
    - ❖ Farm size

- ❖ Annual income
- ❖ Organizational participation
- ❖ Cosmopoliteness
- ❖ Knowledge on poultry farming
- ❖ Extension contact

- To determine the extent of problems faced by the poultry farmers.
- To explore the relationship between the selected characteristics of the farmers and their problem faced.

1.3 Hypothesis of the study

The following null hypothesis were formulated to test the relationships between the selected characteristics of the poultry farmers and their problem faced. The main null hypothesis for this study are stated below:

There is no relationship between selected characteristics of the poultry farmers with their problem faced.

1.4 Scope and limitation of the study

The present study was undertaken with a view to have an understanding of the problems in poultry farming as confronted by the farmers. In order to conduct the study in a meaningful and manageable way it becomes necessary to identify some limitations in regard to certain aspects of the study. Considering the time, money, labour and other necessary resources available to the researcher, the following limitations were observed throughout the study:

1. The study was conducted in the Chadpai, Chila Bazar and Malgazi unions of Mongla Upazila in Bagerhat District.
2. Characteristics of the farmers were many and varied but only twelve characteristics were selected for investigation in this study.
3. Major information, facts and figures supplied by the respondents were applicable to the situation prevailing in the locality during the year 2009.
4. Data were collected both from the male and female respondents since the researcher had to experience that the rural men as well as rural women are

involved in poultry farming during the first phase of the development of the interview schedule.

5. Population for the present study was kept confined within the heads of farm families in the study area, because they were the decision-makers in their respective families in respect of poultry farming.
6. The present study highlights on a new dimension of research in the field of agricultural extension in Bangladesh and so the researcher could not provide sufficient evidence in equipping the study report with relevant literature reviews.
7. The study was conducted in a selected Upazila under Bagerhat district of Bangladesh. Thus the findings may not represent the real scenario of the whole district as well as the whole country due to the widespread variation in the nature and production of poultry birds from one place to another and from one social system to another.

1.5 Assumptions of the Study

An assumption is the supposition that an apparent fact or principle is true in the light of available evidence. The following assumptions were in the mind of the researcher while undertaking the study:

1. The respondents involved in the sample were capable of furnishing proper responses of the questions contained in the interview schedule.
2. The interviewer was well adjusted to the social and cultural environment of the study area. Hence, the data collected by him from the respondents would be any bias free.
3. The responses furnished by the respondents were reliable and truly expressed all facts concerning poultry farming and their personal, socio-economic, socio-cultural and psychological characteristics.
4. Views and opinions furnished by the respondents were representative of the whole population of the study.
5. The respondents have given accurate and current information.

6. The interviewer was able to rate the responses of the farmers with adequate precision.
7. Identified problems in the study area included all the sustainability criteria considered by the researcher and they were contributory to poultry production and development.
8. The findings of the study would be useful for planning and execution of the programs in connection with the development of poultry production.

1.6 Definition of Terms

Certain terms used throughout the study are defined and interpreted for ease of understanding as follows:

Farmer

Farmer may be defined as the occupation of raising crops or livestock from the land. In this study, the term farmer refers to an individual who is engaged in farming directly or indirectly on lands owned by himself or received from others (by borga, lease, etc.) or partly owned and partly received from others. The farmers who are directly consulted by the extension workers in the DAE program with regards to FINA. Only the male farmers were taken under consideration in this study.

Block

Block is the grass root level extension service of DAE. A block is made on the basis of intensity of cropping, communication facilities etc. Sub-Assistant Agricultural Officer (SAAO) designated personnel is employed at block level. A Block usually consists of 900-1200 farm families in a locality.

Sub-Assistant Agricultural Officer (SAAO)

SAAOs are the grass root level extension worker of the DAE, who may be a male or female. It is abbreviated as SAAO. The concerned SAAO usually conduct the FINA program in the block and shoulder the responsibilities of technical and administrative.

Age

Age of a farmer refers to the period of times in years from his birth to the time of interview.

Level of education

Empirically it was defined to the development of desirable changes in knowledge, skill and attitudes in an individual through reading, writing, walking, observation and other selected activities. It was measured on the basis of classes a farmer has passed from a formal educational institution.

Family size

Family size referred to the total number of numbers including the respondent himself/herself, his wife/husband, children and other permanent dependents who lived and ate together in a family unit.

Farm size

Farm size referred to the hectare of land area devoted to the maintenance of farming enterprise (s) by a farmer. It included the homestead, own land under own cultivation, land taken from or given to others on borga, land taken from or given to others on lease and miscellaneous land holdings which the farmer has got ownership upon and have the prospect of engaging in farming as and when he wishes.

Annual income

Annual income of a respondent referred to the total earning by him and other members of his family from agricultural (field crop, fish, livestock, poultry, fruits and vegetables and timbers, etc.) and other sources (service, business, etc.) during a year. Annual income of the respondent also included the cost of maintaining his family. It was expressed in Taka.

Organizational participation

It was defined as the degree to which an individual's orientation is external to a particular organization. Empirically it referred to the number of times a person pays participate in the activities of different organizations.

Extension media contact

Extension media contact referred to one's access to the communication process through various extension teaching methods during one year prior to data collection.

Agricultural knowledge

It is the extent of basic understanding of the farmers in different aspects of agricultural subject matters. It includes the basic understanding of the use of different agricultural inputs and practices from different sources and was measured in response to selected questions in the concerned areas.

Problem faced

Problem means any difficult situation which requires some actions to minimize the gap between "what ought to be" and "what is" The term problem faced refers to different problems faced by the farmers at the time of operating FINA program.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this chapter is to describe the researchers conducted in line of the major focuses of this study. Literature having relevance to the present study has been reviewed in two sections. The first section deals with the literature on problems confronted by the poultry farmers in raising poultry birds and the second section deals with the review of studies dealing with the relationship of selected characteristics with problem faced.

2.1 Studies on problems faced by poultry farmers

Parairo (2009) interviewed for the poultry management practices like feed and feeding space, vaccination, debeaking and sick birds isolation. He reported that vaccination of birds and disinfecting poultry houses and premises practiced only by commercial and semi-commercial farms. He further reported that marketing of the products is one of the most important problems to some raisers as there were no market outlets for these products. Competition and inconsistent demand of consumers were the main constraints of marketing problems.

Pandey and Tewary (2008) indicated that capital and unavailability of chicks are the biggest problems in establishing commercial poultry farms. He further indicated that veterinary and extension facilities, availability of feed and marketing of products are also some of the problems faced by farmers.

Ahmed (1910) stated that the problems connected with poultry production were diseases, feed, inadequate supply of vaccine and medicine, marketing of broilers and eggs produced by the farmers.

Whachira-Kwaengsopha (1989) reported that farmers get information mostly from their neighbors and least from government officers. The problems mostly encountered were sources of information, prevention of infectious diseases and deworming.

Shumba (1990) observed that the poultry producers do not get institutional and credit support. He further observed that proper marketing opportunities are the major obstacle in the promotion of poultry production in rural areas.

Miah (1990) reported that the small and medium poultry farms are highly profitable. He further noted that acute shortage of chicks, medicine, volatile prices of both inputs and outputs, lack of technical know-how together with resource constraints were identified as the major problems of these poultry farms.

Pruthi and Grewal (1992) identified inadequate sub-standard broiler chicks from suppliers (68%), poor quality feed supply (78%), and lack of expert advice (100%) is some of the problems in poultry enterprise.

Paul *et al.* (1992) identified that some extraneous factors like sharp increase in the cost of inputs, constant prices of poultry products and certain unavoidable marketing defects can influence the profitability in layer farming. They reported that farm size, utilization of labor, quality of feed consumed, rate of egg production, mortality, technical know-how are some of the problems in poultry farming, which can be controlled by the poultry farmers themselves.

2.2 Studies on relationship between selected characteristics of the farmers and their problem faced

2.2.1 Age

Sarker (1983) observed that the age of the farmers had significant negative relationship on their poultry problem faced. These findings indicate that the facing of problems in poultry raising decreases as the age increases of the farmers.

Whachira-Kwaengsopha (1989) reported that age correlated significantly with the application of knowledge and technology at 0.05 levels but the total income was not correlated significantly.

Rahman (1995) in his study on constraints faced by farmers in poultry production found that there was no significant relationship between age of the farmers and their problem faced in cotton cultivation.

Karim (1996) conducted a study on relationships of selected characteristics of kakrol growers with their problem faced and found that age had no significant relationship with their problem faced.

Islam and Islam (2004) observed that the age of the farmers had a positive but non-significant relationship with their problem faced in aromatic rice cultivation.

2.2.2 Educational qualification

Raha (1989) in his study found that education of the farmers had no significant relationship on their irrigation problem faced. Similar finding was obtained by Ali (1978) and Rashid (1975).

Whachira-Kwaengsopha (1989) reported that educational level correlated significantly with the application of knowledge and technology but the total income was not correlated significantly.

Rahman (1995) found that the education of the farmers had significant negative effect on their faced constrains in cotton cultivation. The findings indicated that the higher the education of the farmers, the lower was their faced constrains Mansur (1989), Islam (1987) and Kashem (1977) also obtained similar findings.

Karim (1996) in his study found that education of the farmers had negative significant relationship with their problem faced.

Islam and Islam (2004) observed that the education level of the farmers had a positive but non-significant relationship with their problem faced in aromatic rice cultivation.

2.2.3 Family size

Rahman (1996) found that there is no significant relationship between family size of the pineapple growers and their problem faced. He also found negative tendency between concerned variable.

Islam and Islam (2004) observed that family size of the farmers had a positive but non-significant relationship with their problem faced in aromatic rice cultivation.

Raha (1989) found that the income of the farmers had no significant relationship on their irrigation problem faced, but relationship showed a positive tendency.

Rahman (1995) conducted a study and found negative significant relationship with their problem faced in cotton cultivation. Similar finding was obtained by Rahman (1995) and Islam (1987).

Karim (1996) found that the annual income of the farmer had significant negative relationship with their problem faced.

Islam and Islam (2004) observed that annual income of the farmers had a positive but non-significant relationship with their problem faced in aromatic rice cultivation.

2.2.6 Organizational participation

Karim (1974) found a consistent negative trend between organizational participation of the Union Assistant and their problem faced, the relationship between the two variables was not statistically significant.

Mansur (1989) in his study indicated that organizational participation of the farmers had a significant negative relationship with their problem faced.

Raha (1989) and Islam (1987) found that there was no significant relationship between the organizational participation of the farmers and their problem faced. Rashid (1975) found similar finding.

Rahman (1995) concluded in his study that there was no relationship between the organizational participation of the farmers and their faced problems in cotton cultivation.

Karim (1996) found that organizational participation of the farmers had significant negative relationship with their problem faced.

Islam and Islam (2004) observed in his study that organizational participation of the farmers had a positive but non-significant relationship with their problem faced in aromatic rice cultivation.

2.2.7 Cosmopoliteness

Hossain (1991) conducted a study on the adoption behavior of contract wheat growers in sadar upazila of Jamalpur district. In his study, he observed that cosmopoliteness of the contract wheat growers had a little but no significant contribution on the adoption of improved farm practices.

Haque (1993) observed in his study a strong positive relationship between cosmopoliteness of the cane growers and their adoption of improved practices in sugarcane cultivation.

Paramanik (2001) found that the cosmopoliteness of the farm youth had negative correlation with their crop cultivation, health and recreational problems.

Islam and Islam (2004) observed that cosmopoliteness of the farmers had a positive but non-significant relationship with their problem faced in aromatic rice cultivation.

2.2.8 Knowledge on poultry farming

Karim (1974) found that there was no significant relationship between technical knowledge of the Union Assistants and their problem faced.

Saha (1983) studied on poultry problem faced and reported that the relationship between poultry knowledge and poultry problem faced was negative.

Islam (1987) found that knowledge regarding utility of artificial insemination of the farmers is positively related to their artificial insemination problem faced.

Raha (1989) reported that knowledge in irrigating modern boro paddy of the farmers had no significant relationship with their irrigation problem faced.

Rahman (1995) in his study found that the knowledge in cotton cultivation of the farmers had a significant negative effect on their faced constraints in cotton cultivation. Similar findings were obtained by Mansur (1989) and Sarker (1983) in their respective study.

Karim (1996) indicated in his study that agricultural knowledge of the kakrol growers had significant negative relationship with their problem faced.

Islam and Islam (2004) observed that agricultural knowledge of the farmers showed a positive significant relationship with their problem faced in aromatic rice cultivation.

2.2.9 Extension contact

Farouque (1997) studied on female youth and observed that extension contact of female rural youth had a significant negative relationship with their problem faced in selected issues.

Islam and Islam (2004) observed that extension contact of the farmers had a positive but non-significant relationship with their problem faced in aromatic rice cultivation.

2.3 Conceptual framework of the study

In scientific research, selection and measurement of variables constitute on important task. The hypothesis of a research while constructed properly contains at least two important elements i.e. a dependent variable and an independent variable. An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationship to an observed phenomenon. In view of prime findings, the researcher constructed a conceptual frame work of the study which is self explanatory and is presented in Fig. 2.10.

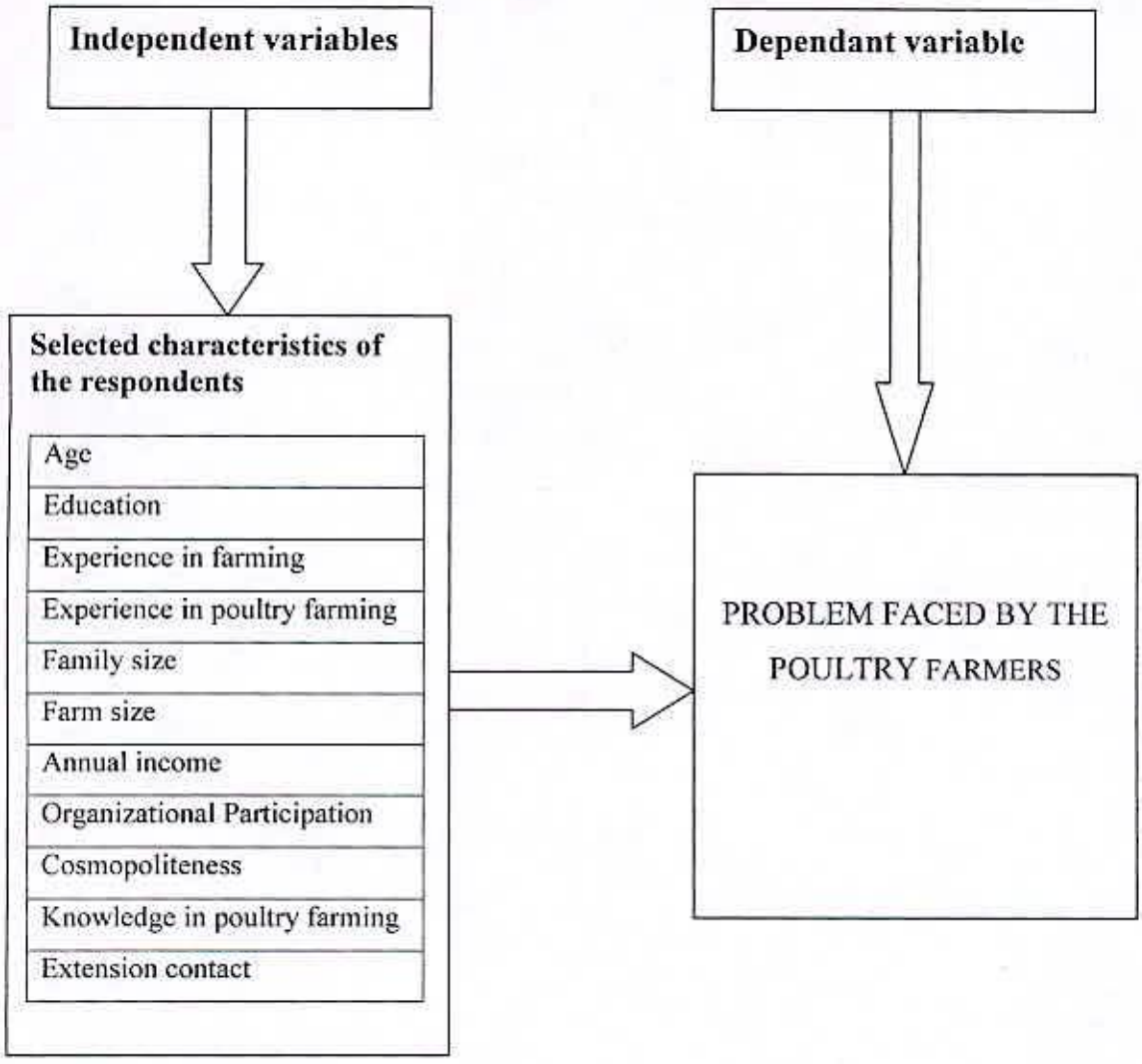

Fig. 2.3 Conceptual framework of the study

CHAPTER III

METHODOLOGY

Research methodology is a systematic way to solve a research problem. It may be understood as a science of studying how research is done (Kothari, 2008). A researcher needs careful considerations before conducting a study. The researcher has great responsibility to clearly describe as to what sorts of research design, methods and procedures he would follow in collecting valid and reliable data and to analyze and interpret those to arrive at correct conclusion. The methods and procedures followed in conducting this study have been discussed in this Chapter.

3.1 Design of the study

The present study is a survey research. It was designed to study on poultry production and farmers problems.

3.2 Locale of the study

The study was conducted at three Unions of Mongla Upazila under Bagerhat District. The researcher properly selected these unions from the upazila namely Chadpai, Chilla and Sunderban. The selected study areas are much improved in poultry production. An approximate distance of the Chadpai, Chilla and Sunderban, unions is about 6, 5 and 3 km respectively from Mongla Upazila sadar of Bagerhat District and the distance of Mongla Upazila from Bagerhat District is about 45 km. The map of the study area is shown in figure 1.

3.3 Unit of analysis

The unit of analysis of the study was the farm households of the three selected unions. The major criteria considered for selection of farm households from the study area were-

- The farmers of these farm households were raisers of poultry birds,
- They were raising the poultry birds to fulfill the national demand, and

- They were also raising the poultry birds for their economic development.

A map of the study area (Mongla Upazila) is shown below:

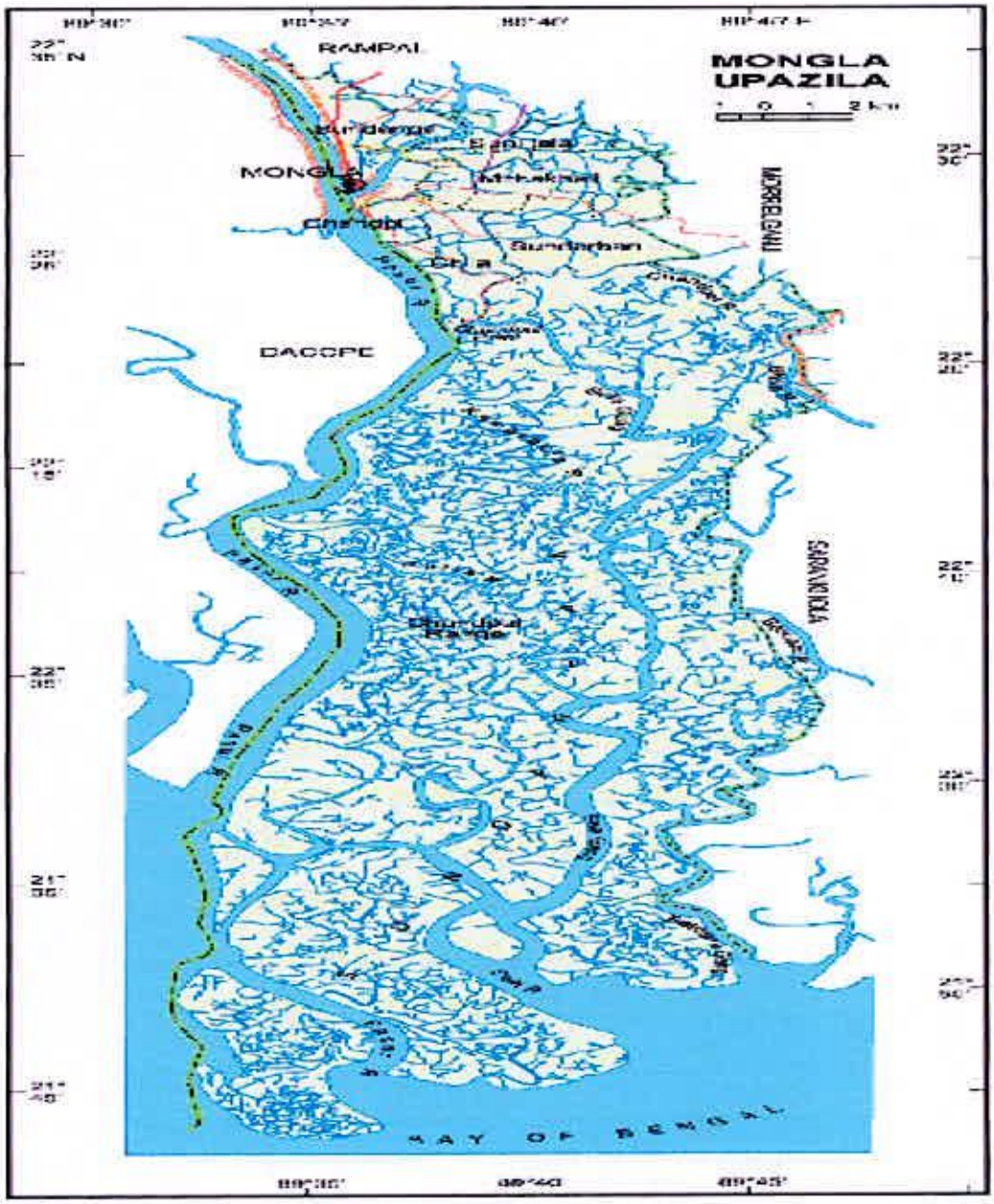

Figure1. Maps of the Mongla Upazila under Bagerhat District

3.4 Population and Sampling Design

An up-to date list of all farm households (raising poultry) of the selected unions was prepared with the help of the Veterinary Field Assistant (VFA) working therein. The list comprised of a total number of 166 farm families (Chadpai-77, Chilla-55, and Sunderban-34). Thus, the 166 farm households of the selected Unions of the Mongla Upazila constituted the active population of the study. To make a representative sample, 60 percent of the population was selected following proportionate random sampling technique. Thus, the sample size so drawn stood as 100. Here the farmers indicate the holder or head of a farm household.

3.5 Instrument for Collection of Data

An interview schedule was used as the research instrument in order to collect relevant information from the respondents. The interview schedule was carefully designed keeping the objectives of the study in mind. The interview schedule contained both closed and open-ended questions. Simple and direct questions were included in the interview schedule. Development of the interview schedule involved two phases. At the initial phase, the interview schedule basically aimed at a careful minute search of the production of poultry birds by the farmers of Mongla Upazila. People in the study area discussed spontaneously among themselves and explored out the most viable problems of poultry production. In addition to that, the researcher visited the whole study area and physically talked to the most innovative and experienced farmers of the Upazila. This extensive and laborious survey coupled with the information accumulated in the initially-constructed interview schedule helped the researcher to make a list of the name of poultry farmers of Mongla Upazila. However, before taking final decision on poultry production, the researcher consulted with several scientists, academicians, researchers and Upazila Livestock Officer to make sure whether the identified data were meaningful. After preparation of the interview schedule, it was pre-tested with 10 poultry farmers, of the Mongla Upazila. The pre-test result helped the researcher to examine the suitability of different statements. Based upon the pre-test experience, necessary correction and modification were

made in the schedule before it was run for final data collection. During modification of the interview schedule the researcher incorporated vulnerable suggestions from his research supervisor into it.

3.6 Collection of Data

Data for this study were collected by the researcher himself through face-to-face interview using an interview schedule during February, 2009 to September, 2009. Before going to make an interview, appointments with the interviewees were made in advance with the help of the concerned Veterinary Field Assistants (VFAs). 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. The poultry farmers of the selected areas helped the investigators greatly in collecting information. The researcher also obtained cooperation from the members of the Union Parishad of respective unions, local leaders and school teachers during collection of data. At the beginning of the interview with any respondent, the researcher took all possible care to establish rapport with him so that he did not hesitate to furnish proper responses to the questions and statements in the schedule. The questions were explained and clarified whenever any respondent felt difficulty in understanding properly. Moreover, at the time of data collection, the researcher was also careful about side talking and tried to avoid that problem tactfully. After completion of interview, each statement was checked and verified to make sure that answer to each item had been properly recorded. The researcher received full co-operation from the respondents during the time of interview. The entire process of collection of data took 36 days.

3.7 Measurement of the variables

In survey research the specification and measurement of the variables constitute an important task. A research hypothesis contains at least two elements, an independent variable and a dependent variable. The researcher keeping all these in mind took adequate care in selecting the variables of the study. Before the onset of the study, the researcher visited the study area several times and talked to the farmers intimately. Moreover, by staying in the study area for some time,

he was able to observe the personal, socio-economic, socio-cultural and psychological factors of the farming community which the researcher assumed might have influenced on the behavior pattern of the farmers.

3.7.1 Measurement of independent variables:

Based on this practical knowledge, side by side an extensive literature review and discussions with relevant experts and academicians, the researcher selected twelve socio-economic characteristics of these respondents as independent variables and problem faced of poultry farmers.

3.7.1.1 Age

The age of a respondent was measured in terms of actual years from his birth to the time of interview on the basis of his statement. A score of one (1) was assigned for each year of his age. It appears in item no.1 in the interview schedule (Appendix A).

3.7.1.2 Education

The level of education of a respondent was measured by the years of schooling. If a respondent did not know how to read and write, his education score was taken as zero (O). A score of one was given to that respondent who could sign his name only. Besides, the respondent got actual score for his every year of schooling, i.e. 1 for class one, 2 for class two. Thus the level of education score of a respondent was determined from response to item number 2 in the interview schedule (Appendix A).

3.7.1.3 Experience in farming

The experience in farming of a respondent was measured by the length covered from his starting year in farming to the time of interview on the basis of his statement. A score of one (1) was assigned for each year of his experience. It appears in item number 3 in the interview schedule (Appendix A).

3.7.1.4 Experience in poultry farming

The poultry farming experience of a respondent was measured by the length covered from his starting years in poultry farming to the time of interview on the

basis of his statement. A score of one (1) was assigned for each year of his experience. It appears in item number 4 in the interview schedule (Appendix A).

3.7.1.5 Family size

Family size of a respondent was measured in terms of number of members of family who live under same roof and share same kitchen (item no. 5 in the interview schedule; Appendix A)

3.7.1.6. Farm size

The farm size of the respondents was computed in hectares using the following formula:

$$FS = A_1 + A_2 + 1/2\ (A_3 + A_4) + A_5$$

Where, FS= Farm size

A_1= Homestead

A_2= Own land under own cultivation

A_3= Land taken from others on borga

A_4= Land given to others on borga

A_5= Land taken from others on lease

Farm size is shown in item number 6 in the interview schedule (Appendix A).

3.7.1.7. Annual family income

Annual income of the family of a respondent was measured in taka on the basis of his total yearly earnings from agriculture and non-agricultural sources. The yields of all the crops in the preceding year were noted. Then all the yields were converted into cash income according to the prevailing market price. The price of other enterprises (i.e. cows, goats, poultry, fishes etc.) was also added to the price. Earnings of each respondent himself and other members of their family from different sources (like service, business, and labour) were included in calculating the income. Yearly earnings of all family members from farming and non-agriculture sources were added together to obtain total family income. Data obtained in response to item no. 7 in the interview schedule were used to determine the income of the respondents (Appendix A).

3.7.1.8. Organizational participation

Organizational participation of a respondent was measured on the basis of the nature of his involvement in different organizations found operating in the study area. The researcher identified 8 organizations in the study area as shown in item no. 8 in the interview schedule (Appendix A).

Organizational participation scores were assigned in the following manner for activities of individual respondents in each group or organization:

Nature of participation	Scores assigned
Ordinary Member	1
Executive committee member	2
Executive committee officer	3

A respondent could be attached to a number of such organizations, and thus his score was determined by adding up the weighted scores for his participation in all the organizations.

3.7.1.9. Cosmopoliteness

Cosmopoliteness of a respondent was measured in terms of his nature of visit to the five different places (relative or other known persons located outside of his own village, union parishad office, own/other Upazila sadar, own/other District sadar and Capital and other cities) external to his own social system. Following Islam *et al.* 1996, four point rating scales were used to compute the cosmopoliteness score as presented below:

Place of visit	Nature of visit	Weightage
1 Relative or other known persons located outside of his own village	Not even once a month	0
	1-2 times a month	1
	3-8 times a month	2
	>9 times a month	3
2. Union parishad office	Not even once a month	0
	1-2times a month	1
	3-4 times a month	2
	5-9 times a month	3
3. Own/other Upazila sadar	Not even once a month	0
	1-2 times a month	1
	3-7 times a month	2
	>8times a month	3
4.Own/other District sadar	Not even once a year	0

	1-3 times a year	1
	2-3 times a month	2
	4-6 times a month	3
5. Capital and other cities	Not even once a year	0
	5-7 time a year	1
	8-9 times a year	2
	3 times a month	3

The cosmopoliteness score of a respondent was calculated by adding together the scores obtained for his visits to each of the five types of places as shown in item no. 9 in the interview schedule (Appendix A). The scores of a respondent could range from '0' to 15 where '0' indicating no cosmopoliteness and 15 indicating highest cosmopoliteness.

3.7.1.10. Knowledge on poultry farming

To measure the knowledge of respondent on poultry farming a 15 item scale was included in the interview schedule (item number 10 in the interview schedule, Appendix A). Each respondent was asked to answer all the 15 questions. Each of the questions was assigned a score of one irrespective of their hardness or difficulties to answer by the respondents. Thus the whole questions comprised of 15 marks. Each respondent was given a particular number depending on the percentage of appropriateness of answer to the question. The total score obtained by a respondent was calculated by summing up the scores against each of the 15 questions.

3.7.1.11. Extension contact

In this study, the extension contact score was computed for each respondent on the basis of the extent of his contact with selected media as ascertained from his responses to question no. 11 in the interview schedule (Appendix A). A number of 9 sources information were included in the interview schedule. Each respondent was asked to indicate the extent of his contact against each of the 9 sources with 4 alternative responses, such as regularly, occasionally, rarely and not at all and a weight of 3, 2, 1 and 0 was assigned to these responses respectively. Thus, the extension contact score of the respondents could ranged

from 0-27, when '0' including no extension contact and '27' indicating highest extension contact.

3.7.2 Measurement of dependent variables

Problem faced of the poultry farming is the dependent variable of the study.

3.7.2.1 Problem faced by poultry farmers

In this study, problem faced score was computed for each respondent as ascertained from his responses to question no. 12 in the interview schedule (Appendix A). Each respondent was asked to indicate his problems on selected five broad areas (Typologies) related to poultry farming such as (1) Chick related (2) Growth related (3) Feed related (4) Health related (5) Production, Marketing and Transport related. Each of the five broad areas consists of four problems statement (item no. 12 in the interview schedule). Ultimately 20 problems were included in the interview schedule. Each respondent was asked to identify the problems he has faced along with the extent of his problem faced against each of the statements. The extent of problem faced was rated as highly severe, moderately severe, less severe and not at all and the weights for these rating scales were assigned as 3, 2, 1 and 0 respectively. The problem faced score of a respondent was determined by summing the scores of all the problems included in item no. 13 in the interview schedule. The possible score of problem faced of the respondent could range from 0-60, where 0 indicates no problem and 60 indicated severe problem.

3.8 Data processing and analysis

Collected data were compiled, coded, tabulated for processing and analysis in accordance with the objectives of the study. For arriving at a meaningful conclusion, tabular presentation of data was intensively used. The SPSS-12.0 computer package program was used to analysis the data. Descriptive statistics like number, percentage, range, rank order, mean and standard deviation were used in describing the selected independent and dependent variables of the study. Throughout the study 5 percent (0.05) level of significance was used for rejecting the null hypothesis.

3.9 Categorization of Respondents

For describing the various independents and dependent variables, the respondents were classified into various categories as presented in result and discussion chapter. In developing categories, the investigators were guided by the nature of data and general consideration prevailing in the social system. The procedure and the effect of categorization of a particular variable have been discussed while describing the variable in the subsequent sections of Chapter

CHAPTER IV

RESULTS AND DISCUSSION

Findings of the study have been presented and discussed under the following sections according to objectives: (1) characteristics of the respondents along with highlights on poultry farming, (2) problem faced in poultry farming, and (3) relationship between the selected characteristics of the respondents and their problem faced.

4.1 Selected characteristics of the respondents

4.1.1 Age

The age of the respondents in the study area ranged from 16 to 70 years, the average being 43 years with a standard deviation of 8.71. Based on the observed age, the respondents were classified into three categories as it appears in Table 4.1.

Table 4.1: Distribution of respondents according to their age

Categories	Score (years)	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage (%)		
Young aged	Up to 35	43	43.0	41.62	15.149
Middle aged	36-50	19	19.0		
Old aged	Above 50	38	38.0		
Total		**100**	**100**		

Data furnished in the Table 4.1 reveals that the majority (43%) of the respondents were young-aged group as compared to 19 percent being middle-aged and 38 percent old. This leads to the understanding that the young and old aged people are more interested in the poultry farming. This also means that poultry farming is an important arena of income generation enterprise for the rural youth of the country. Young aged and old aged people are interested to earn money by poultry farming.

4.1.2 Education

Scores of level of education of the respondents ranged from '0' to 18 with the mean and standard deviation being 7.57 and 4.241, respectively. On the basis of

education, the respondents were classified into five categories as shown in Table 4. 2.

Table 4.2: Distribution of respondents according to their level of education

Categories	Score	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage (%)		
Illiterate	0	5	5.0	7.57	4.241
Primary	1-5	35	35.0		
Secondary	6-10	31	31.0		
Higher Secondary	11-12	15	15.0		
Above Higher Secondary	>12	14	14.0		
Total		**100**	**100.0**		

Data presented in Table 4.2 demonstrate that the majority (35%) of the respondents had Primary level of education followed by secondary level (31 %) above higher secondary level (14 %) and higher secondary level (15 %). Only 5 respondents was illiterate. As it is found that most of the respondents (35 %) are in primary level of education, they are able to take risks to rear poultry birds provided some problems. So the majority respondents who have primary education are more interested in poultry farming. Higher educated people are not interested in poultry farming.

4.1.3. Experience in farming

A remarkable variation (1-40 years) was found in the experience in farming of the respondents having an average and standard deviation of 9.46 and 6.124 respectively. On the basis of experience in farming the respondents were classified into three categories as shown in Table 4.3.

Table 4.3: Distribution of respondents according to their experience in farming

Categories	Score	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage (%)		
Low experience	<13	48	48.0	9.46	6.124
Medium experience	14-26	37	37.0		
High experience	>27	15	15.0		
Total		**100**	**100**		

Data presented in Table 4.3 reveal that more than two fourth (48 %) of the respondents had low experience followed by medium level experience (15 %).

Only fifteen respondents had high experience (40 years) in farming. So maximum respondents need proper training because they have low experience.

4.1.4. Experience in poultry farming

The experience of the respondents in poultry farming varied from 1 to 21 years having an average and standard deviation of 5.45 and 3.421, respectively. On the basis of experience in poultry farming the respondents were classified into three categories as shown in Table 4.4.

Table 4.4: Distribution of respondents according to their experience in poultry farming

Categories	Score	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage (%)		
Low experience	<8	49	49.0	5.45	3.421
Medium experience	8-114	47	47.0		
High experience	>14	4	4.0		
Total		**100**	**100**		

The findings indicate that most (49 %) of the respondents are low experienced in poultry farming. The findings have harmony with the farming experience of the respondents.

4.1.5 Family size

The family size of the respondents ranged from 3 to 14 with an average 7.15 and standard deviation was 2.28. On the basis of their family size the respondents were classified into three categories, which are shown in Table 4.5.

Table 4.5: Distribution of respondents according to their family size

Categories	Score	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage		
Small sized family	1-4	10	10.0	7.15	2.28
Medium sized family	5-6	30	30.0		
Large sized family	>6	60	60.0		
Total		**100**	**100**		

It is revealed that the majority (60 %) of the respondents' maintained large sized family compared to medium (30 %). The average family size (7.15) of the respondents was lower than the national average of 5.6 (BBS, 1999). It means

that the people in the study area are more conscious about their family size and population growth.

4.1.6 Poultry farm size

Farm size of the respondents in the study area varied from 0.08095 to 1.50 ha with an average of 0.8095 hector and standard deviation of 0.304781. Based on the farm size the respondents were classified into five categories as presented in the Table 4.6.

Table 4.6: Distribution of respondents according to their farm size

Categories	Score (ha)	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage		
Landless	<0.20	3	3.0	0.8095	0.304781
Marginal	0.20-0.40	10	10.0		
Small	0.41-1.0	53	53.0		
Medium	1.01-3	34	34.0		
Total		**100**	**100**		

Data presented in Table 4.6 show that the highest proportion (53 %) of the respondents had small farm as compared to 34 percent medium farm and 10 percent of marginal and 3 percent landless. There is 0 percent of large farm.

4.1.7 Annual income

The annual income (from non-agricultural + agricultural sources) of the respondents ranged from 30,000 to 1230,000 Tk. with the mean and standard deviation of 143160 and 165230.89, respectively. On the basis of their annual income, the respondents were classified into three categories as shown in Table 4.7.

Table 4.7: Distribution of respondents according to their annual income

Categories	Score (Tk.)	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage		
Low income	< 100,000	27	27.0	143160	165230.89
Medium income	100,001-300,000	55	55.0		
High income	>300,000	18	18.0		
Total		**100**	**100**		

Data furnished in Table 4.7 reveal that the all (100 %) of the respondents belonged to medium to high income group, while 27 number of the respondent belong to low income category. Since all (100 %) of the respondents had medium to high income, it is logical to assume that they had changed their economical status through poultry birds rearing and they have great scope for extension of their farms.

4.1.8 Organizational participation

The scores of organizational participation of the respondents ranged from '1' to 23 with an average of 12.33 and standard deviation of 5.356. Depending on the individual participation scores, the respondents were grouped into the following categories as shown in Table 4.8.

4.8: Distribution of respondents according to their score of organizational participation

Categories	Score	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage		
No participation	0	1	1.0	12.33	5.356
Low	1-8	28	28.0		
Medium	9-16	55	55.0		
High	>16	16	16.0		
Total		**100**	**100**		

Analysis of data presented in Table 4.8 shows that about half (55 %) of the respondents had medium organizational participation. However, the rest (28 %) of the respondents had low organizational participation.

4.1.9 Cosmopoliteness

The computed cosmopoliteness scores of the respondents ranged from 0 to 15 against possible range of 0-15, with an average score of 9.76 and standard deviation being 2.972. Based on the calculated scores, the respondents were categorized into four groups as shown in Table 4.9.

4.9:Distribution of respondents according to their score of Cosmopoliteness

Categories	Score	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage		
No cosmopoliteness	0	2	2.0	9.76	2.972
Low cosmopoliteness	1-5	5	5.0		
Medium cosmopoliteness	6-10	54	54.0		
High cosmopoliteness	>10	39	39.0		
Total		**100**	**100**		

The information presented in the Table 4.9 indicates that most (54 %) of the respondents had medium cosmopoliteness as compared to 19.32 percent had high cosmopoliteness and only a few respondents had low cosmopoliteness (39 %). It means that most of the respondents have an orientation to out of his own social system which may help them to change their attitude towards poultry birds rearing.

Cosmopoliteness enhances the opportunity for an individual to have himself to contact with outside information sources. It is, therefore, possible that an individual with substantial cosmopoliteness would have an augmented possession of accumulated knowledge, experience and problem-solving means.

4.1.10 Knowledge on Poultry Farming

The knowledge on poultry framing scores of the respondents ranged from 4 to 15 against the possible range of 0-15 with a mean and standard deviation of 11.62 and 3.038 respectively. On the basis of their knowledge on poultry farming score, the respondents were classified into three categories as shown in Table 4. 10.

Table 4.10: Distribution of respondents according to their knowledge on poultry farming

Categories	Score	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage		
Low knowledge	Up to 5	6	6	11.62	3.038
Medium knowledge	6-10	28	28		
High knowledge	>10	66	66		
Total		**100**	**100**		

Data presented in Table 4.10 reveal that majority (66 %) of the respondents belonged to high knowledge on poultry farming group, while about one twentieth (28 %) of respondents had medium knowledge on poultry farming. Since, majority (60 %) of the respondents had high knowledge on poultry farming, it is logical to assume that they had more experience for identification of problems in poultry birds rearing.

4.1.11 Extension Contact

Farmers use various information sources and media to a different extent in order to receive poultry farming information. Extension contact scores of the respondents ranged from 2 to 19, against the possible range of 0-27 with an average of 12.34 and standard deviation 4.008. Based on the computed extension contact score, the respondents were classified into four categories as shown in Table 4.11.

Table 4.11: Distribution of respondents according to their extension contact

Categories	Score	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage		
No contact	0	00	00	12.34	4.008
Low contact	1-10	33	33.0		
Medium contact	11- 20	67	67.0		
High contact	>20	0	0		
Total		**100**	**100**		

Deliberate analysis of the data presented in Table 4.11 shows that most (67 %) of the respondents had medium extension media exposure as compared to 33 percent had low exposure. There was no farmer who had no extension contact and high extension media exposure. Farmers' exposure to a variety of information sources usually guides them to identify problems in poultry birds rearing.

4.2 Problem faced by poultry farmers in poultry farming

The score of problem faced ranged from 10 to 59, against the possible range of 0-60, with a mean of 35.59 and having standard deviation of 15.48. The respondents were categorized into low, medium and high problem faced categories. The distribution appears in Table 4.12.

4.12: Distribution of respondents according to problem faced by poultry farmers in poultry farming

Categories	Score	Respondents (N=100)		Mean	Standard deviation
		Number	Percentage		
Low problem faced	Up to 20	26	26.0	35.59	15.48
Medium problem faced	21-40	17	17.0		
High problem faced	>40	57	57.0		
Total		**100**	**100**		

Data presented in Table 4.12 reveal that most of the respondents (57%) faced high problem compared to 26% and 17% of the respondents faced low and medium in poultry farming problem respectively.

4.3 Relationship between the selected characteristics of the respondents and their problem faced

The purpose of this section is to examine and describe the relationship between the problems faced by the poultry farmers (the selected characteristics of them). To explore the relationship between the selected characteristics of farmers and their problem faced, "Pearson's Product-Moment Correlation Co-efficient 'r' was used which has been shown in the Table 4.13.

Table 4.13: Relationship between selected characteristics of poultry farmers and their problem faced by poultry farming (N=100)

Dependent variables	Independent variables (Selected characteristics)	Correlation coefficient(r)	Table value of 'r' with 98 df	
			at 0.05 level	at 0.01 level
Problem faced by poultry farmers	1. Age	-0.460(**)	0.196	0.257
	2. Education	0.106 NS		
	3. Experience in farming	0.105 NS		
	4. Experience in poultry farming	-0.044 NS		
	5. Family size	0.360(**)		
	6. poultry farm size	0.228(*)		
	7. Annual income	-0.254(*)		
	8. Organizational participation	-0.108 NS		
	9. Cosmopoliteness	0.119 NS		
	10. Knowledge on poultry farming	-0.089 NS		
	11. Extension contact	-0.094 NS		

NS= non significant, * =Significant at 0.05 level of probability, ** =Significant at 0.01 level of probability

4.3.1 Relationship between age and problem faced by poultry farmers

The relationship between age of the poultry farmers and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between age of the poultry farmers and problem faced by them.

The correlation coefficient (r) was found to be -0.460 (table 4.16). This led to the following observation regarding the relationship between the variables under consideration:

- The relationship showed a negative trend.
- The computed value of 'r' (=-0.460) was much greater than the table value r (=0.257) with 98 degrees of freedom at 0.01 level of probability.
- The correlation coefficient between the concerned variable was significant at 0.01 level of probability.

On the basis of above findings, the null hypothesis could be rejected.

Hence, the researcher concluded that age of the poultry farmers had significant negative relationship with their problem faced in poultry farming.

4.3.2 Relationship between education and problem faced by poultry farmers

The relationship between education of the poultry farmers and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between education of the poultry farmers and problem faced by them.

The correlation coefficient (r) was found to be 0.106 (table 4.16).This led to the following observation regarding the relationship between the variables under consideration:

- The relationship showed a positive trend.
- The computed value of 'r' (=0.106) was smaller than the table value r (=0.196) with 98 degrees of freedom at 0.05 level of probability.
- The correlation coefficient between the concerned variable was insignificant at 0.05 level of probability.

On the basis of above findings, the null hypothesis could not be rejected.

Hence, it could be concluded that education had no significant positive

relationship with problem faced by poultry farmers.

4.3.3 Relationship between experience in farming and problem faced by poultry farmers

The relationship between experience in farming and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between experience in farming and problem faced by them.

The correlation coefficient (r) was found to be 0.105 (table 4.16). This led to the following observation regarding the relationship between the variables under consideration:

- The relationship showed a positive trend.
- The computed value of 'r' (=0.105) was smaller than the table value r (=0.196) with 98 degrees of freedom at 0.05 level of probability.
- The correlation coefficient between the concerned variable was no significant at 0.05 level of probability.

On the basis of above findings, the null hypothesis could not be rejected. Hence, it could be concluded that experience in farming of the farmers had no significant relationship with problem faced by poultry farmers.

4.3.4 Relationship between experience in poultry farming and problem faced by poultry farmers

The relationship between experience in poultry farming and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between experience in poultry farming and problem faced by them.

The correlation coefficient (r) was found to be -0.044 (table 4.16). This led to the following observation regarding the relationship between the variables under consideration:

- The relationship showed a negative trend.
- The computed value of 'r' (=-0.044) which was smaller than the table value (r=0.196) with 98 degrees of freedom at 0.05 level of probability.

- The correlation coefficient between the concerned variable was no significant at 0.05 level of probability.

On the basis of above findings, the null hypothesis could not be rejected. Hence, it could be concluded that experience in poultry farming of the poultry farmers had no significant relationship with problem faced by them.

4.3.5 Relationship between family size and problem faced by poultry farmers

The relationship between family size of the poultry farmers and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between family size of the poultry farmers and problem faced by them.

The correlation coefficient (r) was found to be 0.360 (table 4.16). This led to the following observation regarding the relationship between the variables under consideration:

- The relationship showed a positive trend.
- The computed value of 'r' (=0.360) was much greater than the table value r (=0.257)) with 98 degrees of freedom at 0.01 level of probability.
- The correlation coefficient between the concerned variable was significant at 0.01 level of probability.

On the basis of above findings, the null hypothesis could be rejected. Hence, it could be concluded that family size of the poultry farmers had significant positive relationship with their problem faced in poultry farming.

4.3.6 Relationship between poultry farm size and problem faced by poultry farmers

The relationship between poultry farm size of the poultry farmers and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between poultry farm size of the poultry farmers and problem faced by them.

The correlation coefficient (r) was found to be 0.228 (table 4.16). This led to the following observation regarding the relationship between the variables under consideration:

- The relationship showed a positive trend.

- The computed value of 'r' (=0.228) was much greater than the table value r (=0.196) with 98 degrees of freedom at 0.05 level of probability.
- The correlation coefficient between the concerned variable was significant at 0.05 level of probability.

On the basis of above findings, the null hypothesis could be rejected.

Hence, it could be concluded that poultry farm size of the poultry farmers had significant positive relationship with them problem faced in poultry farming.

4.3.7 Relationship between annual income and problem faced by poultry farmers

The relationship between annual income of the poultry farmers and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between annual incomes of the poultry farmers problem faced by them.

The correlation coefficient (r) was found to be -0.254 (table 4.16). This led to the following observation regarding the relationship between the variables under consideration:

- The relationship showed a negative trend.
- The computed value of 'r' (=-0.254) which was greater than the table value r (=0.196) with 98 degrees of freedom at 0.05 level of probability.
- The correlation coefficient between the concerned variable was no significant at 0.01 level of probability.

On the basis of above findings, the null hypothesis could be rejected.

Hence, it could be concluded that annual income of the poultry farmers had significant negative relationship with their problem faced in poultry farming.

4.3.8 Relationship between organizational participation and problem faced by poultry farmers

The relationship between organizational participation of the poultry farmers and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between organizational participation of the poultry farmers and problem faced by them.

The correlation coefficient (r) was found to be -0.108 (table 4.16). This led to the

following observation regarding the relationship between the variables under consideration:

- The relationship showed a negative trend.
- The computed value of 'r' (=-0.108) was smaller than the table value r (=0.196) with 98 degrees of freedom at 0.05 level of probability.
- The correlation coefficient between the concerned variable was no significant at 0.05 level of probability.

On the basis of above findings, the null hypothesis could not be rejected.

Hence, it could be concluded that organizational participation had no significant relationship with problem faced by poultry farmers.

4.3.9 Relationship between cosmopoliteness and problem faced by poultry farmers

The relationship between cosmopoliteness of the poultry farmers and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between cosmopoliteness of the poultry farmers and problem faced by them.

The correlation coefficient (r) was found to be 0.119 (table 4.16). This led to the following observation regarding the relationship between the variables under consideration:

- The relationship showed a positive trend.
- The computed value of 'r' (=0.119) was smaller than the table value r (=0.196) with 98 degrees of freedom at 0.05 level of probability.
- The correlation coefficient between the concerned variable was no significant at 0.05 level of probability.

On the basis of above findings, the null hypothesis could not be rejected.

Hence, it could be concluded that cosmopoliteness had no significant relationship with problem faced by poultry farmers.

4.3.10 Relationship between knowledge on poultry farming and problem faced by poultry Farmers

The relationship between knowledge on poultry farming of the poultry farmers and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between knowledge on poultry farming of the poultry farmers and problem faced by them.

The correlation coefficient (r) was found to be -0.089 (table 4.16). This led to the following observation regarding the relationship between the variables under consideration:

- The relationship showed a negative trend.
- The computed value of 'r' (=-0.089) was smaller than the table value r (=0.196) with 98 degrees of freedom at 0.05 level of probability.
- The correlation coefficient between the concerned variable was no significant at 0.05 level of probability.

On the basis of above findings, the null hypothesis could not be rejected. Hence, it could be concluded that knowledge on poultry farming had no significant relationship with problem faced by poultry farmers.

4.4.11 Relationship between extension contact and problem faced by poultry farmers

The relationship between extension contact of the poultry farmers and problem faced by them was examined by testing the null hypothesis:

"There is no relationship between extension contact of the poultry farmers and problem faced by them.

The correlation coefficient (r) was found to be -0.094 (table 4.16). This led to the followingobservation regarding the relationship between the variables under consideration:

- The relationship showed a negative trend.
- The computed value of 'r' (=-0.094) was smaller than the table value r (=0.196) with 98 degrees of freedom at 0.05 level of probability.
- The correlation coefficient between the concerned variable was no significant at 0.05 level of probability.

On the basis of above findings, the null hypothesis could not be rejected. Hence, it could be concluded that extension contact had no significant relationship with problem faced by poultry farmers.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary:

The study was conducted at Mongla Upazila under Bagerhat district. The researcher deliberately selected 3 unions from the upazila. The selected unions of Mongla Upazila were Chadpai, Chilla and Sunderban. An approximate distance of the union of Chadpai, Chilla and Sunderban from Mongla Upazila is about 6, 5 and 3 km. An up-to date list of all farm households of the selected villages were prepared with the help of the Veterinary Field Assistant working therein. The list comprised a total number of 230 poultry farm families (Chadpai-77, Chilla-118, and Sunderban-35). Thus, the 166 poultry farm households of three selected unions of the upazila (Mongla) constituted the active population of the study. To make a representative sample, 40 percent of the population was selected following proportionate random sampling technique. Thus, the sample size so drawn stood as 100.

5.1.1 Characteristics of the farmers

The majority (43%) of the respondents were young-aged group as compared to 19 percent being middle-aged and 38 percent old. The majority (35%) of the respondents had Primary level of education followed by secondary level (31 %) above higher secondary level (14 %) and higher secondary level (15 %). More than two fourth (48 %) of the respondents had low experience in farming and only15% respondents had medium to high experience (40 years) in farming. The findings indicate that most (49 %) of the respondents had low experienced in poultry farming. Majority (66 %) of the respondents belonged to high knowledge on poultry farming group, while about one twentieth (28 %) of respondents had medium knowledge on poultry farming. Since, majority (60 %) of the respondents had high knowledge on poultry farming. The majority (60 %) of the respondents' maintained large sized family compared to medium (30 %). The average family size (7.15) of the respondents was lower. The highest proportion (53 %) of the respondents had small farm as compared to 34 percent medium

farm and 10 percent of marginal and 3 percent landless. There is 0 percent of large farm. The all (100 %) of the respondents belonged to medium to high income group, while none of the respondent belong to low income category. Since all (100 %) of the respondents had medium to high income. The annual income (from non-agricultural + agricultural sources) of the respondents ranged from 30,000 to 1230,000 Tk. with the mean and standard deviation of 143160 and 165230.89, respectively. About half (46 %) of the respondents had medium organizational participation. However, the rest (41 %) of the respondents had low organizational participation. Most (54 %) of the respondents had medium cosmopoliteness as compared to 19.32 percent had high cosmopoliteness and only a few respondents had low cosmopoliteness (39 %). The computed cosmopoliteness scores of the respondents ranged from 0 to 15 against possible range of 0-15, with an average score of 9.76 and standard deviation being 2.972. Most (67 %) of the respondents had medium extension media exposure as compared to 33 percent had low exposure. There was no farmer who had no extension contact and high extension media exposure.

5.1.2. Problem faced by the farmers in poultry farming

Most of the respondents (57%) faced high problem compared to 26% and 17% of the respondents faced low and medium in poultry farming problem respectively.

5.1.3. Relationship of the selected characteristics of the poultry farmers with their problem faced

Pearson Product Moment Correlation co-efficient showed that among the selected eleven characteristics of the poultry farmers, family size and poultry farm size had significant positive relationship with their problem faced in poultry farming and age and annual income of the respondents had a significant negative relationship with their problem faced in poultry production. Other characteristics of the farmers had no significant relationship with their problem faced in poultry production.

5.2 Conclusion:

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

1. The research findings reveal that majority of the respondents (57 percent) faced high problem compared to 26% and 17% of the respondents faced low and medium in poultry farming problem respectively. It is quite logical that most of the respondents had primary education, low experience in farming, medium experience in poultry farming, large family size, small farm size, medium annual income, medium organizational participation, high knowledge on poultry farming and medium extension contact, so they showed medium relationship.
2. There was insignificant relationship between education and problem faced by the farmers in poultry farming. Education is a contributory factor of gaining knowledge and skill and has created positive relationship in an individual towards good things.
3. In the study area more than two fourth (48 %) of the respondents had low experience followed by medium level experience (15 %). Only fifteen respondents had high experience (40 years) in farming and insignificant relationship with problem faced by the farmers in poultry farming. So maximum respondents need proper training because they have low experience.
4. In the study area the findings indicate that most (49 %) of the respondents are low experienced in poultry farming and insignificant negative relationship with problem faced by the farmers in poultry farming. The findings have harmony with the farming experience of the respondents.
5. In the study area the majority (60 %) of the respondents' maintained large sized family compared to medium (30 %) and significant positive relationship with problem faced by the farmers in poultry farming. It

means that the people in the study area are more conscious about their family size and population growth.

6. In the study area, the highest proportion (53 %) of the respondents had small farm as compared to 34 percent medium farm and 10 percent of marginal and 3 percent landless. There is 0 percent of large farm and showed positive and significant relationship with problem faced by the farmers in poultry farming. The farmers having large farms are generally economically solvent and they showed favorable relationship towards problem faced by the farmers in poultry farming. So, GOs and different NGOs should provide credit to the small poultry farm sized farmers which help them to increase their farm size in proper way. It led to the conclusion that in general the increment of the poultry farm size of the respondents was followed by more contact with poultry grower.
7. In the study area, that the all (100 %) of the respondents belonged to medium to high income group, while 27 number of the respondent belong to low income category. Since all (100 %) of the respondents had medium to high income and showed negative and significant relationship with problem faced by the farmers in poultry farming, it is logical to assume that they had changed their economical status through poultry birds rearing and they have great scope for extension of their farms.
8. In the study area, that about half (55 %) of the respondents had medium organizational participation. However, the rest (28 %) of the respondents had low organizational participation and showed negative and insignificant relationship with problem faced by the farmers in poultry farming.
9. In the study area, majority (54 %) of the respondents had medium cosmopoliteness as compared to 19.32 percent had high cosmopoliteness and only a few respondents had low cosmopoliteness (39 %) showed positive and insignificant relationship with problem faced by the farmers in poultry farming. It means that most of the respondents have an orientation to out of his own social system which may help them to

change their attitude towards poultry birds rearing. It is, therefore, possible that an individual with substantial cosmopoliteness would have an augmented possession of accumulated knowledge, experience and problem-solving means.

10. In the study area, that majority (66 %) of the respondents belonged to high knowledge on poultry farming group, while about one twentieth (28 %) of respondents had medium knowledge on poultry farming %) showed negative and insignificant relationship with problem faced by the farmers in poultry farming. It is logical to assume that they had more experience for identification of problems in poultry birds rearing.
11. In the study area, the majority (67 %) of the respondents had medium extension media exposure as compared to 33 percent had low exposure showed negative and insignificant relationship with problem faced by the farmers in poultry farming. There was no farmer who had no extension contact and high extension media exposure. Farmers' exposure to a variety of information sources usually guides them to identify problems in poultry birds rearing.

5.3 Recommendations:

5.3.1 Recommendations for Policy Implications

Based on the findings and conclusions, the following recommendations are proposed for maintaining the production and marketing of poultry produces:

1. It was revealed that NGO workers and poultry farms of others are the communication media highly used by the farmers. Upazila Livestock Officer (ULO), Veterinary Surgeon (VS) and Veterinary Field Assistant (VFA) had little communication with the poultry farmers of the locality. Therefore, more activity of the government employees of the livestock office can help the poultry farmers in solving various problems related to the poultry production. As poultry farmers depend on the NGO workers for the veterinary and other type of poultry production related topics, GO-NGO collaborations may be sought to utilize the poultry production issues.
2. The present study has disclosed that most of the poultry farmers in the study area are almost part-time farmers since they work for few hours in their everyday farming. Perhaps, most of them have other earning means in addition to poultry farming. If poultry farmers take poultry farming as their profession the production of the poultry producers will increase considerably. Therefore, it is recommended that the concerned authorities should undertake required initiatives for introducing poultry farming as the income generating activity (IGA) in the study area.
3. Market for poultry products is an important factor. Market price of the poultry products fluctuates as and often which greatly affects the benefit of the farmers from the poultry farming. Therefore it is recommended that the concerned authorities should take into active consideration about local and national market for poultry products.

5.3.2 Recommendations for further studies

This small piece of study being conducted in a specific location cannot provide all information for proper understanding about the problems in poultry production in Bangladesh. Future studies should be undertaken covering more dimensions in the related matters. The following recommendations are suggested in this connection:

1. The present study was conducted in three selected unions of Mongla Upazila under Bagerhat district. Similar attempts may be undertaken in other parts of the country to investigate poultry farming and to identify the related problems and relevant aspects in the light of poultry production. Findings of this study need verification by similar research in other parts of the country.

2. The present investigation explored the relationships of some of the selected characteristics of the farmers with their problem faced in poultry production. Further, research should be conducted to explore the relationship of other characteristics of the farmers with their problem faced in poultry production.

3. Findings indicate that there was no significant relationship between education, experience in farming, organizational participation, cosmopoliteness, knowledge on poultry farming. Further research is necessary to verify such relationships.

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APPENDIX A

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

PROBLEM FACED OF POULTRY FARMERS OF MONGLA UPAZILA UNDER BAGERHAT DISTRICT

Sample no .....

Personal information:

Name ..... Fathers name .....

Village ..... Union .....

Upazila ..... District .....

1) Age of the respondents: .....Years.

2) Educational qualification:

Please mention your educational qualification

a) Cannot read and write .....

b) Can sign only .....

c) ..... class passed.

3) Experience in farming .....year.

4) Experience in poultry farming: .....year.

5) Family size:

Please mention the number of your family members .....

6) Farm size:

Please furnish information about your lands according to use

Sl No	Use of land	Area of land	
		Local unit	Hectare
1	Homestead		
2	Own land under own cultivation		
3	Land given to others on borga		
4	Land taken from others on borga		
5	Land given to others on lease		
6	Land taken from others on lease		
7	Others		
Total			

7) Annual income:

Please furnish information about your family income (annual) from different sources.

Sl No	Sources of income	Amount of price per unit	Amount of Taka
1	**Agricultural sources**		
	1. Rice		
	2. Jute		
	3. Wheat		
	4. Vegetables		
	5. Fruits		
	6. Poultry		
	7. livestock		
2	**Non-agriculture**		
	1. Business		
	2. Service		
	3. Labour		
	4. Other s		
Total			

8) Organizational participation:

Please mention the nature and duration of your participation in the following organizations.

Sl No	Name of organizations	Nature of participation		
		Ordinary member	Executive committee member	Executive committee officer
1	Poultry farmers' cooperative committee			
2	School committee			
3	Mosque/Mondir/Church/ Pagoda committee			
4	Madrashah committee			
5	NGO committee			
6	Union parishad			
7	Youth club			
8	Poultry association			

9) Cosmopoliteness:

Please indicate the number of times you have visited the following places in agricultural purposes:

Sl No	Place of visit	Nature of visit			
		Frequently (3)	Occasionally (2)	Rarely (1)	Not at all (0)
1	Relative or other known persons located outside of your own village	5-6 times/month	3-4 times/month	1-2 times/month	0 times/month
2	Union parishad office	8-10 times/year	5-7 times/year	1- 4 times/year	0 times/year
3	Own/other Upazila sadar	5-6 times/month	3-4 times/month	1-2 times/month	0 times/month

4	Own/other district sadar	4 times/year	3 times/year	1-2 times/year	0 times/year
5	Capital and other cities	3 times/year	2 times/year	1 times/year	0 times/year

10) Knowledge on poultry farming:

SL. No.	Questions	Total Marks	Marks Obtained
1	Mention two breeds of poultry	1	
2	Mention two rearing problem	1	
3	Mention two diseases of poultry	1	
4	Mention the usual time of disease attack in the case of poultry	1	
5	What type of medicine is used in case of ranikhet disease	1	
6	Mention two vaccine of poultry	1	
7	What is the appropriate time of vaccination	1	
8	What is the main cause of less production of poultry	1	
9	Mention the feed requirement of poultry for layer birds	1	
10	What type of feed is suitable for broiler	1	
11	Mention the water requirement of layer	1	
12	What type of house is required in poultry farming	1	
13	Mention two marketing problem of poultry farming	1	
14	Mention two transport problem of poultry farming	1	
15	Mention the type of transport used in poultry farming	1	
	Total	15	

11) Extension contact:

Please mention the extent of contact with the following media in respect of various information related to your farming:

Sl. No.	Communication media	Regularly (3)	Occasionally (2)	Rarely (1)	Not at all (0)
1	Veterinary Field Assistant				
2	Others Poultry farmers				
3	Neighborhood				
4	Relatives & Friends				
5	Upazila Livestock Officer				
6	Veterinary Surgeon				
7	Television				
8	Radio				
9	Poultry related magazine				

12) Problem faced:

SL. No.	Type of problem	Extent of problem			
		Highly Severe (3)	Moderately severe (2)	Less Severe (1)	Not at all (0)
A	**Chick related**				
1	High price of chicks				
2	Lack of quality chicks				
3	Unavailability of chicks in time				
4	Lack of available number of hatchery				
B	**Growth related**				
5	High mortality rate				
6	Low body weight				
7	Disability of producing required eggs				
8	Lack of growth regulatory knowledge				
C	**Feed related**				

9	High price of feed				
10	Lack of knowledge of feed production				
11	Unavailability of quality feed				
12	Lack of feed storage knowledge				
D	**Health related**				
13	Unavailability of vaccine				
14	Unavailability of medicine				
15	High price of vaccine and medicine				
16	Lack of veterinary knowledge				
E	**Production, marketing and transport**				
17	High production cost				
18	Transportation is risky				
19	Low production and lack of local market				
20	Low market price in respect of production cost				

(Thank you for your nice cooperation)

Signature of data

Date: .....

collector

APPENDIX B

Correlation Matrix

Inter-correlation between 12 characteristics and the dependent variable (N= 100)

Characters	Age	Education	Experience in farming	Experience in poultry farming	Family size	Farm size	Annual income	Organizatio-nal participatio n	Cosmopo-liteness	Knowled-ge on poultry farming	Extensio n contact	Problem faced
Age	1.00											
Education	-0.001	1.00										
Experience in farming	0.118	-0.022	1.00									
Experience in poultry farming	0.038	-0.138	0.151	1.00								
Family size	-0.041	0.040	-0.046	-0.046	1.00							
Poultry farm size	-0.323**	-0.229*	-0.004	-0.004	-0.164	1.00						
Annual income	-0.182	0.203*	0.081	0.081	0.151	0.151	1.00					
Organizational participation	0.153	0.160	0.019	0.019	-0.048	-0.048	-0.169	1.00				
Cosmopoliteness	0.008	0.049	-0.028	-0.028	-0.239*	-0.239*	-0.171	-0.171	1.00			
Knowledge on poultry farming	0.167	-0.042	-0.062	-0.062	0.050	0.050	0.160	-0.025	-0.158	1.00		
Extension contact	0.127	0.082	-0.258**	-0.258**	-0.119	-0.119	-0.223*	0.224*	0.018	0.170	1.00	
Problem faced	-0.460**	0.038	0.106	0.105	-0.044	0.360**	0.254*	-0.108	0.119	-0.089	-0.094	1.00

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