

**A STUDY ON THE POSITION AND BEHAVIOUR OF
NEPAL STOCK EXCHANGE (NEPSE) IN THE
DEVELOPMENT OF CAPITAL MARKET**

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RECOMMENDATION

This is to certify that the thesis

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Entitled

**“A Study on the Position and Behavior of Nepal Stock Exchange (NEPSE) in
the Development of Capital Market”**

Has been prepared as approved by this Department in the prescribed format
of Faculty of Management. This thesis is forwarded for examination.

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VIVA-VOCE SHEET

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And found the thesis to be the original work of the student written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment for Master's Degree in Business Studies (M.B.S.)

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DECLARATION

I hereby declare that the work done in this thesis entitled “**A STUDY ON THE POSITION AND BEHAVIOUR OF NEPAL STOCK EXCHANGE (NEPSE) IN THE DEVELOPMENT OF CAPITAL MARKET**” submitted to Central Department of Management, Tribhuvan University is my own work is reported for the partial fulfillment of the requirement of Master's Degree in Business Studies (MBS) course under the guidance of respected Supervisor Reader Ajaya Prasad Dhakal, Lecturer, Central Department of Management, Tribhuvan University.

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ABBREVIATIONS

ACEDBL	Ace Development Bank Limited
ATS	Automated Trading System
BBC	Bishal Bazar Co. Ltd.
BP	Beginning Price
BSE	Bombay Stock Exchange
CAPM	Capital Assets Pricing Model
CDM	Central Department of Management
CHCL	Chilime Hydro Power Co. Ltd.
DJIAI	Dow Jones industrial Average Index
DPS	Dividend per Share
EP	Ending Price
EPS	Earning Per Share
HBL	Himalayan Bank Limited
Ltd.	Limited
MPS	Market Price per Share
NEPSE	Nepal Stock Exchange
NTC	Nepal Doorsanchar Company Limited
NYSE	New York Stock Exchange
SEBON	Security Board of Nepal
SEC	Security Exchange Center
SIC	Sagarmatha Insurance Company Limited
SMC	Securities Marketing Center
TRH	Taragaon Regency Hotel
TU	Tribhuvan University
TUCL	Tribhuvan University Central Library
UNL	Uniliver Nepal Limited
ZFL	Zenith Finance Limited

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Nepal is one of the least developed countries of the world and has very little development in the part of capital market. The history of capital market in Nepal dates back to 1936 in which year the shares of Biratnagar Jute Mill Ltd. were floated. In 1937, Tejarath was set up to facilitate loans to the government employees and was converted into Nepal Bank Ltd. Government of Nepal introduced the Company Act in 1964 and the first issue of government bonds made in the same year through Nepal Rastra Bank to collect the developmental expenditures. It carried 6 percent rate of interest and had the maturity period of five years. Government of Nepal announced the Industrial Policy in 1974 and under this policy an institution named Securities Marketing Center (SMC) was established to deal in government securities-development bonds and national saving bonds, and corporate securities of few companies. The Company Act was introduced in 1964 and Government Bond was issued in 1964. The Securities Board Nepal, in short SEBON was established on June 7, 1983 with the purpose to regulate the Nepalese security markets under the provision of Securities Exchange Act, 1983. Whereas Nepal Stock Exchange, in short NEPSE, is a non-profit organization, operating under Securities Exchange Act, 1983. The basic objective of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transactions in its trading floor through member, market intermediaries, such as broker, market makers etc. NEPSE opened its trading floor on 13th January 1994. Government of Nepal, Nepal Rastra

Bank, Nepal Industrial Development Corporation and members are the shareholders of NEPSE.

A capital market is a market for securities, where business enterprises companies and governments can raise long-term funds. It is defined as a market in which money is provided for periods longer than a year. Instruments used in capital market are debt, stock, preferred stocks, bonds and convertible issue. The long-term debts are installment debts, commercial debts represented by acceptance bills, commercial debts and accommodation papers etc. Saving and deposits schemes, which are not securities bearings, fall under the non-securities segment of market. Capital markets are also classified as primary market and secondary markets. Primary markets are the markets in which corporations raised new capital and in which newly issued securities are involved. If we were to sell new issue of common stock to raise common stock to raise capital, there would be a primary market transaction. The corporation selling the stock receives proceeds from the sale in the primary market transaction. Secondary markets are those in which previously issued securities are traded by far the most active secondary market and the most important one to the financial managers is the stock market. It is here that price of firms stocks are established and since the primary goal of financial management is to maximize the firm's stock price, knowledge of the market, in which the price is established, is essential for anyone involved in managing the business.

Stock exchanges are intricately inter-woven in the fabric of nation's economic life. Without a stock exchange the saving of the community, the sinews of economic progress and productive efficiency would remain underutilized. The task of mobilization and allocation of savings could be attempted in the old days by a much less specialized institution than the stock exchange. But as business and industry expanded and the economy assumed more complex nature, the need for 'permanent finance' arose. Entrepreneurs needed money for long term whereas

investors demanded liquidity – the facility to convert their investments into cash at any given time. The answer was ready market for investments and this was how the stock exchange came into being. Stock exchange means anybody of individuals, whether incorporated or not, constituted for the purpose of regulating or controlling the business of buying, selling or dealing in securities. The securities include shares, stocks, bonds, debentures, government securities and rights or interest in securities (Bhalla, 2004).

The Nepalese capital market in open-market securities is in its infancy stage. The government established 'Security Exchange Center' in 1976 and enacted 'Securities Exchange Act' in 1983 to promote and regulate the market of open-market securities. Thereafter, the center started secondary market operation by listing corporate securities. In order to activate the capital market; the government has massively amended the Act, constituted 'Security Exchange Board of Nepal', and converted Securities Exchange Center into Nepal Stock Exchange. Exchange now provides full-fledge secondary market. Financial institutions like commercial banks, insurance companies, and development banks dominate the trading of securities in NEPSE.

An Investment is sacrificing of current money in expectation of future return. It is a commitment of money that is expected to generate additional money. Every investment entails some degree of risk; it requires a present certain sacrifice for a future uncertain benefit (Francis, 1997). Investment, in its broadest sense, means the sacrifice of current dollars for future dollars. Two different attributes are generally involved: time and risk. The sacrifice takes place in the present and is certain. The reward comes later, if at all, and the magnitude is generally uncertain (Sharpe, 2004). Investment is the sacrifice of certain present value for the uncertain future reward. It entails arriving at numerous decisions such as type, mix, amount, timing, grade etc. of investment and disinvestments. Further, such decision-making has not only to be continuous but rational too. Broadly speaking,

an investment decision is a tradeoff between risk and return. All investment choices are made at points of time in accordance with the personal investment end and in contemplation of an uncertain future. Since investments in securities are revocable, investment ends are transient and investment environment is fluid, the reliable bases for reasoned expectations become more and vaguer as one conceives of the distant future. Investors in securities will, therefore, from time to time, reappraise and reevaluate their various investment commitments in the light of new information, changed expectations and end (Bhalla, 2001).

1.2 Statement of the Problem

The problem toward which this study is directed is to identify the performance of common stocks listed in NEPSE. Now-a-days, investment in common stocks in Nepal is getting momentum due to flow of information through print media although not so adequate. The individual investors are investing in common stocks despite very little information because of less opportunity available elsewhere. Most of them are based on the price movement of stocks in the market. Not much information is available in the market regarding various risk factors. There are no specific agencies to provide information on the performance various common stocks. Therefore, this study is directed towards the measurement of performance of common stocks. Are the common stocks listed performing well as per their risks? Which common stocks are outperforming the market? To what extent the performance of common stocks is related to the market? How can investors form profitable portfolios out of the available common stocks?

Brokers are also supposed to assist in the maintenance of a fair and orderly market but they may not be able to do this job in their full capacity successfully because of the various obstacles presented in the economic environment. So the necessity to analyze the practical situation of the price formation and brokering services in

Nepalese stock market is a most in present situation. There were various complaints from the investors about the performance of the brokers, such as:

- Absence from the stock market for a long period without pre-notice to the Nepal Stock Exchange, and
- The maintenance of verbal contracts with some investors by disobeying the rules and regulations.

Stock market provides investors good investment opportunity with fair return and instant liquidity with minimal risk of loss. It helps to mobilize financial resources for the investment in development projects and thereby helps for economic development, in turn, further develop the stock market. The investment strategy based on the technical analysis is more profitable than buy and hold policy of timing of selling and buying. Fundamental analysis theory holds the view that there exists intrinsic value of the stocks, which helps to select the right stock at a time. Market is efficient in pricing the shares. In that condition, investment decision becomes simple. But investors are losing interest in the performance of share market mainly due to the behavior of fraudulent and scandalous activities. The investors are confused which stock is bad and which stock is good. The study has sought the answer to the following questions.

- i) What is the trend of annual turnover of Nepal Stock Exchange?
- ii) How many companies are listed for trading in Nepal Stock Exchange?
- iii) What is the trend in market capitalization and traded share quantity?
- iv) What is the behavior of group-wise NEPSE Index during the study period?

- v) Which is the most dominating sector and among all the sectors on the basis of market capitalization, annual turnover and traded share quantity.
- vi) What are the position and behavior of NEPSE in the development of capital market?

1.3 Objectives of the Study

This study was conducted to meet the following objectives:

- a) To examine and evaluate the position and behavior of NEPSE in the development of capital market.
- b) To analyze the trend of annual turnover and market capitalization of Nepal Stock Exchange.
- c) To analyze and forecast the trend of stock market and pricing trend of the stock with the help of NEPSE index.
- d) To provide recommendations and suggestions on the basis of major findings.

1.4 Significance of the Study

This research study has much significance to many. Stockbrokers to evaluate the investment alternatives for the interested investors can use it. There are various factors that cause market fluctuation of stock price in the market; mainly two factors economic and non-economic factors. The most fundamental factor in stock price fluctuation is change in corporate earnings, interest rates and business cycle trends contribute to makeup the economic factors. Political changes, administrative changes, changes in weather and other natural conditions. The volumes of transaction, institutional investors, transactions etc directly affect the stock price. Although margin transactions increase purchase whose stock price is

going up, once the price begins to fall, they become a selling factor and accelerate price decline.

The listing of shares in stock exchange center and their trading in the stock market is not too long. The stock market has been providing capital for investment in industrial productive sector, financial sector, service sector and other.

1.5 Limitations of the Study

No research works are free of some shortcomings or limitations. So this research study also has some limitations. The main limitations are mentioned below.

- (a) This study is based on secondary sources of data available from NEPSE and SEBON.
- (b) Various trading costs (e.g. brokerage commission, taxes) etc are excluded from the study.
- (c) Market return is based only on NEPSE index.
- (d) The scope of the study is limited within the assumption that, only the shares are the market instrument used in Nepalese capital market.
- (e) The study covers the data from 2007/08 to 2011/12.

1.6 Organization of the Study

The study is integrated form of all the activities involved in research work. To make research more effective and easy the whole research will be divided into five chapters. The contents of each of the chapter of this study will be as follows:

Chapter I – Introduction

In this section, we are explained our study in surface. Different heading of general background, focus of the study, statement of the problem, objectives of the study, significance of the study, limitation of the study, organization of the study are presented in this chapter. We can understand our mission, objective and our direction of this chapter.

Chapter II - Review of Literature

Review of literature is important tasks for thesis writing. Literature gives attractive, readable and simplicity report, the possible spot of literature is library, different books, past thesis and dissertations, journal website, class discussion etc.

Chapter III - Research Methodology

In this chapter, we are focusing the research design, nature and sources of data and tools employed. It is an important chapter because in the financial analysis of a firm we should need the various data and different statistical tools. Data sources are also considerable subjects in the research methodology tools. Research methodology is directed in the area, limitation, probable error, tools and technique of research analysis for preparing and completing of the thesis.

Chapter IV - Presentation and Analysis of Data

It is a body of report. Data presentation and analysis is started with various data. In this section we are alteration data, synthesizing of data and forwarded for the clear cut situation. The process of data presentation is stated with the input the data's and finally give a clear solution. It is a process of input-process-output system. Collection and presentation of data is input, analysis of data is process and summary and conclusion is output.

Chapter V - Summary, Conclusion and Recommendation

This is the end section of report. In this section, we are presented the concluded study; all of our study is depend on the presentation of this chapter. Summary and conclusion is the main theme of this report. In this section we are going to present the conclusion about findings.

CHAPTER – II

REVIEW OF LITERATURE

2.1 General Background

Review of literature means reviewing research studies or other relevant proposition in related area of the study so that all past studies, their conclusions and deficiencies may be known and further research can be conducted.

The main reason for a full review of research in the past is to know the outcomes of those investigations in areas where similar concept and methodologies has been used successfully. Further, an extensive or even exhaustive process of such review may offer vital link with the various trends and phases in the researches in one's area of specialization, with the characteristic percepts, concepts and interpretation, with the special terminology, with the rationale for understanding one's proposed investigation.

There is a significant importance of review of literature in any type of research work some of which can be pointed as follows:-

- To identify research problems which previous works has been conducted?
- To avoid unintentional replication of previous studies
- To interpret the significance of researchers result in precise manner
- To determine the methodology for research work and scope for the studies

Hence, in this chapter, the focus has been made on the review of literature relevant to the role of NEPSE and SEBON in development of capital market. For this study, different Journals, Article, Books, Annual reports, and some research paper related with this topic has been reviewed. It needs to review related literatures in

this concerned area which will help me to get clear ideas, opinions and other concepts. 'What other has said? What other has written? And what other has done?' these all and other related questions are reviewed which has provided useful inputs in this research work.

2.2 Conceptual Review

As per the objectives of the study, emphasis is given to the review of major related literatures and research conducted in Nepalese capital market as well as in foreign capital markets.

2.2.1 Financial Markets

Financial market is a place or places where securities are bought and sold, the facilities and people engaged in such transaction, the demand for and availability of securities to be traded, and the willingness of buyers and sellers to reach agreement on sale. Financial markets provide a forum where suppliers of loans and investments can transact business directly. The two keys of financial markets are money market and capital market. Transactions in short-term debt instruments or marketable securities are done in money market whereas long-term securities are traded in the capital market.

2.2.2 Capital Markets

Capital market is an important part of the financial market. It relates to those markets from where government, households, firms and industries secure long term capital needs through the use of a wide variety of long- term financial instrument and other securities. Capital market is an institution where quoted investment (stock and share) may be exchange between buyer and seller. The main objective of the capital market is to create opportunity for the maximum number of people to get benefit from the return obtained by directing the economy towards the productive sector by mobilizing the long term capital. The objective can be

fulfilled only by rational and accountable behavior relating to the three sectors of capital market such as institution, mediators and investors. In capital market, financial transition is made for mostly longer period. The capital market is financial relationship created by a number of institution and arrangement that allows the supplier and demanders' long- term fund, funds with maturities of more than one year to make transition.

The capital market consists of the various suppliers and users of long-term finance as it is differentiated from the money market which embraces short term finance. The capital market serves as a link between suppliers and user of finance. It is a mechanism for the mobilization of public saving and canalizing them in productive investment. In this way, an important constituent of the capital market is the securities market. It has a wide term embracing the buyers and sellers of securities and all those agencies and institutions, which assist the sale, and resale of corporate securities (Gupta, 1978).

An ideal capital market where funds are available at reasonable rate of return for any proposition which offers a prospective yield sufficient to make borrowing worthwhile, given rate of return for any proposition which offers a prospective yield sufficient to make borrowing worthwhile, gives the roles rate of interest (Vaidya, 2001).

In the book 'Business organization and management', C.B. Gupta has commented, "The Capital Market serves as a link between suppliers and users of finance. It is a mechanism for the mobilization of public savings and channeling them in productive invests".

The capital market is known as the trading center for the financial investment in capital market different types of financial securities such as ordinary share, preference share, treasury bills and debenture are traded. The capital market can be divided into two parts-

2.2.2.1 Securities Market

Securities market is open market where buyers and sellers of securities are unknown to each other. However, they trade through the help of the brokers or dealers. Securities market is the mechanism that allows suppliers and demanders of fund to make transaction. It is the market where securities are traded. It plays a key role in the purchase and sales activities of investors. Securities market includes how an individual investors goes about the business is executed, the process of setting the payment and transfer costs, and one hopes the payment of federal personal income taxes on the profit from the transaction (fisher, 1992). These securities include equity shares, preference shares and debentures.

The development of a sound securities market with its constituent financial institutions is one of the mechanisms which enable the efficient transformation of savings from the hands of surplus spending units to those of deficit spending ones who can use them move productivity and/or have loss/ risk aversion (Rugh, 1996).

Nepal stock exchange has defined the securities market in the following ways, The securities market is the place where a large volume of financial securities (shares, bonds, debenture etc.) are traded according to prescribed rules (Securities Marketing Center, 1978).

According to wheeler, the securities market includes:

- Activities relating to the organizational distribution and trading in of securities.
- Organizations, which facilitate these securities.
- Individuals and institutions, which buy and sell securities.
- Rules, regulations, customs and practices that control the organization and conduct of business in the market.

According to Weston and Copeland, stock markets are said to provide at least four economic functions:

- Security exchanges facilitate the investment process by providing a market place to conduct efficient and relatively inexpensive transaction. Investors thus assured that they would have a place to sell securities that they would otherwise require.
- They are capable of holding continuous transaction testing the values of securities. The purchase and selling of securities records judgments and values and prospects of companies. Those prospects are judged favorably by the investment community have higher values which facilitate the new financing and growth.
- Security exchanges facilitate the investment process by providing a market place to conduct efficient and relatively inexpensive transaction. Investors thus assured that they would have a place to sell securities that they would otherwise require.
- They are capable of holding continuous transaction testing the values of securities. The purchase and selling of securities records judgments and values and prospects of companies. Those prospects are judged favorably by the investment community have higher values which facilitate the new financing and growth.
- Securities are relatively more stable because of the operation of the security markets. Security market improves liquidity by providing continuous markets that make more frequent but smaller price changes. In the absence of active market price changes are less frequent but more violent.
- Security Market aids the digestion of new security issues and facilitates their successful flotation. Investors are not interested to invest in new securities, if they had to hold up to maturity periods. Actually stock market provides well functioning secondary market to traded existing securities

and assures the purchasers of primary securities that they can quickly sell their securities, if the need arises, Stock market also affects economy through creation of liquidity. Only liquid equity markets make the investment less risky and more attractive. It allows saver to acquire an asset and sell quickly and cheaply. The regular inspection in secondary market is also necessary from company side. It helps to attract investment community. Similarly an active stock market has less and frequent price changes because it has an efficient market mechanism and information are quickly disseminated to all investors (Weston & Copeland, 1995).

Securities Market can be divided into two parts:

- Primary Market
- Secondary Market

Primary Market

The primary market for securities is the new issues market, which brings together the supply and demand or sources and uses for new capital fund (Fisher & Jordon, 1992). The market where by the corporation acquires the long term capital fund by issuing the security to the general public through initial public offering and right issue is known as primary market.

In this market the principal sources of funds is the domestic saving of individual and business, other supplies include foreign investors and government. The ultimate supplies of funds are those sectors with a surplus of current income over expenditures and these funds flow to their ultimate users, economic use securities to finance a surplus of expenditures over their current income.

Securities available for this first time are offered through the primary securities markets. The issuer may be a brand new company or one that has been in business for many years. The securities offered might be a new type for the issuer or

additional amounts of a security used frequently in the post. The key is that these securities absorb new funds for the coffers of the issuer.

The primary securities market includes all transactions that result in the accumulation of financial capital by firms, government or individuals to be used in consumption or real capital investment. The participants in this process are many and varied, but an important segment, includes the money brokers who acts as a middleman in the process of exchanging securities for fund.

These brokers provide invaluable services. Their principal role is to assist in the pooling of the funds by the certain of security forms that will appeal to the ultimate investors (Nancy and Richardson, 1984).

Primary market transactions are normally effected through the issuance of short and long- term bonds and other debt instruments and through the issuance of common and preferred stock.

Primary markets are distinguished by the flow of funds between the market participants. Instead of trading between investors as in the secondary markets, participants in the primary market buy their assets directly from the source of the asset. Once the assets or securities are sold in the primary market, they begin trading in the secondary market (Hirt, 1983).

The contribution of primary market to company financing is direct in the sense that it provides additional funds to the issuing companies either for starting a new enterprise or for expansion or diversification of the existing one. Before the establishment of security market centre, the case of the new issue was very few. Issuing companies themselves undertook the issue management activities.

Before the establishment of Nepal Stock Exchange System, 26 public companies collected a total amount of Rs. 246.5 million form public issue within a period of 13 years starting from 1979/80 A.D. to 1992/93 A.D. (Stock Exchange Record).

The progress can be noticed from the collection of Rs.243 million, 204 million and 293 million by 14, 11 and 12 public companies (Excluding NCM Mutual Fund and Citizen Unit Scheme) in the subsequent year 1993/94, 1994/95, and 1995/96 (CEDA, 1997).

Secondary Market

Secondary market also known as the market for seasoned instruments is that market where the once issued stocks of the corporation are traded. The advantage of secondary market is to provide liquidity and investment opportunities to investors and to make certain assets more attractive to buyer and seller. It deals with the previously issued shares mainly traded through the stock exchange, over the counter (OTC) market or direct dealing. The majorities of all capital market transactions occur in the secondary market. The proceeds from the sale of securities in this market do not go to the original issuer *i.e.* it does not create new additional capital but to the owners of the securities. In other words, securities are traded among the individual as well as institutional investors. Transactions in existing securities represent shifts in ownership that do not provide additional funds to finance capital formations.

Secondary markets are markets for existing assets, which are currently traded between investors. It is this market that creates the price and allows for liquidity. If secondary markets did not exist, investors would have no place to sell their assets. Without liquidity, many people would not invest at all (Hirt, 1983).

If investors could not resell securities readily, they would be hesitant to acquire them and such reluctance would reduce the total quality of funds available to finance industry and government. Those who own securities must be assured of a fast, fair, orderly and open system of purchase and sale at known prices (Fisher & Jordon, 1992).

Secondary market can be divided into two parts:

- Organized stock exchange
- Over the counter market

Organized stock exchange:

The essential function of a stock exchange is to provide attractive market place for corporate share and other listed securities. The stock exchange plays indispensable role in mobilizing funds in capital market. The various virtues governing stock exchange include enhance marketability of securities, rational allocation of investable funds; facilitate economic growth and wealth generation and proper maturities, liquidity and diversification of investment. The growth of capital market through the vehicle of information about various securities in addition to the sound listing criteria that proved worthwhile to the investors.

Stock exchanges are voluntary association of member who comes together for the purpose of buying and selling for the general public, the securities of the great companies. Only listed securities of the great companies are traded in the exchange are bought and sold by action. Since the member of these exchanges has branches throughout the country, the stock exchanges are truly a national market is set to give liquidity to primary issues, and this liquidity is an essential ingredient in the capital formation process of economy (Shrestha, 1992).

Over the counter market (OTC):

Over the counter market is the market for those securities, not listed on stock exchange. When company first sells its securities to the public, the securities are traded in the OTC. It includes all transaction in securities other than that taking place on the stock exchange. It parties, however the term is usually limited to the activities of dealers and brokers specializing securities. OTC has very low entry barriers and traders may range in size from very large house doing an international business to one- person firm that trade only in the local market.

Stock market interchangeably known as securities market is the other side of market segment under capital market. It includes all transferable securities issued previously by the corporate bodies such securities are also traded on the Stock Exchange. Here stock Exchange refers to the association, organization, or body of individuals whether in corporate or not, established for the purpose of assisting, regulating and controlling business in buying, selling and dealing in securities Indian Securities Contract (Regulation) Act 1956. But stock market does not include securities of private companies as they are not capable of being dealt in on stock exchange and are not marketable securities due to the restrictions on transferability. In order to benefit from the securities markets, the corporate bodies should have listed the securities in the stock exchange.

The companies, which have listed their marketable securities on the stock exchange, are known as Listed Companies. This means only the securities of listed companies are traded on the trading floor of the stock exchange. Section 8 of Securities Exchange Act 1983 has laid down the provision of Compulsory listing of securities before trading on the stock exchange. For trading purpose of the debentures or bonds of the companies, the maturity period of such instruments should not be less than two years and debentures having face value of Rs.1000 each can only be trade. A huge number of securities of existing financial, manufacturing, and banking, services, and production entities are traded daily via Nepal Stock Exchange in Nepal.

The securities market involved in both primary and secondary market of securities till 1993, later converted into Stock Exchange (NEPSE) according to Securities Exchange Act 1983, is providing a wide spectrum of securities market services to the varieties of organization so to pave the way for the economic development in the country. Besides this, to safeguard the interest of shareholder, the stock exchange board as designated by the act is performing the roles. The board incriminates the companies or concerned individuals who do not comply with the

prevailing rules and regulations. The NEPSE has recently released a report on 21 companies in this connection (Tonic and West, 1997).

Capital market apart from the primary market also includes markets which have been issued in the past, is traded. These securities markets are called stock market or stock exchanges. The stock market dominantly deals in stock or equity shares. They enable owners of shares to sell their holdings, readily ensuring liquidity. The securities market enables investors to continuously rearrange their assets while other can use their surplus funds to be acquiring them. Any trade of shares subsequent to its primary market may re-offer the securities to any interested buyers at whatever price is mutually satisfactory. The stock exchange provides a market where such mutually satisfactory prices may be determined. They offer opportunities primarily for trading risk and boost liquidity.

The presence of an active securities market actually promotes the growth of the primary market and capital formation because investors in the primary markets are assured that a continuous market exists and should occasion arise they can liquidate their investment in the stock exchange. Formal trading rules and communication networks for trading in securities link the participants in the secondary markets.

We have only one stock exchange i.e. "Nepal Stock Exchange" laid down in the initiative of the government with consideration of the limited play ground of the capital market. But in India, there are 21 or more stock exchanges established according to the Securities Contract (Regulations) Act 1956. Now, with the relaxation of laws in India, foreign institutions, not individuals, have also been allowed to operate on stock exchange. Foreign brokers have secured membership in Indian Stock Exchange and several foreign assets management companies are floating mutual funds in India. Indian government has removed several structural problems impeding the inflow of foreign investment in stock market. Bombay

Stock Exchange (BSE) has started online trading to bring in efficiency and transparency. “Computerized and satellite-linked Stock Exchange” The National Stock Exchange has been functioning since the year 1994.

In comparison to the Indian Stock Market, we have nothing-countable achievement in the case of secondary market. However, what the Nepalese stocks market did in almost two decades of its establishment is considered a watershed in the history of securities market in Nepal while giving glance over the track records of the London Stock exchange (1773), New York Stock Exchange (1817) and Bombay Stock Exchange (1877).

Securities Exchange act 1983 made it obligatory to trade the securities through the recognized exchange centre or through their licensed brokers. Therefore, the Security Exchange Centre opens its floor for secondary trading of corporate shares in November 1984. Before this, the Sec was restricted to the trading of government bonds. The rate of brokerage on equity transactions varies from 1% to 1.5% depending upon the volume of trade. Higher the amount of transactions lower is the percentage of commission. The seller and the buyer both parties have to pay the commission to the broker.

Along with the formation of Security Exchange Board, His Majesty’s Government converted the Security Exchange Centre Ltd. into Nepal Stock Exchange Ltd. (NEPSE) in 1993 with a view to reform the capital market. It is a non-profit making organization operating under Securities Exchange Act 1983. Brokers and market makers operate on the trading floor as per the Securities Exchange Act rules and bylaws of NEPSE. Nepal Stock Exchange started its trading operation on 13th January 1994 through its licensed members.

The Securities Board was constituted in 1993 under Sec.1 of the Securities Exchange Act 1993. Its main objective is to provide essential policy direction for the systematic and regular exchange of securities and develop competitive stock

exchange market by protecting and promoting the interest of the investors. Nepal Stock Exchange is a trading (operation) institution, whereas Securities Board is the regulatory body. Before the board came into existence, the Securities Exchange Centre carried on both the functions. Though any corporate body serious to carry out the transaction of securities can submit application to the Board for obtaining the license, till now Nepal Stock Exchange Ltd. alone is presenting the Secondary Market in the country (News week, 1995).

2.2.2.2 Non-Securities Market

Non- securities market is that market where financial transactions are carried out between the lender and borrower for a longer period without issuing any securities in the form of share, bond and debenture. Financial transaction between the term lending institution such as development bank and business house or individual between the contractual saving institution and individuals or business houses etc come under non securities market. To ensure sustained price and market, the police level authorities should encourage institutional buyers.

2.3 Definition of Stock Exchange

A stock exchange is a form of exchange which provides services for brokers and traders to trade stocks, bonds, and other securities. Stock exchanges also provide stock facilities for issue and redemption of securities and other financial instruments, and capital events including the payment of income and dividends. Securities traded on a stock exchange include shares issued by companies, unit trusts, derivatives, pooled investment products and bonds.

To be able to trade a security on a certain stock exchange, it must be listed there. Usually, there is a central location at least for record keeping, but trade is increasingly less linked to such a physical place, as modern markets are electronic networks, which gives those advantages of increased speed and reduced cost of

transactions. Trade on an exchange is by members only. The initial offering of stocks and bonds to investors is by definition done in the primary market and subsequent trading is done in the secondary market. A stock exchange is often the most important component of a stock market. Supply and demand in stock markets are driven by various factors that, as in all free markets, affect the price of stocks (Wikipedia.com).

2.4 Evolution of Capital Markets in Nepal

Stock Market in Nepal began with the issue of shares by Biratnagar Jute Mills Ltd. in 1937. Securities Marketing Centre (SMC) was established in April 1974 with the objective of facilitating the transaction of government development bonds and corporate securities. SMC started secondary trading of securities in November 1981, which restricted to government bonds. Till 1983, the concept of well – structured secondary market had not evolved in Nepal and also no separate act existed to regulate the trading of securities. Securities exchange act, 1983 was enacted in 1983. The act restricted the exchange of unlisted securities.

The then SMC was converted into Securities Exchange Centre (SEC) in 1984. SEC opened its floor for corporate share trading in November 1984. Before conversion into Nepal Stock Exchange Limited (NEPSE) in 1993, it was only stock market institution undertaking the job of brokering, underwriting, managing public issue, market making for government bonds, and other financial services. The first amendment in securities exchange act, 1983 in 1993 paved the way for the restructuring of stock market in Nepal, which led to establish securities board of Nepal (SEBON) in 1993 with a mandate to regulate and develop stock market in the country. SEBON started to register securities and grant approval for issuing securities to the public in 1993. The first amendment in the act also led to convert the then SEC into NEPSE, a full-fledged open-out-cry trading system with the induction of stockbrokers in January 13, 1994. The first amendment in securities

exchange act, 1983 and the consequent developments were the beginning of an organized development of stock market in the country.

The second amendment in securities exchange act, 1983 was made in 1997. As per the provision of the second amendment, SEBON provided licenses to the securities businesspersons in 1997. The amendment made mandatory provisions for the listed companies to submit annual and semi-annual reports to SEBON. This amendment also required securities businesspersons to submit annual reports incorporating the securities transactions carried out by them to SEBON.

NEPSE presently operates under securities related act, 2007 as a profit making entity. Government of Nepal is the major shareholder of the NEPSE- the only stock exchange of the country. On 24 august, 2007, NEPSE started Automated Trading System (ATS). NEPSE started to calculate overall index in 1994. Calculation of sensitive index started on 1 January, 2007. Sensitive index is calculated on the basis of market capitalization of the companies classified under group A. secondary transaction of the government bonds through stock exchange started on 15 December, 2006.

SEBON started to provide merchant banking licenses under securities businesspersons (merchant banker) regulation, 2007 on February 5, 2009. National finance company ltd. is being the first company obtaining merchant banking license under the new regulation. Similarly, SEBON started Securities Data Management System of Nepal (SDMSN) on 15 November, 2009 with the central securities data bank, online reporting system, and uninterrupted power backup.

2.5 Review of Related Studies:

In this section we basically review the previous research works done by different scholars in the field of capital markets more specially. This includes the review of foreign research and the review of Nepalese research as well.

2.5.1 Review of Journal and Article

Research on the security prices didn't begin with the development of a theory of price formation, which was then subjected to empirical test. The impetus for the development of the theory came from the accumulation of evidence in the middle 1950 that the behavior of common stock and other speculation of prices could be well approximated by a random walk. Much of the theory on the random walk can be traced to French mathematician Louis Bachelor whose PhD dissertation titled "The Theory of Speculation". He tested the model in commodity speculation in France was a "Fair game". He also concluded that the current price of a commodity was an unbiased estimate of its future price. After the first discovery of the random walk model by Louis Bachelor, empirical testing of the model in the stock market prices almost remained stagnate until 1960s. There are large number of studies most of which are briefly review below.

Kendall (1953) made significant contribution to advance in the study of the random walk model. He tested the model of the weekly price changes of the 19 indices of British industrial shares and in the spot price series of cotton (New York) and wheat (Chicago).He analyzed the data by serial correlation coefficient and concluded that the subsequent stock price movement follows random walk. He showed that the successive price changes are statistically independent to its past price changes.

Roberts (1959) conducted simulation tests by comparing the cumulating of random numbers and the Dow-Jones industrial Average Index (DJIAI) for about one year. He observed the first difference of two series produce the same pattern. He gave a number of methodological suggestions for testing what he calls the chance model. He suggested run analysis for testing independence of price changes. Similarly Osbern (1959) analyzed stock price from New York stock exchange (NYSE) using daily log price changes which called Borwain Motion. He

found the consistency between the Borwain motion and share prices movements rise to support on random walk hypothesis.

Fama (1965) studied on the Random walk Model. He observed the daily proportionate prices of 30 individual stocks the Dow Jones Industrial Average. He employed the statistical tools such as serial correlation and run test to draw inference about dependence of the price series. He calculated auto-correlation coefficient for daily changes in log prices for log from 1 to 30 and found that the coefficient were almost close to zero in overall.

Solnik (1973) investigated the daily price of 234 common stocks of eight European countries namely, France, Italy, UK, Germany, Netherlands, Belgium, Switzerland, Sweden for the time period from March 1966 to April 1971. He calculated the returns for various interval of the each stock and studied the distribution of serial correlation coefficient. He pointed out random walk is more apparent in the European stock price behavior than in the American price behavior.

Sharma and Kennedy (1977) tested the random walk model, by run test and spectral analysis against representative stock market indices of Bombay, Network and London stock exchange during 1963-73. They found that the stocks on Bombay stock exchange obey random walk and are equivalent in sense to the behavior of share price in the market of developed countries.

Gupta (1985) found out comprehensive test of the random walk hypothesis by employing serial correlation and run analysis in two sets of time series data. The two sets of time series data are the first was the economic time index, number of daily share prices and financial express index number of equity prices on a daily and other weekly series and another was a weekend closing price. He concluded on the basis of these test the random walk model share price behaviour suggesting in the Indian stock exchange were efficient in the weak sense in pricing share .

Mahapatra (1995) tested the weakly efficient market hypothesis using rank correlation analysis based on relative strength. The sample was end of month closing price of 26 stocks from Bombay stock exchange during the period January 1989 to December 1992. He argued that the Indian stock market is less efficient in the short run but more efficient in the Long run.

Mobarek and Keasey (2000) The study seek evidence supporting the weak form efficient of the market using daily market return series of the listed securities on the Dhaka Stock Exchange for the period of 1988 to 1997, empirical analyses suggest that the Dhaka stock Market of Bangladesh is not weak form efficient. The result of individual share returns also evidence that they are not following random walk model.

Pena and Alana (2003) test stock index price follow random walk in the Spanish stock Market by means of variance ratios By using daily, weekly and monthly prices return auto correlation in the Spanish stock Market for the two indexes (IGBM and IBEX35) and for individual securities by means of variance ratio tests. They found that positive string auto correlation for both IGMB and IBEx35 index daily returns can't reject the random walk hypothesis for the period March 31, 1997 to 2000, significant position of auto correlation especially in daily and weekly period. The positive index auto correlation monthly returns are not significance at 5% level in any period. On the other hand, Spanish stock Market security daily returns show weekly positive auto correlation. Even though index monthly return positive auto correlation are low, there is no strong evidence of monthly return cross-correlation at one lag (a month) between portfolios based on size. In particular, large stock portfolios leak to the small stock ones.

Islam and Khaled (2005) carried out a test of weak-form efficiency of the Dhaka stock Exchange use of monthly versus daily data or weak .The study uses daily, weekly, market prices and returns of the stock exchange during the year 1990 to

2001. Starting from the January 1990, the daily market price data cover the period up to 23 November 2001, while the weekly and monthly price data cover the period up to 21 November 2001 and October 2001 respectively. Data for the period 1990 to 1991 were taken from the daily price quotations. Test of weak form efficiency of the Dhaka stock Exchange by using the autocorrelation test. Test separately for the period before July 1996 and for the period after March 1997. They concluded on the basis of hypothesis at the 5% significance level in the case of monthly data. But for weekly data and daily data the market efficiency was rejected for the pre boom period (1996) but not for the post crash.

Zivengwa, Mashika, Bokosi and Makova (2011) studied Stock Market Development and Economic Growth in Zimbabwe. The main purpose of this study was to explore the causal link between stock market development and economic growth in Zimbabwe using annual time series data for the period 1980 to 2008. The study evaluated the nature of the relationship between stock market development and economic growth in Zimbabwe. The stock market development was measured using two variables namely stock market size as measured by stock market capitalization as a ratio of GDP and stock market turnover as measured by the value of stocks traded as a ratio of stock market capitalization. The study utilized advanced econometric techniques of Unit Root Tests, Vector Autoregressive (VAR) and Granger Causality Tests to explore the relationships. The empirical results showed a uni-directional causal link that runs from stock market development to economic growth and there is evidence of an indirect transmission mechanism through the effect of stock market development on investment.

Adhikari (2011) deals with the development of stock market in Nepal. The role and significance of stock market in the economy, developmental issues and challenges, and stock market developmental efforts were highlighted based on the review of literature available in academic and practical arena, regulatory

experience, and long term perspective of stock market development in Nepal. The paper reveals that stock market assumes greater role and significance in the economy, Nepal's need in stock market development, issues and challenges for stock market development, and stock market developmental efforts so far made in Nepal. It implies that stock market development in Nepal is not easy as it is usually considered due to multifaceted issues and challenges, and its development should not be only the prerogative of securities board of Nepal but should be equally considered by government of Nepal along with the cooperation and coordination among the relating agencies.

Rana (2011) conclude that Macroeconomic Fundamentals and Stock Market Prices in Nepal this study examines the relationship between the NEPSE index and four set of macroeconomic variables, namely, inflation, money supply, interest rate and exchange rate from mid-January 2010. Specifically, the study employs box-Jenkins autoregressive integrated moving average (ARIMA) process of time series modeling to observe the empirical relationship between the variables with 97 monthly observations for each. The empirical results suggest that Nepalese stock market prices are significantly determined by the level of interest rate and exchange rate. On the other hand, the results indicate no strong evidence to conclude that inflation and money supply are significant in determining the stock prices in Nepal.

Bollen, Maoand and Zeng (2011) studied Twitter Mood Predicts the Stock Market. They highlighted the Behavioral economics tells us that emotions can profoundly affect individual behavior and decision-making. Does this also apply to societies at large, i.e. can societies experience mood states that affect their collective decision making? By extension is the public mood correlated or even predictive of economic indicators? Here we investigate whether measurements of collective mood states derived from large-scale Twitter feeds are correlated to the value of the Dow Jones Industrial Average (DJIA) over time. We analyze the text content

of daily Twitter feeds by two mood tracking tools, namely Opinion Finder that measures positive vs. negative mood and Google-Profile of Mood States (GPOMS) that measures mood in terms of 6 dimensions (Calm, Alert, Sure, Vital, Kind, and Happy). We cross-validate the resulting mood time series by comparing their ability to detect the public's response to the presidential election and Thanksgiving Day in 2008. A Granger causality analysis and a Self-Organizing Fuzzy Neural Network are then used to investigate the hypothesis that public mood states, as measured by the Opinion Finder and GPOMS mood time series, are predictive of changes in DJIA closing values. Our results indicate that the accuracy of DJIA predictions can be significantly improved by the inclusion of specific public mood dimensions but not others. We find an accuracy of 86.7% in predicting the daily up and down changes in the closing values of the DJIA and a reduction of the Mean Average Percentage Error (MAPE) by more than 6%.

Sinha and mathur (2012) states that the effect of Securities Transaction Tax (STT) on the behavior of the returns on the Indian stock market using a switching first order autocorrelation model. It is found that an increase in STT doesn't influence the return on American Depository Receipts (ADRs) which are dually listed in United States of America and India. The increase in STT doesn't have a major impact on the returns of the stocks listed on the National Stock Exchange in India whereas it influences the volume of traded shares. Volatility of stocks listed on the National Stock Exchange in India is affected by the change in tax level and thus investors switch from large and medium sized stocks to small sized stocks to mitigate the risk.

Alajekwu and Achugbu (2012) found that the role of stock market development on economic growth of Nigeria using a 15-year time series data from 1994 - 2008. The method of analysis used is Ordinary Least Square (OLS) techniques. The study measures the relationship between stock market development indices and economic growth. The stock market capitalization ratio was used as a proxy for

market size while value traded ratio and turnover ratio were used as proxy for market liquidity. The results show that market capitalization and value traded ratios have a very weak negative correlation with economic growth while turnover ratio has a very strong positive correlation with economic growth. Also, stock market capitalization has a strong positive correlation with stock turnover ratio. This result implies that liquidity has propensity to spur economic growth in Nigeria and that market capitalization influences market liquidity. We should view with caution the notion that stock market size is not significant for economic growth since multi co linearity exists in the data used for this analysis. The government should make policies that boost the interest of domestic investors in Nigeria as this might spur investors' interest and boost stock market activity.

Regmi (2012) examines causal relationship between stock market development and economic growth in Nepal for the period 1994-2011, using unit root test, co-integration, and vector error correction models and developing NEPSE composite index as an indicator of stock market development. The finding suggests that stock market development has significantly contributed to the economic growth in Nepal. In this perspective, a refined policy measures should be adopted to strengthen and improve the role of stock market in order to expedite and maintain the strong growth of the economy.

Srivastava (2013) assess that Volatility of Indian Stock Market: An Empirical Evidence. The purpose of this paper is to apply the GARCH-class models to two major stock exchanges of Indian stock markets. The study includes main indices of Bombay Stock Exchange (SENSEX) and that of National stock exchange (NIFTY). GARCH-class models have been applied to analyze the characteristics of the volatility of Indian stock market. The findings suggest that both the Indian stock exchanges have significant ARCH effects and it is appropriate to use ARCH/GARCH models to estimate the process and also demonstrated that there are leverage effects in the markets. That means the investors in those markets are

not grown well and they will be heavily influenced by information (good or bad) very easily.

2.5.2 Review of Thesis

Gurung (1999) conducted a study on the basis of share price behaviour of listed companies in Nepal. The study was conducted with the objectives to test the monthly movement of share price behaviour of listed companies in Nepal. The sample for the study comprised of 15 companies representing from commercial bank, insurance and finance, manufacturing & processing and trading. Using different statistical tools like mean, coefficient correlation and financial parameters. He mentioned that the number of listed companies has been increase during the study period. The study was to analyses the relation between traded and listed companies, to evaluate the trading turnover, to analyses the share price behaviour of listed companies whose stock are listed in stock exchange centre and traded in the stock market. The performance of commercial banks is better than that of trading concerns and the investment in this group is more attractive so, banking group is higher than compare to the other group. Market was bluish during the initial period of the study. The higher fluctuations in prices in decreasing trend and higher variations in prices showed the performances of listed companies have been deteriorating. Moreover this implies the uncertainty and instability in stock market.

Ojha (2000) conducted a research to study and examine the difference of financial performances and stock prices; to examine the relationship of dividend and stock price; to explore the signaling effects in on stock price. Nepalese stock market is in infancy stage. In general it is very new and just started to develop. Dominance of banking sector is prevalent in the market due to other industries including finance companies, insurance and manufacturing is not encouraging. Corporate firm with long history have a relatively stable profitability parameters than the

firms established after the economic liberalization of 1990. Older firms have been issuing bonus shares more times than the new one. Dividend per share is relatively more stable than the dividend payout ratio. That's why payout ratio and dividend yields have been highly fluctuating. Due to lack of proper investment opportunity most of the investors have directed their saving towards the secondary stock market. There is significant positive correlation between the dividends paid and stock prices of banking and manufacturing industries. All other industries have not a perfect correlation between the dividends paid and stock prices. There is a positive correlation between the net worth per share and stock prices of banking, airlines, and hotel industries, there is no perfect correlation between the net worth per share and common stock price.

Timilsina (2001) conducted a study on capital market development and stock price behaviour in Nepal. The main objectives of the study was to find out the fair market prices of equalities and observe the variation of actual prices from computed fair prices to test whether the present behaviour of prices will remain stable. The study covered a period of 8 months (1999/2000).Thirty four listed companies were taken as a sample for the study. By using different statistical mathematical and financial tools including the formulation of hypothesis was done in the study. He concluded that the market price of share depends on earning per share (EPS) as well as dividend per share (DPS), direct and immediate response in the market.

Dahal (2002) conducted the research was to examine and study the price trend, with the help of NEPSE index, volume of stock traded, rate of listing of new companies on stock exchange and maintenance of them, impact of signaling factors on NEPSE index. Most of the investors were asked for their preference of investment sector and major portion of them said that they were attached with banking sectors for investment. Investment process and its other factors like NEPSE index, price trend and investments facilitators are not doing their work in

systematic way. The investors were not satisfied with their investment as they were asked whether they were satisfied or not to their investment. The investors' motive for owning shares of company is to receive the dividends from the shares. The investors were found interested to be elected in company's management. The investors in the stock market take the investment decision on the basis of market price of shares. The efficiency of stock market's different parties, brokers, market makers, security exchange limited were not found efficient by analyzing interviewer's expression as they were not getting required support from these parties.

Pradhan (2003) conducted to identify different financial tools were used in the study period of 1986 to 1990 .The sample for study was taken from 7 listed companies. The main objective of the study was the stock market behaviour in a small capital market in the context of Nepal. He concluded that the larger stocks have larger price earnings ratios, larger ratio of market value to book value of equity, lower liquidity, lower profitability and smaller dividend. Larger stocks also have higher price earnings ratios have lower liquidity, higher leverage, lower turnover, lower profitability and lower interest coverage's.

Shrestha (2003) explain that the impact on stock price by analyzing the behavior of NEPSE index and investors views regarding the decision on stock investment. Statistical tools like monthly trend analysis, bar diagrams, co-relation coefficient, regression equation, ANOVA, Run test etc were used to analyze her study. She conducted the study taking all 115 listed companies during the year 1999/2000 as a sample and only six sample companies from three sectors, two from each sector i.e. from banking, finance and insurance companies. She concluded that the value of market capitalization differs from the value of paid up capital because the value of market capitalization was related with market price of share. The value of market capitalization changes due to the changing sentiments of capital market. The investors were highly interested to such companies which had market value in

ascending way. There was a significant difference between the market prices of stock of banking, finance sector and insurance sector during her study period. However, she found that the market price movement of sample companies was random. She had suggested that the NEPSE should give more attention to those sectors which were being backward in the NEPSE by conducting research, seminar and training to the investors.

Poudel (2005) conducted study on share price behaviour of listed companies in Nepal. The study was conducted with the objectives to test the daily share price behaviour of listed companies in Nepal. The sample for the study comprised of 21 companies representing from each sector listed in Nepal stock Exchange. This, study is based on the secondary data. Different statistical tools like serial correlation and run test were used. He concluded that NEPSE index showed a steady increase in the later month on the study period, which also shows the better performance on NEPSE stock market performance is more or less in a stable position in the capital market overall in the study period. The stock market performance is steadily increasing with the increase in the number of listed companies. The badly affected sectors were hotels, trading, manufacturing & processing sectors due to different reasons. The NEPSE index of commercial banks is in increasing trend as compared to the other sectors.

Thapa (2006) conducted a study on the Behaviour of Nepal Stock Exchange Index. The main objective of the study was to analyze the trend of Annual Turnover of NEPSE, trend in market capitalization and to analyze the behaviour of NEPSE index. Different statistical tools such as percentage line charts, bar diagram and standard deviation were used. She conducted her study taking all 125 listed companies during the year 2004/05 as a population and eight different sector as sample. She concluded that capital market was a vital importance to develop the economy of the country through an efficient and effective stock market. The number of transactions, traded amount and market capitalization of the banking

and finance companies were in better position in comparison to other sectors. That is why these sectors had most attractive investment alternatives. However she had suggested investing in other sectors too depending on the investor's attitude toward the risk.

The stock market and economic activity move in similar direction. The investors are interested to invest their resources in the shares of corporate sectors. It is necessary to develop the entrepreneurship and encourage the entrepreneurs to start the productive venture as soon as possible. Government should launch programs to enhance management capability of the entrepreneurs. The secondary aspects of the stock market are not performing well in Nepal. There is almost no liquidity in the stock market for shares except that of banking and few finance and insurance companies.

2.6 Research Gap

Some studies related to the topic had been conducted as a thesis for partial fulfillment of masters level, some relevant research has been found to be conducted about listing and delisting of shares and about only single sectorial analysis as Commercial bank , A class companies shares etc are useful to this study. Overall previous studies related to position and behavior of Nepal Stock Exchange is found to be incomplete. Most of the research works were found to not addressing the role of Security Board of Nepal as a regulator of capital in Nepal and the research works is limited within single sectorial analysis. This study in true sense fills the gap of ignorance with knowledge for seekers. Hence the research covers what actually the position and behavior of NEPSE in the development of capital market by using the data collected through secondary sources from Nepal stock exchange as well as security board of Nepal and data analysis by using different statistical tools which is new to the previous research.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

The research methodology is systematic way of solving research problem. Research methodology refers to the overall research process, which a researcher conducts during their study. Research can be conducted on the basis of primary and secondary data. Here in the study all the data used for the analysis are secondary data and were analyzed with using appropriate financial and statistical tools.

3.2 Research Design

Generally research design means definite procedure and technique which gives to study and provide ways for research viability. It means an overall framework or plan for the collection and analysis of data. This research study is based on certain research designs. Selection of appropriate research design is necessary to meet the objective of the study. This study emphasizes on descriptive and analytical study of collective data over a period of time and it gives suggestion on the improvement of capital structure. So this study is based on descriptive and analytical research designs.

3.3 Description of Data & Sample

Nepal stock exchange has classified the all companies into nine sectors and these sectors are i) Commercial bank ii) Financial companies iii) Insurance companies iv) Hotel companies v) Manufacturing and processing companies vi) Trading companies vii) Development companies viii) Hydro and ix) Others. The overall

sector has been taken for the study period of FY 2007-2012 as population. Among them for Run test by simple random sampling one sample is taken from each sector. The names of the sample companies which are use for run test are as follows:

- Himalayan Bank limited: Commercial Bank
- Zenith Finance limited: Finance companies
- Sagarmatha insurance company limited: Insurance Companies
- Taragaon Regency Hotel: Hotel Companies
- Uniliver Nepal limited: Manufacturing and Processing
- Bishal Bazar co. ltd: Trading Companies
- Ace Development Bank ltd: Development Bank
- Chilime Hydro power Co. ltd: Hydro
- Nepal Doorsanchar Company limited: Others

3.4 Techniques and Sources of Data Collection

This study is mainly based on historical data. The data required for this research study are particularly collected from secondary sources. It contains mostly the annual reports, profit and loss account and balance sheet of concerned companies .The data are collected from various annual reports, trading reports, and financial statements, various articles and journals available in Central Library, library of Central Department of Management and library of the SEBON. Besides the libraries, the information available in the official website of NEPSE and SEBON are also used as the major source to collect relevant data.

3.5 Data Analysis Tools

Various statistical tools have been used to meet the objective of the research. The statistical tools used are: Arithmetic mean, measures of dispersion (standard

deviation and coefficient of variation), and Run test to meet the objective of this study.

3.5.1 Statistical Tools Analysis

Average (Mean):

A simple arithmetic average is used to summarize the data as a representation of mass data. A simple arithmetic average is a value obtained by dividing the sum of the values by their number. Thus, the average is expressed as:

$$\bar{X} = \frac{\sum X}{N}$$

Where,

\bar{x} = Simple arithmetic mean

X = Individual value

Σ = Symbol for summation

N = Total no of observation

Standard Deviation

Standard deviation is a widely used measure of the variability or dispersion, being algebraically more tractable though practically less robust than the expected deviation or average absolute deviation. It may be thought of as the average difference of the scores from the mean of distribution, how far they are away from the mean. A low standard deviation indicates that the data points tend to be very close to the mean, whereas high standard deviation indicates that the data are spread out over a large range of values. On the other hand if values are at a considerable distance from the center of mean, the variability is said to be small. Standard deviation measures such variability and it can be computed by

using following formula:

$$\sigma = \left[\frac{\sum_{t=1}^T (r_{i,t} - \bar{r}_i)}{T-1} \right]^{1/2}$$

Where,

$r_{i,t}$ = Rate of return of asset i in period t,

\bar{r}_i = Average rate of return of asset I,

σ = Standard deviation.

Coefficient of Variation (CV)

The CV is relative measure of dispersion. It is expressed as a percentage and is useful in comparing the variability of two or more set of data. Since it is a ratio, the units of measurement have no significance. The co-efficient of variation is given by:

$$CV_i = \frac{\sigma_i}{R_i} \times 100$$

Where,

σ_i = Standard deviation of asset i

R_i = Average expected return of assets i

CV_i = Coefficient of variation of asset i

It is percentage of variation mean, standard deviation being considered as the total variation in average. Smaller CV represents more homogeneous or uniformly of the data about the average line. While greater CV has been employed to compute and analyze the volatility of the data over the study period.

3.5.2 Run test

Theory of run allows us to test samples for their randomness. A run is defined as a succession of identical symbols which are followed or preceded by different symbols or no symbol at all. The number of like events is the length of the run. Non-randomness can occur either with too many or too few runs. The total number of runs in a sample gives an indication of whether the sample is random or not. If there are few runs, a time trend or grouping of like events due to lack of independence could be occurring. Many runs might indicate some systematic short period cyclical fluctuations.

We use this statistical theory to test the movement of daily market price per share for their randomness. If positive and negative MPS are distributed as follows the sequence will contain four runs.

$$\frac{+}{1^{\text{st}}} \quad \frac{-}{2^{\text{nd}}} \quad \frac{++++}{3^{\text{rd}}} \quad \frac{--}{4^{\text{th}}}$$

Similarly, this sequence contains six runs.

$$\frac{+++}{1^{\text{st}}} \quad \frac{--}{2^{\text{nd}}} \quad \frac{+}{3^{\text{rd}}} \quad \frac{----}{4^{\text{th}}} \quad \frac{++++}{5^{\text{th}}} \quad \frac{-}{6^{\text{th}}}$$

The followings are the most popularly used symbols for a run test.

N_1 = number of occurrences of type 1.

N_2 = number of occurrences of type 2.

R = number of runs

At last, SPSS application software has been used to work out Mean, SD, CV and Run test. At the same time, Microsoft Excel application software has been used to draw the charts.

CHAPTER – IV

DATA PRESENTATION AND ANALYSIS

This chapter deals with the graphical presentation and analysis of the collected data on the basis of major objectives of the study so it is an important part of the study. In this chapter the first part deals with the sector wise listed companies, annual turnover, market capitalization, traded share quantity, number of transaction and the remaining part deals with behavior of NEPSE index of these sectors listed in NEPSE and the findings of the study.

4.1 Sector-Wise Listed Companies

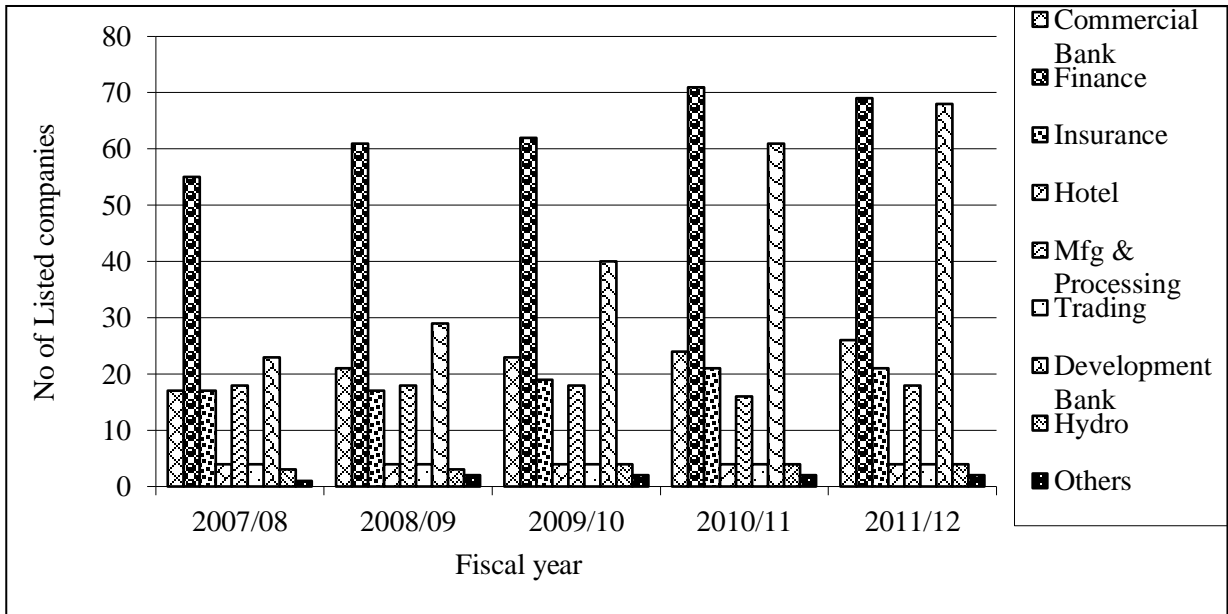
Trading on the floor of the NEPSE is restricted to listed corporate securities and government bonds. Companies established under company act 1964, must be listed in Stock Exchange Ltd. Number of listed companies was 62 in the initial month of floor trading on NEPSE. Then this number increased by listing of additional companies. The number of listed companies is in increasing trend. The number of listed companies in finance group has increased at higher rate, than that of other sectors. The higher number of listed companies in finance group implies the well management, facilities provided to investors, effective securities to the investors.

Table 4.1: Distribution of Listed Companies

Sector	2007/08	2008/09	2009/10	2010/11	2011/12
Commercial Bank	17	21	23	24	26
Finance	55	61	62	71	69
Insurance	17	17	19	21	21
Hotel	4	4	4	4	4
Mfg & Processing	18	18	18	16	18
Trading	4	4	4	4	4
Development Bank	23	29	40	61	68
Hydro	3	3	4	4	4
Others	1	2	2	2	2
Total	142	159	176	207	216

Source: Nepal Stock Exchange Ltd.

Figure 4.1: Distribution of Listed Companies



The total number of listed companies was 142 in the initial year of the study period. In 2008/09 the number of listed companies reached to 159, and then again continued to increase in each year. The trend of group wise listing companies is increasing. At the end of study period, 216 companies were listed in NEPSE. The number of listed companies in Finance, Commercial Bank, Development Bank and Insurance group has increased at higher rate than that of Hotel, Hydro, Manufacturing and processing, and Other groups. Finance group have been

dominating other listed companies in terms of total number of listed companies. At the end of the observed period, the total number of listed companies was 69 in Finance companies where as it is a few in Hotel group. The year wise total number of companies explicitly shows the increasing trend i.e. 142 companies in 2007/08, 159 companies in 2008/09, 176 companies in 2009/10, 207 companies in 2010/11 and 216 companies in 2011/12. However, the aggregate numbers of companies listed in NEPSE are in increasing trend that represents the significant expansion of capital market in Nepal.

4.2 Annual Turnover

The most successful year on the history of Nepal Stock Exchange was 2007/08. On that year NEPSE recorded a highest annual turnover of Rs 21986.43 million. This trend did not appear in the succeeding year due to various factors and started to fall gradually and reached to Rs 9344.70 at the end of 5 year study period.

Table 4.2: Annual Turnover (In Millions Rs)

Year	2007/08		2008/09		2009/10		2010/11		2011/12		Mean
	Value	%	Value	%	Value	%	Value	%	Value	%	
Com. Bank	13822.2	62.87	12406.5	63.83	7196.25	61.18	3431.82	54.82	5615.38	60.09	8494.43
Finance	2307.53	10.5	2615.4	13.45	1263.94	10.74	630.7	10.07	279.86	2.99	1419.49
Insurance	264.84	1.2	212.8	1.1	183.46	1.56	377.15	6.02	334.28	3.58	274.51
Hotel	27.67	0.13	18.69	0.1	752.45	6.4	151.52	2.42	185.43	1.98	227.15
Mfg. & Pro	343.44	1.56	26.08	0.13	37.74	0.32	363.06	5.8	811.25	8.68	316.31
Trading	33.65	0.15	33.49	0.17	35.43	0.3	27.53	0.44	22.91	0.25	30.64
Dev. Bank	1981.05	9.01	2740.36	14.1	1323.54	11.25	813.25	12.99	647.40	6.93	1501.12
Hydro	3199.94	14.55	890.3	4.58	752.45	6.4	343	5.48	1243.38	13.31	1285.81
Others	6.09	0.028	493.64	2.54	217.83	1.85	122.51	1.96	204.81	2.19	208.98
Total	21986.4		19437.2		11763.1		6260.53		9344.70		13758.4

Source: Nepal Stock Exchange Ltd.

Figure 4.2 Annual Turnover

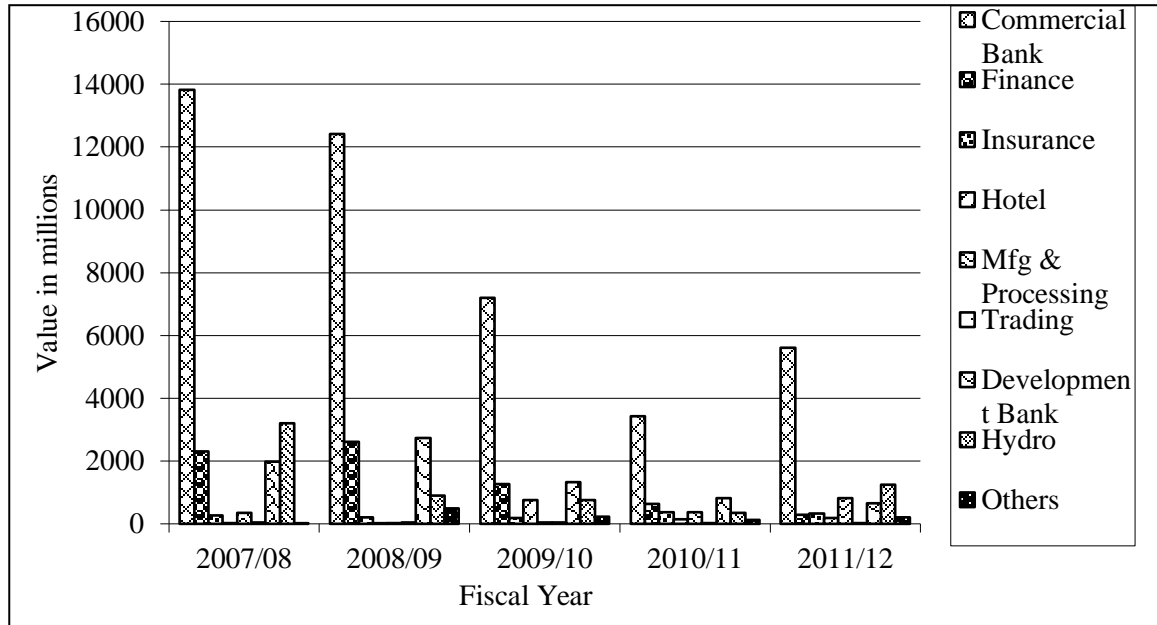


Table and figure 4.2 explains about the annual turnover volume of NEPSE over the five year study period till 2011/2012. From the figure we can conclude that there is fluctuating movement in the turnover. Initially annual turnover was in highest value Rs 21986.4 million in 2007/08. In addition there was 62.87% contribution of Commercial bank on total turnover on that year. Similarly, Hydro 14.55%, Finance 10.5%, Development bank 9.01%, Mfg & Processing 1.56%, Insurance 1.20%, Trading 0.15% and others have 0.028% contribution on total volume. But in 2008/09 there was decrease in turnover volume of Rs 19437.2 million. The overall trend of contribution of individual sector on total turnover volume was almost constant every year during the study period but in the year 2010/11 there was least contribution of all sectors beside Finance, Insurance, Development bank and Other sectors so that the annual turnover reached at minimum level among the five year. Similarly, in 2011/12, last study period, there was incremental increase in turnover volume of Rs 9344.70 million.

4.3 Market Capitalization

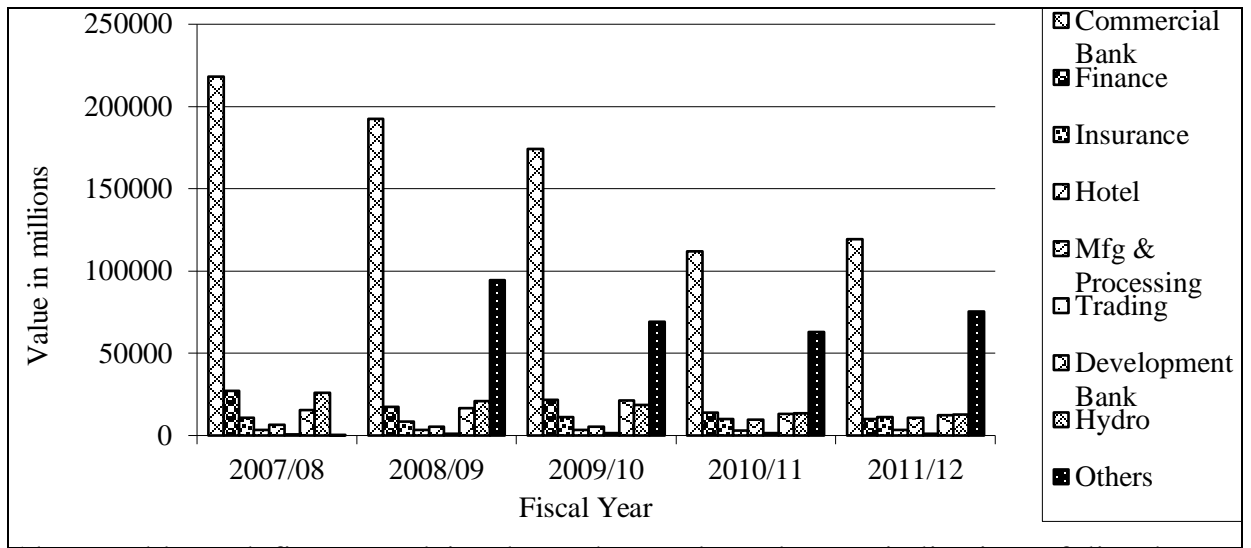
Market capitalization measures of a company's total market value. It can be estimated by determining the cost of purchasing an entire business in its current state. Market capitalization is obtained by multiplying the number of shares outstanding by the current market price per share. It is considered as an important secondary market indicator as it is compared with the indicators of the economy. Market capitalization of the listed companies at secondary market is increased continuously at the beginning of the two years and starts to fall gradually in the remaining two years of the study period and increase at last year of study period. The increased market value suggests the better performance of the company and the rational investors are highly interested to invest in such companies. Total market capitalization of listed companies between 2007/08 to 2011/12 is given below.

Table 4.3: Market Capitalization (In Millions Rs)

Year	2007/08		2008/09		2009/10		2010/11		2011/12		Mean
	Value	%	Value	%	Value	%	Value	%	Value	%	
Com. Banks	218264	70.7	192611.2	53.5	174097.5	53.2	111938.1	46.8	119433.29	46.58	163268.8
Finance	27113.6	8.79	17342.23	4.82	21834.13	6.68	13756.06	5.75	10117.97	3.95	18032.8
Insurance	10897.2	3.53	8640.23	2.4	11285.39	3.45	9937.18	4.15	11254.32	4.39	10402.86
Hotel	3484.13	1.13	3346.41	0.93	3521.89	1.08	3040.64	1.27	3213.71	1.25	3321.36
Mfg & Trading	6576.18	2.13	5424.58	1.51	5491.21	1.68	9577.84	4	10767.20	4.20	7567.40
Dev Bank	686.73	0.22	980.7	0.27	1599.41	0.49	1380.74	0.58	1072.04	0.42	1143.92
Hydro	15619.4	5.04	16648.4	4.62	21458.39	6.56	13210.54	5.52	12304.82	4.80	15848.31
Others	25863.3	8.38	20769.65	5.77	18729.38	5.73	13550.98	5.66	12765.65	4.98	18335.79
Total	18.67	0.03	94350	26.2	69000	21.1	62850	26.3	75450	29.43	60333.73
	308523		360113.4		327017.3		239242		256379		298255

Source: Nepal Stock Exchange Ltd

Fig. 4.3: Market Capitalization



Above table and figure explain about the total market capitalization of listed companies during the last five year. Initially it was observed that there was increasing trend in the market capitalization and in 2007/08 total market capitalization reached to maximum volume of Rs 360113.4 million and after the year it started to fall gradually and reached to Rs 239242 million in 2010/11 and increase again Rs. 256379 in 2011/12. Similarly, it was seen that the Commercial bank sector have highest stake in the total market capitalization as well. Proportion of this sector in total capitalization is 70.74% in 2007/08, 53.49% in 2008/09, 53.24% in 2009/10, 46.79% in 2010/11 and 46.58% in 2011/12. So the Commercial bank group commands a lion's share in total trading on NEPSE. On the other hand Trading sector has least contribution i.e. less than 1% each year on total capitalization. The proportion of market capitalization of Hotel and Trading as well as Development bank is also lower but Insurance, Finance, Manufacturing and Processing and Other sectors are also attractive to encourage the investor to invest in these sectors as shown in the figure above.

4.4 Traded Share Quantity

Traded shares quantity refers to the total number shares purchased and sold in the whole transaction during a year. Total number of traded share increases with the

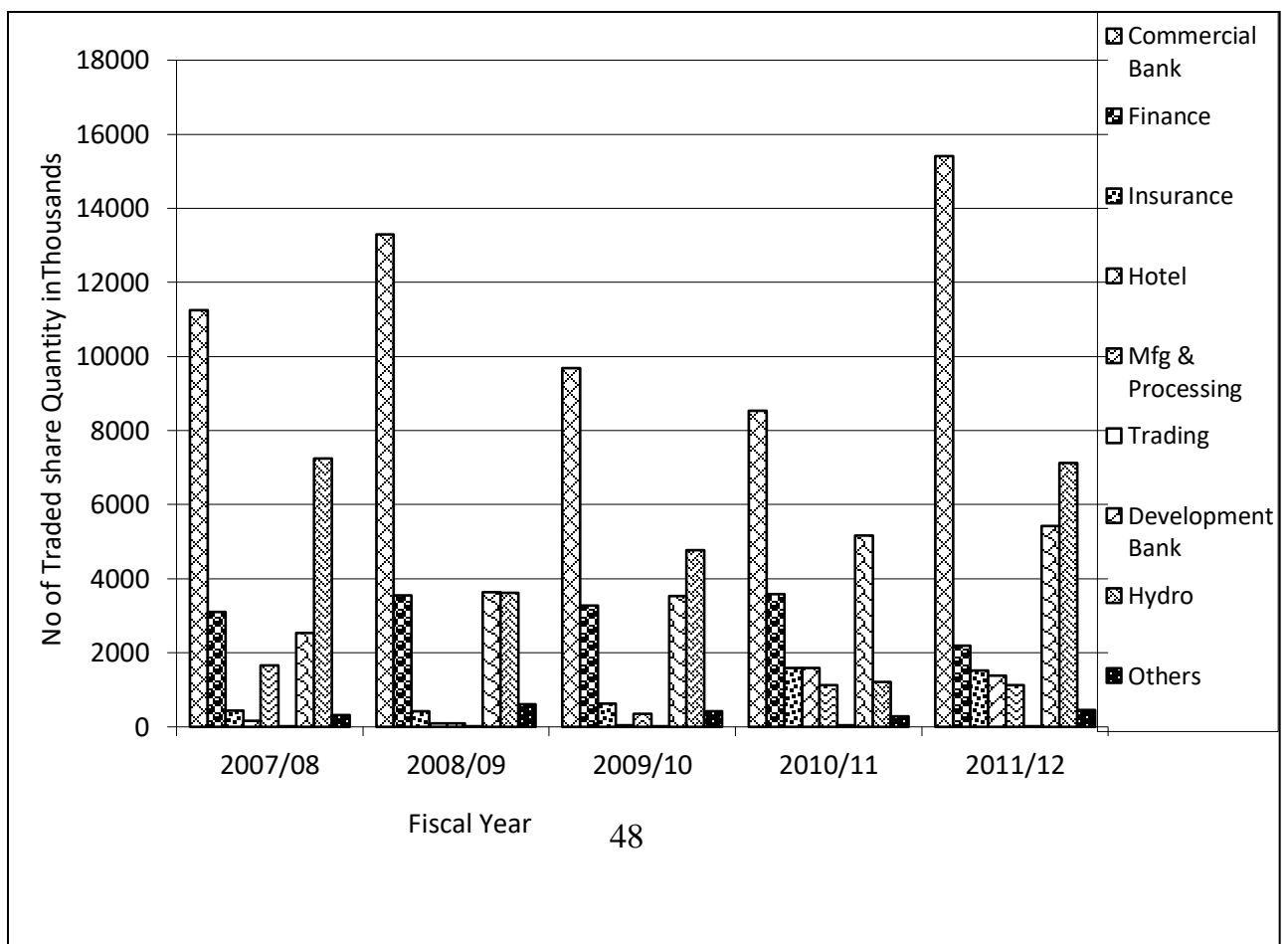
increasing number of companies and transaction. During the study period it seems that there is fluctuating movement of traded share quantity as presented below.

Table 4.4: Traded Share Quantity (In “000”)

Year	2007/08		2008/09		2009/10		2010/11		2011/12		Mean
Sector	Value	%	Value	%	Value	%	Value	%	Value	%	
Com. Banks	11241.4	42.1	13301.4	52.5	9680.63	42.6	8534.28	36.9	15415.74	44.47	11634.69
Finance	3094.3	11.6	3552	14	3265.97	14.4	3591.19	15.5	2196.91	6.34	3140.07
Insurance	433.27	1.62	418.51	1.7	629.9	2.8	1590.59	6.88	1521.56	4.39	918.77
Hotel	158.07	0.59	95.89	0.4	50.28	0.22	1584.59	6.85	1387.77	4	655.32
Mfg & Pro	1655.09	6.2	95.12	0.38	360.68	1.59	1128.52	4.88	1132.46	3.27	874.37
Trading	14.97	0.06	14.66	0.06	12.01	0.05	37.77	0.16	9.82	0.03	17.85
Dev Bank	2534.9	9.49	3631.82	14.3	3535.1	15.5	5158.69	22.3	5419.47	15.63	4055.99
Hydro	7251.22	27.1	3612.12	14.2	4776.7	21	1210.69	5.24	7127.66	20.56	4795.68
Others	326.8	1.22	611.08	2.41	423.12	1.86	281.13	1.22	455.92	1.32	419.61
Total	26710		25332.2		22734.4		23117.5		34667.31		26512.35

Source: Nepal Stock Exchange Ltd

Figure 4.4: Traded Share Quantity (In Thousands)



Above table and figure show the total number of share traded on NEPSE floor during the five years study period. Initially traded share quantity of listed companies was 26710 thousands and then after a year the quantity decreased to 25332.2 thousands. After 2008/09 there was slight fall in the number of share traded and reached to 22734.4 thousands in 2009/10. That was the minimum level of no of share traded during the five year period. However in 2010/11 and 2011/12 the quantity increased to 23117.5 and 34667.31 thousands that indicate the fluctuating dynamics of traded share quantity during the five year study period as shown in the figure above. The maximum number of share traded on NEPSE floor was 34667.31 thousand in 2011/12, during that year there was 44.47% of Commercial banks share were traded which indicates that the Commercial bank have been dominating the trading floor since it captured the largest chunk of the total share trading. Hydro sector is the second largest sector as it occupied 20.56% of total trading. Similarly Development bank, finance, Insurance, Hotel, and Manufacturing and processing are also the major sectors that have played significant role to meet that largest volume during the year. The average value of traded shares quantity for Commercial bank sector is 11634.69 which are highest among all other sector during the study period. On the other hand the average value of traded shares quantity of trading sector is only 17.85 and this is the lowest value when compare to others.

4.5 Number of Transactions

There are fixed trading days and hours that the NEPSE allows to enter its members and brokers on the trading floor to make the transactions. NEPSE has fixed the board lot of 10 shares if the face value is Rs. 100 or the face value is Rs. 10. The transactions on regular trading should be done one board lot. The transactions of less than 10 shares are permitted only on odd lot trading hours. Thus, these shares

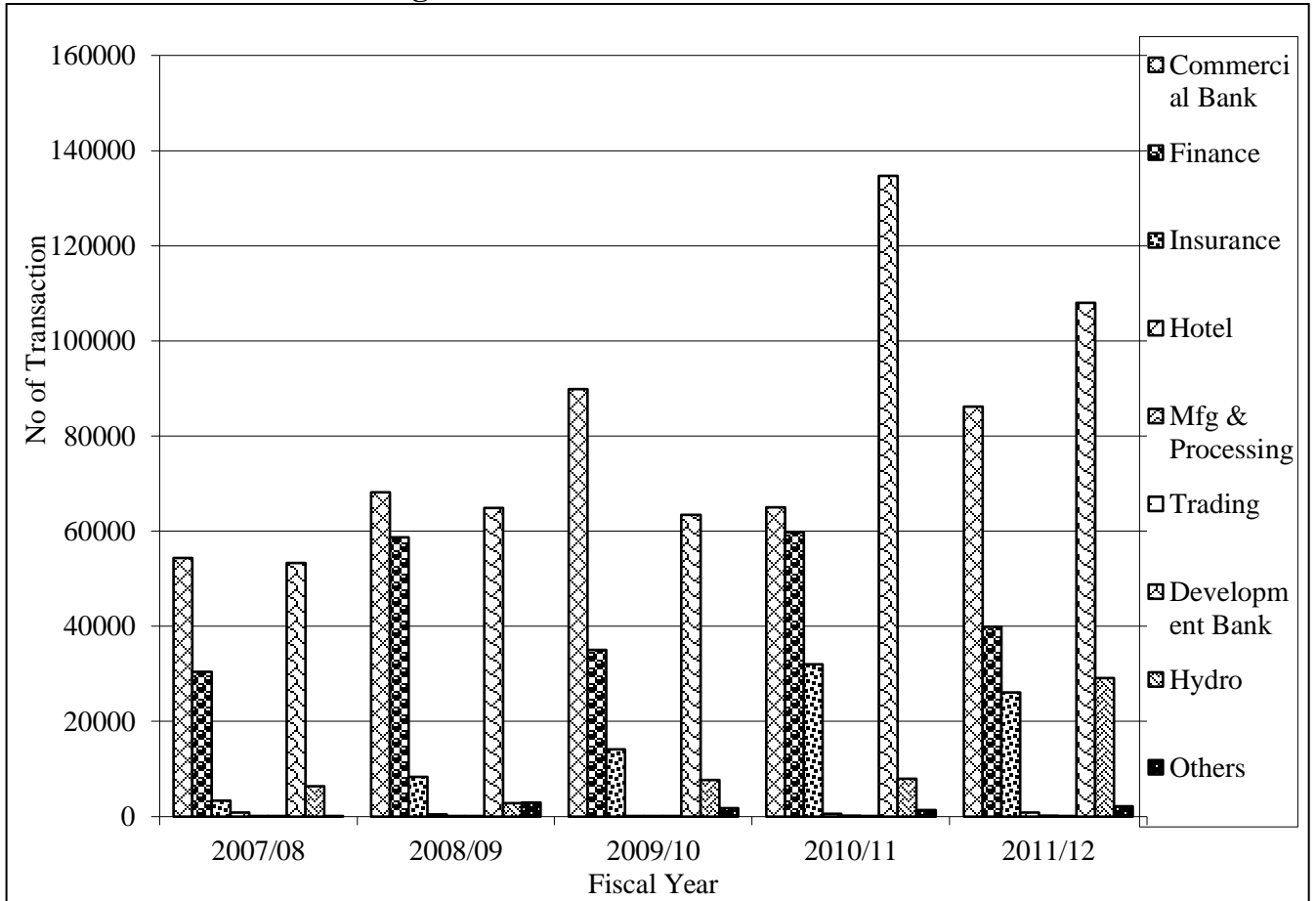
transactions occurred during a certain period only. The trend of number of transaction occurred during the five year study periods and their average are described below.

Table 4.5: Number of Transactions

Year	2007/08		2008/09		2009/10		2010/11		2011/12		Mean
Sector	Value	%	Value	%	Value	%	Value	%	Value	%	
Com. Bank	54314	36.5	68171	33	89826	42	65031	21.6	86188	29.45	72706
Finance	30462	20.4	58742	28.4	35100	16.4	59756	19.8	39953	13.65	44802.6
Insurance	3332	2.24	8337	4.04	14090	6.59	31982	10.6	26035	8.91	16755.2
Hotel	911	0.61	505	0.24	113	0.05	534	0.18	853	0.29	583.2
Mfg & Pro	96	0.06	75	0.04	49	0.02	163	0.05	212	0.07	119
Trading	108	0.07	83	0.04	77	0.04	64	0.02	50	0.02	76.4
Dev. Bank	53317	35.8	64831	31.4	63394	29.6	134689	44.7	108040	36.92	84854.2
Hydro	6436	4.3	2811	1.36	7748	3.62	7944	2.63	29135	9.96	10814.8
Others	32	0.02	3027	1.47	1718	0.8	1342	0.45	2147	0.73	1653.2
Total	149008		206582		213833		301505		292613		232364.6

Source: Nepal Stock Exchange Ltd.

Figure 4.5: Number of Transactions



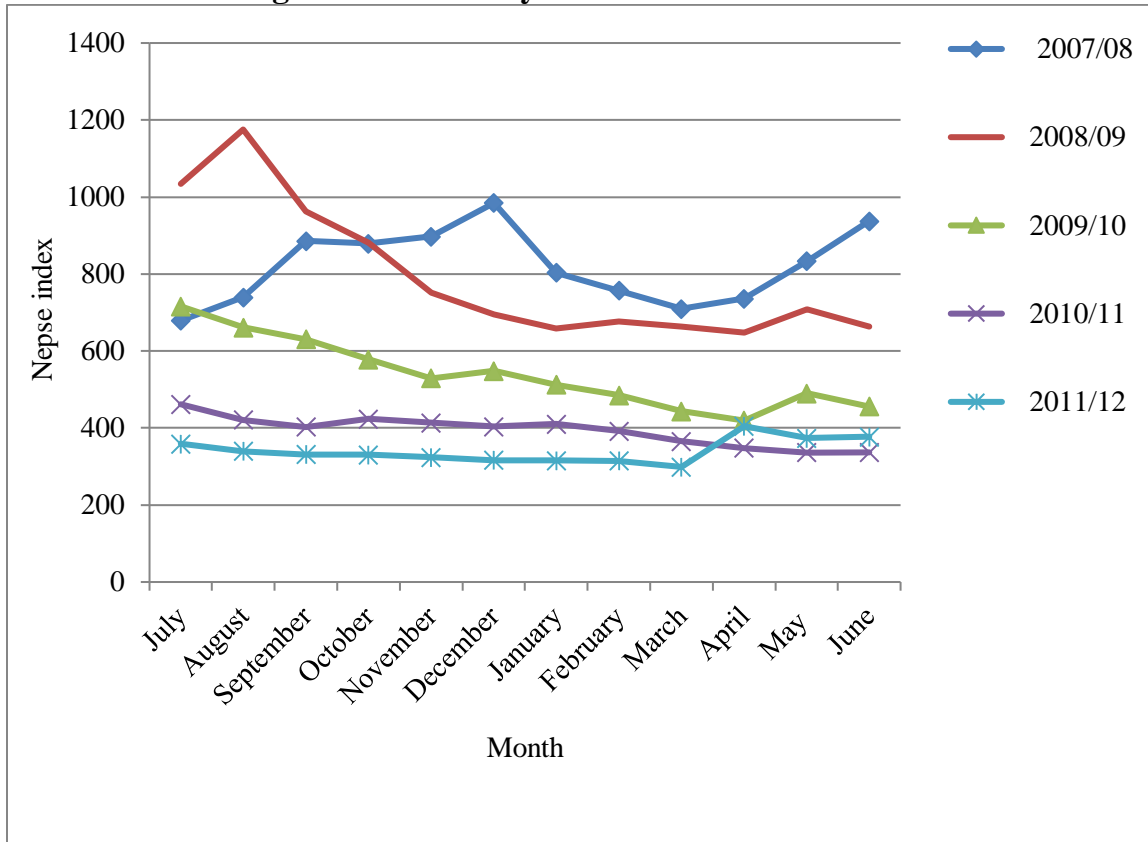
The above table and figure show the sector wise total number of transaction during the trading hour on the NEPSE floor from 2007/08 to 2011/12. The number of transaction are increasing each year that, initially there are 149008 number of transaction which increased to 301505 at the 2010/11 and at last year the number of transaction decrease to 292613. The Commercial bank sector has highest value of 89826 in terms of number of transaction in 2009/10. Similarly Finance, Insurance, Mfg & Pro, Development bank and Hydro sectors have highest value of 59756, 31982, 212, 134689 & 29135 in terms of number of transaction in 2011/12. On the other hand, Hotel sector has highest number of transaction of 911 in 2007/08. In contrast other sectors have decreasing trend of number of transaction that the total number of transaction is 32 in 2007/08 and has increase to 2147 in

2011/12 but its maximum value is 3027 in 2008/09. The Trading sector has lowest number of transaction that took place on NEPSE floor. From the figure it can also be concluded that Commercial bank, Development bank, Finance and Insurance sectors are highly attractive sectors because they have largest number of transactions when compared with other sectors.

4.6 Behavior of NEPSE Index

Index is a device designed to measure the change in a group of related variable over a period of time. Indexes are used to determine the relationship between historical price and movements and economic variables and to determine the systematic risk for individual securities and portfolios. The NEPSE index is based on value weighted method and index value depends upon the market value of the stocks with circuit breaker system applies at 3 stages of the NEPSE index movement of 3%, 4% and 5%. These circuit breakers when triggered bring about a trading halt in all securities trading there. In case of 3% movement either way, there would be a market halt for 15 minutes only. In case of 4% movement either way, there would be a market halt for half an hour but in case of 5% index movement in either way, trading shall be halted for the remainder of the day

Figure 4.6: Monthly Movement of NEPSE Index



The figure 4.6 has been drawn based of the appendix no.8 show the behavior of NEPSE index in each month over five year period. During the period NEPSE index hit the peak in August at 1175.38 points in the year 2008/09. In the beginning NEPSE was at 678.97 points in 2007/08 and after a year there was significant rise in the index by increase in the trading due to high demand and reached to 1034.02 points in July 2008/9. This trend was continued to decrease by the year 2009/10 and reached to 358.81 points in July 2011/12 so the most remarkable year for index in the history was 2008/09 as 1175.38 in August. After that in 2009/10 NEPSE index started to fall gradually and reached to the point 716.01 and again the trend was continued till March 2011/12 by reaching the minimum point of 298.90 over the five years of the study period.

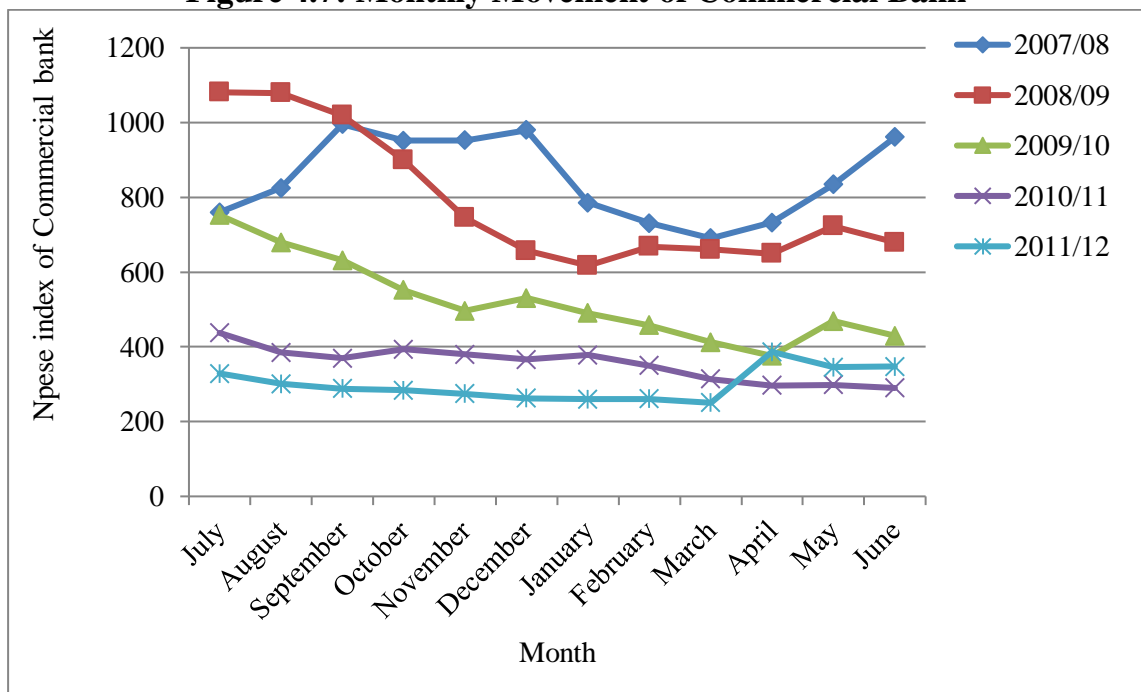
From the chart it has also been seen that this trend of decreasing will continue in upcoming years and no any sign of improvement in NEPSE index. As we know

that the NEPSE index reflects the aggregate price volatility of the shares of the listed companies. Hence higher the price volatility higher will be the risk and vice versa. The mean value of NEPSE index from 2007/08 to 2011/12 is 820.14, 793.23, 539.05, 393.03 and 340.51 respectively. The standard deviation of the NEPSE index is 93.37 in 2007/08, 169.69 in 2008/09, 87.93 in 2009/10 and 37.18 in 2010/11 and 30.22 in 2011/12. In conclusion the calculated standard deviation is least in the year 2011/12, so this year was less risky than others.

4.6.1 NEPSE Index of Commercial Bank

As we know that Commercial bank group is the largest group at the NEPSE floor and this group hold large portion on the total market. This sector has dominated all other sectors for having highest stake in terms of annual turnover, market capitalization, number of transaction and traded share quantity over five years. So the behavior of index of this group acts almost same as an aggregate market index as it holds nearly 50% of the total market. The overall behavior of NEPSE index of commercial bank during the five year period is shown below.

Figure 4.7: Monthly Movement of Commercial Bank



The figure has been drawn based on the appendix no. 8.1 the above chart 4.7 shows the behavior of NEPSE index of commercial bank was under each month during 2007/08 to 2011/12. Initially the index at 759.67 point and started to fluctuate in each month and reached to 960.78 in the month of June at the end of 2007/08. The value of NEPSE index for commercial bank was 1081.05 in the beginning of the fiscal year 2008/09 and then the value started to decrease in each month and reached to 679.64 point at the end. The maximum value of index was 1081.05 point as on July 2008/09. The decreasing trend continued in the year 2009/10 as well. Initially, the index was at 752.33 point and fell to 429.25 at the end as on July 2009/10. This falling trend was continued again in 2010/11 and NEPSE index for commercial bank reached to its minimum point of 289.94 at the end. The value of NEPSE index for commercial bank was 327.98 in the beginning of the fiscal year 2011/12 and then the value started to decrease and slight increase in some month and reached to 347.11 point at the end.

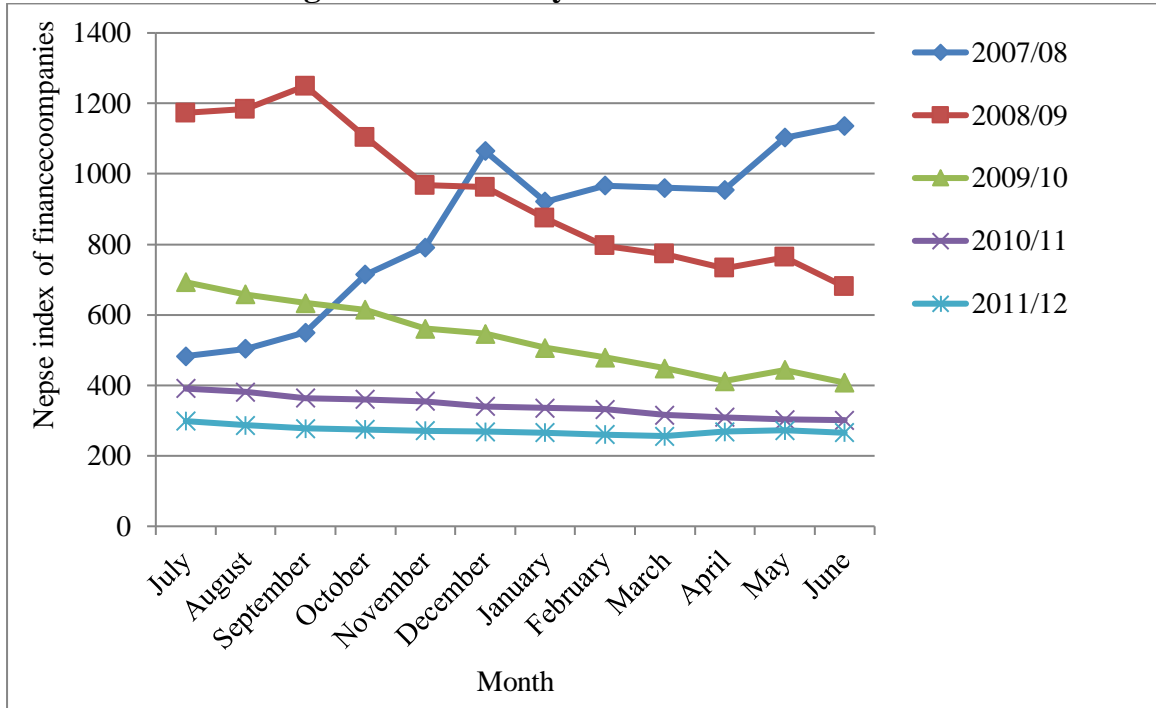
The figure also indicates that there was fluctuating trend in the index till 2008/09 after that time there was the appearance of decreasing trend till the end of the study period. The standard deviation for the index is 107.11 in 2007/08, 170.85 in 2008/09, 108.58 in 2009/10 and 43.93 in 2010/11 and 41.52 in year 2011/12. The more risky year was 2008/09 and less risky year was 2011/12 due to highest and lowest value of standard deviation but the investor investment decision mainly depends on the investor's attitude towards the risk.

4.6.2 NEPSE Index of Finance Companies

According to the Nepal Stock Exchange Ltd Finance sector is the third largest sector on the basis of total market capitalization and first among all sectors as number of listed companies. This sector is in increasing process due to highly attractive investment alternative to the investor due to high demand on the stock

market. The overall monthly behavior of Finance sector companies stock are described in the table and trend line chart below.

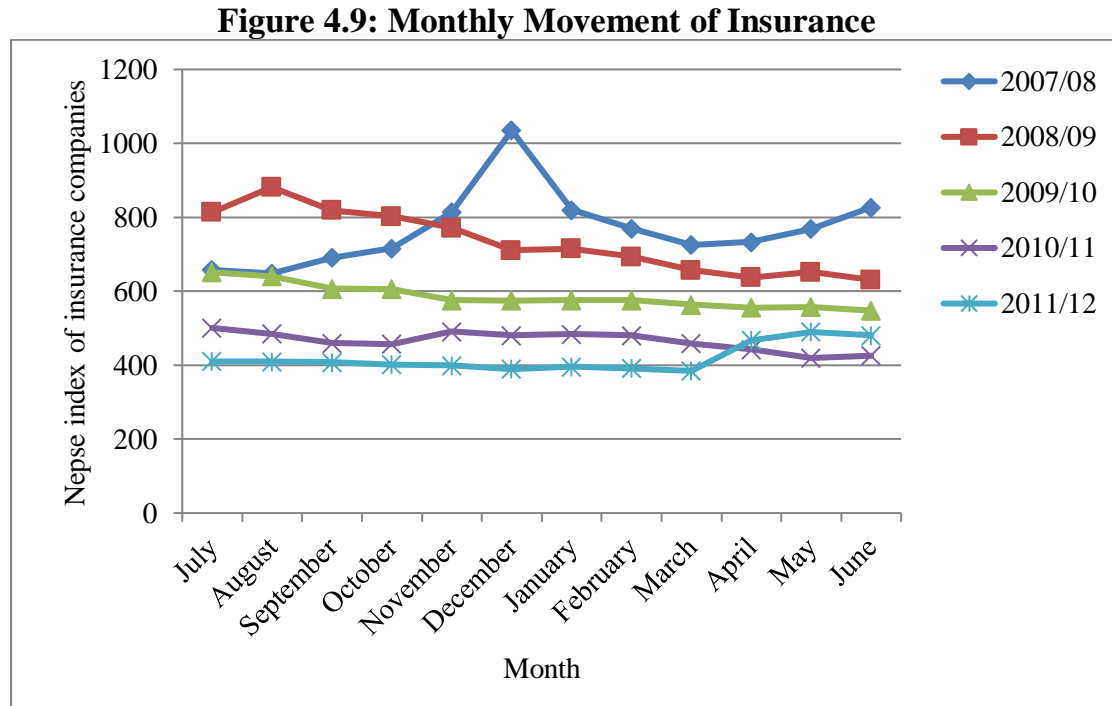
Figure 4.8: Monthly Movement of Finance



The figure has been drawn based on the appendix no. 8.2 the above figure explains about the monthly index of Finance companies during 2007/07 to 2011/12. Initially the index was at 483.01 on July 2007/08, then after a year there was an increase in the index value and reached to 1173.09 point. The NEPSE index for Finance companies went to maximum at point 1249.66 on September 2008/09, during that year the overall market index is also operated in bullish trend. From September there was the start of bearish trend and index started to fall gradually and reached to the minimum point at 256.10 on March 2011/12. From the chart it's been seen that the bearish trend will last longer in upcoming years in comparison to the previous years. The lowest value of standard deviation is 10.99 in 2011/12. So the less risky year for finance companies stock was 2011/12.

4.6.3 NEPSE Index of Insurance Companies

The Insurance sector is also a major sector to contribute in the economic development of Nepal. According to the report provided by NEPSE, there are altogether 21 Insurance companies stocks listed for trading on NEPSE. The figure has been drawn based on the appendix 8.3.



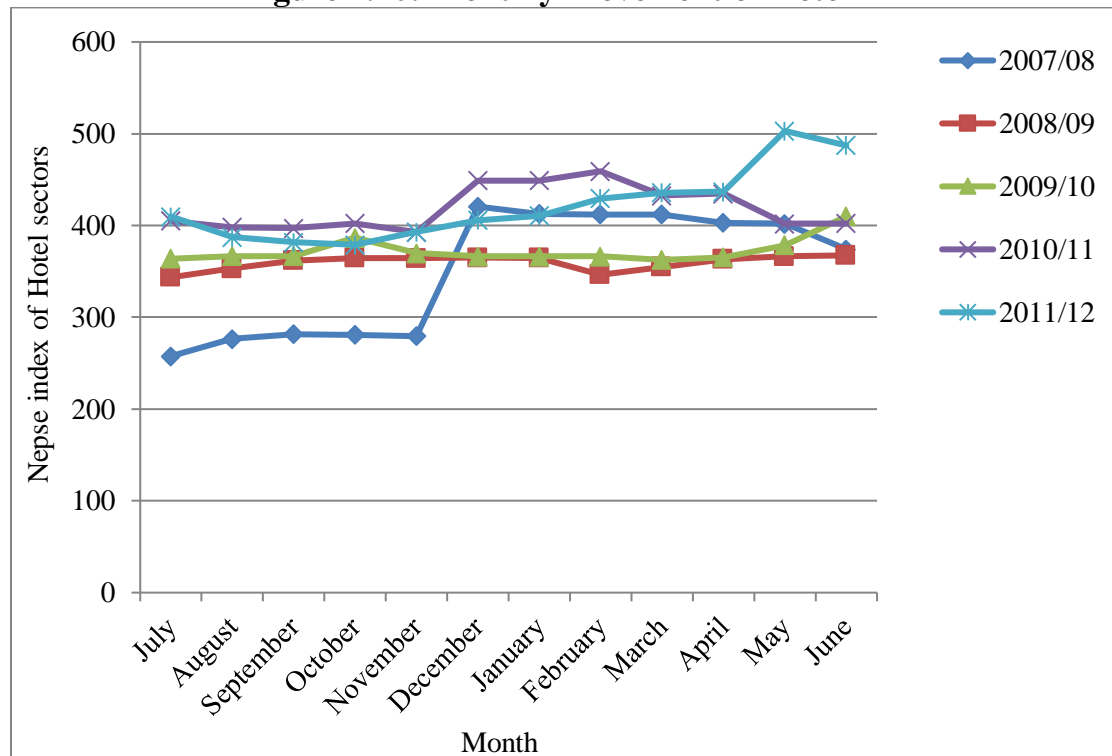
The figure has been drawn based on the appendix no. 8.3 the above figure explains that the highest index value of Insurance companies stock is 1035.06 point on December 2007/08. It was observed that there is fluctuation in the index value of the insurance company exactly same as overall index. Increasing and decreasing trend appeared simultaneously as compared to overall index. On March 2011/12 the index value reached to the minimum point of 384.55 and after a month there was a slight improvement in the index and reached to 467.55 points. The mean value and the standard deviation of index are 767.26 & 99.09 in 2007/08, 732.01 & 79.86 in 2008/09, 586.07 & 465.61 & 31.88 in 2009/10, 24.85 in 2010/11 and

419.11 & 35.91. The most risky year for Insurance companies stock was 2007/08 due to the highest value of standard deviation.

4.6.4 NEPSE index of Hotel Sectors

As we know that Hotel sector has least contribution in the capital market due to least amount of stocks that have been listed in the NEPSE for trading. Due to this reason it was observed that Hotel sector has least price index due to least demand and least number of traded shares as described in the chart below.

Figure 4.10: Monthly Movement of Hotel



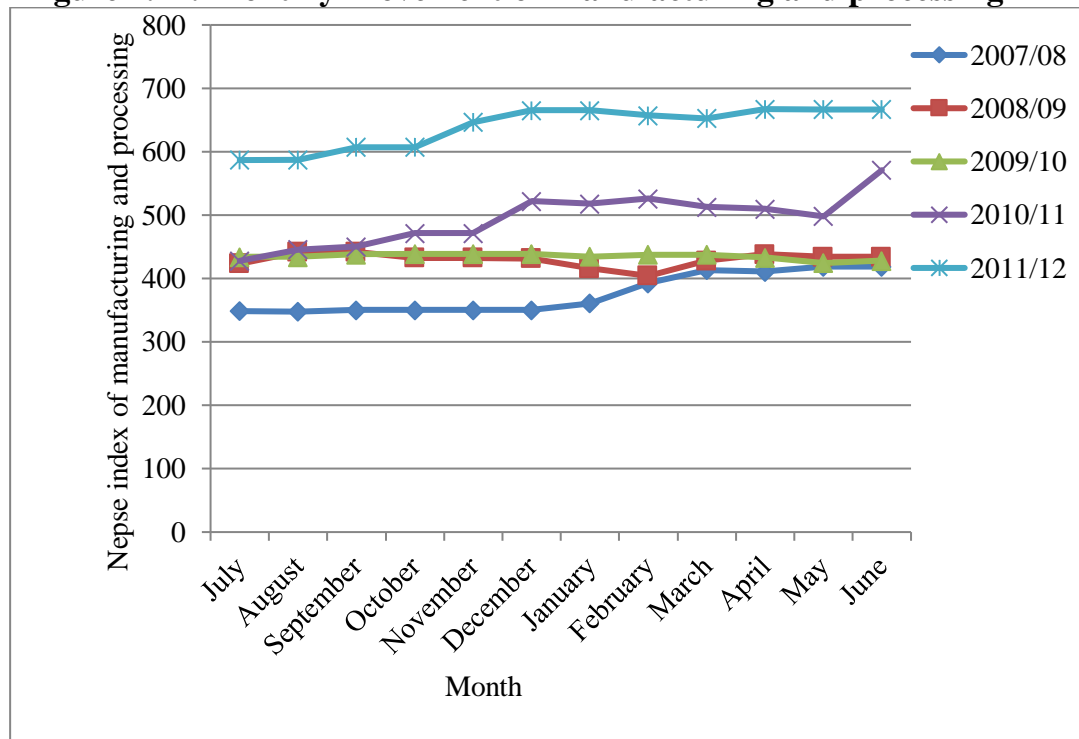
The figure has been drawn based on the appendix no. 8.4 the above chart it was observed that there is less volatility in NEPSE index for Hotel sector as compared to other sector. Initially the NEPSE index was at 257.64 points on July 2007/08. From July the index started to increase and reached to the maximum point of 420.59 as on December 2007/08. After that time index started to fall gradually till it reached to the point 343.57 at the beginning of the fiscal year 2008/09. It was

also seen that there was slight increase and decrease trend repeating again and again even within a single fiscal year. Finally the NEPSE index reached to the point 487.40 at the ending of the fiscal year 2011/12 and increasing trend will continue in upcoming years as well. The standard deviation for the index of Hotel sector is 65.172 in 2007/08, 7.73 in 2008/09, 13.03 in 2009/10, and 23.24 in 2010/11 and 38.06 in 2011/12. The less risky year for the investor was 2008/09 because of the lowest standard deviation of 7.73.

4.6.5 NEPSE Index of Manufacturing and Processing

NEPSE index for manufacturing and processing sector was the best as compared to other sector for the study period because of the consistency in the NEPSE index over five years. The range of index is limited between 300 to 700 points during that period as shown below.

Figure 4.11: Monthly Movement of Manufacturing and processing

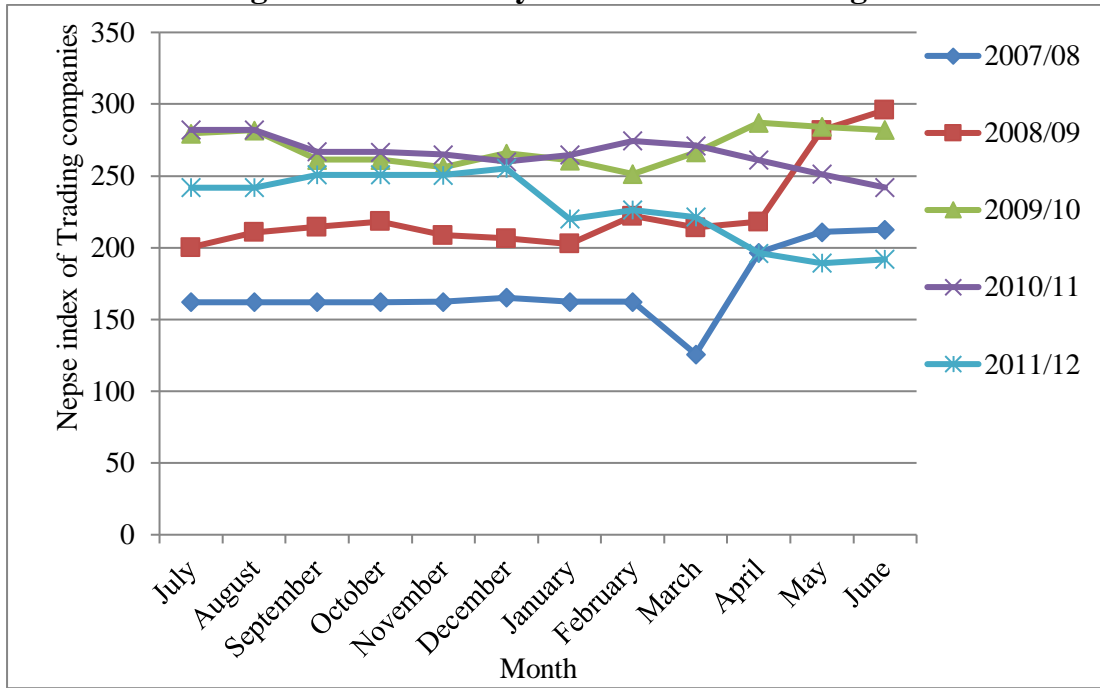


The figure has been drawn based on the appendix no. 8.5 and figure 4.11 shows that overall index over the five years period for the manufacturing and processing sector is less volatile than other sectors. In 2007/08 the highest index point was 418.82 at the end and the lowest index point was 347.74 on August. It was observed that there is continuous increase in the index each month over 1 and half year till it reached to the highest point on September 2008/09. At the end of the period NEPSE was at 666.76 point and the increasing symptoms have been observed from the trend line also. The standard deviations of index for manufacturing and processing sectors are 30.29 in 2007/08, 10.47 in 2008/09, 4.43 in 2009/10, 39.32 in 2010/11 and 31.14 in 2011/12. Risk for the manufacturing sector is least as compare to other, which indicates the good signal for the investor. The risky year was 2009/10.

4.6.6 NEPSE Index of Trading Companies

NEPSE index of trading companies share price is limited between the ranges of 100 to 300 points because few companies shares are listed and had least number of transactions occurred on the NEPSE floor. The overall behaviors of the index are presented in figure below.

Figure 4.12: Monthly Movement of Trading



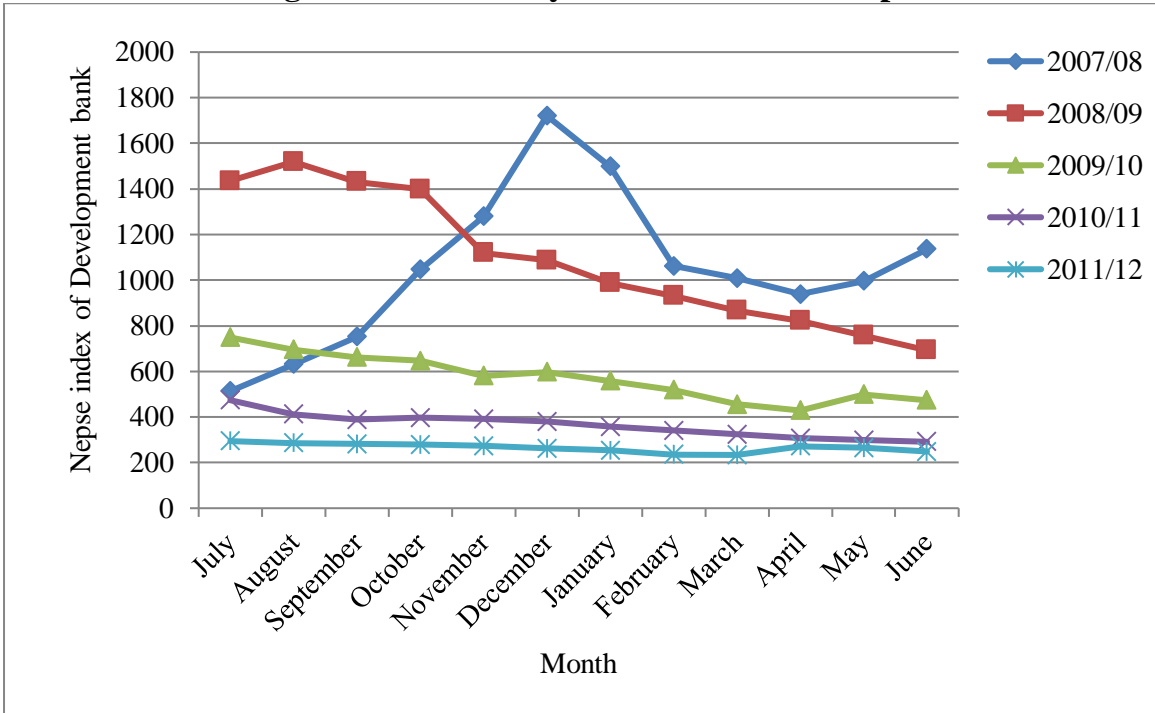
The figure has been drawn based on the appendix no. 8.6 the above figure shows that on June 2008/09 the index hit the peak points as 295.83 and till that period the NEPSE index was in increasing trend from the beginning of the study period. From the beginning of the fiscal year 2009/10 there was slight fluctuation in the index that it went to 282.08 points at the end. In the year of 2010/11 the index started with 282.08 points on July and ended with 241.97 points on June. In the end year 2011/12 the index started with 241.97 points on July and ended with 191.97 point on June. The standard deviations are 23.43 in 2007/08, 29.57 in 2008/09, 11.84 in 2009/10, 11.08 in 2010/11 and 23.45 in 2011/12. This shows that the year of 2008/09 was the most risky year among the five year for the NEPSE index of trading sector.

4.6.7 NEPSE Index of Development Bank

Development bank sector is the largest sector after Commercial bank and had a largest portion on the basis of traded shares quantity, market capitalization and annual turnover. The behavior of index of this sector behaves similar as the overall

index of NEPSE due to having highest stake on the market capitalization. The monthly behavior of NEPSE index for Development bank during 2007/08 to 2011/12 is given below.

Figure 4.13: Monthly Movement of Development Bank



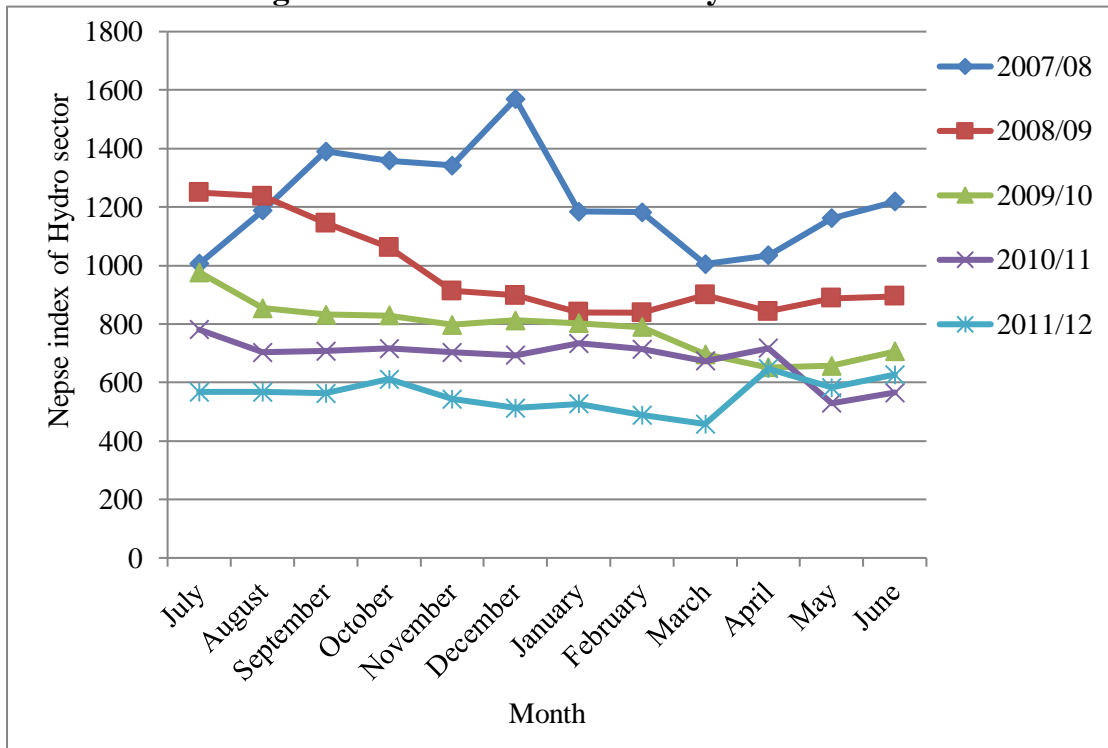
The figure has been drawn based on the appendix no. 8.7 the above figure NEPSE index for Development bank started with 513.44 point on July 2007/08. During this year there was highly fluctuation in the index and remained at the level of 1136.76 point at the end of the fiscal year. NEPSE index value for Development bank was highest on December 2007/08 at 1720.76 point. After that period NEPSE started to fall gradually and went to 692.31 points on the ending of that fiscal year. In 2009/10 there was decreasing trend on the index and the index value went to 473.54 point at the end of the fiscal year on the other hand there was totally fluctuating trend appeared during 2010/11 and index reached to the point 291.16 at the end and at the end of study period the beginning index was 294.15 than its remain 247.63 at end with fluctuation. The standard deviation of the NEPSE index of Development bank was 326.56 in 2007/08, 279.38 in 2008/09,

97.09 in 2009/10, 51.60 in 2010/11 and 18.62 in 2011/12. The maximum value of standard deviation is 326.56 in 2007/08. So, this year was the most risky year for the investor.

4.6.8 NEPSE Index of Hydro Sector

Before 2007/08 the listed companies in NEPSE had been distributed in only eight sectors. Initially the listed hydropower companies (National hydropower and Chilime hydropower) share are also traded and these shares are included in the others sector but later there is another new sector called Hydro sector is also included in the group and now these days all the companies shares listed in the NEPSE are classified into nine sectors. The overall behavior of the index for Hydro sector during five years period is explained below.

Figure 4.14: NEPSE Index of Hydro Sector

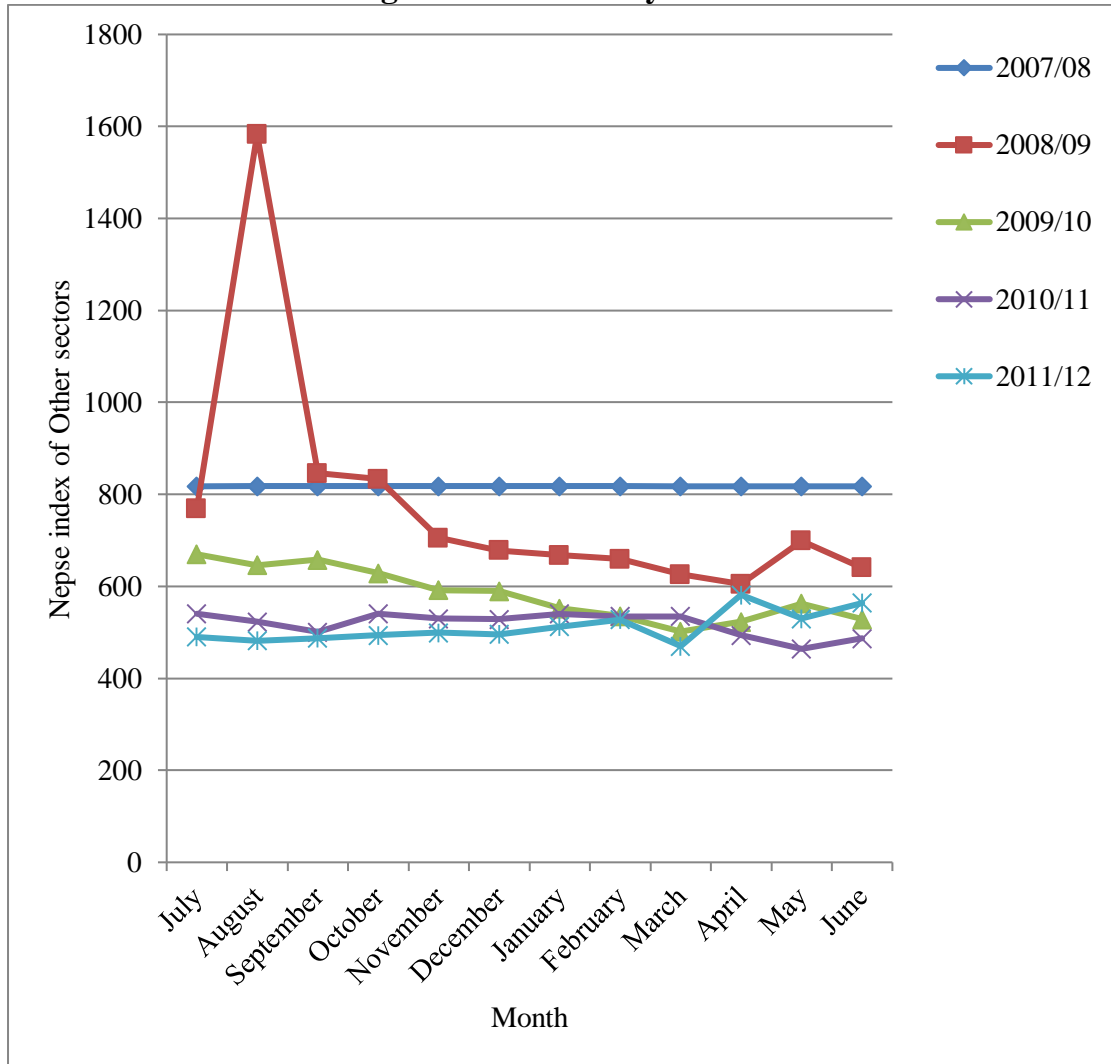


The figure has been drawn based on the appendix no. 8.8 the above figure describe the behavior of NEPSE index of Hydro sector during 2007/08 to 2011/12. Initially NEPSE was at 1005.94 points because the hydro sectors shares were already listed and traded as others companies' shares. There was increasing trend during 2007/08 and continued till July 2008/09. After July the index started to fall gradually and reached to 894.55 point at the end. During 2009/10 and 2010/11 there was too much fluctuation in the index and reached to maximum at 1569.86 point on December 2007/08 but later decreased to 564.80 point at the ending of period on June 2010/11. During last study period 2011/12 the beginning index was at 567.23 on June, there was slightly fluctuation and reached to 626.07 point. The standard deviation of the index is 163.01 in 2007/08, 148.44 in 2008/09, 89.17 in 2009/10, in 67.42 2010/11 and 53.43 in 2011/12. The most risky year was 2007/08 due to higher standard deviation of 163.01.

4.6.9 NEPSE Index of Other Sectors

There was variation in the NEPSE index of other sector so it had also fluctuating trend during five years study period. According to the report provided by NEPSE there are only two companies listed as other sector companies in the NEPSE till 2011/12. The overall behavior over five year is shown below.

Figure 4.15: Monthly Movement of Other



The figure has been drawn based on the appendix no. 8.9 the above figure elaborate the monthly movement of NEPSE index of other sector during 2007/08 to 2011/12. Initially the index was at 817.88 on July 2007/08 and after that month there was almost constraint in the index and remained at 817.88 points at the end of that year. The index value was maximum i.e. 1582.37 points on August 2008/09 and after that time there index started to decrease and reached to 640.32 points at the end of the fiscal year 2008/09. There was slightly fluctuation in next two year. During the period 2011/12 the index value 489.96 in July and reached to 563.96 in end of fiscal year. At last the index reached to 486.44 the standard deviation for

the index is 0.32 in 2007/08, 254.05 in 2008/09, 54.83 in 2009/10, 24.41 in 2010/11 and 32.43 in 2011/12. Comparatively 2007/08 was the least risky year for investors among all years and all sectors.

4.7 Run Test

The run test is the well-known approach to test and detect statistical dependencies or randomness. Run test is preferred to prove the random walk model as it ignores the properties of distribution. The null hypothesis of the test is that the observed series is a random series. We can state the test hypothesis as follows.

Ho: Change in MPS follows a random walk. This implies that the observed number of run lies within the acceptable range of expected runs. Or the calculated z value of run lies within the critical value of Z at 95 % level of confidence.

(H0: Z value of observed runs $< \pm 1.96$)

H1: Change in MPS does not follow a random walk. This implies that the observed number of runs does not lie within the acceptable range of expected runs. Or the calculated z value of runs of runs does not lie within the critical value of Z at 95% level of confidence

(H0: Z value of observed runs $\Rightarrow \pm 1.96$)

Table 4.6: MPS of different sector-wise sample listed companies for consecutive 30days in June 2011/12.

No. of days	HBL	ZFL	SIC	TRH	UNL	BBC	ACEDBL	CHCL	NTC
1	717	91	306	84	6306	2017	133	740	451
2	717	91	306	84	6306	2017	133	740	451
3	655	93	312	85	6306	2017	135	818	488
4	648	95	318	84	6306	2017	133	793	472
5	613	91	336	83	6300	2017	129	777	465
6	590	93	361	83	6300	2017	123	770	457
7	601	92	365	82	6300	2017	125	780	463
8	601	92	365	82	6300	2017	125	780	463
9	601	92	365	82	6300	2017	125	780	463
10	576	98	350	82	6300	2017	138	770	461
11	580	98	343	82	6300	2017	122	780	465
12	588	96	340	81	6300	2017	122	780	468
13	577	98	334	81	6300	2017	122	779	464
14	577	96	334	82	6300	2017	122	779	465
15	577	96	334	82	6300	2017	122	779	465
16	577	96	334	82	6300	2017	122	779	465
17	562	97	331	82	6300	2017	122	780	460
18	560	95	325	82	6300	2017	122	789	464
19	570	99	337	81	6300	2017	122	787	463
20	579	97	343	82	6300	2049	122	788	462
21	590	100	343	82	6300	2049	124	810	460
22	590	100	343	82	6300	2049	124	810	460
23	590	100	343	82	6300	2049	124	810	460
24	590	97	343	82	6300	2049	124	810	460
25	605	98	343	83	6300	2049	124	833	472
26	586	97	343	83	6300	2050	124	831	465
27	590	96	337	83	6300	2050	130	840	470
28	610	96	337	83	6300	2050	128	843	480
29	610	96	337	83	6300	2050	128	843	480
30	610	96	337	83	6300	2050	128	843	480

Source: Nepal Stock Exchange Ltd.

Table 4.7: Result of Run Test for MPS of different sector-wise sample listed companies

Runs Test									
	HBL	ZFL	SIC	TRH	UNL	BBC	ACEDBL	CHCL	NTC
Test Value ^a	590	96	337	82	6300 ^b	2017 ^b	124	784	464
Cases < Test Value	12	10	11	3	0	0	11	15	14
Cases >= Test Value	18	20	19	27	30	30	19	15	16
Total Cases	30	30	30	30	30	30	30	30	30
Number of Runs	5	4	4	5	1 ^c	1 ^c	5	4	8
Z	-3.838	-4.129	-4.185	-994			-3.784	-4.274	-2.775
Asymp. Sig. (2-tailed)	.000	.000	.000	.320			.000	.000	.006

a. Median

b. All values are greater than or less than the cutoff. Runs Test cannot be performed.

c. Only one run occurs. Runs Test cannot be performed.

Note: Above statistics are derived from SPSS program.

The number of runs is computed as sequence of the market price changes of the same sign. When the expected number of run is significantly different from the observed numbers of runs the test rejects the null hypothesis that the MPS of different sector wise listed companies are random.

A lower than expected number of runs indicates market's over-reaction to information subsequently reversed, while higher number of runs reflects a lagged response to information. Either situation would suggest an opportunity to make excess returns.

The run test converts the total number of runs into z statistics. For large samples the z statistics gives the probability of difference between the actual and expected number of runs. The z value is greater than or equal to ± 1.96 rejects the null hypothesis at 5% level of significance.

As can be seen from the table 4.7 each and every spectral listed companies i.e. HBL, ZFL, SIL, TRH, UNL, BBC, ACEDBL, CHCL and NTC have Z value of observed runs for MPS in higher than the critical value of Z AT 5% level of

significance (i.e. 1.96) and negative except UNL and BBC. This means that the observed number of runs is less than the expected number of runs with observed significance level. This signifies that change in the market price per share of selected institutions is not random. There is some kind of association in the series of price change. As test result of all the financial institution shows that change in MPS is following the predictable way, the null hypothesis is rejected that the change in MPS follows a random walk.

All the selected institution has observed number of runs less than the expected number of runs. This signifies that the market over-reacts to the information. Overall, the result of run test analysis on the MPS indicates that the change in MPS is not random and the market tends to over-react to the information supplied.

4.8 Major Findings of the Study

The major findings of this study are as follows:

- ❖ There are altogether 216 companies listed in stock exchange. Out of these 26 are Commercial Bank, 69 Finance, 21 Insurance, 4 Hotels, 18 Manufacturing and Processing, 4 Trading, 68 Development Bank, 4 Hydro and 2 others. The NEPSE licensed to 11 sales and issue managers, 2 dealers (market makers) and 49 member brokers who operate on the trading floor as per the Securities Exchange Act, 1983, rules and bye-laws.
- ❖ The number of listed companies is in increasing trend. The number of the companies in the initial year were 142 in 2007/08 and 169 in 2008/09 went up to 176 in 2009/10, 207 in 2010/11 and 216 in 2011/12.
- ❖ An erratic trend was observed in annual turnover that the value was Rs 219686.43 million in 2007/08. It became lower in 2008/09 and the trading volume reached to Rs 19437.2 million. Then after it continue to decrease slightly and reached to Rs 11763.1 million in 2009/10. The decreasing trend

- continued in subsequent years as well and the turnover reached to the lowest level at Rs 6260.03 million in 2010/11. At last in 2011/12 annual turnover value started to increase and reached to 9344.70.
- ❖ The Commercial bank sector has dominated all other sectors for having highest stake in terms of annual turnover, market capitalization, number of transaction and traded share quantity over five years. Whereas trading sector has lowest (below one percent) contribution in each terms in each year.
 - ❖ Market capitalization value is in fluctuating trend in each group in each year. Total market capitalization has between Rs 360113.4 million to Rs 239242 million entire five years interval from 2007/08 to 2011/12.. The proportion of market capitalization of commercial bank is highest among nine sectors. Its proportion is 70.74%, 53.49%, 53.24%, 46.79% and 46.58% respectively. Commercial bank commands a lion's share on the trading floor of NEPSE.
 - ❖ The total number of transactions was in increasing trend during the study period. In the beginning, there were 149008 transactions in 2007/08 and increased by 147.52% at 2010/11 and reached to 301505 number of transaction during the four year period. But in 2011/12 there was decreased by 2.95% and reached to 292613 transactions. The average number of transactions of commercial bank, Development bank and Finance sector are larger among the nine sectors. Thus, it seems as if the investors are highly attracted to invest in these sectors.
 - ❖ The fluctuating trend was also appeared in the traded shares quantity as well. Likewise the trend in market capitalization, the volume of traded shares quantity is also increased till 2008/09 and started to decrease gradually and reached to 23117.5 on 2010/11 finally increased to 34637.31 on 2011/12.

- ❖ NEPSE index reflects the aggregate price volatility of the shares of the companies listed at Nepal Stock Exchange Ltd.
- ❖ Every companies i.e. HBL, ZFL, SIL, TRH, UNL, BBC, ACEDBL, CHCL and NTC have Z value of observed runs for MPS is higher than the critical value of Z at 5% level of significance (i.e. 1.96) and Z value of all the institutions are negative except BBC and UNL. This shows that the observed number of runs is less than the expected number of runs with observed significance level.
- ❖ Therefore, run test shows that the changes in stock price are not random. In fact runs in every company are lower than the expected. This indicates that market overreacts to the information supplied.
- ❖ Since the runs in every sampled company are lower than the expected, they could gain by flowing positive information in the market, which in turn will increase their MPS in higher proportion.

CHAPTER -V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The main objective of this chapter is to summarize the main finding of the study conclusion and recommendations for future research. To this context this chapter contains three sections. The section will provide the Summary of the study. The second section will provide conclusion and the last section will give recommendation for future research.

5.1 Summary

Nepal is one of the least developed countries in the world. It had launched planned economic development process more than four decades ago. Recently it has adopted the path of economic development through liberalization. The capital market institutions are engaged in mobilization of savings into the productive investment activities. So to develop the economy of the country there is vital role of an efficient and effective capital market. The basic objectives of this study are concern with the concept of capital market, analyzing its performance and price behavior of shares of listed companies and the role of NEPSE index in the capital market.

The second chapter presents the theoretical and research review. In theoretical review there are two approaches technical analysis and fundamental analysis of securities. Technical analysis involves the study of the past volume-price fluctuations where as fundamental analysis approach, analyses the factor economic influences, industry factors and pertinent company information such as product and management in order to calculate an intrinsic value of the firms security. In an efficient market, there are three forms (a) Weak form (b) Semi-strong and (c)

Strong form. In weak form, stock price behavior can be tested by using parametric (Serial Correlation) and non-parametric (run tests).

Research Methodology and Presentations of data deals with the methods of analysis. This chapter presents the research design of the study. This study covers five years time from 16 July 2007 through 16 July 2012. In Nepal Stock Exchange there are nine sector companies shares are listed. So, all nine sectors (1) Commercial Bank, (2) Finance Companies, (3) Insurance Companies, (4) Hotel, (5) Manufacturing and Processing (6) Trading, (7) Development Bank, (8) Hydro and (9) Others have been taken as a sample for the study. Data used for the study purpose are based on the secondary data, and major sources of data are NEPSE and SEBON. For analysis of data, percentage method, bar diagram and trend line has been used. A statistical tool like standard deviation has been used to measure the volatility of behavior of NEPSE index. Calculation of standard deviation is a positive relationship between risks varies from investor to investor. A risk aversion attitude is the attitude where the investor doesn't want to bear additional risk and wants secured and safe return. The level of risk is not so easy to measure.

The number of listed companies is in increasing trend. The numbers of listed companies were 142 in 2007/08 went up to 159 in 2008/09, 176 in 2009/10, 207 in 2010/11 and 216 in 2011/12.

The annual turnover is fluctuating and market capitalization value is increasing trend. The proportion of market capitalization of commercial bank is highest among nine sectors. Total number of transactions is increasing during the study period and investors are encouraged to invest in commercial bank and finance sectors.

The NEPSE index reflects the aggregate volatility of the share prices of the companies listed. Hence higher the price volatility higher will be the risk and vice versa. The standard deviation of the NEPSE index is 93.37 in 2007/08, 169.69 in

2008/09, 87.93 in 2009/10, 37.18 in 2010/11 and 30.22 in 2011/12. In 2011/12 the value of standard deviation is less among five years so, this year is the less risky year for the NEPSE index.

Run tests for the time period of 30 days shows that selected sample companies has lower runs than the expected. The run tests are not random as well. This indicates than the market over-reacts to the information supplied. Therefore selected institutions can benefit themselves by flowing positive information in the market.

5.2 Conclusion

The following conclusions have been derived from the major of findings of this study.

- ❖ It was found that during 2007/08 there was impressive growth due to improvement in peace and security situation, the central bank policy to increase banks and financial institutions, market reform, institutional and infrastructural development related to the capital market, has contributed to this growth. On the other hand during 2008/09 to 2011/12 there was bearish trend in the market. Almost all indicators of the have decreased due to unending political transition period , directionless economic policy, liquidity crisis in financial sector and many other factor have contributed such decreasing trend.
- ❖ Commercial banks total annual turnover stood at Rs 5615.38million by the end of year 2011/12, with those shares accounting for 60.09% of the total market capitalization during that fiscal year. These indicators reveal that the share of commercial banks have a dominant role in determining the key indicators of the Nepalese Stock market. It is thus clear that commercial banks have continuously appeared as the most attractive investment alternatives since the opening.

- ❖ Market performance of NEPSE index shows the decreasing trend and no any sign of improvement of NEPSE index. NEPSE index of commercial bank is fluctuating. Volatility of the NEPSE index hit the peak at 169.69 in 2008/09, 93.37 in 2007/08, 87.93 in 2009/10 37.18 in 2010/11 and 30.22 in 2011/12. The manufacturing and processing and finance sector is less risky according to standard deviation. Investors are suggested to invest in other sectors too but it depends on the investors' attitude towards the risk. If investors is ready to assume more risk in to obtain a higher expected monetary value. So investors are encouraged to invest in manufacturing and processing and finance sector too.
- ❖ The number of transactions, traded amount and market capitalization suggest that the Banks and Finance companies are in better position as compared to others. They look less affected than the performance of Hotel and Other companies.
- ❖ Capital market has vital role that, an efficient and effective stock market can develop the economy of the country through the capital formation. The growth of institutional, primary and secondary market and increase in the number of listed companies implies that the capital market of Nepal is in developing process.

5.3 Recommendations

- ❖ The performance of Commercial bank, Finance companies, Development bank and Manufacturing and processing companies are better than the other sectors so it is highly recommended that the investors should made their investment in these sectors. But sustainable development of nation and rational economic growth there should be increase in investment in Hydro sector likewise Bhutan.
- ❖ It is also recommended to the concerned regulatory body to carry out or helps to carry out further research about increasing market efficiency to develop an efficient capital market.
- ❖ Statistical tools like serial correlation and filter rules technique are not carried in this study so the up-coming researchers are strongly suggested to apply these tools to carry out the research on this topic.
- ❖ The secondary market of Nepal is deeply concentrated on the trading of bank and financial institutions shares only. So it is also recommended that the concern authorities should come up with concrete ideas and plans so that investors will find other ignored sectors productive enough to compete with sectors related to bank and financial institution.
- ❖ By using run test, it is found that it is in the flavor of all the selected institutions to conduct a run test during the study period. As the run test shows that the changes in stock price are not random. The actual numbers of run of every institution are lower than expected run. This indicates that the market over reacts to the information supplied. Therefore, every institution will gain by following positive information in the market.

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