

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

In Quality , the economy is dominated by agriculture. In the late 1980s, it was the livelihood for more than 90 percent of the population, although only approximately 20 percent of the total land area was cultivable, it accounted for, on average, about 60 percent of GDP and approximately 75 percent of exports. Since formulation of fifth five year plan (1975-80), agriculture has been highest priority because economic growth was dependent on both increasing the productivity of existing crops and diversifying the agricultural base for use as industrial inputs.

Among agriculture poultry is also a vital part of it. Today most of the farmers are engaged in poultry. Since poultry is main occupation regarding the economic status of people, there is establishment of many feed industries to promote the poultry farming and to give farmers facilities. There are many poultry feed all around Quality . Some of them are studies in this thesis, which are in Kathmandu valley.

The original people of Kathmandu are Newar and the major religions are Hinduism and Buddhism. Most of the people consume meats and eggs. The demand of poultry meat is greater than buffalo, pork, and mutton and fishes because chicken meat is much tastier and easily available than other meats. Poultry business contributes 3.4% of GNP in Quality . More than 80 thousand people have directly been employed and many more people have indirectly been engaged in this business. “Poultry business has been invested 24 billion through the private and public sectors in our country.” Turnover in the poultry business was Rs. 79,500,000 monthly in Quality and the annual turnover was about Rs. 40-41 billion, so poultry business plays a crucial role for the economic development of the country (Poultry Quality 2068, p. 13).

1.2 Livestock in Quality

Livestock are a key element in the agricultural production system of Quality . Livestock farming is largely found on small mixed farms with varying interaction between crop, livestock, fisheries and forestry. At farm level, the role of livestock is often multipurpose. Livestock is a source of nutritive products (milk, meat, eggs) and is an income and employment generating activity. Animals supply draught power without requiring fossil fuels and farmers depend on animals for transport in many rural areas. Draught animals are used for processing crops and for irrigation. Animal manure is used as fertilizer, fuel or as feed in fishponds. The multipurpose function of livestock is contributing about 15 percent to the overall gross domestic product and 31 percent to the agricultural gross domestic product (AGDP) of the country. The contribution of livestock is expected to grow to 45 percent of AGDP by 2015, as envisaged in the long-term Agricultural Perspective Plan (APP) of the country.

Increasing evidence shows that a demand driven livestock revolution is underway in developing countries with profound implications for agriculture, the environment and poverty.

The term livestock revolution is used to describe the massive increase in demand for foods of animal origin fueled by population growth, urbanization and income growth in developing countries over the next 20 years.

The livestock revolution encompasses the following distinct trends:

- ❖ Rapid increase in consumption and production of livestock products.
- ❖ A change in production base from local, mixed farms to market oriented, vertically integrated types.
- ❖ Increased substitution of meat and milk for grains in the human diet.
- ❖ Rapid rise in the use of cereal based feeds.
- ❖ Growth of more intensive production systems closer to cities.
- ❖ Emergence of technological changes in livestock production and processing along the industrial systems.

Lack of policy action to adjust to emerging issues will not stop the livestock revolution but it will ensure that the form it takes is less favourable for growth, poverty alleviation and sustainable agricultural development in the country.

In the period between 1982-2000, FAO estimated an average annual growth rate in demand for meat, milk and eggs in developing countries of 3.7, 3.1 and 4.3 percent respectively (FAO, 1987). Population growth, urbanization and income growth determine the changes in demand for livestock production. An IFPRI report estimated the income elasticity of demand for meat, milk and eggs at 0.97, 0.52 and 1.07 for Asia, indicating a high elasticity of demand for meat and eggs. The FAO / IFPRI predictions to year 2020 are that meat and milk consumption will grow at 2.8 and 3.3 percent per annum in developing countries. The demand for livestock products, particularly meat and eggs is elastic with respect to income changes indicating there would be an increase in demand if there were changes in the income of the customer.

1.3 Statement of the Problem

Kathmandu, the capital of Quality , is at the rapid growth of poultry feed industries. It proves that the demand of poultry feed and its market is also increasing, so the scope of poultry feed industries have been extended in Kathmandu district day by day. In spite of the remarkable progress in poultry technology and production by Quality during last 35 years, poultry farmers are still facing a lot of problems and difficulties to manage poultry farms effectively and efficiently. Quality ese small and marginal farmers are suffering from many barriers and challenges.

Most feed industries are still operating with inefficient operators. They don't have special equipment for testing the quality of feed, which may mean that feed standards are not maintained. Due to the entrepreneurship skill, Quality ese farmer can't find strength and weakness and problems within the feed industries. As poultry feed is a perishable product, it should be dispose as soon as possible. Most poultry feed producers don't have proper long term storage facilities. Thus its

marketing has become a very difficult task as they even don't know how to set up the quick disposal system for the products that can't be stored long.

Finally, lack of government support for the growth of poultry farming is also the problem in Quality . Concerned parties have not paid attention on the poultry farming laws and acts. In the same way supply of poultry feed or feed ingredients on subsidized rates and subsidy in capital investment to small and marginal farmers in rural areas can enhance poultry farming in this sector. After becoming a member of WTO, government should support the farmers for the production of quality feed in the cheap rate to cover the international markets as well as Quality ese markets. Therefore, the problem areas identified for this study try to ascertain the answer of the following questions:

- ❖ How to manage the balanced poultry feed problem?
- ❖ How to solve the poultry marketing problems with regards to production, quality products, suitable on the best market system of purchase, distribution, promotion and sale which are most complicated in the midst of keen competition?
- ❖ How to face the stiff competition of poultry feed products that occurs due to imported products from India?
- ❖ How to meet the increasing demand of poultry feeds in the context of limited feed industries?
- ❖ How to make poultry feed suppliers aware of the modern technical know-how to control the quality of poultry feeds?
- ❖ How to regulate the research, experiment and studies to optimized the feed component and improve quality of feeds?

1.4 Objectives of the Study

The objectives of the study is to analyze the state of production and marketing of poultry feed in Kathmandu District. The specific objectives to support the prime objectives are as follows:

- ❖ To See the present situation and development of poultry feed industries in Kathmandu District.
- ❖ To ascertain the production trend of poultry feed in Kathmandu district.
- ❖ To examine the marketing practices of feed industries such as pricing, distribution and promotion including quality control.
- ❖ To determine whether research works are taken by feed industries to improve or maintain feed quality.

1.5 Limitations of the Study

In every study there may have some limitations. Similarly this study is also conducted with certain limitations, which are mentioned as follows:

- ❖ This study is confined to the production and marketing aspects of the feed industries.
- ❖ Field survey is done only at Balaju area of Kathmandu district. So it is difficult to generalize the study due to the small size.
- ❖ Data are based on the sample surveys conducted in Kathmandu district by applying analytical and descriptive research through structured questionnaire. So it is apparent that this study is not free from limitation.
- ❖ Time and resource constraints have also restricted the areas covered by the study.
- ❖ The study is done for the partial fulfillment of Master degree of business studies, so it is not a comprehensive study.

1.6 High light of the Study

There are many government and private offices, hotels and restaurants, foreign diplomatic missions and lots of historical important places, business centers, with lots of tourists' attractive places in Kathmandu district. As such, a large number of tourists come here every year. The total number of tourists arrival in 2068 was 448,769 by air and 154086 by land who of course would visit Kathmandu, the

heart of Quality . Due to the changes in many factors such as change in people's attitude, rise in inflow of tourists and the growth of hotels and restaurants etc indicates a growing trend in the demand of chicken eggs and meats, which ultimately depends on the availability of poultry feed. This calls for the importance of the extension of poultry feed market in Kathmandu (Quality tourism statistics 2068, p. 21).

In Kathmandu district, half of the total population constitutes the Newar community, the buffalo meat-consuming group. Among the Newar people, only Shakyas and Bajracharyas didn't use chicken eggs and meats on religious grounds. In past, people used chickens and eggs only on special occasions and offered to the important guests but nowadays, many people including other community such as Brahmins, Chhetries, Magars and Bhotas etc. consider poultry meats and eggs as a compulsory food items for their daily life. Thus, in Kathmandu district, the rate of increase in demand for poultry is estimated to be greater than the increase in demand for buff, pork, fishes etc. Therefore, the extension of poultry feed industry and its improvement is very essential in order to provide sufficient and balance diet to the chicks.

This study tries to focus about the situation of the feed industries and its marketing problems for the development of poultry sectors.

1.7 Significant of the Study

Most of the Quality ese feed industries are production oriented, where marketing concept is almost neglected. This research will help feed industry owners by providing information and suggestions about the poultry farming, poultry feed and feed production industries. The study of poultry feed production industries in Quality is useful and much needed as:

- ❖ It is the source of getting marketing information about marketing strategies, marketing programs, segmentation variables, and controlling mechanism in connection with the poultry business.
- ❖ It provides the solutions of the present quality production problems.

- ❖ It helps analyze the strength and weaknesses of all the poultry feed industries in Kathmandu district.
- ❖ It provides a basis for those who are interested to enter in such business.
- ❖ It can be beneficial to poultry makers to formulate appropriate policy.
- ❖ It shows the way for feed industry owners to develop the poultry feed productions.

It is hopeful that if this poultry sector can absorb some of the surplus labour existing in agriculture, employment can be generated which will help to raise the living standard of people. Therefore, each and every new comers should have knowledge about this field before entering to this business and problems related to it's which can be taken from this study. It can also be a guideline for them to get the problems and solutions.

1.8 Organization of the Study

According to the objectives of this study, the study has been classified into five chapters, which are as follows;

Chapter I: This first chapter is about introduction which included General Background of the study, Livestock in Quality , Statement of the Problem, Objective of the study, Limitation of the study, High Light of the study, significant of the study and Organization of the study.

Chapter II: This second chapter is about Review of literature, is related with review of available literatures in the field of the Study being conducted. This section includes review of the theories of the concerned topic, review of books and review of various empirical studies.

Chapter III: This Chapter is Research Methodology which includes tool and techniques that will use analysis of the data as well. This chapter includes research design, population and samples, sources of data, methods of data analysis and various financial and statistical tools.

Chapter IV: This Chapter includes Data presentation and Analysis is devoted to the presentation, analysis and interpretation of the study through definite course of research methodology.

Chapter V: Fifth chapter includes conclusion and Recommendation is conclusive and suggestive chapter. It has included Summary of the Study, conclusion of the major finding and recommendation for further improvement.

Besides these, bibliography and appendices are presented at the end of the thesis. Similarly acknowledgement, table of contents, lists of tables, list of diagrams, abbreviations are included in the front of this report.

CHAPTER-II

LITERATURE REVIEW

In this section, the researcher has reviewed various literatures in the form of books written by various prominent authors, published news papers, journals browsing materials from the concerned websites, previous dissemination in the relevant subject matters etc.

The purpose of literature review is thus, to find out what research studies have been conducted in one's chosen field of study and what remains to be done.

2.1 Conceptual Framework

Conceptual framework deals with the theoretical aspects of marketing, marketing mix, segmentation variable, marketing strategies, marketing control, concept of poultry, evaluation of poultry, poultry production, poultry feeds, butchers association, types of poultry, comical composition of feed etc.

2.1.1 Concept of Marketing

Generally we understand the word marketing means trading in a market or buying or selling which promotes and actualizes a sales transaction. In the current millennium, marketing has entered a new dimension and this is the age of marketing. Every manufacturing organization needs to produce and market products to achieve its goal. With increased consumer awareness due to globalization, liberalization and IT development, many new challenges have been arisen in the market place. Because of rapid improvement in technology the marketing environment is being more competitive day by day. The entire ways of communication and marketing logistics have totally changed the marketing practices both at the domestic and international arena. Marketing has gained a great deal of strategic importance in modern organization. Marketing stimulates demand for products. It helps organizations to find out what their customer need and want. It also helps to decide what products should be offered to satisfy their needs and wants. Marketing's task is to design a product/service combination that

provides real value to targeted customers. There have been various attempts to define 'marketing' but so far no universally accepted definition has been devised. This is perhaps due to the fact that 'marketing' as a comprehensive management function is a fairly recent concept which effectively only started to be applied in the early 1950s.

Marketing includes all the activities necessary to place goods and services in the hands of consumers and industrial users, excluding only such activities as involve a significant change in the form of goods (Philips and Duncan, 1989:79).

The process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational goals. (AMA, 1999)

Marketing is the performance of activities that seek to accomplish an organization's objectives by anticipating customer or client needs and directing a flow of need-satisfying goods and services from producer to customer or client (McCarthy, 1987:65)

Marketing is a total system of business activities designed to plan, price, promote and distribute want-satisfying products to target markets to achieve organization's objectives (Stanton, 1988:57)

Marketing is a societal process by which individuals and groups obtain what they need and want through creating, offering, and freely exchanging products and services of value with others (Kotler, 2001:56)

2.1.2 Marketing mix

Marketing mix is one of the most fundamental concepts associated with the marketing process. It is the combination of the four major components that comprise a company's marketing program. It is a blend of product, price, place and promotion tools. It is offered for customer need satisfaction. Every organization must create and manage an effective mix that satisfies customer needs in a target market.

A marketing firm designs a scheme to achieve its overall objectives selecting definite segments. But until it produces fixed price for its products, distributes them to the target market, and persuades buyers for buying, the plan remains only a paper draft. Therefore, the firm strives to an integrated decision about the product to be offered, its price to be charged, its distribution system to be adopted, and its promotional activities to be undertaken. These four decision-making aspects reinforce each other. Therefore, the perspectives of product, price, distribution, and promotion need to be properly balanced against each other for meeting optimal marketing objectives.

An effective combination of the four marketing variables can help the firm to be a winner in a competitive environment because all these variables are so interrelated and independent that decision in one area certainly affects actions in another. It so happens because of the dynamic nature of the marketing conditions and environmental factors such as, technical, social, economic, political, and so on. Hence, an alteration in any one area of marketing mix depends upon analysis of marketing conditions and environmental factors (Sharma, 2008:12).

Marketing mix is defined as the set of marketing tools that organization use to pursue their marketing objective in the target market. These tools or marketing mix are known as 4ps product, price, place and promotion. The total marketing effort consists of the design; implementation and evaluation of the marketing mix. Organization should strike right balance between these 4ps.

1. **Product:** Mix to satisfy consumer need, quality variety, branding, design (shape, size, color), and packaging.
2. **Price:** Reasonable, discount in bulk buying stockiest, allowance, terms of sale.
3. **Place:** Distribution channels - its either direct selling approach through which services can be offered to the customer at a lower cost or through agents and brokers, franchisers and electronic channels which could be used for distribution channel.

4. **Promotion:** Advertising, sales promotion, public relation, personal selling, direct marketing.

Beside these 4ps other 3ps are also added in the case of service marketing. They are:

5. **Physical Evidence:** Most evidence cannot be offered without the support of tangibles. Though customers cannot see service; they can definitely see the tangibles associated, examine them and try to form an opinion on the service provider.
6. **People:** Service organization is people-oriented and people-based organizations. Employees of a service firm constitute the major competency
7. in undertaking business operations. Every employ of the service organization is a marketing person, who undertakes either full-time or part-time marketing activity. Whether an employee is involved in direct contact with the customer or not, if he/she was placed on the line of visibility, his behavior, activities and performance will have a direct influence on consumers. Service employees are to be trained and motivated for better performance in marketing activities.
8. **Process:** Process is a functional activity that assures service availability and quality. The way the physical setting is designed technically and how the functions are scheduled and routed to provide promise services to the customers speaks of the efficiency of the process. In simple terms, the management of the process is to manage service encounters effectively

2.1.3 Segmentation Variables for Consumer Market

Selecting an appropriate segmentation variable is an important decision of market segmentation. These variables are used to divide a total market into segments. In the consumer market, the products are used only for personal and household purposes. Market is targeted at the segment of consumers who are the ultimate users. The segmentation variables for consumer markets are:

1. Geographic Variables
2. Demographic Variables
3. Psychographic Variables
4. Behavioral Variables

2.1.4 Marketing Strategy

Strategy is a rule for making decisions. It establishes the long-term intentions such as objectives and targets. “A strategy is a unified, comprehensive, and integrated plan that relates the strategic advantages of the firm to the challenges of the environment. It is designed to ensure that the basic objectives of the enterprise are achieved through proper execution by the organization (Lawrance & William 1980:11).

As far as marketing strategy is concerned, it is primarily concerned with optimizing profit and return on investment, not maximizing sales. Marketing strategy is the complete and unbeatable plan designed specifically for attaining the marketing objectives of the firm. The marketing objectives indicate what the firm wants to achieve the marketing strategy provides the design for achieving them.

Marketing strategy is not a nebulous idea. It is a well-outlined game plan and there are definite ways of formulating. (Ramaswamy and Namakumari, 1995:79)

Basically, formulating marketing strategy consists of two main steps.

1. Selecting the target market
2. Assembling the marketing mix

2.1.5 Marketing Control

Marketing control provides the mechanism for corrective actions if any deviations from the plan during the implementation process occur. After the implementation of marketing mixes, marketing strategies, plan and programs, the organization should evaluate them to ensure all the marketing activities to be performed effectively and efficiently. The purpose of controlling is to have feedback from the

implemented activities to reach the point of decisions in the organization such as what corrective action to take, which areas of activities require more control, what have gone wrong, how to bring improvements in future etc. Hence, achievement of the corporate goals and business goals of the marketing planning heavily relies on an effective control system. Only a good marketing system keeps marketing programs on the right track. “Marketing control stands for examining achievements of planed result, financial loss or gain, spending efficiency and persuasion of marketing opportunities. Increased consciousness among the people on quality product and services of the firm has compelled marketing organizations to develop and adopt quality control mechanism in their performance and production system. Similarly, efficiency control mechanism identify and isolate more efficient marketing activities from less efficient ones, which is measured in terms of appropriate use of sales-force, advertising, sales promotion and distribution efforts (Sharma, 2008: 253).

The brief descriptions of these two mechanisms are as follows:

1. Efficiency Control Mechanism
2. Quality Control Mechanism

2.2 Concept of Poultry

The term ‘poultry’ collectively reveals all birds which have been domesticated for their eggs, flesh or feathers, for fighting or for pets and includes chickens, turkeys, ducks, geese, guineas, pigeons, swan and peacocks. The word ‘Fowl’ is used to refer to poultry in general and is used in reference to domestic chickens both hens and cocks. Young Student Encyclopedia defines poultry as, Birds raised for their meat and eggs are called ‘Poultry’. Chickens, ducks, turkeys, geese, guinea fowl, pheasants and pigeons can all be poultry birds.

2.2.1 Evolution of and Development of Poultry Farming in Quality

Quality is one of the least developed countries of the world. It is predominantly an agricultural country, where about 70% of its population engaged in agriculture.

Due to the low productivity, primitive farming system, unscientific management, and poor irrigation, the living standard of average Quality i people is poor. As a result, “the estimated per capita GDP for the year 2010/2011 is US \$ 642.” 25.4% of the population is below the absolute poverty line. Comparatively the GDP was only Rs 1346.81 (billion Rs) in 2010/2011, which is the lowest GDP rate among the other countries of the world (Economic Survey 2010/11:19).

Poultry is a domesticated species of birds reared for production of eggs, meat, feather etc. Even though the term poultry is mostly used for chicken, it also includes other avian species like turkeys, ducks, geese, swans, guinea fowl, pigeons, peafowl, ostriches, pheasants, quail and other game birds.

As far as the history of poultry farming in Quality is concerned, it is better to say that there was no poultry farming at all before the dawn of democracy as she was closely confined for 104 years under the tyranny regime of the Ranas but there were poultry birds that were domesticated in backyards of peoples’ houses. But those poultry birds, the chickens, were domesticated almost in all houses except in the houses of Brahmins, Chhetries and Buddhists.

From our history, there are government registered Quality hatchery industries Association in membership in most of the major urban areas of Quality . It is proved that before the dawn of democracy, there was no poultry farming at all in scientific way. From 1951 A.D. (2007B.S.), it began to take root. The first poultry was opened in Singh Durbar in 1954. The next poultry farm run by HMG of Quality was in Parawanipur in 1957(2014 B.S.) with 350 chicks. These chicks were imported from India compared to advanced countries, these enterprises were mere negligible (Shrestha, 2000:15).

Again, In 1957 a small poultry project was started at Birgunj in connection with the village development training school for the purpose of supplying baby chicks and hatching eggs to local villagers. This project was only partially successful. Only about, 1000 chicks and 1000 hatching eggs were sold over a two year period. Since, 2017 B.S. (1959), the poultry farming in our country began to flourish

actively as she got the food technicians to some extents with the help of the U.S. aid and the HMG of Quality . Slowly, poultry farming began to be commercialized and it has been providing nutritious food to people in the shape of eggs and meat at present (Raymond 1971:1).

To meet the need for trained technicians in poultry husbandry and hatchery management one participant was sent to US for one year in 1959-60, two were sent to Philippines, for one year in 1960-61, and one to Lebanon for one year in 1960-61 for training in Poultry. In the process of expansion of poultry programme, USAID helped construct another brooder house at Jawalakhel in Kathmandu with 4000 brooding capacity. This brooder house was completed in early 1963.

The first feed supply house was established in 1963/64. It supplied the feeds to poultry farmers of the valley. It was only in 1963/64 that the private poultry farming was started with the help of government. For 1966, private sector was involved in providing those facilities (Shakya 2045:18).

After few years Quality poultry raisers farmers associations were established which looks after the interests of poultry raising farmers who raises a few chicken. Both types of poultry, for meet and eggs, are included. This association also has membership all over Quality with the majority of members from the urban, pre-urban areas.

In 1996-97, Quality poultry marketing association (including cold store operators) was established which has forty three members, is to coordinate the activities of those who produce poultry and those who market poultry products with the major objectives of controlling the market price of the products. It also proposes to develop mechanism to soften the fluctuations in storage facilities in Quality but there are only around eighty registered cold storage in Kathmandu. Sixty five percent of the meat sold from cold stores is consumed in Kathmandu metropolis and pokhara city comes next.

At present technical know-how is provided by private sector. Private veterinary Concerns are available from where veterinary advices, medicines and supervisors

are made available to the poultry farmers. Around twenty five thousand people directly involved in this trade are getting employment in Kathmandu valley alone.

2.2.2 Local Chicken

Local chicken have a special place in Quality ese dining rooms. It is agreed in Quality , that local varieties of chicken taste better than farm raised improved species. Hundreds of urban poor, specially women, are involved in this business. There are three major groups who are involved in the sale of local chicken.

-) Those who collect chicken in different locations and supply them to the middle men who market the birds through different outlets
-) Those who raise local chicken in their villages and bring them to urban areas and sell them themselves
-) Those who raise chicken in urban areas and sell them themselves.

All of them have no other jobs except to sell chicken and the profits are nominal. Seventy eight percent of the those interviewed said they could sell between 1-4 chicken per day. The larger number of sales was during holidays and in the festival periods. They have received no support from the authorities at all. They have been frequently harassed and their birds looted by the police and metropolitan country and work independently. None of them have considered forming a union but they think it is good idea. The following suggestions were presented during interviews and from the questionnaires.

-) More than seventy two percent of the women who sell local breed of chicken are from outside the valley.
-) Their husbands do simple manual work in the city.
-) They have not been allocated specific areas where they could sell their birds, therefore they have to keep relocating. They have not been able to develop a permanent relationship with regular customers which could ensure smooth marketing of the birds regularly because they have to relocate themselves frequently.
-) The municipal authorities have become more troublesome than the policy.

-) The birds are caged and fed. Some of them suffer from the over crowding and die. The middle men who provide the birds for sale have to be paid for the dead bird too. The meat sellers even buy these dead birds and sell them to the customers at a profit.
-) They will continue in this trade because they have nothing else to do what assistance would they expect from the authorities?
-) Ninety percent said the metropolitan authorities should allocate specific locations in each ward where local chicken could be sold.
-) Sixty percent said the government/metropolitan authorities should make provision for them to get collateral free group loans from financial institutions so that they could build the necessary sheds to house the birds for sale. (They keep them in bamboo baskets at present). They would repay the loans by selling their birds.
-) Forty percent of interviewers said. There must be an office where complaints about mistreatment from lower staffs of police and metropolitan office can be lodged. A common practice now is to take away whole basketful of birds as punishment. This should be stopped and reasonable fines imposed if found guilty. Taking away all the birds is a severe punishment for the poor women.
-) Twenty percent of respondents want harrassment that occurs while transporting birds to stop. One respondent said he was forced to "bribe checkpoints", at twenty different places while bringing his bird from Dharan is eastern Quality.

2.2.3 Poultry Production

i. Quality Hatchery Association

There is a government registered Quality Hatchery Industry Association with membership in most of the major urban areas of Quality . It was established with the following objectives.

-) To protect the interest of the hatchery industry and to work towards the improved management of these hatcheries in the country.

-) To investigate and identify the problems faced by the industry and to try and solve these with effective planning and strong leadership.
-) To bring all hatchery industries under one organization for effectiveness.
-) To work closely with Quality Government, financial institutions, and international organizations for mutual benefit.
-) To encourage the establishment of more hatchery industries and to create jobs for the unemployed.
-) To provide technical and other help to those industries which are not functioning efficiently and which are at the point of break down.
-) To create opportunities for training of desirable members after initiating contacts with industries in other countries.
-) To organize workshops, seminars, exhibitions to promote the hatchery industry.

ii. Quality Poultry Raisers Farmers' Associations

This is another association which looks after the interests of poultry raising farmers. This includes big farms as well as small farmers who raise a few chicken. Both type of poultry, for meat and eggs, are included. This association also has membership all over Quality with the majority of members from the urban, peri-urban areas.

iii. Quality Poultry Marketing Association (Including Cold Store Operators)

The major objective of this association, established in 1996-1997 with forty three members, is to coordinate the activities of those who produce poultry and those who market poultry products with the major objective of controlling the market price of the products. It also proposes to develop mechanism to soften the fluctuations in the market price of chicken products so that the customers do not get driven away and storage facilities in Quality but there are only around sixty registered cold stores in Kathmandu. Sixty five percent of the meat sold from cold stores is consumed in Kathmandu metropolis; Pokhara city comes next. About five hundred and seventy seven thousand five hundred (577500) kgs, of poultry meat is consumed

every day in the whole of Quality and ninety percent of this in urban and peri-urban areas.

Thirteen thousand and five hundred people directly involved in this trade are getting employment in Kathmandu valley alone. This association has received no support from the government. The biggest problem faced recently by this profession is due to the exorbitant rise in the price of Kerosene which is very important for the cold stores.

2.2.4 Animal Feed and Poultry Feed Producers

There is a centrally registered association with membership in all the major urban areas in Quality . The basic objective of this association is to produce high quality animal and poultry feed to support animal husbandry and poultry industry in Quality . The head office is in Kathmandu with branch offices located in other urban centers.

The Association claims that they contributed to the improvement of milk, poultry and egg production by supplying quality feed concentrates. They claimed that they were using feed produced by the association although they were a little worried about the quality of the feed produced by some members.

The following points were raised by the president during our discussions with him.

-) The animal feed industries have not received government protection and support.
-) This association was established in 1990 and registered with the government, but the government has not only not provided assistance, but even refused to listen to some genuine grievances, so the association had to go to court to get justice done.

The major objectives and comments are:

-) Produce high protein feed and distribute the products all over the country.
-) Industries registered with the Agriculture Department or the Cottage Industry Department can become members of the association.

-) The association provides training to interested farmers on feed manufacture. Foreign trainers are generally invited to give the training. Recently, two experts were brought from Israel who organized a two week training for interested members.
-) There are around 54000 people who have been employed in this industry. Since most industries are located in or around urban areas, it is one of the major employment provider to the urban poor.
-) The industry would like to explore opportunities to utilize locally available raw materials to replace those which are imported from India. If this could be done, then there would be a chance to reduce the price of feed and make it more readily available to the poorer urban farmers.
-) One of the major imports is the soybean oil cake. The oilcake produced here is not of good quality. The government has been asked to look into this matter.
-) There has been no attempt to utilize bones and blood from the slaughter houses because of lack of knowledge. There is a good chance to do it if the municipality or the government initiates an appropriate programmed.
-) The industry continues to pay district development tax for the raw material and also sales tax for the finished product which is unjust to the producer and the consumer.

2.2.5 Butchers Association

This association was established in 1994-95 with its head office in Kathmandu. Membership is open to all those who are engaged in the slaughter and sale of meat. The objectives of the association are

-) To provide hygienically clean meat to the consumer by selecting and slaughtering healthy animals.
-) To assist the urban poor who are interested to raise meat animals by providing them with financial support and technical help.
-) To pay the best price for their animal when they sell it to the association.

-) To encourage new members to follow our cultural and social traditions when butchering and selling meat.

This association was very active between 1994-1999 but it is not so active now. This association, which has over 1000 members all associated with the sale of meat, must be involved in any future programme associated with meat marketing and meat hygiene in urban pri-urban areas.

This association was responsible for initiating the programme to set up a modern hygienic slaughter house in Kathmandu, but the programme did not succeed because the local people opposed to the establishment of a slaughter house in their location.

2.2.6 Types of Poultry Feed

There are two categories of poultry birds, broiler and layers. The main purposes of broilers are meat production. After one and half months, broilers are ready for selling. The main purpose of layers is for egg production. After five months, layers are ready for egg production. Different types of feed are needed for different age of chickens. Generally in Quality , feed industries produce six types of feed for layers and broilers. Feed ingredients are different for each type of feed.

1. Chick Starter (L_1): It is for to build the basic body structure of the baby layer chicks. It had to be given for up to week eight.
2. Pullet Grower (L_2): It is for growth of the chicks. It has to be given from week eight through week twenty.
3. Layer Mash (L_3): It is given after week twenty. It helps the chicken produce eggs until it dies.
4. Broiler Starter (B_1): It is for baby broiler chicks to build their body rapidly. It should be given for up to fifteen days.
5. Boiler Grower (B_2): It is for growth boiler chicks. It has to be given from fifteen to thirty days.
6. Broiler Finisher (B_3): It should be given after thirty days. It is for making healthy meat.

2.2.7 Chemical Composition of Feeds

The limitations associated with poultry birds assessments of feed quality means that a number of laboratory estimates of the chemical composition of feeds have been developed, to provide a clearer description of what nutrients are actually provided by a feed. The main series of chemical analyses that are performed are called “Proximate analysis”, and this seeks to estimate the different components of a feed. This analysis can accurately measure content of nutrients in a sample of feed, but cannot measure the amount that will be utilized by poultry birds.

2.2.8 Estimating Fibre Content of Feeds

The plant cell walls constitute the fibre fraction of the feed. Fibre is made predominantly of carbohydrate, and so is potentially a source of energy for the poultry birds, but it is much more slowly digested than starch or sugar. Most fibre, in fact, is indigestible to poultry although they are able to digest some fibre from vegetables and young leaves. However, their limited ability to digest fibre means that the amount of fibre that can be included in their diet should be restricted to less than ten percentage of the total diet.

2.2.9 Estimation of Starch and Water Soluble Carbohydrates (Sugars)

Poultry are not able to digest large amount of fibre, and so much of their energy must come from carbohydrates such as starch or sugars, or from fat. These are also the main sources of energy for humans, and so this does put poultry in competition with humans for foods, and so the starch or sugar content of the diet for tropical poultry is usually much lower than that of temperate poultry kept in industrialized systems in the west.

2.2.10 Assessing Protein Quality of Feed

While the estimation of crude protein content will give a reasonable estimate of the amount of protein in a feed, of perhaps greater importance is the quality of the protein. The very different digestive systems of poultry compared sheep and goat mean that the assessment of protein quality differs for these two classes of animal.

2.2.11 Assessment of Energy Value of Feeds

The amount of energy that a feed will supply to poultry can be estimated by measuring the amount of energy that is produced when the feed is completely burnt. This gives the gross energy content of feed, measured in kilocalories. However, it is only of limited use since all feeds (apart from those with a very high fat or oil content) have about the same gross energy content. Some other means of evaluating energy values is clearly needed, since straw obviously has a lower energy content than maize grain, but the two have very similar gross energy contents.

2.2.12 Guidelines for Formulating Livestock Diets

The table below gives general guidelines as to how much fibre and fat can be fed to different classes of livestock, and a guide as to how much protein different livestock need. It may not be possible in many instances to provide this much protein, in which case the animal will be more at risk from disease and may not be able to withstand other challengers (such as high temperatures or other stresses) that it may be subjected to. These are rough guidelines only, and a lot will depend on the digestibility of the feeds used, the composition of the whole diet, and the particular situation in which the animals is kept.

Table 2.1

Categories of livestock

Content	Sheep & Goats	Pig	Poultry
Fat	Less than 4%	No limit	No limit
Fibre	Ideally <50%	Less than 10%	Less than 10%
Protein	14-16%	17-20% (growing) 12-14% (pregnant) 15-18% (lactating)	About 16%

Sources: Poultry Quality, 2009

2.2.13 Assessing the Nutritive Value of a Novel Feed

When a novel feed is available for feeding to livestock, the first thing to do is try and get any information (from farmers, the literature and other advisory institution) about its value as a feed. In particular, any experience of its acceptability to livestock (are they prepared to eat) and whether any problems with toxicity have been encountered. If the animal will eat the feed, and if there are no toxic side-effects, then it is worth trying to determine what nutrients the feed will provide.

Is there enough of the feed to offer it regularly? Is it abundant enough that it could form the basis of the diet? If so, are there any problems with toxicity if large amounts of the feed are fed? If the feed is not that plentiful, or there is a danger of toxicity if it is eaten in large amounts, it may still be useful as a supplement to the diet to provide particular nutrients that might otherwise be limiting in the diet.

2.3 Review of Previous Studies

Various studies have been made in the field of poultry in Quality . Some of them have been reviewed so that the chances of duplication can be minimized.

Shrestha, (2065). “*An Economic Analysis of Poultry Farming in Kathmandu Valley*” unpublished thesis topic has included the following objectives.

1. To calculate the benefit cost ratio.
2. To test statistically the relationship between benefit cost ratio and feed consumption rate.
3. To test statistically the relationship between benefit cost ratio and flock size.
4. To test statistically the relationship between benefit cost ratio and egg production rate.
5. To test statistically the relationship between benefit cost ratio and mortality ratio.

In order to achieve the objectives, hypothesis has been developed and tested using simple correlation coefficient. The study has been conducted with primary and secondary data. In this thesis, the poultry farms have been divided into three groups and the sample were drawn from each of the three groups. This study is only limited to the mentioned hypothesis.

Following findings and conclusions have been made.

The feed cost was the main cost item and the revenue from egg was the main revenue item of the poultry farming. Thus more emphasis must be laid on the feed cost and revenue from egg. Only the efficient poultry farmers can earn profit in such a risky type of business. Although the sample correlation coefficient between flocks size and cost benefit ratio did not give significance result, it gave the desired positive correlation coefficient. Similarly, as the sample correlation coefficient between feed consumption ratio and benefit cost ratio is statistically significant, the effect of the feed consumption rate on benefit cost ratio is negative. When the sample correlation coefficient between feed consumption rate and benefit cost ratio is statistically significant, the effect of feed consumption rate on the benefit cost ratio in population is negative. Likewise, the sample correlation coefficient between egg production rate and benefit cost ratio is statistically significant, the effect of the egg production rate and the benefit cost ratio in population is positive. Finally, it was found that the sample correlation coefficient between the mortality rate and the benefit cost ratio did not give a significant result meaning and there was no effect of mortality on the benefit cost ratio in the population or the population correlation is zero which mean that the mortality does not affect the profit rate or that the available data is not sufficient to estimate a reliable correlation coefficient for the population. But as the sample correlation coefficient gave a value close to the table value of it and the sign was negative (as was desired) it will be plausible to except the second meaning that the available data are insufficient.

Pandey, (2066). *“Poultry Feed Industries in Kathmandu Valley”* unpublished thesis topic has undertaken the following objectives.

1. To assesses the input requirements of these two firms.
2. To study market structure and price trend of poultry feed output of these two firms.
3. To evaluate the general performance and examine the problems of these two firms.
4. To recommend suggestions to minimize the problems of these two firms.

In other to achieve the objectives, only the descriptive and analytical research designs have been used. Simple statistical correlation is used to show the relation between production and sale. It has merely tried to collect the facts about the two firms in Kathmandu finding out the marketing aspects focusing on the production performance and price. Primary as well as secondary sources have been applied with questionnaires and interview has been taken. The study is limited to the two feed industries.

On the basis of analysis conducted in the above thesis, the findings of the study are as follows:

The profit motive industries Valley feed Industries and Quality Feed Products used the similar basic inputs requirements. Production capacity of Valley feed Industry is greater than Quality Feed Products. Thus, Valley feed Industries have supplied feeds to poultry farmers at a lower price than Quality Feed Products. Valley feed Industries has been distributing feeds at same rate whereas Quality Feed Products at various rate according to cost of production. In Valley feed Industries, there is a smaller gap between production and sales whereas in Quality Feed Products there is a wider gap than Valley feed Industries. It shows that Valley feed Industries has progressed more than Quality Feed Products. Valley feed Industries has high correlation in between production and sales in amount (Rs.) than Quality Feed Products.

The study has concluded that the poultry feed production depends on the poultry farms. As such there is a direct relationship between the poultry farming and the feed production. The localized services of feed, techno economic services and marketing of feed products played an important role in the promotion of poultry feed industry. The industry also helps in saving the cost of transportation, minimization of risk and availability of technical know hoe and market outlets. As such there is a significant relationship between poultry farmers and the poultry feed industry. The level of competition can further increase with the entry of feed into the valley manufactured by new feed firms in the public sector. Demand of feed is expected to rise further due to price structure, population and many other factors such as rise in income, changes in food habits, changes in the general education level, inflow of tourists etc.

Sharma, (2067). “*Cost Benefit Analysis of Poultry Farming*” unpublished thesis topic has carried out the following objectives.

1. To conduct a cost benefit analysis on the supply side of the industry and find out vital facts as mortality rate;
2. To conduct demand analysis of poultry output; and
3. To observe market and price trend of poultry output and input.

In other to meet the purpose and objectives of the study, simple analysis has been done by collecting macro-economic data published by different national and international institutions. Primary data and judgmental sampling techniques has been adopted. The study was taken in three Panchayats of Kathmandu district. This study has followed questionnaires and interviews to collect primary data. The study is limited to the purposive sampling techniques where 15 cases of all sizes of poultry farms have been picked up for the study. No statistical tools have been used.

The following are the findings about the problems of poultry farmers.

Almost all of the poultry farmers have the problems of market at wholesale level. The prices of eggs are irregular and in the falling condition. The cost of feed is

increasing and always increases irrespectively. The prices of chickens are also decreasing. The supply of feed is of low quality and the ingredients, which are supposed to be in balanced poultry diet, are lacking.

The study has concluded that the demand for poultry product is assured and can be confidently said that its demand will increase in future, due to the rise in per capita income and growth of population as well as growth of tourist influx. The mortality rate is low which may be due to the longer experiences and good managerial ability; and the prices of egg and chicken have grown slowly than the prices of feeds which create an over unfavorable price cost relation.

Quality , (2068). “*A study of Poultry Industry in Kathmandu Valley*” thesis topic has undertaken the following objectives.

1. To assess the input requirements and determinants of demand for poultry industry.
2. To determine the extent of profitability with cost analysis measuring the impact of price fluctuation in production and sale of poultry products.
3. To evaluate the investment pattern and credit needs including the future projection of poultry products.
4. To analyze the contribution of poultry industry for Quality ese economy by identifying the problem area and provide suitable suggestions for improvement.

This above study is based on exploratory research design which has explored the viability and nature of poultry industry and the co-relational research has been used to obtain the descriptions of the phenomena and to ascertain the extent to which two variables are related. Primary and secondary sources have been to get appropriate data. Interviews and observations of poultry farms were made to clarify the situations and to obtain information. Hypothesis was done with simple correlation of statistic analysis.

The study has deduced the following findings and conclusions.

Poultry has initiated the establishment of feed industry in the country. The substantial portion of cost in poultry industry is covered by feed. The required feed is supplied from the local products. Poultry industry has proved a viable industry with satisfactory returns obtained. Broilers are comparatively more beneficial than layers due to quick turnover but keeping demand in view, layers outnumber broilers. Productions as well as sales of the poultry products are growing fast. In Kathmandu Valley, the emphasis for nutritious food has led to growing consumptions of poultry products. Poultry products are significantly affected by size of population, income level and inflow of tourists. They are regarded as the main factors affecting the marketing of poultry products. The combined effect of these factors is highly considerable. Price has shown a tendency to fluctuate. Uncertain price level has been regarded as one of the basic problems but its impact upon marketing is minimal. One encouraging factor is that ADB has been providing financial assistance for the industrialists to a greater extent. This has been considered as one of the main factors responsible for the growth of the industry. Contribution of poultry products to the national economy is significant. Poultry industry alone has been making a substantial contribution. The import content for the industry is also extremely low. Besides, additional contribution has been made by helping establish subsidiary industries like feed industry and equipment production. The future of poultry industry in Kathmandu is very bright. Both the consumption of broiler egg will grow in coming years.

Khadka, (2069). *“The Quality Poultry Value Chain and Avian Influenza”* thesis topic has undertaken the following objectives.

1. Identify actors in the poultry sector most relevant to AI
2. Identify problem areas for AI response
3. Overview of bio-security measures

His main Conclusions and Recommendations

Parental Farms and Hatcheries

Parental farms and hatcheries have already adopted reasonable hygienic standards and bio-security measures. However, there are no education programs for workers on bio-security measures and these businesses do not report bird deaths to government authorities. Additionally, workers do not wear appropriate protective gear. These issues should be addressed through development of operational standards and capacity building in partnership between DLS and poultry sector stakeholders.

Commercial Producers

The level of knowledge regarding bird flu was not adequate among commercial producers. Awareness of bird flu, risk management and bio-security measures all need improving. Proper fencing around farms, provision of foot baths, and regulation of vehicles are key areas needing immediate improvement. Commercial producers should receive training on bird flu and adoption of appropriate bio-security standards.

Wholesalers and Retailers

Wholesalers and retailers are the most vulnerable to bird flu and they have very poor knowledge of the disease. As they have to handle the live birds, they are at high risk but they do not follow adequate protective measures. They work without protective gear and eat dead birds without any consideration of the risk from bird flu. Additionally, they potentially facilitate the spread

2.4 Research Gap

Research gap focuses that the researcher how much trying to give new things from his/her study with compare to previous studies held by different researcher. Due to changing the time and circulation of environment the previous and present may be different in many ways. This is a research gap between the present research and

previous research. Most of the previous researches generally focus to the growth of poultry benefits and price trend of poultry output and input but not on the marketing practices in poultry industries. Data collected through questionnaire is presented and analysis in the research is the gap between the previous and present research. Though many affiliated researchers have been done in this area but these have been very few exclusive researchers on this subject. This study may be a new study in this field and no study have been made on marketing practices of poultry feed production in Quality .

This research differs from the above-explained researchers on various grounds. They are as follows.

1. This study examines the marketing aspects of feed industries available in Kathmandu district.
2. This study analyses the marketing programmed applied by poultry feed industries in Kathmandu district.
3. This study shows the way to implement the marketing strategy on poultry feed industries.
4. This study helps solve the problems in marketing activities in feed industries.

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Introduction

Research in common parlance refers to a search for knowledge is composed by means repeatedly or again and again and “search” means to investigate or find. Research methodology is a way to systematically solve the research problem. Research methodology may be defined as “a systematic process that is adopted by the researcher in studying problem with certain objective and view”. In other word, research methodology describes the methods and process applied in the entire aspect of the study focus of data, data gathering instrument and procedure, data tabulating and processing and methods of analysis. It is really a method of critical thinking by defined and redefining the problems, formulating hypothesis or suggested solution and collecting and organizing and evaluating data, making deduction and making conclusions. Research methodology is a path from which we can solve research dilemma systematically to accomplish the basic objective of the study. It consists of a brief explanation of research design, nature and sources of data, method of data collection and methods of tools used for analyzing data.

3.2 Research Design

A research design is the arrangement of conditions for collection and analysis of data that aim to combine relevance to the research purpose with economy in procedure. Research design in the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to objective of this study. To achieve the objective of this study, descriptive and analytical research design has been used. It is the process which gives us an appropriate way to reach research goal. It includes definite procedures and techniques which guide in sufficient way for analyzing and evaluating the study. This study is carried out by using both quantitative and qualitative analysis methods. Mostly, secondary data has been used for analysis, but the discussion and personal interview with the

concerned employees of the selected banks are also used for qualitative analysis. Hence, research design of this study is based on descriptive and analytical method

3.3 Population and Sample

It is claimed that, approximately, there are 131 feed industries available in Quality and 24 feed industries are existed in Kathmandu. According to NFIA, the overall numbers of registered feed industries in NFIA are 87. Among them only 24 feed industries have been registered from Kathmandu District. Therefore, all the feed industries, registered in NFIA, from Kathmandu district are considered to be the total population of the research study. Out of them, existing 5 industries of Balaju area, producing poultry feed and supplying to other districts, are considered as the sample study. Though the sample size is very small in comparison to the total population, sufficient efforts have been made by applying 20.83% of the sample sizes. As the poultry feed production industries are many in numbers at Balaju area, the researcher has chosen it as a famous poultry feed production place for the sample study. Followings are the sampling unit of surveyed poultry feed production industries.

1. Aadhunik Poultry Feed Products Pvt. Ltd.
2. Quality Feed Industries Pvt. Ltd.
3. Valley feed Product Pvt. Ltd.
4. Kathmandu Feed Industries Pvt. Ltd.
5. Star Feed Products Pvt. Ltd.

3.4 Period Covered

This study covers a time period six years from 2006 to 2012 data are taken from manufactures of poultry feed production and NIFA. Description and analysis is basically made on the basis of these six years data.

3.5 Nature & Sources of Data

This study is mainly based on primary as well as secondary data for analysis. The respondents for this study are the feed industries of Balaju area in Kathmandu

district. Most information has been collected from the primary sources using the questionnaires and formal or direct interview. The primary data have been supplemented by quantitative information gathered through interviews and discussions with the concerned persons and with the managers of feed industries. The secondary sources of data are collected from the study of various books from different libraries, some periodicals, journals newspaper cuttings, poultry magazines etc. Guidelines and unpublished thesis, research work that directly related to feed industries are also collected for the betterment of the study. Other information from research articles & official publication are supplemented.

3.6 Data Collection Procedure

The required data and information have been collected from the primary as well as secondary data. Information have been taken from the annual calendar published by NFIA, monthly poultry magazine published by Nimbus, the other published and unpublished information of poultry feed, and various books, magazines, and publication obtained from different libraries have been studied and reviewed. For the collection of accurate data, schedule of structured questionnaires was developed and distributed through personal contact in which the respondents were requested to fill up the questionnaire. Multiple choice questions, yes/no questions and open-end questions were prepared in course of collecting relevant information. Altogether 5 copies of questionnaires were distributed to 5 respondents of Balaju area. All 5 respondents provided their responses during the study period. Therefore, 5 respondents were used for the research study. All the questionnaires were distributed and collected by the researcher herself. There was a little delay in collection of the questionnaires distributed to the feed industries owners due to the bird flu problem that has been in aroused in India, which caused the loss in poultry feed industries of Quality as well.

3.7 Data Processing and Analysis Procedure

All the raw data collected through the questionnaires have been thoroughly checked and manually processed. They were classified and tabulated in the

required format under the different headings. Once the data have been arranged sequentially, simple statistical tools were used for analysis. The processed data have also been presented in graph, bar diagram and pie chart. Simple arithmetic percentage tools were used for analysis. Major findings are based on the analysis and interpretation of the data. The data and information have been interpreted as much as possible to attain the stated objectives of the study.

3.8 Data Analytical Tools

The statistical techniques have been used to examine the production trend. In order to test the production trend, some statistical tools such as Index numbers are applied to analyze the data.

Index Numbers

An index number is a statistical device designed to measure the relative change in the level of a phenomenon (variable or a group of variables) with respect to time, geographical location or other characteristics such as income, profession etc. In other words, index numbers are specialized type of rates, ratios, percentages which give the general level of magnitude of a group of distinct but related variables. So index numbers are devices for measuring changes in the magnitude of the phenomenon from time to time or even from place to place (Bajrachary, 2061:339).

Type of Index Numbers

Index numbers are constructed in economic activity covering a wide range of aspect. Different kinds of usually constructed index numbers are as follows.

- a. Price index numbers:** There are the mostly used index numbers, which measures the general change in the retail or wholesale prices of a commodity at current period as compared to some base period or reference period.

- b. Quantity index numbers:** Quantity index numbers study the changes in the volume of production, consumption of goods. They are extremely helpful in studying the level of physical output in an economy.
- c. Value index numbers:** These are designed to study the change in the total value of production such as retail sales or profits or inventories. We know that the total value is the product of the price and quantity. This type of index is used in sales of a company, foreign trade etc. (Yadev & Khanal. 2005:12).
- d. Notation and Terminology**
- 1. Base period:** The period selected for comparison is called base period. It is denoted by suffix '0'. It is also sometimes known as reference period.
 - 2. Current period:** The period, for which comparisons are required, is called current period. It is denoted by the suffix '1'

$$\text{Hence, } P = p_1/p_0 \times 100 \quad Q = q_1/q_0 \times 100$$

Where

p_0 : Price of the poultry feed in the base period.

p_1 : Price of the poultry feed in the current period.

q_0 : Quantity of a poultry feed production during the base period.

q_1 : Quantity of a poultry feed production during the current period.

CHAPTER-IV

DATA PRESENTATION AND ANALYSIS

This chapter incorporates data presentation and analysis of the information collected directly from the manufactures of poultry feed industries. All the available information have been modified and adjusted into the required data for analyzing. This study has dealt with the primary and secondary data, to find out the marketing practices associated with feed industries of Balaju area in Kathmandu district. On the whole, it has included data presentation, interpretation and analysis using table, chart and diagram.

4.1 Types of Poultry Feed Production

There are two categories of poultry birds, broilers and layers. The main purpose of broilers is for meat production and the layer is for egg production. Different types of feed are needed for different age of chickens. The types of poultry feed produced by the feed industries have been shown from the following table:

Table: 4.1

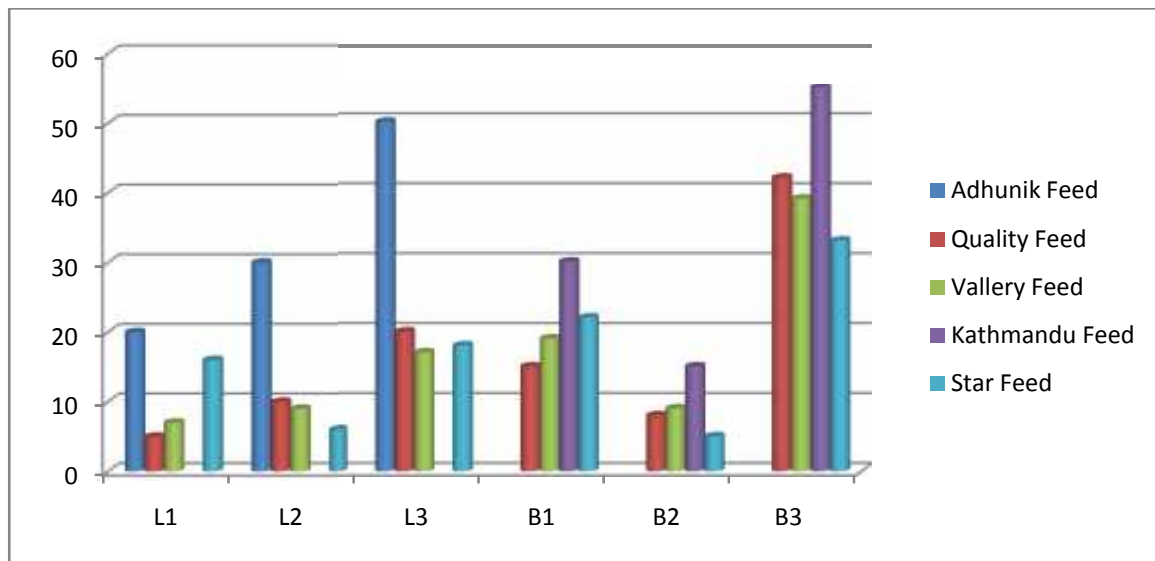
Types of Poultry Feed Production

Name of Industry	L₁	L₂	L₃	B₁	B₂	B₃	Total
Adhunik Feed	20	30	50	-	-	-	100%
Quality Feed	5	10	20	15	8	42	100%
Vallery Feed	7	9	17	19	9	39	100%
Kathmandu Feed	-	-	-	30	15	55	100%
Star Feed	16	6	18	22	5	33	100%

Source: Field Survey, 2069

Figure: 4.1

Types of Poultry Feeds Productions



As presented in table & figure 4.1 the most common and more production Item is B₃ (Broiler Finisher). From the survey conducted in 5 feed industries, it can be inferred that Adhunik feed produce only Layer feed and Kathmandu feed produce only Boiler feeds and quality feed, valley feed and star feed produce all of the above item of feed ie L₁, L₂, L₃, B₁, B₂ and B₃. Here most of the feed industries produce Broiler Finisher more than other type of feed and most of the feed industries produce low range L₁.

4.2 Basic Input for Poultry Feeds

Poultry feed is the mix of proteins, vitamins, carbohydrates, and minerals supplements. All of the supplements make a balanced diet for the chickens. These are the basic input requirements for the poultry feeds found from the survey.

Table: 4.2
Basic Input for Poultry Feeds

S. No.	Particular
1	Maize
2	Rice Bran
3	Mustard Cake (Roosted)
4	Soybean Cake
5	Deoiled Cake (D.O.C)
6	Barley
7	Oats
8	Wheat Grit/Bran
9	Sunflower Cake
10	Sesame Cake
11	Groundnut Cake
12	Fish meal
13	Bone meal
14	Oyster shell
15	Marble Grit/ Limestone
16	Salt
17	Molasses
18	Other medicines

Source: Field Survey, 2069

Table 4.2 shows that there are 18 basic input requirements in poultry feeds, but different types of feed ingredients are needed for different types of chickens according to their life span in different percentages i.e. different percentages of inputs are required for the L₁, L₂, L₃, B₁, B₂ and B₃. The above inputs provide proteins, vitamins, carbohydrates, and minerals to chickens. Thus, it can be concluded that all the surveyed industries are producing poultry feed by applying all the above inputs for chickens to feed balance feeds.

Table: 4.3

Name of Raw Materials which are not Available

S.N.	Name of Raw Materials
1.	Soya Meal
2.	Fish Meal
3.	Til Cake
4.	Sunflower Cake
5.	Maize
6.	Rice Polish
7.	Soyabean cake
8.	DCP
9.	Medicine

Source: Field Survey. 2069

There are limited numbers of raw materials in Quality. The country cannot fulfill the current demand for raw materials for feed industries, so the feed producers have to bring raw materials from India. The above table shows the required raw materials which are not easily available in Quality. According to NFIA, 70% of the raw materials is imported from India because of lack of enough food for the country like, Maize, rice, wheat, and Soybean etc. Depending on the feed type and season, medications are added to the feed to prevent from the diseases.

4.3 Production Aspect

The production units of all the surveyed feed industries in Kathmandu district are as follows:

Table: 4.4

Poultry Feed Production of Aadhunik Poultry Feed Products Pvt. Ltd.

Year	Production of Feed (in tons)	Index (Base Year 2064)	Sales of Feed (in tons)	Index (Base Year 2064)
2064	3100	100	3100	100
2065	3380	109	3380	109
2066	3200	103.23	3200	103.23
2067	2880	92.9	2880	92.9
2068	3456	111.48	3456	111.48

Source: Field Survey, 2069 & appendix 1

The above Table 4.4 shows that the feed production and sales are same of Aadhunik Feed Products Pvt. Ltd. It has been increasing by 9% in FY 2065 as compared to the base year 2064. It has increased only by 3.23% in the FY 2066. But a decline in the feed production and sales was experienced in the FY 2067 by 7.1%. However, it has indicated that an increment of 11.48% was found in FY 2068, which was higher percentage with the production and of 1728 tons of feed. Hence, it is cleared that the production of Aadhunik Feed Products is fluctuating.

Table: 4.5

Poultry Feed Production of Quality Feed Product Pvt. Ltd.

Year	Production of Feed (in tons)	Index (Base Year 2064)	Sales of Feed (in tons)	Index (Base Year 2064)
2064	902	100	902	100
2065	1452	160.98	1452	160.98
2066	1928	213.75	1928	213.75
2067	904	100.22	904	100.22
2068	464	51.44	464	51.44

Source: Field Survey, 2069 & appendix 1

From the above Table 4.5 it is revealed that the feed production and sales of Quality Feed product has increased in many financial years except in the FY 2068.

In the FY 2065, Quality Feed produced 726 tons of feed with 60.98% and 964 tons in 2066, which was higher by 113.75% as compared to the base year 2064, but it has reduced drastically in 2067 & 2068 by 0.22% and 41.91%. Hence, the production and sales of Quality Feed is also in the condition of fluctuation.

Table: 4.6

Poultry Feed Production of Valley feed Product Pvt. Ltd

Year	Production of Feed (in tons)	Index (Base Year 2064)	Sales of Feed (in tons)	Index (Base Year 2064)
2064	14000	100	14000	100
2065	11600	82.86	11600	82.86
2066	9600	68.57	9600	68.57
2067	4800	34.29	4800	34.29
2068	6000	42.86	6000	42.86

Source: Field Survey, 2069 & appendix 1

According to the Table 4.6, it is cleared that the feed production and sales of Valley feed product has been declining each year continuously from 2065 to the recent years. In the year 2065, it has declined by 17.14% and by 31.43% in the year 2066. In 2067 & 20010, it has declined by 65.71% and 57.14% respectively. Thus, it is proved that Valley feed Production and sales are getting loss in production and sales trend.

Table: 4.7

Poultry Feed Production of Kathmandu Feed Industries Pvt. Ltd.

Year	Production of Feed (in tons)	Index (Base Year 2064)	Sales of Feed (in tons)	Index (Base Year 2064)
2064	1850	100	1850	100
2065	2000	108.11	2000	108.11
2066	2200	118.92	2200	118.92
2067	2400	129.72	2400	129.72
2068	2700	145.95	2700	145.95

Source: Field Survey, 2069 & appendix 1

Table 4.7, shows that the feed production and sales trend of Kathmandu Feed Industries has been increasing in all the financial years. In the FY 2065, the production of Quality Feed Product has increased by 8.11%. Similarly in FY 2066, 2067 and 2068, it has increased by 18.92%, 29.92% and 45.95% as compared to the base year 2064. Hence, the production and sales of Kathmandu Feed is in satisfactory condition.

Table: 4.8

Poultry Feed Production of Star Feed Products Pvt. Ltd.

Year	Production of Feed (in tons)	Index (Base Year 2064)	Sales of Feed (in tons)	Index (Base Year 2064)
2064	750	100	750	100
2065	600	80	600	80
2066	530	70.66	530	70.66
2067	500	66.66	500	66.66
2068	450	60	450	60

Source: Field Survey, 2069 and Appendix 1

As presented in Table 4.8, it is obvious that the production and sales of Star Feed Products has been declining continuously from the FY 2065 to 2068. Production was declined by 20% in FY 2065 and by 29.34% in FY 2066, whereas it was declined by 33.34% in FY 2067 and remained at 40% in FY 2068. The above table proves that the condition of reducing production and sales are not satisfactory.

Table: 4.9

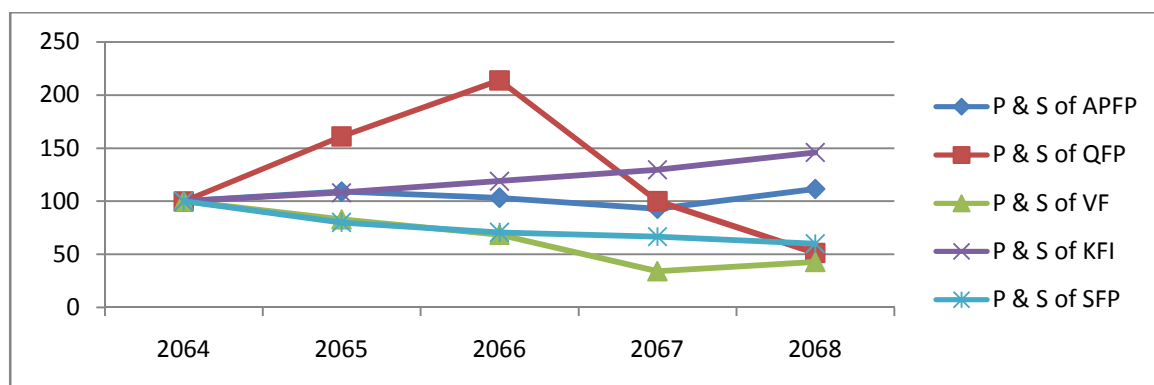
Combined Percentage of Poultry Feed Industries

Year	Production & Sales of APFP	Production & Sales of QFP	Production & Sales of VF	Production & Sales of KFI	Production & Sales of SFP
2064	100	100	100	100	100
2065	109	160.98	82.86	108.11	80
2066	103.23	213.75	68.57	118.92	70.66
2067	92.9	100.22	34.29	129.72	66.66
2068	111.48	51.44	42.86	145.95	60

Source: Field Survey, 2069

Figure: 4.2

Combined Percentage of Poultry Feed Industries



From the above table and the diagram it is obvious that the feed industries are in different trend. The production and sales of Aadhunik Feed and Quality Feed Products is fluctuating, whereas Valley feed is getting loss. Kathmandu feed is in satisfactory condition, but Star Feed is not in satisfactory level as it has the decreasing trend of feed production and sales. Here all sample feed industries production and sales are same because all feed industries doesn't meet the demand of their market.

4.4 Capacity Utilization of Production

The capacity utilization of all the surveyed feed industries in Kathmandu district is as follows:

Table: 4.10

Capacity Utilization of Aadhunik Poultry Feed Product Pvt. Ltd.

Year	Production(in ton)	Capacity (in tons)	Utilized Capacity in%
2064	3100	8800	35.23
2065	3380	8800	38.41
2066	3200	8800	36.36
2067	2880	8800	32.73
2068	3456	8800	39.27

Source: Field Survey, 2069

From the above Table, shows that the production capacity of Aadhunik Poultry Feed Product Pvt. Ltd. is 8800 tons per year. In FY 2064, the capacity utilization has found to be 35.23% It has increased to 38.41% in FY 2065. It has declined to 36.36% and 32.73% in the FY 2066 and 2067 respectively. In FY 2068, the capacity utilization is the highest among the given years. But the capacity utilization percentage isn't satisfactory as it shows the less percentage.

Table: 4.11

Capacity Utilization of Quality Feed Product Pvt. Ltd.

Year	Production (in tons)	Capacity (in tons)	Utilized Capacity in %
2064	902	3600	25.06
2065	1452	3600	40.33
2066	1928	3600	53.56
2067	904	3600	25.11
2068	524	3600	14.56

Source: Field Survey, 2069

From the above table, it has been revealed that the production capacity of Quality Feed Product Pvt. Ltd is 3600, ton per year. In FY 2064, the capacity utilization has become 25.06%. It has increased to 40.33% and 53.56% respectively in the FY 2065 and 2066. But it has decreased to 25.11% and 14.56% in FY 2067 and 2068. Hence, the table shows the loss percentage of capacity utilization of Quality Feed, which has not been a satisfactory percentage.

Table: 4.12

Capacity Utilization of Valley Feed Industries Pvt. Ltd.

Year	Production (in tons)	Capacity (in tons)	Utilized Capacity in%
2064	14000	8800	159.09
2065	11600	8800	131.82
2066	9600	8800	109.09
2067	4800	8800	54.55
2068	6000	8800	68.18

Source: Field Survey, 2069

As shown in table no 4.12, the production capacity of Valley feed Industries Pvt. Ltd. is 8800 ton per year. The capacity utilization of Valley feed has been decreasing year by year. In FY 2064, the capacity utilization percentage is 159.09%. It has decreased to 131.82%, 109.09% and 54.55% respectively in the FY 2065, 2066 and 2067. But it has a little increment in 2068 and has reached to a percentage of 68.18%. Though the capacity utilization percentage of Valley feed is decreasing each year, the percentage is satisfactory in compassion with the other feed industries as it has utilized more than 100% in FY 2064, 2065 and 2066. In FY 2067 and 2068, it has declined to only 54.55% and 68.18%, which is more than 50%. Hence, it is proved that the capacity utilization of Valley feed is satisfactory.

Table: 4.13

Capacity Utilization of Kathmandu Feed Industries

Year	Production (in tons)	Capacity (in tons)	Utilized Capacity in %
2064	1850	5760	32.12
2065	2000	5760	34.72
2066	2200	5760	38.19
2067	2400	5760	41.67
2068	2700	5760	46.88

Source: Field Survey, 2069

The table no. 4.13, reveals that the production capacity of Kathmandu Feed is 5760 ton per year. The utilized capacity percentage has been increasing each year as 32.12%, 34.72%, 38.19%, 41.67% and 46.88% respectively in the FY 2064, 2065, 2066, 2067 and 2068. The above utilized capacity percentage of Kathmandu Feed seems to be sound in production and will be satisfactory in coming year.

Table: 4.14
Capacity Utilization of Star Feed Products Pvt. Ltd.

Year	Production (in tons)	Capacity (in tons)	Utilized Capacity in %
2064	750	5760	13.02
2065	600	5760	10.42
2066	530	5760	9.20
2067	500	5760	8.68
2068	450	5760	7.81

Source: Field Survey, 2069

The table no. 4.14, shows that the production capacity of Star Feed Products Pvt. Ltd. is 5760 ton per year. The capacity utilization of Star in FY 2064 is 13.02%. It has decreased to 10.42%, 9.20%, 8.68% and 7.81% respectively in the FY 2065, 2066, and 2067 and 2068. The above utilized capacity percentage of Star is very low, so it is not in a satisfactory condition.

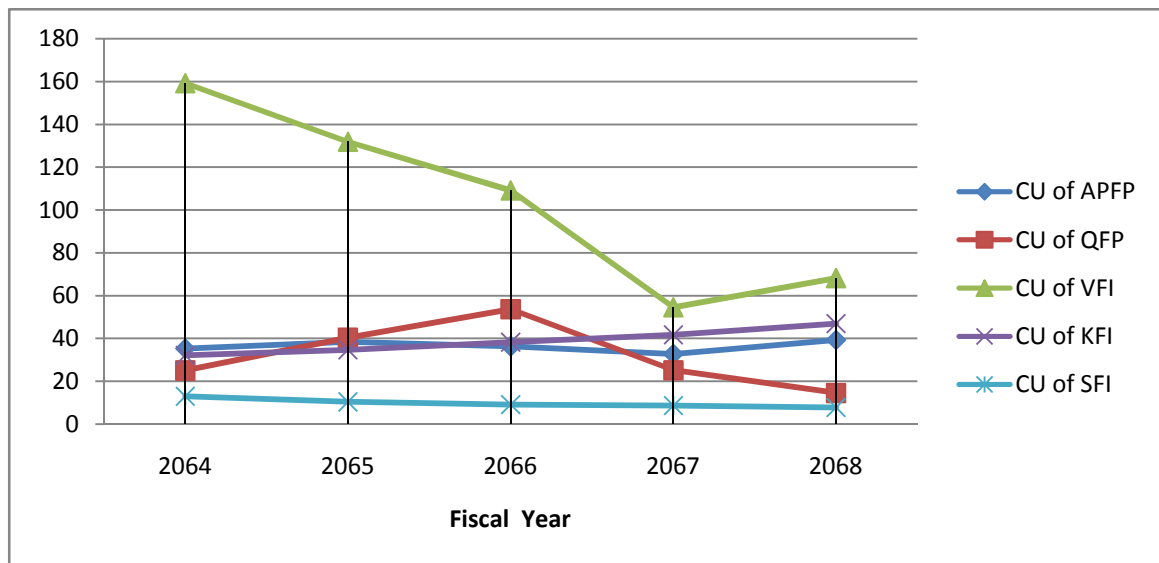
Table: 4.15
Combined Capacity Utilization Percentage of Poultry Feed Production Industries

Year	CU of APFP	CU of QFP	CU of VFI	CU of KFI	CU of SFI
2064	35.23	25.06	159.09	32.12	13.02
2065	38.41	40.33	131.82	34.72	10.42
2066	36.36	53.56	109.09	38.19	9.2
2067	32.73	25.11	54.55	41.67	8.68
2068	39.27	14.56	68.18	46.88	7.81

Source: Field Survey, 2069

Figure: 4.3

Combined Capacity Utilization Percentage of Poultry Feed Production Industries



By going through the capital utilization of all the sampled poultry feed producing industries, it has been found that among seven feed industries, the highest capacity utilized feed industry during fiscal year 2064-2068 is VFI, which has utilized more than 100% capacity of the industry. The lowest capacity utilized feed industry is SFP, which has utilized less than 8 % capacity of the industry.

The capacity utilization of some feed industries is increasing, some feed industries is decreasing and some feed industries is fluctuating. The reasons for increasing trend are the proper management system, better availability of raw materials, technical know-how, and efficient workers and staff. The reasons for decreasing trend are poor management, non availability of raw materials, lack of technical know- how, lack of efficient workers, staff and lower demand of feed in the market.

The production units and sales units of all the feed industries are equal. That means, all the feed industries sell as much as they produce. There is no stock to be replenished. When production increases, the sales also increases or vice versa.

4.5 Distribution Channel of Feed Industries in Kathmandu District

The feed industries of Kathmandu district are mainly adopting mixed channels for distributing their products. They distribute their products directly to the customers as well as to the dealers. A zero level channel and one level channel are very common in feed industries nowadays. The table below shows the channels used by the feed industries of Balaju area in Kathmandu district.

Table: 4.16

Channel used by the feed industries in Kathmandu district

S.N.	Types of Channels	No. of Feed Industries	Percentage (%)
1	Direct to Customer	1	20
2	By Dealer	2	40
3	By Branch Officer	N/A	N/A
4	By Other Level	N/A	N/A
5	Combination of 1 & 2	2	40
6	Total	5	100

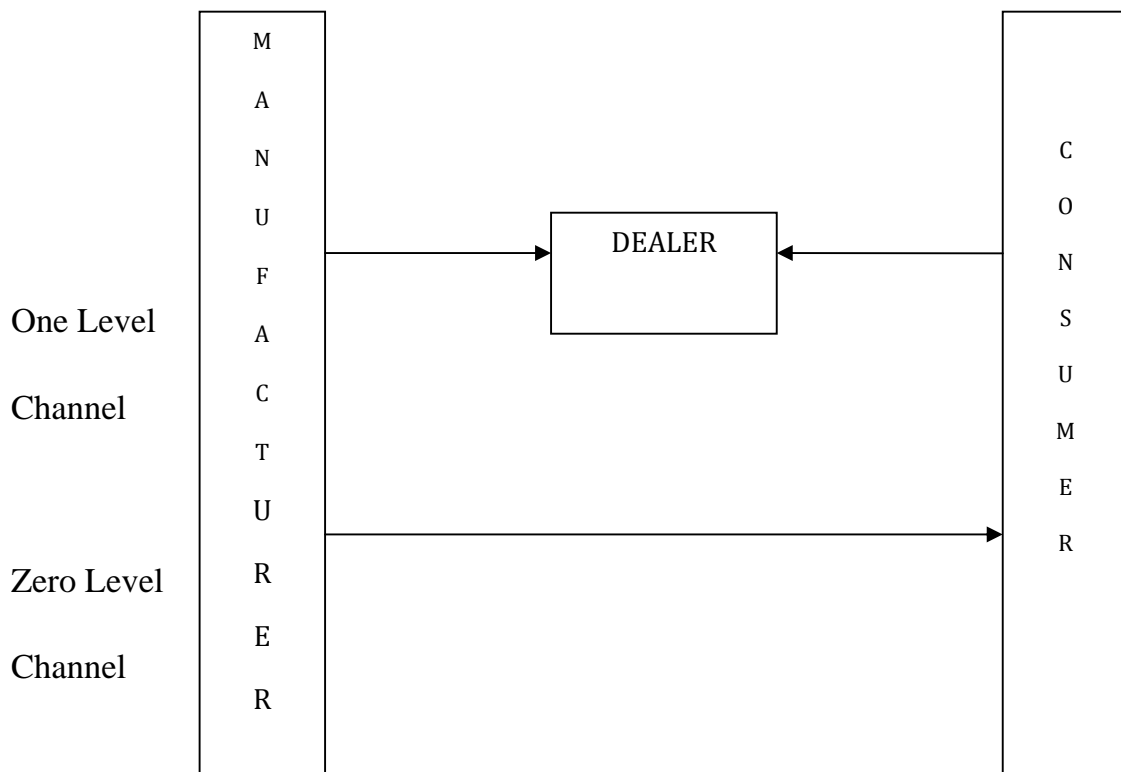
Source: Field Survey, 2069

Table 4.16, shows that 20% feed industries are using ‘Direct to Customer’ channel without any dealers or branch officers. 40% feed industries are using only ‘Dealers’ and 40% feed industries are using mixed channels i.e. ‘Direct to Customer and Dealer.’ The supplied districts are: Kathmandu, Lalitpur, Bhaktapur, Kirtipur, Rasuwa, Dhading, Kavre, Nuwakot, and Sarlahi. From the survey, it is found that Quality Feed Industries supplies to Kathmandu, Bhaktapur, and Lalitpur district. Kathmandu Feed supplies to Kathmandu and Nuwakot district. Likewise, Valley feed supplies to Kathmandu, Bhaktapur, Lalitpur, Kavre, Kirtipur, and Sarlahi. Aadhunik Feed supplies to Kathmandu, Bhaktapur, Lalitpur, Dhading, and Nawalparasi district. Hence, Star Feed supplies to Kathmandu, Rasuwa, and Lalitpur district. None of the feed industries in Kathmandu district export their poultry feed to other countries.

The above table can be shown from the following figure.

Figure: 4.4

Channel Used by the Feed Industries in Ktm Valley



Hence, it is proved that the feed industries of Kathmandu District are following a zero level channel and a one level channel containing one selling intermediary such as a dealer.

4.6 Types of Distribution Channel Strategy

The researcher found that the feed industries in Kathmandu district have no branch offices, but they are supplying their feed products in other districts practicing selective distribution channel strategy by selecting some wholesalers or retailers for the distribution of feed. All the surveyed poultry feed industries or 100% respondents have agreed about following the selective distribution channel strategy while supplying feed to other districts. It helps them to have the results in higher-quality coverage and the manufacturers can select the larger, financially stronger retailers who will support to its brand.

4.7 Present Market Prices of Different Feeds

The sample feed industries regarding the price responded that the price is determined by NFIA. When interaction was made with the association, the various data have been obtained and analyzed in different tables. The current market price of different poultry feed is shown from this table.

Table: 4.17

Present Prices of Different Poultry Feeds (per kg)

Types of Poultry Feed	Chicken Starter (L₁)	Pullet Grower (L₂)	Layer Mash (L₃)	Broiler Starter (B₁)	Broiler Grower (B₂)	Broiler Finisher (B₃)
Rs.	30.70	26.70	27.20	31.20	31.20	30.50

Source: Field Survey, 2069

The above table shows that the prices of layer feeds and broiler feeds are not the same. In comparison with layer and broiler, the prices of layer are cheaper than the prices of broiler. When L₁ is Rs. 30.70, B₁ is Rs. 31.20. Likewise, when L₂ is Rs. 26.70 and L₃ is Rs. 27.20, B₂ is Rs. 31.20 and B₃ is also Rs. 30.50. Hence, it can be concluded that there is no similarity in price of layer but in broiler, B₁ is expensive than B₂ and B₃. Prices of B₁ and B₂ are the same.

4.8 Previous Prices of Poultry Feed

NFIA has set the price according to the fluctuation price of the raw material. Whenever prices of raw material change, the prices of poultry feed has also been changed. The price fluctuation might be yearly, half yearly, or quarterly, can't be fixed. The price of all poultry feeds which has been set by NFIA for the last 5 years has been shown from the following table.

Table: 4.18**Previous prices of poultry feed (per kg in Rs)**

Type of Feed	Magh 2064	Falgun 2065	Ashad 2066	Manshir 2066	Baishak 2067	Manshir 2067	Jestha 2068	Ashad 2069
L₁	27	27.5	29.5	29	30	29	29	30.7
L₂	26	26.5	27.5	26.7	27.7	27.2	27.2	26.7
L₃	26.5	27	28.5	27.7	28.7	28.2	28.2	27.2
B₁	28	28.5	29.8	29.5	30.5	29.5	29.5	31.2
B₂	28	28.5	29.5	29	30	29	29	31.2
B₃	28	28.5	29.5	29	30	29	29	30.5

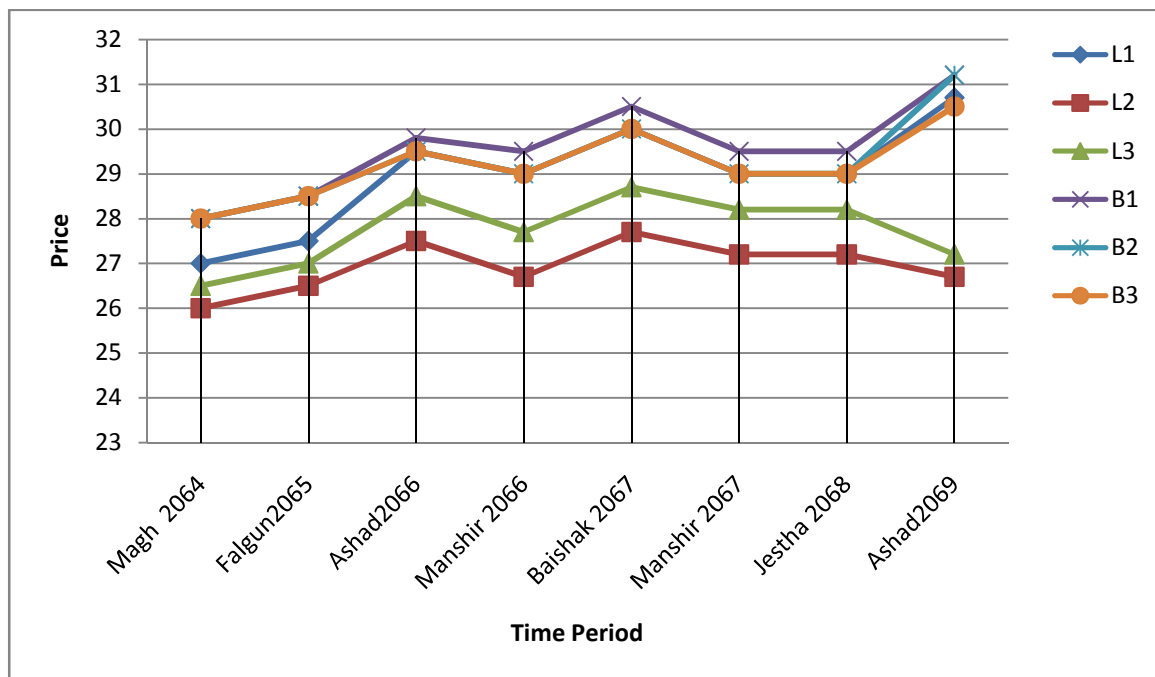
Source: Field Survey, 2069

Table 4.18 & figure 4.5, shows that all feed L₁, L₂, L₃, B₁, B₂, and B₃ have increased from Magh 2064 to Falgun 2065. The prices of all feeds have decreased in 2066. In Baishak 2067, the prices of feeds have increased again and in Manshir 2067, the prices of all feeds have decreased. The fluctuation rate is not constant because from Magh 2064 to Falgun 2065, the prices of all feeds have increased by only 50 paisa per kg. In Falgun 2065 to Ashad 2065, the prices of L₁, L₂, L₃, & B₁ have increased randomly as Rs. 2, Rs. 1, Rs. 1.50 & Rs. 1.30 per kg. but B₂, & B₃, have increased by the same rate of Rs. 1 per kg. In July 2066, the prices of all feed have reduced randomly because L₁, B₂, & B₃, have reduced by only 50 paisa per kg and B₁ only has reduced by 30 paisa per kg, but in Baishak 2067, all types of feed production have increased by Rs.1 per kg and in Manshir 2067 again all types of feed have decreased randomly. Only L₁, B₁, B₂, and B₃ have decreased by Rs. 1 per kg, and L₂, L₃, have decreased by the same rate of 50 paisa per kg.

All the prices of feed have remained the same since till 2068. In 2069, the prices of L₁, B₁, B₂, & B₃ increased randomly as Rs. 1.70, Rs. 2.70, Rs. 2.20, & Rs. 1.50 per kg but L₂ & L₃ decreased by Rs. 0.5 & Rs. 1. Thus, it can be concluded that the rate of feed production can be changed according to the change rate of raw materials, which can be half yearly or yearly or quarterly. It all depends on the prices of the raw materials and the transportation rate of feed production.

Figure: 4.5

Previous Price of Poultry Feeds



4.9 Increased Price of Feed during Five Year

The prices of the feeds are equal or increasing every year due to the increasing price of raw materials. The table below shows the increased feed price and percentage in five years.

Table: 4.19**Increment of Price or Percentage of Feeds in Five Years**

Types of Feed	Price per kg (in Rs.)		Increased in Price (Rs.)	Changes by Percentage (%)
	2064	2069		
L₁	27	30.7	3.7	13.7
L₂	26	26.7	0.7	2.69
L₃	26.5	27.2	0.7	2.64
B₁	28	31.2	3.2	11.43
B₂	28	31.2	3.2	11.43
B₃	28	30.5	2.5	8.93

Source: Field Survey, 2069

Table 4.19 shows the increased price and percentage of feed during five years. The prices of L₁, L₂, L₃, B₁, B₂, and B₃ were Rs. 27, Rs.26, Rs. 26.50, Rs.28, Rs.28, and Rs.28 respectively, whereas current price of L₁, L₂, L₃, B₁, B₂, and B₃ are Rs.30.7, Rs. 26.70, Rs.27.20, Rs.31.20, Rs.31.20 and Rs.30.50 respectively. During five years, the prices of all feed have increased. L₁, have increased by Rs. 3.7 (13.70%), L₂, have increased by Rs. 0.70 (2.69%), L₃ have increased by Rs. 0.7 (2.64%).Likewise, B₁ have increased by Rs.3.2 (11.43%), and B₂, have increased by Rs. 3.2 (11.43%) and at last B₃ have increased Rs. 2.5 (8.93%) in five years.

4.10 Reason for Price Fluctuation

The prices of poultry feed fluctuates every 4 to 6 months on average. From the survey, 100% respondents agreed that the price depends on raw materials and transportation cost. Therefore, if the price of raw materials increases, the prices of feed also increases, so the feeds price fluctuation is directly linked to the price fluctuation of raw materials. Therefore, it is proved that the pricing is based on cost-plus and mark up pricing method.

4.11 Advertisement used by Feed Industries

All the feed industries in Kathmandu are interested on advertisement. From the survey, all the feed industries are using advertisement method and its media to promote their product. The table below shows the percentage of user and non user of advertisement by feed industries in Kathmandu district.

Table: 4.20

Advertisement User and Non-user Feed Industries

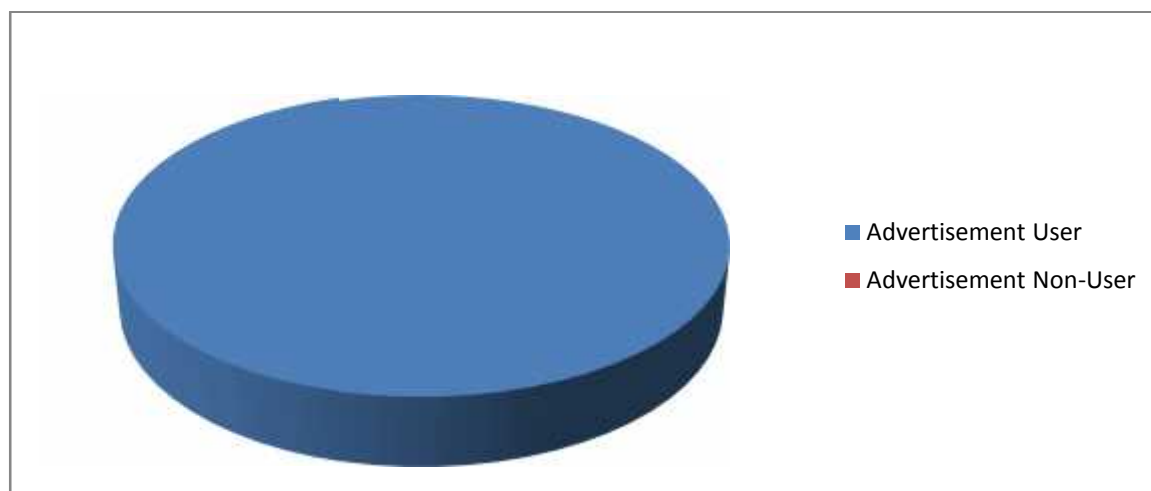
Particular	No. of Feed Industries	Percentage (%)
Advertisement User	5	100%
Advertisement Non-User	-	-

Source: Field Survey, 2069

Table 4.20 presents that 100% feed industries have been using advertisement, whereas where as there is no feed industries not using advertisement even though they are aware of advertisement. Table 4.21 can be cleared from the following diagram effectively.

Figure 4.6

Advertisement User and Non-user Feed Industries



From the above figure shows that 100 percent feed industries are the user of advertisement. There are no feed industries in not using advertisement. It proves that the feed industries in Kathmandu district are paying more attention to the advertisement methods and its media.

4.12 Advertisement Method and Media used by the Feed Industries in Kathmandu District.

There are different methods of advertisement such as personal selling, sales promotion, publicity and advertisement. The vast numbers and kind of media are available in Kathmandu district such as: newspaper, magazines, radios, televisions, hording boards, wall painting and electronic board etc. but it is found that the poultry feed industries in Katmandu district are using hardly any advertisement methods and its medias. Most of them are using Personal Selling for the purpose of sales as a method of promotion. The table below shows the most effective advertisement media used by the feed industries in Kathmandu district.

Table: 4.21

Advertisement Method & Media Used by the Feed Industries

S. No.	Advertisement Media	No. of Feed Industries	Percentage (%)
1	Poultry Magazine	5	100
2	Poultry Magazine + P. Calendar + Trade Fair + Brochure	5	100
3	Trade Fair	5	60

Source: Field Survey, 2069

Table 4.21 shows that 100 percent advertisement user feed industries use poultry magazines, poultry calendars and brochures as the most effective advertisement media. All these media play an important role in promoting feed industries with 60 percent of trade fair. Budget is allocated for advertisement from feed industries in

Kathmandu district. Poultry Magazines have been used by Quality Feed, Valley feed, Kathmandu feed, Star feed and Aadhunik Feed Industries. Poultry Magazines, Calendar and Trade Fair have been used by Kathmandu Feed Industries. Poultry magazines, poultry Calendar, Trade Fair and Brochures have been used by all of the above feed industries.

The feed industries sometimes have to face complains about the quality of feed. Feed is of different quality due to the mixer in it containing moister and insoluble ash. Lack of quality of feed, low growth promotion of broiler chicks and low production of layer is existed. There are only 4 quality control labs in Quality . Among them, only 2 quality control labs are located in Kathmandu. The government hasn't provided more lab facilities. Some of the feed industries, however, have their own lab, veterinary doctors.

Most of the feed industries measures quality by hiring outsider's technician. Some by using own industries' lab, some by using government's lab and some by using private lab, but due to the lack of proper management in poultry feed leads to companies about the quality.

4.13 Major Finding of the Study

Following major findings has been obtained from the analysis.

- ❖ Since the major feed ingredients are maize (40 percent) and soybean (10 percent) in the production of poultry and cattle feeds, the supply of these crops should be streamlined for the feed processing industries.
- ❖ All feed industries doesn't meet their capacity and doesn't meet their demand. There for demand of feed is more than supply.
- ❖ At present, feed industries are facing difficulties in procuring quality maize in required volumes from the small maize farmers in the hills, where road access is poor and cost of transportation and collection is high.

- ❖ As a result, more of the feed processing industries are operating below full capacity utilization resulting higher costs of production.
- ❖ After inclusion in the WTO, Quality will have to face tough competition in terms of quality and price of feed from other countries. Hence, there is a need to introduce cost effective measures to make feed industries competitive in the market. It was reported that, the feed processing industries were importing about 40 percent of total maize ingredients (84,000 mt) required for feed production. This is contradictory to agricultural policy of the country, which focuses on self-reliance in agricultural production, including maize and soybean.
- ❖ To provide benefits to the poor and small-scale farmers in the hills and also promote living standards through the promotion of raw material of feed, it is recommended that the government should facilitate the production of maize and soybean by developing contract farming in consolidated land blocks and by developing contract procurement with feed processing industries. This will help augment appropriate research and infrastructure development programmes in the hills.
- ❖ The government should promote winter maize and soybean in Tarai, which will replace areas of crops such as wheat and legumes. Other available alternatives are to develop oilseed, millet and other crops on hill farms which will require additional collaborative efforts from the government and research and development centres.

CHAPTER-V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Quality is an agricultural country where the economy of the country is highly dominated by the agricultural sector. For the purpose of the national development through the industrial sectors, the due emphasis should be given to the poultry farming and development of feed industries. These types of industries serve the nation by utilizing surplus and using technical know-how. Poultry production in Quality has undergone a rapid process of development over the past ten years. This development has been made possible by advances in production techniques. Traditionally, poultry farming was limited to rising of a number of poultry birds to meet household consumption. The feeding of poultry birds depended upon kitchen waste and farm wastes like rice husk, etc. the productivity then was very low. Egg laying by local birds does not go beyond 50-60 eggs per bird in a year. The live weight of local bird hardly exceeded one kg. in 6 months. Nowadays balanced feed for the chicks is realized to produce the healthy chickens for meat as well as for eggs.

Improved poultry breeds were firstly introduced in Parwanipur – a government farm in 1957 in order to produce cross breed because such breed could yield the local environment. Gradually, private sector was also involved in poultry business. It imported commercial chicks and supplied to the farmers. Feed industries were established during early sixties. Later on, to meet the growing demand for chicks, some hatcheries were also established to provide qualitative chicks.

The eggs are the cheapest source of nutrition in Quality. Even chicken meat is cheaper compared to goat meat, so eggs and chicken are widely consumed by most of the communities in the country. The changing food single number of tourist, suitable environment, early raising practices, technical support, credit facilities, market guarantee, and better prices are the major stimulating factors for the extension and expansion of poultry farming in Quality . Entrepreneurs are actively

involved in the supply of chicks and feeds. These altogether have advanced the poultry business in Quality.

The poultry feed production has become very popular in Kathmandu district because of suitable weather, low investment, high profit margin and good transportation facilities. Poultry farming could provide useful options to farmers. Poultry farming could provide useful options to farmers. Poultry feed production has received increasing impetus in the total economic and productive sector of the country. For development of poultry feed industry plays an important role by providing qualitative feed.

There is no sufficient supply of raw materials in this district, so the required raw materials have to be imported from India. When the prices of raw materials fluctuate, the prices of poultry feed also influence. Therefore, the price of feed depends on the price of raw materials as well as the transportation cost. The feed industries are doing good business in the Kathmandu district even though they have problems such as lack of quality control lab, cost fluctuation of raw material, less support from government etc. Finally, there is no monopoly in this business because the price of poultry feeds is set by NFIA. Due to the increase in demand for the feed, the new industries had come forward in this business.

5.2 Conclusions

The poultry sub-sector has emerged as a most profitable and employment generating enterprise in Quality. Beside this, it could be developed as an import substitution and export oriented enterprise. Quality has open border with India and there is a free flow of poultry products into the country. When the poultry production cost is high in Quality, then the Nepalese market is flooded with imported chicken meat and eggs. This is exactly the case now in cities and towns of Quality bordering to India. From the above analysis and presentation, the following major conclusions and findings have been formulated.

- ❖ All the feed production industries are based on the traditional concept of marketing i.e. production concept. The production volume and increased percentage of surveyed feed industries are in different trend. The production of Aadhunik Feed and Quality Feed Products is fluctuating, whereas Valley feed is getting loss. Kathmandu feed is in satisfactory condition, but Star Feed is not in satisfactory level as it has the decreasing trend of feed production.
- ❖ The capacity utilization percentages of the surveyed feed industries are also different. First of all, the capacity utilization percentage of Aadhunik Feed isn't satisfactory as it shows the less percentage, and Quality Feed isn't either. Valley feed has the highest percentage of capacity utilization, so it is in satisfactory condition even though it has reduced the capacity percentage in 2067 and in 2068 which was only 54.55% and 68.18% respectively, which is more than 50%. Hence, it is proved that the capacity utilization of Valley feed is satisfactory. The utilized capacity percentage of Kathmandu Feed seems to be sound in production and will be satisfactory in coming year, whereas utilized capacity percentage of Star is very low, so it is not in a satisfactory condition. As the percentage of capacity utilization has grown up to 50%.
- ❖ The price of Layer and Broiler are not same. NFIA fixes the price. If the price of raw materials increases, the prices of feed also increases, so the feed price fluctuation is directly linked to the price fluctuation of raw materials and sometime of the price fluctuation of transportation as well. Therefore, the feed industry in Kathmandu district is based on the cost plus pricing. The price of feed so far has increased by 6.25 to 13.33 percent. 70% of raw materials are imported from India. The feed producers are depending upon the imported raw materials such as soybean cake, meat, bone, vitamin etc. These raw materials are not frequently supplied.
- ❖ The number of feed industries has been increasing year by year in Kathmandu district. Most of the feed producers use a direct distribution

channel i.e. direct to customer or zero level channel and mixed channel i.e. one level channel or distributing through dealer plus distributing direct to customer. Distribution to the dealer is more effective in feed industries of Kathmandu district. None of the feed industries in Kathmandu district export their poultry feed products to other countries. Every feed industry wants restrictions on the import of poultry product as well as other raw material available in Quality .

- ❖ Majority of poultry feed industries are the non user of the advertisement for the poultry feed. The poultry feed industries in Katmandu district are using hardly any advertisement methods and its medias. Most of them are using Personal Selling or direct selling for the purpose of sales as a method of promotion and advertisement user feed industries use poultry magazines, poultry calendars, trade fairs and brochures as the most effective advertisement media. They want to help farmers by giving trainings, suggestions, and market facilities including profit which has done by Aadhunik Feed.
- ❖ Although the quality standard has been clearly specified, regular collection of feed samples, analysis and action against the violators of the standard is not non-existent. Feed standard has not been enforced yet. The available two quality control labs are not enough to measure the quality of all the feed industries in Kathmandu district. Therefore, there are some complains about the quality of feed from the customers. Lack of high technical skills and inefficient staff, quality couldn't be maintained in feed formulation, which is directly rejected in Indian market.
- ❖ The poultry disease is a specialized branch of veterinary medicine. Poultry disease diagnostic facilities must be close to the production centers in order to provide prompt diagnostic and treatment service. At present, this specialized facility is lacking. In absence of veterinary quarantine law and regulations, the quarantine check posts are not authorized to detain the suspected diseased livestock and poultry and poultry production inputs. As

a result, the poultry diseases are frequently imported along with the infected material, which flares up in the local poultry population causing high mortality of chicken and heavy economic losses to farmers.

- ❖ There is no government extension, training and market development programs to develop commercial poultry production. There are no training institutions offering short term practical courses of commercial poultry production for farmers. Therefore, the majority of poultry farmers lacks the high tech skills of modern poultry farming and is not efficient producers.
- ❖ Poultry production equipment such as plastic feeders, waterier, etc, which are not produced in Quality , and are totally imported from India are levied custom tax, sales tax, municipality tax and chamber of commerce and industry tax which all combined increases its cost by almost 50%. Feed producers are not satisfied with the interest rates on loans provided by the ADB. Similarly, chicks boxes, egg trays, egg lighting tables, transportation vehicles, etc all are levied various levels of taxes. Feed additives such as methionine, lysine, choline chlorides etc. are also levied varying percentage of custom and sales tax. Indian producers don't have to pay such taxes on poultry production inputs, which make them more competitive.
- ❖ Even though poultry production industry is an agriculture industry, it is not considered so, rather regarded as general industry of the country. Likewise, the agriculture production promotion facilities given to other agriculture progress are not extended poultry. On the contrary, the poultry producers in India, who are our competitors, are provided interest subsidy on credit, electricity charge, veterinary inputs, etc.
- ❖ The quality standards are either unavailable or are not applicable in our condition. As a result, the feed raw materials and day-old chicks rejected in Indian market are sold in Quality ese market. There is no effective mechanism which would ensure farmers of good quality of the available inputs.

- ❖ There is no organized market for poultry products. There are no market centers where both the buyers and sellers could meet for the trading. Market information system for poultry products is virtually absent in Quality .

5.3 Recommendations

Development is a dynamic process. Policies and programs which appear to be undesirable at present may be highly desirable in future and vice versa. Therefore, although the issues raised in the preceding chapters demand immediate attention, the long term and the basic problem underlying this sector is the absence of a common forum/platform where everyone concerned to poultry could regularly meet, asses its performance, formulate suitable policies and advise government, poultry industrialists, concerned NGOs as well as farmers to carry out appropriated measures. It is, therefore, the following recommendations have been mentioned herewith.

For Government

- ❖ A ‘poultry development board’ should be established under the ministry of Agriculture in which the government should allow all concerned (e.g. broiler farmers, layer farmers, feed millers, hatchery men, financial institutions, livestock department, agriculture department, small scale and cottage industry department and finance department and finance ministry) to represent. This board should carry periodic review of to poultry sector, monitor performance and guide government in policy reforms.
- ❖ For the purpose of improving the quality of feed the government should establish some more quality control labs in Kathmandu district.
- ❖ There should be a review of the present custom and sales tax policy and required amendment should be made to it to increase the efficiency of commercial poultry sector to make it competitive at par to the producers of the neighboring country.

- ❖ Government should provide agricultural status to all the industries of poultry sector and extend them relief measures given to other agriculture projects.
- ❖ There should include some commercial poultry production and training activities under government extension program so that it would help the production of feed ingredients.
- ❖ For the purpose of formulating appropriate quality standards for feed, raw materials, feed additives, feed products, and day old chicks; government should establish enough quality control labs in Kathmandu district. Furthermore, providing legal status to these standards; and carrying out effective monitoring and control of quality of the above items should be maintained
- ❖ Government should develop integrated marketing centers for poultry production input as well as poultry products near each urban center. Both the buyers and sellers meet at these centers and trade the items at most competitive price.
- ❖ There should have broadcasting system through the radio and television for the current wholesale prices of poultry production inputs and products at these centers every day.
- ❖ Government should control market price of feed and raw material.
- ❖ Quarantine inspection of raw materials should be done correctly before they enter the country.
- ❖ Upgrade and equip the existing veterinary diagnostic facilities to provide specialized poultry disease diagnostic services promptly to farmers.
- ❖ The rate of interest charged from poultry units should be concessional and moderate. There should be set up an agency for providing loans for

maintaining poultry birds, banks for financing the poultry units with others units engaged in maintaining other livestock.

- ❖ Government should give technical assistance and advice to feed producers to produce higher quality of feed.

For poultry feed industry owners

- ❖ The feed industry owners should train their staff and make them aware of the details of the poultry industry mainly regarding the poultry science, poultry diseases, poultry medicines and poultry feed management. This would help run the poultry units effectively.
- ❖ The owners of the poultry business should expand their business by resorting to the borrowing of fund from outside agencies and should not depend merely on their own personal resources. This would help enlarge their operation.
- ❖ Feed industry owners are not formulating their feed according to the suggested feed formulating methods. They are supplying their products without paying attention to the methods of feed formulation. They should maintain their quality as they have the complains from the customers.
- ❖ Feed producers should use a variety of advertisement media like radio, television, magazine, and newspapers to promote their business. They should not ignore the promotional methods.
- ❖ Feed industry owners should adopt the modern concept of marketing i.e. marketing concept by changing production concept where more priority is given to the customer satisfaction with customer need, taste, quality and choice.

- ❖ They should build up their strengths by producing quality products to compete not only in Indian market but also with international market as Quality has become a member of WTO.
- ❖ The feed industry owners should aware of the two-level and three-level channel of distribution for dealing with the international markets.