CHAPTER - I

INTRODUCTION

1.1 Background of the Study

Nepal is one of the least developed countries in the world lying as sandwiched between the two big countries China and India. Nepal is the landlocked country of hills and mountains, with an area of 1, 47,181 square Kilometers in the heart of Himalayan ranges. Nepal being a small Himalayan independent nation has diversified in its geographical structure, cultural heritage, bio-diversity etc. Nepal is gifted by nature in its natural resources; especially it has huge potential for hydroelectric power generation due to perennial snow fed rivers flowing towards South. It is famous in the world for its high Himalayan ranges, diversity in natural beauty, caste, religion, culture, language, archaeology etc.

In global economic growth rate, which was 4.5 percent in 2005, increased to 5.1 percent in 2006 and 5.2 in 2007, due to various negative effects seen global economic growth rate declined to 3 percent in 2008, in 2009 it was projected to decline further to -1.1 percent and is forecasted to be 3.1 percent in 2010 by International Monetary Fund. The Nepalese economic growth rate for the fiscal year 2006 was 3.7 percent, 3.2 percent for 2007, 4.7 percent for 2008, 4.0 percent for 2009 and the projection of 4.1 percent for 2010 (WEO, 2009:169- 175).

In the recent times, most of the developing countries like Nepal are trying to attain growth with stability. But, stability is not the end of any development

policy; it is emphasized only because of the fact that instability may delay the growth process. So, non-inflationary environment is preferable for the economic development. In this regard, the commercial banks play an important role because bankers are to be considered not as dealers in money, but the leaders in development. They are not just the storehouses of the country's wealth but are the reservoirs of resources necessary for economic development. It is also said that the flow of credit is very much like the circulation of blood. If the is circulation of blood not smooth would do irreparable harm to our body, so, also unsteady and flow of credit harm to the economy. It has widely been accepted that the economic activities of a country are greatly influenced by the development of a sound banking system, there is no step in business, where banks have no influence today's, so called developed countries also have festered their economic development with help of their banking (Sharma, 968:5).

Banks are most effective medium of mobilizing the national resources, their efficiency in mobilizing the resources lies in expanding their main business i.e. accepting deposits and advances along with making a marginal profit, the instrument of interest rate can also play an important role for such purpose. But the regulation of interest rates are done by the Nepal Rastra bank, the central bank of Nepal and the commercial bank need not face much problem in the fixation of such rates (Sharma, 975:8).

Stock market has been a global phenomenon in the present world regardless of the size of the economy of any particular nation. The primary role of the capital market is to allocate the economy's capital stock among various firms and industries involving in trading, investment and production dimensions.

And securities prices plays an important role by providing signals in allocating the scarce resources and investors can choose among the securities that represent ownership of firms activities under the assumption that securities present at any firm “fully reflect” all available information. Thus, the stock market is a place where shares of listed companies are traded or transferred from one hand to another at a fair market price through the organized brokerage system.

In general, the sensitivity of stock price has been always a subject matter of debate to the extent among the academics of financial and economic circles. The main concern in the problem is to understand the sensitivity of stock price in the organized market place where the trading actually takes places. Moreover, to understand the cause of the changes in the market places to make successful anticipation concerning the future turns of the stock price.

Nepalese stock market is not efficient enough to evaluate the prices of stocks. Most of the investors are not very responsive to many financial and economic changes. But it has been felt that they invariably respond to the dividend incomes, earnings per share, capitalization of profits to issue bonus shares and issue of right shares. In such a situation, share prices of the company starts going up steadily. The leakage of secret information in the share market from inside the company called insider trading also sometimes raises share prices upwards. But this is temporary phenomenon; when the Company discloses the information, the price is automatically corrected in the market. There is no doubt that their demand and supply affects the price of shares in the stock market. When there is a tendency of rising prices in the market, the supply of shares will be increased; and in contrast, when the price are falling investors

would demand more of shares to buy, other things remaining the same. But because of the lack of reliable and regular disclosure of market information and lack of awareness and technical knowledge amongst the vast majority of investors to read and analyze the financial information, the market is non-competitive and inefficient.

1.1.1 Securities Market in Nepal

In the absence of developed securities market in Nepal, the government was the sole issuing authority of development bonds and national saving certificates. Therefore the securities generally floated in the market were mainly the government securities. Nepal Rastra Bank makes arrangement for the issue register, purchase and sale, transfer of ownership and redemption of government bonds and debenture. Therefore government securities are fully traded under the management and supervision of Nepal Rastra Bank.

Institutional development of securities market in Nepal started from the year 1976 when Securities Exchange Centre was established under the company Act with the joint capital contribution of Nepal Rastra Bank and Nepal Industrial Development Corporation. As a securities market intermediary its role was to organize and provide marketing facilities of channeling security exchange business through the centre. Its activities included the purchase, underwrite and sale, directly or through the licensed brokers or sub-brokers of the centre. The government issues the share and debenture of public limited companies and also development bonds as well as treasury bills.

The stock exchange market or stock market is one of the forms of secondary market. It is major component of securities market and also the medium

through which corporate sector mobilizes funds to finance the productive by issuing shares in market. In order to make transaction of securities, there is a tradition of listing the stock of public companies in the stock exchange for which they must meet exchange requirements to such factors as size of company number of years in business, earning records, number of share outstanding and their market value.

After the restoration of democracy of 1991, the government has adopted liberalization and open market policy. As a result, there have been continued financial reforms and frequent amendments of bylaws related to the financial market to create a Conducive environment for the development of competitive and efficient stock market.

In the recent stock market turmoil, most of the investor complains that they are suffering from unexpected fluctuations of share prices at NEPSE. Therefore this study attempts to relate the share price with major financial indicators and the stock price sensitivity analysis for providing suitable bases for investment in common stock of sampled companies.

The stock exchange market or stock market is one of the forms of secondary market. It is a major component of the securities market and also the medium through which corporate sector mobilizes funds to finance the productive projects by issuing shares in the market. It is a place where shares of listed companies are transferred from one hand to another at a fair price through the organized brokerage firms. The stock market is a financial market, which probably has the greater glamour and is perhaps the least understood.

Moreover, security market exists in order to bring together buyer and seller of securities to facilitate the exchange of financial assets. Hence, it creates and enhances liquidity in the securities.

Nepal's economy is in developing phase. So, in order to speed up this pace of economic development, financial sectors may have crucial role, as they accumulate scattered savings for capital formulation. The public investors are interested to invest their money in the common stocks of financial institutions. As a result, such institutions' shares are being traded among the investors in the secondary market, in larger volume every day.

Securities Board of Nepal and Nepal Stock Exchange are the main bodies to make the stock market as competent and efficient as possible. Actual efforts have been made to develop the Nepalese Stock Market with the promulgation of securities Transaction Act in 1983, which was subjected to frequent amendments.

In Nepal, SEBO/N has issued license to the interest organization to perform the job of issue managers by operating primary market. SEBO/N, in order to regulate the primary market, has issued issue management guidelines (http://www.sebonp.com).

1.1.2 Securities Board of Nepal

Securities Board of Nepal was established as an Apex regulator of the securities market in Nepal by the then HMG/N on June 7, 1993, under the Securities Exchange Act, 1993. The main objectives of SEBO are to regularize and manage the securities market and protect investor's rights. Government of Nepal (GON) appoints the chairman of SEBO for the tenure of four years with representatives from various institutions of the government as well as private sector.

SEBO Nepal develops the policy for the development of the market, issue license to establish and operate stock exchanges, registration of public issue, advice GON, supervise, monitor stock exchange and security business persons, and conduct research, study and awareness programs regarding security markets.

1.1.3 Nepal Stock Exchange

'''The Nepal Stock Exchange Limited''' popularly called NEPSE is the only Stock exchange of Nepal. It is located in Singha Durbar Plaza, Kathmandu Nepal. In April 4, 2008 the Stock market equity market capitalization of the companies listed on NESPE was US$ 3658.39 million.

The formal security exchange centre was converted into NEPSE in 1993 under the program initiated to reform the capital market. The basic objective of NEPSE is arrange market ability and the liquidity to the government and corporate security by facilitating transactions in it's trading floor through market intermediaries, such as broker, market makers etc. and it is a non-

profit organization operating under Security Exchange Act, 1983. NEPSE opened its trading floor on 13 January 1994.As per the SEBO/N Annual report for F.Y. 2008/09, the number of listed companies reached to 159 with an increase of 17 new organizations than last year. The NEPSE Index is primary all equity market index of NEPSE.

NEPSE is the only stock exchange in the country. Government of Nepal owned 52.55 percent, NRB 39.72 percent, NIDC 7.04 percent and Security Business Persons 0.69 percent. The security businesspersons such as stockbrokers, market makers and securities dealers registered with SEBO have to get membership of stock exchange for conducting security business. Similarly the managers who are engaged in the primary issuing activities also have to get membership of stock exchange to conduct their business. NEPSE presently has 27 brokers, 9 issue managers and 2 securities dealers. It has altogether 159 listed companies which include 21 Commercial Banks, 29 Development Banks, 61 Finance Companies, 4 Hotels, 18 Manufacturing & Processing Companies, 4 Hydropower Companies, 4 Trading Companies, and 17 Insurance Companies etc. . NEPSE is only the secondary market in the country.

History of Capital Market in Nepal

The history of Capital market/securities market began with the floatation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. in 1937. Introduction of the Company Act in 1964, the first issuance of Government bond/Government Bond in 1964 and the establishment of Securities Exchange Center Ltd. in 1976 were other significant development relating to capital markets.

Securities Exchange Center was established with an objective of facilitating and promoting the growth of capital markets. Before conversion into stock

exchange it was the only capital markets institution undertaking the job of brokering, underwriting, managing public issue, market making for government bonds and other financial services. Nepal Government, under a program initiated to reform capital markets converted Securities Exchange Center into Nepal Stock Exchange in 1993.

Members of NEPSE are permitted to act as intermediaries in buying and selling of government bonds and listed corporate securities. At present, there are 23 member brokers and 2 market makers, who operate on the trading floor as per the Securities Exchange Act, 1983, rules and byelaws.

Besides this, NEPSE has also granted membership to issue and sales manager securities trader (Dealer). Issue and sales manager works as manager to the issue and underwriter for public issue of securities whereas securities trader (Dealer) works as individual portfolio manager.

Securities Available For Trading

A. Shares

- Equity Shares
- Preference Shares

B. Debentures

C. Government Bonds

Trading System of NEPSE operates on the 'NEPSE Automated Trading System '(NATS), a fully screen based automated trading system, which adopts the principle of an order driven market. Purchase & Sell of Physical Share certificates is done through NATS. The Automated Trading System was started from 24 August 2007.

1.1.4 Dow Jones Industrial Average (DJIA)

Charles Dow founder of the Dow Jones Company introduced Dow theory. The Dow theory is one of the oldest and most famous technical tools. It is basically used by technical analysis to determined trends in the market or individual stocks. The market always consider as having three movements all at the same time .The first is the narrow movement from day to day. The second is the short swing running from two weeks to a month or more. The third one is main movement covering at least four years in duration.

The Dow Theory views the movement of the market price as according to three categories:-

a) Primary Movement: These are called bull and bear markets. Bull markets are where prices move in upward manner for several years on the other hand Bear markets are where prices move in downwards for several month or a few years.
b) Secondary Movement: These are up and down movement to stock prices that lasts for a few months and are also called correction.
c) Daily Movement: These are meaningless random daily fluctuation.

The Dow Jones Industrial Average was founded by Charles Dow on May 26, 1896, and represented the dollar average of 12 stocks from leading American

industries. Previously in 1884, Mr. Dow had composed an initial stock average called the Dow Jones Averages; which contained nine railroads and two industrial companies that appeared in the Customer's Afternoon Letter, a daily two-page financial news bulletin that was the precursor to The Wall Street Journal. Of the original 12 stocks forming the Dow Jones Industrial Average compiled later in 1896, no longer railroad stocks, but purely industrial stocks, only General Electric is currently part of that index. The other 11 were:

- American Cotton Oil Company, a predecessor company to Best foods, now part of Unilever.
- American Sugar Company, became Domino Sugar in 1900, now Domino Foods, Inc.
- American Tobacco Company, broken up in a 1911 antitrust action
- Chicago Gas Company, bought by Peoples Gas Light in 1897, now an operating subsidiary of Integrys Energy Group.
- Distilling & Cattle Feeding Company, now Millennium Chemicals, formerly a division of LyondellBasell, the latter of which is now in Chapter 11 bankruptcy.
- Laclede Gas Company, still in operation as the Laclede Group, Inc., removed from the Dow Jones Industrial Average in 1899.
- National Lead Company, now NL Industries, removed from the Dow Jones Industrial Average in 1916.
- North American Company, an electric utility holding company, broken up by the U.S. Securities and Exchange Commission (SEC) in 1946.
- Tennessee Coal, Iron and Railroad Company in Birmingham, Alabama, bought by U.S. Steel in 1907.
- U.S.LeatherCompany, dissolved in 1952.
- United States Rubber Company, changed its name to Uniroyal in 1961, merged with private B.F. Goodrich in 1986, bought by Michelin in 1990.

Calculation

To calculate the DJIA, the sum of the prices of all 30 stocks is divided by a Divisor, the Dow Divisor. The divisor is adjusted in case of stock splits; spin-offs or similar structural changes, to ensure that such events do not in themselves alter the numerical value of the DJIA. Early on, the initial divisor was composed of the original number of component companies; which made the DJIA at first, a simple arithmetic average. The present divisor, after many adjustments, is less than one (meaning the index is larger than the sum of the prices of the components). That is:

$$\mathrm{DJIA} = \frac{\sum p}{d}$$

Where p is the prices of the component stocks and d is the Dow Divisor.

Events like stock splits or changes in the list of the companies composing the index alter the sum of the component prices. In these cases, in order to avoid discontinuity in the index, the Dow Divisor is updated so that the quotations right before and after the event coincides:

$$\mathrm{DJIA} = \frac{\sum p_{\mathrm{old}}}{d_{\mathrm{old}}} = \frac{\sum p_{\mathrm{new}}}{d_{\mathrm{new}}}.$$

The Dow Divisor is currently 0.132319125. Presently, every $1 change in price in a particular stock within the average, equates to a 7.56-point movement.

Difference of NEPSE and DJIA INDECES

NEPSE Index is a Nepali Stock Index. It was established on January 13, 1994.It started to calculate index since 12th February, 1994.Its index is based on total market value. For calculating index, it is based on all the stock listed in exchange and their closing price. It is only one stock index in Nepal and is also based on listed securities of Nepal Stock Exchange.

$$\text{NEPSE Index} = \frac{\text{Total Market Value of Time}}{\text{Total Market Value of Base Year (12th Feb.1994)}}$$

DJIA Index is an American Stock Index. The sample size of DJIA is 30 among 1500 stock listed in the NYSE (New York Stock Exchange). DJIA contains only large old, blue chips NYSE listed firm. Its index is calculated taking the base of price weighted.

In conclusion, a contrast exists between NEPSE and DJIA Index. NEPSE follows the value weighted and DJIA follows the price weighted. NEPSE takes all the listed securities but DJIA takes only 30 samples. NEPSE should adjust its base with the listing of new share where as DJIA should adjust the divisor frequently with stock dividend and split. (Jack Clark, Investment).

1.1.5 New York Stock Exchange

The New York Stock Exchange is a Corporation with 1366 full members. It has a charter and a set of rules and regulations that govern its operation and the

activities of its members. A board of 26 directors that is elected by the membership supervises the exchange of the directors, 12 are members and 12 are not; the latter are known as “public directors.” The remaining two directors are full time employee: a chairperson who also functions as the chief executive officer and a vice chairperson who also function as president.

In order to become a member, a person must purchase a seat (comparable to a membership card) from a current member. Members are allowed to execute trades using the facilities provided by the exchange. Because most trades of common stocks, in dollar size and number of shares, take place on the NYSE, this privilege is variable.

A stock that is available for trading on the NYSE is known as a listed security. A company must apply to the NYSE for its stock to be listed. The initial application is usually informal and confidential. If approved, a formal application is announced publicity and approval of the formal application is almost certain. The 1366 members of the NYSE, roughly 700 are commission brokers, 400 are specialists, 225 are floor brokers, and 41 are floor traders (Alexander, Sharpe and Bailey, 2003:6 – 39).

1.1.6 The London Stock Exchange

The London Stock Exchange is conveniently located between the world’s two largest financial markets, those of the United States and Japan. The trading day in London overlaps with Tokyo in the morning and with New York in the afternoon. Trading arrangements on the London Stock Exchange resemble those on NASDAQ. Competing dealers who wish to make market in a stock

enter bid and asked prices into the Stock Exchange Automated Quotations Computer System.

Market orders can then be matched against those quotes. However, negotiation among institutional traders results in more trades being executed inside the published quotes than is true of NASDAQ. As in the United States, security firms are allowed to act both as dealers and as brokerage firms, that is, both making a market in securities and executing trades for their clients.

The London Stock Exchange is attractive to some traders because it offers greater anonymity than U.S. markets, primarily because records of trades are not published for a period of time until after they are completed. Therefore, it is harder for market participants to observe or infer a trading program of another investor until after that investor has completed the program. This anonymity can be quite attractive to institutional traders that wish to buy or sell large quantities of stock over a period of time.

1.1.7 The Tokyo Stock Exchange

The Tokyo Stock Exchange (TSE) is the largest stock exchange in Japan accounting for about 80% of total trading. There is no specialist system on the TSE. Instead, a saitori maintains a public limit-order book, matches market and limit orders, and is obliged to follow certain actions to slow down price movements when simple matching of orders would result in price change greater than exchange-prescribed limits. In their clerical role of matching orders saitoris are somewhat similar to specialists on the NYSE. However,

saitoris do not trade for their own accounts and therefore are quite different from either dealers or specialists in the United States.

Because the saitoris perform an essentially clerical role, there are no markets making services or liquidity provided to the market by dealers or specialists. The limit order book is the primary provider of liquidity.

The TSE organizes stocks into two categories. The first section consists of about 1200 of the most actively traded stocks. The second section is for less actively traded stocks. Trading in the larger first section stocks occurs on the floor of the exchange. The remaining securities in the first section and the second section trade electronically (Bodie, Alex and Marcus, 2002: 82).

1.1.8 The Sensitivity of Stock Price

Sensitivity analysis is that information which affects the stock price as well as turnover of transactions in the market. Stock price is generally affected by the productivity of the company. When in turn, will be affected by the economic policy of the country, capacity and efficiency enhancement package of the company, success or failure resulted, distribution of income, distribution of rights and bonus and others.

Some of the major stock price sensitive information is listed below;

1. Directive and guidelines issued by SEBO Nepal, NEPSE, NRB, and register to the companies and any other government organization including court may have direct impact on the pricing of the securities.

2. Company can announce the interim and final dividend, either in the form of cash, stocks, or both. This has significant impact on the share.
3. If the economic policy of the government is charged, that should be published immediately after the change. The changed policy may have both positive and negative impact. The companies, which have positive impact, the price of share of such companies, will increase where as the price of the negatively affected companies may decrease.
4. The profit earning condition of the company has significant impact on pricing.
5. The net worth condition of the company has significant impact on pricing.
6. The decisions made by the management also affect the price of stock in the stock exchange. If the decision is made to enhance the productivity of the organization this also affects the pricing of the shares.
7. Purchase of assets or refund liabilities.
8. Additional investment in subsidiary companies.
9. Notice of the annual general meeting.
10. NEPSE is directly associates for the operation of trading floor of listed securities.

The decision made by the stock price sensitivity analysis is made by the stock exchange that should be disseminated to the investors in time. Example: decision for listing of new stock, delisting of existing stock and others (Bhattarai, 2002:20-22).

1.2 Focus of the Study

This study focuses to the Sensitivity of the stock price in NEPSE towards various factors. This study is also focused on the analysis of the relationship of MPS with different financial variables.

In Nepalese context, there is lack of wider investment opportunities that provide good return. So, there has still been a huge amount of unutilized saving funds with public investors i.e. existing and potential are not well knowledgeable about the real financial strength and weakness of the public companies in which they are investing or going to invest their fund. Further they cannot well analyze and interpret the real financial position of a company on the bests of available data and information to reach the right conclusion. The study may help investors to think about destructing their investment portfolio. Similarly, potential investors may take better timely investment decision on the basis of the finding of the study.

Stock market facilitates the situation of country's economy, when the stock market is booming the economy is good and stock market is declining the economic is bad. It also represents the countries policy towards industry, economy policy as well as stock market policy as formulated by government rules and regulation of different sectors. In this way, preciously being well informed about the price sensitivity of the market investment analysis function becomes simple. Besides it, researcher, shareholders, investors and financial institutions may also benefit is one way or the other from this study by providing valuable information too.

1.3 Statement of the Problem

This study will try to identify the sensitivity of stock price and to find out the degree of those movements. The stock price fluctuates time to time and stock exchange reacts to the environment changes. The investors couldn't identify

the good and bad stocks among many. Further, there is not adequate number of organized investors to analyze the information regarding the risk and return of the companies in the stock market in Nepal. In this situation any investors cannot take rational investment decision. Knowledge of business environment, stock price behavior, sensitivity of stock price, company's dividend policy, company's earning, and company's net worth, government policy towards general public investors and performance of the company is very essential for investors. The investors are also tended to rely on the explanatory information and do not show interest on the statistical data and technical analysis. Since, the sufficient information of financial performance of the listed companies has not been disseminated to the general public; the health and dynamism of stock market suffer due to the lack of transparency.

Broker's role is one of the main sources for making aware to the shareholders in securities trading. The brokers in Nepal Stock Exchange are not able to provide various services to the trading of the stocks as compared to brokers of the stock market in other countries. In Nepal, Number of brokers is very limited. Therefore, broker can't expand their service to all people about stock market.

The purpose of the small study is to analyze, examine and make aware of sensitivity analysis of stock price of the listed companies in NEPSE.

Most specifically the research problems are:

1. How earning, dividend and net worth affect the stock price of the company?
2. What are the major measurements of stock price?

3. Is there any specific relationship of MPS with fundamental financial indicators?
4. Are the investors aware of the trend of financial indicators which have major influence on sensitivity MPS?
5. What are the major risks in stock market for investors?
6. Is the investment in common stocks of the sampled companies equally risky from a viewpoint of an investor?
7. Do the stocks of sampled companies have equilibrium price?
8. Are the price fluctuations of stock in the secondary market cause of the return to the shareholders?

The main problems in Nepalese Stock Market can be listed as follows:

- Lack of proper information to the investors.
- Only one stock exchange in Nepal.
- Lack of adequate number of share broker in the stock market.
- Low trading volume of the stock.
- High fluctuations in stock market prices.
- Government instability and policy.
- Strikes in Transportation and Industrial areas in the country.
- Lack of motivational factors such as tax benefits, special concessions and incentives etc. to the investors.
- Poor corporate culture.
- Unfair practice.
- Lack of knowledge about share price, to the investors.

Despite of all these aforementioned problems the decade long armed conflicts has been settled and peace restored to some extent but the business

environment of the country has not been normalized yet. There are conflicts between the labor unions and the entrepreneurs in the industrial sectors. Foreign and domestic Investors are still in the condition of wait and see.

1.4 Objectives of the Study

The specific objectives of this research are as follows:

1. To analyze of share price sensitivity with different listed companies in NEPSE.
2. To identify whether stocks of the sampled companies are over-priced, equilibrium priced or under priced.
3. To determine the effect of earning, dividend and net worth to the stock price.
4. To examine sensitivity relationship of MPS with various financial indicators like EPS, DPS and NWPS.
5. To provide suggestions for improvement.

1.5 Significance of the Study

Every people are attracted to invest in share capital for purpose of getting more return as well as to maximize his or her wealth. So an analysis of sensitivity of share price in Nepalese Stock Market has become an effective way to attract new investors. The study will be significant for individual investors who are willing to trade in securities of Nepalese organization. This study also will be helpful to understand the share price of the various listed companies in Nepal. It will be helpful to related person like policymakers, shareholders, management and all parties involved in Nepalese share market. It will be importance for SEBO/N in making policy, controlling, and inspection, regulation, monitoring and supervising the listed companies in Nepal.

This study may help investors to think about restructuring their investment portfolio. Similarly, the potential investors may take better timely investment decision on the basis of the finding of the study. The finding will be importance for the further researches and scholars who are related to Nepalese stock market.

1.6 Limitations of the Study

As every research or study has its' own limitation, this study has some limitations as below.

- The study is primary base on the secondary sources of data. The up to date and complete data are very difficult to get due to the inability of providing the required data by concerned authorities because of the confidential matter.
- Only listed companies in NEPSE are used for analysis.
- The topics "Stock Price Volatility In Nepalese Stock Market " is much more dynamic and it takes huge resources including human and financial to cover the whole aspects of the research but the research has focused on the stock price volatility due to changes in earning, dividend and net worth and its' relationship with other factors.
- The result is strictly based on information provided us by the company, SEBO/N, NEPSE, and NRB etc.
- The study has covered only a period of seven years from fiscal year 2059/60 (2002/03) to 2065/66 (2008/09).
- This study is conducted to fulfill the requirement of Masters Degree in Business Studies of the faculty of Management of Tribhuwan University. So the study cannot cover the dimension of the subject matter.

1.7 Organization of the Study

The whole study is divided into five chapters and each chapter subdivided in various topics, which includes the contents.

Chapter I: Introduction

It includes background of study, focus of the study, statement of the problem, objectives of the study, signification of the study, hypothesis of study, limitations of the study and chapter scheme

Chapter II: Review of Literature

This chapter includes the review of books, articles, journals, reports, theses, research and other relevant materials of national and international scholars.

Chapter III: Research Methodology

It covers on research design, research question, population and sample, period cover, sources of data collection and data analysis tools.

Chapter IV: Data Presentation and Analysis

This chapter attempts to analyze and evaluate data with the help of analytical tools and interpret the results obtained.

Chapter V: Summary, Conclusions and Recommendations

It summarizes up the result obtained through analysis and recommends some suggestions and throws some light on its impact on present economic scenario of Nepal.

CHAPTER II

REVIEW OF LITERATURE

This chapter is basically concerned with the review of literature relevant to the volatility of stock price. It covers the theories and the empirical evidence and previous study on topic done by academicians, researchers, economists and teacher of finance. In this chapter various books, magazines, journals, research papers, unpublished thesis reports and articles etc. are reviewed, which affects sensitivity of stock price in NEPSE.

2.1 Conceptual Review

First of all before getting into the core subject matter of the sensitivity of stock price in the market it is imperative to be acquainted with the general concepts of the stock and other related matters, which are in frequent use in researches on stock market. Following sub-section will be explaining the conceptual matters of the capital market.

2.1.1 Securities

When someone borrows money from a pawnbroker, he or she must leave some item of value as security. Failure to repay the loan (plus interest) means that the pawnbroker can sell the pawned item to recover the amount of the loan (plus interest) and perhaps make a profit. The terms of the agreement are recorded via pawn tickets. When a collage student borrows money to buy

a car, the lender usually holds formal title to the car until the loan is repaid. In the event of default, the lender can repossess the car and sell it to recover his or her costs. In this case the official certificate of title, issued by the state, serves as the security for the loan.

When someone borrows money for a vacation, he or she may simply sign a piece of paper promising repayment with interest. The loan is unsecured in the sense that there is no collateral, meaning that no specific asset has been promised to the lender in the event of default. In such a situation the lender would have to take the borrower to court to try to recover the amount of the loan. Only a piece of paper called a promissory note stands as evidence of such loan.

When a firm borrows money, it may not offer collateral. For example, some loans may be secured (backed) with specific pieces of property (building or equipment). Such a loan are recorded by means of mortgage bonds, which indicate the term of repayment and the particular assets pledged to the lender in the event of default. However, it is much more common for corporation to simply pledge all of its assets, perhaps with some provision for the manner in which the division will take a place in the event of default. Such a promise is known as a debenture bond.

Finally, a firm may promise a right to share in its profits in return for an investor's funds. Nothing is pledged, and no irrevocable promises are made. The firm simply pays whatever its directors deem reasonable from time to time. However the investor is given the right to participate in the determination of who will be the members of the board of directors. The right

protects the investor against serious malfeasance. A share of common stock, which can be sold to someone else, represents the investor's property right. Who will then be able to exercise the right? The holder of common stock is said to be an owner of the corporation and can, in theory, exercise over its operation through the board of directors.

In generally, only a piece of paper represents the investor’s right to certain prospects or property and the conditions under which he or she may exercise those rights. This piece of paper, serving as evidence of property rights, is called a security. It may be transferred to another investor, and with it will go all its rights and conditions. Thus everything from a pawn ticket to a share of GM common stock is a security.

Moreover, the security is a legal representation of the right to receive prospective future benefits under stated conditions (Sharpe, Alexander and Bailey, 2000: 2-3).

2.1.2 Security Markets

Security markets exist in order to bring together buyers and sellers of securities, meaning that they are mechanisms created to facilitate the exchange of financial assets. There are many ways in which security markets can be distinguished. One way has already been mentioned primary and secondary markets. Here the key distinction is whether or not the securities are being offered for sale by the issuer. Interestingly, the primary market itself can be subdivided into seasoned new issue refers to the offering of an additional amount of an already existing security, whereas an unseasoned new issue involves the initial offering of a security to the public. Unseasoned

new issues are often referred as initial public offering or IPO's (Sharpe, at. al. 2000: 9-10).

The market exists in order to bring together the buyers and sellers of securities. Securities markets are primary markets and secondary markets.

Primary Market

Primary market is the place where corporations and government issue new securities. All securities, whether in money or capital markets are initially issued in the primary market?

The primary market for securities is the new issue market which brings together the "supply and demand" or "Sources and Uses" for new capital funds. In this market the principal sources of funds is the domestic savings of individuals and businesses; other suppliers include foreign investors and governments. The principal uses of funds are: the long term financing of the investment in housing (mortgages), the long term investment of corporations and other business, and the long term borrowing of government. The ultimate suppliers of funds flow to their ultimate users, namely, economic units that issue securities to finance a surplus of expenditures over their current incomes.

Most individual investors are unfamiliar with the new issues market and its institutions, such as underwriters and selling syndicates which serve as middleman between the corporate demanders of funds and the individual investors and financial institutions which supply the funds. To most investors the term securities market is synonymous with the stock "exchange" (Bhalla, 2001: 155).

Secondary Market

Secondary market is the market place where secondhand securities are traded in secondary market comprise stock exchange and over the counter market, popularly known as OTC market.

The purpose of a stock exchange or securities market, like any other organized market, is to enable buyers and sellers to effect their transactions more quickly and cheaply than they could otherwise. However, since a stock exchange typically deals in existing securities rather than in new issue, it has economic significance (Bhalla, 2001: 156).

2.1.3 Security Analysis

There are many approaches to security analysis. However, most of these approaches fall into one of two classifications. The first classification is known as technical analysis; those who utilize this approach to security analysis are known as technicians or technical analysis. The second classification is known as fundamentalists or fundamental analysis. In discussing these two approaches to security analysis, the focus at first will be on common stocks.

In its simplest from, technical analysis involves the study of stock market prices in an attempt to predict future price movements for the common stock of a particular firm. Initially, past prices are examined in order to identify recurring trends of patterns in price movements. Then more recent stock prices are analyzed in order to identify emerging trends or patterns that are

similar to past ones. This matching of emerging trends or patterns with past ones is done in the belief that these trends or patterns repeat themselves. Thus by identifying an emerging trend or pattern, the analyst hopes to predict accurately future price movements for that particulars stock.

Fundamental analysis begins with the assertion that the true (or intrinsic) value of any financial asset equals the present value of all cash flows that the owner of the asset expects to receive. Accordingly, the fundamental stock analyst attempts to forecast the timing and size of these cash flows, and then converts them to their equivalent present value by using an appropriate discount rate. More specifically, the analyst must attempt not only to estimate this discount rate but also to forecast the stream of dividends that a particular stock will provide in the future, which is equivalent to forecasting the firm's earning per share and payout ratios. Furthermore, the discount rate must be estimated. Once the true value of the common stock of a particular firm has been determined, it is compared to the current market price of the common stock in order to see whether or not the stock is fairly priced. Stocks that have a true value less than their current market price are known as overvalued, or overpriced, stocks, whereas those that have a true value greater than their current market price are known as undervalued, or under priced, stocks. The magnitude of the difference between the true value and the current market price is also important information, because the strength of the analyst's conviction that a given stock is mis-priced will depend in part, on it. Fundamental analysts believe that any notable cases of mis-pricing will be corrected by the market in the future; meaning that prices of undervalued stocks will show unusual appreciation and prices of overvalued stocks will show unusual depreciation (Sharpe, at. al. 2000: 12-13).

2.1.4 Theories of Stock Price Behavior

Broadly, there are three schools of thought concerning the valuation of securities and their price behavior: (1) Technical Analysis (2) Fundamental Analysis and (3) Random Walk or Efficient Market Analysis.

Technical Analysis

The Technical Analysis theory of share price behavior is based on past market information. On the assumption that history tends to repeat itself, it is believed that knowledge of past patterns of share prices will help to predict future prices under similar circumstances. It involves the study of past market behavior with reference to various financial and economic variables to forecast the future. Financial and economic variables do change, but these variables are to do adjust in the light of the present situation. Charles Dow is the greatest protagonist of this theory. Since the followers of this theory anticipate future share prices on the basis of charts and graphs of past movements in prices, this approach is popularly known as Chartist Approach. Thus, under this approach technicians are interested to interpret the past trend to predict the future prices of equity shares.

Fundamental Analysis

The fundamental are of the opinion that the value of a share depends upon the anticipated future stream of returns and corresponding capitalization rates. The capitalization rate is an appropriated risk related cost of equity. Therefore, value of share, under this model, is equal to the present value of future incomes from an equity discounted at risk adjusted capitalization factor. It requires full disclosure of financial and economic information. If the

dissemination of information is not regular, reliable and complete, the market value of shares cannot be properly ascertained. Two models are popularly used under this theory e.g., Earning Capitalization Model and Dividend Capitalization Model. The market price of shares is based on its intrinsic value. The shareholder would like to maximize the return by buying shares of the under-valued company and selling shares of the over-valued company. Buying pressure would increase the price of under-valued company and selling pressure would decrease the price of over-valued company until the equilibrium price is restored.

Random Walk Analysis

The Random Walk Theory assumes that all future streams of incomes from the equity investment are independent of preceding incomes. In other words, future prices cannot be predicted on the basis of past price behavior. The share prices fluctuate randomly, however, this does not mean that the market is irrational in the determination of prices. It operates through market mechanism. In a free and competitive market, the relative forces of demand and supply determine share prices. The so-called efficient market automatically adjusts the prices of shares since the market is very sensitive. Any discrepancies in the market are automatically corrected and actual prices fluctuate randomly about its intrinsic value. This is a free and most competitive market and the prices of shares in the market are assumed to reflect all relevant information (Timilsina, 2001: 16- 17).

2.1.5 Market Index

Market Index has always been of great importance in the world of security analysis and portfolio management. People from different walk of life use and are affected by market indicators. Investors, both individual and institutional, use the market index as a benchmark against which they evaluate the performance of their own or institutional portfolio. The technicians or the chartists often base their decisions to buy and sell on the patterns emerging out of the time series data of market indexes. Even the economists and statisticians use stock market indexes to study the trend of growth patterns in the economy to analyze as well as forecast business cycles and to correlate stock market indices to economic activities (Bhalla, 2001: 123).

2.1.6 Common Stock

The common stocks represent the ownership position in a company. The holders of common stock, called shareholders or stockholders, are the legal owners of the company. Common stocks are the source of permanent capital since they do not have a maturity date. For the capital contributed by shareholders by purchasing common stocks, they are entitled for dividends. The amount or rate of dividend is not fixed; the company's board of directors decides it. A common stock is, therefore, known as variable income security. Being the owners of the company, shareholders bear the risk of ownership; they are entitled to dividends after the income claims of others have been satisfied. Similarly, when the company is wound up, they can exercise their claims on assets after the claims of other suppliers of capital have been met (Pandey, 1991: 979).

The common stock represents equity or an ownership position in a corporation. It is a residual claim, in the sense that creditors and preferred

stockholders must be paid as scheduled before common stockholders can receive any payments. In bankruptcy common stockholders are in principle entitled to any value remaining after all other claimants have been satisfied.

The great advantage of the corporate firm of organization is the limited liability of its owners. Common stock are generally “fully paid and non assessable”, meaning that common stockholders may loose their initial investment but not more. That is, if the corporation fails to meet its obligations, the stockholders cannot be forced to give the corporation the funds that are needed to pay off the obligation. However, as result of such a failure, it is possible that the value of a corporation’s share will be negligible. The outcome will result in the stockholders having lost an amount equal to the price paid to buy the shares (Sharpe, at. al. 2000: 457).

The firms to raise ownership capital issue the common stocks and the investors buy them with the expectation that they receive a share of profit periodically. The common stocks legally represent the equity of business firm, and the holders are the owners who share all the profits and losses of the business. They enjoy all earnings after meeting the obligations of interest on debts and dividends on preferred stocks. Thus, they enjoy all net benefits of the business by assuming the risk of losing their capital (Pradhan, 1996:132). According to Justice Lindley, “a company is an association of many persons who contribute money or money’s worth to a common stock and employs it for a common purpose. The common stock so contributed is denoted in money, and is the capital of the company. The persons who contribute it or to whom it belongs are members. The proportion of capital to which each

member is entitled is his share. Shares are always transferable, although the right to transfer them is often more or less restricted."

2.1.7 Stock Market

The stock market exchange is a place where investors can buy and sell company shares and other forms of securities. It brings together companies, which aim to raise capital through the issuance of new securities and individual and organization seeking to invest their savings or excess funds through the purchase of stock. "Stock Exchange is an organized market where securities are bought and sold under fixed rules" (Longman Dictionary of Business English, 1982). There are two type of stock market in general that is primary and secondary market. Markets that deal in the issue of new shares are bought and sold they are said to be traded in a secondary market. The stock market is simply a place where buyers and sellers, through their respective brokers agree to buy and sell shares at specified price, which is known as market price stock exchange, or market is a central location where members may buy or sell securities.

One of the most important functions of the stock market is, it creates liquidity. It enables investors to convert long term investment into liquid funds at short notice, thus, encouraging the flow of savings into productive venture. It provides the opportunities to invest money directly in the company and to put out their money by selling the shares in market. By buying a company's share, one can own a part of that company and entitled to the portion of net profit of the company. "The stock market investment is a good way to protect and increase wealth, whilst also providing a further interest in many peoples' lives" (Keasey , Hudson and Litter, 1998: 48). People are influenced in stock

market as a long term investment of stock that gives out regular dividend, while waiting for the value of stock to grow or as short term investment for stock that it can be sold and bought when prices are maximum and minimum.

2.2 Common Stock Value

The common stock value includes par value, book value/net worth and market value. These terms are quite different and in some cases the dollars amounts of these values are not related for an individual stock.

2.2.1 Par Value

The face value of stock, established at the time the stock is initially issued is par value. Without a stock split or other action by the board of directors, the par value of the stock does not change. In Nepal common stock are often issued at par value of Rs.100.

2.2.2 Net Worth/Book Value

Book value per share is calculated by dividing the total common equity on the balance sheet by the numbers of common stocks outstanding. This figure represents the assets value per share after deducting liabilities and preferred stock. Typically, common stock in profitable corporation will be valued based on earning power and will sell at price significantly greater than book value.

A corporation will generate income, much of which is paid out to creditors (as interest) and to shareholders (as dividend). Any reminder is added to the amount shown as cumulative retained earning on the corporation's books. The sum of cumulative retained earning and others entries (such as common

stock and capital contributed in excess of the par value) under shareholder's equity is the book value of the equity. The book value per share is obtained by dividing the book value of the equity by the number of shares outstanding (Sharpe, Alexander and Bailey, 2001:12- 13).

The accounting value of a share of common stock equal to the common equity of the firm (common stock plus retained earning) divided by the number of shares outstanding (Weston and Brigham, 1987: 674).

2.2.3 Market Price/ Value

Market value in the secondary markets is determined by supply and demand factors and reflects the consensus opinion of investors and traders concerning the "value" of the stock. Market value is influenced by many factors including economic and industry conditions, expected earning and dividends, and market and company risk consideration.

The price of firm's stock reflects expectation about its future earnings and dividends. Book value is generally considered to the relatively unimportant in determination of the value of company, since it represents only the historical investments made in the company-investments that may have little relation to current values of prices (Weston, and Thomas, 1992: 1113).

The market price of stock gives the value of the organization. The market price of stock is that price in which stock is traded or the amount. This is paid by the buyer to the seller to purchase a stock of a company. The market price of

stock varies from one company to another. Since the common shareholders are the owner of the organization and have least priority to claim in liquidation, the share price is highly volatile and very sensitive to the environmental factors. An organization has two types of environment; - internal and external. The environment within the organization is called internal environment and is somehow in control of the organization. So the organization tries to maintain the favorable environment to maximize the share price in the stock market. On the other hand external environmental forces are not within the control of the organization, but such forces highly affect the market prices of shares.

Since the market price of shares is very much sensitive to the environmental forces, the shares price increases if there is favorable environment and vice versa. This increase in share price is based on the market mechanism or market forces by demand and supply. If the earning and dividend of an organization increase, then the investors has positive perception towards the organization and they like to buy shares of that organization, as a result demand increase; on the other hand the suppliers like to hold the shares and supply decrease, and there is gap between demand and supply so the market price of shares increase.

2.3 Dividend Policy

Dividend policy involves the decision to pay out earning versus retaining them for reinvestment in the firm. Any change in dividend policy has both favorable and unfavorable effects on the firm's stock price. Higher the dividends means higher the immediate cash flows to investors, which is good, but lower future

growth, which is bad. The dividend policy should be optimal which balances the opposing forces and maximizes stock price.

2.3.1 Cash Dividend

Cash dividend is the dividend, which is distributed to the shareholders in cash out of the earning of the company. When cash dividend is distributed both total assets and net worth of the company decrease. The market price of the share drops in most cases by the amount of the cash dividend distributed.

Cash dividend is the portion of net earning of company, which is dividend to their shareholders in monetary terms. Cash dividend is the dividend, which is distributed to the shareholders in cash out of earning. The payment of cash dividend reduces the cash reserve and net worth as well as total assets of the company. The company may face the liquidity problems if the cash dividends are paid to their shareholders, so the company should maintain required cash balance before to pay dividend. “The market price of the share drops in most cases by the amount of cash dividend distributed” (Hastins, 1996: 370). So it is the serious decision of the company to distribute cash dividend, which may create various impacts on the company. The shareholders, who have no other important sources of income, prefer to get regular cash dividend.

2.3.2 Stock Dividend / Bonus Shares

A stock dividend occurs when the board of directors authorizes a distribution of common stock to existing shareholders. Stock dividend increases the number of outstanding shares of the firm’s stock. Although stock dividends do not have a real value, firms pay stock dividend as a replacement for a

supplement to cash dividend. Under stock dividend, stockholders receive additional shares of the company in lieu of cash dividends. Stock dividend requires an accounting entry transfer from the retained earnings account the common stock and paid in capital accounts. In other words, a stock dividend is a payment in the form of additional shares of stock instead of cash.

So, there is no change in the firm's assets or liabilities or in the shareholder's equity. The stock dividend helps to drop the market share price, earning per share and the net worth of the shares of the company. "Stock dividends occur when the board votes to give each share holders additional stock on a percentage basis. Stock dividends are less desirable that no dividend at all, particularly if the market does not drop the price of the common stock in response to the dividend" (Hampton, 1995: 518 – 519).

2.3.3 Stock Split

A method, which is commonly used to lower the market price of a firm's stock by increasing the number of shares belonging to each shareholder, is the stock split. The effect of a stock split is an increase in the number of shares outstanding and a reduction in the par, or stated, value of the shares. The total net worth of the firm remains unchanged. The stock split does not involve any cash payment, only additional certificates representing new shares. A stock split, however, is usually reserved for occasions when a company wishes to achieve a substantial reduction in the market price per share (Van Horne, 1991: 360).

2.3.4 Repurchase of Stock

Stock repurchase is a method, in which a firm buys back shares of its own stock, thereby decreasing shares outstanding, increasing EPS and often increasing the price of the stock.

If the company has excess cash and insufficient profitable investment opportunities to justify the use of those funds, it is in the shareholder's interest to distribute the funds out in increased dividends. With repurchase, fewer shares remain outstanding and earning per share and ultimately, dividends per share rise. As result, the market price per share should rise as well.

2.3.5 Preemptive Shares

Under common law (and most state laws), a stockholder has an inherent right to maintain his or her proportionate ownership of the corporation. The existence of these preemptive rights means that when new shares are to be sold, the current stockholders must be given the right of first refusal in regard to the purchase of the new shares. This is accomplished by issuing a certificate to each stockholder that indicates the number of new shares he or she is authorized to purchase. This number will be proportional to the number of existing shares currently owned by the stockholder. Usually, the new shares will be priced below the current market price of the stock, making such rights valuable. The stockholder can exercise the rights by purchasing his or her allotted amount of new shares, thereby maintaining his or her proportional ownership in the firm, but at the cost of providing additional capital. Alternatively, the rights can be sold to someone else (Sharpe at. al. 1999: 515).

2.4 Capital Asset Pricing Model (CAPM)

The mechanical complexity of the Markowitz's portfolio model kept both practitioners and academics away from adopting the concept for practical use. Its intuitive logic, however, spurred the creativity of a number of researchers who began examining the stock market implications that would arise if all investors used this model. As a result, what is referred to as the Capital Asset Pricing Model (CAPM) was developed (Bhalla, 2001: 554).

The CAPM is an economic model that describes how securities are priced in the marketplace. It has its roots in the normative mean-variance approach to investing that was first developed by Markowitz. That is, if certain assumptions are made, one of which is that all investors follow Markowitz's approach, then it can be shown that the expected return of an asset will be positively and linearly related to the level of its beta (Bhalla, at. al. 2001: 554).

Investment practitioners have been more enthusiastic and creative in adapting the CAPM for their uses. The CAPM has been used to select securities, construct portfolios, and evaluate portfolio or equity share performance. Securities for which super-normal returns are forecast are considered under-valued, that is, attractive candidates for purchase. Overvalued securities are those with below-normal anticipated returns and are thus candidates for sale. The security's alpha, or the distance that the risk-return plot for the security lies from the market line determines the degree of over-valuation or under-valuation. Securities with positive alphas are attractive while negative alpha securities were considered (over-valued). Attractive (undervalued) securities are those whose risk-return characteristics are plotted, the security market line. Fair priced securities lie directly on the

line. The degree of under-valuation or over-valuation (the alpha) is simply the distance from the security's plot to the line, represents the analysis forecast of the security's relative attractiveness. In prospect, all forecasts should fall on the market line because beta and expected return are directly and linearly related (theoretically). In practice forecasts do not fall on the market line, and practitioners believe that this process can be used effectively to select securities. In addition to selecting securities, beta has been used to control the risk level of portfolio. Although the desired level of risk will depend upon each investor's preference, many portfolio optimization models use a linear programming approach with a particular beta as the risk-level constraint. In using a linear-programming technique, some variable returns, for instance is maximized while another factor or factors (risk, for instance) is controlled. Although this is a simplistic description of the more complex portfolio optimization methods, it does convey the essence of how beta is used in managing the level of portfolio risk (Bhalla, 2001: 596).

2.4.1 Security Market Line (SML)

The Capital asset pricing model identifies security return net of the risk-free rate as proportional to the expected net market return, where beta serves as the constant of proportionality. As a consequence of this relationship, all securities in equilibrium plot among a straight line called the security market line (SML). Since the unsystematic risk tends to be diversified away by the construction of an efficient portfolio, it is desirable to develop an alternative to Capital Market Line, which will use beta as the independent variable and will accommodate both portfolios and individual assets. Such a line is called the Securities Market Line (SML). In other words, SML is a linear relationship between expected return and beta or systematic risk on which both portfolios and individual securities can lie.

2.5 Stock Risk

Every investment involves uncertainties that make future investment return risky. “Risk is the possibility or chance of meeting danger or suffering loss” as described by the Oxford Dictionary. Uncertainties and risks are the facts of life to the common stock holders. Uncertainty and risk are treated separately in financial analysis. The practices are to translate the uncertainty into the mathematical value that represents the best estimate of all uncertainty values.

2.5.1 Sources of Risk

Some of the sources of risk that contribute to investment risk are as follows:

i. Interest Rate Risk

The possibility of a reduction in the value of security, especially a bond, resulting from a rise in internal rates is Internal Rate Risk. Diversifying the durations of the fixed-income investments that are held at a given time can reduce this risk.

ii. Purchasing Power Risk

This is the risk of loss in the value of cash due to inflation. The risk that unexpected changes in consumer prices will penalize an investor's real return from holding an investment. Because investments from gold to bonds and stock are priced to include expected inflation rates, it is the unexpected changes that produce the risk. Fixed income securities, such as bonds and preferred stock, subject investors’ to the greatest amount of purchasing

power risk since their payments are set at the time of issue and remain unchanged regardless of the inflation rate.

iii. Management Risk

The risks associated with ineffective, destructive or underperforming management, which hurts shareholders and the company or fund being managed. This term refers to the risk of the situation in which the company and shareholders would have been better of without the choices made by management.

Management risk refers to the chance that company managers will put their own interests ahead of the interest of the company and shareholders. An example of this is the recent scandals with Enron, WorldCom and other large companies, whose managers acted in a manner that eventually bankrupted the companies and destroyed shareholder wealth. Management risk also applies to investment managers, whose decision and actions may divert from the investor's wishes or reduce the value of an investment portfolio.

iv. Default Risk

The possibility that a borrower will be unable to meet interest and/or principal repayment obligations on a loan agreement is Default Risk. Default risk has a significant effect on the value of a bond. If a borrower ability to repay debt is impaired, default risk is higher and the value of the bond will decline.

The risk that a debtor will be unable to pay back its loan. Default risk goes up if a debtor has large number of liabilities and poor cash flow. Generally speaking, companies and persons with high default risk stand a greater chance of a loan being denied and pay a higher interest rate on the loans they do receive.

v. Liquidity Risk

The risk that arises from the difficulty of selling an asset. An investment may sometimes need to be sold quickly. Unfortunately, an insufficient secondary market may prevent the liquidation or limit the funds that can be generated from the asset. Some assets are highly liquid and have low liquidity risk (such as stock of publicly traded company),while other assets are highly illiquid and have high liquidity risk (such as a house).

vi. Political Risk

Political risk is a type of risk faced by investors, corporations and governments. It is a risk that can be understood and managed with proper aforethought and investment.

Broadly, political risk refers to the complications businesses and governments may face as a result of what are commonly referred to as political decisions – or "any political change that alters the expected outcome and value of a given economic action by changing the probability of achieving business objectives. Political risk faced by firms can be defined as "the risk of a strategic, financial, or personnel loss for a firm because of such non-market factors as macroeconomic and social policies (fiscal, monetary, trade, investment,

industrial, income, labour and developmental), or events related to political instability (terrorism, riots, coups, civil war, and insurrection). Portfolio investors may face similar financial losses. Moreover, governments may face complications in their ability to execute diplomatic, military or other initiatives as a result of political risk.

vii. Industry Risk

Industry risk refers to the danger to a particular stock that stem not from problems with the company per se but rather from far more wide ranging issues involving the entire industry that the company belong to.

viii. Business and Financial Risk

A firm's total risk can be broken down into different components such as default risk, inflation risk, exchange rate risk, etc. We will focus only on two of those risks; -business risk which focuses on a firm's operation and financial risk which focuses on firm's financial decisions.

ix. Market Risk

The day-to-day potential for an investor to experience losses from fluctuations in securities prices is Market Risk. This risk cannot be diversified away.

Market risk is the risk that the value of a portfolio, either an investment portfolio or a trading portfolio, will decrease due to the change in value of the market risk factors. The four standard market risk factors are stock, prices, interest rates, foreign exchange rates and commodity prices.

x. Social or Regulatory Risk

Social Risk is concern or uncertainty in the buyer's mind that the purchase of the product under consideration will not be approved of by others.

Regulatory Risk is the risk associated with the potential for laws related to a given industry, country, or type of security to change and impact relevant investments. The risk that a change in laws and regulations will materially impact a security, business, sector or market is the Regulatory Risk. A change in laws or regulations made by the government or a regulatory body can increase the costs of operating a business, reduce the attractiveness of investment and/or change the competitive landscape.

Another type of regulatory risk would be a change by the government in the amount of margin that investment accounts are able to have. While this is an unlikely change, if it were to be changed, the impact on the stock market would be material as this would force investors to either meet the new margin requirements or sell off their margined positions (Jack Clark, 1999: 10).

2.6 Return on Common Stock

“The benefit associated with ownership includes the cash dividend paid during the year together with an appreciation in market price, or capital gain realized at the end of the year” (Van Horne, 1998: 219).

Every investor of a company expects to get more earning from his or her investment or contribution on the company, either direct way or indirect way.

If the company declares or pays cash dividend to the shareholder, it is taken as the direct benefit because he gets cash for his cash investment and if company does not pay cash dividend to the shareholders but provides stock dividends or by various reasons, share price in stock market became high, it is considered as indirect benefit from the shares. These two expectations of the shareholders from the purchase of common stock are called as dividend and capital gain. The expectations of the shareholders thought of management, need of the capital in the organization and so many other factors, which guide the dividend decision of the company.

Dividend is the portion earning of the concerned organization, which is divided to shareholders as the return on their share. Dividend is the main indicator of the company's performance in term of profit. Higher rate of dividend shows the higher profit of the business and vice-versa. "Dividends refer to that portion of a firm's net earnings, which are paid out to the shareholders" (Khan and Jain, 1992: 543).

Dividend is expressed as either a percentage of the face value of the share rather than its market prices or more commonly as an absolute amount per share. Most of the time, dividends are paid in cash, which reduces the cash balances of the company. Thus, the dividend policy affects the financial position and liquidity position of the company.

On the other hand, capital gain is that kind of profit on shares, which is gained from the sell of the common shares. By various reasons, the market prices of the shares increase in secondary market. Thus, many investors initiated to

hold that kind of “blue chips”, stocks with good earning history. Many investors buy low priced stocks and sell it when the prices are in boom, which is called speculative investment. In this case, the investors have the capital gain on their investment. The stockholders expect an increase in the market value of the common stock over time, which is considered as capital gain.

Returns are defined as the profit plus the capital gain or loss. Return on common stock affects on sensitivity of stock price.

2.7 Stock Price Volatility

Volatility is defined as the relative rate at which the price of a security moves up and down. Volatility is basically the variation from the average value over a measurement period. If a price varies a great deal from day to day, the volatility will be high, and conversely if the day-to-day variation is low, the value of volatility will be low as well. Volatility is a general term used to describe the magnitude of day-to-day fluctuation in prices (independent of direction). Generally changes in volatility tend to lead to changes in prices.

Volatility is a measure of a stock’s price fluctuation or the intensity of a security’s price fluctuations. The degree of movement in the price of a stock or other security itself is termed as volatility. A stock that spikes up or down on the slightest news has high volatility, while one that could survive nuclear war with barely a hiccup has low volatility.

The statistical measure of volatility is called the coefficient of variation. It measures the standard deviation of closing price from its simple moving average. Volatility is normally used to measure the risk profile of managed

fund. The volatility is a measure of fluctuation range for an instrument over a certain period of time. It is observed over a certain period and then extrapolated to a larger time interval.

Volatility is found by calculating the annualized standard deviation of a daily change in price. If the of a stock moves up and down rapidly over a short time periods, it has high volatility. If the price almost never changes, it has low volatility.

The usual way to calculate volatility for option trading is to take the trailing 20 periods (which for a daily calculation is almost one month of market days). The standard deviation is calculated on the daily closing price. To calculate the standard deviation, the average price over the range of days, say 20 days, is calculated. Then taking the daily difference between the price and the average, and square that, sum it over the 20 days, and divide by 20 (this value is known as the variance). Then taking the square root, we get standard deviation which is the number used to represent the volatility (*http://en.mimi.hu/stockmarket/ volatility.html*)

2.8 Review of Empirical Studies

In the following section previous studies relating to stock price are dealt in details segmenting foreign and Nepalese contexts separately.

2.8.1 Foreign Context

Research on security price did begin with the development of a theory of price formulation, which was then subjected to empirical tests. The impetus for the development of theory came from the accumulation of evidence in the middle 1950's and early 1960 are that the behavior of common stock and other speculative prices could be well approximated by a random walk. Much of the theory on the random walk model can be traced to French Mathematician Louis Bachelier whose PhD dissertation titled "The Theory of Speculation" conducted in 1900, included some remarkably insights and commentary. He came to the conclusion that "The Mathematical Expectation of the Speculator is Zero" and described this condition as a "fair game". Unfortunately, his insights were so far ahead of the times that they went largely unnoticed for over 50 years until his paper was rediscovered and eventually translated into English and published in 1964 (http/www.investorhome.com).

After Bachelier, research on the behavior of security price lagged until the coming of the computer. Kendall examined the behavior of weekly changes in nineteen indices of British industrial share prices and in spot prices for cotton (New York) and wheat (Chicago). After extensive analysis of social correlation, he suggest, in quite graphic terms: the series looks like a wandering one, almost as if once a week the demon of chance drew a random number from a symmetrical population of fixed dispersion and added it to the current price to determine the nest's week price (Fame, 1970: 389 – 390).

Cootner states: "If any substantial group of buyers thought price were too low, their buying would force up the prices. The reverse would be true for sellers, Except for appreciation due to earning retention; the conditional expectation of tomorrow's price, given today's price is today's price. In such a

world, the only price changes that would occur are those that result from new information. Since there is not reason to expect that information to be non-random in appearance, the period-to-period price changes of a stock should be random movements, statistically independent of one another (Cootner, 1962: 232).

In 1927, Slutsky concluded that the randomly generated price changes look like stock price changes and that they appear to exhibit cycles and other patterns (Gupta, 1989: 123). Similarly, in 1933, Alfred cowls found little evidence that stock market analysis could predict future price (Cowles, 1934: 309-324). In 1934, Holbrook working noted that speculative price patterns might be shown to be random comparing with artificially generated series of price (Working Paper, 1934: 11-24).

In 1959, H.V. Roberts Conducted simulation test by comparing the accumulation of random numbers and the Dow Jones Industrial Average index for about one year and found similarity between these two series (Harry, 1959: 1-10). At the same time, Osborne analyzed stock price change comparing with “Brownian Motion” and found the consistency between the Brownian motion and share prices movements that support random walk hypothesis (Osborne, 1962: 145-173).

In 1962, Moore studied weekly price changes of randomly selected stocks for the period 1951-58 and found an average serial correlation 0.06 (Moore, 1962:139-161). This extremely low value indicated that the weekly change data had almost no power in predicting future price changes.

In 1965, Fama, in his classic paper, analyzed the moment of stock market price changes of all the stocks (companies) that make up the Dow Jones Industrial Index for the period of 1957 to 1962 and investigated the daily proportional price changes of those 30 industrial stock and auto correlation were estimated for a variety of lags, ranges from 1 to 10 days. In his study, he found that the auto correlation coefficients for daily changes are small; the average being 0.03, which is very close to zero and lagged price changes shows some degree of dependence. He further investigated the data by run analysis by total number of runs, number of runs by sign and distribution of runs by length. This method also agrees with the independence hypothesis of successive price changes to each other. He found the total actual number of runs is less than the expected number, which is consistent with the positive correlation coefficient in the daily price changes. Out of thirty, twenty-six stocks had the actual number of runs is less than the expected number while the serial correlation coefficient was positive for twenty-three out of thirty stocks. Although, there exists slight dependencies in the series, the departure from randomness is negligible and the evidence is strong support for the independence (Fama, 1965: 34-105).

In 1966, King examined the monthly price change from 1927 to 1960 of 63 stocks and concluded that the stock market prices follows random walk model. The estimated average serial correlation coefficient was 0.018, which is close to zero (King, 1966:136-190).

Alexander, in 1961, tested the 'filter technique' on the closing prices of two indices, the Dow –Jones Industrial Index from 1829 to 1929 and standard and

poor's industrial index from 1929 to 1959 and reported that in general, filters of all different sizes and all different times periods yield substantial profits-profits significantly greater than that of simple buy and hold policy. Finally, he concluded that the independence assumption is not validated as a description of reality by his data. Nevertheless, later in 1964, he corrected the shortcomings of his previous studied and supported the independent hypothesis of stock market. According to him "In fact, at this point, I should advice any reader who is interested only in practical results, and who is not a floor trader and so must pay commissions, to turn to other sources of how to beat buy and hold hypothesis. In 1966, Fama and Blume used the filter technique to overcome the shortcomings of Alexander's mechanical rules. They employed twenty four different filters ranging from 0.5% to 50% and compared the profitability with buy and hold return of each stock of the Dow Jones Shares. Ignoring transaction costs, only two out of thirty is superior to buy and hold policy, when commissions are taken into consideration only four out of thirty have positive return and are not comparable with buy and hold return (Fama and Blume, 1966: 226-241). Thus, this results support the evidence for the conclusion previously drawn from statistical method.

Sweeny, in 1988, developed filter rule that was able to earn modest profits. Sweeny replicated Fama and Blume's resulted in the short the short positions usually generated the trading losses. So Sweeny used an X percent filter rule with no short positions, as follows:

If the price of a security rises at least X percent, buy and hold the security until its price drops at least X percent from subsequent high. Then, liquidate the

long position and invest the proceeds in risk free short term bonds until the price reaches its next through and then rises X percent.

Sweeney also found that filter rule trading tended to be fairly and consistently profitable in some stocks while being fairly consistently unprofitable year after year in other stocks. After delineating and eliminating these problems in Fama and Blumes' filter rule, Sweeney filter rules could mechanically trade some stocks and earn a statistically significant rate of profit after the tiny trading costs incurred by NYSE floor trades were deducted. If the higher commission rates that most investors pay are deducted, however, Sweeney's filter rule was not profitable (Sweeney, 1988: 285-300).

Fama and Mac Beth examined the return series (rather than the piece change series) by using capital assets pricing model to estimate expected return on a security. They then examined the correlation of excess return (actual return minus expected return) and found virtually no correlation. Similarly, Galai used a model developed by Black and Scholes to estimate expected returns on the option market and then examined the correlation of excess returns. Similarly, Roll used the term "Structure" of interest rates to estimate expected return in the Treasury Bill Market and then look at the correlation of excess returns. In both cases, the market was weak from efficient.

Many of the authors who examined correlation also examined runs. The actual number of runs in case tests seem to show some small positive relationship between successive price changes (or log price changes or

returns), but it is very small, on average and frequently negative for individual securities.

Jennergren and Karsvold (1975) examined daily price series of 15 Stocks from Oslo change (Norway) and 30 stocks from Stockholm stock exchange (Sweden) by using serial correlations and runs analysis during 1967 and found considerable dependence in both the Norwegian Swedish Stock Prices. Based on their findings, they concluded, “Price changes are not independent random variable in the case of the majority of the 45 investigated Norwegian and Swedish Stocks. This implies that the random walk hypothesis is probably not a very accurate description of shares price behavior on the Norwegian and Swedish Stock Markets.

Conard and Juttner (1973) applied runs and serial correlation test to examine the daily prices of 54 German Stock and observed dependence in the successive price changes. Thus they concluded that the random walk theory is inappropriate to describe the behavior of the share price in the Germany. Dr. S. Basu (1977) analyzed market data on over 750 NYSE listed stocks from the 14-year period between September 1956 and August 1971. The first step in his analysis was to array all these stocks based on the values of their year ended P/Es. Second, Basu formed five equal sized portfolios from the quintiles of each year’s array of the stock’s P/Es. Third, the monthly rates of using the stock’s return from the following year. Fourth, Basu computed the characteristic line in risk premium form.

Basu deducted an allowance for the security and portfolio management expenses that are appropriate for a large portfolio in order to determine the returns net of the costs. After these costs were deducted from the quintile

portfolio with the lowest P/E, Dr. Basu found that the portfolio earned from 0.5 to 2.50 percent per annum more than a randomly selected portfolio in the same risk Class. Basu's after costs results are well worth considering when selecting common stock, the one or two percentage points per year additional rate of return that an investors who must pay commissions and income taxes could hope to attain from the lowest P/E portfolio is a statistically significant additional annual return. In sum Dr. Basu's conclusion suggests that selecting low P/E stocks appears to be a slow but fairly steady way to outperform the native buy and hold strategy (Basu, 1977: 663-682).

In Indian context, Rao and Mukherjee (1971) applied spectral method to test random walk model of share price behavior. They examined weekly average share piece of Aluminum Company's share for the sixteen years from 1955 to 1970 and supported the random walk hypothesis.

Gupta (1978) concluded that the random walk model appeared to be an appropriate model to describe share price behavior (Gupta, 1979: 51-75).

Bhalla (1982) stated about random walk hypothesis, random walk theorists usually take as their starting point the model of a perfect securities market in which a relatively large number of investors, traders, and speculators compete in an attempt to predict the course of future prices. Moreover, it is further assumed that current information relevant to decision –making process is readily available to all at little or no cost. If we "idealize" these conditions and assume that the market is perfectly competitive then equity prices at any given point of time would reflect the market's evaluation of all currently

available information becomes known. And unless the new information distributed over time in a non-random fashion, and we have no reason to presume this, price movements in a perfect market will be statistically independent of one another.

Browns studied the behavior of the earning changes, stock prices and market efficiency. According to him, earning per share information is central to be valuation of equity securities. The determination of market efficiency is especially important but is yet unsettled. The purpose of his study was to present further information, which will help to resolve the issue.

The study used the standard residual paradigm and daily price differencing interval to closely examine the market adjustment to EPS reports by using a native annual forecast model and a more sophisticated quarterly forecast model. Based on the sample of securities chosen, results indicated that the announcement of unusual EPS significantly affects stock prices that the prices do not adjust instantaneously and that an abnormal return in excess of transaction costs could be earned by using the forecast models.

The securities used the study met specific data availability, reporting data and EPS criteria. A residual analysis of the sample isolated stock returns from general market movements and randomized out price movements not associated with the EPS announcements.

He founded that market insufficiencies existed for the securities in the sample over the time periods considered. The statistically significant trend in sample

Cumulative Average Residual (CAR) indicates that the market failed to adjust instantaneously to new EPS information, so that the excess returns could have been earned by acting EPS information. The adjustment of stock prices to Earning per Share information apparently takes some time. The adjustment process rather than being instantaneous is lengthy (about 45 days). Thus, with respect to this particular sample of securities, the market exhibited in inefficiencies (Brown, 1978: 17-27).

2.8.2 Nepalese Context

There are some studies made on the stock market of Nepal including the independent researches published in economic/business journals and research for the unpublished Masters Degree Thesis Report.

2.8.2.1 Review of Studies in Nepal

There are very few independent studies conducted in the field of stock price analysis in Nepalese perspectives.

Radhe Shyam Pradhan (1993) carried out a study entitled *"Stocks Market Behavior on a Small Capital Market – A Case Study in Nepal"*, which was published in financial management practices in Nepal (1994). Among the different objectives, to assess the stock market behavior in Nepal seems related to this study. So, his finding of the study were,

1. Higher the earnings on stocks larger the ratio of dividends per share to market price per share.
2. Dividend per share and market price per share was positively correlated.

3. There was positive relationship between dividend payout and liquidity.
4. There was positive relationship between dividend payout and profitability.
5. There was earning, assets turnover and interest leverage are more variable for the stock paying higher dividends.

The major objectives of the study are:

1. To assess the stock market behavior in Nepal
2. To examine the relationship of market equity, market value to book value, price earning and dividend with liquidity profitability, leverage, assets turnover and interest coverage.
3. To assess and examine the impact of stock price volatility in Nepalese Economy

Shrestha (1995) critically analyzed the situation of common stock investors and the situation is not improved significantly until now.

Though the size of the shareholder population in Nepal has been growing constantly, the government seems to have not taken initiative in formulating the separate Act, which protects the shareholder's right.

However, the need of separate act regarding the protection of shareholders right is questioned. Company and other acts relating to financial and industrial sector have provisioned rights of the shareholders as:

1. Voting right
2. Participation in general meeting

3. Right of getting information
4. Electing as board of director
5. Participation in the profit and loss of the company
6. Transferring shares
7. Proxy representation

The collective rights of the shareholders are:

1. Amend the internal bylaws
2. Authorize the sales of assets
3. Enter into merger
4. Change amount of authorized capital

Some public limited companies have floated the shares to the general public without having shareholders representation in the board. There are many such companies, which conduct the annual general meetings just as a formality to fulfill their desire and do not consider the voice of the majority of the shareholders. Similarly management involvement and government intervention in the board election have brought a greater set back in the voting rights of the shareholders.

Shrestha argued further to safeguard the investors' interest. The encouraging and growing confidence of shareholders over their investment seeks an independent inquiry of disclosed contents of prospectus. This help to satisfy a minimum standard of faith on investment in shares through relying on pros and cons of prospectus. It is therefore, important to dispose everything in prospectus, which could reasonably influence the mind of the prudent investors. Various Annual General Meeting held by different public limited

companies reveal a greater gap between disclosures made in prospectus and the actual results, which were reported. In this context the expression of disclosure philosophy and investigation of frauds in prospectus need to be reconciled to check and growing problems in the development of the capital market in Nepal.

Ojha (2002) found that there is dominance of banking sector in the stock market along with finance and insurance companies. Manufacturing companies are not encouraging. He also concluded that people have a misconception that the issuance of bonus shares and right shares. Which actually decrease the price and this makes them to invest even at a too high price with expectation of getting the same to increase their overall wealth. Further, he concluded that the stock price in Nepal is determined more by other factors rather than the financial performance of the concerned company.

Bhattarai and Joshi (2002) investigates whether or not the Nepalese Stock Market is efficient in weak form with respect to economically neutral behavioral variables simple OLS technique with White's heteroskedasticity-corrected standard errors is used to test the relationship between stock returns and economically neutral behavioral variables represented by weather (cloud cover and temperature) and biorhythms (seasonal affected disorder). The findings indicate the existence of weak form efficiency in the market for "temperature" and "seasonal affective disorder" but not consistent to those of results documented for developed and emerging stock markets.

2.8.2.2 Review of Unpublished Thesis

Bhattarai (1990) shows that, there were mismatch between the calculated price and quoted price of share. It clearly signals over pricing of the shares and market prices were guided by technical factors. Majority of the companies displaying lower price earning ratio indicates the erosion of the beliefs of investors on the shares of listed companies. As a result market price of share is highly skewed.

Aryal (1995) has concluded a research with the following main.

- To examine the efficiency of the stock market of Nepal
- To examine the serial correlation of successive daily price changes of the individual stocks.
- To determine whether the sequence of price changes are consistent with the changes of the series of random number expected under the independent Bernoulli process.
- To determine the efficiency of the stock market through the theoretical model of 'Efficient Market Hypothesis' in the stock market.

The major findings of the study on the basis of serial correlation and run test were:

- The price changes of the past and present can be very helpful to forecast future Price changes. Therefore, there exists the sufficient amount of opportunities for the sophisticated investors.
- When log days increases, the mean value of serial correlation of coefficient is lower, that indicates that the past price changes may have low power to predict the future price changes in the long run.
- The price changes in the present and future stock market may not be independent of the price changes in the past and present respectively.

- Nepalese Stock Market is not efficient in pricing shares.

Shrestha (1999) found that price change of the past and present can be of much help to forecast future price changes. The information of the past price change have low power to predict the future price changes for longer days. The price change is not random on the price change in the present and future stock market will not be independent from the price change of the past and present respectively.

Gurung (1999) has carried out a study on share price behavior of listed companies and he found that the correlation coefficient of 0.97 between the no. of traded and listed companies is significant, whereas it is negative in trading group and perfectly positive in the case of banking group. The market capitalization value was in erratic trends for every group in each year. The proportion of market capitalization of banking group was the highest among other groups. During the study, the number of transactions in banking group was highly attractive and liquid. The capital market in Nepal was bullish in the initial period's share prices, trading turnovers, market index as well as earnings have moved positively except market capitalization, but they moved negatively in the subsequent years. Thus, now the capital market is passing through the bearish trend in Nepal and there is a lack of investor's opportunities and the economy is passing through the recession year by year.

Paudel (2001) in his study found that the market shares of these banks do not capture the market share and the growth rates of different banking indicate used. The market value per share does not accommodate all the available historical information. The beta coefficient, which measures the risk of

individual security in relative term, suggests that none of the shares of eight sampled banks are risky. Therefore, even a risk averter can go for making an investment in shares of these banks.

Gautam (2001) concluded that for the growing aggregate the share price movement due to impact of rights offering cannot be generalized companies that have good investment prospects and has shown a sound a financial positions in the past, the announcement of rights offering serves a good news to the existing shareholders and they show their positive response to it, which reflects in the increase in share price and higher rate of subscription.

Shrestha (2004) concluded the following findings; there is a gap between the theory and practice of investment in Nepalese stock market and thus the prices of stock do not reflect the real value of stock in almost all cases. In NEPSE, EPS, DPS and NWPS individually do not have consistent relationship with the market price of share, among the listed companies but jointly have significant effect in market price of shares. NEPSE is analyzing stock market behavior in very few areas regarding the stock market and thus the areas have to be extended in diversified fields. Most of the investors are complaining that the market makers, brokers and NEPSE staff's are making coalition for fraudulent activities towards investors.

Commercial banking sectors have dominated the overall performance of NEPSE. Manufacturing & processing, trading and hotel sector have weak performance. So financial intermediaries are strong but their ultimate investment is suffering. Most of the sample companies' stock price found to

be under valued because their required rate of return is lower than the actual rate of return. This happens because of the decreasing trend of the risk free rate of return, which causes the required rate of return lower, and the increasing trend of the price of the sampled companies, which makes the actual rate of return high.

There is deficiency of proper laws and policies regarding the capital market. Shareholders are feeling unsecured to invest in security markets due to poor regulatory mechanism to protect shareholders interests. The implementation of existing laws is week. The study shows that Nepalese investors are more conscious towards the dividend and price appreciation of the shares they are investing but most of the investors are only using buy and hold strategy as only few of them are trading their shares in secondary market. This shows that there lacks professionalism in Nepalese investors.

Listed companies do not provide sufficient information (financial & non financial) to their shareholders and they are not able to act according to the shareholders desire. The performance of most of the listed companies is not transparent. Brokerage firm, Market maker, NEPSE and SEBO/N are responsible for making inefficiency in Nepalese Stock Market.

Besides financial & economic factors such as Earnings, Dividends, Demand & Supply, Net Worth, AGM, Right Share Issue, Information and Bonus Share/Stock Dividend of listed companies other political factors such as Political Stability, Cease-fires/Peace talks, general strikes (Bandah & Chhakajam) are main causes of sensitivity of stock price in Nepalese Market.

The increasing trend of NEPSE Index and Market Capitalization of listed Companies shows optimism for the growth of capital market in Nepal, in spite of unfavorable condition of business environment for the investment. But no single company will exist for long time on violence, instability and terrorism. So the resolution of Maoist problem should be solved without delaying single minute of time.

2.9 Research Gap

Many researches on the stock market price in Nepal have been conducted to find the determinants, which cause the fluctuation of share price. All of those researches have many useful findings and their own limitations.

Nowadays, Nepalese share market has entered to the new horizon. Its size and market capitalization are growing day by day. New Byelaws are being established to control stock market price. But it is clearly realized that share price are fluctuating abnormally. If earning, dividend and net worth are taken as the main determinates of price fluctuating, then why the share price is increased without the increment is such factors. Therefore there is still lack of appropriate researches to find out the causes of volatility of share price in Nepalese share market.

This research has tried to explore the possible determinant factors, which affect the share price fluctuation. Secondary data as well as primary data are taken and various research methods are applied and analyzed to find out the objectives. Hence, I am convinced that this research would be beneficial for all persons related to the Nepalese stock market.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a way to solve the research problem systematically. Methodology is the research method used to test the hypothesis. It refers to the various sequential steps that are to be adopted by a researcher during the course of studying a problem with certain objectives. It describes the methods and process applied in the entire aspects of the study. This chapter refers to the overall approach to the research process, covering from theoretical underpinning to the collection and analysis of data. It is composed of both parts of technical aspect and logical aspect. Specially, this chapter has focused on research design, sample size, sample selection procedure, data collection procedure, data processing, period covered, data analysis tools such as Financial and statistical tool are discussed

3.2 Research Design

The research design of this study is descriptive and analytical in nature. This study is quantitative since the quantitative data have extensively been employed. To facilitate research, the researcher collects the data of concerned sampled institutions and they are tabulated and analyzed by using different financial and statistical tools to find out real condition resource utilization.

The research is based on recent historical data. It deals with the common stock of various type public limited companies on the basis of available information. In this study, historical as well as descriptive research design is adopted. To movement the affect of earning, book value and dividend on stock price, historical research design is adopted along with correlation and regression analysis.

"A research design is the arrangement of conditions, for collection and analysis of data in such a manner that aims to combine relevance to the research purpose with economy in procedure" (Selltiz and Others, 1962:50). In this study, historical as well as descriptive research design is adopted. To analyze the sensitivity of earning, net worth, dividend on stock price, historical research design is adopted along with correlation and regression analysis. Basically, the secondary data are used in the study.

3.3 Population and Sample Studies

As at the end of this fiscal year 2009/10, number of listed companies in NEPSE reached to 159. All of the listed companies in the NEPSE will be the population and certain of among will be the sample organization of the study. For the purpose of this study, a total of 159 companies are considered as population. Among them, 7 companies have been taken as sample for the study, which represents 4.40 percent of the population.

There are listed companies of different sector at the end of the fiscal year 2009/10.

Table 3.1

Population, Sample Studies, Study Years and Number of

Observations of Different Sector

S.N.	Sector	No. of Listed Co.	Percent	No. of Samples	Study Years (7Yrs.)	No. of Observations
1	Commercial Bank	21	13.20	4	2003 – 2009	7x4
2	Development Bank	29	18.24	2	2003– 2009	7x2
3	Finance Company	61	38.36	1	2003 – 2009	7x1
4	Insurance Company	17	10.70	-	-	-
5	Mfg. & Processing Company	18	11.32	-	-	-
6	Trading Companies	4	2.52	-	-	-
7	Hotels	4	2.52	-	-	-
8	Other Companies	5	3.14	-	-	-
Total		159	100.00	7		49

Source: SEBO/N, Annual Report, 2065/66

The names of the sampled companies are as follows:

Commercial Bank

1. Himalayan Bank Limited (HBL)
2. Nabil Bank Limited (NABIL)
3. Standards Chartered Bank Nepal Limited (SCBL)
4. Nepal Investment Bank Limited (NIB)

Development Bank

1. Development Credit Bank Limited (DCBL)

2. Ace Development Bank Limited (ADBL)

Finance Company

1. Lalitpur Finance Company Limited (LFL)

The enterprises selected for the study can be considered representative of commercial banks, development banks, finance companies excluding insurance companies, manufacturing & processing companies, trading companies, hotel and hydropower companies as they have less percentage and have nominal impact in share market trading compared to banks and finance companies.

3.4 Profile of the Sample Organizations

The total number of listed companies in the NEPSE, which was 108 in fiscal year 2002/03, increased by 6 to 114 in FY 2003/04 and presently by FY 2008/09 the number of listed companies has increased to 159. In this study 7 sample organizations are taken into consideration for the study with all sectors from NEPSE. A brief introduction of the sample organizations is given here to become familiar with the organizations introduction and their performances:

3.4.1 Himalayan Bank Limited (HBL)

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cutthroat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits.

Legacy of Himalayan lives on in an institution that's known throughout Nepal for its innovative approaches to merchandising and customer service. Products such as Premium Savings Account, HBL Proprietary Card and Millionaire Deposit Scheme besides services such as ATMs and Tele-banking were first introduced by HBL. Other financial institutions in the country have been following our lead by introducing similar products and services. Therefore, we stand for the innovations that we bring about in this country to help our Customers besides modernizing the banking sector. With the highest deposit base and loan portfolio amongst private sector banks and extending guarantees to correspondent banks covering exposure of other local banks under our credit standing with foreign correspondent banks, we believe we obviously lead the banking sector of Nepal. The most recent rating of HBL by Bankers' Almanac as countries number 1 Bank easily confirms our claim.

All Branches of HBL are integrated into Globus (developed by Temenos), the single Banking software where the Bank has made substantial investments. This has helped the Bank provide services like 'Any Branch Banking Facility', Internet Banking and SMS Banking. Living up to the expectations and aspirations of the Customers and other stakeholders of being innovative, HBL very recently introduced several new products and services. Millionaire Deposit Scheme, Small Business Enterprises Loan, Pre-paid Visa Card, International Travel Quota Credit Card, Consumer Finance through Credit Card

and online TOEFL, SAT, IELTS, etc. fee payment facility are some of the products and services. HBL also has a dedicated offsite 'Disaster Recovery Management System'. Looking at the number of Nepalese workers abroad and their need for formal money transfer channel; HBL has developed exclusive and proprietary online money transfer software- Himal Remit TM. By deputing our own staff with technical tie-ups with local exchange houses and banks, in the Middle East and Gulf region, HBL is the biggest inward remittance-handling Bank in Nepal. All this only reflects that HBL has an outside-in rather than inside-out approach where Customers' needs and wants stand first.

HBL is not only a Bank, It is committed Corporate Citizen. Corporate Social Responsibility (CSR) holds one of the very important aspects of HBL. Being one of the corporate citizens of the country, HBL has always promoted social activities. Many activities that do a common good to the society have been undertaken by HBL in the past and this happens as HBL on an ongoing basis. Significant portion of the sponsorship budget of the Bank is committed towards activities that assist the society as large.

Himalayan Bank Limited holds of a vision to become a Leading Bank of the country by providing premium products and services to the customers, thus ensuring attractive and substantial returns to the stakeholders of the Bank.

The Bank's mission is to become preferred provider of quality financial services in the country. There are two components in the mission of the Bank; Preferred Provider and Quality Financial Services; therefore we at HBL believe that the mission will be accomplished only by satisfying these two important

components with the Customer at focus. The Bank always strives positioning itself in the hearts and minds of the customers.

The Bank's Objective is to become the Bank of first choice is the main objective of the Bank.

The authorized capital of the HBL is Rs. 200 million. The issued capital is Rs. 101.35 million and the paid up capital is Rs. 101.35 million. The market capitalization of HBL is Rs. 14270.26 million as on July 15, 2009

3.4.2 NABIL Bank Limited (NABIL)

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services through its 19 points of representation across the kingdom and over 170 reputed correspondent banks across the globe. Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

Highly qualified and experienced management team manages operations of the bank including day-to-day operations and risk management. Bank is fully equipped with modern technology, which includes ATMs, credit cards, state-of-art, world-renowned software from Infosys Technologies System, Bangalore, India, Internet banking system and Tele-banking system.

The authorized capital of the NABIL is Rs. 1600 million. The issued capital is Rs. 689.21 million and the paid up capital is Rs. 689.21 million. The market capitalization of NABIL is Rs. 33675.38 million as on July 15, 2009

3.4.3 Standard Chartered Bank Nepal Limited (SCBN)

Standard Chartered Bank Nepal Ltd. formerly Nepal Grind lays Bank Ltd. Was established in 1985 as second foreign Joint-Venture bank under the Company Act, 1964.

This Bank has established as one of the strong Bank in the crowd of Commercial Banks. Standard Chartered Bank Nepal Ltd. is the foreign Joint-Venture partner with 75% share equity investment (Standard Chartered Group) and 25% share equity of Nepalese Promoters. Standard Chartered is the world's leading emerging markets Bank with more than 500 offices across over 50 countries primarily in Asia, the Sub-Continent, the Middle East, Africa and Latin America. Standard Chartered Bank has a firm commitment to the emerging markets, where potential for future growth has been visualized.

The main objective of the Bank is to collect deposit and provide loans for commerce, industries and agriculture. But due to increase in competition the Bank has started to provide home loan, hire purchase loan, auto loan and education loan too. SCBN is providing modern banking service such as any-branch banking, any time banking, e-banking etc.

The authorized capital of the SCBN is Rs. 100 million. The issued capital is Rs. 50 million and the paid up capital is Rs. 37.5 million. The market capitalization

of SCBN is Rs. 37254.92 million as on July 15, 2009 with highest market price per share among the listed companies in NEPSE. This Bank is able to earn a very significant profit.

3.4.4 Nepal Investment Bank Limited (NIBL)

Nepal Investment Bank Limited former Nepal Indosuez Bank Ltd. was established on 21 January 1986 as a third Joint-Venture Bank under the Company Act, 1964. Banque Indosuez managed the Bank, Paris of France in accordance with Joint Venture and Technical services agreement signed between it and Nepali promoters. Now Banque Indosuez, Paris has sold their all shares to Nepali promoters.

The main objective of the Bank is to provide loans and advance to the industries, commerce and agriculture and to provide modern banking services to the people. NIB is providing Visa Electron Debit Card facility first time in Nepal. NIB is awarded for Bank of the year for 2002/03.

The authorized capital of the NIB is Rs. 59 million. The issued capital is Rs. 29.52 million and the paid up capital is Rs. 29.52 million. The market capitalization of NIB is Rs. 13916.56 million as on July 15, 2009.

3.4.5 Development Credit Bank Limited (DCBL)

The Development Credit Bank was incorporated in 2000 under company Act 1996 and Development Bank Act, 1995. The major shareholders of the DCB are BOK and PAN World International. The objectives of DCB are to collect deposit under the provision made by Central Bank and to provide fixed and working capital loan to agriculture, trade, service, industry and profession.

Except that, the Bank aims to invest on shares, debentures, bond etc. for the development of capital market in Nepal and to provide consultancy services in different areas. DCB is the first Bank in the history of Nepal, which is awarded with quality management system standard ISO 9001:2000.

The authorized capital of the DCB is Rs. 32 million. The issued capital is Rs. 16 million and the paid up capital is Rs. 16 million. The market capitalization of DCBL is Rs. 1104.00 million as on July 15, 2009.

3.4.6 Ace Development Bank Limited (ADBL)

Ace Development Bank Limited was founded in August 1995 as Ace Finance Limited under the company Act, 1964 with the objectives of carrying out financial activities under finance company Act, 1985 and securities exchange Act, 1983.

Ace Finance Company Ltd. was upgraded to Ace Development Bank Ltd., a full fledged category “B” development bank in 2007.The mission statement is “ Banking on Innovation and Integrity” and other objectives are to be the preferred provider for financial services by introducing a wide range of banking products and enhancing and maintaining quality services to the clients; to serve the larger base of costumers by expanding geographically; to participate in the economic development of Nepal by providing services in micro finance, infrastructure development financing etc. to ensure maximum value to stakeholders and to focus on good corporate governance and corporate social responsibilities.

The authorized capital of the ADBL is Rs. 1000 million. The issued capital is Rs. 750.46 million and the paid up capital is Rs.750.46 million. The market capitalization of ADBL is Rs. 1881.60 million as on July 15, 2009.

3.4.7 Lalitpur Finance Limited (LFL)

Lalitpur Finance Limited has vision as "Anchored by values, driven by competent employees, LAFIN aims to be a corporate entity renowned for its financial services, supported by quality management and staying ahead in the competition by innovating new products and services based on the dynamic needs of customers and market demands." The Quality Objective is "We are committed to serve our customer to professional standards striving for the highest level of customer satisfaction by continually improving the effectiveness of Quality Management System through the achievement of our Quality Objectives."To identify itself as prominent financial institution through effective strategies in terms of innovative offerings and quick delivery of services focusing towards customer satisfaction, and to achieve disciplined growth and profitability by building sizeable market share and creating value for the shareholders and to deliver excellent solutions to the customers developing mutually beneficial and lasting relationship.

The authorized capital of the LFL is Rs. 640 million. The issued capital is Rs.288.75 million and the paid up capital is Rs. 115.50 million. The market capitalization of LFL is Rs. 410.06 million as on July 15, 2009.

3.5 Sources of Data

This study is based on historical information provided by the company. The study is based on secondary data. Secondary data are used to analyses the factors, which affect the sensitivity of stock price. The following secondary sources of information are used to extract the required information:

- Annual reports of the company
- Financial statements
- Books, Journals, Newspaper Bulletins
- Previous dissertation papers, studies
- Periodical publication from Central Bureau of Statistics
- Securities Board, Nepal
- Nepal Stock Exchange
- Nepal Rastra Bank
- Related Websites

3.6 Data Collection Procedure

The data upon which this study is made are basically secondary in nature. The secondary data have been collected from financial statements, annual reports, unpublished official records of concerned banks and financial statement of listed companies published by Nepal stock exchange, , journals, magazines, books, previous dissertation papers, websites, NEPSE, SEBO/N, NRB etc. All the collected data and information have been properly arranged, synthesized, tabulated and calculated to arrive at the realistic analytical steps. To collect primary data, the questionnaires was asked five companies, two share brokers, three financial experts, five business men and fifteen investors/shareholders of listed companies.

To collect secondary data, the researchers visited Campus Library of NCC, TU Central Library, SDC Library, Public Youth Campus Library, SEBO/N, Library and Nepal Rastra Bank's Library

3.7 Period Covered

The necessary data and information have been collected from various sources covering a period of seven years, i.e., 2002/03 to 2008/09. There were 159 Nepalese enterprises listed in the NEPSE Ltd. by the end of FY 2008/09.

This study does not cover all the Nepalese enterprise because of data problem. Many listed companies in NEPSE, listing date begin from 1995/96 and 1996/97. Many new companies are being listed every year as listing in NEPSE is never ending and ever increasing process. Therefore, the study period of seven years begins from 2002/03 for convenience in data collection and processing.

3.8 Tools for Analysis

The primary and secondary data collected from various sources leads to the logical conclusion. According to the nature of data, they have been interested in meaningful tables, which have been shows in table. Homogeneous data have been sorted in one table and similarly various tables have been prepared in understandable manner, odd data excluded from the table. Using financial as well as statistical tools, the data have been analyzed and interpreted. Financial and statistical tools are the main tools to be used in the calculation of the data, which are explained separately.

a) Statistical Tools

Statistical tools are to function as a tool in designing research, analyzing its data and drawing conclusions there from. Statistics is the science, which deals with classification and tabulation of numerical facts as the basis of explanation description and comparison of phenomenon.

Various statistical tools can be used to analysis the data available to the researcher. In this study, these statistical tools are used in research to analyze the data.

1. Arithmetic mean

Arithmetic mean is the number, which is obtained by adding the various numbers of all the items of a series and dividing the total by the number of items. Arithmetic mean is a useful tool in statistical analysis.

The most popular and widely used measure of representing the entire data by one value is what most laymen call an average and what the statisticians call the arithmetic mean (Gupta, 2000: 180).

Formula,

$$\overline{X}\ X \frac{X}{N}$$

Where,

$\overline{X}$ X AirthmeticMean

ΣX = Sum of Elements

N = Number of Observation

2. Standard Deviation

The standard deviation measures the absolute dispersion, the greater the standard deviation for the greater will be the magnitude of the deviation, small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series and a large standard deviation means just the opposite. Standard deviation is extremely useful in judging the representative ness of the mean (Gupta, 2000: 283).

Formula,

Standard Deviation (σ) = $\sqrt{\frac{X^2}{N}}$

3. Coefficient of Variation

Coefficient of variation is the relative measure of dispersion. Coefficient of variation is the percentage variation in means, standard deviation being considered as the total variation from the mean.

Formula,

Coefficient of Variation (C.V.) = $\frac{\exists}{\overline{X}} \mid 100$

4. Correlation Coefficient:

It is a useful statistical tool for measuring the intensity of the magnitude of linear relationship between two variables. The most important method of measuring the correlation between the two variables is "Karl person's coefficient of correlation." If the values of the variables are directly proportional then the correlation is said to be positive. On the other hand, if the values of the variables are inversely proportional, the correlation is said to be negative, but the correlation coefficient always remains within the limit of +1 to -1. The correlation coefficients (r) between two variables X and Y can be obtained by using following formula (Gupta, 2002: 541).

Formula,

$$r = \frac{N \quad XY\,\mathrm{Z} \quad X \quad Y}{\sqrt{N \quad X^2\,\mathrm{Z}(\quad X)^2}\sqrt{N \quad Y^2\,\mathrm{Z}(\quad Y)^2}}$$

Where,

r = The Correlation Coefficient between two variables X and Y

Proprieties:

a) It lies between -1 and +1
b) If r = +1, then there is perfect positive correlation.
c) If r = -1, then there is perfect negative correlation.

d) If r = 0, then there is no correlation.
e) If r = 0.7 to 0.99 (or 0.7 to -0.99) then there is high degree of positive (or negative) Correlation.

5. Coefficient of Determination

Coefficient of correlation between two variables series is a measure of liner relationship between them and indicates the amount of variation of one variable, which is associated with or is accounted for by another variable. A more useful and readily comprehensible measure for this purpose is the coefficient of determination, which gives the percentage variation in the dependent variable that is accounted for by the independent variable. In other words, the coefficient of determination gives the ratio of the explained variance to the total variance. The coefficient of determination is given by the square of the correlation coefficient i.e., r^2 (Gupta, 2002: 585).

Formula,

Coefficient of Determination (r^2) = Explained Variance/ Total Variance

b) Financial Tools

1. Market Price Per Share

One of the major data of this study consists of market price of stock. Records of maximum, minimum and closing prices are available for the purpose of this study. Since the calculation of real average price is constrained by lack of adequate information regarding volume and price of each transaction throughout the year, the closing price has been used as market price of stock.

MPS = Total Market Capitalization / No. Of Shares Outstanding

2. Earning Per Share

The earning per share is the share is the share of a stock on the earning of the organization.

EPS = Total Earning of organization/ No. of Shares Outstanding

3. Net Worth Per Share (Book Value per Share)

The NWPS represents the real net worth per share. It is simply the ratio of net worth (share capital plus retained earning/ general reserve) divided by the number of shares outstanding.

NWPS = Net Worth/ No. Of Shares Outstanding

4. Dividend per Share

Both cash dividend and stock dividend and stock dividend (bonus share) declared by each company have taken into account for the purpose of this study. Total amount of dividend has been calculated as follows:

Total Amount of Dividend = Cash Dividend + Stock Dividend % × Next Year's MPS

DPS = Total Dividend Paid / No. Of Shares Outstanding

4. Beta Coefficient

Beta is considered as a measure of un-diversified risk. It measures the systematic risk of a company stock. It assumes that total market risk is equals to 1. Beta indicates the risk associated with the company's stock in comparison with the market risk. If the beta is positive, it indicates that the company's risk and return tends to move positively with the market risk and return with calculated percentage. If the beta is negative, it indicates that the company's risk and return tends to move negatively with the market risk and return with calculated percentage. The beta is denoted by,

$$ß_j = \frac{Cov(R_j R_m)}{\exists_m^2}$$

Where,

$ß_j$ = Beta Coefficient

Cov (R_j, R_m) = Covariance between R_j and R_m

σ^2_m = Variance of market return

5. Capital Assets Pricing Model

The basic theory that links together risk and return for all assets is commonly called the capital asset pricing model (CAPM).

Using the beta coefficient, to measure non-diversifiable risk, CAPM is given as below:

$$K_j \, X R_f \, \Gamma[B_j \mid (K_m \, Z R_f)]$$

Where,

K_j = Required Return on Asset j

R_f = Risk-free Rate of Return

B_j = Beta Coefficient / Index of non-diversifiable risk for asset j

K_m = Market Return

The required return on an asset (K_j) is an increasing function of beta, B_j which measures non-diversifiable risk. In other words, higher the risk, higher the required return, vice versa. The model can be broken into two parts: the risk-free rate (R_f) and risk premium [$[B_j \mid (K_m \; Z R_f)]$. The (K_m - R_f) portion of the risk premium is called the market risk premium, since it represents the premium the investor might receive for taking the average amount of risk associated with holding the market portfolio of assets.

3.9 Method of Data Analysis and Presentation

While deciding about the method of data collection, to use for the study, the researcher should rewind in mind two types of data viz. primary and secondary sources of data. The primary data are those, which are collected fresh for the first time, and this happens to original in character. The secondary data, on the other hand are those which have already been collected by some one else and which have been already been passed through the statistical process. The researcher would have to decide which sort of data he/she would be using for his study and accordingly he/she will have to select one or the other method of data collection. The method of collection primary

and secondary data differs since primary data are to be originally collected. While in case of secondary data the nature of data collection work is merely that of completion (Kothari, 2002: 117).

The collected data are presented in simple and easily understandable tables with analysis and interpretation. Charts and diagrams trends line play a vital role in this respect. After presenting such data in the tables and fingers are analyzed using various statistical, mathematical and financial tools and techniques with the necessary interpretations.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

This chapter deals with data presentation, analysis and interpretation following the research methodology dealt with in the third chapter. This chapter is the main body of the study. In this study the data of MPS, EPS, DPS, NWPS, Market Index, Market Capitalization, Paid-up Value, Traded Share Quantity and No. of Transactions etc. of selected companies are presented. By using financial as well as statistical tools, the data have been analyzed tables and diagrams are used to make the result more simple and clear wherever necessary. In this chapter the secondary data collected from different sources, are presented and analyzed separately.

4.2 Examination of Sensitivity Relationship of EPS, DPS and NWPS to MPS

To examine and evaluate the relationship of EPS, DPS and NWPS to MPS, it is assumed that the market price of share is influenced with the changes in EPS, DPS, and NWPS. So MPS is the dependent variable; where as EPS, DPS and NWPS are independent variables. Relationship of EPS, DPS and NWPS with MPS is analyzed separately to each of the sampled listed companies, their significance test and coefficient of determination. As we know the correlation coefficient helps to determine whether there exists any relationship among different variables, statistical test to test the significance of correlation coefficient and the coefficient of determination to explain the variation in dependent variable due to the variation in the independent variable. For the

test of hypothesis of correlation coefficients calculated t-value are compared with the tabulated t-value at 95% level of significance.

4.2.1 Correlation Analysis of HBL

Table 4.1 summarizes the MPS, EPS, DPS and NWPS with Mean, S.D. and C.V. of HBL over seven year's period. Table 4.2 shows the relationship (correlation) of EPS, DPS and NWPS to MPS along with the significance of such relationships.

Table 4.1

Mean, Standard Deviation and Coefficient of Variation of HBL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2002/03	836	49.45	25	247.81
2003/04	840	49.05	20	246.93
2004/05	920	47.91	31.58	239.59
2005/06	1100	59.24	35	228.72
2006/07	1740	60.66	40	264.74
2007/08	1980	62.74	45	247.95
2008/09	1760	61.90	43.56	256.52
Mean	**1310.86**	**55.85**	**34.31**	**247.47**
S.D.	**459.51**	**6.20**	**8.71**	**10.65**
C.V.	**35.05**	**11.10**	**25.40**	**4.30**

Source: NEPSE Annual Reports of Various Fiscal Years

Table 4.2

Relationship of MPS with EPS, DPS and NWPS of HBL

Variables	r	r^2	t-cal	t-table	Remarks
r_{ab}	0.904	0.817	4.725	2.571	Significant
r_{ac}	0.921	0.848	5.282	2.571	Significant
r_{ad}	0.552	0.304	1.479	2.571	Insignificant

Source: Table 4.1

Where,

Mean = Arithmetic Mean

S.D. = Standard Deviation

C.V. = Coefficient of Variation

r_{ab} = Correlation Coefficient of 'a' and 'b'

r_{ac} = Correlation Coefficient of 'a' and 'c'

r_{ad} = Correlation Coefficient of 'a' and 'd'

r^2 = Coefficient of Determination

T-table value is at 95% level of significance

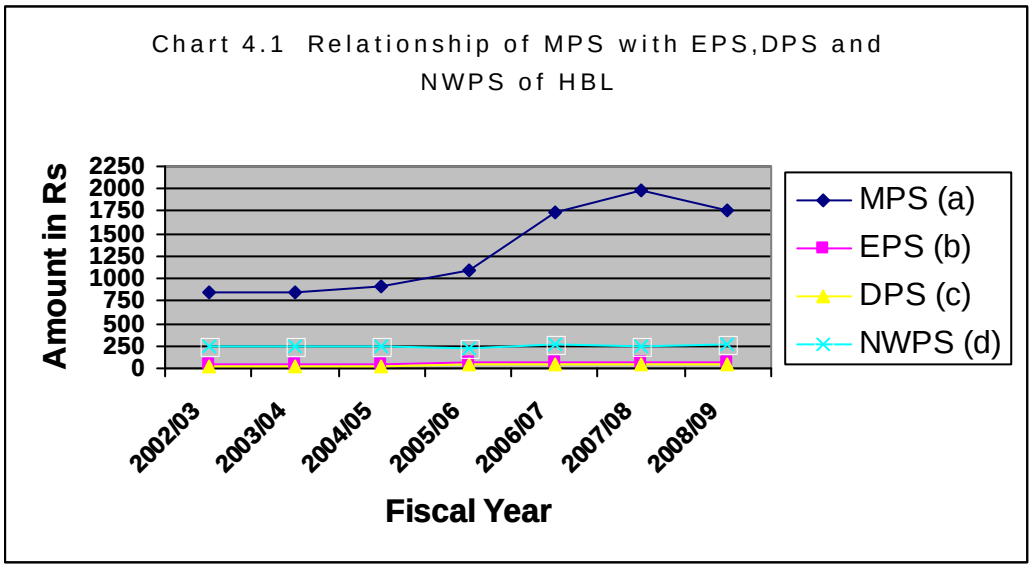
Degree of freedom = n-2 (i.e. 7-2 = 5)

It is found from the above tables and chart 4.1 that the NWPS and EPS are in increasing trend and are very less volatile with 4.30 % C.V. of NWPS and 11.10 % C.V. of EPS. In comparison to these, MPS is more volatile with 35.05 % and DPS is little bit more volatile with 25.4 % of C.V. in last seven years period. The correlation analysis shows that the MPS of HBL is positively correlated with EPS, DPS and NWPS. This implies that on increasing the EPS, DPS and NWPS, MPS increases accordingly and vice versa. The coefficient of determination shows that 84.80 % of the changes in MPS are explained by DPS, 81.70 % of the changes in MPS are explained by EPS and 30.40 % of the changes by NWPS. The correlation coefficients of EPS and DPS with MPS are significance at 95% confidence level but NWPS with MPS is not significant at 95% confidence level.

The linear relationship of MPS, EPS, DPS and NWPS of HBL is presented in chart 4.1.

Chart 4.1

Relationship of MPS with EPS, DPS and NWPS of HBL



4.2.2 Correlation Analysis of NABIL

Table 4.3 summarizes the MPS, EPS, DPS and NWPS with Mean, S.D. and C.V. of NABIL over seven year's period. Table 4.4 shows the relationship (correlation) of EPS, DPS and NWPS to MPS along with the significance of such relationships.

Table 4.3

Mean, Standard Deviation and Coefficient of Variation of NABIL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2002/03	740	84.66	50	267
2003/04	1000	92.61	65	301
2004/05	1505	105.49	70	337
2005/06	2240	129.21	85	381
2006/07	5050	137.08	140	418
2007/08	5275	108.31	100	354
2008/09	4899	106.76	85	324
Mean	**2958.43**	**109.16**	**85**	**340.29**
S.D.	**1885.75**	**17.22**	**26.99**	**46.41**
C.V.	**63.74**	**15.77**	**31.76**	**13.64**

Source: NEPSE Annual Reports of various fiscal years

Table 4.4

Relationship of MPS with EPS, DPS and NWPS of NABIL

Variables	r	r^2	t-cal	t-table	Remarks

r_{ab}	0.569	0.323	1.546	2.571	Insignificant
r_{ac}	0.809	0.654	3.075	2.571	Significant
r_{ad}	0.616	0.379	1.748	2.571	Insignificant

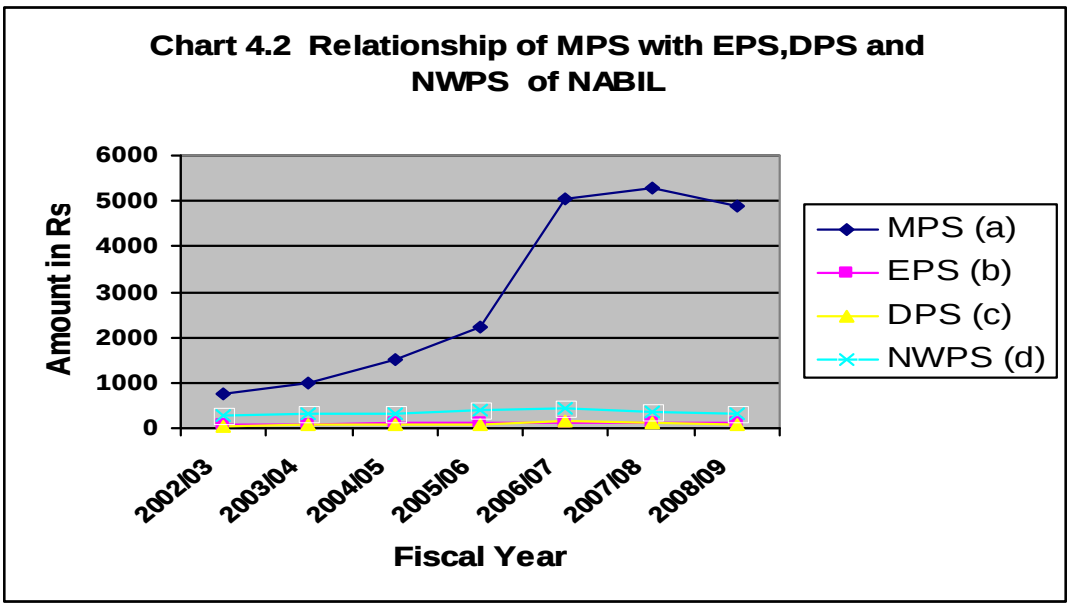
Source: Table 4.3

It is revealed from the above tables and chart 4.2 that the NABIL has not consistent performance over its last seven years period. MPS is highly volatile with 63.74 % C.V. In comparison to EPS and DPS, NWPS is less volatile. The correlation analysis revealed that the MPS is positively correlated with EPS, DPS and NWPS. The positive correlation of independent variables with dependent variables suggests that on increasing the value of the independent variables, the dependent variables (MPS) also increase and vice versa. On the other way the negative correlation of the dependent variable with independent variable (MPS) suggests that on increasing the independent variables (EPS, DPS and NWPS) the dependent variable (MPS) decrease and vice versa. The coefficient of determination suggests that 32.30 % of the changes in MPS are explained by the changes in EPS, 65.40 % of the changes in MPS are explained by the changes in DPS and 37.90 % of the changes in MPS are explained by the changes in NWPS. EPS and NWPS are not significantly correlated with MPS but EPS is significantly correlated at 95% confidence level.

The liner relationship of MPS, EPS, DPS and NWPS of NABIL is presented in chart 4.2.

Chart 4.2

Relationship of MPS with EPS, DPS and NWPS of NABIL



4.2.3 Correlation Analysis of SCBN

Table 4.5 summarizes the MPS, EPS, DPS and NWPS with Mean, S.D. and C.V. of SCBN over seven year's period. Table 4.6 shows the relationship (correlation) of EPS, DPS and NWPS to MPS along with the significance of such relationships.

Table 4.5

Mean, Standard Deviation and Coefficient of Variation of SCBN

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2001/02	1550	141.13	100	363.86
2002/03	1640	149.30	120	403.15
2003/04	1745	143.55	110	399.25
2004/05	2345	143.14	120	422.38
2005/06	3775	175.84	140	468.22
2006/07	5900	167.37	130	512.12

2007/08	6830	131.92	130	401.52
Mean	**3397.86**	**150.38**	**121.43**	**424.36**
S.D.	**2018.76**	**14.43**	**12.45**	**46.12**
C.V.	**59.41**	**9.60**	**10.26**	**10.87**

Source: NEPSE Annual Reports of Various Fiscal Years

Table 4.6

Relationship of MPS with EPS, DPS and NWPS of SCBN

Variables	r	r^2	t-cal	t-table	Remarks
r_{ab}	0.129	0.016	0.291	2.571	Insignificant
r_{ac}	0.684	0.467	2.095	2.571	Insignificant
r_{ad}	0.538	0.289	1.427	2.571	Insignificant

Source: Table 4.5

Where,

Mean = Arithmetic Mean

S.D. = Standard Deviation

C.V. = Coefficient of Variation

r_{ab} = Correlation Coefficient of 'a' and 'b'

r_{ac} = Correlation Coefficient of 'a' and 'c'

r_{ad} = Correlation Coefficient of 'a' and 'd'

r^2 = Coefficient of Determination

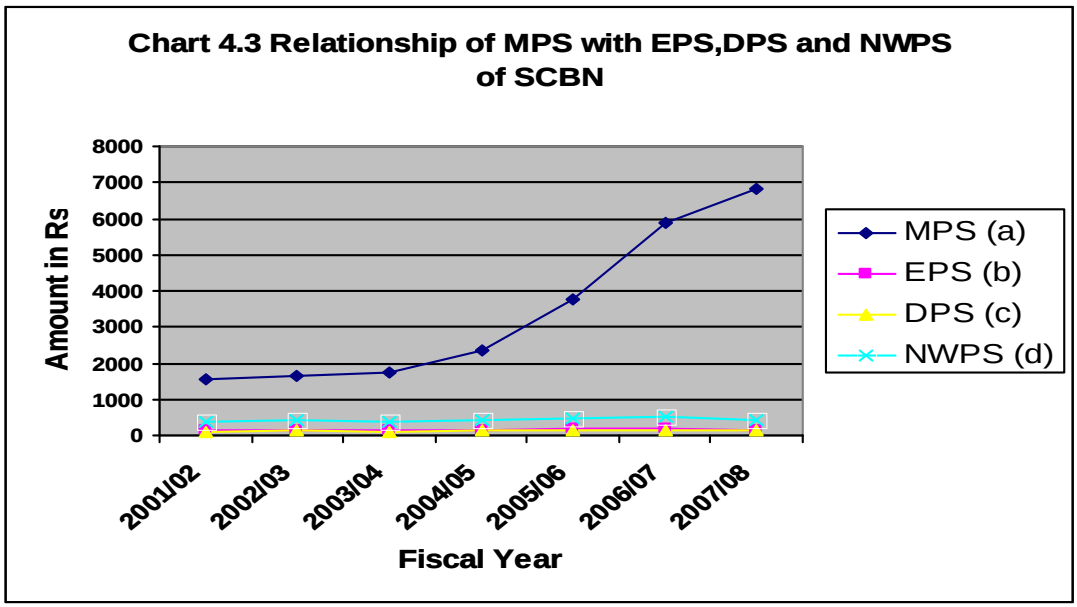
T-table value is at 95% level of significance

Degree of freedom = n-2 (i.e. 7-2 = 5)

It is found from the above tables and chart 4.5 that the EPS and DPS are in increasing trend and are very less volatile with 9.60 % C.V. of EPS and 10.26% C.V. of DPS. In comparison to these, MPS is highly volatile with 59.41% and NWPS is little bit more volatile 10.87% C.V. in last seven years period. The correlation analysis shows that the MPS of SCBN is positively correlated with the EPS, DPS and NWPS. This implies that on increasing the EPS, DPS and NWPS, MPS also increase and vice versa. The coefficient of determination shows that 46.70% of the changes in MPS are explained by DPS, 28.90% of the changes in MPS are explained by NWPS and 1.60% of the changes in EPS. The correlation coefficients of EPS, DPS, and NWPS with MPS are not significance at 95% confidence level for all variables. The linear relationship of MPS, EPS, DPS and NWPS of SCBN is presented in chart 4.3

Chart 4.3

Mean, Standard Deviation and Coefficient of Variation of SCBN



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4.2.4 Correlation Analysis of NIBL

Table 4.7 summarizes the MPS, EPS, DPS and NWPS with Mean, S.D. and C.V. of NIBL over seven year's period. Table 4.8 shows the relationship (correlation) of EPS, DPS and NWPS to MPS along with the significance of such relationships.

Table 4.7

Mean, Standard Deviation and Coefficient of Variation of NIBL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2002/03	795	39.56	20.00	216.24
2003/04	940	51.70	15.00	246.89
2004/05	800	39.50	12.50	200.80
2005/06	1260	59.35	55.46	239.67
2006/07	1729	62.57	30.00	234.37
2007/08	2450	57.87	40.83	223.17

2008/09	1388	37.42	20.00	162.35
Mean	**1337.43**	**49.71**	**27.68**	**217.64**
S.D.	**553.01**	**9.91**	**14.44**	**26.71**
C.V.	**41.35**	**19.93**	**52.15**	**12.27**

Source: NEPSE Annual Reports of Various Fiscal Years

Table 4.8

Relationship of MPS with EPS, DPS and NWPS of NIBL

Variables	r	r^2	t-cal	t-table	Remarks
r_{ab}	0.598	0.358	1.650	2.571	Insignificant
r_{ac}	0.543	0.295	1.450	2.571	Insignificant
r_{ad}	0.062	0.004	0.139	2.571	Insignificant

Source: Table 4.7

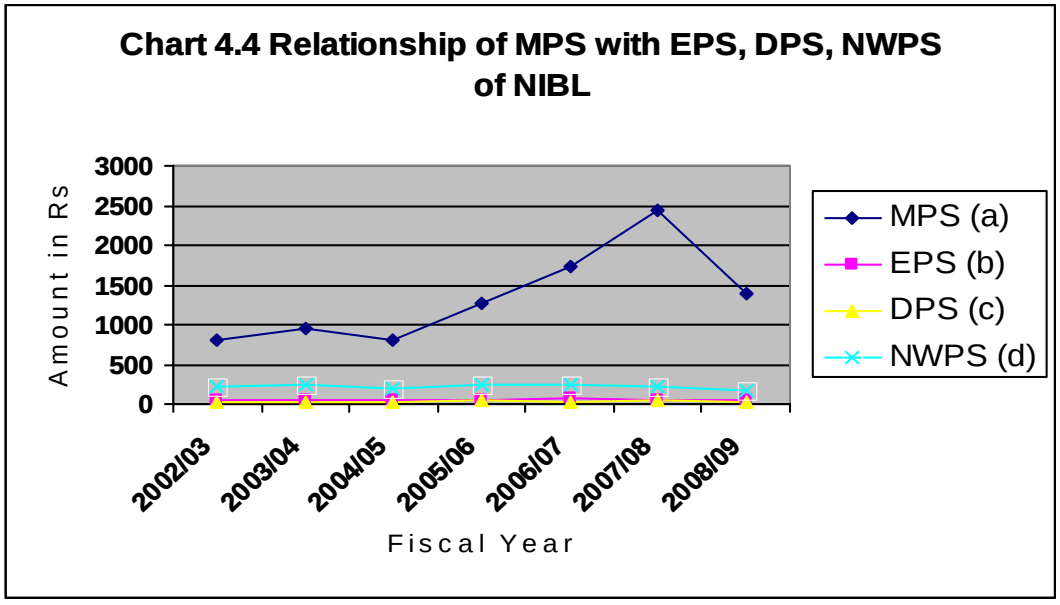
It is revealed from the above tables and chart 4.4 that the NIBL has not consistent performance over its last seven years period. DPS is volatile with 52.15% C.V. In comparison to EPS and MPS, NWPS is less volatile. The correlation analysis revealed that the MPS is positively correlated with EPS, DPS and NWPS. The positive correlation of independent variables with dependent variables suggests that on increasing the value of the independent variables, the dependent variables (MPS) also increase and vice versa. On the other way the negative correlation of the dependent variable with MPS suggests that on increasing the EPS, the MPS decrease and vice versa. The coefficient of determination suggests that 35.80% of the changes in MPS are

explained by the changes in EPS, 29.50% of the changes in MPS are explained by the changes in DPS and 0.40% of the changes in MPS are explained by the changes in NWPS. EPS, DPS and NWPS are not significantly correlated with MPS at 95% confidence level.

The liner relationship of MPS, EPS, DPS and NWPS of NIB is presented in chart 4.4.

Chart 4.4

Relationship of MPS with EPS, DPS and NWPS of NIBL



4.2.5 Correlation Analysis of DCBL

Table 4.9 summarizes the MPS, EPS, DPS and NWPS with Mean, S.D. and C.V. of DCB over seven year's period. Table 4.10 shows the relationship (correlation) of EPS, DPS and NWPS to MPS along with the significance of such relationships.

Table 4.9

Mean, Standard Deviation and Coefficient of Variation of DCBL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2002/03	145	10.41	10.53	105.27
2003/04	165	19.22	10.53	112.72
2004/05	305	22.27	12.63	120.48
2005/06	390	13.68	12.63	126.68
2006/07	800	16.78	12.63	129.25
2007/08	855	4.96	-	110.33
2008/09	460	6.23	5.26	112.94
Mean	**445.71**	**13.36**	**9.17**	**116.81**
S.D.	**263.32**	**6.04**	**4.46**	**8.22**
C.V.	**59.08**	**45.22**	**48.58**	**7.03**

Source: NEPSE Annual Reports of Various Fiscal Years

Table 4.10

Relationship of MPS with EPS, DPS and NWPS of DCBL

Variables	r	r^2	t-cal	t-table	Remarks
r_{ab}	-0.391	0.153	-0.950	2.571	Insignificant
r_{ac}	-0.493	0.243	-1.267	2.571	Insignificant
r_{ad}	0.347	0.120	0.827	2.571	Insignificant

Source: Table 4.10

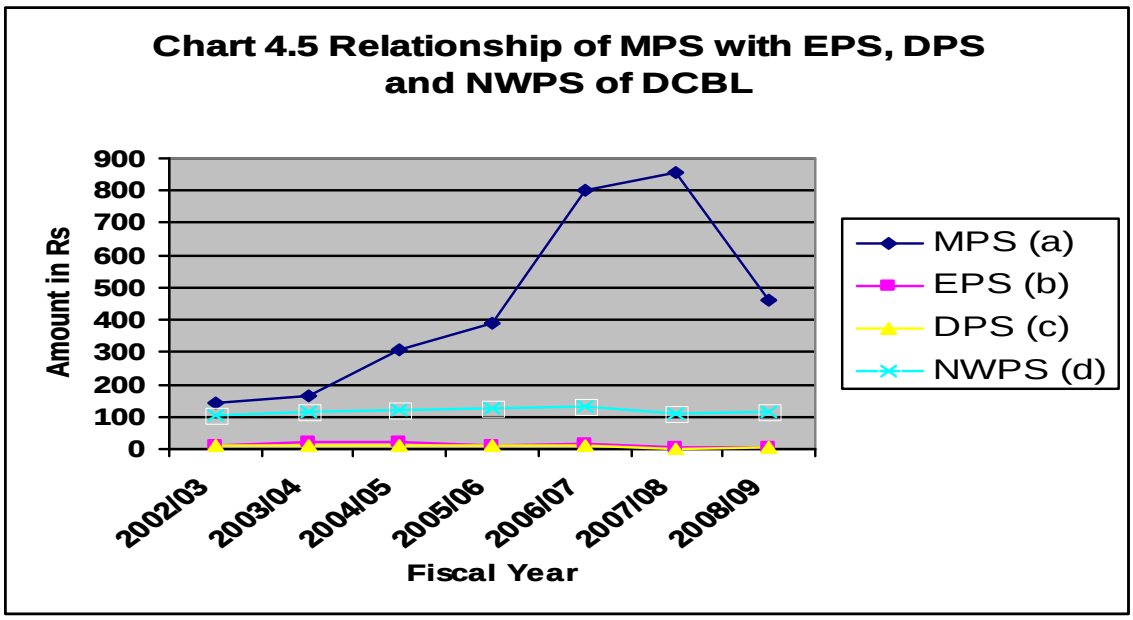
The DCBL is newly established Development Bank. From the above computed C.V., it is found that the DCBL has not consistent performance over its last

seven years period. MPS is more volatile with 59.08% C.V. in the last seven years. DPS is volatile with 48.58% C.V. and EPS is little bit volatile with 45.22% C.V. NWPS are less volatile with 7.03% C.V. The correlation analysis revealed that, the independent variables (EPS, DPS) are negatively correlated with MPS (dependent variable), which suggests that on increasing EPS, DPS; MPS decreases and vice versa where as NWPS is positively correlated to MPS. The coefficient of determination shows that 15.30% of the changes in MPS is explained by EPS, 24.30% of the changes in MPS is explained by DPS and 12 % of the changes in MPS is explained by NWPS.

The liner relationship of MPS, EPS, DPS and NWPS of DCB is presented in chart 4.5.

Chart 4.5

Relationship of MPS with EPS, DPS and NWPS of DCBL



4.2.6 Correlation Analysis of ADBL

Table 4.11 summarizes the MPS, EPS, DPS and NWPS with Mean, S.D. and C.V. of ADBL over seven year's period. Table 4.12 shows the relationship (correlation) of EPS, DPS and NWPS to MPS along with the significance of such relationships.

Table 4.11

Mean, Standard Deviation and Coefficient of Variation of ADBL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2002/03	240	26	15	162
2003/04	173	26	20	165
2004/05	251	18	0	179
2005/06	320	27.94	42.11	201
2006/07	459	6.71	5.26	112
2007/08	856	12.96	10.53	122
2008/09	588	6.92	0	108
Mean	**412.43**	**17.79**	**26.54**	**149.86**
S.D.	**224.06**	**8.47**	**29.85**	**33.39**
C.V.	**54.33**	**47.61**	**112.45**	**22.28**

Source: NEPSE Annual Reports of Various Fiscal Years

Table 4.12

Relationship of MPS with EPS, DPS and NWPS of ADBL

Variables	r	r^2	t-cal	t-table	Remarks
r_{ab}	-0.672	0.452	-2.029	2.571	Insignificant
r_{ac}	-0.297	0.088	-0.695	2.571	Insignificant
r_{ad}	0.699	0.489	-2.186	2.571	Insignificant

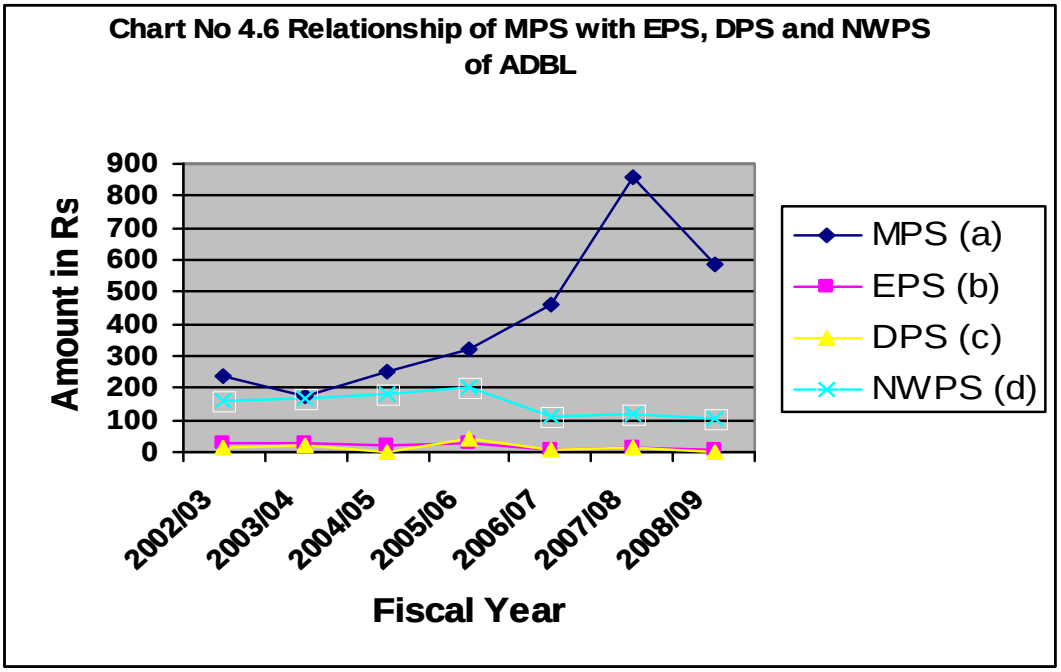
Source: Table 4.11

It is revealed from the above tables and chart 4.6 that the ADBL has not consistent performance over its last seven years period. DPS is highly volatile with 112.45% C.V. In comparison to EPS and MPS, NWPS is less volatile. The correlation analysis revealed that the MPS is positively correlated with NWPS whereas it is negatively correlated with EPS and DPS. The positive correlation of independent variables with dependent variables suggests that on increasing the value of the independent variables, the dependent variables (MPS) also increase and vice versa. On the other way the negative correlation of the independent variable with MPS suggests that on increasing the EPS and DPS, the MPS decrease and vice versa. The coefficient of determination suggests that 45.20% of the changes in MPS are explained by the changes in EPS, 8.80% of the changes in MPS are explained by the changes in DPS and 48.90% of the changes in MPS are explained by the changes in NWPS. EPS, DPS and NWPS are not significantly correlated with MPS at 95% confidence level.

The liner relationship of MPS, EPS, DPS and NWPS of ADBL is presented in chart 4.6.

Chart 4.6

Relationship of MPS with EPS, DPS and NWPS of ADBL



4.2.7 Correlation Analysis of LFL

Table 4.13 summarizes the MPS, EPS, DPS and NWPS with Mean, S.D. and C.V. of LFL over seven year's period. Table 4.14 shows the relationship (correlation) of EPS, DPS and NWPS to MPS along with the significance of such relationships.

Table 4.13

Mean, Standard Deviation and Coefficient of Variation of LFL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2002/03	265	28.30	-	153.88
2003/04	285	16.48	-	179.28
2004/05	250	50.36	50.00	227.00

2005/06	245	37.53	-	190.80
2006/07	330	52.69	52.63	241.56
2007/08	860	61.49	50.00	218.15
2008/09	950	59.14	50.00	202.61
Mean	**455**	**43.71**	**28.95**	**201.90**
S.D.	**286.81**	**15.57**	**25.08**	**27.80**
C.V.	**63.03**	**35.61**	**86.65**	**13.77**

Source: NEPSE Annual Reports of Various Fiscal Years

Table 4.14

Relationship of MPS with EPS, DPS and NWPS of LFL

Variables	r	r^2	t-cal	t-table	Remarks
r_{ab}	0.679	0.461	2.068	2.571	Insignificant
r_{ac}	0.559	0.312	1.507	2.571	Insignificant
r_{ad}	0.271	0.047	0.497	2.571	Insignificant

Source: Table 4.13

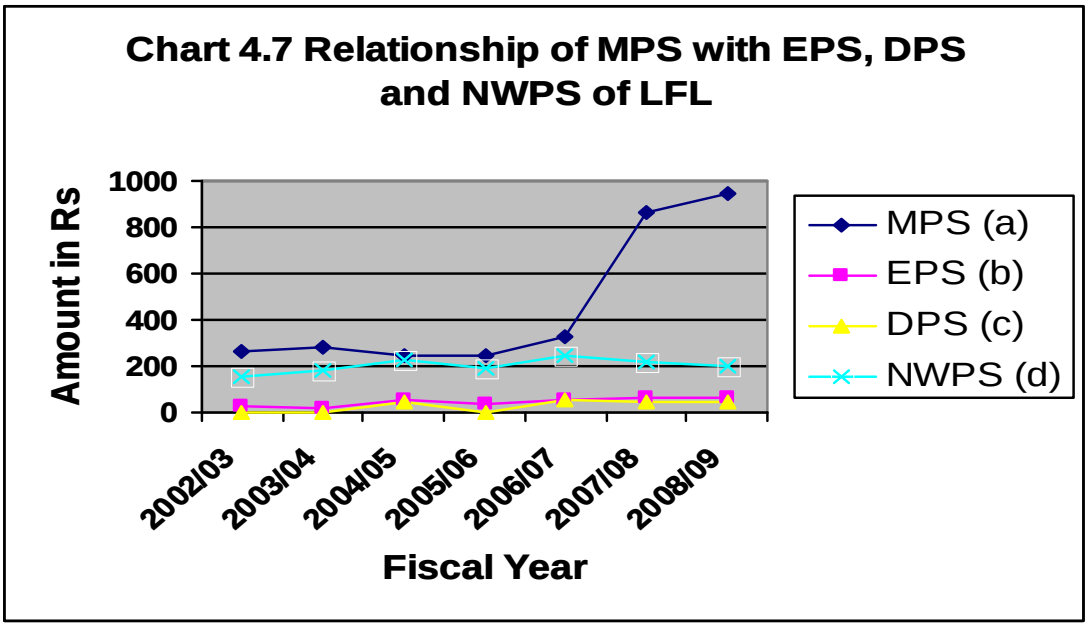
It is revealed from the above tables and chart 4.7 that the LFL has not consistent performance over its last seven years period. DPS is highly volatile with 86.65% C.V. In comparison to EPS and MPS, NWPS is less volatile. The correlation analysis revealed that the MPS is positively correlated with EPS, DPS and NWPS whereas it is negatively correlated with EPS. The positive correlation of independent variables with dependent variables suggests that on increasing the value of the independent variables, the dependent variables (MPS) also increase and vice versa.. The coefficient of determination suggests

that 46.10% of the changes in MPS are explained by the changes in EPS, 31.20% of the changes in MPS are explained by the changes in DPS and 4.70% of the changes in MPS are explained by the changes in NWPS. EPS, DPS and NWPS are not significantly correlated with MPS at 95% confidence level.

The liner relationship of MPS, EPS, DPS and NWPS of LFL is presented in chart 4.7.

Chart 4.7

Relationship of MPS with EPS, DPS and NWPS of LFL



4.2.8 Aggregate Relationship of MPS with EPS, DPS and NWPS

It is tried to draw out the aggregate relationship between those variables taking the mean values of companies.

Table 4.15

Aggregate Mean, SD and C.V. of Seven Sampled Companies

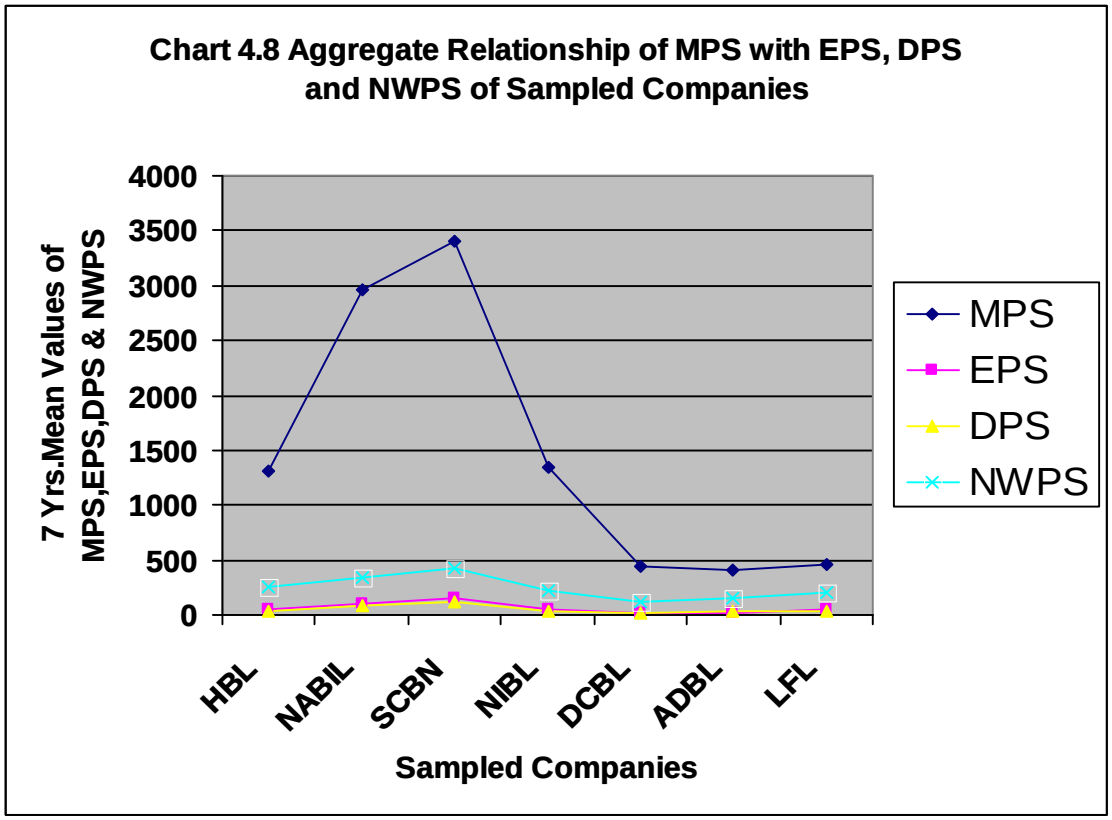
Sample Companies	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
HBL	1310.86	55.85	34.31	247.47
NABIL	2958.43	109.16	85.00	340.29
SCBN	3397.86	150.38	121.43	424.36

NIBL	1337.43	49.71	27.68	217.64
DCBL	445.71	13.36	9.17	116.81
ADBL	412.43	17.79	26.54	149.86
LFL	455.00	43.71	28.95	201.90
Mean	**1473.96**	**62.85**	**47.58**	**242.62**
S.D.	**1144.72**	**46.10**	**37.21**	**99.50**
C.V.	**77.66**	**73.34**	**78.20**	**41.01**

Source: Table 4.1 to 4.14

Chart 4.8

Aggregate Mean, SD and C.V. of Seven Sampled Companies



From the above table it is found that SCBN has highest average MPS, EPS, DPS and NWPS over the seven years period. The coefficient of variation of MPS, EPS, DPS and NWPS ranges from 41.01% to 77.66% for the 7 sampled companies implies that there is deviations range of 36.65 in their performances among the listed companies in NEPSE. For the sampled companies, MPS has very high fluctuation. Some of the companies are regarded as good dividend paying companies where as some of the companies pay fewer dividends and more retention. Similarly, ADBL has least MPS and DCBL has least EPS, DPS and NWPS; so DCBL can be considered as the least performing company among 7 sampled listed companies. Since the organizational objective is the value maximization, SCBN is the most successful organization on the basis of highest MPS followed by NABIL, NIBL, HBL, LFL, DCBL and ADBL. But according to the earning per share (profit maximization) of the sampled listed companies, SCBN is followed by NABIL, HBL, NIBL, LFL, ADBL and DCBL. According to the dividend of the sampled listed companies, SCBN is followed by NABIL, HBL, LFL, NIBL, ADBL and DCBL.

The correlation coefficient of MPS (dependent variable) with EPS, DPS and NWPS (independent variables) are presented in table 4.16 along with their significance at 95% level of significance.

Table 4.16

Aggregate Relationship of MPS with EPS, DPS and

NWPS of 7-Sampled Companies

Variables	r	r^2	t-cal	t-table	Remarks
r_{ab}	0.970	0.9409	8.922	2.571	Significant

r_{ac}	0.950	0.9025	6.803	2.571	Significant
r_{ad}	0.961	0.9235	7.769	2.571	Significant

Source: Table 4.15

The correlation analysis shows from the above table that the MPS is positively correlated with EPS, DPS and NWPS. 97.0% of the change in the MPS is explained by the changes in EPS and 95.0% of the change in the MPS is explained by DPS. 96.1% of the changes in MPS are explained by the changes in the NWPS and all are significant at 95% level of significance.

Table 4.17

Correlation Coefficient of MPS with EPS, DPS and

NWPS of Sampled Companies

Sample Companies	MPS (a) with EPS (b) = r_{ab}	MPS (a) with DPS (c) = r_{ac}	MPS (a) with NWPS (d) = r_{ad}
HBL	0.904	0.921	0.552
NABIL	0.569	0.809	0.616
SCBN	0.129	0.684	0.538
NIBL	0.598	0.543	0.062
DCBL	-0.391	-0.493	0.347
ADBL	-0.672	-0.297	-0.699
LFL	0.679	0.559	0.217

Source: Table 4.1 to 4.14

4.3 Regression Analysis

From the simple regression analysis, the regression equation found as: Annex I

MPS being dependent variable and EPS, DPS and NWPS are independent variables.

We have to analysis stock market prices using MPS with EPS, DPS and NWPS by the regression equations.

$Y= a + bx$

Where,

$\sum Y = na + b \sum X$……(i)

$\sum XY = a\sum X + b \sum X^2$……(ii)

Table 4.18

Summary of Regression Analysis of Seven Sampled Companies

Sample Companies	MPS (a) with EPS		MPS (a) with DPS		MPS (a) with NWPS	
	a	b	a	b	a	b
HBL	1310.78	0.0013	1310.79	0.002	-4583.78	23.82
NABIL	-3849.88	62.37	-1884.32	56.55	-5569.13	25.06
SCBN	691	18	-10064.93	110.87	-6587.27	23.53
NIBL	-322.89	33.4	761.32	20.81	1058.85	1.28
DCBL	673.58	-17.05	713.20	-29.16	-852.04	11.11
ADBL	728.56	-17.77	477.06	-4.87	1115.26	-4.69
LFL	-91.41	12.50	269.74	6.40	2.75	2.24

4.3.1 Regression Analysis of HBL

MPS on EPS

MPS = 1310.78 + 0.0013 EPS

The regression constant 1310.78 implies that when EPS is zero, MPS is Rs. 1310.78. The constant for EPS 0.0013 implies that when EPS increases by Rs.1000, MPS increases by Rs.1.30 and vice versa.

MPS on DPS

MPS = 1310.79 + 0.002 DPS

The regression constant 1310.79 implies that when DPS is zero, MPS is Rs. 1310.79. The constant for DPS 0.002 implies that when DPS increases by Rs.1000, MPS increases by Rs.2. and vice versa.

MPS on NWPS

MPS = - 4583.78 + 23.82 NWPS

The regression constant - 4583.78 implies that when NWPS is zero, MPS is Rs. 4583.78 (but in practice MPS never becomes negative, even zero share has always some positive value). The constant for NWPS 23.82 implies that when NWPS increases by Re.1, MPS also increases by Rs. 23.82 and vice versa.

4.3.2 Regression Analysis of NABIL

MPS on EPS

MPS = -3849.88 +62.37 EPS

The regression constant -3849.88 implies that when EPS is zero, MPS is Rs. 3849.88 (but in practice MPS never becomes negative, even zero, share has always some positive value). The constant for EPS 62.37 implies that when EPS increases by Re.1, MPS increases by Rs. 62.37 and vice versa.

MPS on DPS

MPS = -1848.32 + 56.55 DPS

The regression constant -1848.32 implies that when DPS is zero, MPS is Rs.1848.32 (but in practice MPS never becomes negative, even zero, share has always some positive value). The constant for DPS 56.55 implies that when DPS increases by Re.1, MPS increases by Rs. 56.55 and vice versa.

MPS on NWPS

MPS = -5569.13 + 25.06 NWPS

The regression constant -5569.13 implies that when NWPS is zero, MPS is Rs.5569.13 (but in practice MPS never becomes negative, even zero, share has always some positive value). The constant for NWPS 25.06 implies that when NWPS increases by Re.1, MPS also increases by Rs. 25.06 and vice versa.

4.3.3 Regression Analysis of SCBN

MPS on EPS

MPS = 691 + 18 EPS

The regression constant 691 implies that when EPS is zero, MPS is Rs. 691. The constant for EPS 18 implies that when EPS increases by Re.1, MPS increases by Rs. 18 and vice versa.

MPS on DPS

MPS = -10064.93 + 110.87 DPS

The regression constant -10064.93 implies that when DPS is zero, MPS is Rs. 10064.93 (but in practice MPS never becomes negative, even zero, share has

always some positive value). The constant for DPS 110.87 implies that when DPS increases by Rs.1, MPS increases by Rs. 110.87 and vice versa.

MPS on NWPS

MPS = - 6587.27 + 23.53 NWPS

The regression constant – 6587.27 implies that when NWPS is zero, MPS is Rs-6587.27 (but in practical life the MPS never becomes negative even zero). The constant for NWPS 23.53 implies that when NWPS increases by Re.1, MPS also increases by Rs. 23.53 and vice versa.

4.3.4 Regression Analysis of NIBL

MPS on EPS

MPS = -322.89 + 33.4 EPS

The regression constant -322.89 implies that when EPS is zero, MPS is Rs. 322.89 (but in practical life the MPS never becomes negative even zero). The constant for EPS 33.4 implies that when EPS increases by Re.1, MPS increases by Rs. 33.4 and vice versa.

MPS on DPS

MPS = 761.32 + 20.81 DPS

The regression constant 761.32 implies that when DPS is zero, MPS is Rs. 761.32. The constant for DPS 20.81 implies that when DPS increases by Rs.1, MPS increases by Rs. 20.81 and vice versa.

MPS on NWPS

MPS = 1058.85 + 1.28 NWPS

The regression constant 1058.85 implies that when NWPS is zero, MPS is Rs1058.85. The constant for NWPS 1.28 implies that when NWPS increases by Re.1, MPS also increases by Rs. 1.28 and vice versa.

4.3.5 Regression Analysis of DCBL

MPS on EPS

MPS = 673.58 – 17.05 EPS

The regression constant 673.58 implies that when EPS is zero, MPS is Rs. 673.58. The constant for EPS – 17.05 implies that when EPS increases by Re.1, MPS decreases by Rs. 17.05 and vice versa.

MPS on DPS

MPS = 713.20 - 29.16 DPS

The regression constant 713.20 implies that when DPS is zero, MPS is Rs. 713.20. The constant for DPS - 29.16 implies that when DPS increases by Rs.1, MPS decreases by Rs. 29.16 and vice versa.

MPS on NWPS

MPS = - 852.04 + 11.11 NWPS

The regression constant - 852.04 implies that when NWPS is zero, MPS is Rs. 852.04 (but in practical life the MPS never becomes negative even zero). The

constant for NWPS 11.11 implies that when NWPS increases by Re.1, MPS also increases by Rs. 11.11 and vice versa.

4.3.6 Regression Analysis of ADBL

MPS on EPS

MPS = 728.56 - 17.77 EPS

The regression constant 728.56 implies that when EPS is zero, MPS is Rs. 728.56. The constant for EPS - 17.77 implies that when EPS increases by Re.1, MPS decreases by Rs. 17.77 and vice versa.

MPS on DPS

MPS = 477.06 - 4.87 DPS

The regression constant 477.06 implies that when DPS is zero, MPS is Rs. 477.06. The constant for DPS - 4.87 implies that when DPS increases by Rs.1, MPS decreases by Rs. 4.87 and vice versa.

MPS on NWPS

MPS = 1115.26 - 4.69 NWPS

The regression constant 1115.26 implies that when NWPS is zero, MPS is Rs. 1115.26. The constant for NWPS - 4.69 implies that when NWPS increases by Re.1, MPS decreases by Rs. 4.69 and vice versa.

4.3.7 Regression Analysis of LFL

MPS on EPS

MPS = - 91.41 + 12.50 EPS

The regression constant - 91.41 implies that when EPS is zero, MPS is Rs. 91.41 (but in practical life the MPS never becomes negative even zero, it has always some positive value). The constant for EPS 12.50 implies that when EPS increases by Re.1, MPS increases by Rs. 12.50 and vice versa.

MPS on DPS

MPS = 269.74 + 6.40 DPS

The regression constant 269.74 implies that when DPS is zero, MPS is Rs. 269.74. The constant for DPS 6.40 implies that when DPS increases by Re.1, MPS increases by Rs. 6.40 and vice versa.

MPS on NWPS

MPS = 2.75 + 2.24 NWPS

The regression constant 2.75 implies that when NWPS is zero, MPS is Rs. 2.75. The constant for NWPS 2.24 implies that when NWPS increases by Re.1, MPS also increases by Rs. 2.24 and vice versa.

4.4 Analysis of Market Sensitivity

Analysis of market sensitivity gives a very useful insight in the analysis and the selection procedures of the common stock in the secondary market. In this beta co-efficient of the particular security is computed and compared with the market as a whole company in the listed companies. Market sensitivity of stock is explained by its beta coefficient. Beta is known as systematic risk measure. Higher beta indicates the greater reaction by the individual common

stock with the given movement in the market status. The beta of market is always equal to 1. Hence the analysis of market sensitivity gives on image of the stock regarding its change attitude along with the changes in the market status.

4.5 Security Market Line Analysis

In market equilibrium, the relationship between an individual security's expected return and its systematic risk, as measured by beta, will be linear. The relationship is known as security market line analysis. This analysis gives another approach towards the understanding the future turns of the stock prices based on pure economic aspect of one price. It helps in distinguishing the over and under priced shares among the shares listed with any stock exchange.

In security line analysis, following equation is applied to find out the rate of return from the convention of Capital Assets Pricing Model. The equation can be depicted as under.

$$E(R) \, \mathrm{X} R_f \, \Gamma (R_m \, \mathrm{Z} R_f) \quad _{jm}$$

Under Priced

Stock that lie above the Security Market Line are under priced indicating rates of return being higher than what actually are required for the level of risk involved. In other words, these stocks are over rewarded and accepted. According to Van Horne "under priced provides an unexpected return in excess of that required by the market for the systematic risk involved. As a result, the security will be attractive to investors. According to the theory the expected demand will cause the price to rise consecutively."

Over Priced

Stocks that lie below the security market line are overpriced indicating rate of return being lower than what actually are required for the level of risk involved in handling the security of this category. In other words, these stocks are under rewarded and normally they are rejected for the investment. An over priced security is unattractive and investors holding it will avoid it and consequently the price fall.

$$\bar{R}_j \ \Psi(K_j) \ X \ UnderPriced$$

$$\bar{R}_j \ \Phi(K_j) \ X \ OverPriced$$

Where,

$R_j \ X \ ExpectedReturn$

$K_j \ X \ RequiredvRateofReturn$

4.6 Presentations and Analysis of Data

In the course of availing first hand to justify the study on the topic primarily, interviews and questionnaire methods have been made applicable.

According to the officials of NEPSE, Nepalese Stock Market is dominated by retailing investors come forward to act in bullish trend. They emphasized that stability can't be fully achieved unless rational and institutional investors come forward to participate in the secondary market. Most of the experts opined that they used technical as well as fundamental analysis method of stock price behavior.

While conducting the informal discussion with many investors in the stock market, claimed that though they made investment decision after analyzing shares, they got less than the expected return from investment. They accused brokers and NEPSE officials of joining hands for price manipulation. They also shared the experience of sharp wealth devaluation in the past days.

According to the Stock Brokers of NEPSE, The investors can do volatile of stock price. But investors blame to Stock Brokers for fluctuation of stock. In this way, it was seen in the NEPSE, investors and officials were at loggerheads' over the cases of stock market slack, blaming each other for the volatility of stock prices.

4.6 .1 Questionnaire Analysis

To explore the volatility of stock price in NEPSE, primary information were collected from the respondents of questionnaire (stock brokers, stock investors, financial experts, businessmen and senior officers of listed companies). The cause of stock price volatility in Nepalese stock market was

identified in questionnaire and primary information was collected from respondents.

The respondents suggest the following major causes of stock price volatility in Nepalese Stock Market: -

Table 4.19

Causes of Stock Price Volatility In Nepalese Stock Market

S.No.	Research Variables	No. of Response	Mean (x)	Std. Devs.(S)
1	Demand & Supply	30	2.90	3.12
2	Bonus Share	30	2.56	2.75
3	Time of AGM	30	2.50	2.86
4	Political Stability	30	2.50	2.73
5	Information	30	2.46	2.68
6	Net Worth	30	2.26	2.44
7	Price Trend	30	2.20	2.48
8	Earning	30	2.06	2.27
9	Guideline of NRB	30	1.40	1.50

Source: Appendix-III

4.7 Cause of Sensitivity of Stock Price in NEPSE

The following factors are the major cause of sensitivity of stock price in NEPSE.

- Earning
- Dividend
- Demand and Supply
- Net Worth
- Annual General Meeting
- Right Share Issue
- Political Stability
- Cease-fires/Peace talks
- Information

- Bonus Share/Stock Dividend
- Traded Share Quantity
- International & National Factors
- Tax Rate
- Government Policy
- Strike and Demonstrations
- Rumors and Whims
- Board of Directors
- Management Change
- No. of Transactions
- Market Liquidity
- No. Of Listed Companies
- Closed Company

Regarding the sensitivity of stock price in capital market different scholar gave different views and ideas. Some viewed that earning, dividend, demand and supply, net worth, AGM and right share issue are the major causes of sensitivity of stock prices where as the other viewed that political stability, information and bonus share issue/stock dividend. Traded share quantity, international & national factors, tax rate, government policy, strike and demonstrations, rumors and whims, board of directors, management change, no. Of transactions, market liquidity, no. of listed companies and closed company are also found as the causes of the sensitivity of stock price in the stock market.

These are some of the major factors of volatility as to how they have impact on stock prices.

1. Higher the Earning, Higher the Stock Price
2. Higher the Cash dividend, Higher the Stock Price
3. Higher the Net Worth, Higher the Stock Price
4. After Stock Dividend/Bonus Share declared, Higher the Stock Price
5. If right share issued, lower the Stock Price
6. Higher No. Of Transactions & Traded Share Quantity, Higher the Stock Price
7. Cause of holding the Share, Increase the Stock Price
8. Stock Price is affected by Demand and Supply
9. Better the National Economy/Global Economy, Better the Stock Price
10. After Cash Dividend declared, lower the Stock Price
11. Cause of cease-fire/peace talk, Increase the Stock Price
12. Communication and information affect the Stock Price

4.8 Stock Price Volatility's Impact

In the fiscal year 2008/09, GDP at current basic price is estimated to increase by 14.75 percent to Rs.9, 60,012.0 million, which was increased by 12.9 percent in the fiscal year 2007/08.

In the fiscal year 2008/09, Gross National Income at current price is estimated to increase by 15.92 percent to Rs.9, 82,853.0 million, which was increased by 13.14 percent to Rs.826348.0 million in the fiscal year 2007/08.

In the fiscal year 2008/09, Gross National Saving at current price is estimated to increase by 16.80 percent to Rs.3, 10,152.0 million, which was increased by 26.76 percent toRs.2, 58,450.0 million during the fiscal year 2007/08.

In the fiscal year 2008/09, Gross domestic saving at current price is estimated to decrease by 19.48 percent to Rs.76, 760.0 million, which was increased by 32.92 percent to Rs.91, 716.0 million in the fiscal year 2007/08.

In the fiscal year 2008/09, total consumption at constant price is estimated to increase by 17.73 percent to Rs.8, 83,251.0 million, which was increased by 2.7 percent to Rs.7, 26,685.0 million in the fiscal year 2007/08.

Of the foreign trade, it is estimated to diminish by a high rate of 27.63 percent to Rs.2, 20,318.4 million during the first eight months of the fiscal year 2008/09, which was increased by 28.40 percent to Rs.2, 81,204.2 million in the fiscal year 2007/08. Of the total foreign trade, the trade to India is estimated to decrease by a high rate of 42.70 percent to Rs.1, 26,789.2 million during the first eight months of the fiscal year 2008/09, which was increased by 27.60 percent to Rs.1, 80,932.2 million in the fiscal year 2007/08. The trade to other countries during the first eight months of the fiscal year 2008/09 is estimated to recede by a high rate of 29.78 percent to Rs.65, 224.8 million that was increased by 7.81 percent to Rs.92, 889.4 million in the fiscal year 2006/07.

In the fiscal year 2007/08, due to the high growth rate of the total import as compared to total export despite the increase of export and import, the net export of goods and services is estimated to increase by 49.16 percent to be a negative amount of Rs.1, 68, 453.8 million. Such trade deficit was decreased by a high rate of 3.37 percent a negative amount of Rs.1, 12,928.4 million in the fiscal year 2006/07.

In the fiscal year 2007/08, the total capital formation is estimated to increase by 28.88 percent, which was increased by 16.02 percent in the fiscal year 2006/07. In the fiscal year 2007/08, total fixed capital formation is estimated to increase by 16.38 percent, which was increased by 9.50 percent in the preceding year. In the fiscal year 2007/08, the growth rate of total fixed capital formation of the public sector is estimated to be 22.44 percent, which was increased by 19.04 percent in the fiscal year 2006/07. Similarly, the growth rate of total fixed capital formation of the private sector is estimated to be 15.40 percent in the fiscal year 2007/08, which was increased by 8.09 percent in the preceding year. The trend of Nepalese economic indicators is presented in table 4.20.

Table 4.20

Nepalese Economic Indicators (At Current Price)

(Rs. in Million)

S.N	Indicator	Fiscal Year			
		2005/06	**2006/07**	**2007/08***	**2008/09****
1	Gross Domestic Product	654054.5	728178.0	818402.0	960012.0
2	Gross National Income	659010.0	735610.0	826348.0	982853.0
3	Gross National Saving	189828.4	208325.0	258045.0	310152.0
4	Gross Domestic Saving	58727.2	71902.0	91716.0	76760.0
5	Total Consumption	595327.3	65627.63	726685.0	883251.0
6	Foreign Trade#	234014.40	254077.7	281204.2	220318.4ª
	a. India	147857.8	157601	180932.2	126789.2ª
	b. Other Countries	86156.6	96476.6	100272.0	93529.2 ª
7	Export of Goods and Services	-116875.9	-135311.5	-162671.2	-131727.2
	a. Import	204828.0	194694.6	221937.7	176022.8
	b. Export	87982.1	59383.1	59266.5	44295.6
8	Total Capital Formation	175603.1	204830.0	260170.0	285186.0
9	Total Fixed Capital Formation	135532.3	148420.6	172746.2	203985.0
	a. Fixed Capital Formation in Public Sector	17509.0	20843.0	25521.0	39829.0
	b. Fixed Capital Formation in Private Sector	118023.3	127577.6	147225.4	164156.0

**Revised Estimate* ** *Preliminary Estimate ª First Eight Months*

Source: Economic Survey, 2008/09

4.8.1 Impact on Securities Market

A total of 64 public limited companies raised funds amounting to Rs.16, 828.5 million by issuing securities in the fiscal year 2008/09. In the fiscal year 2007/08, a total of 64 public limited companies had raised funds amounting to Rs.10, 668.2 million.

In the last fiscal year, total listed companies in Nepal Stock Exchange Ltd. were 142, which reached to 159 in the fiscal year 2008/09. In the fiscal year 2008/09, the turnover decreased by 5.25 percent to be Rs.21, 681.1 million as compared to turnover of Rs. 22,820.8 million in the fiscal year 2007/08.

In the fiscal year 2008/09, the market capitalization of the listed companies increased by 28.59 percent to be Rs.5, 12,939.0 million as compared to market capitalization of Rs. 3,66,247.5 million in the fiscal year 2007/08. In the fiscal year 2008/09, the preliminary estimate of the contribution of market capitalization to the GDP is 53.43 percent.

In the fiscal year 2008/09, the price index of the listed securities in Nepal Stock Exchange Ltd. (NEPSE Index) reached to 749.10 points with the decrease of 214.26 points as compared to fiscal year 2007/08 which was 963.36 points. The trend of securities market indicators is presented in table 4.21.

Table 4.21

Securities Markets Indicators

(Rs. in Million)

Market Indicators	Fiscal Year		
	2006/07	**2007/08**	**2008/09**
Number of Public Issue	34	64	64
Amount of Public Issue	2295.50	10668.20	16828.50
Number of Listed Companies	135	142	159
Paid-up Value of Listed Securities	21798.8	29465.0	61140.0
Number of Listed Securities (' 000)	243504	321131	637868
Turnover	8360.1	22820.8	21681.14
Market Day	232	235	234
Number of Traded Companies	116	136	170
Number of Traded Shares (' 000)	18147.25	28599.77	30547.16
Number of Transactions	120510	150800	209091
Market Capitalizations	186301.3	366247.5	512939.07
% of Turnover on Market Capitalizations	4.48	6.23	4.22
% of Market Capitalizations on Nominal GDP at market price	27.78	44.62	53.43
NEPSE Index (points)	683.95	963.36	749.10

**Based on Revised Estimate of GDP # Based on Preliminary Estimate of GDP*

Source: Economic Surveys, 2007/08 and Trading Reports of NEPSE, 2007/08

4.8.2 Market Capitalization

Each sampled listed companies have following market capitalization for every fiscal year.

4.8.2.1 Himalayan Bank Limited

There are seven fiscal years market capitalization of HBL. This is shown in the table 4.22 and chart 4.9.

Table 4.22

Market Capitalization of HBL

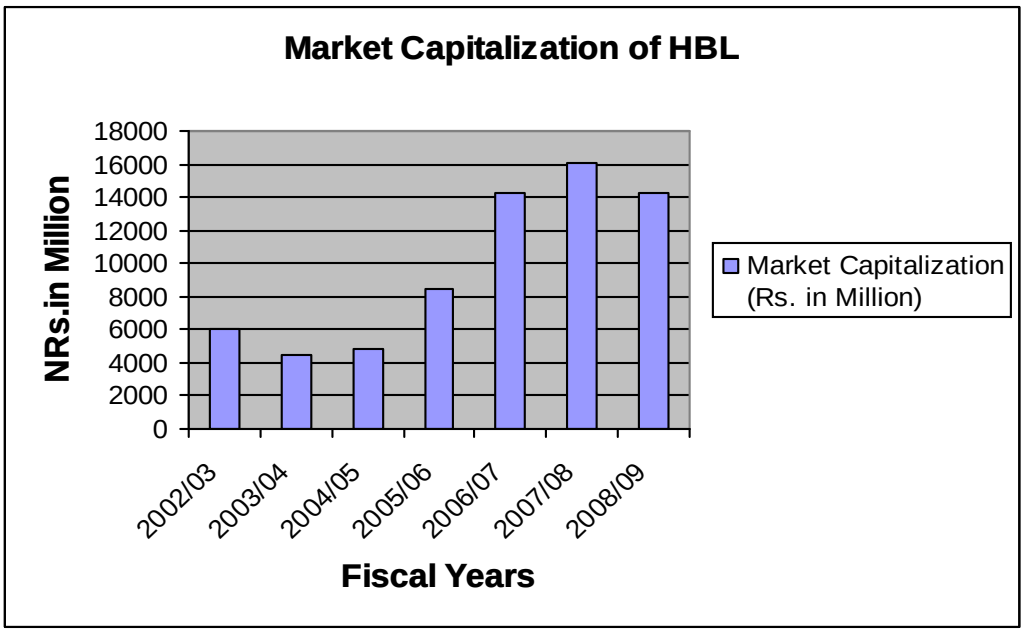
Fiscal Year	Market Capitalization (Rs. in Million)
2002/03	6061.77
2003/04	4410.00
2004/05	4830.00
2005/06	8494.20
2006/07	14270.26
2007/08	16054.04
2008/09	14270.26

Source: NEPSE Annual Reports of Various Fiscal Years

There is increasing trend market capitalization of HBL in every fiscal year expect 2003/04 and 2008/09. By the end of 2008/09, the market capitalization value of HBL reached to Rs. 14270.26 million.

Chart 4.9

Market Capitalization of HBL



From the above chart shows that market capitalization is not constant for every fiscal year.

4.8.2.2 NABIL Bank Limited

There are seven fiscal years market capitalization of NABIL. This is shown in the table 4.23 and chart 4.10.

Table 4.23

Market Capitalization of NABIL

Fiscal Year	Market Capitalization (Rs. in Million)
2002/03	8592.41

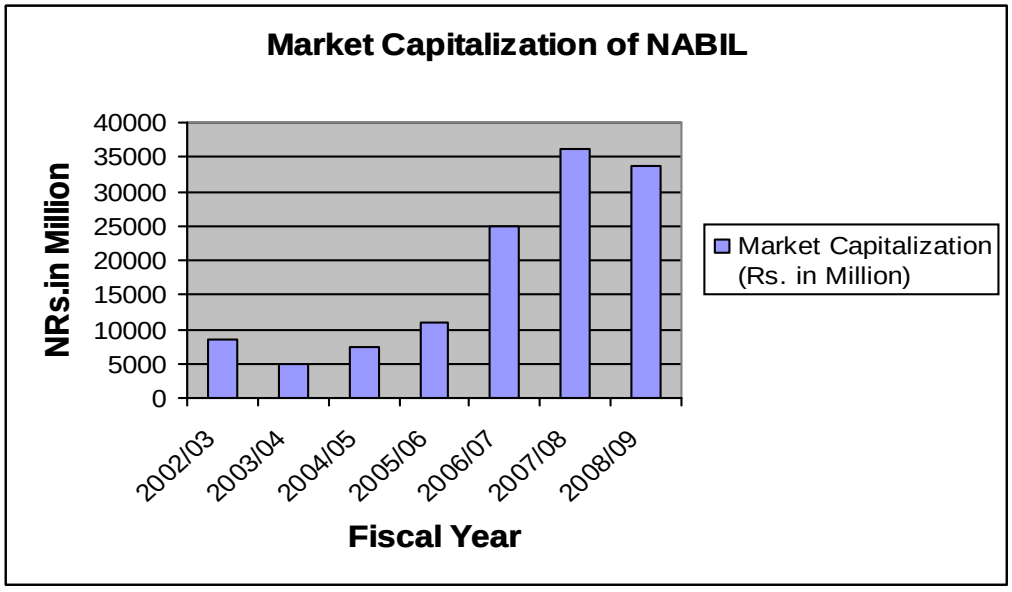
2003/04	4909.95
2004/05	7389.47
2005/06	10998.29
2006/07	24795.25
2007/08	36259.98
2008/09	33675.38

Source: NEPSE Annual Reports of Various Fiscal Years

The table 4.23 shows the market capitalization is increasing in every fiscal year except 2003/04. During seven fiscal years, the highest value of market capitalization was Rs. 36259.98 million and lowest was Rs. 4909.95 million.

Chart 4.10

Market Capitalization of NABIL



From the above chart shows that market capitalization is not constant for every fiscal year.

4.8.2.3 Standard Chartered Bank Nepal Limited

There are seven fiscal years market capitalization of SCBN. This is shown in the table 4.24 and figure 4.11.

Table 4.24

Market Capitalization of SCBN

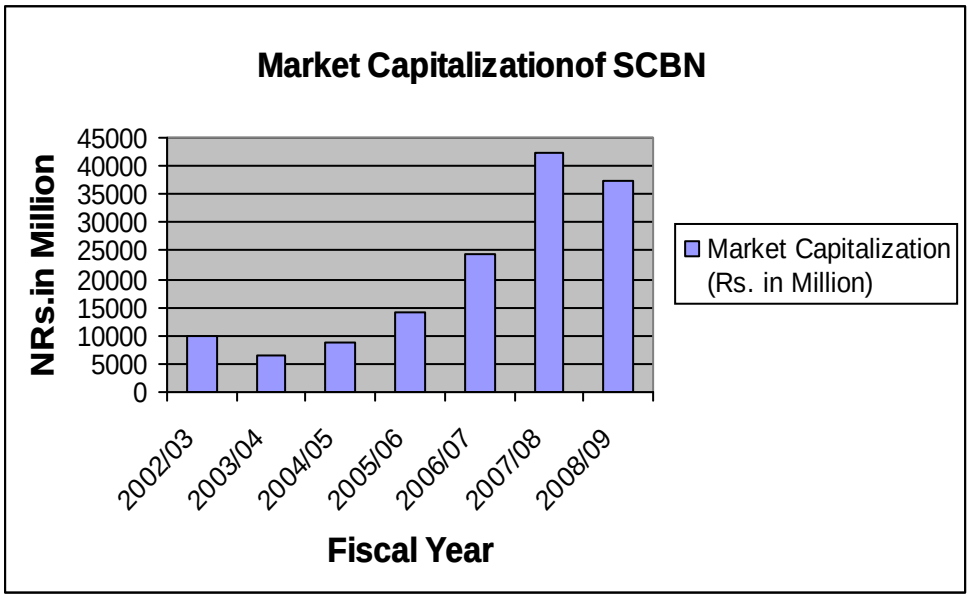
Fiscal Year	Market Capitalization (Rs. in Million)
2002/03	10071.83
2003/04	6537.47
2004/05	8785.32
2005/06	14142.68
2006/07	24382.03
2007/08	42337.95
2008/09	37254.92

Source: NEPSE Annual Reports of Various Fiscal Years

The table 4.24 shows the market capitalization is increasing in every fiscal year except 2003/04. During seven fiscal years, the highest value of market capitalization was Rs. 42337.95 million in 2007/08 and lowest was Rs. 6537.47 million in 2003/04.

Chart 4.11

Market Capitalization of SCBN



From the above chart shows that market capitalization is not constant for every fiscal year.

4.8.2.4 Nepal Investment Bank Limited

There are seven fiscal years market capitalization of NIBL. This is shown in the table 4.25 and figure 4.12.

Table 4.25

Market Capitalization of NIBL

Fiscal Year	Market Capitalization (Rs. in Million)
2002/03	4695.16
2003/04	2775.75
2004/05	2362.34
2005/06	7441.38
2006/07	13853.39

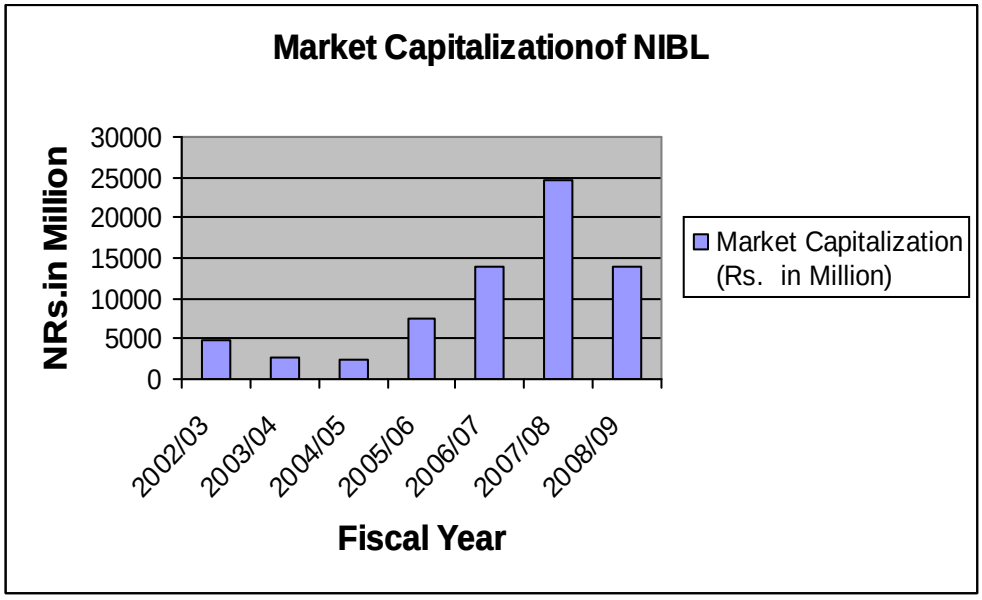
2007/08	24564.54
2008/09	13916.56

Source: NEPSE Annual Reports of Various Fiscal Years

The table 4.25 shows the market capitalization is in fluctuation trend. During seven fiscal years, the highest value of market capitalization was Rs. 24564.54 million in 2007/08 and lowest was Rs. 2775.75 million in 2003/04.

Chart 4.12

Market Capitalization of NIBL



From the above chart shows that market capitalization is not constant for every fiscal year.

4.8.2.5 Development Credit Bank Limited

There are seven fiscal years market capitalization of DCBL. This is shown in the table 4.26 and figure 4.13.

Table 4.26

Market Capitalization of DCBL

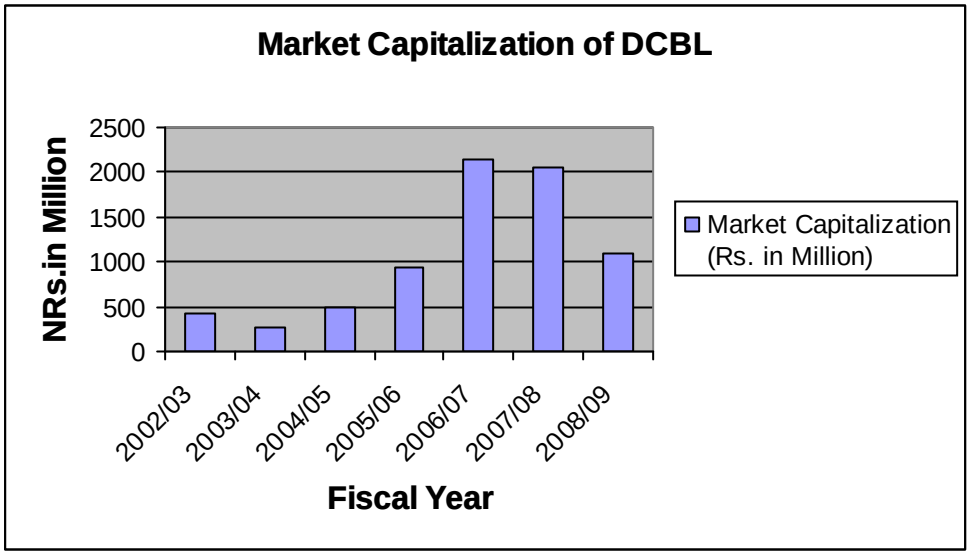
Fiscal Year	Market Capitalization (Rs. in Million)
2002/03	432.00
2003/04	267.20
2004/05	488.00
2005/06	936.00
2006/07	2150.40
2007/08	2052.00
2008/09	1104.00

Source: NEPSE Annual Reports of Various Fiscal Years

The table 4.26 shows the market capitalization is increasing in every fiscal year except 2003/04, 2007/08 and 2008/09. During seven fiscal years, the highest value of market capitalization was Rs. 2150.40 million in 2006/07 and lowest was Rs. 267.20 million in 2003/04.

Chart 4.13

Market Capitalization of DCBL



4.8.2.6. Ace Development Bank Limited

There are seven fiscal years market capitalization of ADBL. This is shown in the table 4.27 and chart 4.14.

Table 4.27

Market Capitalization of ADBL

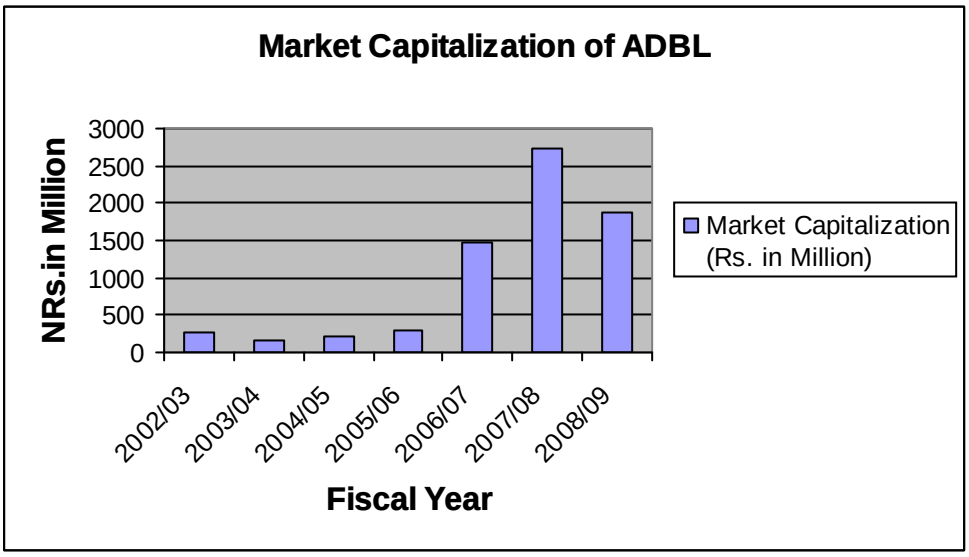
Fiscal Year	Market Capitalization (Rs. in Million)
2002/03	279.00
2003/04	155.70
2004/05	225.908
2005/06	288.00
2006/07	1468.80
2007/08	2739.30
2008/09	1881.60

Source: NEPSE Annual Reports of Various Fiscal Years

The table 4.27 shows the market capitalization is in fluctuation trend. During seven fiscal years, the highest value of market capitalization was Rs. 2739.30 million and lowest was Rs. 155.70 million.

Chart 4.14

Market Capitalization of ADBL



4.8.2.7 Lalitpur Finance Limited

There are seven fiscal years market capitalization of LFL. This is shown in the table 4.28 and figure 4.15.

Table 4.28

Market Capitalization of LFL

Fiscal Year	Market Capitalization (Rs. in Million)

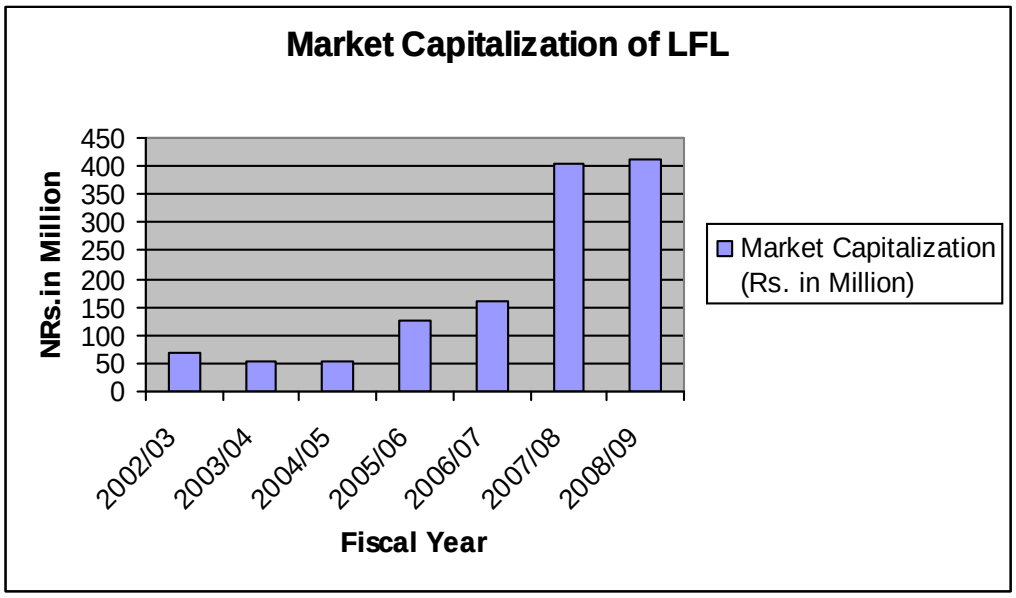
2002/03	67.50
2003/04	52.88
2004/05	54.00
2005/06	124.03
2006/07	159.47
2007/08	402.47
2008/09	410.06

Source: NEPSE Annual Reports of Various Fiscal Years

The table 4.28 shows the market capitalization is increasing trend except for fiscal year 2003/04. During seven fiscal years, the highest value of market capitalization was Rs. 410.06 million in 2008/09 and lowest was Rs. 52.88 million in 2003/04.

Chart 4.15

Market Capitalization of LFL



4.9 Inter Group Analyses

By the end of the fiscal year 2003/04, the market capitalization value of the listed securities reached to Rs. 41424.77 million. During the year 2003/04, the highest value of market capitalization was Rs. 42489.34 million and the lowest was Rs. 36386.45 million (SEBO/N, Annual Report, 2003/04). Now, during the fiscal year 2004/05, NEPSE has 125 listed companies and Market Capitalization of listed companies reached Rs. 61365.89 million. In the fiscal year NEPSE has 159 listed companies and market capitalization reached to Rs. 5129390.70 million

The sector wise market capitalization of the different eight sectors of listed companies in NEPSE is as shown in table 4.29.

Table 4.29

Sector Wise Market Capitalization

S.N	Sectors	No. of Companies	Market Capitalization (Rs. In Million)	Percentage of Market Capitalization
1	Commercial Bank	21	3022192.90	58.92
2	Development Bank	29	271378.90	5.29
3	Finance Company	61	430071.30	8.38
4	Insurance Company	17	105374.90	2.05
5	Hotel	4	48519.50	0.95
6	Mfg. & Processing	18	77060.90	1.50
7	Trading Company	4	16963.60	0.33
8	Other Company	5	1157828.80	22.57
	Total	159	5129390.70	100.00

Source: SEBO/N, Annual Report 2065/66

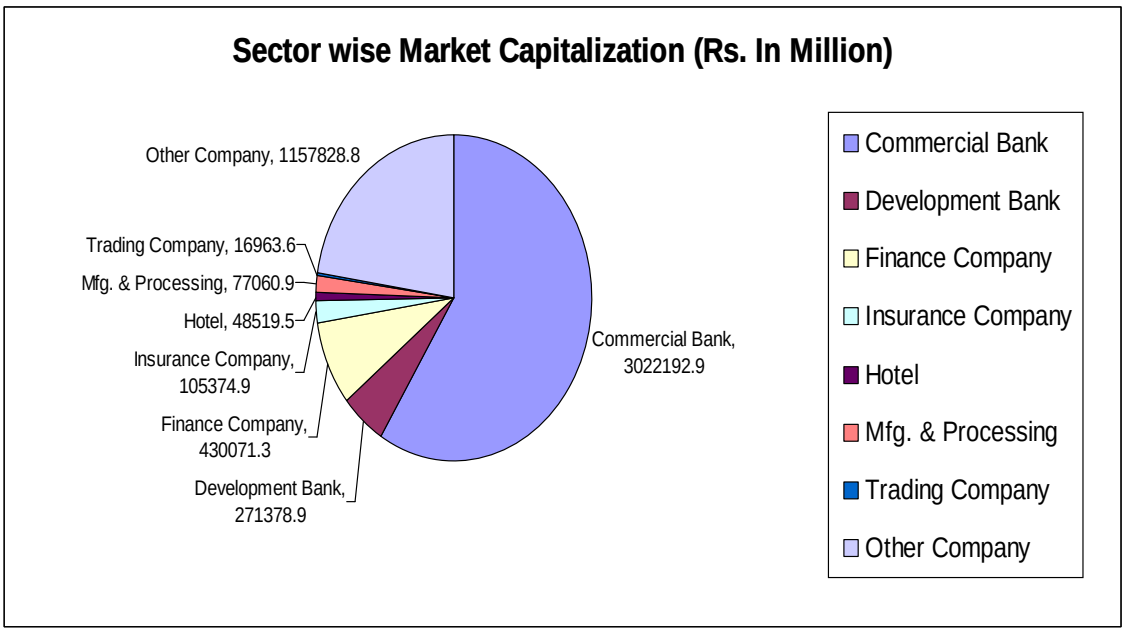
The sector wise market capitalization of the listed companies in NEPSE shows that the commercial bank group has dominated the market capitalization with 58.92% even though only 21 listed companies' falls in the commercial bank group among 159 listed companies. Finance company sector has the highest number with 61 listed companies but contributes only 8.38% of the total market capitalization. Similarly the manufacturing and processing group, the backbone of the industrial development and the economic prosperity, contributes to only 1.50% of the total market capitalization along with 18 listed companies, the fourth largest group based on the number of companies but sixth in the percentage of market capitalization. (F.Y 2065/66) due to

electricity crises in the country, labor union movements & strikes and increase in duties for Nepalese goods for export in Indian market. Development Bank Group having the listed number of 29 contributes to 5.29% of market capitalization. On the same way 17 Insurance companies contributes to the 2.05% of the total market capitalization and 4 trading companies contributes to the 0.33%, and hotels contributes to the 0.95%, 5 number of other companies contributes to the 22.57% only of the NEPSE's market capitalization as per SEBO/N Annual Report 2065/66.

The weight of different sectors in NEPSE is shown in chart 4.16.

Chart 4.16

Sector wise Market Capitalization



Above chart shows that NEPSE has not consistent performance in all sectors. Commercial bank sector has dominated the NEPSE based on the market capitalization. Only commercial banks sector covers 1/3 of the total market capitalization.

4.10 Market Capitalization of Listed Companies

By the end of 2008/09, the market capitalization value of listed securities reached to Rs. 512939.07 million. In the last fiscal year, this value was Rs. 366247.56 million. During 7 years, the highest value of market capitalization was Rs. 512939.07 million in 2008/09 and lowest was Rs. 35240.4 in 2002/03.

Table 4.30

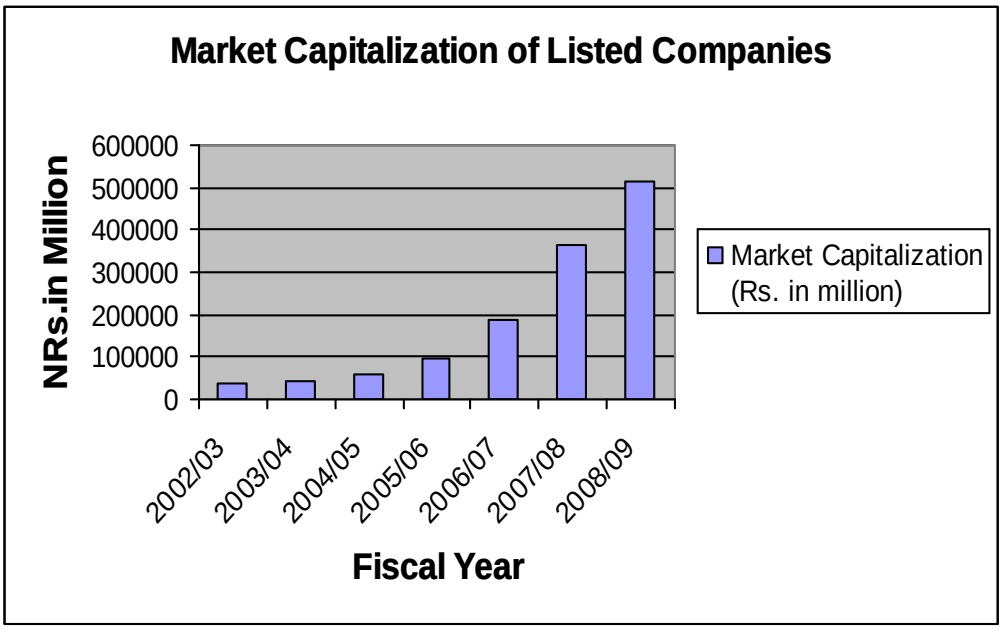
Market Capitalization of Listed Companies

Fiscal Year	Market Capitalization (Rs. in million)
2002/03	35240.4
2003/04	41424.77
2004/05	61365.89
2005/06	96763.74
2006/07	186301.28
2007/08	366247.56
2008/09	512939.07

Source: NEPSE Annual Reports of Various Fiscal Years

Chart 4.17

Market Capitalization of Listed Companies



The market capitalization of listed shares of listed companies is in increasing trend every fiscal year.

4.11 Annual NEPSE INDEX

One of the suitable techniques for analyzing price trend is annual trend analysis. The trend of NEPSE index of last 7 years is as shown in table 4.31 and figure 4.18.

Table 4.31

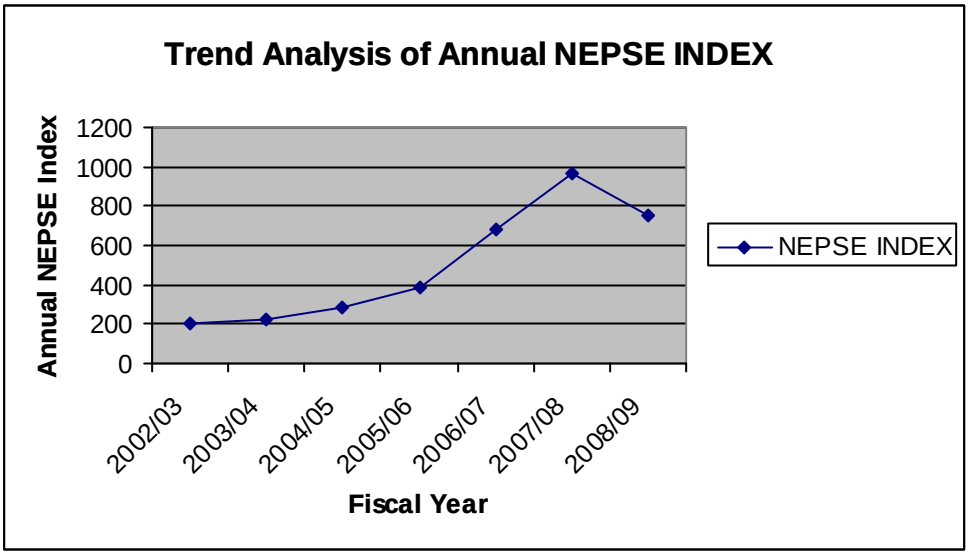
Annual NEPSE INDEX

Fiscal Year	NEPSE INDEX
2002/03	204.86
2003/04	222.04
2004/05	286.67
2005/06	386.83
2006/07	683.95
2007/08	963.36
2008/09	749.10

Source: NEPSE Annual Reports of Various Fiscal Years

Chart 4.18

Trend Analysis of NEPSE Index



From the above trend analysis shows that price trend during the different fiscal years are not constant. Taking base year as 2002/03, it is showed that the price trend from the fiscal year 2002/03 to 2007/08 is increasing trend except after fiscal year 2007/08 which decreased from 963.36 to 749.10 in the fiscal year2008/09.

4.12 The Number of Listed Companies in NEPSE

The table 4.32 shows the number of listed companies in Nepal Stock Exchange Limited from the fiscal year 2002/03 to 2008/09. The table clearly shows that the no. of listed company is increasing in every fiscal year except 2005/06 because of the nondisclosure of necessary information correctly and timely , due to merging of two or more finance companies to fulfill the criteria to become development banks and commercial banks and finally because of delisting of the companies. The new entry of seven firms and delisting one company the listed companies in NEPSE are 114 in fiscal year 2003/04. In 2004/05, the number of listed companies is 125.In the fiscal year 2008/09, the number of listed companies has reached 159.

Table 4.32

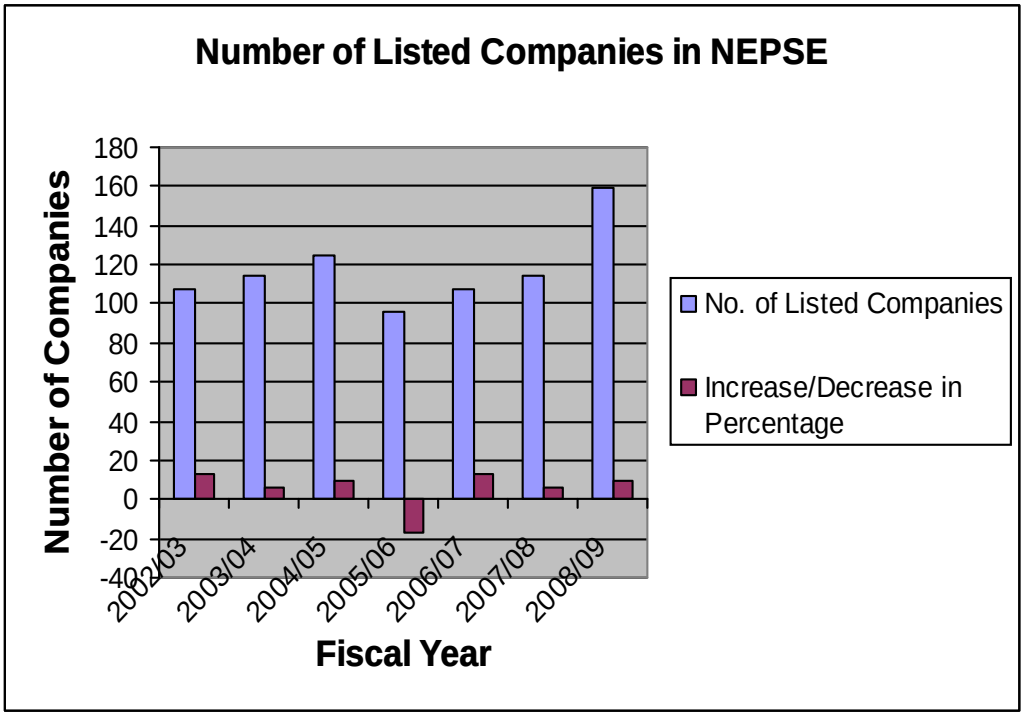
Number of Listed Companies in NEPSE

Fiscal Year	No. of Listed Companies	Increase/Decrease in Percentage
2002/03	108	12.5
2003/04	114	5.56
2004/05	125	9.65
2005/06	96	-16.52
2006/07	108	12.5
2007/08	114	5.56
2008/09	159	9.65

Source: NEPSE Annual Reports of various fiscal years

Chart 4.19

Number of Listed Companies in NEPSE



These study and analysis reveals that the Nepalese economy is progressing gradually. Stock market has a significant influence in the Nepalese economy. In the years to come the Nepalese stock market will play a remarkable role in the upliftment of the Nepalese economy, by streamlining the scattered capital and capital formation for investment? Stock price volatility will also have an influential impact in the economy of the country. As volatile stock price of the stock provides opportunity for stockbrokers and investors to analyze and invest for good returns.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The final chapter of the thesis presents the summary, conclusion and recommendations. Summary reflects the short form of whole study, conclusion includes the concluding remarks drawn from the analysis and recommendation suggests for the improvement to test the sensitivity of stock price in Nepalese stock market. Generally, study is related with the price of secondary stock market. There is no any sensitivity of stock price in the primary stock market but there is high sensitivity of stock price in the secondary stock market. The exchange process of stock is made possible legally in accordance to the by-laws only through brokers (35 in numbers at present) and market makers (69 in numbers presently).

5.1 Summary

Securities market refers the buying and selling price of the stock, bond, debenture and debt. Capital market is the backbone of any economy, and Nepal is not an exception. Under the capital market, stock market behavior has played the vital role to pull the proper economy balance of the country. So by promoting the stock market in sizeable economic sector gives raises the economic development by mobilizing swing into productive sectors by making suitable investment for making suitable investment environment. Different elements like correlation coefficient analysis, regression analysis, market index, market capitalization, paid up value; traded share quantity and no. of listed companies have been analyzed.

The objective of the study is to find out the relationship of market price of stock (MPS) with various financial indicators like EPS, DPS, and NWPS. To find out the above stated objective, financial as well as statistical tools have been used. Such as the relationship of EPS, DPS and NWPS with MPS by correlation and regression analysis of secondary data are employed. From the secondary data analysis it is known that there is no consistent performance in the relationship of MPS with EPS, DPS and NWPS for the 7 sampled companies. For some of the companies, the correlation coefficient of MPS with independent variable (EPS, DPS and NWPS) is significantly positive whereas some other has significantly negative correlation at 95% level of significance. Even though, most of the correlation coefficients of MPS with the independent variables are found positive. Among the 7 selected companies, the most positive relationship of MPS with EPS is 0.904 of HBL and least relationship of MPS with EPS is -0.672 of ADBL. Similarly, in case of DPS, the highest relationship is 0.921 of HBL and lowest relationship is -0.493 of DCBL. In case of NWPS, the highest relationship is 0. 616 of NABIL and lowest relationship is -0.699 of ADBL. So these three factors are not only the factors affecting the market price of stock. Even though, EPS, DPS and NWPS affect the MPS positively; there are other various factors in the internal as well as external environment of the organization, which significantly affect the MPS. Theoretically when earning, dividend and net worth of stock increases, the market price of share also increase and vice versa.

Volume of stock traded was not in the same direction as the different years. Volumes of stock traded during the fiscal year 2002/03 to 2008/09 were not in any order of increasing or decreasing. The trend of volume of stock traded was in fluctuating manner in these years. Similarly rate of listing of new companies were not in satisfactory condition as it was also in very few

increase companies couldn't give any type of result. The volumes of transacting companies are very few or almost less than half during the period 2002/03 to 2008/09. Annual stock price trend from F.Y.2002/03 to 2007/08 were in increasing trend but after 2007/08 it is in decreasing trend in the stock market. The paid up value and market capitalization of listed companies in NEPSE were not satisfactory.

The next objective of the study is about the identification of the price of stock whether it is over priced, under priced or equilibrium priced. To find out the pricing status of stocks, actual rate of return and required rate of return was compared.

From the primary data analysis, sensitivity of the stock price in NEPSE is identified. Such internal factors affecting the share price are earnings, dividend paid, net worth, growth rate and risk associated with the company. Similarly, there are other environmental factors affecting the market price of share. Such environment factors affecting the share price are government stability; cease-fire and peace talk with Maoist, national economy, strikes/Banda, demonstration, demand and supply of stock and rumors & whims. NEPSE is in primitive stage and it has not significant effect of tax rate, stock dividend, global/national economy, change in management, market liquidity where as these factors have simple effects in stock pricing. It is identified that companies' performance, Earning, dividend, demand & supply, net worth, timely AGM, right share issue, political stability and cease fires/peace talks are the major factors for the sensitivity of the stock price in NEPSE.

5.2 Conclusion

From the above research study, the researcher came into the following conclusions:

- There is gap between the theory and practice of investment in Nepalese stock market due to the lack of proper analytical know-how of stock trading/ marketing for the smooth operation of the secondary market.
- Nepalese investors are confined within Kathmandu for stock marketing because of only capital market but recently Pokhara Stock House, Biratnagar and Nepalgunj started their trading floor as the second secondary market in the country outside Kathmandu.
- Nepalese investors don't have adequate education, knowledge and information about the capital market to analyze the scenario and forecast share price.
- Prices of stock do not reflect the real value of stock in almost all cases.
- In NEPSE, EPS, DPS and NWPS individually do not have consistent relationship with the market price of share, among the listed companies. The pricing behavior varies from one company to another. But EPS, DPS and NWPS, jointly, have significant effect in market price of shares. There may be other major factors also affecting the share price significantly.
- NEPSE is analyzing stock market behavior in very few areas regarding the stock market. So experts should be recruited and analyzed market behavior in efficient way so that all parties interested with stock market can get benefited from this. The data analysis showed that NEPSE is not providing facilities for investors such as general awareness about investment, investment procedure for general public and movement of stock trend in different periods and their cause are not explained. Most of the investors are complaining that the market makers, brokers and NEPSE staff's are making coalition for fraudulent activities towards investors. So NEPSE should clear this type of change for the development of stock market.

- Commercial banking sectors have dominated the overall performance of NEPSE. Manufacturing & processing, trading and hotel sector have weak performance. So financial intermediaries are strong but their ultimate investment is suffering.
- Most of the sample companies' stock price found to be under valued because their required rate of return is lower than the actual rate of return. This happens because of the decreasing trend of the risk free rate of return, which causes the required rate of return lower, and the increasing trend of the price of the sampled companies, which makes the actual rate of return high.
- There is deficiency of proper laws and policies regarding the capital market. Shareholders are feeling unsecured to invest in security markets due to poor regulatory mechanism to protect shareholders interests. The implementation of existing laws is weak.
- The study shows that Nepalese investors are more conscious towards the dividend and price appreciation of the shares they are investing but most of the investors are only using buy and hold strategy as only few of them are trading their shares in secondary market. This shows that there lacks professionalism in Nepalese investors.
- Listed companies do not provide sufficient information (financial & non financial) to their shareholders and they are not able to act according to the shareholders desire. The performance of most of the listed companies is not transparent.
- Brokerage firm, Market maker, NEPSE and SEBO/N are responsible for making inefficiency of Nepalese Stock Market.
- Earnings, Dividends, Demand & Supply, Net Worth, AGM, Right Share Issue, Political Stability, Cease-fires/Peace talks, Information and Bonus Share/Stock Dividend of listed companies are main causes of sensitivity of stock price in Nepalese Market.

- The increasing trend of NEPSE Index and Market Capitalization of listed Companies show that this sector still hopeful to grow the capital market in Nepal in spite of unfavorable condition of business environment for the investment. But no single company will exist for long time on violence, instability and terrorism. So the resolution of Maoist problem should be solved without delaying single minute of time for favorable business environment and economic development of the country.

5.3 Recommendations

The findings of the study may provide important information for those who concern, directly or indirectly with the stock market activities. Thus, the following recommendations can be outlined for the concerned:

- NEPSE can expand its services to the regional levels rather than just concentrating solely in the valley. They should also replace the old and outdated open cry system with on-line trading system following international standards. The initiation of on-line trading system is a good sign of stock market evolution towards development.
- NEPSE has to ensure that all companies share all relevant information on a timely basis should be made transparent and made available to all, so that the stock price reflects their company's status more accurately.
- Increase awareness amongst the general public about the capital market, regarding nature of risk and return, through promotions campaigns, seminars, publications and programs in FM/TV etc.
- Issuance of directives by regulatory authorities not to solicit unaccounted payments to the shareholders other than dividend.
- Encourage active participation of other sectors of the economy besides banks, finance companies and insurance through the enforcement of good corporate governance.

- NEPSE should give more attention to market price i.e. it should have to conduct research, seminar and training and make the awareness about how to increase the companies' market price and how to show their performance in listing of NEPSE by updating their reports periodically, informing actual financial position of the company.
- NEPSE should increase the number of brokers by licensing more brokers to expand Stock Market in the country.
- SEBO/N is suggested to open another Stock Exchange in the country as other stock exchange is felt necessary to expand stock market.
- The government should make not only policies for capital market development but also implement these policies appropriately.
- The government should make appropriate policies and programs for the enhancement of the entrepreneurship development in the Nepalese economy.
- Investment in corporate sector should be encouraged by providing facility as like Local, National & International Companies and their stock should be listed in the NEPSE as early as possible.
- The listed firms whose shares are not traded should provide the financial status publicly in order to make the investors know about their exact financial condition.
- Most of the stocks of banking, finance, manufacturing and insurance are undervalued in the stock market. So, investors are recommended to buy these undervalued stocks by selling other overvalued stocks.

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APPENDICES

Appendix- I

For Correlation Analysis

$$Ya,b = \frac{n \quad ab\,Z \quad a \quad b}{\sqrt{n \quad a^2\,Z f \quad a\AA}\sqrt{n \quad b^2\,Z f \quad b\AA}}$$

For Regression Analysis

Y= a+bx

Where,

∑Y = na+b∑X …….. (i)

∑XY =a∑ X+b ∑X^2…….. (ii)

For t- Calculation

$$T_{yx} = \frac{n\,Z2}{1\,Z r^2 yx}$$

Appendix-II

Questionnaire

Date: 24th Oct. 2010

Dear Respondent,

The Undersigned encloses here with the question, is prepared for the purpose of the partial fulfillment of the requirement for the MBS (Master in Business Studies) degree. The respondents are cordially requested to complete the each questionnaire after totally filled up. The views collected from the respondent will be kept confidential. It is requested to complete the questionnaire without any biasness and difficulty. The valuable co-operation of the respondent will be contributing a lot for the complete success of the study.

Co-operation of the respondent in this matter shall be highly appreciated.

Faithfully yours

_____

(Sunil Shrestha)

Please give your views in regard to the following causes that have significance contribution for stock price volatility in Nepalese stock Market.

S.N.	Causes	Fully Agreed 1	Agreed 2	Slightly Agreed 3	Disagreed 4	Fully Disagreed 5	Remarks
1	Earning						
2	Demand And Supply						
3	Price Trend						
4	Guide Lines of NRB						
5	Political Stability						
6	Times of AGM						
7	Information						
8	Net worth						
9	Bonus Share						

Appendix-III

List of Cases observation in Survey Design

Case	Earning	Demand & Supply	Price Trend	Guidelines of NRB	Political Stability	Times of AGM	Information	Net worth	Bonus Share	Remarks
1	1	5	1	1	4	5	4	1	4	
2	4	4	4	1	4	4	3	4	4	
3	3	3	3	1	3	3	3	3	3	
4	2	2	2	2	2	2	2	2	2	
5	1	3	4	2	4	4	4	2	4	
6	1	1	3	1	4	3	3	1	2	
7	3	3	1	2	3	1	1	4	4	
8	1	2	3	2	1	1	3	2	3	
9	1	2	1	1	3	3	1	3	2	
10	2	2	4	1	4	3	3	3	4	
11	3	3	2	1	1	1	1	2	3	
12	1	1	2	2	2	2	3	2	1	
13	2	2	3	1	3	2	3	2	3	
147	4	4	1	1	3	2	3	2	2	
15	3	3	2	1	4	4	4	1	2	
16	2	2	4	1	2	3	4	4	2	
17	2	2	3	2	1	5	2	3	3	
18	4	2	1	1	1	1	2	2	1	
19	3	4	2	1	2	2	2	2	2	
20	2	3	2	2	2	2	1	1	4	
21	2	4	3	1	2	4	1	2	3	
22	1	4	4	1	2	4	1	3	2	
23	2	1	1	1	4	1	3	4	2	

24	**3**	**2**	**1**	**1**	**4**	**1**	**2**	**2**	**1**	
25	**2**	**5**	**1**	**3**	**3**	**2**	**2**	**3**	**4**	
26	**1**	**4**	**2**	**1**	**1**	**2**	**2**	**1**	**2**	
27	**1**	**4**	**3**	**1**	**1**	**2**	**4**	**2**	**3**	
28	**2**	**3**	**2**	**2**	**2**	**5**	**4**	**2**	**2**	
29	**2**	**5**	**1**	**2**	**1**	**1**	**1**	**1**	**1**	
30	**1**	**2**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	
Total	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	
Mean	**2.06**	**2.90**	**2.20**	**1.40**	**2.50**	**2.50**	**2.46**	**2.26**	**2.56**	
Std. Devs.	**2.27**	**3.12**	**2.48**	**1.50**	**2.73**	**2.86**	**2.68**	**2.44**	**2.75**	