**CHAPTER-I**

**INTRODUCTION**

Eggs are very excellent sources of protein and nutrients which are essential for growth of the body. Eggs are also a delicious food item and are frequently served as the main dish in the meal **(DLS; 2009**). It comes from poultry birds like hen, duck, geese, quail, pigeon etc. Buts eggs for the purpose of this study include only hen eggs.

Poultry farming in Bangladesh was largely a background venture. The villagers have been keeping indigenous for centuries under semi natural conditions mainly for their domestic consumption with little commercial motive. They keep poultry of indigenous type and practically nothing is spent for such backyard farms. It is being carried without sound technical knowledge and management practice. Specialized poultry breeding has started with invention incubators and adoption of artificial methods of raising chickens of hybrid. Poultry farming on commercial and scientific line was started in 1970 in Bangladesh. It was known from the record of Directorate of Livestock Service (DLS) that 49825 commercial poultry farms **(BBS, July-august of 2008**) were established in Bangladesh from 1955 to 2008 in private sector. The year wise establishment of poultry farms in private sector is shown in the table 1.1.

**Table-1.1: The year wise establishment of poultry farms in private sector in Bangladesh**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **No. of farms** | **Year** | **No. of farms** | **Year** | **No. of farms** |
| 1991-92 | 5898 | 1995-96 | 7898 | 1999-2000 | 7503 |
| 1992-93 | 5871 | 1996-97 | 8598 | 2000-2001 | 7305 |
| 1993-94 | 8668 | 1997-98 | 7871 | 2001-2002 | 8980 |
| 1994-95 | 7505 | 1998-99 | 8968 | 2002-2003 | 9105 |

**Source: DLS/ MOFL, 2005**

For preparation of list frame, Bangladesh Bureau of statistics (BBS) collected list of poultry farms operating in the months July-august of 2008 is shown in table 1.2.

**Table-1.2: List of poultry farms in Bangladesh.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Poultry** | **Broiler** | **layer** | **Hatchery** | **Duck** | **Mixed** | **Total** |
| No. of farms | 33225 | 10099 | 227 | 5524 | 750 | 49825 |

**Source: Bangladesh bureau of statistics (July-august of 2008).**

**Figure-1 : Percentage of poultry farms in seven Division in Bangladesh.**

**Source: Bangladesh bureau of statistics (July-august of 2008).**

**Table 1.3: Type of poultry farms in Chittagong Division in Chittagong Division.**

|  |  |
| --- | --- |
| **Type of poultry farms** | **Chittagong Division** |
| Broiler | 6666 |
| Layer | 1068 |
| Duck | 42 |
| Hatchery | 41 |
| Mixed | 176 |
| All | 7993 |

**Source: Bangladesh bureau of statistics (July-august of 2008).**

**1.1 Food Elements in eggs:**

Eggs have formed an important part of diet since before the hen was domesticated **(Bholton and Blair, 1986, p.83)**. Eggs have more nutritional value than any other food. They are a good source of proteins, minerals and vitamins. Eggs are palatable and easily digested **(Winter and Funk, 1956, pp53).**

**1.2 Production and consumption of eggs:**

According to Directorate of Livestock Service (DLS) the eggs production of Bangladesh in 1995-96 fiscal year was 28,39696 thousand which was about 20 percent of requirement. So the total deficit of eggs was 16960304 thousand.DLS also claimed that in Bangladesh the percent per capita intake of eggs was 20 per year, but per capita requirement was 180 eggs per year **(DLS,1997)**.The year-wise production of eggs (million numbers) in Bangladesh in private sector is given in the table 1.4.

**Table 1.4: Year wise production of eggs in Bangladesh.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **No. of eggs** | **Year** | **No. of eggs** | **year** | **No. of eggs** |
| 1991-92 | 2158 | 1998-1999 | 4124 | 2005-06 | 5422 |
| 1992-93 | 2276 | 1999-2000 | 4277 | 2006-07 | 5369 |
| 1993-94 | 2404 | 2000-2001 | 4709 | 2007-08 | 5653 |
| 1994-95 | 2536 | 2001-2002 | 4674 | 2008-09 | 4692 |
| 1995-96 | 2839 | 2002-2003 | 4777 | 2009-10 | 5742 |
| 1996-97 | 3158 | 2003-2004 | 4915 | 2010-11 | 4211 |
| 1997-98 | 3479 | 2004-2005 | 5145 | 2011-12 | 4056 |

**Source: Livestock, Ministry of Fisheries and Livestock (February, 2012).**

On the other hand the requirements and production of eggs in Bangladesh in 1991 and 1995 as reported by the planning commission are presented in table 1.5. The compound growth rate of eggs 6.5 percent between 1990/91 to 1994/95; whereas the growth rates of milk and meat were 1.33 percent and 3.2 percent respectively **(Planning commission, 1997).**

**Table 1.5: Requirement and production of eggs during Fourth five year plan**

|  |  |  |
| --- | --- | --- |
| **Year** | **Egg(million number)** | |
| **Requirement** | **Production** |
| 1991 | 8985.60 | 2046.60 |
| 1995 | 100067.20 | 2539.00 |

**Source: Planning commission, 1997.**

**Table 1.6:** **Projected demand and availability of eggs taking consideration of projected**

**population growth in Bangladesh.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Product** | **Year** | **Traits** | **Amount** |
| Eggs  (Million nos.) | 2008-09 | Demand | 15174(104/head/year) |
| Available | 5653(38.74/head/year) |
| Deficit % | 63 |
| 2010-11 | Demand | 15376(104/head/year) |
| Available | 6997(47.33/head/year) |
| Deficit% | 35.6 |
| 2014-15 | Demand | 16527(104/head/year) |
| Available | 8479(50/head/year) |
| Deficit% | 49 |

**Source: BBS (2009), Projected population 2008, 145.93 million; 2010; 147.86 million; 2015 158.96 million.**

**1.3 Importance of eggs from Economic point of view**

From the economic point of view the Importance of eggs is very significant. In fact layer has a shorter life cycle and production of eggs requires relatively less capital and land compared to other meat- producing animals such a cow, sheep and goats. Therefore it can be raised round the year in Bangladesh. With a view to popularizing the layer farm on commercial line and to meet the increasing demand for eggs a good number of young educated underplayed persons have already come forward to accept layer farming and egg trading as occupation. Livestock sub- sector provides job opportunity for 30 percent of the total population in full- time basis and 50 percent of the population per time basis **(DLS, 1997).**

The eggs have also industrial use. Eggs used in the preparation of culture media for the growth of some species of bacteria. Fertile eggs are used in the preparation of vaccines. Inedible eggs are used in the preparation of animal’s feeds and fertilizers. Eggs white are used in the manufacture of pharmaceutical paints, varnishes, adhesive and printers’ ink. They are also used in photograph, bookbinding, wine purification, tanning leather and in textile dying. Eggs yolk are used in the manufacture of soap, paints; shampoos **(Winter and Funk, 1986, pp.4-5).**

**1.4 Government programmes for the Development of poultry sub-sector:**

From the second Five year plan period (1980-85), the poultry sub sector was identified as the one holding the best promise for increasing supply of poultry meat and eggs most rapidly in the short-run along with improving the equity of access to animal protein among the poor (**Planning commission, 1980).**

Government will take also some major progammes during the fifth five year plan period (1997-2002) for the development of poultry in the field of health and disease control, poultry breeding and breeder multiplication, extension, training and education, input production employment creation and poverty alleviation, marketing and research (**Planning commission, 1997**).

To facilitate increased availability the government will continue the present restrictions on the export of feed ingredients like wheat bran, rice polish and oil cake and at the same time, would allow duty free import of maize, fishmeal, mineral and feed additives. The production target of eggs during the Fifth Five Year Planed period is shown in Table 1.7.

**Table-1.7: Production targets of egg during the fifth five-year plan (in million).**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Benchmark (1996/97)** | | **Target (1997-2000)** | | | | |
| Target | Achievement | 1997/98 | 1998/99 | 1999/2000 | 2000/0221 | 2001/2002 |
| 3005 | 2815 | 3260 | 3550 | 3890 | 4280 | 4730 |

**Source: Planning Commission, 1997.**

**Projection** **of demand and supply of eggs during sixth five year plan period:(2011-2015)**.

**Table1.8: Projected demand of eggs in million numbers in Bangladesh.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Products** | **Growth** | **Benchmark (base year)** | | **2011** | **2012** | **2013** | **2014** | **2015** | **Total** |
| Eggs(million numbers) | High | 6575 | 7202 | | 7888 | 8639 | 9460 | 10357 | 50121 |
| Medium | 6575 | 7156 | | 7888 | 8474 | 9220 | 10030 | 49243 |
| Low | 3.31 | 3.77 | | 4.29 | 4.90 | 5.61 | 6.42 | 28.3 |

**Table1.9: Projected supply of Eggs in million numbers in Bangladesh.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Products** | **Benchmark(base year)** | **2011** | **2012** | **2013** | **2014** | **2015** | **Total** |
| Eggs(million numbers) | 6090 | 6383 | 6689 | 7011 | 7348 | 7702 | 41223 |

**Table1.10: Projected Supply and demand Gap of Egg production in Bangladesh.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Products** | **Growth** | Benchmark (base year) | **2011** | **2012** | **2013** | **2014** | **2015** | **Total** |
| Eggs  (Million no.) | High | -485 | -819 | -1199 | -1628 | -2112 | -2655 | -8898 |
| Medium | -485 | -773 | -1099 | -1463 | -1872 | -2324 | -8020 |
|  | Low | -0.33 | -0.62 | -0.97 | -1.4 | -1.91 | -2.51 | -7.74 |

**Source : Planning Commission, 2009.**

**1.5: Year-wise allocation of fund for the development of livestock sub-sector**:

An estimated amount of TK. 5435.60 million (1996/97 prices) will be spent in the public sector and TK. 20646.40 million is expected to be spent in private sector in order to implement the livestock development programme. The year-wise allocation of fund, which will be spent in the public sector, is given in Table 1.11 .

Table 1.11: Year-wise allocation of fund during fifth year plans. (At 1996/97 prices)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **1996/97** | **1997/98** | **1998/99** | **1999/2000** | **2000/2001** | **2001/2002** | **Total**  **(1997-2002)** |
| Amount | 690.00 | 1000.00 | 100.00 | 1012.00 | 1164.00 | 1259.60 | 5435.50 |

**Source: Planning commission, 1997.**

**Table1.12: Annual development budget allocation to DLS and BLRI (in million taka) is shown**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **Annual budget** | **Allocation to DLS** | **Percentage** | **Allocation to BLRI** | **Percentage** |
| 2001-02 | 160000 | 1189 | 0.74 | 14.8 | 0.009 |
| 2002-03 | 171000 | 1170 | 0.68 | 17.745 | 0.01 |
| 2003-04 | 190000 | 1180 | 0.65 | 33.485 | 0.018 |
| 2004-05 | 205000 | - | - | 24.113 | 0.012 |
| 2005-06 | 215000 | - | - | N.A | N.A |
| 2006-07 | 216000 | 2200.3 | 1.00 | 65869.0 | 0.03 |
| 2007-08 | 225000 | 2393.9 | 1.06 | 66007.0 | 0.03 |

**Source: DLS and BLRI, 2009.**

**1.6 Objectives of the study:**

The overall objective of this research programme was to investigate various aspects of eggs marketing in the selected areas. The following are the specific objectives of the study.

1. To analyze the existing marketing system of commercially produced eggs.

2. To estimate the marketing costs and margins of different market participants.

3. To identify the problems of marketing of commercially produced eggs and to suggest

some measures for their improvements.

**1.7. Justification of the study:**

The poultry industry plays a crucial role in subsistence economy like Bangladesh. Eggs are the important products of poultry industry. Eggs not only supply food nutrients but also provide job opportunities for a considerable number of people. Livestock sub-sector provide job opportunities for 20 percent in full time basis and 50 percent in part-time basis of the total population and the contribution of livestock sub-sector was 2.50 percent to the gross domestic product (GDP) of Bangladesh (**DLS, 2012**). In spite of these contributions on effective steps have yet been taken for its development. Without having appropriate measures for the improvement of poultry industry in the country, the potential contribution of this industry for national economy could not the achieved.

Baseline information about poultry industry is essential for taking proper decision about the measures for the development of poultry industry in Bangladesh. A few study has been undertaken to determine the problems of commercial egg production and its marketing. The present study is a modest attempt to fine out problems of egg production and marketing.

The study may induce researchers to conduct further research in this area.

**1.8. Limitation of the study**

A few limitations are to be note while drawing conclusions based on the findings of the study The limitations are.

1. There was a major limitation of time and resources. All the data and other necessary information were collected within a very short period of time and the study was based on only few nos. of sample from a few farmers and traders.
2. Though the finding are not conclusive but provide a good information to producers and intermediaries as well as an indication to the researchers for further research.

**CHAPTER – II**

**REVIEW OF LITERATURE**

There are many studies on marketing of different agricultural commodities in Bangladesh. But of the best of the researcher’s knowledge the study on marketing of commercially produced eggs are few in spite of the great necessity. The marketing department, Universities and other research organizations and institutions have not shown enough interest in undertaking meaningful research works on this commercially important product. But some studies on eggs have been done in the country and the world that is related with the present study is given below.

**Islam (1976)** studied egg marketing in Mymensingh town. In this study the researchers identified the marketing system of eggs, estimated the marketing cost and margin of eggs in Mymensingh town and study the marketing efficiency of eggs. Total sample size was 12 in study. The growers share in consumer price (77 percent) and the net margin (Tk. 7.50 for 100 eggs) of traders were considered reasonable by the author.

**Rahman (1983**) conducted a study on marketing of egg in Bangladesh. In this study villages of Mymensingh and Tangail districts were selected as supplying or producing centers and Dhaka city was selected as consuming centre. One hundred and thirty two trader- respondents including 61 Paikers, 19 Beparies, 5 Aratdars and 47 retailers were selected from the market of Dhaka city. The marketing pattern and functions of eggs in Bangladesh were examined in this study. The researcher also identified the problems of egg marketing and provided the measures of solution as suggested by egg traders.

**Ali (1993)** 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 such as acute shortage of money and/ or credit, chicks, medicine, volatile prices of both inputs and outputs and lack of technical know-how.

**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.

**Shrivastava et al. (1994**) completed a study 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 determine the producers share in the consumers rupee in egg marketing in Lucknow, Uttar Pradesh, India.

**Das (1995**) carried out a study on production and marketing of poultry and poultry product i.e. egg in Sylhet Sadar thana. Seventy sample respondents including 25 poultry farmers, 10 feed traders, and 35 poultry and egg traders were selected for the study. The researcher analyzed the marketing system of native poultry, egg and poultry feed. She also estimated the cost and return of poultry farms, marketing cost (TK. 8.78 and TK. 4.40 of Paikar and retailer respectively per 100 eggs) and average margin (Tk. 58.33 and TK. 44.16 of Paikar and retailer respectively for 100 eggs) of egg traders and identified the problems faced by the poultry farmers which were non-availability of day -old chicks, feed and medicine, unfavorable temperature, high demand of native eggs, disadvantages of storage etc.

**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 (300-10000 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.

It can be discerned from the above discussion that the referred studies covered small area but the present study also aimed to cover large area and also the help of commercial egg producing farms. A few studies on commercially produced egg marketing in these areas have done before. The different market- participants were considered to be unlike in the present study from the above-mentioned studies. In this study attempt was made to analyze the marketing aspect of commercial layer farm owners and egg traders in the selected areas.

**CHAPTER –III**

**METHODOLOGY**

Importance of methodology in conducting any research and hardly be over emphasized. It needs a very careful and sincere consideration. Methodology should be such that it would enable the researcher to collect valid and reliable information and to analyze those data to arrive at correct decisions. Keeping this in mind the researcher took utmost care for using proper methods in all aspects of this investigation. The methodology is related to selection of the study areas, selection of sample size and sampling techniques, preparation of interview schedule, collection of data, period of data collection, analysis of data, which often is complemented by secondary information from reliable sources.

**3.1 Selection of the study area :**

It was a bare necessity to select the areas, which would provide maximum information regarding commercially produced egg marketing. The selection of the study area depends on the objectives of the research.

The layer farm owners and market intermediaries/ participants of eggs were the population for this study. on the basis of available information, egg producing areas viz. Sithakunda, Potia, and Boalkhali thana of Chittagong district was chosen for the selection of layer farm owners. These three thanas have the maximum potentiality for egg production. The various sizes (small, medium and large) of layer and boiler cum layer farms have developed in these areas. The highest numbers of eggs in the country are supplied from these areas.

Chittagong City for having the maximum potential in egg marketing was selected as the study area for collecting information on the marketing aspect of eggs. Chittagong Metropolitan City was considered as the largest consuming centre of eggs in the country. Because there are a number of institutional buyers such as hotels and restaurants, hospitals, bakeries, students, hostel, cantonments and ultimate consumers in Chittagong City. The ultimate demand for eggs comes mainly from them. So for the purpose of the study Chittagong Metropolitan City was selected as consuming centre of marketing.

Keeping in view the main objectives of the study the above mentioned areas also chosen for the following reasons-

1. Very good transportation facilities of the selected areas which caused less expenses as well as less time consuming in conduction the study.

2. Researchers perception about better cooperation from the owners of layer farms and egg traders.

**3.2 Sampling techniques :**

A sample of relevant population should be selected in such a way that the data from the fulfill the objectives of the study (**Yang, 1962).**

In a complete enumeration, the required information is collected from each and every elements of the population. Thus a complete survey is costly and time consuming. A sample of representative farms and intermediaries should therefore be chosen which could represent a reasonably true picture of the entire region. In a sample survey a subset of all population was first of all selected and required information was collected from these selected elements only. For this reason, it hand some basic advantages over complete enumeration few in terms of cost, time and labor. In this study convenience, purposive and random sampling techniques were adopted.

**3.3 Selection of farms:**

In this study 22 nos. of layer farm were selected conveniently from three thanas of Chittagong district to examine their system.

**3.4 Selection of Sample :**

The layer farms of the selected areas and egg traders and in the selected markets were considered as the population of this study. The total sample size was 70 in which 22 farms, 17 Aratdar- cum- wholesaler, 24 retailers and 7 suppliers of the institutional buyers were selected for interview.

**3.5 Selection of Aratdar- cum-wholesalers :**

The 'Arats' of eggs are situated in Chittagong City at two important marketplaces namely ' Riazuddin ' and Baddarhat Bazar. Eggs from selected producing areas and from other districts of Bangladesh are accumulated here and then equalized and disposed to the different retail markets and institutional buyers of the city. The Aratdars of these two places were also involved in wholesaling of eggs. 7 Aratdars-cum- wholesalers at Baddarhat Bazar and 10 Aratdar-cum-wholesaler from Riazuddin Bazar were selected randomly.

**3.6 Selection of retailers :**

There are different sizes of retail markets for eggs in Chittagong metropolitan city. Out of them 6 markets were selected purposively. These were Jhautola Bazar, kazir deori Bazar, New market Kacha bazar, Firinghibazar, Kodomtali Bazar and Pahartali bazar. There were many established retailers of eggs in those markets out of the 24 retailers were selected randomly from five market.

**3.7 Selection of suppliers of institutional buyers:**

There are many institutional buyers like hospitals, hotels, cantonment, restaurants, hostels bakeries etc. Situated in Chittagong city. The suppliers known as contractors are involved in supplying eggs to these institutional buyers. Out of them 5 supplier's were selected purposively.

**3.8 Preparation of interview schedule:**

For this study survey method was followed to collect data. It is very important in any survey to prepare an interview schedule. After consulting the available literature on egg marketing and keeping the objectives of the study in view two sets of close-cum-open type interview schedules we prepared and pre-tested as well as made correction.

**3.9 Method of Data collection:**

The researcher himself conducted the whole survey. The data were collected from both primary and secondary sources for the study.

**2.10 Period of study :**

For the present study the primary data were collected during the month of November and December of 2012. The secondary data covered the period from 1991 to 2012.

**2.11 Editing and tabulation of data:**

The filled up interview schedules were scrutinized and collected data were carefully edited in order to remove ambiguities and internal inconsistency. Then the collected data were transferred to master sheets from the interview schedules and finally prepare a report finding.

**2.12: Analytical technique:**

Data were analyzed through simple statistical analysis such as Percentages, mean and variance etc.

**2.13 Organization of the study :**

The whole study has been presented in eight chapters. Introduction is discussed in chapter I, chapter II describes the review of literature, chapter III describes methodology of the study. Result and Discussion is showed in Chapter IV and V deals with marketing system of commercially produced eggs, marketing cost and margin of the traders in study areas. Chapter VI presented the marketing problems of eggs faced by the layer farm owners and egg traders and measures suggested for improvement. Conclusion is discussed in Chapter VII. Chapter VIII discussed with reference.

**CHAPTER – IV**

**RESULT AND DISCUSSION**

**MARKETING SYSTEM OF EGGS**

This different components of marketing system of eggs are dealt in this chapter. Marketing system may be defined as the connecting link- the bridge between specialized producers and consumers (**Kohls and Uhl, 1980).** Marketing channels, market intermediaries and marketing functions are included in eggs marketing system. The three components of egg marketing system are examined below.

**4.1: Marketing channel of eggs:** Marketing channel is the alternative routes of product flows from producers to consumers**(khols and Uhls, 1980).**

The main objectives of layer farming is to earn profit by placing the eggs at the disposal of the consumers. It involves a number of important activities at different stages which are performed by a series of intermediaries, linking the producers with the consumers. The channel of marketing of eggs as found in the study areas are shown in the figure 4.1.

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

Farm owner

Aratdar- cum-wholesaler

Retailer

Supplier

Consumer

Institutional Buyer

**Fig : 4.1 Marketing Channels of Eggs**

On the basis of Fig. 4.1 the following channels is identified for egg marketing system in the study areas:

**Channel - 1 : Farm Owner → Aratdar- cum- wholesaler→ Retailer → Consumer.**

**Channel - 2 : Farm Owner→Aratdar - cum- wholesaler → Supplier→ Institutional Buyer.**

**Channel - 3 : Farm Owner → Aratdar - cum - wholesaler → Institutional Buyer.**

**Channel -4 : From Owner →Aratdar-cum- wholesaler → Retailer → Institutional Buyer.**

**Channel - 5 : L Farm Owners → Institutional Buyer.**

**4.2: Market participants:**The persons who are involved in transfer of goods and services from producer to consumer are called market participants**(Kohls and Uhl, 1980).**

**4.2.1:Farm owner :** The marketing channels of eggs start from the farm owners. Most of the layer farm owners sell their eggs to the Aratdar- cum wholesalers in Chittagong city and other sold their eggs at their own sale centers in Chittagong city. But some farm owners used to sell a small portion of their total production to local consumers in producing area.

**4.2.2:Aratdar - cum-wholesaler:**

The Aratdar-cum-wholesalers are professional traders whose functions are to help the Beparies and farm owners to find out the buyers. In Chittagong city there are as many as 51 and 32 Aratdar-cum-wholesalers operated their business at Riazuddin bazaar and Baddarhat respectively. Each of them have a shop in the market place. They also provide storage facilities for eggs at their shop. They charged commission at the rate of ten percent on sales value of eggs for their services. Aratdar - cum- wholesalers' function were somewhat flexible. Normally they run their business on a fixed commission basis but at times they do some financing to beparies. In addition to work as commission agents they also buys eggs on their accounts from farm owners and Beparies and sell as wholesalers to retailers, institutional buyers such as hotels, restaurant, student hostels, bakeries etc. and suppliers of institutional buyers. This is why they are called Aratdar-cum wholesalers.

**4.2.3:Retailer :**

Retailers are the professional egg traders who operate in Chittagong city markets are all the days in a week. They buy eggs from Aratdar-cum- wholesalers and sell to ultimate consumers and as well as institutional buyers.

**4.2.4:Supplier of institutional buyer:**

The suppliers refer those persons who are involved in supplying a fixed number of eggs per day or per week on account basis for at least a year to the institutional buyers in Chittagong city. They buy eggs from Aratdar-cum- wholesalers. The layer farm owners may also act as suppliers of eggs to the institutional buyers.

**4.3:Functions of egg marketing:**

Marketing function may be defined as major specialized activities performed in accomplishing the marketing process of concentration, equalization and dispersion **(Kohls, 1965).** In this study the functions of egg marketing have been divided into two levels that is at farm owner level and intermediary level.

**4.3.1:Marketing functions performed by layer farm owners:**

In this section the functions of egg marketing performed by the farm owners are taken into grading, storage, advertisement, collecting market information, determination of price, transportation and selling.

**4.3.1.1: Grading:**

Grading is one of the most important functions of marketing and sorting of products according to some standard size and color were mainly used as basis for grading eggs. Table 4.1 reveals that 18.18 percent of sample farm owners graded eggs on the basis of big and small size, 27.27 percent of them graded on the basis of white and brown color eggs and 54.55 percent of them graded eggs on the basis of both size and color.

**Table: 4.1 Distribution of farm owners grading.**

|  |  |  |
| --- | --- | --- |
| **Basis of grading** | **Numbers of farm owner** | **Percent** |
| Size | 4 | 18.18 |
| Color | 6 | 27.27 |
| Size + color | 12 | 54.55 |
| Total | 22 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.1.2: Storage :**

Storage is concerned with making goods available at desired time. It matches the pattern of production to the pattern of consumption. As a perishable product egg needs specialized storage facility about 64 percent sample farm owners used to store eggs. It is depicted from table 4.2 that about 64 and 36 percent of farm owners used to store eggs for one to three days and four to seven days respectively.

**Table 4.2 Distribution of farm owners by period of storage**

|  |  |  |
| --- | --- | --- |
| **Period** | **Numbers of farm owners** | **Percent** |
| One to three days | 9 | 64.29 |
| Four of seven days | 5 | 35.71 |
| Total | 14 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.1.3: Advertisement:**

For the layer farm owners advertisement has not yet received any significant recognition as 6 out of 22 farm owners used to advertise their products by establishing temporary stall at local exhibition occasionally.

**4.3.1.4 Market intelligence:**

Market intelligence refers the job of collection, interpretation and dissemination of information which are necessary for the operation of marketing process. Fellow farm owners, traders and visit to marketplace were the sources of information for layer farm owners and 18 percent farm owners collected market information from traders. About 55 percent of the farm owners reported that they receive market information through visit to marketplaces and personal observation (table 4.3)

**Table 4.3 Distribution of farm owners by source of market information.**

|  |  |  |
| --- | --- | --- |
| **Basis of grading** | **Numbers of farm owners** | **Percent** |
| Fellow farm owners | 6 | 27.27 |
| Visit to market & personal observation | 12 | 54.55 |
| Traders | 4 | 18.18 |
| Total | 22 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.1.5:Method of price determination:**

Demand and supply of eggs influenced the price. The prices of eggs were determined by the interaction of the forces of demand and supply in a more or less competitive market situation. If effective market demand is high and supply is limited then the price becomes high and vise-versa.

**4.3.1.6: Transportation:**

Transportation creates place utility and facilities availability of goods at the proper place by the movements of products between places. In the study area own pick-up, hired truck and rickshaw-van are used as transporters, table 4.4 reveals that about 36 percent of sample farm owners used own pick-up, 45 percent of farm owners used hired truck and rickshaw-van were used by 18 percent of farm owners.

**Table 4.4 Distribution of farm owners by mode of transport.**

|  |  |  |
| --- | --- | --- |
| **Mode of transport** | **Numbers of farm owners** | **Percent** |
| Pick-up | 8 | 36.35 |
| Truck | 10 | 45.46 |
| Rickshaw-Van | 14 | 18.18 |
| Total | 22 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.1.7:Selling:**

In the study areas farm owners sell eggs to Arats as well as directly to consumers through own sale centers. From the point of view of farm owners place of sale, volume of sale and sales at different periods are discussed below.

**4.3.1.8:Place of sale :**

The selected sample farms sell eggs to Arats or gather at own sale center for selling table 4.5 shows that the majority (81.82 percent) of sample farm owners sold eggs to Arats and 18.18 of them brought eggs at own sale centers for sale which situated in Chittagong city. On an average 70 and 30 percent of eggs were purchased by the institutional buyers and ultimate consumers from those sale centers respectively.

**Table 4.5 Distribution of farm owners by place of sale.**

|  |  |  |
| --- | --- | --- |
| **Place of sale** | **Numbers of farm owners** | **Percent** |
| Arats | 18 | 81.82 |
| Own sale center | 4 | 18.18 |
| Total | 22 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.1.9:Mode of sale :**

The sample farm owners sell their eggs mainly in three forms i.e. 100 percent in cash, 100 percent on credit and partly in cash and partly on credit. About 41 percent of sample farm owners sold eggs in cash, 9 percent on credit and 50 percent on farm owners sold their eggs both in cash and on credit (table 4.6).

**Table 4.6 Distribution of farm owners by Mode of sale.**

|  |  |  |
| --- | --- | --- |
| **Mode of sale** | **Numbers of farm owners** | **Percent** |
| Cash | 9 | 40.91 |
| Credit | 2 | 9.09 |
| Cash + credit | 11 | 50.00 |
| Total | 22 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.1.10:Interval of sale :** It is observed from table 4.7 that about 36 percent of selected farm owners sold eggs daily, 41 percent of them sold within one to three days and the rest 22.73 percent of sample farm owners sold eggs within four to seven days.

**Table 4.7 Distribution of farm owners by interval of sale**

|  |  |  |
| --- | --- | --- |
| **Interval sale** | **Numbers of farm owners** | **Percent** |
| Daily | 8 | 36.36 |
| One to three day after | 9 | 40.91 |
| Four to seven day after | 5 | 22.73 |
| Total | 22 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.1.11:Volume of sale :** It may be seen from table 4.8 that the average sale of eggs fluctuates from month to month. There was large difference between the highest and lowest sale indicating high sale differential between peak season and lean season. Table 4.8 indicates that sale of eggs is the highest I the month of December and lowest in the month of July. The volume of sale of eggs varied over months because of the variation in production. The production decreased in June and July which is the rainy season and cause natural calamities and diseases of the layers.

**Table:4.8 Average volume of sale in different periods of the studied farms(n=22)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Months** | **Number of eggs** | **Percent** | **Seasonal indices** |
| January | 170778 | 9.41 | 109.72 |
| February | 159383 | 8.53 | 102.40 |
| March | 155480 | 8.32 | 99.40 |
| April | 139456 | 8.00 | 96.89 |
| May | 135272 | 7.25 | 86.91 |
| June | 118108 | 6.32 | 75.88 |
| July | 116448 | 6.23 | 74.81 |
| August | 139180 | 7.45 | 89.42 |
| September | 155217 | 8.31 | 99.76 |
| October | 178510 | 9.57 | 114.68 |
| November | 190502 | 10.20 | 122.39 |
| December | 199452 | 10.68 | 128.14 |
| Total | 1867847 | 100.00 |  |
| **Average** | **155653.91** | **--** | **100.00** |

**Source: Field Survey, 2012.**

**Monthly volume**

**Seasonal index = ------------------------ × 100**

**12 month average**

**4.3.2 Marketing function performed by the egg traders:**

The function of egg marketing at traders level have been broken down into buying and selling, price fixation, transportation, storage and collecting market information. These functions are discussed below.

**4.3.2.1:Buying and selling of eggs:**

Buying and selling are the functions of exchange. Both have their primary objectives of negotiating favorable terms of exchange.

**4.3.2.2:Buying of eggs:**

Buying function is related with the seeking out the sources of supply, assembling the products and the activities associated with purchase but here the traders particularly seeking out the sources of supply of eggs. It is the farm owners who supply eggs at the Aratdars stores... retailers and suppliers of the institutional buyers purchased entire volume of eggs from Aratdar-cum-wholesalers. Mode of payment and quality determination of eggs are discussed below.

**4.3.2.3:Mode of payment and purchase :**

The egg traders in Chittagong city use three forms of payment of buying eggs i.e. 100 percent in cash and 100 percent on credit and partly in cash and partly on credit it appeared from the available data that about 24, 33 and 154 percent of Aratdar- cum-wholesalers, retailers and suppliers respectively but the majority of Aratdar-cum- wholesalers (about 59 percent), retailers (50 percent) and suppliers (57 percent) used to purchase eggs partly in cash and partly on credit (table 4.9)

**4.9 : Mode of payment be egg traders**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Mode of Payment** | **Aratdar-cum- wholesaler** | | **Retailer** | | **Supplier** | |
| **Number** | **Percent** | **Number** | **Percent** | **Number** | **Percent** |
| Cash | 4 | 23.53 | 8 | 33.33 | 1 | 14.28 |
| Credit | 3 | 17.65 | 4 | 16.67 | 2 | 28.57 |
| Cash + Credit | 10 | 58.82 | 12 | 50 | 4 | 57.15 |
| **Total** | **17** | **100.00** | **24** | **100.00** | **7** | **100** |

**Source: Field Survey, 2012.**

**4.3.2.4: Quality determination at the time of purchase :**

Quality of eggs is determined by the traders on the basis of yolk condition, movement of internal components and cleanness of shell of the eggs. Table4.10 depicts that eye estimation against the light was used to determine the condition of yolks of eggs by about 58.50 and 28.57 percent of Aratdar-cum-wholesalers and suppliers respectively. About 41 percent of Aratdar-cum-wholesalers and 29 percent of retailers applied the method of shaking to determine the quality of eggs. if any sound of movement felt from inside the eggs by shaking the the quality of egg is considered lower. Perhaps this method is unscientific because it affects good eggs to become rotten. About 21 percent of retailers and 71 percent of suppliers determined the quality of eggs on the basis of cleanness of the shell of eggs.

**Table 4.10 Method of quality determination by the egg traders**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Method** | **Aratdar-cum-wholesaler** | | **Retailer** | | **Supplier** | |
| **Number** | **Percent** | **Number** | **Percent** | **Number** | **Percent** |
| Eye estimation (by placing eggs against light | 10  7 | 58.82  41.18 | 12  7 | 50.00  29.17 | 2  - | 28.57  - |
| Observing cleanness of shell | -- | -- | 5 | 20.83 | 5 | 71.43 |
| **Total** | **17** | **100.00** | **24** | **100.00** | **7** | **100.00** |

**Source: Field Survey, 2012.**

**4.3.2.5:Method of price fixation at the time of purchase :**

It was revealed from the field survey that the traders in Chittagong city fix up the price of eggs while they purchase mainly on the basis of three forms viz bargaining, accepting prevailing market price and both bargaining and prevailing market price. Table 4.11 reveals that about 29 percent of Aratdar-cum-wholesalers and 29 percent of retailers adopted the method of bargaining of fix up the price of eggs whenever they purchased. About 21 percent of retailers and 18 percent of Aratdar-cum - wholesalers fixed up the price of eggs on the basis of prevailing market price while about 53 percent of Aratdar-cum-wholesalers, 50 percent of retailers and 100 percent of suppliers settled the purchase price of eggs by using the combination of bargaining and prevailing market price.

**Table 4.11 Method of price fixation at the time of purchase**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Method** | **Aratdar-cum-wholesaler** | | **Retailer** | | **Supplier** | |
| **Number** | **Percent** | **Number** | **Percent** | **Number** | **Percent** |
| Bargaining | 5 | 29.41 | 7 | 29.17 | -- | -- |
| Prevailing market price | 3 | 17.65 | 5 | 20.83 | -- | -- |
| Both bargaining & Prevailing market price | 9 | 52.94 | 12 | 50.00 | 7 | 100 |
| **Total=** | **17** | **100.00** | **24** | **100.00** | **7** | **100.00** |

**Source: Field Survey, 2012.**

**4.3.2.6: Selling of eggs:**

The Aratdar-cum-wholesalers in Chittagong city sell a major portion of their eggs (60 percent) to the retailers, 25 percent to the suppliers of institutional buyers and 15 percent directly to the institutional buyers. The retailers sold most of their eggs (75 percent) directly to the consumers and 25 percent to the institutional buyers. On the other hand, suppliers delivered predetermined volume of eggs to their selected institutional buyers (table 4.12)

**Table 4.12 Volume of transaction by eggs traders**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Method** | **Aratdar-cum-wholesaler** | | **Retailer** | | **Supplier** | |
|  | **Number** | **Percent** | **Number** | **Percent** | **Number** | **Percent** |
| Aratdar-cum-wholesaler | 100 | -- | 60 | 25 | 15 | -- |
| Retailer | -- | 100 | -- | -- | 25 | 75 |
| Supplier | -- | 100 | -- | -- | 100 |  |

**Source: Field Survey, 2012.**

**4.3.2.7 :Mode of sale :**

Mainly three forms viz. 100 percent in case, 100 percent on credit and partly in cash and partly on credit are used in Chittagong city by the traders of eggs as mode of sale. it may be observed from table 4.13 that 29 percent of aratdar- cum- wholesalers and 33 percent of retailers sold eggs in cash. Eggs were sold on credit by 18, 21 and 100 percent of Aratdar- cum- wholesalers, retailers and suppliers respectively. About 53 percent of Aratdar- cum wholesalers and 46 percent of retailers sold eggs partly in cash and partly on credit.

**Table 4.13 : Mode of sale used by traders**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Method of sale** | **Aratdar-cum-wholesaler** | | **Retailer** | | **Supplier** | |
| **Number** | **Percent** | **Number** | **Percent** | **Number** | **Percent** |
| Cash | 5 | 29.41 | 8 | 33.33 | -- | -- |
| Credit | 3 | 17.65 | 6 | 20.83 | 7 | 100 |
| Cash + credit | 9 | 52.94 | 11 | 45.84 | -- | -- |
| Total | 17 | 100.00 | 24 | 100.00 | 7 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.2.8: Method of price fixation at the time of sell :**

From the available data of field survey it was known that the traders of Chittagong city fix up their selling price mainly in five ways viz. i) Bargaining, ii) Accepting prevailing market price, iii) Both bargaining and prevailing market price, iv) a mark up on purchase price and v) on the basis of tender.

**Table 4.14 : Method of price fixation at the time of sell.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Method** | **Aratdar-cum-wholesaler** | | **Retailer** | | **Supplier** | |
| **Number** | **Percent** | **Number** | **Percent** | **Number** | **Percent** |
| Bargaining | 2 | 11.76 | 2 | 8.33 | -- | -- |
| Prevailiag market price | 3 | 17.64 | 5 | 20.83 | -- | -- |
| Both bargaining and pervailing market price | 9 | 52.94 | 7 | 29.17 | -- | -- |
| A '' Mark-up'' on purchase price | 2 | 11.76 | 10 | 41.67 | 7 | 100.00 |
| On the basis of trnder | -- | -- | -- | -- | 7 | 100.00 |
| Total | 17 | 100.00 | 24 | 100.00 | 7 | 100.00 |

**Source: Field Survey, 2012.**

It is revealed from table 4.14 that about 12 percent of Aratdar- cum- wholesalers and 8 percent of retailers used bargaining to set the selling price. About 21 percent of retailers and 18 percent of Aratdar-cum-wholesalers considered prevailing market price as the basis of setting the selling price while the combination of bargaining and prevailing market price was used by 53 percent of Aratdar- cum- wholesalers and 29 percent of retailers in deciding their selling price. A Mark up method was used by the large portion (about 42 percent) of retailers and 12 percent of Aratdar- cum- wholesalers. In the Mark- up method certain amount of profit was added to the purchase price to find out the selling price. Table 4.14 also indicates that all of the suppliers fixed up their selling price of eggs to the institutional buyers on the basis of tender. It is in fact a close competition through which price is settled.

**4.3.2.9:Transportation:**

Transportation played a vital role in egg marketing at every step in the distribution sequence as an integral link in the marketing channel. Table 4.15 shows that about 59 percent of Aratdar- cum- wholesalers used truck for the transportation of eggs. About 41 percent of Aratdar- cum- wholesalers and 71 percent of suppliers used pick- up for transportation of eggs. Rickshaws were used by the majority (about 57.17 percent) of retailers as mode of transportation and about 46 percent of retailers and 29 percent of suppliers used rickshaw-van to carry eggs.

**Table 4.15 Mode of transportation used by the egg traders**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Method of Transportation** | **Aratdar-cum-wholesaler** | | **Retailer** | | **Supplier** | |
|  | **Number** | **Percent** | **Number** | **Percent** | **Number** | **Percent** |
| Truck | 10 | 58.82 | -- | -- | -- | -- |
| Pick-up | 7 | 41.18 | -- | 5 | 5 | -- |
| Rickshaw-van | -- | -- | 11 | 45.83 | 2 | 28.57 |
| Total | 17 | 100.00 | 24 | 100.00 | 7 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.2.10.Storage :**

It was found from the field survey that none of the suppliers stored eggs. It may be seen from table 4.16 that 53 percent of Aratdar-cum- wholesalers and 54 percent of retailers stored eggs for four to seven days at shop in plastic cage. Eggs were stored at shop in bamboo made basket by about 29 percent of Aratdar- cum- wholesalers and by 29 percent of retailers for one to that days but only about 18 percent of Aratdar- cum- wholesalers and 17 percent of retailers stored eggs in cold storage for one month and above to reap the benefit of price fluctuation.

**Table 4.16 Place, method and period of storage**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Place, method and period** | **Aratdar-cum- wholesaler** | | **Retailer** | |
| **Number** | **Percent** | **Number** | **Percent** |
| At shop in basket for one to three days | 5 | 29.41 | 7 | 29.17 |
| At shop in case for four to seven days | 9 | 52.94 | 13 | 54.17 |
| In cold storage in one month & above | 3 | 17.65 | 4 | 16.66 |
| Total | 17 | 100.00 | 24 | 100.00 |

**Source: Field Survey, 2012.**

**4.3.2.11:Market information:**

Market information influences the intermediaries in marketing their decisions regarding the volume of purchase, sales and the price of product. Table 4.17 indicates that about 41% of

**Table 4.17Source of market information**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Source** | **Aratdar-cum-wholesaler** | | **Retailer** | | **Supplier** | |
| **Number** | **Percent** | **Number** | **Percent** | **Number** | **Percent** |
| Fellow traders | 7 | 41.18 | 15 | 62.50 | -- | -- |
| Market visit & Personal observation | 10 | 58.82 | 9 | 27.50 | 7 | 100.00 |
| Total | 17 | 100.00 | 24 | 100.00 | 7 | 100.00 |

**Source: Field Survey, 2012.**

Aratder-cum-wholeselars and 62.50% of retailers received market information from fellow traders. About 59% of Aratdar-cum- whole sellers, 27.5% of retailers and 100% of suppliers reported that they had collected market information by market visit and personal observation.

**CHAPTER - V**

**MARKETING COST AND MARGIN OF EGGS**

In this chapter an attempt has been made to assess and analyse the cost and margin of different egg traders. Producer's share in consumer price is also examined in this chapter.

**5.1:Marketing Cost of Eggs:**

Costs involve in egg marketing refer to the costs of various services rendered by different intermediaries in the process of movement of eggs from the producers of users/ consumers. In this study the researcher considered the cost of Aratdar-cum-wholesalers, retailers and suppliers of eggs in Chittagong city.

**5.1.1: Marketing Costs of Aratdar- cum- wholesalers:**

In Chittagong city Aratdar- cum- wholesalers of eggs act as commission agents as well as Wholesalers. They incurred some cost on items like wages and salaries, transportation, rent, storage, telephone, electricity charge, cage, damage and spoilage, tips and donation, personal expenses and entertainment. The total cost incurred by sample Aratdar- cum- wholesalers was Taka 9.41 for 100 eggs (Table 5.1). **Das(1995)** reported on marketing cost on Wholesaler was TK. 8.78 which is somewhat smaller than our report due to the increased major components cost. The cost components are analyzed in turn below.

**Table 5.1 Marketing Cost Aratdar- com- wholesaler (Table for 100 eggs)**

|  |  |  |
| --- | --- | --- |
| **Cost items** | **Cost** | **Percent** |
| Transportation | 2.36 | 25.08 |
| Wages and Salaries | 1.33 | 14.13 |
| Collie | 0.33 | 3.51 |
| Night guard | 0.17 | 1.81 |
| Sweeper | 0.17 | 1.59 |
| Shop rent | 0.74 | 7.86 |
| Electricity charge | 0.17 | 1.81 |
| Telephone bills | 0.33 | 3.51 |
| Cage | 0.11 | 1.17 |
| Storage | 0.43 | 4.57 |
| Damage(Breakage)and spoilage | 2.60 | 27.63 |
| Entertainment | 0.20 | 2.13 |
| Tips and donation | 0.07 | 0.74 |
| Personal expenses | 0.42 | 4.46 |
| Total | 9.41 | 100 |

**Source: Field Survey, 2012**

**5.1.1:Transportation Cost :**

Transportation cost involved cost of transporting eggs from farms to Aratdar-cum wholesalers' shop. The avarage transportation cost of 100 eggs was worked out to be Tk. 236 which represented 25.08 percent of total marketing cost. It was the major cost of marketing of eggs.

**5.1.2: Wages and Salaries:**

Aratdar-cum- wholesalers generally employed some labor on monthly salary and daily wage basis for performing various functions at Aratdar-cum- wholesalers' shop. Salaries of employees was estimated to be Tk. 1.33 for 100 eggs i.e. 14.13 percent of total cost.

**5.1.3:Wages and salaries:**

Aratdar-cum- wholesalers generally employed some labor on monthly salary and daily wage basis for performing various functions at Aratdar-cum- wholesalers' shop. Salaries of employees were estimated to be Tk. 1.33 for 100 eggs. i.e. 14.13 percent of total cost.

**5.1.4: Salary of Night Guard:**

The salary of night guard incurred by the Aratdar-cum-wholesalers was Tk. 0.17 for 100 eggs which accounted for 1.81 percent of total marketing cost.

**5.1.5: Wage of Sweeper:**

Sweeper sweeps the market regularly for cleaning. He is employed on daily wage basis. The wage of weeper was Tk. 0.15 for 100 eggs i.e. 1.59 percent of total marketing cost.

**5.1.6: Shop Rent:**

All Aratdar-cum- wholesalers require a room for carrying his business. The rent which was estimated to be Tk. 0.75 for 100 eggs which was 7.86 percent of total marketing cost

**5.1.7: Electricity Charge:**

Electricity charge was estimated for 100 eggs Tk. 0.17 which contributed 1.81 percent of the total marketing cost.

**5.1.8: Telephone Bills:**

Telephone is as important instrument of business. The average telephone bills for 100 eggs was worked out to be Tk. 0.33 which represented 3.51 percent of total cost.

**5.1.9:Entertainment Cost:**

Sometimes the Aratdar-com-wholesalers have to entertain buyers with food. tea, cigarettes, betel leaf etc. The entertainment cost incurred by them was calculated at Tk. 0.20 for 100 eggs which represented 2.13 percent of total marketing cost.

**5.1.10:Tips and Donation:**

The Aratdar-cum-wholesalers are to give some tips and donation for various functions and also to egg traders' association. The average cost for 100 eggs for tips and donation was calculated at Tk. 0.7 which was 0.74 percents of total marketing cost.

**5.1.11: Personal Expenses**

The personal expenses included the cost of betel leaf, cigarettes and snacks which were taken by trader himself. Taka 0.42 was incurred as personal expenses for 100 eggs which was 4.46 percent of total marketing cost.

**5.1.2:Marketing Cost of Retailer:**

An estimation of the cost of marketing of the retailers should be made in this section. In Chittagong city the retailers had their own shops in the marketplaces. They usually purchase eggs from Aratdar-cum-wholesalers and sell to ultimate consumers and institutional buyers.

Total cost incurred by the retailers for 100 eggs were calculated at Tk. 7.51 (Table 5.2).But **Das(1995)** carried out a study on marketing of poultry product. She also estimated the marketing cost of Retailer is TK 4.40.Our results show higher value due to the major components of cost were transportation, wages and salaries, damage and spoilage of eggs, rent etc were increased. A brief description of individual cost item given below.

**Table 5.2 Marketing Cost of Retailer (Taka for 100 eggs.)**

|  |  |  |
| --- | --- | --- |
| **Cost items** | **Cost** | **Percent** |
| Transportation | 1.94 | 25.83 |
| Wages and Salaries | 0.46 | 6.13 |
| Collie | 0.16 | 2.13 |
| Night guard | 0.12 | 1.60 |
| Sweeper | 0.11 | 1.46 |
| Shop rent | 0.42 | 5.59 |
| Electricity charge | 0.30 | 4.00 |
| Telephone bills | 0.11 | 1.46 |
| Cage | 0.07 | 0.93 |
| Storage | 0.37 | 4.93 |
| Damage (Breakage) and spoilage | 3.00 | 39.95 |
| Entertainment | 0.11 | 1.46 |
| Tips and donation | 0.04 | 0.53 |
| Personal expenses | 0.30 | 4.00 |
| Total | 7.51 | 100 |

**Source: Field Survey, 2012**

**5.2.1:Transportation Cost :**

The retailers carry eggs from the 'Arats' to their shops by rickshaw and rickshaw-van. Transportation cost incurred by them was Tk. 1.94 for 100 eggs which accounts of 25.83 percent of total marketing cost.

**5.2.2:Wages and Salaries :**

Some large retailers have to run their business by salaried employees. For this reason they had to pay the employees on an average Tk. 0.46 for 100 eggs which contributed 6.13 percent of total marketing cost.

**5.2.3:Wages of Collie:**

The average wage of collie was worked out at Tk. 0.165 for 100 eggs which constituted 2.13 percent of total marketing cost incurred by retailers.

**5.2.4: Salary of Night Guard :**

The average cost estimated for night guard for 100 was Tk. 0.12 which represented 1.60 percent of total marketing cost of retailers.

**5.2.5:Wage of Sweeper :**

The retailers of eggs are to pay the wage of sweeper on daily basis for cleaning the market. The average cost for sweeper was Tk. 0.11 for 100 eggs which accounted for 1.46 percent of total marketing cost of retailers.

**5.2.6:Rent of Premise:**

Retailers of eggs are to pay rent for their premises. The average cost due to rent for 100 eggs was Tk. 0.42 (5.59) percent) of total marketing cost.

**5.2.7:Market- Toll:**

The retailers of eggs are to pay some tax known as market- Toll to the leases of market for using the market place. The average cost for market - Toll was Tk. 0.30 for 100 eggs which was 4 percent of total marketing cost.

**5.2.8:Electricity Charge:**

Retailers of eggs are to incur electricity charge of Tk. 0.11 for 100 eggs which was 1.46 percent of total marketing cost.

**5.2.9:Entertainment Cost :**

Retailers of eggs are to bear cost for entertaining to the buyers which was on an average Tk. 0.11 for 100 eggs i.e. 1.46 percent of total marketing cost.

**5.2.10:Storage Cost :**

The average storage cost per 100 eggs was worked out to be Tk. 0.37 which represented 4.93 percent of total marketing cost.

**5.2.11:Damage (Breakage) and Spoilage:**

The average cost due to damage and spoilage for 100 eggs as reported by retailers was Tk. 3.00 which accounted for 39.95 percent of total marketing cost.

**5.2.12:Cost of Cage:**

The average cost for plastic cage was Tk. 0.07 for 100 eggs which contributed 0.93 percent of total marketing cost retailers.

**5.2.13:Tips and Donation:**

The retailers are to give some tips and donation for various function and to traders' association. The average cost for tips and donation was Tk.0.04 for 100 eggs which was 0.53 percent of total marketing costs of retailer.

**5.2.14: personal Expenses:**

Personal expenses on betel leaf, cigarettes; snacks etc. were calculated at Tk. 0.30 for 100 eggs i.e. 4 percent of total marketing cost.

**5.1.3 Marketing cost of Supplier:**

In this section the cost of marketing of eggs for the suppliers would be examined. The suppliers usually purchase eggs from Aratdar-cum-wholesalers and sell to institutional buyers such as hospitals, cantonment etc. and for this purpose they are to hire either rickshaw wan and pick-up as transport. Other expenditures included transportation, wages and salaries, collie, telephone, interest on security money, damage, tips and donation and personal expenses. The total marketing cost of Tk. 10.74 for 100 egg incurred by suppliers in shown in Table 5.3. The cost components discussed in tern below.

**Table 5.3 Marketing Cost of suppliers. (Taka for 100 eggs)**

|  |  |  |
| --- | --- | --- |
| **Cost items** | **Cost** | **Percent** |
| Transportation | 3.33 | 31.01 |
| Wages and Salaries | 2.50 | 23.28 |
| Collie | 0.33 | 3.07 |
| Telephone bills | 0.50 | 4.66 |
| Interest on security money | 0.42 | 3.91 |
| Damage (Breakage) | 3.00 | 27.93 |
| Tips and donation | 0.33 | 3.07 |
| Personal expenses | 0.33 | 3.07 |
| Total | 10.74 | 100 |

**Source: Field Survey, 2012**

**5.3.1:Transportation Costs :**

The suppliers were to pay on an average Tk. 3.33 for 100 eggs which contributed 31.01 percent of total marketing cost.

**5.3.2:Wages and Salaries:**

The majority of the suppliers ran their business by salaried employees. The average cost for salary of employees was Tk. 2.50 for 100 eggs which accounted for 23.28 percent of total marketing cost as incurred by suppliers.

**5.3.3:Wage of Collie:**

The cost for collie for collie on an average was Tk. 0.33 for 100 eggs which accounted 3.07 percent of total marketing cost.

**5.3.4:Telephone Bills:**

All of the suppliers sue telephone to run the business. The average cost for telephone bills was Tk. 0.50 for eggs which constituted 4.66 percent of total marketing cost.

**5.3.5:Interest on Security Money:**

The suppliers have to deposit a fixed amount of money to the institutional buyers which is known as security money. The average interest on security money was Tk. 0.42 for 100 eggs which represented 3.91 percent of total marketing cost.

**5.3.6:Cost for Damage (Breakage):**

The average cost breakage was Tk. 3.00 for 100 eggs incurred by suppliers which represented 27.93 percent of total marketing cost.

**5.3.7:Tips and Donation :**

The suppliers had to pay some tips and donation to local subscriptions. The average cost for tips and donation was Tk. 0.33 for 100 eggs which was 3.07 percent of total marketing cost of the suppliers.

**5.3.8:Personal Expenses:**

The average personal expenses of suppliers was Tk. 0.33 for 100 eggs which represented 3.07 percent of total marketing cost.

**5.2 Marketing margin:**

The portion of consumer's price that goes to market intermediaries is referred to as the marketing margin. According to **Khols and Uhl. (1980**) marketing margin may be defined as the difference between what is paid by the consumers and what is received by the producer.

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

**5.2.1:Marketing Margin of Aratdar-cum- wholesaler:**

The marketing margin of Aratdar-cum-wholesalers are presented in Table 5.4. It is seen from the table that the marketing margin per 100 eggs of Aratdar-cum- wholesalers varied over the months of the year. The margin ranged from Tk. 35 to Tk 50 with an average being tick. Tk.42.50 per 100 eggs whereas Das (1995) reported on average margin per 100 eggs was Tk. 58.33. It occurs due to the variation in purchases and sales price of eggs by the egg traders but the marketing cost was constant over the time.

The highest margin (Tk. 50) was observed during the month of January and December. The lowest margin (Tk. 35) was in the month June. The average profit earned by the Aratdar-cum- wholesalers was Tk. 33.09. Table 5.4 shows that marketing cost did not vary over the months of the year with the variation of purchase and sale price of eggs.

**Table 5.4 Marketing Margin and Profit of Aratdar- cum- wholesaler (Taka per 100 eggs).**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Months** | **Purchase** | **Sale price** | **Marketing Margin** | **Marketing cost** | **Net margin (Profit)** |
| January | 740 | 790 | 50 | 9.41 | 40.59 |
| February | 740 | 785 | 45 | 9.41 | 35.59 |
| March | 745 | 785 | 40 | 9.41 | 30.59 |
| April | 750 | 790 | 40 | 9.41 | 30.59 |
| May | 760 | 805 | 45 | 9.41 | 35.59 |
| June | 770 | 805 | 35 | 9.41 | 25.59 |
| July | 775 | 815 | 40 | 9.41 | 30.59 |
| August | 775 | 815 | 40 | 9.41 | 30.59 |
| September | 770 | 810 | 40 | 9.41 | 30.59 |
| October | 765 | 810 | 45 | 9.41 | 35.59 |
| November | 775 | 815 | 40 | 9.41 | 30.59 |
| December | 785 | 835 | 50 | 9.41 | 40.59 |
| Average | 762.5 | 805 | 42.5 | 9.41 | 33.09 |

**Source: Field Survey, 2012**

**5.2.2: Marketing Margin of Retailer :**

The average marketing margin of retailers per 100 eggs worked out to be Tk. 42.50**.Das (1995)** carried out average margin per 100 eggs were TK.44.16 which is almost similar to our result. The highest marketing margin of retailers was Tk. 55 which was obtained in the month of February. The lowest margin was Tk. 35 in the month of May. The highest profit (Tk. 47.49) was earned in the month of February (Table 5.5)

The variation in marketing margin and profit over the months was due to the variation in purchases and sales price of eggs as the marketing cost was constant over the time.

**Table 5.5. Marketing Margin and Profit of Retailer (Taka per 100 eggs) .**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Months** | **Purchase** | **Sale price** | **Marketing Margin** | **Marketing cost** | **Net margin (Profit)** |
| January | 790 | 830 | 40 | 7.51 | 32.49 |
| February | 785 | 840 | 55 | 7.51 | 47.49 |
| March | 785 | 830 | 45 | 7.51 | 37.49 |
| April | 790 | 830 | 40 | 7.51 | 35.49 |
| May | 805 | 840 | 35 | 7.51 | 26.49 |
| June | 805 | 845 | 40 | 7.51 | 32.49 |
| July | 815 | 860 | 45 | 7.51 | 36.49 |
| August | 815 | 860 | 45 | 7.51 | 36.49 |
| September | 810 | 855 | 45 | 7.51 | 36.49 |
| October | 810 | 850 | 40 | 7.51 | 32.49 |
| November | 815 | 855 | 40 | 7.51 | 32.49 |
| December | 835 | 875 | 40 | 7.51 | 32.49 |
| Average | 805 | 847.5 | 42.5 | 7.51 | 34.90 |

**Source: Field Survey, 2012**

**5.2.3: Marketing Margin of Supplier:**

Table 5.6 depicts the suppliers' marketing margin of eggs. The average marketing margin of suppliers per 100 eggs was calculated at Tk. 43.75. The highest margin of Tk. 60 was observed during the month of February and March which the lowest margin (Tk. 30) was found in the months of July and August. The highest and the lowest profit was Tk. 49.29 and Tk. 19.26 respectively of the suppliers. The selling price (Tk. 848.33) per 100 of suppliers was unchanged during the stipulated period of time. The marketing margin and profit varied over the months because of the variation of purchase price (Table 5.6)

**Table 5.6 Marketing Margin and Profit of Supplier. (Taka Per 100 eggs)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Months** | **Purchase** | **Sale price** | **Marketing Margin** | **Marketing cost** | **Net margin (Profit)** |
| January | 790 | 845 | 55 | 10.74 | 44.26 |
| February | 785 | 845 | 60 | 10.74 | 49.26 |
| March | 780 | 840 | 60 | 10.74 | 49.29 |
| April | 790 | 845 | 55 | 10.74 | 44.26 |
| May | 805 | 845 | 40 | 10.74 | 29.26 |
| June | 805 | 845 | 40 | 10.74 | 26.26 |
| July | 815 | 845 | 30 | 10.74 | 19.26 |
| August | 815 | 845 | 30 | 10.74 | 19.26 |
| September | 810 | 845 | 35 | 10.74 | 24.26 |
| October | 810 | 845 | 35 | 10.74 | 24.26 |
| November | 810 | 850 | 40 | 10.74 | 29.26 |
| December | 840 | 885 | 45 | 10.74 | 44.26 |
| Average | 804.58 | 848.33 | 43.75 | 10.74 | 33.01 |

**Source: Field Survey, 2012**

**Islam (1976)** studied egg marketing in Mymensingh town. In this study the researchers identified the marketing system of eggs, estimated the marketing cost and margin of eggs in Mymensingh town and study the marketing efficiency of eggs. Total sample size was 12 in study. The growers share in consumer price (77 percent) and the net margin (Tk. 7.50 for 100 eggs) of traders were considered reasonable by the author whereas the estimated net profit of wholesalers, retailers and suppliers are found taka 33.09, taka 34.90, taka 33.01 respectively under the study.

The estimated marketing margin is higher due market participants selling eggs in the market at higher price during last one without disrupting prices that’s why they earn more benefits whereas the egg consumers deprive form actual price and satisfaction. They face lots of problems from the egg trader and market participants.

**5.2.4: Comparison between gross marketing margins, gross marketing cost and net marketing margin of egg traders:**

**Fig-5.1: Marketing margin, Marketing cost and Net marketing margin**

**Gross marketing margin:** On the basis of above figure it was understood that, the supplier’s gross marketing margin is higher than that of retailer and wholesaler due to they got year round better price under contractual agreement to the institutional buyers.

**Gross marketing cost:** The above figure indicated that, the gross marketing cost of the supplier is higher than wholesaler and retailer due to higher personal and transport cost of the suppliers as they are comparatively younger than other egg traders.  
**5.3: Price Spread and producer's Share in Retail/ Consumer Price:**

Price spread refers to the difference between the price paid by the consumers and the price received by the producer for an equivalent quantity of farm product.

Here producer's share in retail/ consumer price has been calculated by dividing the net amount received by the producers with the total amount received by retailers and then multiplying it by 100. That mean,

**Net amount received by the producer**

**Producer's share = --------------------------------------------------------- × 100**

**Total amount received by the retailer**

In the present study, the channels selected for calculating price spreads and producer's share are as follows.

**Channel - I**

i) Farm owner ------> Aratdar- cum -wholesaler ---------> Retailer ---------> Consumer.

**Channel II**

ii) Farm owner ---------> Aratdar- cum - wholesaler ------> Supplier ---------> Institutional buyer/ consumer.

Price spreads and producer's share in the channel I and channel II was presented in Table 5.7. Under channel I the retail price and producer's net price per 100 eggs were Tk. 847.5 and Tk 762.5 respectively. The price spread was Tk. 85.00 per 100 eggs while the producer's net share in retail price/ consumer price was 89.97 percent. Similarly the price spread was Tk. 85.33 per 100 eggs while the producer's net share was 89.88 percent of the consumer's take under the channel.

II. It is evident from Table. 5.7 the producer's share in the channel I am higher than channel II.

**Table 5.7 : Price spreads and producer's share in consumer's price under the marketing channels.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Marketing channel** | **Retail price Tk. per 100 eggs (Average)** | **Producer's net price Tk. per 100 eggs** | **Price spread Tk. per 100 eggs (Average)** | **Producer's net share (percent of retail price)** |
| I | 847.5 | 762.5 | 85.00 | 89.97 |
| II | 848.33 | 762.5 | 85.33 | 89.88 |

**Source: Field Survey, 2012**

Table (5.7) showed the producer’s net share (percent of the retail price) under the marketing channels I and II is 89.97 and 89.88 respectively. Islam (1976) reported that growers share in consumer price (77 percent). Our results show higher producer’s net share which is indicated that Farmers got the best price as they are very conscious of marketing of eggs.

**5.3.1: Comparison of the Price Spread and Share of Producer’s between two channels of the egg traders:**

**Fig-5.2: Channel wise Price Spread and Share of Producer’s**

The Channel wise Price Spread and Share of Producer’s are indicated in the fig-5.2. It is concluded that, the Price Spread and Share of Producer’s of both channels are almost same in the marketing system of Eggs in Bangladesh.

**CHAPTER - VI**

**PROBLEMS AND RECOMMENDATION**

In the existing socio-economic conditions of Bangladesh there are so many marketing problems for layer farming and egg traders. In this chapter problems faced by egg traders and their suggested measures are discussed.

**6.1 Marketing Problems Faced by the Layer Farm Owners:**

From the field survey in the study area it was known that layer farm owners had to face some problems at the time of egg marketing. these problems are presented in Table 6.2 and discussed below

**Table 6.1 Marketing problems faced by the layer farm owners.**

|  |  |  |
| --- | --- | --- |
| **Problems** | **Number of respondents** | **Percent** |
| High demand of eggs from native birds | 20 | 90.91 |
| Fluctuation of demand | 15 | 68.18 |
| Breakage of eggs in transit | 22 | 100.00 |
| High transportation cost | 19 | 86.36 |
| Hartal, Strike, flood and natural calamities | 22 | 100.00 |
| High cost of storage | 12 | 54.55 |

**Source: Field Survey, 2012**

**6.1.1:High demand of eggs from Native birds:**

In the study area about 91 percent of respondents reported that the demand for eggs from native layer was higher than their eggs (Table 6.1) They also reported that the consumers considered the eggs from indigenous layer as more tasty than of farm produced eggs and people are habituated to have eggs of native birds.

**6.1.2:Fluctuation of Demand :**

Table 6.1 shows hat about 68 percent of respondents considered the fluctuation of demand for eggs as a marketing problem.

**6.1.3: Breakage of Eggs in Transit:**

Table 6.1 reveals that all of the respondents mentioned that average 2 percent of eggs were broken in transit. It occurred due to careless handling and un favorable condition of roads. They considered it as one of the major problems in egg marketing.

**6.1.4:High transportation cost :**

It can be seen from table 6.1 that about 86 percent of respondents considered high transportation cost as one of the jajor marketing problems for eggs. They reported that high cost of transportation inflated the price of eggs.

**6.1.5:Hartal, Strike, Food and Calamities:**

All of the respondents owners opined that hartal, strike, flood and natural calamities caused problems for the smooth transportation system and the delay in transportation caused deterioration in egg quality.

**6.1.4:High cost of Storage :**

It was found from Table 6.1 that about 55 percent of respondents reply against the storage would increase egg price by adding storage cost.

**6.2: Marketing Problems faced by the Egg Traders :**

The egg traders were found to face various marketing problems at the time of egg marketing in the study areas. The problems are presented in Table 6.2 and discussed below.

**Table 6.2 Marketing problems faced by the egg traders.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Problems** | **Aratdar-cum- wholesaler** | **Retailer** | **Supplier** | **All** |
| Lack of operating capital | 10 (58.82) | 16 (66.67) | 4 (57.14) | 30 (62.50) |
| Spoilage of eggs | 9 (52.94) | 17 (70.83) | -- | 16 (33.33) |
| Absence of storage facilites | 12 (70.59) | 14 (58.33) | -- | 26.(54.17) |
| Lack of adequate and suitable transportation system | 17 (100) | 19 (71.43) | 7 (100) | 43(89.58) |
| Breakage of eggs in transit | 17 (100) | 24 (100) | 7 (100) | 48 (100) |
| Inadequate space in the market | 8 (47.06) | 16 (66.67) | -- | 24 (50) |

**N.B. the figures within the parenthesis indicate percentages**. **Source: Raha, S. K.( 2001).**

**6.2.1:Lack of Operating Capital :**

The findings of field survey indicate that about 59 percent of Aratdar-cum- wholesalers, 67 percent of retailers and 57 percent of suppliers faced lack of operating capital as the major porblem in egg marketing (Table 6.2)

**6.2.2:Spoilage of Eggs:**

Spoilage of eggs was a problem of egg marketing as reported by about 53 percent of Aratdar- cum- wholesalers and 71 percent of retailers.

**6.2.3:Absence of Storage Facilities:**

Absence of storage facilities affected about 71 percent of Aratdar-cum - wholesalers and 58 percent of retailers. they claimed that cold storage did not show interest to store egg over other commodities.

**6.2.4:Lack of Adequate and Suitable transportation system:**

In the study area hundred percent each of Aratdar-cum-wholesalers and suppliers and about 71 percent of retailers considered lack of adequate and suitable transportation system as a great marketing problems (table 6.2) They considered that it as the main cause of breakage of eggs.

**6.2.5:Breakage of Eggs in Transit :**

Breakage of eggs in transit was another marketing problem which was noted by 100 percent each of Aratdar-cum- wholesalers, retailers and suppliers. They mentioned that the breakage percentage was about.

**6.2.6:Inadequate Space in the Market:**

Table 6.2 shows that 47 percents of Aratdar-cum- wholesalers and 67 percent of retailers complained that the space in the market was inadequate for egg trade. It is extremely difficult for a new comer to enter the market because of the lack of space.

**6.3 Measures Suggested by the Layer Farm owners :**

Layer farm owners encountered a number of problems in the study area. Egg production was adversely affected by those problems Farm owners suggestions in connection with solution of the problems are presented in Table 6.3 and discussed below.

**Table 6.3 Measure suggested by the farm owners**

|  |  |  |
| --- | --- | --- |
| **Measures** | **Number of respondents** | **Percent** |
| Establishment of Hatchery | 10 | 68.36 |
| Establishment of Feed manufacturing factory | 18 | 81.82 |
| Regularity in Electricity Supply | 22 | 100.00 |
| Government Support in Credit | 14 | 63.64 |
| Development of Disease Diagnostic Facilities | 20 | 90.91 |
| Provision of Adequate Supply of Medicine | 19 | 86.36 |
| Provision of Adequate Supply of Vaccine | 17 | 77.27 |
| Provision of Effective Extension Service | 14 | 63.64 |
| Development of Transportation System | 22 | 100.00 |

**Source: Field Survey, 2012**

**6.3.1:Establishment of Hatchery:**

Chick is the main input for layer farming. Table 6.3 shows that about 68 percent of respondents suggested to establish more hatcheries in the local area. It needed for smooth operation of layer farms.

**6.3.2:Establishment of Feed manufacturing factory:**

For egg production as well as layer and poultry farming feed is an essential item. In this study about 82 percent of farm owners suggested to establish more feed manufacturing factories for developing the layer farming business. The farm owners also suggested that Government need to support in poultry feed production and distribution by providing credit to prospective business farms (Table 6.3).

**6.3.3:Regularity in Electricity Supply:**

All the respondents suggested that Government should ensured regular supply of electricity to layer farms (Table 6.3).

**6.3.4:Government Support in Credit :**

In the study area about 64 percent of respondents suggested that Government should support poultry farms through providing credit facilities (Table 6.3).

**6.3.5:Development of Disease Diagnostic Facilities:**

It can be seen from Table 6.3 that about 91 percent of respondents suggested to develop disease diagnostic facility at local veterinary hospitals for diagnosis the disease of laying birds.

**6.3.6:Provision of Adequate Supply of Medicine:**

About 86 percent of respondents proposed that adequate supply of medicine at local market should be ensured for development of poultry firming.

**6.3.7:Provision of Adequate Supply of Vaccine:**

For Provision some disease of laying birds about 77 percent of sample farm owners demanded that Government to establish more vaccine manufacturing companies for ensuring adequate supply of vaccine by providing industrial loans (Table 6.3).

**6.3.8:Provision of Effective Extension Service:**

Table 6.3 depicts that about 64 percent of respondents demanded for provision of effective extension service by the Department of Youth Development under the Ministry of Youth and Sports, for solving the non-skilness problem of layer farms.

**6.3.9 Development of transportation System:**

Transportation problem affected farm owners adversely in eggs selling. All of the respondents suggested that suitable transportation system should be developed by the Government by constructing roads and highways (Table 6.3).

**6.4: Measures Suggested Egg Trades:**

In the study area egg marketing was adversely affected by the problems which were encountered by traders as stated earlier. Traders suggestions in connection with solution of these problems are presented in Table 6.4. The measures are discussed below.

**Table 6.4 Measures suggested by traders**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Measures** | **Aratdar-cum - wholesaler** | **Retailer** | **Supplier** | **All** |
| Improvement of transportation and communication facilities | 17 (100) | 24 (100) | 7 (100) | 48 (100) |
| Provision of institutional credit | 10 (58.82) | 16 (66.66) | 4 (57.14) | 30 (62.5) |
| Development of storage facilities | 14 (82.35) | 17 (70.83) | 2 (28.57) | 33 (68.75) |
|  |  |  |  |  |
| Enlargement of marketplace | 8 (47.09) | 16 (66.67) | -- | 24 (50) |

**N.B. The figures with in the parenthesis indicate percentages. Source: Raha, S. K.( 2001).**

**6.4.1:Improvement of Transportation and Communication:**

Table 6.4 depicts that provision of adequate and suitable transportation and communication facilities were suggested by hundred percent each of Aratdar-cum-wholesalers, retailers and suppliers.

**6.4.2:Provision of Institutional Credit :**

It was known from the field survey that about 59 percent of Aratdar-cum-wholesalers, 67 percent of retailers and 57 percent of suppliers mentioned provision of institutional credit for solving the problem of capital (Table 6.4)

**6.4.3:Development of storage Facilities:**

It was demanded by about 82 percent of Aratdar-cum- wholesalers, 71 percent of retailers and 29 percent of suppliers that modern storage facility should be development by establishing more cold storage by Government at marketplace (Table 6.4)

**6.4.4:Enlargement of Marketplace:**

In the study area according to about 47 percent of Aratdar-cum-wholesalers and 67 of percent of retailers the space of the market should be extended either by construction new market or by enlarging the present space (Table 6.4).

**CHAPTER - VII**

Conclusion

The result emerged from the study clearly indicated that Egg marketing system is a profitable business. From the above study, the finding result identified five different channels in present egg marketing system. The average gross return of Aratdars-cum-wholesaler, retailers and suppliers for 100 eggs are found TK. 42.50, TK.42.50 and TK.43.75respectively.The average cost of Aratders-cum-wholesaler, retailers and suppliers for 100 eggs were found TK.9.41, TK.7.51 and TK.10.74 respectively. The net margin of 100 eggs were calculated and found tk. 33.09, tk. 34.99 and tk. 33.01, respectively for Aratdars-cum-wholesaler, retailers and suppliers. So development of this enterprise is helpful in employment generation and poverty alleviation which are now the concern of the planners of the country.

**CHAPTER - VIII**

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**ANNEX**

Questionnaire for data collection on the marketing system of commercially produced eggs in some selected areas of Chittagong District.

Farm identity no…………………. Date……………

Name of the farm………………….

Address…………………………....

Name of the farm owner and address……………………

Type of farm: Layer/Broiler

Number of birds……………………

Information about the farm:

Annual egg production………………….

Feed cost…………………………………

Income from egg/year……………….

Net income……………….BDT

If have loan the amount………..BDT

Any type of faria involved:Yes/Not

Marketing Channels: Direct/Indirect

Wholesaler comes in farm: Yes/no

What types of eggs are demandable?

Fertile Table Both

What types of color are preferable? White/ Brown

In formations from egg traders:

Wholesaler market

Wholesaling price per 100eggs……………….

Marketing cost of eggs……………………

Retailer market

Retail price per 100 eggs……………….

Marketing cost of eggs……………………

Signature of the interviewer

Information’s of layer farm:

|  |  |  |
| --- | --- | --- |
| **Farm ID** | **Farm size** | **No. of egg production/day** |
| L-1 | 1130 | 980 |
| L-2 | 3000 | 2770 |
| L-3 | 5000 | 4850 |
| L-4 | 4000 | 3820 |
| L-5 | 3200 | 3015 |
| L-6 | 5500 | 5260 |
| L-7 | 7000 | 6840 |
| L-8 | 6500 | 6356 |
| L-9 | 7500 | 7350 |
| L-10 | 8075 | 7064 |
| L-11 | 9050 | 8075 |
| L-12 | 10500 | 9044 |
| L-13 | 12580 | 11670 |
| L-14 | 14500 | 13675 |
| L-15 | 15500 | 14400 |
| L-16 | 17700 | 16035 |
| L-17 | 12000 | 11500 |
| L-18 | 18400 | 17090 |
| L-19 | 14000 | 13400 |
| L-20 | 10500 | 9997 |
| L-21 | 11000 | 10500 |
| L-22 | 12700 | 12100 |