**CHAPTER -1**

**INTRODUCTION**

**1.1 Introduction**

 Bangladesh is one of the most densely populated countries in the world.The Population density (people per sq. km) in Bangladesh was last reported at 1142.29 in 2010, according to a World Bank report published in 2012. Bangladesh's per capita income went up to $848 in the current fiscal year from $816 last year **(Bangladesh Bureau of Statistics-2012)** but "Bangladesh has world’s highest malnutrition rate". **(oneworld.net & UNICEF).** In Bangladesh, 26% of the populations are undernourished and 46% of the children suffers from moderate to severe underweight problem.43% of children under 5 years old are stunted**. (**[**"The state of food insecurity in the food 2011"**](http://www.fao.org/docrep/014/i2330e/i2330e.pdf)**. fao.org. &** [**"Bangladesh Healthcare Crisis"**](http://news.bbc.co.uk/2/hi/south_asia/659674.stm)**. BBC News. 28 February 2000)**. **Retrieved 14 February 2012.**

The economy of Bangladesh is based primarily on agriculture, and livestock is an essential component of the rural economy and the livelihood of the subsistence farmers. The country has a sub-tropical monsoon climate and 84.4% of its population is living in rural areas. Countries 25 percent peoples are directly engaged in livestock sector, and 50 percent peoples are partly associated in livestock production.

In 2011-12 fiscal, the growth of Livestock in GDP was 2.50**(BBS).**

**Table-1. Contribution of livestock & poultry on national economy:**

|  |  |
| --- | --- |
| Growth of livestock in national economy  | 7.23% |
| Contribution of livestock sector in national economy  | 2.95% |
| Role of livestock in agricultural production  | 17.32% |
| Cultivation of land  | 75% |
| Self employment | 25% |
| Production of livestock products (crore) | 15000 (Approx) |
| Foreign exchange earning (only from hides & skins) 2003-04 | 4.31% |
| Rural transport  | 50% |
| Production of organic fertilizer | 80 m.m.t |
| Fuel supply  | 25% |

**Source: Economic Review-2006**

According to the last statistics of livestock and poultry population for the year 1993-94, the number was 3 crore 52 lac and 12 crore 28 lac respectively.

 In 2006-07 the population of livestock and poultry raised to 4 crore 75 lac and 24 crore 60 lac respectively. Poultry production and poultry related industry contributes much more of total livestock sector in Bangladesh.

 **1.2 Poultry Sector:**

According to statistics available from operators in the sector, there are now about five grand parent stock farms, 40 to 50 parent stock farms and hatcheries, 70,000 to 80,000 poultry farms and 15 to 20 poultry feed factories in the private sector. The sector is also poised to grow rapidly.

It has already posted growth of some 20 per cent in the last 15 years. Owners and operators in the industry are confident that it could grow rapidly in the coming years and create employment opportunities for another 10 million people. The employment would be created mainly among the current jobless at the grassroots levels.
The poultry industry is not only meeting local needs very substantially; it has also found newer opportunities from value addition. Food industries have grown up based on chicken that produce soups, nuggets, sausages and other products in accordance with the changing preferences of the customers. Some of these local poultry-based and value-added products have found some export markets as well.(**newsroom-meattradenewsdaily.co.uk).**

**Table-2: Poultry population in Bangladesh:**

|  |
| --- |
| **Number ( In lac )** |
| Poultry | 05-o6 | 06-07 | 07-08 | 08-09 | 09-10  | 10-11 | 11-12February |
| Chicken | 1948.2 | 2068.9 | 2124.7 | 2213.94 | 2280.35 | 2346.86 | 2392.49 |
| Duck | 381.7 | 390.8 | 398.4 | 412.34 | 426.77 | 441.20 | 451.15 |
| Total Poultry | 2329.9 | 2459.7 | 2523.1 | 2626.28 | 2707.12 | 2788.06 | 2843.64 |

**Source: Livestock, Ministry of Fisheries and Livestock.**

The density of poultry population per unit of land is high in Bangladesh, compared to other countries of world. The production of egg was increasing on a regular basis with a lower increasing rate which has reached to a higher rate in the year 2011-12.

Egg is an excellent source of protein and nutrients which are essential for health and growth of the body. Egg is also an inexpensive source of protein among all animal products and also a delicious food item. The increase in production of egg was significant in recent years.

**Table-3: Production of egg:**

|  |
| --- |
| **Production ( In lac )** |
| Year | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 | 11- 12February/12 |
| Egg | 54220 | 53690 | 56532 | 46420 | 57424 | 42110 | 40561 |

**Source: Livestock, Ministry of Fisheries and Livestock.**

Much of the increased egg production has come from commercial poultry sector. Since the last decade it is observed that poultry was one of the major activities where a large number of employments could generate a greater portion of local value addition. Government has declared poultry as a thrust sector and classified it as;

agro-based industry.

New and more scopes for grow in poultry sector is evident. The gap between demand and supply is huge at present. On the other hand, per capita protein consumption in our country compared to international standards is very low. Unavailability due to small scale of production is also a major factor beside other reasons.

**1.3. History and Progress of Egg Production in Bangladesh:**

Bangladesh have a long historical background of poultry raising under traditional backyard farming. Almost all eggs and poultry are produced by villagers in this country since domestication of poultry. The villagers generally kept indigenous chicken under semi-natural conditions mainly for their domestic consumption with very little commercial motives. In 935 improved varieties of birds (white leghorn) were first imported in India form foreign countries. Rising of improved type of birds was first started in government poultry farm.

In 1947, six poultry farms were first established in different places in this country for supplying eggs and chicks to the villagers. In 1964 a commercial poultry farm named Eggs and Hens Ltd. was established at Gazipur near Dhaka city by late Mr. Ekramul Hossain, which was recognized as a mother commercial poultry farm in the private poultry sector. Poultry farming on commercial and scientific line was started in 1970 in Bangladesh. After the liberation of Bangladesh, BIMAN Bangladesh Airlines, started a commercial poultry farm in the name of Biman Poultry Complex Ltd. at Savar, very close to Dhaka city, mainly to furnish for flight catering needs of the Biman Bangladesh Airlines but it also fulfilled the demand for eggs and day-old chicks of private poultry farms to some extent. Since then commercial poultry started to gain popularity and during 1990 the poultry production stated taking the shape of an industry with the establishment of a large number of small and large broiler and layer hatcheries.

Commercial egg production has become a specialized and speedy business at present time for the people of Bangladesh. Now-a- day’s layer farming is being accepted as a profitable business. As a result a good number of small, median and large farms have already been established all over the country.

**The specific objectives of the present study were as follows.**

1. To examine the existing marketing system of egg.
2. To determine the marketing cost and marketing margin in different channels.
3. To identify the problems of egg production, marketing and suggested

 measures for improvement of egg marketing.

**CHAPTER -2**

**REVIEW OF LITERATURE**

**2.1. Introduction**

 The Purpose of this chapter is to provide some review of previous studies, which are related with the present study. Because through reviewing of literature a researcher can compare between the past and present study. In the present section, the most common and relevant studies, which have been conducted on the past, are highlighted.

**2.2. Studies Conducted in Abroad**

 Some economic studies on layer enterprise conducted outside Bangladesh were also reviewed which are discussed below.

 **Shrivastava et al, (1994)** studied on price spread in the marketing of eggs in Lucknow City, In this study the researchers estimated the distributive margins of different actors at various levels of the marketing chain to determine the producers share in the consumers rupee in egg marketing in Lucknow, Uttar prodesh, India.

 **Sharma *et al.,(*1995).** Studied the marketable surplus of eggs in punjab. The researchers Investigated in this study the marketable surplus of eggs in India according to farm size.

They collected data for 1998/90 from a total sample of 191 poultry farms in Ludhiana and Faridkot districts, Punjab. In this study the farms were categorized into three groups according to size such as small (less than 3000 layers), medium (3000-10000 layers) and Large (above 10000 layers). The result of this study showed that breakage and home consumption were the highest for large poultry farms and the lowest for the small farms.

This report also presented that about 65 percent of total egg production took place in the period of October to March.

 **Ashutosh and Shrivastava (1999)** carried out a study on economics of poultry production and marketing in Jabalpur district of Mkadhya Pradesh. They studied 12 Poultry farmers from the organized sector and twenty five poultry farms from unorganized sector. The results revealed the commercial layer and broiler units of particularly the large farmers were well managed and cost effective as compared to the small and medium farms. Among the four main marketing channels, two accounted for 75 per cent share of egg marketing and one accounts for 90 per cent share of broiler marketing. Poultry were considered to have good prospects.

**2.3. Studies in Bangladesh**

 A good number of studies on poultry and its products marketing have been conducted in Bangladesh. These are discussed as follows:-

**Ali (1976)** carried out an economic analysis of poultry farming in Dhaka city. with particular emphasis on small-scale commercial egg producing farms on the roofs of dwelling houses. The researcher found that both small and medium poultry farms were highly profitable. He also identified the problems of farmers.

**Islam (1976**) studied egg marketing in Mymensingh town. In this study the researcher identified the marketing system of egg, estimated the marketing cost and margin of egg in Mymensingh town and studies the marketing efficiency of eggs.

**Miah (1992)** studied poultry marketing in Mymensingh district. It is found that poultry birds were marketed through the channel: producer, Aratdar, Wholesaler, retailer and consumer. The intermediaries faced various problems in running their business. The study showed that marketing cost per 50 kg bird was Tk.23.36 on which transportation cost accounted for the highest share. The profit earned by the intermediaries was not encouraging. Since the marketing channel was long, the consumers had to pay high price and producers were deprived of fair returns.

**Miah *et al.,* (1992)** conducted a study entitled “An economic analysis of poultry marketing in Mymensingh district: a micro level study” they observed that poultry was produced in a backyard subsistence method and the existing poultry marketing was inefficient. Findings of the study revealed

**Rahman (1993)** conducted a study on marketing of egg in Bangladesh. In this study villages of Mymensingh and Tangail districts were selected as supplying or producing centre and Dhaka city was selected as consuming centre. The marketing pattern and function of egg in Bangladesh were examined in this study. The researcher also identified the problems of egg marketing and provided of solution as suggested by egg traders.

**D.K.saha (1997)** Studied egg marketing in Dhaka city. The researcher identified socio-economic characteristics of farm owners and other market participants, egg marketing system, estimate the marketing cost margin and problems of egg marketing system of Dhaka city

**Rahman (2001)** completed a study on prospects and problems of poultry industry in selected areas of Bangladesh with particular preference to marketing practices. For the study Gazipur and Kishoreganj districts were purposively selected. The researcher selected 130 respondents which included 25 contract growing farmers, 40 traders of broiler and 20 layer farmers and 45 egg traders. He calculated average cost of raising broiler per batch was Tk. 73322 for 1000 birds and the net return per broiler farm per batch was Tk.8058. He also calculated the average cost of raising layer per farm per batch which was Tk. 78940 per 1000 birds and net return per batch (72 weeks ) for 1000 birds was estimated at Tk 14047. The average marketing cost of broiler in Dhaka city and in Kishoreganj for wholesaler cum retailer and retailers were estimated at Tk. 2844, Tk. 2046, Tk.2543 and tk.23702 per 1000 birds respectively.

**CHAPTER -3**

**RESEARCH METHODOLOGY**

**3.1. Introduction:**

Methodology is an indispensable and integral part of any research. The methodology is related to selection of the study areas, selection of the samples, preparation of the survey schedule, collection of data, period of data collection, tabulation, editing and analysis of data. The methodology of the present study is discussed in this chapter.

**3.2. Selection of the study Area:**

 Selection of the study area is an important step for conducting any study. It depends on the objectives or purposes set for the study and where the concerned commodity or work is available. For the present study, Pirganj Upazilla under Rangpur district was selected because, recently a large number of commercial layer farms have been established there. So, there is a good prospect of egg marketing in the study area. For convenient of researcher, the farm owner and egg traders of Khalaspir, kadirabad, Takuria, Monail, Baliahat, Chattra, Colony bazaar, vendabari Projapara, Baspukuria. were selected.

**3.4. Selection of sample:**

The total sample size was 30 in which 10 farms owner, 10 Aratder-cum-wholers, 10 retailers were selected for interviewing.

**3.5. Selection of sample size:**

In this study 10 layer farms were selected from Projapara, Baspukuria, Kashimpur, Chatua, Mitipur.

Aratder-cum-wholesalers were selected conveniently from Khalaspir, Pirgonj Sadar,

Vendabari, Chattra, Takuria.

10 retailers were selected conveniently from Monail, kadirabad, Colony bazaar, Baliahat.

**3.6. Period of Data collection:**

For the present study, data were collected during the period of 01 to 30 Sept. 2012.

**3.7. Collections of Data:**

Data were collected both from primary and secondary sources for the study. Primary data were collected by the researcher herself through face to face interview with the selected respondents in the study area. Before the actual interview respondents were given a brief introduction about the nature and purpose of the study. At the time of interview the researcher asked the questions systematically and explained the questions whenever it was found necessary. The layer farm owners were interviewed at their farms while the traders were interviewed at market place.

The study also required data from some secondary sources. Secondary data were collected from various journals, reports, books and Bangladesh Bureau of Statistics (BBS).

 **3.8. Processing and Tabulation of Data:**

After collection of data from the field, all the collected data for the present study were coded, tabulated, summarized and processed for analysis. The first step was taken to scrutinize the data of each and every schedule to find out any inconsistency or omission in the data collection and to avoid irrelevant information. The data were then transferred from survey schedule to tabular forms for systematic study. Then these were analyzed to achieve the desired objective of the study.

**3.9. Analytical Technique:**

A list of tables were prepared on the basis of findings of the analysis to achieve the objectives of the study. Data were presented mostly in the tabular form. Statistical methods such as mean, percentage etc. were applied for analyzed the data.

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**Figure 2: Eggs collected for selling.**

**Figure 1: Collection of data.**

****

**Figure 3: Loading of eggs for transportation.**

**3.10. Problems Faced in Data Collection:**

The researcher faced varies problems while collecting data. These are discussed below:

1. There was limitation of the time and for this, data and other necessary information had to be collected within the shortest possible time.
2. Most of the respondents hesitated to give their actual information about production, income and profit. Because they were always afraid of tax imposition. To overcome this problem a good deal of time was spent to establish rapport with the respondents.
3. Most of the respondents had no previous idea about such study. They were always apprehensive about the purpose of the study and it was therefore difficult to explain the purpose of this research to convince them.
4. Most of the respondents were not well educated. Since majority of the layer farm owners and egg traders did not keep any records of their business.
5. Sometimes the respondents did not cooperate willingly with the researcher because of no direct benefit from supplying information.
6. The owners of layer farms and egg traders were not available at their firms or shops because they remained busy with their outside work. For this, sometimes more than two visits were needed to collect the desired information from a single respondent.

**CHAPTER -4**

**MARKETING SYSTEM OF EGG**

**4.1. Introduction:**

The marketing system is sometimes referred to as “the marketing machinery” or “the product distribution system”. The system plays two important roles in the industry. The role of physical distribution, which is concerned with the physical handling and transfer of products as they move from producers to consumers and the role of adding value to the farm commodities and facilitating the exchange process between buyers and sellers **(KIohls and Uhl, 1980 pp.5-6).**

Marketing system of egg is composed of mainly three components namely marketing channels, market participants and numerous business activities. These components are discussed below:

**4.2. Marketing Channels of Eggs**:

 The chain of intermediaries or middlemen through which the transaction of goods takes place between producer and consumers is known as marketing channel.

 According to **Gandhi (1983, p. 350).** Marketing channel may be defined as “a pathway composed of intermediaries also called middlemen, who perform such functions as needed to ensure smooth and sequential flow of goods and services from the manufacturing ends to the consuming ends in order to achieve marketing objectives of a company”.

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 **Normal marketing channels of eggs are as follows:**

**Farm owner**

**Wholesaler-cum-retailer**

**Aratdar –cum- wholesaler**

**Institutional Buyer**

**Retailer**

**Consumer**

**In my study area the marketing channels of eggs are as follows:**

**Farm owner**

**Aratdar –cum- wholesaler**

**Wholesaler-cum-retailer**

**Retailer**

**Consumer**

**On the basis of Figure the following channels can be identified:**

Channel –I: Farm owner→Aratdar-cum-wholesaler→Retailer→Consumer

Channel-II: Farm owner**→**Wholesaler-cum-retailer→Consumer

Channel-III: Farm owner**→** Retailer→Consumer

Channel-IV: Farm owner**→** Consumer.

**4.3. Market participants:**

 The participants in the marketing channels of eggs in the study areas are briefly discussed below:

**4.4. Layer farm owner:**

 The first link in the chain of egg marketing was the layer farm owners. The layer farm owners produced eggs in their farms thought the year. They sold their eggs to the intermediaries. In the study areas farm owners sold their eggs directly to the wholesaler-cum-retailer and retailer.

**4.5. Aratdar-cum-Wholesaler:**

They purchased large volume of eggs directly from the farmers and sold them to retailers.

**4.6. Wholesaler-cum-Retailer:**

Wholesaler-cum-retailers were the professional traders in the channels of egg marketing. They have fixed business premises in the market. They performed both wholesaling and retailing activates. They purchased large volume of eggs directly from the farmers at market place and sold them to retailers and consumers.

**4.7. Retailer**:

In the study area, most of retailers purchased eggs from the wholesaler-cum-retailers and some retailers purchased eggs from the farmers and sold to the ultimate consumers in the local market.

**4.8. Marketing functions performed by egg traders:**

1. **Buying:** Farm owners supply eggs at the Aratdar stores. Retailers and suppliers of the institutional buyers purchased entire volume of eggs from Aratdar-cum-wholesalers. They purchase in cash or on credit or both. They purchase mainly on the basis of three forms viz, bargaining, accepting prevailing market price and both bargaining and prevailing market price.
2. **Selling:** Aratdar-cum-wholesaler sell eggs to retailer, suppliers of institutional buyers and institutional buyers. Retailers sell eggs to consumer and institutional buyers. This function is operated by in cash or on credit or both. Selling price are fixed by bargaining or prevailing market price or a ‘Mark up” on purchase price or on tender.
3. **Transportation:** Aratdar-cum-wholesalers mainly use truck, supplier use pick-up and rickshaw-van, retailers use rickshaw for the transportation of eggs.
4. **Storage:** Egg traders store egg at shop in basket for one to three days, inplastic case for four to seven days, in cold storage for one month and above.
5. **Marketing information:** Egg traders receive market information from fellow traders, market visit and personal observation.
6. **Grading:** Grading is one of the important functions of marketing. Grading is the sorting or product into different lots each of which has essentially the same quality characteristics. Size and colour were mainly used as basis for grading eggs. In the study area the farm owners graded eggs on the basis of colour (white and brown). The brown colour egg was comparatively higher priced because of higher cost of production and preference of consumers. No formal grading was followed at wholesale and retail levels.
7. **Financing:** The financing function is the advancing of money to carry on the various aspects of marketing. In the study area most of the farm owners and egg traders were self-financed, other sources of financing were banks, mahajons, friends and relatives.
8. **Market information:** Market information is one of the facilitative marketing functions required for efficient operation of a marketing system. Accurate and timely market information facilitates farmers in deciding about the price, time and place of sale of their produce **(Kohls and Uhl 1980, p.331).** In the study areas, fellow farm owners, traders and visit to market place were the source of information for the layer farm owners. In the case of trader, fellow traders and market visit and personal observation were the source of market information.
9. **Risk bearing:** The bearing function is the accepting of the possibility of loss in the marketing of a product. In case of egg marketing both physical and market risk were observed in the study area. Physical risk occurs from destruction or deterioration of the product itself by road accident, breakage and spoilage of eggs. Breakage of egg is an important physical risk. Market risk arises from the changes in market price.

**CHAPTER-5**

**MARKETING COST AND MARGIN**

**5.1. Introduction:**

 The purpose of this chapter is to analyze the marketing cost, margins along with price spreads of different market intermediaries of different market channels of egg marketing in the selected study area and attempt has also been taken to estimate marketing efficiency to understand which channel was the most efficient.

**5.2. Marketing cost of layer farm owner:**

 An estimation of the cost of marketing of the layer farm owners would be made in this section. They performed the function of selling egg to wholesaler-cum-retailers at marketplace and retailers at farm place.

**Table-4: Marketing cost of layer farm owners:**

|  |  |  |
| --- | --- | --- |
| **Cost items** | **Cost (Tk. /100 eggs)** | **Percentage** |
| Transportation cost  | 41 | 54.66 |
| Cost of cage | 6 | 8.00 |
| Wastage  | 18 | 24.00 |
| Other marketing cost | 10 | 13.34 |
| Total cost | 75 | 100.00 |

**5.3. Marketing cost of Aratdar cum-Wholesaler:**

In the study area the wholesaler-cum-retailer had their own shops on the market place. They usually purchased egg from layer farm owners and sold to retailers. Marketing cost of Aratdar cum-Wholesaler is given below.

**Table-5 Marketing cost of Aratdar cum-wholesaler**

|  |  |  |
| --- | --- | --- |
| **Cost items** | **Cost****(Tk per 100 eggs)** | **Percentage** |
| Rent of shop | 0.45 | 16.6 |
| Electricity  | 0.26 | 9.59 |
| Wages and salary | 0.5 | 18.45 |
| Tools and equipment (cage and khacha) | 0.15 | 5.54 |
| Wastage (Breakage and spoilage)  | 0.7 | 25.84 |
| Market security  | 0.05 | 1.84 |
| Market toll | 0.05 | 1.84 |
| Telephone/Mobile phone bill | 0.2 | 7.38 |
| Personal expenses | 0.15 | 5.54 |
| Miscellaneous cost  | 0.2 | 7.38 |
| Total cost  | 2.71 | 100 |

**5.4. Marketing cost of retailer:**

 The retailers preformed the function of buying from wholesaler-cum-retailer and farmer and selling directly to the ultimate consumers. Total cost incurred by the retailers for 100 eggs was calculated at the table below.

**Table-6 Marketing cost of retailer**

|  |  |  |
| --- | --- | --- |
| **Cost items** | **Cost****(Tk per 100 eggs)** | **Percentage** |
| Transportation | 12.1 | 30.86 |
| Rent of shop | 8.2 | 20.92 |
| Electricity  | 1.4 | 3.57 |
| Tools and equipment | 0.7 | 1.79 |
| Wastage  | 11.7 | 29.85 |
| Market security  | 0.6 | 1.53 |
| Market toll  | 0.6 | 1.53 |
| Mobile bill  | 0.7 | 1.79 |
| Miscellaneous | 3.2 | 8.16 |
| Total cost | 39.2 | 100 |

**5.5. Total marketing cost of egg intermediaries:**

 Nature and extent of marketing cost varied from trader to trader. The total cost of marketing of egg included all costs incurred by different types of intermediaries operated the producers and consumers. Table-7 shows the total marketing cost of egg for all intermediaries.

**Table-7:Total marketing cost of eggs for various intermediaries (per 100 eggs):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Cost items** | **Aratdar-cum-Wholesaler** | **Retailer** | **Total cost** | **Percentage** |
| Transportation | - | 12.1 | 12.1 | 28.87 |
| Rent of shop | 0.45 | 8.2 | 8.65 | 20.63 |
| Electricity  | 0.26 | 1.4 | 1.66 | 3.95 |
| Wages and salary | 0.5 | - | 0.5 | 1.19 |
| Tools and equipment | 0.15 | 0.7 | 0.85 | 2.20 |
| Wastage  | 0.7 | 11.7 | 12.4 | 29.58 |
| Market security  | 0.05 | 0.6 | 0.65 | 1.55 |
| Market toll | 0.05 | 0.6 | 0.65 | 1.55 |
| Mobile bill | 0.2 | 0.7 | 0.9 | 2.14 |
| Personal expenses | 0.15 | - | .15 | 0.35 |
| Miscellaneous | 0.2 | 3.2 | 3.4 | 8.11 |
| Total cost | 2.71 | 39.2 | 41.91 | 100 |
| Percentage | 6.46 | 93.54 | 100 |  |

5.6. **Marketing Margin:**

the differences between the price received by the producers and price paid by the consumers referred to as the marketing margin.

In this section both gross and net marketing margin of egg were calculated separately for different intermediaries. Marketing margin was calculated by subtracting the value of purchase of egg from their value of sales proceeds and net margin (profit) was calculated by subtracting the total marketing cost of eggs from the marketing margin.

Marketing margins of different intermediaries of egg are shown in the table-8

**Table-8: Marketing margins of market participants (Tk. /100eggs)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Intermediaries** | **Purchase price** | **Sale price** | **Marketing margin** | **Marketing cost** | **Net margin** |
| **Aratdar-cum-Wholesaler** | 725 | 750 | 25 | 2.71 | 22.29 |
| **Retailer** | 750 | 850 | 100 | 39.20 | 60.8 |

**Taka per 100 eggs**

**Fig no.01: Marketing cost, gross marketing margin and net marketing margin of egg intermediaries.**

Table 8. Indicates that the gross marketing margins of wholesaler-cum-retailer and retailer were Tk.25 and Tk.100 and net margins were Tk.22.29 and Tk.60.8 respectively for 100 eggs. The net margin of retailer was higher than that of wholesaler-cum-retailer because the selling price of retailer was much higher as compared to that of wholesaler-cum-retailer.

**CHAPTER-6**

**PROBLEMS AND SUGGESTIONS**

**6.1. Introduction**

Risk and uncertainty are quite common factors of agricultural business. Apart from these, layer farm owner, Aratdar-cum-Wholesaler and Retailers havecurrently been facing a number of chronic problems. With the limited local production of corn and thus the need to rely on imports, feed costs are high.

The aim of this chapter is to identify the major problems faced by the selected layer farm owners, Aratdar-cum-Wholesaler and Retailers and to recommend measures for these problems so that they can get better economic return from production and egg trading.

**Table 9: Problem faced by layer farm owners.**

|  |  |
| --- | --- |
| **Problem** | **Layer farm owner (N=10)** |
| **Number** | **Percentage (%)** | **Ranking** |
| Lack of capital  | 7 | 70 | 4 |
| Lack of institutional credit  | 8 | 80 | 3 |
| High feed price | 10 | 100 | 1 |
| Insufficient electricity supply  | 10 | 100 | 1 |
| Inadequate supply of vaccine and medicine  | 10 | 100 | 1 |
| Lack of government support | 7 | 70 | 4 |
| Outbreak of disease  | 7 | 70 | 4 |
| Low quality day old chick due to hatchery problem  | 6 | 60 | 5 |
| Fluctuation of demand of egg  | 6 | 60 | 5 |
| High price of day old chick | 7 | 70 | 4 |
| Breakage of egg at transport  | 9 | 90 | 2 |

Above Table 9: indicatesthat the mostProblem faced by layer farm owners due to high feed price,(100% & ranking-1) Insufficient electricity supply,(100% & ranking-1) Inadequate supply of vaccine and medicine(100% & ranking-1) .

 **Suggested Measures are as follows:**

 Reasonable price of feed should be ensured.

 Low price of chicks should be ensured.

 Establishment of scientific hatchery.

 Government intervention for capital.

 Provision of adequate supply of medicine and vaccine.

 Regularity of electricity supply should be provided.

 Improvement of transport system.

**Table10: Problem faced by Aratdar-cum-Wholesaler and Retailers**.

|  |  |
| --- | --- |
| **Problem** | **Egg trader (N=20)** |
| **Number** | **Percentage** | **Ranking** |
| Lack of operating capital  | 11 | 55 | 4 |
| Lack of institutional credit  | 12 | 60 | 3 |
| Absence of storage facility  | 9 | 45 | 5 |
| Lack of proper transport  | 5 | 25 | 7 |
| Breakage and spoilage  | 20 | 100 | 1 |
| Price instability  | 20 | 100 | 1 |
| Inadequate space in market  | 6 | 30 | 6 |
| Unfavorable condition  | 14 | 70 | 2 |

AboveTable10**:** indicatesthat the mostProblem faced by Aratdar-cum-Wholesaler and Retailers. due to Breakage and spoilage(100% & ranking-1) and Price instability

(100% & ranking-1).

**Suggested Measures are as follows:**

Transportation and communication system should be established.

Government regulation of price through regular monitoring.

Institutional facility should be increased.

Development of storage facilities.

Provide adequate space in market.

**CHAPTER-7**

**SUMMARY AND RECOMMENDATION**

The agricultural sector in Bangladesh is gradually diversifying in favour of four sub-sectors. Livestock is one the four sub-sectors. Poultry is one of the most important segment of livestock sub-sector. As a developing country Bangladesh is badly suffering from the problems of poverty, unemployment and malnutrition’s. Poultry production can play an important role to solve these problems to some extent in the shortest possible time. Layer farming as a part of poultry farming on commercial and scientific basis is a recent Endeavour in Bangladesh.

Eggs are excellent source of protein & nutrients which are essential for health and growth of the body. Therefore, the layer farming can play a very important role in improving the nutritional standard of the country and in providing food security as well, where the average level of nutrition is very low.

Layer farming has a great potential for providing additional income to both male and female of the rural and urban areas, through creation of employment opportunities. The overall objectives of this research program are to examine the various aspects of egg marketing and analysis price behavior of egg in the selected areas.

The area for the study was Rangpur district. In total 30 sample were sleeted of which 10 Layer farm owners, 10 wholesaler-cum-retailers and 10 retailers.

The most common marketing functions of egg performed by different intermediaries were selling and buying, transportation, storage, grading financing, market information, market information and risk bearing. In the study area, the farmers and traders were mainly used the truck, van and rickshaw for transporting their egg.

The average marketing cost of farm owners were estimated at Tk.75 for hundred eggs. The average costs of egg marketing for aratdar-cum-wholesaler and retailers were estimated for 100 eggs at Tk.2.71 and Tk.39.2 respectively. The average gross margins for aratdar-cum-wholesaler and retailers were Tk. 25 and Tk.100 per 100 eggs. The average net margins for wholesaler-cum-retailer and retailer were estimated at Tk. 22.29 and Tk 60.8 per 100 eggs respectively.

The present study identified some problems and constraints associated with layer farming and egg marketing. The problems faced by the layer farm owners were categorized into economic, technical, marketing, social and natural problems.

Problems faced by the intermediaries were poor communication and transportation system, shortage of capital, lack of storage facilities, breakage of egg, price instability, unfavorable condition like hartal, strike, flood and natural calamities etc.

Some measures were suggested by the layer farm owners and traders for solving the identified problems.

**Recommendations:**

On the basis of the findings of this study the following recommendations are made for improvement of the existing production and marketing system of eggs.

1. Farmers should be given training to improve their technical knowledge and management skill.
2. Financial institutions and NGOs should provide credit facility at easy terms and conditions to the layer farm owners and egg traders to meet their production and marketing requirements.
3. Feed manufacturing factory should be established the local area.
4. Provisions should be made to increase vaccine production by exploring the existing capacity also encouraging potential entrepreneurs in vaccine production.
5. Regular electricity supply should be ensured to operate the layer farming and egg trading.
6. Communication and transportation system must be developed to increase the efficiency of egg marketing system. Adequate transportation facilities should be made available for carrying egg form farm yard to market for reducing wastage of egg.
7. Price stabilization and floor price schemes should be chalked out to ensure minimum level of profit from egg production.

The study also recommends that the expansion of layer farming and egg marketing is necessary for the creation of employment both in rural and urban areas. Government, private entrepreneurs, different NGOs, veterinarians and poultry specialists can play an important role for development of production and marketing in the country.

**CHAPTER-8**

**CONCLUSION**

It was observed in the present study that egg farming and marketing was a profitable business. The findings, therefore, suggest that there is wide scope for the development of layer farming and egg trading in this country. Development of this enterprise is helpful in employment generation and poverty alleviation which are now the concern of the planners of the country. A large number of people are coming forward in production and marketing of eggs. If proper and adequate steps could be taken to develop this enterprise commercially then the business would be more profitable to the entrepreneurs and there is a great possibility to expand the egg marketing all over the country.

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**APPENDIX-1**

**English version of interview schedule**

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Chittagong Veterinary & Animal Sciences University

Khulshi, Chittagong-4202

An interview schedule for research study entitled **‘Marketing System of egg**

**In Pirganj Upazilla Under Rangpur District**

Name of the respondent………………… Serial No ……………...........

Village………………………………………..Date………………………….

Union…………………………………………

**Please answer the following questions:**

1. **Age:**………………………….years
2. **Education:**…………………………
	* Do not know reading & writing…………………………
	* Do not know reading & writing, but can sign………….
	* Read up to class…………………………………………...
3. **Marital status**

 Married Unmarried Widow Divorced

1. **Family size**

 The number of your family members including yourself……………….

1. **Credit receipt**

 Did you receive any credit for goat rearing purpose last year?

 Yes…………………………………….. No……………………….

If yes, pleased give answer to the following questions:

|  |  |  |
| --- | --- | --- |
| Sl. No. | Source of credit | Amount of credit receipt |
| 01. | Bank (Sonali, Krishi, Janata etc.) |  |
| 02. | Village money lender |  |
| 03. | Relatives |  |
| 04. | Livestock division |  |
| 05. | NGO |  |
| 06. | Rural development division |  |
| 07. | Others (if any) |  |

1. Number of layer.

 10000 60000 52000 90000

1. Lighting Period ( in hours )

 16 17 15 14

1. Male & Female ratio:

 1:10 1:6 1:8 1:9

1. Amount of egg collection.

 8500 6000 7700 9000

1. Average weight per egg.(gm)

 50 52 55 48

1. Production Cost per egg. (in tk)

 6.5 6.0 5.5 7.0

 12. Selling price per egg.( in tk)

 8.0 8.5 7.5 9.0

 13. Net profit per egg.(in tk )

 2.0 2.5 1.7 1.5

 14. Any local consumer can buy?

 Yes No

 15. Any institutional buyer?

 Yes No

 16. Any type of faria involved?

 Yes No

 17. Marketing Channels.

 Direct Indirect

 18. Wholesaler comes in farm.

 Yes No

 19. Any egg borne diseases.

 Yes No
 20. Any feeding problems.

 Yes No

 21. Rearing system of layers.

 Cage Floor

 22. What types of eggs are demandable?

 Fertile Table Both

 23. What types of color are preferable?

 White Brown

1. Please mention your problem (s) during marketing of eggs.

|  |  |  |
| --- | --- | --- |
| Sl. No. | problems | Extent of problem |
| high | moderate | low |
| 01. |  |  |  |  |
| 02. |  |  |  |  |
| 03. |  |  |  |  |
| 04. |  |  |  |  |
| 05. |  |  |  |  |

Thank you for your co-operation and interviewing.

Signature of the interviewer

………………………………..

Date………………………….