

CHAPTER - I

INTRODUCTION

1.1 Background of the Study

Financial markets and institutions are the key to the development of any economy, whether developed or developing. Developed economies usually already have a highly sophisticated financial market in place whereas developing economy usually have no or rudimentary institutions in place. During the turn of the century a lot of countries gave up the moribund communist style economy towards a modern capitalist economy. In this process a large number of financial markets have developed across the world, including in Nepal. Some of the emerging markets, especially India and China, have been able to attract huge amounts of foreign investments because these countries have been able to show extraordinary amounts of economic growth. In 1994, the Government of Nepal established a stock market with the technical assistance of the IRIS Center at the University of Maryland under the USAID sponsored Economic Liberalization Project.

Financial markets play a fundamental role in the economic development of a country. They are the intermediary link in facilitating the flow of funds from savers to investors. By providing an institutional mechanism for mobilizing domestic savings and efficiently channeling them into productive investments, they lower the cost of capital to investors and accelerate economic growth of the country. Financial intermediation between borrowers and savers is done by commercial banks. This credit market enables debt financing for investments. An alternative method of intermediation is through equity financing. This is only possible through the development of capital markets.

Capital markets, which deal with securities such as stocks and bonds, are associated with financial resource mobilization on a long term basis. Capital

markets also allow for wider ownership among the public, thereby distributing risks and wealth amongst smaller investors. As such, capital markets help the economy to generate more savings and productive investments. A basic feature of an efficient capital market is constant liquidity, i.e., an easy mechanism for entry and exit by investors. Typically in developing countries, for various economic and policy reasons, financial markets are underdeveloped. In those countries where a capital market does exist, it is in a very rudimentary state. Private wealth and investments are concentrated among several large companies and individuals. As a result, these capital markets are very narrow based. They are constrained by limited investment opportunities and low income and savings rates. In many cases, the economy has high inflation, leading to a savings disincentive and capital flight. Financial sector development is a lengthy, evolutionary process. It is an indicator of the state of economic development of the country, since an efficient well-developed financial market is only possible when there is substantial income generation and investment opportunities. The financial and construction sectors each constitute about 10% of GDP. Industrial development began in Nepal only in the mid-sixties, when the Government began establishing manufacturing industries such as the jute industry, cement factories, and sugar factories. In order to support this industrialization process, government actively promoted financial institutions, such as commercial banks and capital market institutions.

The Nepali capital market had its beginnings with the establishment of the Securities Marketing Center in 1976. In 1984, the Securities Exchange Act was promulgated and this institution was converted into the Securities Exchange Center (SEC) under the ownership of the Nepali Government, Nepal Rastra Bank - the Central Bank - and the Nepal Industrial Development Corporation – a government owned industrial development bank. The main function of SEC was to assist in the development of a capital market by performing the role of a broker, underwriter and share issuer, and to sell government bonds. It operated an over the

counter market for company shares and government bonds. After the inception of the Securities Exchange Center, shares of various manufacturing, trading and banking companies became listed. Interestingly, the listed shares were dominated by public enterprises during this stage.

The real boost into the capital market in the form of a private sector led growth began with the financial sector liberalization. In the mid-eighties, Nepal opened its doors to foreign investors as joint venture partners in the banking sector, which revolutionized commercial banking services in Nepal. Since then, a variety of private sector based financial institutions have evolved. In 1992, the Finance Companies Act was amended. These enabled finance companies to be established to function in various areas such as leasing, housing finance, and hire-purchase. These institutions were also allowed to perform capital market functions such as share issue, portfolio management, market making and custodial services.

The growth of these financial institutions was complemented by the establishment of the Nepal Stock Exchange. In 1993, the Securities Exchange Act was amended. The Securities Exchange Center was converted into the Nepal Stock Exchange for securities trading by private brokers and the Securities Exchange Board was established for oversight functions as a regulatory body. This amendment also permitted private sector market intermediaries and set the operating guidelines for intermediary functions such as broking, market making, issue management, and portfolio management. The economic environment which provides the main stimulus for a healthy growth of the capital markets has also influenced this market quite considerably. In 1992, the Finance Companies Act was amended. As a result, in the three year period, more than 30 finance companies were established all of whom have made public share issues and are being listed on the Stock Exchange. This growth in the financial sector was further boosted by the liberalization of the commercial banking sector. The Central Bank gave licenses to

more than 5 joint venture commercial banks. The commercial banking industry has historically performed very well in the capital markets, which infused a lot of investor interest in the market during the early stages of its development. Together, these sectors accounted for 65% of the turnover and 36 % of the total amount of public issue in 1994/95. In Nepal, the financial sector has witnessed tremendous growth and profitability, in contrast to the manufacturing sector where profitability has been very low. The manufacturing companies which are listed on the Stock Exchange have typically been very stagnant because they are primarily government owned public enterprises or newly established companies without a long track record of profitability. Privately owned companies which are profitable generally hesitate to go public owing to tax or other reasons. As a result, the growth of the stock market has mainly been due to the liberalization and the resulting growth of the financial sector (commercial banks and finance companies) rather than that of the industrial sector.

Government's privatization policy also enabled new industrial companies to enter the stock market. In 1994/95, of the total public issue, 31% was issues of privatized companies. In 1992, the Government brought out the Industrial Enterprises Act and enforced the one-window policy to actively promote foreign investment in the country. This resulted in some new joint venture companies in the country, which accounted for 29% of the public issue in 1994/95.

It is the objective of all policymakers to try to ensure a healthy, sustainable and stable growth of capital markets. It is the responsibility of the policymakers to be help to help and sustain a favorable growth environment for the infant capital market. To promote a healthy, competitive market, policymakers should seek to increase the number of market intermediaries and investors, both individuals as well as institutional. The regulatory environment also needs to be strengthened. A lot of institutional changes are necessary if Nepal is to have a sophisticated capital

market that will be able to cater to the needs of all market participants. It is only when there is a healthy, competitive institutional structure supported by liberal and stable economic policies facilitating increased savings and investments in the country that the capital markets can grow.

Financial markets, especially stock markets, have grown considerably in developed and developing countries over the last two decades. Several factors have aided in their growth, importantly improved macroeconomic fundamentals, such as more monetary stability and higher economic growth. General economic and specific capital markets reforms, including privatization of state-owned enterprises, financial liberalization, and an improved institutional framework for investors, have further encouraged capital markets development.

Stock market development is important because financial intermediation supports the investment process by mobilizing household and foreign savings for investment by firms. It ensures that these funds are allocated to the most productive use and spreading risk and providing liquidity so that firms can operate the new capacity efficiently. Stock market development has an important role to play in economic development. It is an important wheel for economic growth as there is a long-run relationship between stock market development and economic growth. Stock market development has the direct impact in corporate finance and economic development.

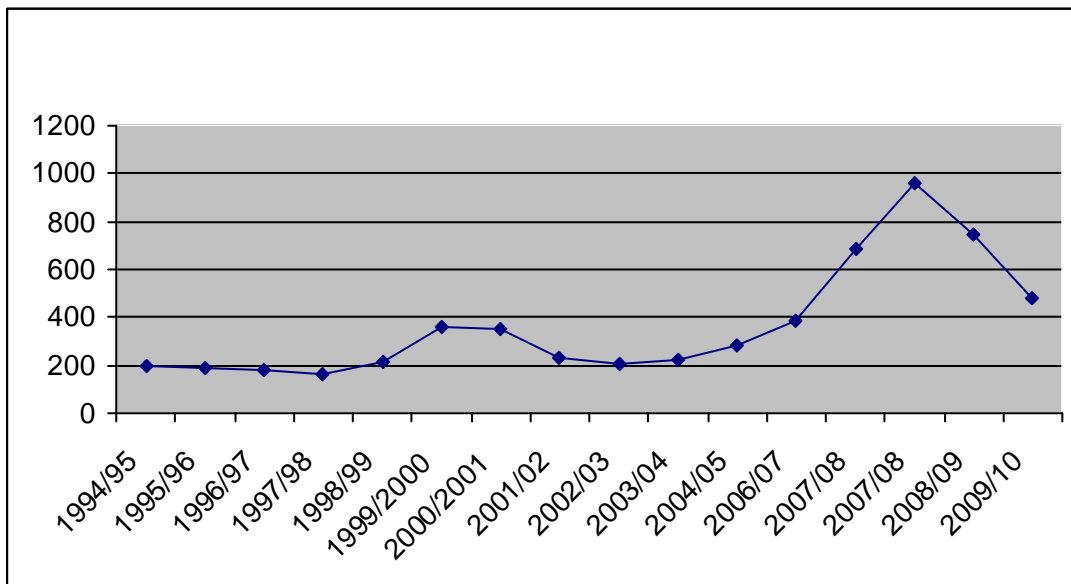
1.2 Institutions of Capital Market

1.2.1 Nepal Stock Exchange

Nepal Stock Exchange (NEPSE) is a non-profit organization, operation under Securities Exchange Act- 2006. The basic objective of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transactions in its trading floor through market intermediaries, such as brokers and market makers etc. NEPSE opened its trading floor on January 13,

1994 through its newly appointed licensed members and adopted an ‘Open Out-Cry’ system for the transaction of securities. The trading floor is restricted to listed corporate securities and government bonds with the market intermediaries in buying and selling of such securities. On 24 August 2007, NEPSE replaced the old open out carry system of securities trading, which was in place since the beginning of secondary trading in 1994, with the automated trading system (ATS). The automated trading system has not only mechanized securities trading, but also reduced the manipulation of prices and human errors. The system has helped eliminate all possible human errors as seen in the open out carry trading procedures. Several international practices have been incorporated to make the system internationally compatible and modifications have also been made to customize the existing rules and regulations of the country.

Figure 1.1
NEPSE Index



1.2.2 Security Board of Nepal

Securities Board of Nepal (SEBON) was established by the Government of Nepal on June 7, 1993 as an apex regulator of Securities Markets in Nepal. It has been

regulating the market under the Securities Act, 2007. The functions, duties and powers of SEBON as per the Act are as follows.

-) To offer advice to Government on matters connected with the development of the capital market.
-) To register the securities of corporate bodies established with the authority to make a public issue of its securities.
-) To regulate and systematize the issue, transfer, sale and exchange of registered securities.
-) To give permission to operate a stock exchange to any corporate body desirous of doing so, subject to this Act or the rules and bye-rules framed under this Act.
-) To supervise and monitor the functions and activities of stock exchange.
-) To inspect whether or not any stock exchange is executing its functions and activities in accordance with this Act or the rules and bye-rules framed under this Act, and to suspend or cancel the license of any stock exchange which is not found to be doing so.
-) To issue licenses to conduct the business of dealing in securities, subject to this Act, or the rules and the bye-rules framed under this Act, to companies or institutions desirous of conducting the business of dealing in securities.
-) To supervise and monitor the functions and activities of securities-dealers.
-) To grant permission to operate collective investment schemes and investment fund programs, and to supervise and monitor them.
-) To approve the bye-rules concerning transactions in securities framed by stock exchanges and institutions engaged in the business of dealing in securities, and, for the purpose of making necessary provisions concerning the development of the capital market and protecting the interests of investors investing in securities, issue orders to have necessary alterations made in

such bye-rules of stock exchange and institutions engaged in the business of dealing in securities.

- J To systematize the task of clearing accounts related to transactions in securities.
- J To supervise whether or not security dealers are behaving in the manner prescribed in this Act, or the rules and the bye-rules framed under this Act, while conducting business of dealing in securities, and suspend the license to conduct the business of dealing in securities in case any securities dealer is not found to be behaving accordingly.
- J To make or ensure necessary arrangements to regulate the volume of securities transacted and the procedure of conducting such transactions in order to ensure the promotion, development and clean operation of stock exchanges.
- J To make necessary arrangements to prevent insider trading or any other offenses relating to transactions in securities in order to protect the interest of investors in securities.
- J To review or make arrangement for reviewing the financial statements submitted by the corporate bodies issuing securities and security dealers, and issue directives deemed necessary in that connection to the concerned corporate body.
- J To systematize and make transparent the act of acquiring the ownership of a company or gaining control over its management by purchasing its shares in a single lot or in different lots.
- J To establish coordination and exchange cooperation with the appropriate agencies in order to supervise and regulate matters concerning securities or companies.
- J To discharge or make arrangements for discharging such other functions as are necessary for the development of securities and the capital market.

The major financial sources of SEBON are the government grant, transaction fee from the stock exchange and registration fee of corporate securities. Other financing sources include registration and renewal of stock exchange and market intermediaries and the income from mobilization of its revolving fund.

1.2.3 Stock Broker and Brokerage Firm

A stock broker or stockbroker is a regulated professional broker who buys and sells shares and other securities through market makers or Agency Only Firms on behalf of investors. A broker may be employed by a brokerage firm.

A brokerage firm, or simply brokerage or broker in context, is a financial institution that acts as a stock broker. Brokerage firms serve a clientele of investors who trade public stocks and other securities.

1.3 Role of Capital Market in Economic Development

-) Capital Market provides an important alternative source of long-term finance for long-term productive investments. This helps in diffusing stresses on the banking system by matching long-term investments with long-term capital.
-) It provides equity capital and infrastructure development capital that has strong socio-economic benefits - roads, water and sewer systems, housing, energy, telecommunications, public transport, etc. - ideal for financing through capital markets via long dated bonds and asset backed securities.
-) It provides avenues for investment opportunities that encourage a thrift culture critical in increasing domestic savings and investment ratios that are essential for rapid industrialization.
-) Encourages broader ownership of productive assets by small savers to enable them benefit from nation's economic growth and wealth distribution. Equitable distribution of wealth is a key indicator of poverty reduction.

-) Capital Market promotes public-private sector partnerships to encourage participation of private sector in productive investments. Pursuit of economic efficiency shifting driving force of economic development from public to private sector to enhance economic productivity has become inevitable as resources continue to diminish.
-) Capital Market assists the Government to close resource gap, and complement its effort in financing essential socio-economic development, through raising long-term project based capital.
-) It improves the efficiency of capital allocation through competitive pricing mechanism for better utilization of scarce resources for increased economic growth.

1.4 Profile of Selected Commercial Banks Used as Sample

NABIL Bank Ltd

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 40 points of representation across the kingdom and over 170 reputed correspondent banks across the globe. Its web address is www.nabilbank.com.

Bank of Kathmandu

BOK started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. BOK also aims to facilitate the nation's economy and to become more competitive globally. To achieve these, BOK has been focusing on its set objectives right from the beginning.

To highlight its few objectives:

-) To contribute to the sustainable development of the nation by mobilizing domestic savings and channeling them to productive areas.
-) To use the latest banking technology to provide better, reliable and efficient services at a reasonable cost
-) To facilitate trade by making financial transactions easier, faster and more reliable through relationships with foreign banks and money transfer agencies
-) To contribute to the overall social development of Nepal

Everest Bank Ltd.

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer-friendly services through its Branch Network. All the branches of the bank are connected through Anywhere Branch Banking System (ABBS), which enables customers for operational transactions from any branches. Its web address is www.everestbankltd.com

Standard Chartered Bank Ltd.

Standard Chartered Bank Nepal Limited (SCBNL) has been in operation in Nepal since 1987 when it was initially registered as a joint-venture operation. Today the Bank is an integral part of Standard Chartered Group who has 75% ownership in the company with 25% shares owned by the Nepalese public. The bank enjoys the status of the largest international bank currently operating in Nepal. Its head office is located in New Baneshwor, Kathmandu.

Himalayan Bank Ltd.

Himalayan Bank Limited (HBL) was established in 1992 in joint venture with Habib Bank Limited of Pakistan. The bank was established by a few distinguished personalities of Nepal in partnership with employees Provident Fund and Habib

Bank Limited of Pakistan. The Bank commenced its operations from January 1993. The bank's main objective is to be the bank of first choice. Despite tough competition in the Nepalese banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits. It provides a wide range of commercial banking services including industrial and merchant banking. Its head office is located in Thamel, Kathmandu.

Laxmi Bank Ltd.

Laxmi Bank was incorporated in April 2002 as the 16th commercial bank in Nepal. With total assets of NPR 20 billion at April 2010 and 22 branches across the country Laxmi Bank is amongst the top financial institutions in the country in terms of size and quality of operations. In 2004 Laxmi Bank merged with HISEF Finance Limited, a first generation financial company which was the first and ever merger in the Nepali corporate history.

Laxmi Bank is a Category 'A' Financial Institution and re-registered in 2006 under the "Banks and Financial Institutions Act" of Nepal. The Bank's shares are listed and actively traded in the Nepal Stock Exchange (NEPSE). Its web address is www.laxmi.laxmibank.com

1.5 Statement of the Problem

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, Earning 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 affect 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.

Beside these facts, there are various other factors associated for the price volatility of stock prices, which is the basic element of capital market. Many studies also have shown the real facts that there is close relationship between the nation's economic condition and price of stock in capital market. In these regards, due to the failure of maintaining rationale economic condition of some developed nation, the stock market had decreased irrationally in 2008. The demand of stock is directly affected by the economic condition of investors. Inflation and other Investment opportunities have also affected the stock prices.

Unlike many developed capital markets, the Nepalese stock market is still far from perfect. One of the criteria for a market to be perfect is that all investors should understand the stock market. They should know how stock market function or they should have information about the stock, they would like to invest. Unfortunately, Nepalese investors' understanding on stock market is very limited. They blindly follow the trend without adequate information and knowledge. They do not feel necessary to check the company's overall performance, its balance sheet, its dividend flow, its growth rate, and it's earning trends. When a company whether it's new or existing makes a public issue, there comes a tsunami of application for the subscription of shares. Almost every public issue has been oversubscribed during the past few years. Lack of adequate investment area in the country and the

wrong impression among public of getting quick benefit from stock investment can be regarded as the main reason of the oversubscription of public issue in recent time in Nepal.

There is close relationship between the price to volume of the stock, i.e. high price, low volume and low price high volume. Normally, Price of the stock is determined by the demand and supply. Whether this situation is in the security market or not? Is stock price in the secondary market? What is the impact of price trend, volume of the stock traded? Do the investors see the price trend? Do the investors see the volume trend and other views while making investment decision? These are some burning issues regarding stock price determination of secondary market in Nepal.

This study will attempt to dig out the empirical evidence in the context of Nepal- an underdeveloped country, regarding the factors associated for the price volatility of stock price in capital market.

1.6 Significance of the Study

The Study factor associated for stock price volatility in capital market of Nepal will be useful to all the people who wish to know about the capital market in Nepal. Though the study consist some limitations as it is the study to fulfill the partial requirement of Master's degree in Business Studies but the study will provide the guideline and the information to the interested investors wishing to invest in capital market. It can be used by the people and institutions who are interested to know about the factors associated for stock price volatility. It can also show the relation of stock price with other macroeconomic variable such as GDP, Inflation etc.

1.7 Objective of the Study

General Objective:

-) The general objective of the study is to determine and access the knowledge about the factors associated for the stock price volatility in Capital Market of Nepal.

Specific Objective:

The specific objectives of the study will be to:

-) To examine the movement of stock price in Capital Market of Nepal
-) To explore the impact of different economic and financial indicator on stock price in capital market of Nepal.
-) To determine the correlation between movement of NEPSE Index & International stock market index.
-) To access the knowledge about the utilization of market information by the investors before investing in Capital Market.
-) To examine the relation in between Market price per share, Earning per share and Dividend per share.
-) To explore the perception of investor toward different factors affecting stock price.

1.8 Research Variables:

Independent variable	Dependent variable
) Earnings Per Share) Market Price per Share
) Dividend Per Share) NEPSE Index
) Gold Price in Market	
) International market indexes	
) Investors Perspective	

1.9 Limitations of the Study

-) The study is based with the data of only 5 years. Among them, to represent the overall company listed in NEPSE 6 commercial bank only are selected.
-) The study is primarily based on secondary data, though the study is done collecting all available secondary data and other resources, but due to some of unavailable data the study might have faced some limitation to give answer for some in-depth research questions.
-) The information collected from investor through questionnaire (as primary data) is based on the Kathmandu valley only as well sample size is small of 50 respondents only.
-) Among various methods and tools only some of the tools and methods of analyzing is done. Such as the SPSS, Statistical Calculator, and both correlation and regression including other simple statistical methods is used.
-) Price movement of only Common stock is used. And the price trend is depended on the information of NEPSE, and other international stock exchange.

1.10 Organization of the Study

The study is divided into five chapters they are as follows:

Chapter - I: Introduction

Introduction chapter consist with general background of the study, statement of the problems objective of the study limitation of the study and organization of the study.

Chapter - II: Literature Review

The second chapter, literature review contains the conceptual framework and past research literature on the behavior of the market price and price movement in the capital market. It presents the analysis of related studies which include different books article, previous thesis report various published and unpublished document

and report, as well other international journals. This chapter will mainly be related to the theoretical analysis and brief review of related and relevant literature available.

Chapter - III: Research Methodology

The third chapter research methodology deals with the carry out of the empirical tests.

The research methodology chapter includes research design, nature of data, data gathering procedure, population and sample and data processing procedures. It deals with the nature of the data and methods of analysis. In this chapter different statistical and financial tools will be used to calculate and analyzed the data received from different primary and secondary sources.

Here, in the study stratified random sample is used to represent the sample as a population. Correlation and regression analysis is done with dependent variable as Market price per share and independent variable as earning per share, Dividend per share and Net worth per share.

Chapter - IV: Data Presentation and Analysis

The fourth chapter, presentation and analysis, will contain the presentation, analysis and interpretation of primary as well secondary data to indicate quantitative facts of the securities market. It consists testing of analysis of questionnaire analysis of open end opinions.

Chapter – V: Summary, Conclusion and Recommendations

The Last chapter covers with summary, conclusions and recommendation for the further research. This chapter tries to obtain out a conclusion of the study and attempt to offer various suggestions and recommendation for the improvement of the future performance.

Finally, bibliography and annexure are presented at the end of the study.

CHAPTER - II

LITERATUR REVIEW

Review of literature is one of the important parts of the thesis. This part of the research contains the review of different sources of literature such as books, thesis, dissertation, newspaper, national and international journals, research papers and other studies and research report related to this research topic. Beside specific related matter on capital market, other useful matters from social science research are also included.

The first sections of this chapter describe conceptually the security analysis and behaviors of share prices. It includes the classical approach (technical analysis and fundamental analysis) and efficient market theory approach. The second and third sections of this chapter is devoted to review those related literature carried out previously in the foreign context as well as in the Nepalese context respectively. And finally, the fourth sections identifies the research gap among the others researches.

2.1 Conceptual Review

Conceptual reviews are the clue part of the study because the research study are focused and centralized around the concept of stock market behavior, as well on the functioning of capital market. This part deals with review of theoretical aspect on stock market, capital market, and other economic situation and macroeconomic indicators.

2.1.1 Concept of Capital Market

A capital market is a market for securities (debt or equity), where business enterprises (companies) and government can raise long-term funds. It is defined as

a market in which money is provided for periods longer than a year, as the raising of short-term funds takes place on other markets (e.g., the money market). The capital market includes the stock market (equity securities) and the bond market (debt). Financial regulators, such as the UK's Financial Services Authority (FSA), Securities Board of Nepal or the U.S. Securities and Exchange Commission (SEC), oversee the capital markets in their designated jurisdictions to ensure that investors are protected against fraud, among other duties.

Capital markets may be classified as primary market and secondary markets. In primary markets, new stock or bond issues are sold to investors via a mechanism known as underwriting. In the secondary markets, existing securities are sold and bought among investors or traders, usually on a security exchange, over-the-counter or elsewhere.

2.1.2 Concept on Dividend

Companies that earn a profit can decide either of three ways: pay the profit out to shareholders, reinvest it in the business through expansion debt reduction or share repurchase or both. When a portion of the profit is paid out to the shareholders the payment is known as dividend. Dividend is paid in cash or stock. There is an ongoing debate about whether a company should payout its earnings as dividend or returns them for firm growth. There is further debate about which policy investors prefer. Firms that are growing generally pay low or no dividends matures firms that are no longer in growth phase often pay high and increasing dividends.

The dividend decision is regarded as a financing decision any cash dividend paid reduces the amount of cash available for investment by the firm. Dividend is periodic cash payments by the company to its shareholders. The dividend payable to the preference shareholders is usually filed by the terms of the issue of

preference shares. But the dividend on equity share is payable at the discretion of the board of director of company. For payment of dividends a company must earn distributable profit from which the actual payment of dividend will be made. A company in general meeting may declare dividends, but no dividend shall exceed the amount of recommended by the board. The shareholders have no right to declare more dividend than what has been recommended by the board of directors.

“Dividend refers to that portion of firm’s net earning, which are paid to the shareholders” (Bhattraï, 2002:12). In theory of finance, dividend decision plays a very crucial role. Dividend decision however is still a crucial as well as controversial area of managerial finance. It is more technical area of finance and is complex on having numerous implications for the firm.

In the other words dividend is a periodical payment made to shareholders to compensate them for the use of and risk to their investment. Higher the dividend means higher the immediate cash flows to investors, which is good but lower future growth for firms, which is bad. Thus how much of dividend is to be paid corporate dividend is at the directors of the board of directors. Before dividend is paid to common stockholders must be satisfied. Shareholders wealth includes not only market price of shares quoted in stock market but also current dividends. Thus dividend are more than just a means of distributing unused funds and dividend is the part of earning which distributed to the shareholders.

2.1.3 Dividend Policy and Market Price of Share (MPS)

“Dividend policy of a firm should be to maximize the value of the shareholders wealth. The payment of dividends conveys to shareholders that the company is profitable and financially strong. The growth of the dividends with the growth of earnings of matured companies will communicate very convincing information and consequently the MPS will significantly influence” (Pandey, 1995: 689).

MPS is that value which can be obtained by a firm from the market. Market value is one of the variables, which is affected by the dividend per shareholders, earning per share of the firm. If the earning per share and dividend value is high, the market per share will also be high. Market values of the share may be high or low than the book values. If the firm is growing concern and its earning power is greater than the cost of capital, the market value of the share will be higher than the book value. If the firm's earning capacity is lower than cost of capital MPS will also be lower. MPS is determined by capital market.

2.2 Conceptual Review on Market Approach

Security analysis is the major step of the investment process. It involves the function of examining several individual securities or group of securities within the broad categories of various securities. The purpose behind the security analysis is to identify whether the particular security is miss priced or not. There are numerous reasons that cause the share price fluctuation. Among them are economic, non-economic and other factors. The prices of securities are typically very sensitive, responsive to all events, both real and imagined, that cast into the murky future (Cootner, 1964: 1). Though all factors give rise to the observed movement of share prices, it would be very hard to find a completely accepted price formation theory. Before describing the random walk-efficient market theory, it would be proper to explain the first two conventional theories, viz. technical analysis theory and fundamental analysis theory.

- a. Classical Approach
- b. Efficient Market Theory Approach

Classical approach considers the market as inefficient whereas the efficient market theory approach considers the market as efficient.

2.2.1 Classical Approach

Classical approach regarding the share price behavior can also be classified into two groups. One is technical analysis and another is fundamental analysis.

2.2.1.1 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 be adjusted 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.

Technical analysis theory includes study of past price and volume data of stocks to forecast future price movements. Technical analysts practice a highly specialized form of market analysis. They try to predict future stock prices just as we might predict that the pattern of wallpaper behind the mirror is the same as the pattern above the mirror. The underlying philosophy of technical analysis is that the price of a stock depends on supply and demand in the market and has little relationship to intrinsic value, as fundamentalists believe it to be. Technical analysis tools are designed to measure supply and demand. The basic assumption of technicians is that history tends to repeat itself. In statistical terminology, the stock market technician relies upon the dependence of successive price changes. That is, they

assume that the historical behavior of a security price is rich in information concerning its future behavior.

Technical analysis is based on the widely accepted premise that security prices are determined by the supply of and the demand for securities. The tools of technical analysis are therefore designed to measure the certain aspects of supply and demand (Francis, 1991: 521).

The methodology of technical analysis rests upon the assumption that history tends to repeat itself in the stock exchange. If a certain pattern of activity in the past produced certain results nine times out of ten, one can assume a strongly likelihood of the same outcome whenever this patterns appears in the future. It should be emphasized, however that a large part of the methodology of technical analysis lacks a strictly logical explanation (William, 1975:297).

Technical analysis can be defined as the use of published market data for the analysis of both the aggregate stock market and individual stocks. It is sometimes called market or internal analysis. Technically, technical analysis record historical financial data on charts, study these charts in search of patterns to predict future prices. Some charts are used to predict movement of market index and still others are used to predict the action of both individual assets and the market (Francis, 1991: 522). Thus, the technical analysis can tell whether the price of a share is on upswing or on the downswing in future (Palat, 1991: 172).

The most important part of technical analysis is based on charts and graphs. These are: bar point and figures charts, moving average and other trend lines, relative strength measures, odd lot data and various other measurements.

The existence of technical analysts in Nepal may be still doubtful. With the applications of various technical analysis tools(The Dow Theory, Barron's

Confidence Index, Odd Lot Theory, Charts, Breadth Of Market, and Moving Average), the technicians attempt to predict future stock prices by analyzing past behavior of stock price. Such tools are explained below:-

) **Dow Theory**

This tool originated by Charles Dow, founder of the Dow Jones company, is one of oldest and most famous technical method of analyzing security prices. The aim of the Dow Theory is to identify long-term trends in stock market prices.” According to this theory it is believed that the market is always considered as having three movements, all going at the same time. The first is narrow movement from day by day. The second is the short swing, running from the two weeks to a month or more; the third is the main movement, covering at least 4 years duration” (Francis, 1990). So, we can say that there are three forces simultaneously affecting the stock prices, basically called primary or major trend, secondary or intermediate trend, and finally minor trends. The primary price movements are held to constitute the bearish or bullish trends, whereas the secondary movements are regards as passing phases. Minor trend is daily price fluctuations to which Dow attributes to no significance or ignores the role of this trend.

The forecasting result of Dow Theory is less accurate. It might work only when a long, wide, upward or downward movement is registered in the market. It is mostly unsuitable as a market predictor when the market trend frequently reverses itself in the short or the intermediate –term. This theory also fails to explain a consistent pattern of the stock price movements.

) **Barron’ Confidence Index**

In literal sense, the confidence index is defined as the ratio of high-grade bond yield divided by low-grade bond yields. The ratio is supposed to reveal how willing investors are to take investment risks. Barron's confidence index is

constructed by using Barron's index of yield on high-grade bonds and low-grade bonds.

The confidence index is usually, but not always, a leading indication. Like most of other technical indicators, the confidence index may sometimes issues erroneous signals and should therefore not be used without confirming evidence from other indicators (Francis, 1991: 531).

) **Odd Lot Theory**

This theory concerns the purchase and sales of securities by small investors. These investors do transaction of less than 100 shares. Some technicians take the ratio of this odd lot purchase to odd lot sales as an indicator of the direction of future prices. An increase in the index suggests relatively more buying; a decrease indicators relatively more selling. During most of the market cycle, odd looters are selling the advance and buying the declines.

Odd looters try to do the right thing most of the time; that is, they tend to buy stocks as the market retreats and sell stocks as the market advances. However, technicians feel that odd looter is inclined to do the wrong thing at critical turns in the market (Ronald, 1995: 515).

) **Charts**

It uses the three basic types of charts they are bar chart, point chart and figure charts. Line charts are used to connect successive day's closing price. Bar are used to spoon the distance from the day's highest price to the day's lowest price. A small cross on the bar makes the closing price. Point charts and figure charts are made on "X" s and "Y" s, which are more complex than line charts and bar charts. Point figure charts are used not only to detect reversal trends but also to make price forecasts, called price targets.

) **Breadth of Market**

It tries to measure the strength of the market's upward or downward movement. Daily newspapers report the number of issues that advance and decline in price each day in the various exchanges. Technicians try to maintain the clear direction of the underlying market's movement by studying net advances; they try to determine the market's trend.

) **Moving Average**

It is used by technicians who focus on the moving average of the price. It is used to provide a smooth stable reference point against which daily fluctuations can be gauged. Moving average analysis is used for individual securities and market indexes.

2.2.1.2 Fundamental Analysis

One very important theory on the investment management is that of Fundamental (intrinsic value) Analysis. Fundamental analysis is the method to evaluate the true worth of the stock by analyzing the financial data and information of the issuer. Fundamental analysis is mainly focused on the prospectus, annual and quarterly reports of the issuer as well as any available current news relating to the issuer. It also studies the issuer's income and expenses, assets and liabilities, management and position in its industry.

The fundamentalists 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., Earnings Capitalization Model and Dividend Capitalization Model. The market price of share 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.

Fundamental analysis is a stock valuation method that uses financial and economic analysis to predict the movement of stock prices. It is performed on historical and present data, but the objective is to predict future stock prices or business performance. It is based on determining the stock prices on the basis of the earnings made by the company and dividends declared by the company. It provides the intrinsic value of the stock and facilitates the investors whether to buy or sell the stock. Such intrinsic value of the stock will be the true value after analysis of the financial performance of the company.

Fundamental analysis involves making investment decisions based on the examination of the economy, an industry and company variables that lead to an estimate of value for an investment, which is then compared to the prevailing market price of the investment (Frank, 2000: 869-870).

Fundamental analysis use public information to calculate a fundamental value for a share, and then offer investment advice by comparing the fundamental value with the current market price. Fundamental analysis is not possible if capital markets are semi strong form efficient, since security prices will already fully and fairly reflect all publicly available information (Watson, 1998: 31).

In its simplest form, fundamental analysis begins with the assertion that the true value of any financial asset equals the present value of all cash flows the owner of the asset expects to forecast the timing and size of these cash flows and then converts the cash flows to their equivalent present value using an appropriate discount rate (Sharpe, 2000: 12).

Fundamental analysis approach involves study of various factors like economic influences, industry factors, firm's financial statement and company information like product demand, earning, dividends and management performances to calculate an intrinsic value of the security. Under this theory, the investor should only analyze such fundamental factors that may enable them to select the undervalued the future of the company.

When the investors estimate the true value of the stock after correct analysis, then it should be compared with the current market price of the stock to determine whether the stock is correctly priced or not. Stocks whose true value of estimated value is less than their current market price are known as overvalued and stocks whose true value or estimated value is more than their current market price are known as undervalued.

The assumption of the fundamental analysis approach is that at any point in time an individual security has an intrinsic value, which depends on the earning potential of the security. The earning potential of the security depends in turn on such fundamental factors as quality of management, outlook for the industry and the economy etc. through a careful study of these fundamental factors the analyst should in principle, is able to determine whether the actual price of a security is above or below its intrinsic value. If actual prices tend to move toward intrinsic values, then attempting to determine the intrinsic value of a security is equivalent

to making a prediction of its future price; and this is the essence of the predictive procedure implicit in fundamental analysis.

Fundamental analysis always seeks for new information before other investors. A fundamental analyst uses different models to estimate the true or estimated value of the stocks for making appropriate investment decision, such models are Top – Down versus Bottom-Up forecasting, probabilistic forecasting, econometric models, financial statement analysis etc.

The investor, who uses Top-Down forecasting model, starts his analysis with global economic, including both international and national economic indicators, such as GDP growth rates, inflation, interest rates, exchange rates, productivity, and energy prices. He narrows his search down to regional \industry analysis of total sales, price levels, the effects of competing products, foreign competition, and entry or exit from the industry. Only then does he narrow his search to the best business in that area. The Bottom-Up investor starts with specific businesses, regardless of their industry/region.

There are some limitations behind the fundamental analysis.They are as follows: -

-) The analysis and information may be incorrect.
-) There is a chance of disguising the real return of the company backed by various reasons and with the help of new/innovative accounting systems.
-) The fundamental analyst may not be fully able to understand the economy of the industry due to the existence of other various external factors.
-) The entire fundamental analysis is based on a rational scientific analysis of data that the market is rarely rational.

The available information relating to the price of the stock changes overtime. Due to that cause, the price of stock also changes. This means the fundamental analyst

should always analyze the affecting factors and estimate the true value of stock in order to make correct investment decisions and get appropriate return. Therefore, fundamental analysis is the never-ending process.

2.2.2 Efficient Market Theory Approach

In a competitive market, the equilibrium price of any goods or services at a particular moment of time is that the available supply is equated to aggregate demand. This is the true worth of the goods or services, based on all publicly available information. The new equilibrium price will hold until another bit of information is available for analysis and interpretation.

When security prices at all times rationally reflect all available, relevant information, the market in which they are traded is said to be efficient. This implies that any new information is coming to light, which bears on a particular firm, will be incorporated into the market price of the security. An efficient capital market is one in which security prices adjust rapidly to the arrival of the new information and therefore the current prices of securities reflect all information about the security.

An efficient market is one where shares are always correctly priced and where it is not possible to outperform the market consistently except by luck (Pike, 1996: 41). In an efficient capital market, current market prices fully reflect available information.

Therefore, if market is efficient, it uses all available information in setting price. An efficient market is defined as the market where large numbers of rational investors actively compete with each trying to predict future market values of individual securities, and where important current information is almost freely available to all participants. In an efficient market, competition among any

intelligent participants leads to situation that at any point of time; actual prices of individual securities reflect the effect of information based on both an events that have already occurred and events which the market expects to take place in the future. In other words, in an efficient market at any time the actual price of a security will be a good estimation of intrinsic values (Fama, 1970: 384).

There are several concepts and degrees of market efficiency depending on the market. Generally market is efficient when:

-) Prices adjust rapidly to new information;
-) There is a continuous market, in which each successive trade is made at a price close to the previous price (the faster that the price responds to new information and the smaller the difference in price changes, the more efficient the market);
-) The market can absorb large amounts of securities without destabilizing the prices (Geoffrey, 1998:420).

The requirements for efficient securities market are as follows:-

-) A large numbers of rational, profit maximizing investors exist who actively participant in the market by analyzing, valuing and trading stocks. These investors are price takers: that is, one participant alone cannot affect the price of a security.
-) Information is free of cost and widely available to market participants at approximately the same time.
-) Information is generated in a random fashion such that announcements are basically independent of one another.
-) Investors react quickly and accurately to the new information, causing stock prices to adjust accordingly (Charles, 1998: 425).

In an efficient market, all prices are correctly stated and there are no bargains in the stock market. “Efficiency” in this context means the ability of the capital markets to function so that prices of securities react rapidly to information. Such efficiency will produce prices that are appropriate in terms of current knowledge and investors will be less likely to make unwise investments. A corollary is that investors will also be likely to discover great bargains and thereby earn extraordinary high rates of return (James, 1973: 3).

The degree of market efficiency has important implications for the economy and for investment decision makers. In an economic sense, it is important that securities provide accurate signals that can be used to allocate capital resources correctly. Mispriced securities would result in incorrect allocations of capital (Edward, 1992:746).

Although an efficient market may be vital and pleasing from an economic perspective; it presents complexity to investors in terms of an appropriate investment strategy.

An efficient market is an assumed perfect market where there are many small investors, each having the same information and expectations with respect to securities; there are no restrictions on investment, no taxes and no transaction costs; and all investors are rational, view securities similarly, and are risk – averse, preferring higher return and lower risk (Lawrence, 2000: 265).

In an efficient market, liquid capital will channel quickly and accurately where it will do the community the most good. An efficient market will provide ready financing for worthwhile business ventures and drain capital away from corporations that are poorly managed or produce obsolete products. One of the main reasons that some underdeveloped countries do not advance is that they have

inefficient capital markets, where price may be fixed or manipulated rather than determined by supply and demand.

If new information becomes known about a particular company, how quickly do market participants find out about the information and buy or sell securities of the company on the basis of the information? How quickly do the prices of the securities adjust to reflect the new information? If prices respond to all relevant new information in a rapid fashion, we can say the market is relatively efficient. If, instead the information disseminates rather slowly throughout the market, and if investors take time in analyzing the information and reacting, and possibly overreacting to it, prices may deviate from values based on careful analysis of all available relevant information. Such a market could be characterized as being relatively inefficient (Robert, 2001: 573).

There are three forms of efficient market hypothesis based on type of information used in making market decisions. They are:

-) Weak-form efficiency,
-) Semi-Strong form efficiency and
-) Strong-form efficiency

The difference between these forms relates to what extent information is reflected in the stock prices. Under the weak form, stock prices are assumed to reflect any information that may be contained in the past history of the stock price itself. This hypothesis holds that no investor can earn excess returns by developing trading rules based on historical prices or return information.

Weak-form efficiency suggests that at a minimum, the current price of a stock reflects the stocks own prices. In other words, studying past prices in an attempt to identify mispriced securities is useless if market is weak- form efficient. Although

this form of efficiency might seem rather mild, it implies that searching for patterns in historical prices that will be useful in identifying mispriced stocks will not work (Stephen, 2003: 407).

Under the semi-strong form, all publicly available information is pre-assumed to be reflected in securities prices. This includes information in the stock price series as well as information in the firm's accounting reports. The reports of competing firms announced information relating to the state of the economy, and any other publicly available information relevant to the valuation of the firm (Haugen, 1999: 575).

This form of efficiency is the most controversial. The reason is, it implies that a security analyst who tries to identify mispriced stocks using financial statement information is wasting time because that information is already reflected in the current price (Ross, 2003: 407).

The strong-form takes the notion of market efficiency to the ultimate extreme. This form includes private information as well as publicly available information. Under this form, those who acquire private information buy or sell the stock. Their actions affect the price of the stock, and the price quickly adjusts to reflect the inside information (Haugen, 2001: 573).

One obvious way to check the validity of the strongly efficient market hypothesis is to examine the profitability of traders in securities made by insiders to see if the insider's access to valuable information allows them to earn statistically significant trading profits (Francis, 1991: 558).

2.2.3 The Random Walk Theory

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.

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 a 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 affect 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 prices are falling, investors would demand more of the 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.

Random walk theory describes whether past prices can predict future prices. “Random walk theory implies the future path of price level of security is no more predictable than the past of series of cumulated random numbers. The series of price series has no memory; i.e., the past cannot be used to predict the future in any meaningful way” (Fama, 1965: 34). It means that the current size and direction of price changes are independent and unbiased outcome of previous prices. The underlying theory of random walk in stock price behavior statistically consists of two separate assumptions;

-) Price changes are independent random variable,
-) Price changes conform to some probability distribution without specifying the particular shape or form of the distribution.

Of the two hypotheses independence is much more important assumption which means that the previous price changes following the current change will not be influenced by the sequence of preceding price changes.

Independence is of course an important property of random walk theory. However, this precise property must be satisfied in order to make the theory as a valid representation. But there lacks a perfect independence situation by the application of any statistical tools in general market. “Independence assumption of successive price change can be justified, if any outcomes produced by the tests that cannot allow the investor to beat the return provided by the market averages, then one can refer that the independence hypothesis of the random walk theory is accepted as law governing the behavior of price series.”

The stock market is always subjected to a steady inflow of information, much of which will have an effect on the set of anticipations that constitutes price of a particular security. Some of the information has a whole market-wide impact such as change in monetary and fiscal policy on security prices. Some other information

has influence upon a group of stock price i.e. industry -wide impact. And still some information such as announcement of dividend, bonus shares may have an influence on the price of a particular security i.e. company-wide impact (King 1966: 136).

There are some participants who estimate the intrinsic value of the individual securities from the received information, “The existence of intrinsic value for individual securities is not consistent with random walk hypothesis” (Fama, 1965: 36).

In the market, Securities are over or under valued because of inappropriate estimation of the incoming information by the investors. This means, there is gap between the actual price and the intrinsic value of a particular security and this can be used by the speculator to evaluate the influence to improve his prospects of gain.

Any distribution is consistent with the theory of random walk as it is correctly characterizes the process generating the price changes. The distribution of price changes provides descriptive information concerning the nature of the process generating price changes. The shape of the distribution provides help for the investor while committing his funds for particular security. Thus, by the careful analysis of distribution of price changes by the powerful statistical theory one can get important information either he may be investor, trader, market analyst or researcher.

The random walk theory says nothing more than that successive price changes are independent. This independence implies that prices at any time will on the average reflect the intrinsic value of the security. If a stock's price deviates from its intrinsic value because, among other things, different investors evaluate the

available information differently or have different insights into future prospects of the firm, professional investors and smart non professionals will seize upon the short term or random deviations from the intrinsic value, and though their active buying and selling of the stock in question will force the price back to its equilibrium position (Ronald, 1995: 539).

If the random walk hypothesis holds, the weak form of efficient market hypothesis must hold (though not vice-versa). Thus evidence supporting the random walk model is evidence supporting weak form of efficiency (Edwin, 1991: 404). If prices follow a random walk model, price changes overtime are random (independent). The price change for today is unrelated to the price change on previous days. Any new information arrived randomly in the market results in the random changes in the prices. Random walk theory that involves random selection of securities is represented as the modern approach to investment decision.

2.3 Review of Previous Studies: Foreign Context

Scholars have been studying the way security price fluctuate for over a century. “The empirical evidence in the random-walk literature existed before the theory was established. This is to say, empirical results were discovered first, and then an attempt was made to develop a theory that could possibly explain the results. After these initial occurrences, more results and more theory were uncovered. This has led then to a diversity of theories which are generically called random-walk theory (Ronald, 1995: 539).

The pioneer work in this field is hue to French mathematician Louis Bachelier, who used the data of commodity price during the period of 1894-1898. He concluded that commodity speculation in France was “fair game” that has expected profits for buyers and sellers. Additional evidence that security prices followed a random walk was found by:

Kendall (1953), entitled “*The Analysis of Economic Time Series*”, examined the behavior of weekly changes in nineteen indices of British Industrial share prices and spot prices for cotton (New York) and wheat (Chicago). He found no relationship between share price changes in the current week and previous week. After extensive analyses of serial correlations, he suggested that “the series looks like a wandering one, almost as if once a week the demon changes drew a random number from a population of fixed dispersion and added it to the current price to determine the next week’s price.”

Hary (1959), entitled “*Stock Market Patterns & Financial Analysis*”, compared Dow Jones Industrial Index with stipulated price index generated on the basis of series of random numbers for 1956. He found considerable similarity in the graphs of these two series and it was difficult to distinguish between the series of random numbers and the stock market index. Thus, concluded that random movement of the past prices index cannot be used to forecast future share prices. His work was important in that he gave a number of methodological suggestions for testing what he calls the chance model. In particular, he suggested runs analysis for testing independence of price changes. In another study of 1959, Osborne reported a very high degree of conformity between the movement of stock prices and the law governing “*Brownian Motion*” (Brownian motion explains the motion of particles in the solution where movements of different magnitudes may occur at any time, no dependent of any prior movements) which in fact, supports the RWH.

Samuclson (1965), entitled “*Proof of Property Anticipated Prices Fluctuate Randomly*”, though lacked theoretical discussions in his paper, but his findings supports the independence hypothesis of random walk theory in stock prices. He concluded that if a market has zero transition costs, if all available information is free to all interested parties and if all market participants either potential and

existing have the same time horizons and expectations about prices, the market will be efficient prices will fluctuate randomly.

Fama (1965), entitled "*Behavior of Stock Market Prices*", his study on the random walk model is considered to be one of the most definitive studies. He analyzed the daily proportionate price changes of 30 blue chip stocks in the DJIA for the period of late 1957 to 26 September 1962. He followed standard statistical tools such as serial correlation and runs tests to examine whether any dependency exists in lagged price changes. He found that the serial correlation coefficient for daily price changes were very small and average was 0.03, which is close to zero. But 11 correlation coefficients of stocks out of 30 stocks were more than twice their computed standard errors. He calculated serial correlation coefficient for differencing intervals stronger evidence of dependence. This led Fama to conclude that the evidence produced by the autocorrelation model seems to indicate that dependence in successive price changes is either extremely slight or non-existent.

Fama further examined by runs analysis to testify whether price changes were likely to be followed by more price changes of the same sign. In fact, he found that the actual and expected runs are not significantly different. The largest difference exists for daily changes, but the difference was not significant. However, the difference for the 4-day, 9-day and 16-day intervals is very small. In any case, the departure from randomness was negligible. On the basis of these tests Fama concludes: "there is little evidence, either from the serial correlation or from the various runs tests, of any large degree of dependence in the daily, four day, nine day and sixteen days price change".

King (1966), entitled "*Market & Industry Factors in Stock Price Behavior*", also examined the behaviour of 63 securities six industries of New York Stock

Exchange, from 1927 to 1960. This study also concludes that there exists low degree of coefficient estimates of serial correlation, i.e.0.018 which is close to zero. This helped him in concluding that stock prices follows random walk model.

Dryden (1970), entitled "*Statistical Study of UK Share Price*", concludes that the share price movements were non-random. However in his later study, he used serial correlation and runs analysis to examine the daily closing prices of 14 individual stocks of U.K. market and supported that the independence hypothesis of successive price change.

Niarchos (1971), entitled "*Statistical Analysis of Transaction of The Athens Stock Exchange*", studied price series of 15 individual stocks from Athens Stock Exchange for the period from 1957-1968. He found the serial correlation coefficients for individual stock as 0.036, close to zero. So, he concluded that the price fluctuations were random walk and past price has no meaningful information to predict future prices.

Rao (1988), entitled "*Stock Market Efficiency & Share Price Behaviour*", conducted the study on the weekend prices of the eight blue-chip stocks for five years from July 1982 to June 1987. He applied serial correlation analysis, runs test, and filter rule technique. The result from all the tests supported the random walk hypothesis.

Thus, on the basis of above mentioned review of previous research works, it can be concluded that stock market prices shows random movement and the security prices appear to be serially independent. So, investors cannot develop any profitable trading strategy using the information of past series.

Walter, Rita & Dogan (2002), entitled *"Evidence that extreme volatility in stock price is associated with extraordinary reported news items"* and found roughly five times as great a tendency for an association between major news items and extreme volatility shocks as HTT. Thus, even if one disqualified half of the events during 1987-99, the news-related proportion would still be about 2.5 times greater than the proportion for 1897-1988.

Xu (2006), entitled *"R & D Progress, Stock Price Volatility and Post Announcement Drift: An Empirical Investigation into Bio Tech Firms"* investigate the effect of R&D progress on the dynamic of stock price volatility and post announcement to provide insight into whether or not and how capital market react to corporate R&D progress in context of the biotech industry and found both stock price volatility and post announcement drift decrease in R&D progress. More importantly the decrease is proportional to the drug development success rate driven by R&D progress. Finding suggests that research and development conveys useful risk relevant information and plays an important role in explaining stock price volatility change and market anomalies."

Habibour & Sakhawat (2007), entitled *"Volatility of Stock Return in Dhaka Stock Exchange"*, shows that the stock market volatility changes significantly over time. The volatility of stock return is determined by the fluctuations in stock index. Fluctuation in the stock index also depends on the demand for and supply of securities traded in the stock exchange. Sometimes the stock return volatility is driven by trading volume following new information and by the process that incorporates new information into market prices. At the aggregate level, stock return volatility rises sharply during stock price declines following bad news than in periods of stock price increase following good news. While relating changes in stock market volatility with a number of economic factors, such as financial leverage, corporate bond yields, corporate earnings and dividend yields, stock

trading activity, volatility of interest rates, bond prices, and other macroeconomic variables, Schewert (1987) concludes that “none of these factors ... plays a dominant role in explaining the behavior of stock volatility over time”.

Charles, Simons & Daniel (2008), entitled "*Effect of Exchange Rate Volatility in Ghana Stock Exchange*" The study also indicated that there is the presence of volatility shocks of the exchange rate on stock returns on the Ghana Stock Exchange. This gives an indication that changes in the tradeoff between risk and return is predictable thus serving as a useful guide for risk management.

Also the results show that the relationship between stock market and macroeconomic variables were statistically significant. Furthermore, there is volatility persistence in most of the macroeconomic variables; current period's rate has effect on forecast variance of future rate. It was also revealed that an increase (decrease) in trade deficit and expectation in future rise in trade deficit will decrease (increase) stock market volatility. In addition, consumer price index has strong relationship with stock market volatility. This means that an increase in consumer price will lead to a rise in stock market volatility. Treasury bill rate has a negative relationship with stock market volatility. This means an increase in Treasury bill rate volatility will lead to a fall in stock market volatility. Exchange rate volatility has attracted much attention in financial economics in developed and developing economies due to its implications in the financial markets, especially the stock market. Different implications were observed between exchange rate volatility and stock market returns – depreciation in the local currency leads to increases in stock market prices in the long run. Where as in the short run it reduces stock market returns. This is in conformity with some empirical studies which propose that exchange rate depreciation is good for stock markets especially where the stock market is located in a highly export driven economy. This implies that investors may use macroeconomic data to forecast

stock market volatility. Also for researchers who ex post analyze macroeconomic and financial data, may employ revised macroeconomic data to study the equilibrium relations between macroeconomic variables and stock market volatility. This is because macroeconomic variables may serve as a guide in forecasting stock market volatility."

Mishra, Das & Mishra (2010), entitled "*Gold Price Volatility and Stock Market Return in India*" it seems that gold prices and stock market returns based on BSE 100 Index are significantly correlated. And, computation reveals that the value of 'r' is 0.0143 between them which is not statistically significant for the t-statistic of 0.217 at 226 degrees of freedom. So it can be said that although gold prices and BSE 100 Indices are significantly correlated, the correlation between gold prices and stock market returns based on BSE 100 Index is not significant.

2.4 Review of Published Articles in Journal / Books

Pradhan (1994), entitled "*Financial Management Practice in Nepal*", had focused on price earning ratio of the stock. Large stocks have large P/E ratio, large ratio of MV to BV of equity and smaller dividends. P/E ratios and dividend ratios are more variable for smaller stocks whereas MV to BV of equity is more variable for larger stocks. Stock with large MV to BV of equity has large P/E ratio, and lower dividends. P/E ratio is more variable for stocks with large MV to BV ratios and dividend ratios are more variable for stocks with smaller MV to BV. Stocks paying higher dividends have higher liquidity, lower leverage, higher earning, and higher turnover and higher interest coverage. However, liquidity and leverage ratios are more variable for the stocks paying lower dividends while earning, assets turnover and interest coverage is more variable for the stock paying higher dividends.

Timilsina (2001), entitled “*Capital Market Development and Stock Price Behavior in Nepal*”, had concluded that, there is highly positive correlation coefficient between EPS and MPS. Similarly, high degree of positive correlation was found between DPS and EPS. EPS is more relevant than DPS in evaluating the fair MPS. Investors are more sensitive towards the actual cash dividend.

Pradhan & Upadhyaya (2004), entitled “*The Efficient Market Hypothesis and the Behavior of Share Prices in Nepal*”, The core objective of the study is to make a comprehensive investigation of „weak and slightly other form of EMH. In order to be conclusive about the efficiency of the stock market, primary sources of information about the share price is conducted for the first time in order to find out more subjective facts on share price behavior, which cannot be determined by the use of secondary sources of data. Statistical tools like serial correlation, the runs tests, weighted mean, median, chi-square test and spearman’s rank correlation are used. The 23 stocks actively traded are examined as a sample for the study from mid-July 1997 to mid-July 2000.

The main conclusion determined from the study is that the Nepalese stock market might not be termed as "Weakly Efficient" in pricing shares. The main factors affecting the share prices perceived by the respondents are dividends, retained earnings, bonus shares and right issues. The share price has been found more volatile than the expected dividends. Similarly, publicly available information is useful in identifying over or undervalued securities. Nepalese investors are indifferent toward making or non-makings of information public. The respondents slightly accepted the weak form of EMH. This study also found that the shareholders in high tax brackets do not prefer retained earnings instead of dividends.

Bhattacharai (2004), entitled “*The Trend Occurring in the Share Market of Nepal*”, expressed his view that the trend which has occur can repeat but not with the same pattern. The securities analysis, who analyze securities presenting the past data on the charts, graphs, figures etc. and forecast whether the price will fall or rise, agree to this theory and say the share prices once turned bearish definitely turn to be bullish sometime in near future. Further, this article suggest that the market price is a function of demand and supply of stocks and the commanding forces behind the demand might be various factors like political, economic, financial, national, international events as well as the information disclosed by the companies. The various factors make the people either invests on the securities or sell.

The Kathmandu Post (July 18, 2010): In the secondary market, the last fiscal year failed to bring any cheer. The Nepal stock exchange went down by 35.07 percent in last fiscal year, losing a whopping 258.14 points.

The benchmark index that was at 735.87 points on July 16, 2009 (the start of the last fiscal year) ended at 477.73 points on July 15 (the last trading day of 2009-10)

Deteriorating investor confidence, oversupply of shares due to higher interest rates, liquidity crunch in the banking system, less returns in the stock market compared to bank interest rates pushed the secondary market down the last fiscal year.

Stock analyst Rabindra Bhattacharai said the secondary market suffered from new regulations brought by Nepal Rastra Bank (NRB), apart from the weak economy coupled with political instability.

The NRB introduced measures like disclosure of sources in transactions exceeding Rs 1 million, necessity to get permanent account number for investors investing

more than Rs 1 million and it also tightened its grip on margin lending. This last was loosened to some extent after investor protested.

Though the government lowered the rate of capital gain tax the last fiscal year, it failed to hearten investors. Alarmed at the continuous decline, investors went for agitation protest to the government's apathy towards reviving the failing market. They also closed the stock market for more than a week. It was the first time, investors protested against government's apathy towards the stock market that nosedived over the year.

According to stock analyst Jagadish agrawal, the fluid political situation was responsible for the downturn in the secondary market. The cold war between the ministry of finance and Security boards of Nepal also worsened the situation. Bad blood between the two sides heightened when SEBON chairman Surbir Poudel refused resign despite pressure from Finance Minister Surendra Pandey. Poudel was appointed by the previous Maoist-led government.

From daily average transactions, total turnover and market capitalization, all declined in the last fiscal year. The total turnover declined by 45.80 percent to Rs 11.75 billion from Rs 21.68 billion. Average daily transaction also dropped to Rs 42.2 million in 2009-10 against Rs 92.6 million in 2008-09. The same was the case with market capitalization that declined to Rs 376 billion last year from Rs 512 billion the previous year.

Despite the gloom, there were some positive developments also. The NEPSE started work on installation of Central depository System with Indian assistance. The installation is expected to boost the secondary market as it will reduce paper work, time and cost of transactions besides helping investors from outside the valley to engage in stock trading easily.

The expansion of brokerage firms outside Kathmandu Valley was another highlights of last fiscal year, giving a much needed opportunity to investors from outside the valley to be part of the country's secondary market. As of now, the stock brokers have established their branches in five cities – Pokhara, Biratnagar, Birgunj, Butwol and Narayanghad. However, on an average, the firms are yet to capitalize on the expansion.

2.5 Review of Unpublished Master's Degree Dissertation

Among other master degree thesis, written by previous researchers, some are found to be relevant for studies which are presented below:

Aryal (1995), entitled “*General Behavior of Stock Market Prices*” had studied with the objective to discuss the movement of stock market prices and to develop the empirical probability distribution of successive price change of an individual common stock and a stock market as a whole This study was based on secondary information obtained from NEPSE. This study covers almost 8 months period and the sample was 21 listed stocks. He applied serial correlation and runs test as statistical tools to analyze the data. Through the analysis he has concluded that the assumption of independence, as predicted by random walk model of security price behavior has been refused at least for Nepalese context as the first approximation even in the rough way for early days of stock market operation. This rejection of hypothesis made clear that the knowledge of past and present becomes useful in predicting the future movements of stock market prices. The investors, on the floor of exchange, can make higher expected profits in future based on these historical price series. In other words, the dependence nature of price series produced by general market fluctuation statistically implied, today's change is positively depending upon yesterday's price changes. This implied that there is a sufficient lack of financial and market analysts who are sophisticated and superior in

analyzing the general market fluctuations, predicting the occurrence of future potential and economic events that their eventual effects on price series.

Shrestha (1999), entitled “*Stock Price Behavior in Nepal*”, aims to examine the efficiency of the stock market Nepal. For this purpose he used their data constituting the daily closing price of 30 stocks out of the total listed companies in NEPSE. He applied serial correlation and runs test as statistical tools. The serial correlation coefficients of the daily price changes for 1 to 15 lag days, and runs of series of daily price changes lead him to conclude that the successive price changes are not independent random variable for the 30 sample stocks. Therefore, the random walk theory is not a suitable description for the stock market price behavior in Nepal. The dependence in the series of price changes observed implies that the price changes in the future will not be independent from the price changes of the previous days. It also implies that the information of the past price changes is helpful in predicting future price changes in a way that the speculation through technical analysis can make higher expected profit than they would be under naïve buy-and-hold policy. Therefore, opportunities are available to sophisticated (both institutional and individual) investors to earn higher return in the market. The existence and participation of the sophisticated investors have not been realized from the findings of this study.

Poudel (2005), entitled “*Share Price Behavior of Listed Companies in Nepal*”, with basic objectives to test the share price behavior of listed companies in Nepal or to test the random walk model in Nepalese context over the period 16th July 2003 to 16th July 2004 following a descriptive and analytical research design with the help of secondary data. The sample of the study comprises 21 companies representing from each sector listed in NEPSE. He has used serial correlation and runs test to compute the data. The overall study shows that the stock market performance is more or less stable position. The serial correlation analysis found

that most of the coefficients of the sample are departed from the actual zero and runs test performed also suggests that there is significant difference between expected number of runs and actual numbers of runs. It concluded that the Nepalese stock market is not efficient in pricing shares or in Nepalese context random walk model does not hold true. It has also concluded that as serial coefficient and run test of successive price changes was dependant, it implies that the investors can predict the future price changes.

Duwadi (2007), entitled “*Share Price Behavior in Nepal*”, the major objective of the study is to assess equity share price behavior in Nepal. The specific objective of the study is to test the random walk or weak form efficient market hypothesis. To examine whether successive price changes are independent or dependent of each other. To meet the objectives of this study there has been used the statistical tools like: serial correlation, rank correlation, run test, chi-square test. Both the primary and secondary data have been used to find the behavior of share price. The conclusion of the study is that both the tests- serial correlation and run test analysis don no support the independence assumption of random walk model. The non-random behavior of share prices is that the Nepalese stock market may not be termed as “weakly efficient” in pricing shares where market efficiency is defined al all historical information is reflected in security. Share price movements are caused by flow of several kinds of information in the market.

Subba (2008), entitled “*A Study on Stock Price Behavior of Selected Companies Listed in Nepal*”, she tries her best effort on examining the movement of stock market price and sector wise behavior or NEPSE index. Study of stock market behavior is useful for proper analysis and development of stock market. She has used various statistical tools to meet her objectives. The conclusion of her study is the share market performance is poor because of small size market and low

liquidity. The growth and performance of Nepalese capital market is not satisfactory though it is improving gradually.

Maharjan (2009), entitled “*Stock Price Behavior in Capital Market of Nepal*”, concluded that there is a gap between the theory and practice of investment in Nepalese stock market due to the lack of proper analysis of stock market for the smooth operation of the secondary market.

Stock market was not properly analyzed for smooth operation of secondary market. It shows gap between theory and practice of investment in Nepalese stock market.

Various measures of stock market development indicate that the stock market in Nepal is in developing stage and has shown little impact on the overall national economy. Small market size has made it vulnerable to manipulation and price rigging. Though some investors tend to avoid stock market, they do not have options to invest in securities according to their risk-return preference. Similarly firms shun it because stock market is less reliable source of raising funds for them. Due to this financial system in Nepal has remained basically bank dominated.

The market seems gaining to some extent the confidence of investors. There is poor liquidity for the stocks. A scarcity of floating stock prevails in the market. Professionalism is still lacking in the service of investors and investment management. A system of preponderance of speculation trading is guessed to be prevailed where the primary motive is to derive benefit from short term price fluctuations. It appears that a very small fraction of transaction represents purchases/sales by genuine investors. The rest are driven mainly by the speculative motive. The corporate sector is still reluctant on disseminating information timely. The kind of securities trading in the market is confined only to ordinary and

preference shares. These are various major problems observed in the market nowadays.

Nepal stock limited 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 benefit from this. This data analysis showed that Nepal Stock Exchange is not providing facilities for general public and movement of stock trend in different periods and their cause are not explained. Even though stock market has been increased by 15 times in the last seven years, no of brokers are same. Most of the investors are complaining that the market makers, brokers and Nepal Stock Exchange Limited staff's are making coalition for fraudulent activities towards investors. So Nepal stock exchange should take necessary remedies for the development of stock market.

Stock market is seeing bearish trend nowadays. This particular period is of dividend announcement and issuance of right shares by many companies; also, the government has decreased the capital gain tax to 10% from 15% of last year. Thus the market should be going up. Instead it is going down. There seem no logical reasons for the declining of NEPSE index. It once again points out to those unseen factors that are said to be prevailed in Nepal Stock Market. There is a strong possibility of manipulation of the stock price by the market players. Thus the study concludes that the Nepal stock exchange should identify and restrict those investors who are involved in such manipulative practices. NEPSE should bring rules and regulations in favor of genuine investors. The study also concluded that signaling factors may or may not play major role for fluctuating NEPSE index. The study was verified by taking major four events such as: Public movement 062/063, CPN-UML (Maoist) participation in government, Tax increment in

capital gain on the fiscal year 2007/2008, CPN-UML (Maoist) leaving the national government

Dawadi (2010), entitled “*Stock Market Efficiency and Stock Behavior in Nepal*”, study on the core objective to find out the stock market efficiency and stock behavior in Nepalese capital market and concluded "the price changes in the future market will be dependent in the price changes of the previous days. The information of the past price changes of the stock is helpful in predicting the future prices changes. Hence, sufficient opportunities are available to the both individual and institutional investors to earn higher return in the market. It is realized that mostly the native investors have dominated the market that can cause prices to diverge significantly from intrinsic values. Due to the non-random behavior of the stock prices, the Nepalese stock market cannot be termed as efficient market because all the historical information has highly affected the current security prices.

Pant (2010), entitled “*Anomalies in Stock Returns: Evidence from Nepalese Stock Market*”, studied focusing on different seasonal effect, and investor's perspectives on stock return volatility. The study concluded "Friday returns are higher regarding to-day of the week effect. When the study is based on Nepali Bikram Sambat calendar, a lower return for the month of poush and falgun are noticed. So, far as the lunar calendar is concerned, the stock return are strikingly lower during Ashwin Krishna Panchami, the pre dashin period. The reason underlying it are the festive preparation of dashin and long holding of stocks during the holidays. The return for outside the valley based firms is significantly higher than the valley based firm in case of local effect.

The finding from Nepalese capital market are contradicting to the finding of developed capital market where there exist January effect (Giberson & Hoss

(1985), Jafe and Westerfield (1985) and Monday effect (Tan and Tat 1998). This has clearly revealed that the stock return seasonality is developing capital markets has different patterns and these effects can be precisely measured by using local and traditional lunar calendar. As conclusion, Nepalese capital market is not fully mature and stock prices in Nepal are risky. The government policy in Nepal is not stable with regards to security markets. The political instability is the main cause of hindering the stock market, weak policies in adequate regulation and limited numbers of brokers help in shrinking the stock market.

Thus many studies have been conducted in the field of share price behavior in Nepalese context. Most of the research works done on the topic of share and stock price behavior have not applied the every aspect of their price behavior. Studies are based on secondary sources of information only. But research will try to show the findings through statistical tools and techniques like runs test, serial correlation etc. in connection with share price behavior. This study is attempted to update and validate the latest change in stock market in Nepal. This study is fruitful to government, Nepal stock Exchange ltd, scholars, forthcoming researchers academically as well as policy prospective.

2.6 Research Gap

Past dissertations and studies shows that similar research on the share price behavior has been conducted by different researcher in the past. Few researches which focused on the share price behavior have tried to analyze only the financial indicator of the concerned company and have been generalized. These researches have not also focused on the signaling factors and other factor for the cause of fluctuation of share prices. Previous researches were found more focused on the dividend policy and are depended on secondary data only. But this research has tried to find out the factors associated for stock price volatility. Both primary data and secondary data were used to generalize the findings. Unlike other research,

this research has analyzed different factors such as international market index, gold price, investor's perspective and financial and economic indicator as the affecting factor and has also used different statistical tools such as beta coefficient, multiple regressions and more.

Thus, the current study provides us a supplement to overcome the weakness and limitations of previous studies.

CHAPTER - III

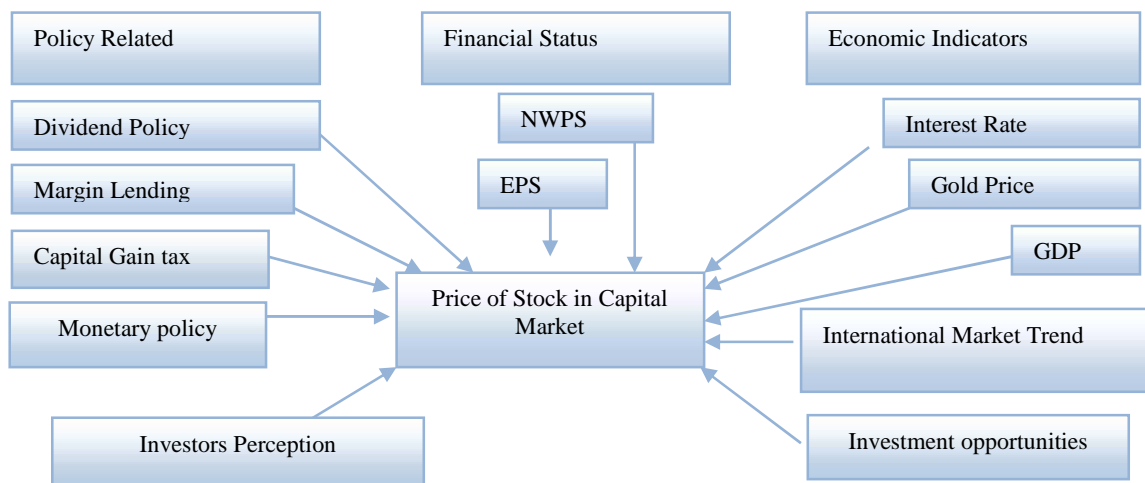
RESEARCH METHODOLOGY

In this chapter, efforts have been made to present and explain the specific research design in order to attain the research objectives. It includes construction of research design, nature of data, data gathering procedure, population and sample and data processing procedures.

3.1 Research Design

The study is basically a descriptive study with an aim to explore the factors associated for stock price volatility in capital market of Nepal. Mainly it is a quantitative and comparative study and analysis have been done between the related factors and stock prices. Comparative study between different variables within the selected, stock price and other macro economic variables, and also trend analysis of national and international market and their comparative study have been done. The study has been also done in qualitative approach for those variables whose quantitative measures could not be found.

The general framework that the study will follow is as following:



3.2 Population and Samples

All the companies listed in the stock exchange were considered as the total population. Out of them, the six commercial banks that were in existence and doing share transactions in NEPSE were considered as the sample for the study. According to the annual report published by NEPSE, of 2009, shows the commercial banking sector portion represents 58.92% of total market capitalization. So, the commercial banks were selected for the study to represent the overall market. Six commercial banks were selected as sample from 21 listed commercial banks. The sample represent top 5 bank on the basis of mark capitalization of the year 2008/09 and one out of top ten to represent the minority part. The sample represents 28.57 % in number and 55.21% of market capitalization of commercial banks. The sample also represents 32.53% of total market capitalization of the year. So, the selected sample could represent the population.

Population: No of Listed Company in = 178

Sample: = 6

Table 3.1

Banks Selected as Sample

No.	Sample (Selected Bank)
1	Bank of Kathmandu.(BOK)
2	Everest Bank Ltd. (EBL)
3	Nabil Bank Ltd. (NABIL)
4	Laxmi Bank Ltd (LBL)
5	Himalayan Bank Ltd.(HBL)
6	Standard Chartered Bank Ltd.(SCBNL)

3.3 Data Gathering Procedure

3.3.1 Sources of Data

3.3.1.1 Primary Data

Both Primary and secondary data were collected for the study. Primary data were collected by asking and interviewing key informants with the personnel of the concerned sectors, and with the investors. Schedule of questionnaire are developed and distributed to the investors, as well other related parties with stock market to gain the information.

3.3.1.2 Secondary Data

Different types of reports and information issued for public dissemination from the Nepal Stock Exchange, Central Bank, Securities Board of Nepal, Department of Statistics, as well the Annual reports of selected bank used as samples were used as secondary data. Other information and statistics published in web of New York Stock Exchange, Bombay Stock Exchange as well other related sites were used for international data.

3.4 Methods of Data Collection

The data collected were analyzed and presents to meet the requirement specified in the objective of the study. Data collection process includes key informant interview using interview guide and questionnaire schedule and collection of secondary data from related reports, bulletin and publication of the concerned banks, and concerned national and international capital and money markets. As well, related journal and statistics were used for other macro economic variables.

3.5 Data Processing, Analysis and Presentation

Data collected were organized, tabulated, compared and presented to describe to show the relationship effect in stock price. Cross tabulation, comparison of

different values and indicators and presentation of information as charts and graphs, and the major tools like simple averages and arithmetic tools, ratio analysis, trend analysis, and both simple and multiple correlation and regression tools were used in evaluating the relationship of the major independent variables such as DPS, EPS, GDP, Interest rate with dependent variable as Market price of Share were analyzed and solved. The data were processed and also analyzed by using Ms Excel, SPSS and STATA software. Mean, Standard Deviation, Coefficient of variation, Simple and multiple correlation and Regression Analysis were calculated and used for Analysis.

3.6 Major Financial and Statistical Procedure

3.6.1 Financial Tools

Mainly Ratio Analysis is common tools used for the analyzing the stock and to decide for the investment. Different investors may focus on different ratios as per their knowledge. Some investors may be affected by higher dividend payout ratio while some may focus on price earning ratio. So, the ratios or the financial statistics is also the major tools that affect the investor's perception about the stock or company financial performance.

3.6.1.1 Ratio Analysis

Among the alternatives, Ratio analysis is the one of the popular tool for analyzing financial performance of a company. The ratio is a relationship between two numbers. The ratio may be between different time periods, different matters or different or different company. But the main thing is there exists at least two numbers.

Ratio Analysis is a powerful tool for financial analysis, a ratio is defined as “the indicated quotient of two mathematical expression” and as the relationship

between two or more things. In financial analysis, a ratio is used as a benchmark for evaluating the financial position and performance of a firm.

The absolute accounting figure reported in the financial statements does not provide the meaningful understanding of the performance and the financial position of a firm. An accounting figure conveys meaning when it is related to some other relevant information.

The relationship between two accounting figures, expressed mathematically, is known as a financial ratio. Ratio helps to summarize the large quantities of financial data and to make qualitative judgments about the firm's financial performance.

The point to note is that a ratio indicates a quantitative relationship which can be in turn, used to make a qualitative judgment. Such is the nature of all financial ratios.

Ratio analysis is a diagnostic tool that helps to identify problems, ideas and opportunities within a company. The most frequently used ratios by financial analysts provide insights into firms.

-) Liquidity
-) Profitability
-) Efficiency
-) Value

Some of the ratios used in the study are as:

3.6.1.2 Dividend Payout Ratio

The DPR (it usually doesn't even warrant a capitalized abbreviation) measures what a company's pays out to investors in the form of dividends.

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend Per Share}}{\text{Earning per Share}}$$

3.6.1.3 Net Profit to Operating Income Ratio

Just depending on the figure of net profit after tax, can not lead us in best decision. While analyzing the financial performance of the company, we should care on the ratio of net profit to operating income. The Net profit to operating income ratio, is calculated as:

$$= \frac{\text{Net Profit}}{\text{Operating Income}}$$

3.6.1.4 Price Earning Ratio

It is the market price of shares expressed as a multiple earning per share.

$$\text{Price Earning Ratio} = \frac{\text{Market Price Per Share}}{\text{Earning Per Share}}$$

Many investors consider P/E ratio as the best indicator of the ongoing performance of the company. High growth shares have high Price earning ratios. If high risk is found in share it reduce market price of share and hence automatically Price earning ratio is also be reduced. Normally we can gain by selling the shares at the time of high price earning multiples and by buying in case of a low price earning multiples.

3.6.1.5 Market Price Share (MPS)

Market price is just one of a number of ways of establishing the monetary value of a good or a transaction. It is the prevailing or the actual price of the share paid in the market transactions. For this study, yearend closing price of NEPSE is taken as a Market Price Per Share.

3.6.1.6 Earnings Per Share (EPS)

Earning Per Share is the portion of the company's profit allocated to each outstanding share of common stock. EPS is generally considered to be the single most important variable in determining a share's price. It is calculated by dividing the profit available to the shareholders by the number of outstanding shares.

$$\text{EPS} = \frac{\text{Net Profit}}{\text{No. of Existing Equity Shares}}$$

3.6.1.7 Dividend Per Share (DPS)

Dividend Per Share is the amount of the dividend that the shareholders have (or will) receive, over a year, for each share they own. It is calculated as the net profit distributed to the shareholders divided by the number of outstanding shares.

$$\text{DPS} = \frac{\text{Amount Provided to Equity Shareholder}}{\text{No. of Outstanding Shares}}$$

3.6.1.8 Dividend Payout Ratio (DPR)

The dividend payout ratio provides an idea of how well earnings support the dividend payments. DPR is the percentage of earnings paid to shareholders in cash. In general, the higher the payout ratio, the more mature the company. It is calculated by dividing Dividend per Share by Earning per Share.

$$\text{DPR} = \frac{\text{Dividend Per Share}}{\text{Earning Per Share}}$$

3.6.2 Statistical Tools

A statistical tool means the mathematical tools which are used to collect, present, analyze and interpret quantitative information in a clear and crisp form. A statistical tool gives a clear insight to the viewers and also helps to interpret and

present the data more effectively. There are various statistical tools that can be used to present and analyze data.

In this study, the major statistical tools used are as follows:

General Statistical terms used in the Study:

-) **Mean:** Mean is the average and averages are the measures which condense huge unwieldy data into a single value, which represent the entire data.
-) **Standard Deviation:** Standard deviation is the best measures of dispersion; the standard deviation is defined as a positive square root of the arithmetic mean of the square deviation from their arithmetic mean of set of values.
-) **Correlation:** May be defined as the degree of linear relationship existing between two or more variable. Two variable are said to be correlated when change in value of one variable is accompanied by the change of another variable. Study of the degree of relationship between single dependent variable and a number of independent variables in combination is called multiple correlation analysis.
-) **Regression:** Regression literally means ‘steeping back towards the average’ Regression analysis is used to estimate the likely value of one variable from the known value of the other variable. The main objective of the regression analysis is to predict or estimate the value of dependent variable corresponding to a given value of independent variable. Multiple regression analysis consists of the measurement of the relationship between the dependent variable and two or more independent variable.
-) **Time series Analysis:** Time series analysis is one quantitative method we use to determine patterns in data collected over time. And with the help of such information future prediction could be made.

3.7 Major Statistical Tools Used for Findings

3.7.1 Rate of Return

The rate of return measures the speed at which the investor's wealth increases or decreases. An investor's single period rate of return during the investment period is computed as,

$$\text{Realized Rate of Return at a Time (R}_j\text{)} = X \frac{D_t + \Gamma(P_t - P_{t-1})}{P_{t-1}}$$

where,

R_j = Realized Rate of Return at a Time

P_t = Current Market Price of Share

P_{t-1} = Market Price of Previous Year

D_t = Dividend in Cash

$$\text{Expected Realized Rate of Return } X \frac{R_j}{n}$$

Where,

R_j = Expected Realized Rate of Return.

n = Number of Observations in Sample.

3.7.2 Standard Deviation

The standard deviation is a measure of the dispersion of a set of values in a given population. The standard deviation measures the spread of the data about the mean value. It is useful in comparing sets of data which may have the same mean but a different range. It is quantitative measure of total risk of assets. It provides more information about the risk of asset. The standard deviation of a distribution is the square root of the variance of returns around the mean. The following formula is applied to calculate the standard deviation using historical returns.

$$X \sqrt{\frac{(\sum Z\bar{X})^2}{n}}$$

where,

† = Standard Deviation

X = Number in X-series

\bar{X} = Mean

n = Number of Observations in a sample

3.7.3 Coefficient of Variation

Coefficient of Variation is the measure of the dispersion of the data around the mean. It is a useful statistic for comparing the degree of variation from one data series to another, even if the means are drastically different from each other. The coefficient of variation allows the investors to determine the amount of volatility (risk) involved in the investment as compared to the amount of return expected. The Coefficient of Variation is measured as a ratio of the standard deviation to the mean.

$$CV = \frac{\sigma}{\bar{X}}$$

Where,

CV = Coefficient of Variation

\bar{X} = Mean

σ = Standard Deviation

3.7.4 Correlation Coefficient

Correlation Coefficient indicates the strength and direction of a linear relationship between two random variables. It is generally used to measure the degree to which one variable is related to another. Correlation can either be negative or positive. If both variables are changing in the same direction, then correlation is said to be positive, but when the variation in the two variables takes in opposite direction, the correlation is negative. A correlation greater than 0.8 is described as strong, whereas a correlation less than 0.5 is described as weak. Simple correlation coefficient is computed by as below:

$$r = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{N \sum X^2 - (\sum X)^2} \sqrt{N \sum Y^2 - (\sum Y)^2}}$$

3.7.5 Coefficient of Determination

The Coefficient of Determination is defined as the proportion of the variance in the dependent variable that is explained by regression equation. It measures the contribution of independent variables in predicting the dependent variable. It can range in value from 0 to 1, with 1 indicating perfect fit. It is more appropriate while verifying the results than the correlation coefficient and is computed by square of the correlation coefficient as shown below:

$$\text{Coefficient of Determination} = r^2$$

Where,

r = Coefficient of Correlation

3.7.6 Regression

Regression analysis studies the statistical relationship between the variables. The main objective of regression analysis is to predict or estimate the value of dependent variable corresponding to a given value of independent variables. There are two types of regression analysis.

3.7.7 Simple Regression Analysis

Simple regression analysis, concerned with the study of the relationship between one variable called dependent variable and another variable called independent variable. Regression analysis has been developed to study and measure the statistical relationship between two variables only, and then the process is known as simple regression analysis. In simple linear regression, a mathematical

regression equation is developed to describe the functional relationship that exists between the two variables such to construct the relationship between MPS and DPS following model is constructed:

Market Price Per Share on Dividend Per Share (DPS)

$$y = a + bx$$

Where,

y = Market price per share (MPS)

a = Regression constant

b = Regression coefficient

x = Dividend per share (DPS)

3.7.8 Multiple Regression Analysis

Multiple regressions is a statistical technique which explains the relationship between several independent or predictor variables and a dependent or criterion variable. Multiple regressions is a valuable tool used for quantifying the impact of various simultaneous influences upon a single dependent variable. The value of Coefficient of Determination measures the amount of variation in the dependent variable that is accounted for by variation in the predictor variables. The Multiple Regression equation of dependent variable X_1 on two independent variables X_2 and X_3 is given by:

$$X_1 = a_1 + b_1X_2 + b_2X_3$$

The values of constants a_1 , b_1 and b_2 can be obtained by solving following three normal equations simultaneously

$$X_1 = na_1 + b_1 \sum X_2 + b_2 \sum X_3$$

$$X_1X_2 = a_1 \sum X_2 + b_1 \sum X_2^2 + b_2 \sum X_2X_3$$

$$X_1X_3 = a_1 \sum X_3 + b_1 \sum X_2X_3 + b_2 \sum X_3^2$$

Where,

$a_1 = X_1$ Intercept

$b_1 =$ Partial Regression Coefficient of X_1 on X_2 when X_3 is held constant

$b_2 =$ Partial Regression Coefficient of X_1 on X_3 when X_2 is held constant

The coefficient of multiple determination of dependent variable X_1 on two independent variables X_2 and X_3 is given by

$$R_{1.13}^2 = \frac{a_1 \quad X_1 \Gamma b_1 \quad X_1 X_2 \Gamma b_2 \quad X_1 X_3 \quad Zn(\bar{X}_1)}{X_1^2 \quad Zn(\bar{X})^2}$$

Where,

$R_{1.13}^2 =$ Coefficient of Multiple Determinations

In this study, the following multiple regression analysis have been analyzed.

Market price per share on earning price per share and dividend per share

$$y = a + b_1 X_1 + b_2 X_2$$

Where,

y = Market price per share

a = Regression constant

b_1 & $b_2 =$ Regression coefficient of 1st and 2nd variable

X_1 & $X_2 =$ EPS and DPS respectively

This model helps to predict the MPS on EPS and DPS

3.7.9 Regression Constant

The value of constant which is intercept of the model indicates the average level of dependent variable when independent variables are zero. In other words, it is better to understand that 'a'(constant) indicates the mean or average effect on dependent variable if all the variables committed from the model.

3.7.10 Regression Coefficient

The regression coefficient of each independent variable indicates the marginal relationship between that variable and value of dependent variable, holding constant the effect of all other independent variable in the regression model. In other words, the coefficient describes how changes in independent variables affect the values of dependent variable's estimate.

3.7.11 Standard Error of Estimate (SEE)

With the help of regression equation perfect prediction is practically impossible, standard error of estimate is a measure of reliability of the estimating equation indicating the variability of the observed points around the regression line, that is the extent to which observed values differ from their predicted values on the regression line. The smaller the value of SEE, the closer will be the dots to the regression line and the better the estimates based on the equation for this line. If SEE is zero, then there is no variation about the line and the correlation will be perfect. Thus, with the help of SEE, it is possible for us to ascertain how well the representative the regression line is as a description of the average relationship between two series.

$$S_{1,23} = X \sqrt{\frac{(X_1 - Z_{X_1})^2}{n - Z_3}}$$

X_1 = Actual Value of Variable X_1

x_1 = Predicted Value of X_1 as calculated from the fitted regression equation

N = number of observation in the sample

3.7.12 Hypothesis Test

Hypothesis means the presumption or quantitative statement of the population parameter which may be true or false. In order to make proper decision about the quantitative statement of the population, hypothesis is an assumption about

unknown result while testing of hypothesis, an assumption is made about the population parameter to test whether the assumption is right or not, a sample is selected from the population, sample statistic is obtained, observe the difference between the sample mean and the population hypothesized value and test whether the test is significant or insignificant.

3.7.13 F- Test

F test generally known as variance ratio test and is mostly used in context of analysis of variance. F- Statistics is used to test the significance of mean value of EPS, DPS, MPS, DY, DPR and P/E ratio. F test is considered to be more appropriate, for test of hypothesis of equality among several sample mean test initially used to verify the hypothesis of equality between two variance. In fact F test is a test of significance concerning two sample variance. The fundamental assumptions of F- test are;

1. The population is normal
2. The observation is independent and sample are drawn randomly
3. There is no measurement error

The objective of F- test is to test hypothesis where the two samples are from same normal population with same variance.

Multiple correlation and Regression will be used between DPS, EPS and MPS of Selected commercial banks.

Simple percentages were used as an arithmetical tool to interpret data. Paired t test was used as statistical tool to test null hypotheses. For the test of hypothesis, NEPSE index before and after four major events were considered which are mentioned above.

3.7.14 Beta Coefficient

Beta Coefficient is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole. It measures how a variation in the return on a particular share correlates with variations in the return on a market index. Beta is calculated for individual companies using regression analysis. Beta is a measure of risk and not to be confused with the attractiveness of the investment.

A beta of one indicates that the stock price moves proportionate with the market. A beta greater than one indicates that the stock price will be more volatile than the market and a beta of less than one indicates that the stock price will be less volatile in the market. Stock of greater than one are often called aggressive stocks whereas stocks less than one are considered as defensive stocks. Beta is calculated as below:

$$\beta_j = X_{j_m} \frac{\text{Cov}(R_j, R_m)}{\sigma_m^2} \text{ or } \frac{\text{Cov}(R_j, R_m)}{\sigma_m^2}$$

Where,

- β_j = Beta Coefficient of Stock j.
- $\text{Cov}(R_j, R_m)$ = Co-variance of the Return on Stock J and Market
- σ_m^2 = Variance of the Market
- X_{j_m} = Correlation between stock j and market

3.7.15 Probable Error

The probable error is used to measure the reliability and test of significance of correlation coefficient. It is calculated by:

$$\text{Probable error} = 0.6745 \times \frac{\sqrt{1-r^2}}{\sqrt{n}}$$

r = correlation coefficient

n = no of observation

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Presentation of Data

Data Presentation and analysis is one of the important part of the research work. In this chapter the study tries to find out the proof from the mathematical calculation for the theoretical statement. Once the study is completed successful to prove the statement, it would be the concrete and substantial.

The basic objective of this chapter is to analyze and elucidate the collected data following the conversion of unprocessed data to an understandable presentation. In this part, data from primary sources are organized, presented, and evaluated in meaningful way. The organized data are analyzed to achieve the finding on research question.

As stated in previous part, both the primary as well secondary are used here in this study. Primary data only does not fully satisfy the need of research work of the study. As a result secondary sources are also tested with both financial and statistical tools. SPSS, Excel and other financial software are used for the analysis.

4.2 Financial Variables

As per our first objective to examine the movements of stock price in capital market of Nepal following examination are observed. As the behavior of Market index, Annual trend and monthly trend show the movement those behavior and trend are examined and presented below.

4.2.1 Behaviour of Market Index

Stock market index is the one of the most important tool to evaluate country's economy. Stock market indexes are used to study the trend of growth pattern in

the economy, to analyze as well as to forecast business cycles and to correlate stock market index to overall national economic activities. The technical analysis usually uses current market price movement to predict future movements in the stock market. Index is also device designed to measure the change in group of related variable over a period of time. Price is the major element in the stock market analysis; as well the study objective is to dig out the empirical evidence in the context of Nepal, regarding the factors associated for the price volatility of stock price in capital, price trend in Nepalese stock is used for the analysis.

4.2.2 Annual Trend of NEPSE Index

Market indexes are used to determine the relationship between historical price movement and economic variables and to determine the systematic risk for individual securities and portfolios.

The index is taken as a measuring tool whether the performance of stock market is good or not. This clearly focuses on the price of stocks that is increasing or decreasing in the market. Because the prices of stocks go up and down in the particular period compared to the previous period as disclosed by index. The highest index suggests the increase in market price of the stocks and implies the better performance of companies and vice-versa. Thus the NEPSE index shows the behavior of stock prices in capital market.

4.2.2.1 Annual Trend of NEPSE Index

Table 4.1

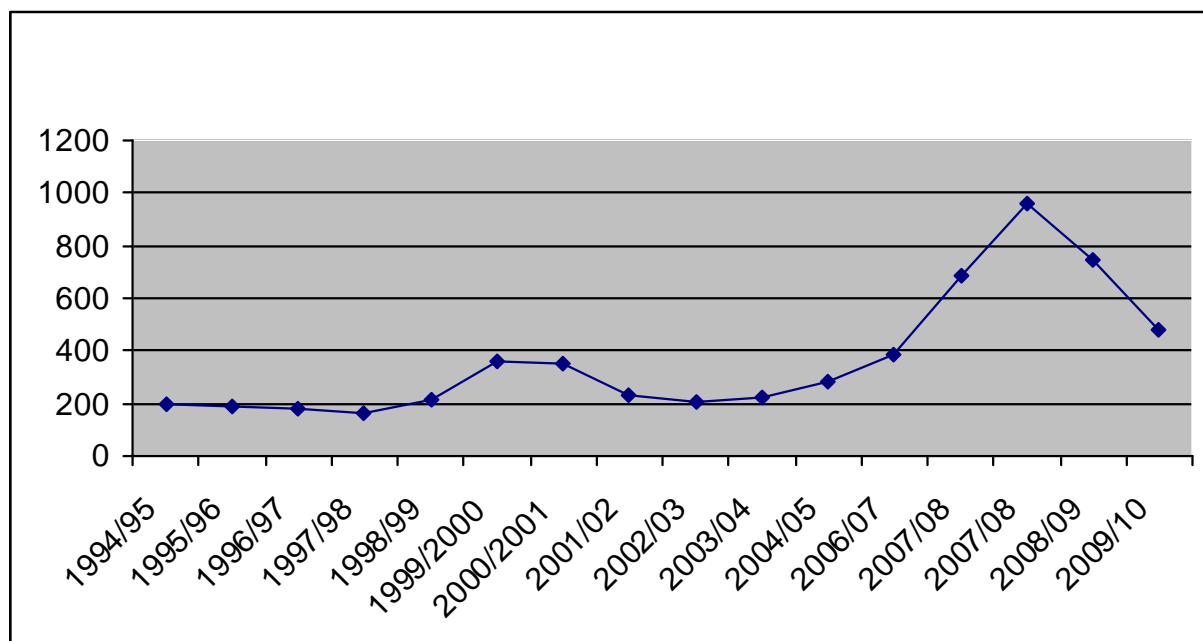
Annual trend of NEPSE Index

Year	NEPSE Index	% change
1994/95	195.48	-
1995/96	185.61	-5.05
1996/97	176.31	-5.01
1997/98	163.35	-7.35
1998/99	216.92	32.79
1999/2000	360.70	66.28
2000/2001	348.43	-3.40
2001/02	227.54	-34.70
2002/03	204.86	-9.97
2003/04	222.86	8.79
2004/05	286.67	28.63
2005/06	386.83	34.94
2006/07	683.95	76.81
2007/08	963.36	-22.24
2008/09	749.10	-36.28
2009/10	477.73	-36.23

Source: Annual Reports NEPSE

The NEPSE index was highest in the year 2007/2008 with 963.36 points and it was lowest in the year 1997/98 with 163.35 points. From the NEPSE index table we can see that the highest percentage of change in index can be seen in the year 2006/07 with 76.31% of increment than the previous year's which means that even though NEPSE Index point is highest in the year 2007/2008 the % change is lower than the past year. The year 2009/10 remain in the highest list to get negative change of 36.23 percent than of previous year. The range of percentage change lies between +76.81 to -36.23, which show the capital market volatile.

Figure 4.1
NEPSE Index



The above figure shows the annual trend on the movement of NEPSE Index during the year 1994/95 to 2009/10. Evaluating the trend, there seems the remarkable change in the year 1999/2000 and in the year 2007/08.

4.2.3 Monthly Trend of NEPSE Index

One of the analyses of stock price trend is monthly trend analysis. This analysis shows the trend and behavior of stock price or the NEPSE index on the basis of monthly movement.

Table 4.2
Monthly Trend of NEPSE Index

Month/ Year	2003/04 (60.61)	2004/05 (61.62)	2005/06 (62.63)	2006/07 (63.64)	2007/08 (64.65)	2008/09 (65.66)	2009/10 (66.67)
July	207.92	241.51	300.05	389.23	706.0	1084.76	721.95
August	208.46	234.58	293.35	382.56	817.10	976.01	628.34
September	207.46	231.31	297.34	398.44	861.14	933.97	609.55
October	206.21	235.08	302.39	447.43	915.4	806.90	566.94
November	201.94	236.38	303.12	508.58	1025.90	734.85	548.61
December	201.95	239.61	305.50	537.09	958.90	659.81	530.96
January	211.31	257.29	317.79	523.94	814.40	663.52	497.24
February	207.80	280.65	339.79	494.06	714.80	667.20	486.25
March	201.22	293.26	334.77	494.59	746.70	661.27	444.76
April	204.35	285.42	385.89	513.45	806.3	660.96	457.81
May	313.12	277.79	372.01	575.04	930.70	678.74	476.69
June	222.04	286.67	386.83	683.95	963.40	749.10	477.73

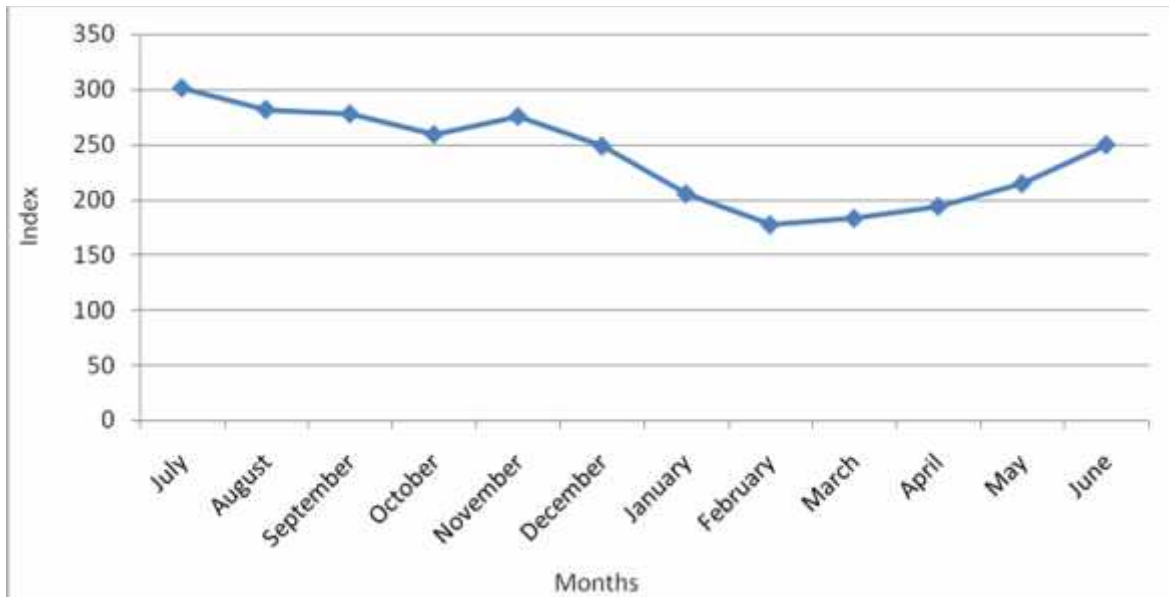
Source: Annual Reports NEPSE

4.2.4 Monthly Standard Deviation of NEPSE Index

From the year 2003/04 to 2009/10

Figure 4.2

Monthly Standard Deviation of NEPSE Index



The above table and figure shows the monthly NEPSE Index and the monthly standard deviation of NEPSE Index. The monthly standard deviation of NEPSE Index figure shows that the deviations of NEPSE Index remain highest in the month of July. The remarkable deviation or higher volatility is also seen in the month of November and less volatility is seen in the month of February, then again the volatility starts to increase till the month of July.

4.2.5 Stock Price and Financial Indicators

As the second objective was to explore the impact of different economic and financial indicators, those findings and analysis are presented and concluded below.

Economic and Financial Indicators

An economic indicator (or business indicator) is a statistic about the economy. Economic indicators allow analysis of economic performance and predictions of future performance. One application of economic indicators is the study of business cycles.

Economic indicators include various indexes, earnings reports, and economic summaries. Examples: unemployment rate, quits rate, housing starts, Consumer Price Index (a measure for inflation), Consumer Leverage Ratio, industrial production, bankruptcies, Gross Domestic Product, broadband internet penetration, retail sales, stock market prices, money supply changes.

Before observing the impact of different financial indicators and variables on stock price, we need to present and analyze them systematically. For this purpose DPS, EPS, DPR, MPS, P/E ratio have been selected as an effecting variables. However these variables show the dividend status of the banks as well as their strength.

In order to analyze on these financial indicators, the data from the sample i.e. selected commercial banks for the study are analyzed. As the sample represent the population, the result and finding could also represent the total population. These variables have been presented by the help of table, figure and analyzed their effect on stock price.

4.2.6 Analyzing Earning per Share (EPS)

Table 4.3
EPS of Sample Banks

Banks Year	BOK	NABIL	SCBNL	EBL	HBL	LBL
2004/05	30.10	105.79	143.14	32.47	47.91	4.34
2005/06	43.67	129.21	175.84	45.81	59.24	5.80
2006/07	43.50	137.08	167.37	57.22	60.66	8.99
2007/08	59.94	108.31	131.92	54.27	62.74	13.14
2008/09	54.68	106.76	110.33	76.15	61.90	17.21
Mean	46.38	117.43	145.72	53.18	58.49	9.90
S.D.	10.33	13.10	23.77	14.34	5.42	4.74
C.V. (%)	22.27	11.16	16.31	26.96	9.27	47.88

Source: Annex II &VI

Above shows the EPS of the selected banks from the year 2004/05 to 2008/09. In the table mean, standard deviation and coefficient of variation of respective bank have been presented.

The average earning per share of Bank of Kathmandu during the period of study is 46.38 and has the standard deviation of 10.33. The coefficient of Variation which shows the variation of the Earning Per share during the period is 22.27 percent. The earning per share lies between the ranges of 30.10 to 54.68.

The average earning per share of NABIL Bank Ltd during the period of study is 117.43 and has the standard deviation of 13.10. The coefficient of Variation which shows the variation of the Earning Per share during the period is 11.16 percent. The earning per share lies between the ranges of 105.79 to 137.08.

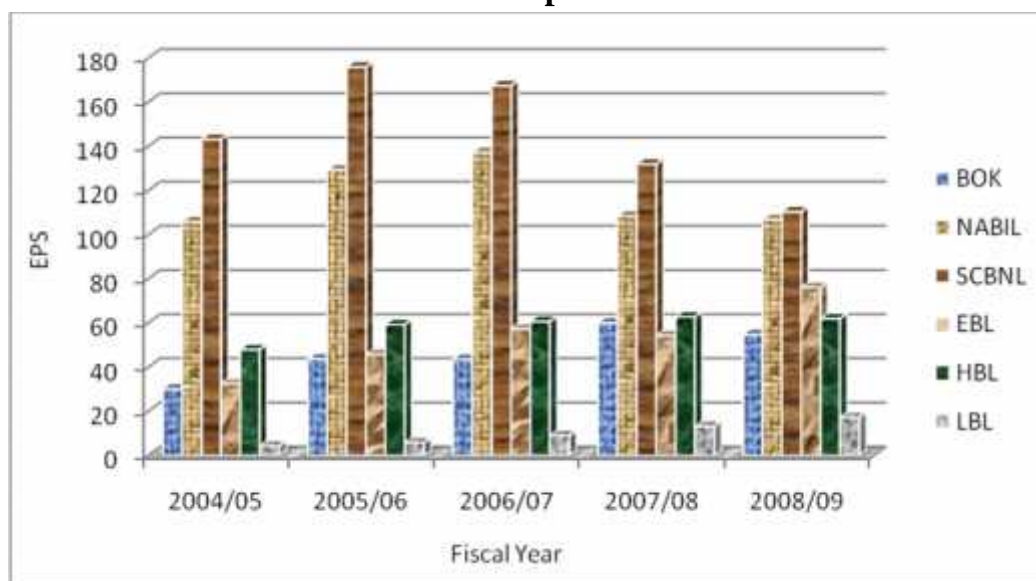
The average earning per share of Standard Chartered Bank Ltd during the period of study is 145.72 and has the standard deviation of 23.77. The coefficient of Variation which shows the variation of the Earning Per share during the period is 16.31 percent. The earning per share lies between the ranges of 110.33 to 175.84. Everest Bank Ltd has an average earning per share of Rs.53.18 with the S.D. 14.34. The EPS range between Rs.32.47 to Rs.76.15. The C.V. of EPS of the bank is 26.96%.

The average earning per share of Himalayan Bank during the period of study is 58.49 and has the standard deviation of 5.42. The coefficient of Variation which shows the variation of the Earning Per share during the period is 9.27 percent.

The average earning per share of Laxmi Bank Ltd during the period of study is 9.90 and has the standard deviation of 4.74. The coefficient of Variation which shows the variation of the Earning Per share during the period is 47.88 percent.

From the above analysis, it can be seen that the Earning per share of Standard chartered bank is highest and average Earning per share of Laxmi Bank is Lowest. The coefficient of variation of EPS between the sample banks, Laxmi Bank has the highest variation of 47.88percent, while the same of Himalayan Bank is lowest. The data shows HBL has the consistent EPS during the period of Study. But only the lower the C V could not let us to the decision, in investor's view, if there is higher changes in EPS or positive changes in EPS, it would be better. Here the data shows HBL have almost consistent and almost positive change in EPS.

Figure 4.3
EPS of Sample Banks



The above figure shows the EPS of Sample banks during the study period 2004/05 to 2008/09, as well the average during this period. The figure explains the comparative weight of EPS provided by the banks during each year. SCBNL remain in the first position in ranking of Earning Per Share, while NABIL remain in Second.

4.2.7 Analyzing Dividend per Share (DPS)

Table 4.4
DPS of Sample Banks

Banks Year	BOK	NABIL	SCBNL	EBL	HBL	LBL
2004/05	15	70	120	20	31.58	0
2005/06	18	85	120	25	35	0
2006/07	20	140	80	40	40	0
2007/08	40	100	80	50	45	21.05
2008/09	47.37	85	50	60	43.56	5.26
Mean	28.07	96	90	39	39.03	5.26
S.D.	13.06	23.95	26.83	14.97	5.08	8.15
C.V. (%)	46.53	24.95	29.81	38.38	13.02	154.94

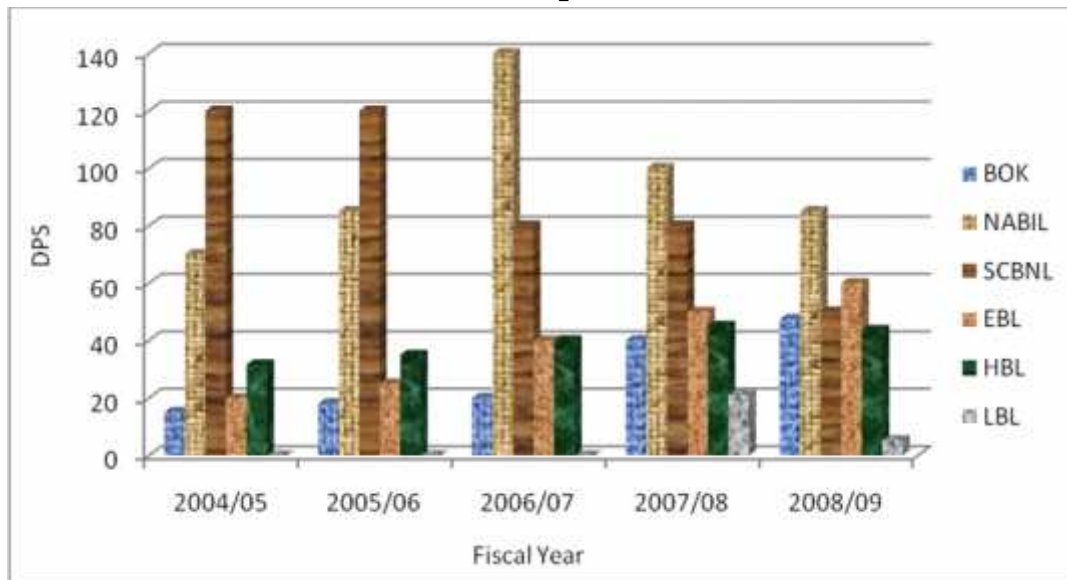
Source: Annex II & VI

Above table shows the DPS of the selected banks from the year 2004/05 to 2008/09. In the table mean, standard deviation and coefficient of variation of respective banks have been presented in their respective column.

While observing the average Dividend per share, NABIL is in first position with Rs.96. Similarly SCBNL, HBL, EBL, BOK and LBL remain in 2nd, 3rd, 4th, 5th and 6th position of average DPS with Rs.90, Rs.39.03, Rs.39, Rs.28.07 and Rs.5.26 respectively. The data presented in above table shows that Laxmi bank did not paid the dividend during the year 2004/05 to 2006/07. This result indicates that on the base of dividend, NABIL is better than that of other banks in comparison. The average DPS of EBL and HBL seems to be slightly different with Rs 0.03, among these two banks; HBL seems to be more consistent with coefficient of variation of 13.02 percent. The coefficient of variation of EBL seems to be 38.38 percent.

Using the C.V. criterion, we can say that consistency in DPS for the period studied, HBL has the lowest C.V(13.02%) and LBL has the highest(154.94%) among these sample banks. The Coefficient of Variation (C.V) of BOK, NABIL, SCBNL and EBL is 46.53%, 24.95%, 29.81% and 38.38 percent respectively. This shows there is wide variation on distribution of dividend among the banks within the year. But, here point to be noted is that only the consistency of payment of dividend cannot be the tools to analyze. As per the investor's perspective, the positive deviation regularly might be the better one than the lower but consistent payment.

Figure 4.4
DPS of Sample Banks



The above figure shows the DPS of Sample banks during the study period 2004/05 to 2008/09, as well the average during this period. The figure explains the comparative weight of DPS provided by the banks during each year. During the first 3years (among the study period) one of the bank LBL didn't paid the dividend to shareholders, so the bar did not exists in these year. NABIL and SCBNL seem to remain in higher position in terms of payment of dividend to its shareholders.

4.2.8 Analyzing Dividend Payout Ratio (DPR)

The DPR (it usually doesn't even warrant a capitalized abbreviation) measures what a company's pays out to investors in the form of dividends.

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend Per Share}}{\text{Earning Per Share}}$$

As dividend is that part of the earning, which is paid to the shareholder so, the ratio of payment of dividend is more appropriate to analyze. The DPR shows the ratio of earning paid as dividend to shareholders.

The table below shows the ratio of the dividend payment paid to shareholder from the year 2004/05 to 2008/09. Mean, Standard Deviation and Coefficient of variation on Dividend payout ratio are shown in the respective column of the respective banks.

Table 4.5
DPR of Sample Banks

Banks Year	BOK	NABIL	SCBNL	EBL	HBL	LBL
2004/05	49.83	66.17	83.83	61.60	65.92	0.00
2005/06	41.22	65.78	68.24	54.57	59.08	0.00
2006/07	45.98	102.13	47.80	69.91	65.94	0.00
2007/08	66.73	92.33	60.64	92.13	71.72	160.20
2008/09	86.63	79.62	45.32	78.79	70.37	30.56
Mean	58.08	81.21	61.17	71.40	66.61	38.15
S.D.	16.67	14.34	14.10	13.16	4.42	62.16
C.V. (%)	28.70	17.66	23.05	18.43	6.64	162.94

Source: Annex II & VI

An average DPR of NABIL bank is highest during the study period, while the average DPR of LBL is lowest. Average DPR of sample banks BOK, NABIL, SCBNL, EBL, HBL and LBL is 58.08, 81.21, 61.17, 71.40, 66.61 and 38.15 percent respectively. This shows that NABIL pay 81.21 percent of its earning to its shareholders, while Laxmi pays only 38.15 %. The coefficient of variation on the DPR lowest (6.64%) of HBL, this means HPL has the consistent ratio of paying the dividend.

Analyzing the data presented in above table, NABIL bank could be regarded as the better one in terms of dividend payment. Its variation in dividend payment ratio is

also not so higher as compared to other and has the highest ratio. The variation on the DPR of BOK is 28.70% and it pays 58.08 percent of dividend to shareholder in average. Standard Chartered pays 61.17% of its earning as dividend and has the variation of 23.05% of this ratio. EBL seems to be in second rank according to the DPR, as it pays 71.40% of earning as dividend and has the variation of 18.43 percent on this ratio. LBL has not paid dividend in the year 2004/05 to 2006/07 as it has just the EPS in the range in between 4.34 to 8.99 in these 3years. So, the C.V. of LBL seems to be much higher than other banks.

Analyzing the data from above table, it could be noticed that LBL remain in last ranking in terms of EPS, DPS and DPR. This may be the reason that other bank remains in the list of top list and LBL doesn't. So, here it could be analyzed that the effect of these financial indicators remains in the profile of the banks, so why the MPS of these banks may have link between these financial indicators.

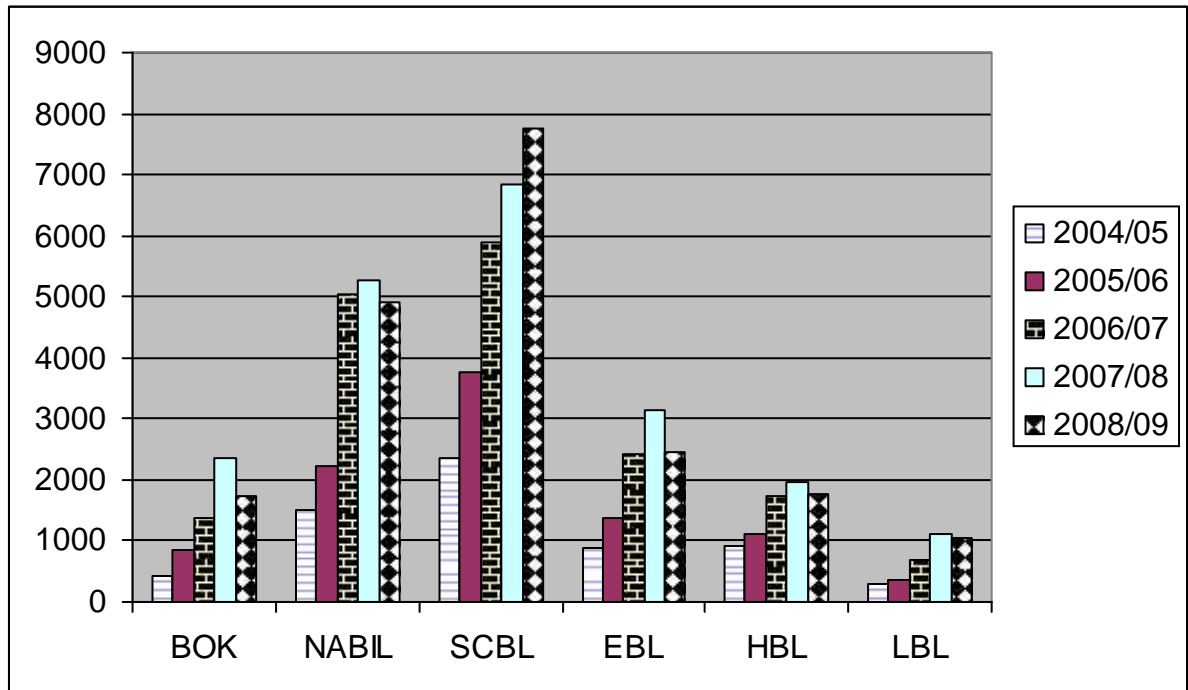
4.2.9 Analyzing Market Price per Share (MPS)

Table 4.6
MPS of Sample Banks

Banks Year	BOK	NABIL	SCBNL	EBL	HBL	LBL
2004/05	430	1505	2345	870	920	285
2005/06	850	2240	3775	1379	1100	368
2006/07	1375	5050	5900	2430	1740	690
2007/08	2350	5275	6830	3132	1980	1113
2008/09	1750	4899	7750	2455	1760	1062
Mean	1351.00	3793.80	5320.00	2053.20	1500.00	703.60
S.D.	671.87	1590.37	1987.92	815.08	412.80	341.79
C.V. (%)	49.73	41.92	37.37	39.70	27.52	48.58

Source: Annex II & VI

Figure 4.5
MPS of Sample Banks



Above table shows the MPS of selected banks during the study period. Like previous table, MPS of the selected banks has been presented in the top part and mean, standard deviation and coefficient of variation (C.V.) of MPS have been demonstrated in the bottom part.

As per the table, highest mean MPS is Rs.5320 of SCBNL and the lowest one is Rs.703.60 of LBL. Average MPS of BOK, NABIL, SCBNL, EBL, HBL and LBL is Rs 1351, Rs 3793.80, Rs. 5320, Rs 2053.20, Rs 1500 and Rs 703.60 respectively.

Analyzing the table, the MPS of sample bank during this period is in increasing trend except in the year 2008/09. The MPS of sample bank in the year 2008/09 has been decreased except that of SCBNL. Referring to the table of annual trend of

NEPSE Index, the NEPSE index has the negative change of 17.58 % than of previous year. So, the sample banks represent the overall capital market.

Viewing the table, SCBNL is best than of other with the highest average MPS of Rs 5320, as well it is not affected by other cause while other banks are affected and their MPS has been decreased in the year 2008/09. But the MPS of SCBNL is increasing.

When we take the CV criterion, HBL seems to be consistent with lower C.V. and the SCBNL remain as second consistent with C.V. of 37.37%. The MPS of BOK remain more volatile with the highest C.V. of 49.73 percent.

Price Earnings Ratio

It is the market price of shares expressed as a multiple earning per share.

$$\text{Price Earning Ratio} = \frac{\text{Market Price Per Share}}{\text{Earning Per Share}}$$

Many investors consider P/E ratio as the best indicator of the ongoing performance of the company. High growth shares have high price earning ratios. If high risk is found in share it reduce market price of share and hence automatically Price earning ratio is also be reduced. Normally we can gain by selling the shares at the time of high price earning multiples and by buying in case of a low price earning multiples.

4.2.10 Analyzing through P/E Ratio

Table 4.7
P/E Ratio of Sample banks

Banks Year	BOK	NABIL	SCBNL	EBL	HBL	LBL
2004/05	14.29	14.23	16.38	26.79	19.20	65.67
2005/06	19.46	17.34	21.47	30.10	18.57	63.43
2006/07	31.61	36.84	35.25	42.47	28.69	76.78
2007/08	39.21	48.70	51.77	57.71	31.56	84.68
2008/09	32	48.59	70.24	32.24	28.43	61.70
Mean	27.31	33.14	39.02	37.86	25.29	70.45
S.D.	9.09	14.84	19.86	11.22	5.35	8.85
C.V. (%)	33.28	44.79	50.89	29.64	21.14	12.56

Source: Annex II & VI

Table above shows the P/E ratio of selected banks. It is clear from the table that mean P/E ratio of LBL (i.e., 70.45) is the highest position throughout the study period where as HBL is lowest position with 25.29. Similarly SCBNL, EBL, NABIL, BOK are in 2nd, 3rd, 4th and 5th position with 39.02, 37.86, 33.14 and 27.31times respectively. P/E ratio of all bank is in increasing trend from 2004/05 to 2007/08 and in 2008/09 PE ratio of sample banks except SCBNL, has been decreased.

From the above data and calculation it can be seen that the C.V. of SCBNL is the highest and C.V. of LBL is lowest. So the consistency in P/E is highest of LBL over the period of study.

4.2.11 Analyzing through Net Profit to Operating Income

Just depending on the figure of net profit after tax, cannot lead us in best decision. While analyzing the financial performance of the company, we should care on the

ratio of net profit to operating income. The Net profit to operating income ratio is calculated as:

$$\text{Net profit to Operating Income} = \frac{\text{Net Profit}}{\text{Operating Income}}$$

Table 4.8
Net Profit to Operating Income

Banks	BOK			NABIL			SCBNL		
	Net Profit	Operating Income	NPOI ratio (%)	Net Profit	Operating Income	NPOI ratio (%)	Net Profit	Operating Income	NPOI ratio (%)
2004/05	139.53	756.03	18.46	520.11	1438.45	36.16	536.24	1539.67	34.83
2005/06	202.44	884.82	22.88	635.26	1716.67	37.01	658.76	1721.45	38.27
2006/07	262.39	1016.26	25.82	673.96	2035.87	33.10	691.67	1971.06	35.09
2007/08	361.50	1280.50	28.23	746.47	2428.86	30.73	818.92	2245.87	36.46
2008/09	461.73	1677.94	27.52	1031.05	3374.26	30.56	1028.28	2635.91	39.01
Mean	285.52	1123.11	24.58	721.37	2198.82	33.51	746.77	2022.79	36.73
S.D.	114.52	327.28	3.57	171.29	674.06	2.68	167.07	387.96	1.67
C.V. (%)	40.11	29.14	14.54	23.74	30.66	7.99	22.37	19.18	4.55

Source: Annex II & VI

The table above shows Net profit, operating income and net profit to operating income ratio of Bank of Kathmandu, Nabil Bank Ltd, and Standard Chartered Bank Ltd. As well the table below shows the Net profit, operating income and net profit to operating income ratio of Everest bank, Himalayan bank and Laxmi bank Ltd. Among these banks, Average Net profit to operating income ratio of SCBNL is highest (36.73%) while that of Laxmi bank is lowest (12.60%).

The Net profit to operating income ratio of BOK, NABIL, SCBNL, EBL, HBL and LBL is 24.58 %, 33.51%, 36.73%, 22.65%, 22.94% and 12.60% respectively.

Using the Coefficient of variation criterion, again SCBNL remain the most consistent in this ratio of earning net profit to operating income. NABIL, EBL,

HBL, BOK and LBL remain as 2nd, 3rd, 4th, 5th and 6th in ranking according to consistency in Net profit to operating income ratio.

Table 4.9
Net Profit to Operating Income

Banks	EBL			HBL			LBL		
	Net profit	Operating Income	NPOI ratio (%)	Net profit	Operating Income	NPOI ratio (%)	Net profit	Operating Income	NPOI ratio (%)
2004/05	168.21	855.99	19.65	308.28	1757.89	17.54	24.46	235.59	10.38
2005/06	237.29	1063.55	22.31	457.46	2042.37	22.40	35.39	353.51	10.01
2006/07	296.41	1358.50	21.82	491.82	2160.77	22.76	65.58	522.26	12.56
2007/08	451.22	1842.51	24.49	635.87	2421.24	26.26	120.03	804.07	14.93
2008/09	638.73	2557.84	24.97	752.83	2922.83	25.76	189.00	1250.54	15.11
Mean	358.37	1535.68	22.65	529.25	2261.02	22.94	86.89	633.19	12.60
S.D.	168.45	609.14	1.93	152.80	393.61	3.11	60.87	363.02	2.16
C.V. (%)	47.01	39.67	8.51	28.87	17.41	13.57	70.06	57.33	17.16

Source: Annex II & VI

4.2.12 Correlation Analysis between EPS and MPS

Table 4.10
Correlation with MPS

Indicators	Correlation with Marker Price Share					
	BOK	NABIL	SCBNL	EBL	HBL	LBL
EPS	0.96	0.07	-0.56	0.71	0.83	0.95
DPS	0.83	0.66	-0.95	0.86	0.97	na
DPR	0.64	0.87	-0.89	0.89	0.73	na
PE Ratio	0.98	0.95	0.95	0.86	0.98	0.46
NPOI	0.94	-0.91	0.45	0.81	0.88	0.99

Source: Annex III

The table above shows the correlation of different indicators compared with Market price of Share of Sample Banks selected for the study. Only correlation coefficient cannot give the actual relation unless the correlation coefficient

compared with probable error for the significance. The correlation coefficient less than probable error is said to be insignificant while the correlation coefficient greater than 6 times of probable error is said to be significant and in the condition where correlation coefficient greater than probable error but less than 6 times of probable error, in such condition nothing can be concluded with certainty. The significant correlation refers that there is the important relation with the compared indicators.

4.2.13 Test of Significance of Correlation Coefficient

Table 4.11
Significance Test of Correlation

Indicators	Test of Correlation coefficient significance compared with 6 times of Probable Error (value indicate 6 x P.E)					
	BOK		NABIL		SCBNL	
EPS	0.14	Significant	1.80	Insignificant	1.24	Insignificant
DPS	0.56	Significant	1.02	not certain	0.18	Insignificant
DPR	1.07	not certain	0.44	significant	0.39	Insignificant
P/E Ratio	0.07	Significant	0.18	Significant	0.18	Significant
NPOI	0.21	significant	0.31	Insignificant	1.44	Significant

Indicators	Test of Correlation coefficient significance compared with 6 times of Probable Error (value indicate 6 x P.E)					
	EBL		HBL		LBL	
EPS	0.90	not certain	0.56	significant	0.18	Significant
DPS	0.47	Significant	0.11	Significant	na	na
DPR	0.38	Significant	0.85	not certain	na	na
P/E Ratio	0.47	significant	0.07	Significant	1.43	not certain
NPOI	0.62	significant	0.41	significant	0.04	significant

Source: Annex III

Above table shows the value of 6 times of probable error and the significance of those indicators of concerned banks compared with correlation coefficient.

The correlation of Market price of Share with Earning per share and Dividend per share of BOK, HBL, and LBL is significant, but the same of SCBNL and NABIL is Insignificant and incase of EBL it could not be concluded with certainty as correlation coefficient is greater than PE, but less than 6 times of PE. The correlation between P/E Ratio and MPS seems to be significant except in case of LBL, in case of LBL it could not be concluded with certainty. Correlation between Net profit to operating income and Market price has the significant positive relation between each other, as all of the selected banks have insignificant relation except LBL. The correlation seen significant of LBL might be due to other reason.

4.3 Multiple Regression Analysis and Testing of Hypothesis between MPS, EPS and DPS

Table 4.12
Multiple Regression and test of Hypothesis between
MPS, EPS and DPS of BOK

Indicators	Test of Multiple Regression Analysis between dependent variable MPS, and two independent variable EPS and DPS of Bank of Kathmandu .	
	Value	Hypothesis
a	-1514.33	Null Hypothesis: (H₀): There is no relation between dependent variable and independent variable. There is no effect of EPS and DPS in MPS.
b1	61.36	
b2	0.70	
Explained Variable	2059001.73	Alternative Hypothesis: (H₁): There is relationship between dependent variable and independent variable. MPS is dependent on EPS and DPS.
Unexplained Variable	198018.27	Degree of Freedom: 2,12
Standard Error of Estimate	314.65	F(cal) : 62.39 F(tab): 3.89
Coefficient of Multiple determination	0.91	Decision: <i>Since calculated value of F at 5% level of significance (62.39) is higher than tabulated value of F (at 2,12 df) ie 3.89, the Null Hypothesis is Rejected. It means MPS is dependent on EPS and DPS.</i>
Level of Significance	5%	
Significance	Significant	

Source: Annex IV

The above table shows the output of multiple regression analysis between MPS and other variables [EPS(X_2) and DPS (X_3)] of the BOK in average. The regression constant (a) is -1541.33. The regression coefficient b_1 for bank is 61.36; another regression coefficient b_2 is 0.80. EPS has positive impact in MPS where as another independent variable DPS has not much remarkable impact in MPS of the observed banks in average. As the coefficient of multiple determination is 0.91 it means 91% of variation in MPS is explained by variation in EPS and DPS. The standard Error of estimation is 314.65 it indicates that the possible error in the predicated value for the respective banks.

Hypothesis is set in the table, as F test is used to test the significance of the result, the calculated value of F at 2,12 d.f is higher (62.39) than tabulated value (3.89) the Null hypothesis is rejected. That means there is relationship between Dependent variable (MPS) and Independent variable (EPS and DPS).

Table 4.13
Multiple Regression and test of Hypothesis between
MPS, EPS and DPS of NABIL

Indicators	Test of Multiple Regression Analysis between dependent variable MPS, and two independent variable EPS and DPS of NABIL Bank Ltd.	
	Value	Hypothesis
a	7421.78	Null Hypothesis: (H₀): There is no relation between dependent variable and independent variable. There is no effect of EPS and DPS in MPS.
b1	-97.86	
b2	81.92	
Explained Variable	9536734.25	Alternative Hypothesis: (H₁): There is relationship between dependent variable and independent variable. MPS is dependent on EPS and DPS.
Unexplained Variable	3109624.54	Degree of Freedom: 2,12
Standard Error of Estimate	1246.92	F(cal) : 18.40 F(tab): 3.89
Coefficient of Multiple determination	0.75	Decision: Since calculated value of F at 5% level of significance (18.40) is higher than tabulated value of F (at 2,12 df) ie 3.89, the Null Hypothesis is Rejected. It means MPS is dependent on EPS and DPS.
Level of Significance	5%	
Significance	Significant	

Source: Annex IV

The above table shows the output of multiple regression analysis between MPS and other variables [EPS(X_2) and DPS (X_3)] of the NABIL in average. The regression constant (a) is 7421.78. The regression coefficient b_1 for bank is 97.86; another regression coefficient b_2 is 81.92. EPS has negative impact in MPS where as another independent variable DPS has positive impact in MPS of the observed banks in average. As the coefficient of multiple determination is 0.75 it means 75% of variation in MPS is explained by variation in EPS and DPS. The standard Error of estimation is 1246.92 it indicates that the possible error in the predicated value for the respective banks.

Hypothesis is set in the table, as F test is used to test the significance of the result, the calculated value of F at 2,12 d.f is higher (18.40) than tabulated value (3.89) the Null hypothesis is rejected. That means there is relationship between Dependent variable (MPS) and Independent variable (EPS and DPS).

Table 4.14
Multiple Regression and test of Hypothesis between
MPS, EPS and DPS of SCBNL

Indicators	Test of Multiple Regression Analysis between dependent variable MPS, and two independent variable EPS and DPS of SCBNL	
	Value	Hypothesis
a	10502.32	Null Hypothesis: (H₀): There is no relation between dependent variable and independent variable. There is no effect of EPS and DPS in MPS.
b₁	12.66	
b₂	-78.08	
Explained Variable	18123328.19	Alternative Hypothesis: (H₁): There is relationship between dependent variable and independent variable. MPS is dependent on EPS and DPS.
Unexplained Variable	1635721.81	Degree of Freedom: 2,12
Standard Error of Estimate	904.36	F(cal) : 66.48 F(tab): 3.89
Coefficient of Multiple determination	0.92	Decision: Since calculated value of F at 5% level of significance (66.48) is higher than tabulated value of F (at 2,12 df) ie 3.89, the Null Hypothesis is Rejected. It means MPS is dependent on EPS and DPS.
Level of Significance	5%	
Significance	Significant	

Source: Annex IV

The above table shows the output of multiple regression analysis between MPS and other variables [EPS(X_2) and DPS (X_3)] of the SCBNL in average. The regression constant (a) is 10502.32. The regression coefficient b_1 for bank is 12.66; another regression coefficient b_2 is -78.08. EPS has positive impact in MPS where as another independent variable DPS has negative impact in MPS of the observed banks in average. As the coefficient of multiple determination is 0.92 it means 92% of variation in MPS is explained by variation in EPS and DPS. The standard Error of estimation is 1246.92 it indicates that the possible error in the predicated value for the respective banks.

Hypothesis is set in the table, as F test is used to test the significance of the result, the calculated value of F at 2,12 d.f is higher (66.48) than tabulated value (3.89) the Null hypothesis is rejected. That means there is relationship between Dependent variable (MPS) and Independent variable (EPS and DPS).

Table 4.15
Multiple Regression and test of Hypothesis between
MPS, EPS and DPS of EBL

Indicators	Test of Multiple Regression Analysis between dependent variable MPS, and two independent variable EPS and DPS of Everest Bank Ltd.	
	Value	Hypothesis
a	906.68	Null Hypothesis: (H₀): There is no relation between dependent variable and independent variable. There is no effect of EPS and DPS in MPS.
b1	-36.97	
b2	79.81	
Explained Variable	2667558.46	Alternative Hypothesis: (H₁): There is relationship between dependent variable and independent variable. MPS is dependent on EPS and DPS.
Unexplained Variable	654180.34	Degree of Freedom: 2,12
Standard Error of Estimate	571.92	F(cal) : 24.47 F(tab): 3.89
Coefficient of Multiple determination	0.80	Decision: <i>Since calculated value of F at 5% level of significance (24.47) is higher than tabulated value of F (at 2,12 df) ie 3.89, the Null Hypothesis is Rejected. It means MPS is dependent on EPS and DPS.</i>
Level of Significance	5%	
Significance	Significant	

Source: Annex IV

The above table shows the output of multiple regression analysis between MPS and other variables [EPS(X_2) and DPS (X_3)] of the EBL in average. The regression constant (a) is 906.68. The regression coefficient b_1 for bank is -36.97; another regression coefficient b_2 is -79.81. EPS has negative impact in MPS where as another independent variable DPS has positive impact in MPS of the observed banks in average. As the coefficient of multiple determination is 0.80 it means 80% of variation in MPS is explained by variation in EPS and DPS. The standard Error of estimation is 571.92 it indicates that the possible error in the predicated value for the respective banks.

Hypothesis is set in the table, as F test is used to test the significance of the result, the calculated value of F at 2,12 d.f is higher (22.47) than tabulated value (3.89) the Null hypothesis is rejected. That means there is relationship between Dependent variable (MPS) and Independent variable (EPS and DPS).

Table 4.16
Multiple Regression and test of Hypothesis between MPS,
EPS and DPS of HBL

Indicators	Test of Multiple Regression Analysis between dependent variable MPS, and two independent variable EPS and DPS of HBL	
	Value	Hypothesis
a	-1518.34	Null Hypothesis: (H₀): There is no relation between dependent variable and independent variable. There is no effect of EPS and DPS in MPS.
b1	-3.29	
b2	82.27	
Explained Variable	809337.80	Alternative Hypothesis: (H₁): There is relationship between dependent variable and independent variable. MPS is dependent on EPS and DPS.
Unexplained Variable	42662.20	Degree of Freedom: 2,12
Standard Error of Estimate	146.05	F(cal) : 113.83 F(tab): 3.89
Coefficient of Multiple determination	0.95	Decision: Since calculated value of F at 5% level of significance (113.83) is higher than tabulated value of F (at 2,12 df) ie 3.89, the Null Hypothesis is Rejected. It means MPS is dependent on EPS and DPS.
Level of Significance	5%	
Significance	Significant	

Source: Annex IV

The above table shows the output of multiple regression analysis between MPS and other variables [EPS(X_2) and DPS (X_3)] of the HBL in average. The regression constant (a) is -1518.34. The regression coefficient b_1 for bank is -3.29; another regression coefficient b_2 is -82.27. EPS has negative impact in MPS where as another independent variable DPS has positive impact in MPS of the observed banks in average. As the coefficient of multiple determination is 0.95 it means 95% of variation in MPS is explained by variation in EPS and DPS. The standard Error of estimation is 571.92 it indicates that the possible error in the predicated value for the respective banks.

Hypothesis is set in the table, as F test is used to test the significance of the result, the calculated value of F at 2,12 d.f is higher (113.83) than tabulated value (3.89) the Null hypothesis is rejected. That means there is relationship between Dependent variable (MPS) and Independent variable (EPS and DPS).

Table 4.17
Multiple Regression and test of Hypothesis between MPS,
EPS and DPS of LBL

Indicators	Test of Multiple Regression Analysis between dependent variable MPS, and two independent variable EPS and DPS of LBL	
	Value	Hypothesis
a	87.29	Null Hypothesis: (H₀): There is no relation between dependent variable and independent variable. There is no effect of EPS and DPS in MPS.
b1	54.84	
b2	13.99	
Explained Variable	567109.91	Alternative Hypothesis: (H₁): There is relationship between dependent variable and independent variable. MPS is dependent on EPS and DPS.
Unexplained Variable	16987.29	Degree of Freedom: 2,12
Standard Error of Estimate	92.16	F(cal) : 200.31 F(tab): 3.89
Coefficient of Multiple determination	0.97	Decision: Since calculated value of F at 5% level of significance (200.31) is higher than tabulated value of F (at 2,12 df) ie 3.89, the Null Hypothesis is Rejected. It means MPS is dependent on EPS and DPS.
Level of Significance	5%	
Significance	Significant	

Source: Annex IV

The above table shows the output of multiple regression analysis between MPS and other variables [EPS(X_2) and DPS (X_3)] of the LBL in average. The regression constant (a) is 87.29. The regression coefficient b_1 for bank is 54.84; another regression coefficient b_2 is 13.99. EPS has positive impact in MPS as well another independent variable DPS has also positive impact in MPS of the observed banks in average. As the coefficient of multiple determination is 0.97 it means 97% of variation in MPS is explained by variation in EPS and DPS. The standard Error of estimation is 571.92 it indicates that the possible error in the predicated value for the respective banks.

Hypothesis is set in the table, as F test is used to test the significance of the result, the calculated value of F at 2,12 d.f is higher (200.31) than tabulated value (3.89) the Null hypothesis is rejected. That means there is relationship between Dependent variable (MPS) and Independent variable (EPS and DPS).

From the table of every individual sample bank, the regression analysis shows that there is significant relationship between dependent variable MPS and two independent variable EPS and DPS. So, it could be concluded that DPS and EPS are the factors associated for stock price volatility. The companies earning and the policy of dividend payment is reflected in Market Price of the concerned companies stock, as a return, its effect is seen in the capital market.

4.4 Analysis of Risk and Return

4.4.1 Analyzing through Expected Return

One of the best methods of analyzing the behavior of prices of the shares in the market is risk and return analysis. Risk measures the degree of volatility in the market price movements of individual shares. The higher the scale of fluctuations, higher will be the degree of risk. However, it is difficult to measure risk; some statistical tools like standard deviation, coefficient of variation and beta coefficient

are used to measure the risk, involved in individual security. For the study year end closing price of the shares and dividend announcement is taken. Expected return, standard deviation and coefficient of variation is calculated. The calculated value of expected realized return, standard deviation and coefficient of variation of each sample are presented in the below table.

Expected Return, Standard Deviation, and CV of the Commercial Banks

Table 4.18

Expected Return and its S.D. & C.V.

S.No.	Banks	Expected Return	Standard Deviation	Coefficient of Variation
1	BOK	0.54	0.54	100.14%
2	NABIL	0.47	0.62	133.13%
3	SCBNL	0.39	0.27	69.59%
4	EBL	0.38	0.43	114.05%
5	HBL	0.23	0.29	126.33%
6	LBL	0.44	0.40	90.86%

Source: Annex V

The above table shows the Expected return, Standard deviation and Coefficient of variation of sample commercial banks for the year between 2004/05 to 2008/09. The NABIL banks seem to be in higher risk in terms of standard deviation of expected return. The coefficient of variation of NABIL bank during this study period in terms of expected return seems to be in higher risk and inconsistent than other. Coefficient of variation of SCBNL is least among these sample banks during this study period. It has the variation of 69.59%. So, in terms of expected return and standard deviation SCBNL may be regarded as more consistent and the likely share to invest. BOK remains in first in terms of return.

By this result we could conclude that the risk and return is one of the most important factors which is associated with stock price volatility.

4.5 Market Sensitivity Analysis

The portion of the total risk of an individual security caused by market factors, simultaneously affect the prices of all securities. It can't be diversified away. It is also called market risk or unavoidable risk or non-diversifiable risk or beta risk. The beta coefficient is an index of systematic risk. It can be used for an ordinal ranking of the systematic risk of assets. It measures the market sensitivity or systematic risk of an investment. Analysis of market sensitivity gives positive approach in the analysis and the selection procedures of the common stock in the secondary market. The beta coefficient of an individual stock provides the clear picture about the trend of movement of price of the stock with regards to the market. It measures the stock volatility relative to that of average stock. An average stock is that which tends to move up or down with the general market as measured by some index.

An asset or portfolio with higher beta is an aggressive asset because it is more volatile than the market portfolio and any with a lower beta can be expected to rise and fall more slowly than the market. A traditional investor whose main concern is preservation of capital should focus on stocks with low betas, whereas one willing to take high risks in an effort to earn high rewards should look for high beta assets. In this study NSE Index is used to measure the movement of the stocks of listed commercial banks and finance companies in regards to that in the general market.

4.5.1 Analyzing through Beta Coefficient

Beta Coefficient of the Sample Commercial Banks and Market (NEPSE)

Table 4.19

Beta Coefficient of the Sample Commercial Banks and Market (NEPSE)

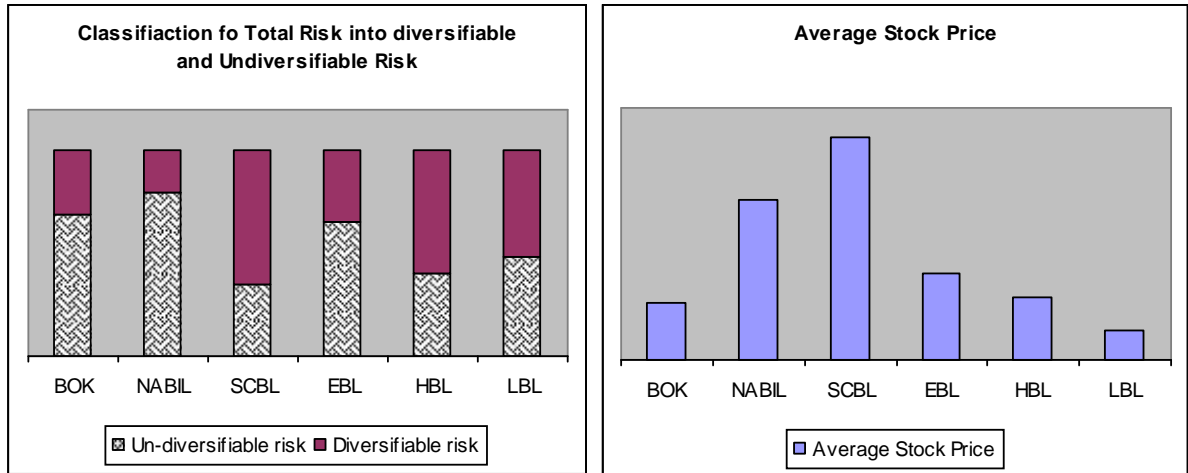
S.No	Banks	Correlati on with Market	Sd. of Expected return	Standard Deviation of Market Return	Variance of Market	Beta Coefficient
1	BOK	0.848268	0.54	0.66	0.44	0.69
2	NABIL	0.849032	0.62	0.66	0.44	0.80
3	SCBNL	0.845995	0.27	0.66	0.44	0.35
4	EBL	0.999528	0.43	0.66	0.44	0.65
5	HBL	0.913993	0.29	0.66	0.44	0.40
6	LBL	0.788999	0.40	0.66	0.44	0.48
	Market(NEPSE)	1	0.66	0.66	0.44	1.00

Source: Annex V

The above table shows the beta coefficient of sample commercial banks under the study period of FY 2004/05 to FY2008/09. In this study of the sample commercial banks, NABIL, BOK and EBL have beta coefficient greater than 0.5 which indicates that the stock price of these banks are more volatile in comparison to the similar average stock in the market. NABIL has the highest beta coefficient i.e. 0.80 which means that the stock of NABIL is more volatile than the average stock in the market in reference to the un-diversifiable risk or market risk. The stocks of NABIL is more aggressive stocks in comparison to other stocks in the market and tend to rise and fall faster than other stocks in the NEPSE. While HBL, LBL and SCBNL has beta less than 0.5, which represent that the stock price of these banks are less volatile than other banks. SCBNL has the beta of 0.35 which is the least among the selected sample banks. This shows that there is low un-diversifiable risk in SCBNL and reflect SCBNL as the bank with having less volatile stocks out of which SCBNL is least volatile stock as compared to other similar stocks in the market. The table above also shows the LBL bank with less volatile stock in terms

of market risk. As on previous analysis LBL seems to be more volatile in terms of other indicators. This reflects that stock price volatility is not only the result of any single indicator. Various factors are associated with this stock price volatility.

Figure 4.6
Total Risk, Diversifiable Risk and Undiversifiable Risk and
Average Stock Price of Sample Banks



From the above result, we could conclude that those investors who are risk taker use to invest on the shares of NABIL, BOK and EBL and who is risk avoider tends to invest on the share of other banks. As well, it could also be noticed that SCBNL, the bank with low un-diversifiable risk or lower beta coefficient have the highest stock price in average.

4.6 Volatility of NEPSE Index and Gold Price (Per 10 gm)

Table 4.20

Volatility of NEPSE Index and Gold Price

Year	2004/05		2005/06		2006/07		2007/08		2008/09		2009/10	
	(61.62)		(62.63)		(63.64)		(64.65)		(65.66)		(66.67)	
Month	NEPSE Index	Gold Price	NEPSE Index	Gold Price	NEPSE Index	Gold Price	NEPSE Index	Gold Price	NEPSE Index	Gold Price	NEPSE Index	Gold Price
July	241.51	9860	300.05	10275	389.23	15650	706.0	14260	1084.76	18860	721.95	24050
August	234.58	10010	293.35	10440	382.56	14620	817.10	15200	976.01	19205	628.34	25550
September	231.31	10150	297.34	11130	398.44	14745	861.14	15925	933.97	21520	609.55	25420
October	235.08	10460	302.39	11275	447.43	14920	915.4	16300	806.90	19205	566.94	27050
November	236.38	10330	303.12	12265	508.58	14920	1025.90	16600	734.85	20875	548.61	27435
December	239.61	10075	305.50	12580	537.09	14855	958.90	18005	659.81	21260	530.96	27180
January	257.29	10030	317.79	12775	523.94	15435	814.40	18990	663.52	23320	497.24	27435
February	280.65	10245	339.79	12840	494.06	15150	714.80	20490	667.20	24865	486.25	27780
March	293.26	10050	334.77	13975	494.59	15430	746.70	19550	661.27	23275	444.76	27950
April	285.42	9945	385.89	16850	513.45	14700	806.3	19460	660.96	24265	457.81	29630
May	277.79	9890	372.01	13375	575.04	14120	930.70	19675	678.74	23580	476.69	30650
June	286.67	9900	386.83	16000	683.95	14320	963.40	21650	749.10	23705	477.73	30265

Source: Annual Report of NEPSE and NSCBS

4.6.1 Correlation between NEPSE Index and Gold Price

Table 4.21

Correlation between NEPSE Index and Gold Price

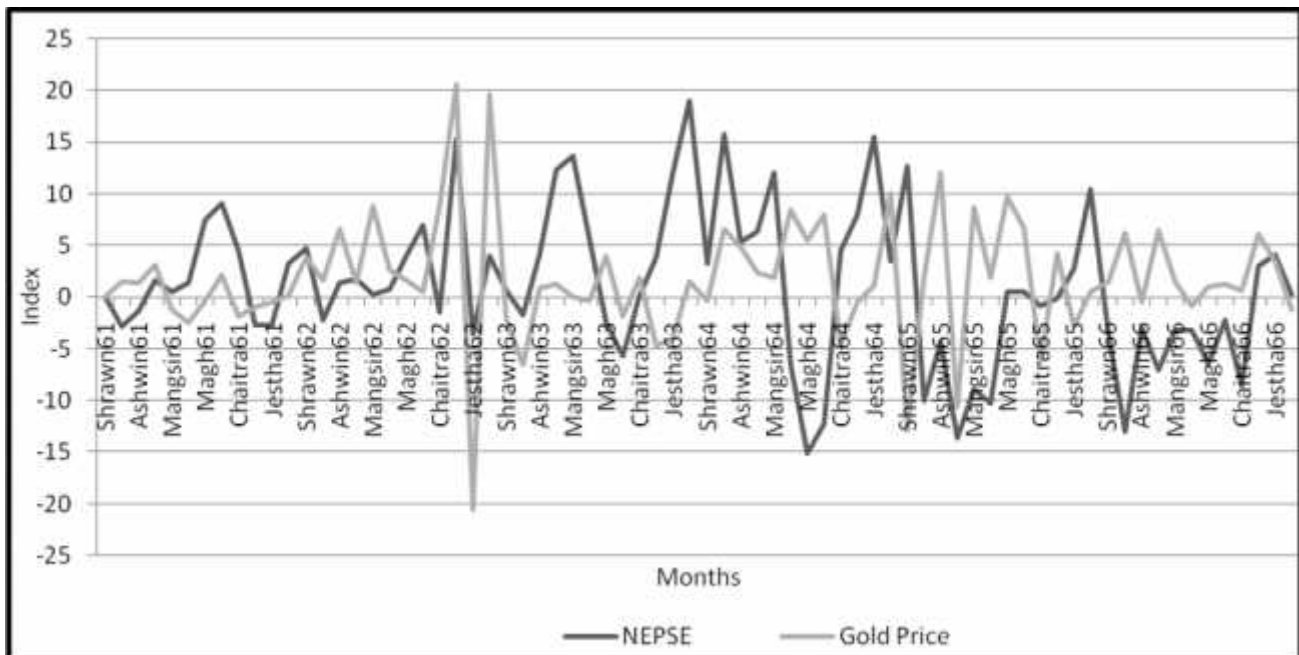
Correlation Between	Correlation Coefficient	Probable Error (PE)	6 x P.E	Test of Significance
NEPSE Index and Gold price	0.48	0.06	0.36	Significant

The above result of correlation between NEPSE Index and Gold Price in Nepalese market shows that there is low degree of positive correlation between them. As the correlation coefficient is greater than 6 times of Probable error, we could conclude as the correlation coefficient is significant.

4.6.2 Volatility of NEPSE Index and Gold Price

Figure 4.7

Volatility of NEPSE Index and Gold Price



4.7 Stock Price Behaviour Compared with International Market

Table 4.22

Stock Price Behaviour Compared with International Market

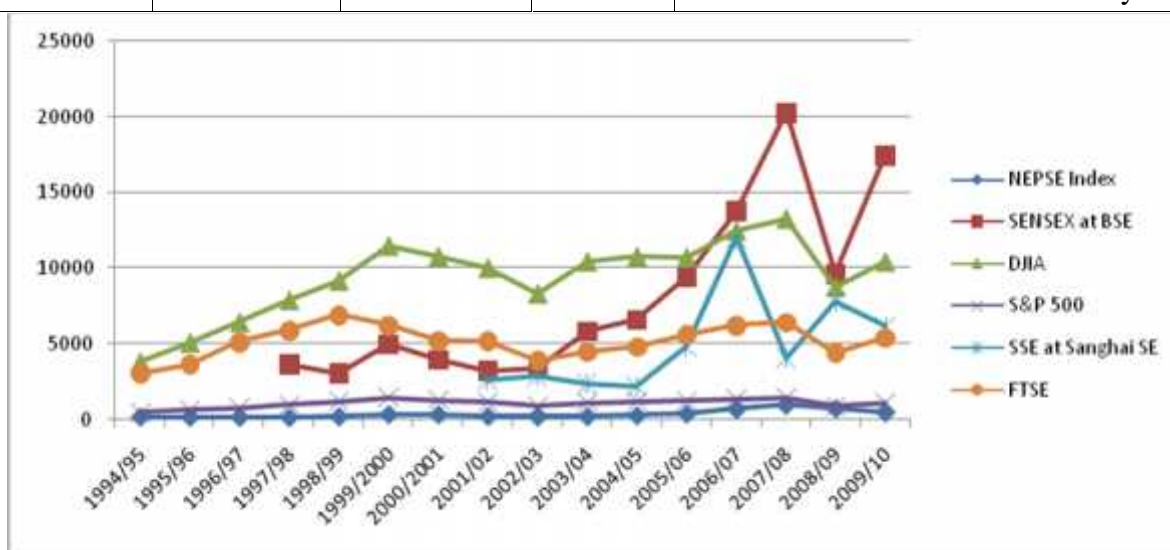
Year	NEPSE Index	SENSEX : BSE	DJIA	S&P 500	SSE at Sanghai SE	FTSE
1994/95	195.48	na	3834.44	459.27	na	3065.50
1995/96	185.61	na	5117.12	615.93	na	3689.30
1996/97	176.31	na	6448.27	740.74	na	5135.50
1997/98	163.35	3658.98	7908.25	970.43	na	5882.60
1998/99	216.92	3055.41	9181.43	1229.23	na	6930.20
1999/2000	360.70	5005.82	11497.12	1469.25	na	6222.50
2000/2001	348.43	3972.12	10787.99	1320.28	na	5217.40
2001/02	227.54	3262.33	10021.57	1148.08	2569.66	5203.60
2002/03	204.86	3377.28	8341.63	879.82	2828.80	3940.40
2003/04	222.86	5838.96	10453.92	1111.92	2362.07	4476.90
2004/05	286.67	6602.69	10783.01	1211.92	2166.78	4814.30
2005/06	386.83	9397.93	10717.5	1248.29	4780.23	5618.80
2006/07	683.95	13786.90	12463.15	1418.30	12024.6	6220.80
2007/08	963.36	20287.00	13264.82	1468.36	4048.00	6456.90
2008/09	749.10	9647.31	8776.39	903.25	7762.92	4434.20
2009/10	477.73	17464.80	10428.05	1126.42	6152.98	5412.90

Source: www.econstats.com

Figure 4.8

Stock Price Behaviour Compared with International Market

Index	Correlation Coefficient	Probable Error (PE)	6 x P.E	Test of Significance
SENSEX	0.84	0.06	0.36	Significant
DJIA	0.61	0.11	0.66	cannot be concluded with certainty
S&P 500	0.50	0.13	0.78	cannot be concluded with certainty
FTSE	0.37	0.15	0.90	cannot be concluded with certainty
SSE	0.59	0.15	0.90	cannot be concluded with certainty



Correlation of NEPSE with International Market Index

Table 4.23

Correlation between NEPSE Index and International Stock Market Indexes

The table above shows the correlation of NEPSE with SENSEX, DJIA, S&P 500, SSE and FTSE. As the correlation coefficient of NEPSE with SENSEX index is 0.84, NEPSE with DJIA is 0.61, correlation with S&P 500 is 0.50, correlation with SSE is 0.59 and correlation with FTSE is 0.37. Among these indexes, NEPSE correlation with SENSEX is highest (0.84). While testing the correlation coefficient with Probable error, the correlation with SENSEX seems to be significant, but in case of DJIA, S&P 500, FTSE and SSE it can't be concluded

with certainty, as correlation coefficient (r) is greater than 6 times of probable in case of SENSEX. That means, SENSEX and NEPSE have the High degree of positive correlation.

4.8 Fluctuation of Stock Price within the Month

Table 4.24

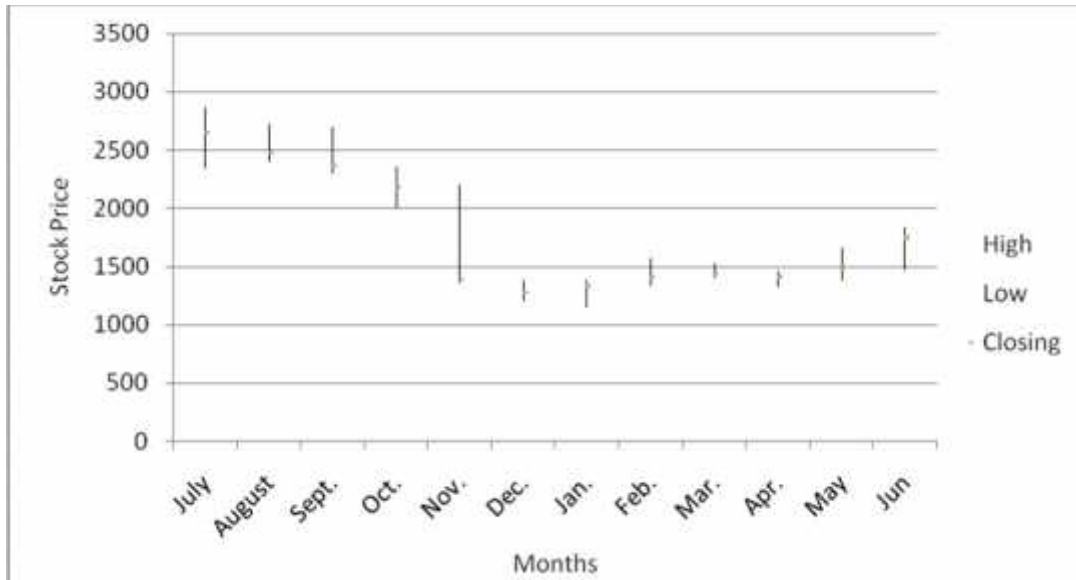
Fluctuation of Stock Price within the Month of the year 2008/09

Month	BOK		EBL		HBL		LBL		NABIL		SCBNL	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
July	2870	2350	3672	2750	2730	1960	1295	1072	6400	5250	8700	6627
August	2720	2400	3400	3080	2560	2380	1240	1086	6151	4000	8590	7750
Sept.	2695	2305	3120	2850	2510	2440	1468	1196	4182	3900	9200	7750
Oct.	2360	2000	3017	2352	2401	2100	1410	1175	4000	3500	8036	4700
Nov.	2200	1365	2350	2015	2105	1830	1213	990	3911	3200	5145	4350
Dec.	1380	1200	2070	1855	1865	1465	1028	841	3700	3300	4972	4550
Jan.	1380	1150	2087	1856	1500	1119	1092	874	3560	3050	4640	4100
Feb.	1570	1340	2121	1945	1610	1456	1050	860	3735	3420	4900	4500
Mar.	1530	1400	2230	1960	1628	1501	995	800	3700	3495	4870	4500
Apr.	1465	1330	2325	2025	1600	1475	980	846	3680	3550	4825	4599
May	1657	1382	2460	2160	1860	1520	999	772	4620	3640	5950	4658
Jun	1835	1473	2480	2200	1887	1515	1062	873	4920	4132	6050	5580

The Table above shows the fluctuation of stock price (MPS) of concerned sample, within the month of the year 2008/09. Higher the gap between the high price and low price reflect the high volatility of the stock price in capital market. The figure below shows the clear view on this fluctuation of individual banks.

Figure 4.9

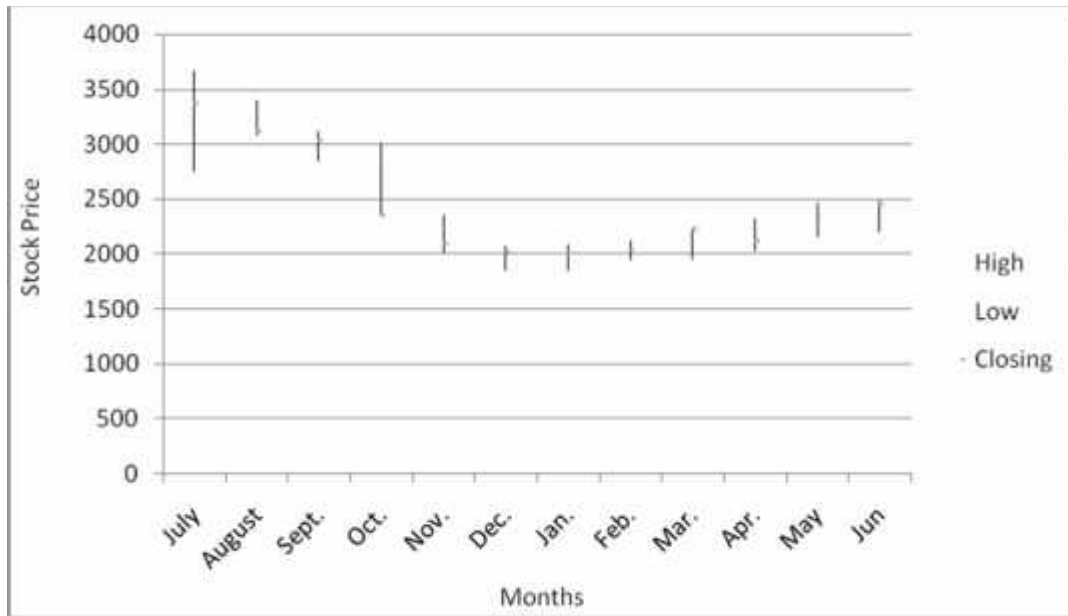
High-Low-Closing of BOK



The above figure shows the monthly price fluctuation of Bank of Kathmandu of the year 2008/09. The line shows the gap between the high price and low price of the concerned month and the small point on the line is the point of closing price of the stock of the concerned bank. The upper point of the line is the point of high price and the lower point of the line is the low price of the stock of the concerned bank.

From the above figure, the highest fluctuation or the high volatility of stock price of BOK seems to be in the month of November. The figure also exhibits the volatility of different months. During the month of July to November, the stock price is higher as compared with other months (December to June.) In the month of December of the year 2008/09 the MPS of BOK remain lowest.

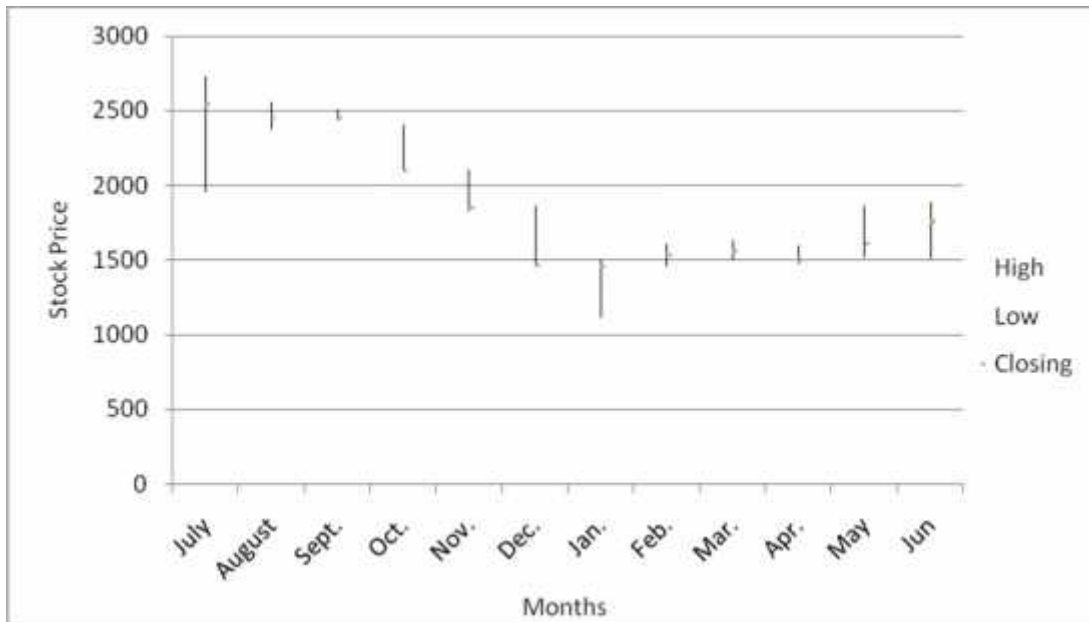
Figure 4.10
High-Low-Closing of EBL



The above figure shows the monthly price fluctuation of Everest Bank Ltd of the year 2008/09. The line shows the gap between the high price and low price of the concerned month and the small point on the line is the point of closing price of the stock of the concerned bank. The upper point of the line is the point of high price and the lower point of the line is the low price of the stock of the concerned bank.

From the above figure, the highest fluctuation or the high volatility of stock price of EBL seems to be in the month of July and October. The figure also exhibits the volatility of different months. During the month of July to October, the stock price is higher as compared with other months (November to June.) In the month of December of the year 2008/09 the MPS of EBL reach to the lowest i.e. Rs 1855 per share.

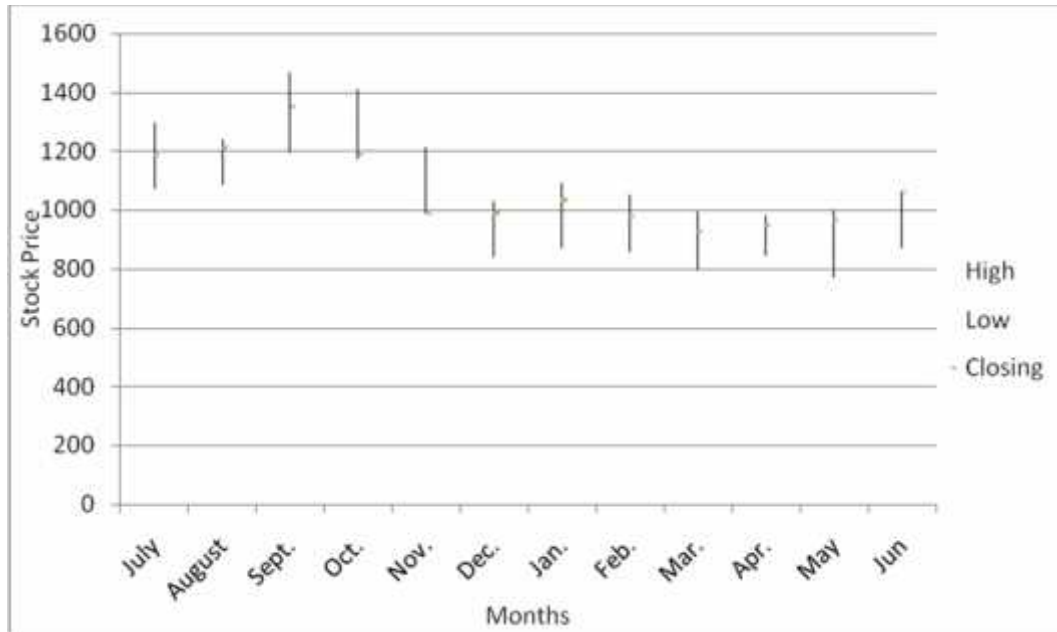
Figure 4.11
High-Low-Closing of HBL



The above figure shows the monthly price fluctuation of Himalayan Bank Ltd of the year 2008/09. The line shows the gap between the high price and low price of the concerned month and the small point on the line is the point of closing price of the stock of the concerned bank. The upper point of the line is the point of high price and the lower point of the line is the low price of the stock of the concerned bank.

From the above figure, the highest fluctuation or the high volatility of stock price of HBL seems to be in the month of July. The figure also exhibits the volatility of different months. During the month of July to October, the stock price is higher as compared with other months (November to June.) In the month of January of the year 2008/09 the MPS of HBL reach to the lowest i.e. Rs 1119 per share.

Figure 4.12
High-Low-Closing of LBL

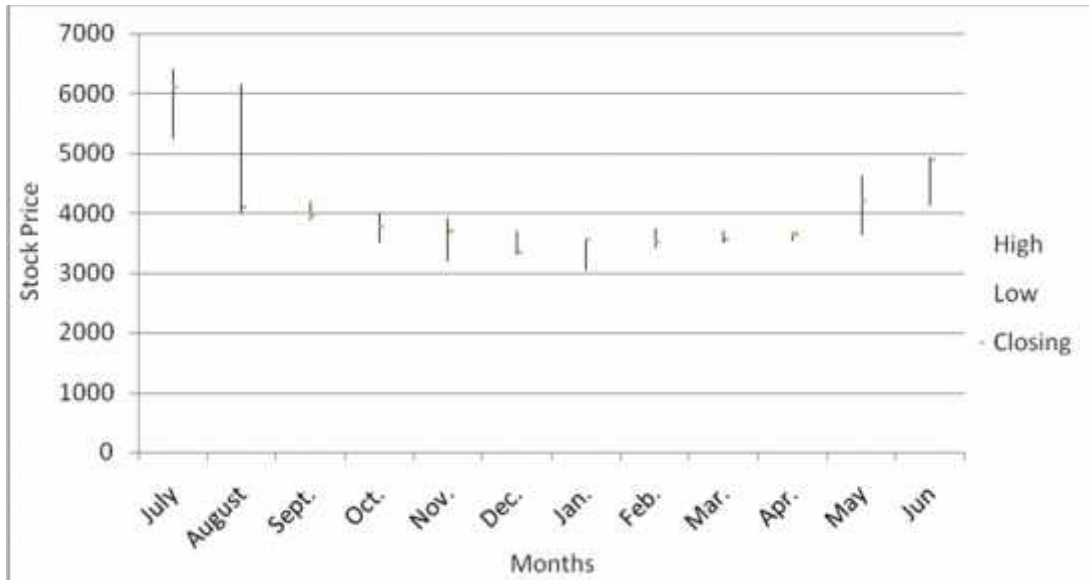


The above figure shows the monthly price fluctuation of Laxmi Bank Ltd of the year 2008/09. The line shows the gap between the high price and low price of the concerned month and the small point on the line is the point of closing price of the stock of the concerned bank. The upper point of the line is the point of high price and the lower point of the line is the low price of the stock of the concerned bank.

From the above figure, the highest fluctuation or the high volatility of stock price of LBL seems to be in the month of September. The figure also exhibits the volatility of different months. The stock price of LBL seems to be much more volatile than other. There exist high volatility in every months and the volatility within the month of every months is also high. As on the previous analysis, there exist high volatility or less consistent in terms of EPS, DPS and DPR also, so the high volatility in the MPS might be the result of having more volatility in EPS, DPS, DPR etc. Here it could be concluded that the variability in EPS, DPS and other indicator may result higher volatility in stock price.

Figure 4.13

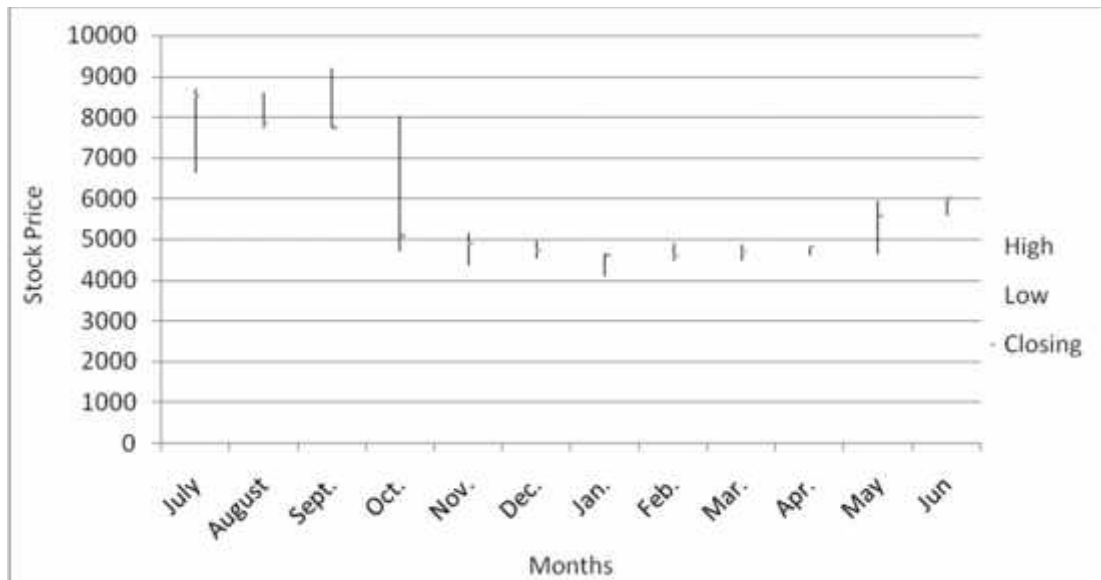
High-Low-Closing of NABIL



The above figure shows the monthly price fluctuation of NABIL Bank Ltd of the year 2008/09. The line shows the gap between the high price and low price of the concerned month and the small point on the line is the point of closing price of the stock of the concerned bank. The upper point of the line is the point of high price and the lower point of the line is the low price of the stock of the concerned bank.

From the above figure, the highest fluctuation or the high volatility of stock price of NABIL seems to be in the month of August. The figure also exhibits the volatility of different months. The figure shows that the share price is more consistent than other as the gap between the high price and low price during the months is less except in the months July and August.

Figure 4.14
High-Low-Closing of SCBNL



The above figure shows the monthly price fluctuation of Standard Chartered Bank Ltd of the year 2008/09. The line shows the gap between the high price and low price of the concerned month and the small point on the line is the point of closing price of the stock of the concerned bank. The upper point of the line is the point of high price and the lower point of the line is the low price of the stock of the concerned bank.

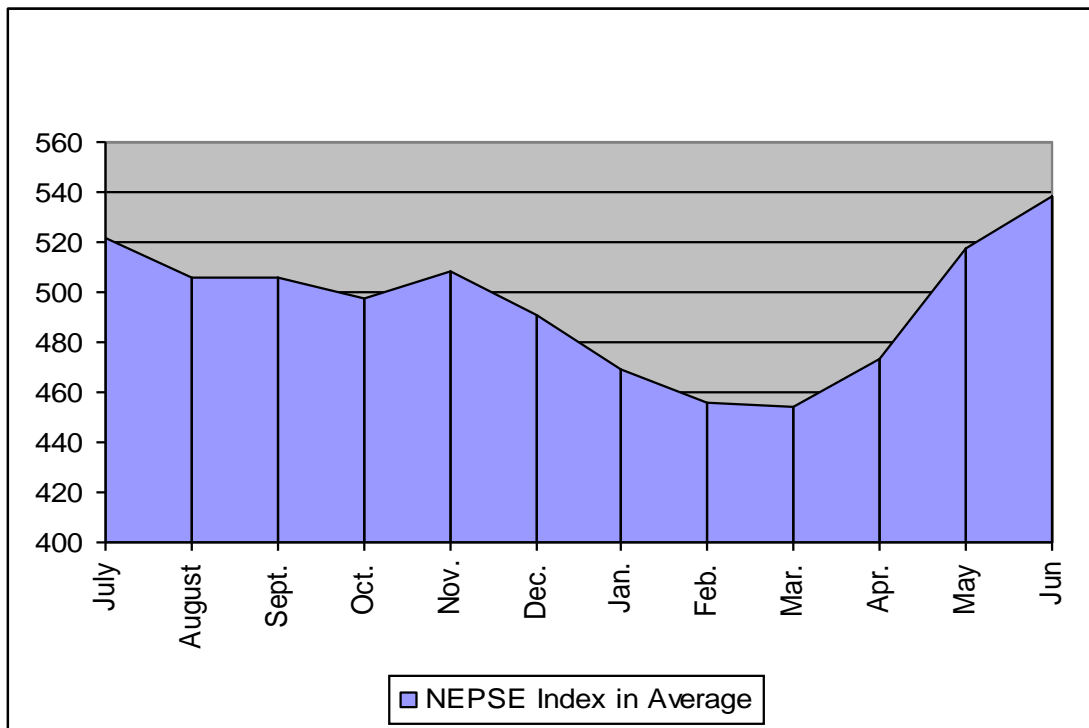
Like other, stock price of SCBNL remain in higher position during the months of July to October than in the months from November to June. The volatility is seen higher when the stock price higher. The stock price is more consistent during the months November to April.

4.9 Time Factor to affect Stock Price Volatility

As the study is concerned with the factors associated for stock price volatility, to understand the effect of time factors or the behavior of investor within the time frame for stock investment, the monthly effect and stock price behavior is analyzed. The figure below is drawn by taking the average of NEPSE Index form the year 2003/04 to 2009/10. The monthly average had been taken.

Analyzing the figure, we could conclude that stock price generally get higher in the month of June/July. During the month of February and March the stock price goes down. The month November is also the positive month for those who are involved in the capital market, the price of stock rises upward in the month of November and follows the downward movement there after till the month of March.

Figure 4.15
Monthly Average during 2003/04 to 2009/10



The reason behind the higher stock price or higher NEPSE Index in the months of June and July might be due to the closing of the fiscal year. During the closing the company use to declare their dividend, they publish their annual report and also that might be the period of getting the earning.

While analyzing the investor’s perspective on this matter, 78.96% of the total respondent in the field survey said that there is the seasonal effect on capital

market or stock price. Among these 47.37 percentages of those who think that there is seasonal effect, think that there remains the year end (Fiscal year) effect. On next question regarding the ranking of cause of stock seasonality, turn of fiscal year remain in the first ranking for the cause of stock seasonality. Analyzing all these factors, we could conclude that this time frame is one of the factors associated for stock price volatility.

4.10 Field Survey

4.10.1 Motivation Regarding Investment on Stock

Table 4.25
Motivation Regarding Investment on Stock

S.N	Options	Percent
1	There is High Profit in Share Investment.	31.58
2	Low Bank Interest	-
3	No Other Better Field to Invest	21.05
4	Just I am Interested in this Field	47.37
5	Other _____	-

Source: Field Survey

When investors were asked the reason for investing in share, 47.37% of investors said that they were interested in capital market, 37.58 % of investors think that there is high profit in share investment and 21.05 % investors invest in share market because they think there is no other better field to invest.

4.10.2 Decision Related to Investment

Table 4.26

Decision Related to Investment

S.N.	Options (Multiple Option Regarded)	Percent
1	Evaluating Economic/ Financial Indicators	48
2	Consulting with Peers and Friends	24
3	Consult with consultant, or specialist	8
4	Listing to News and Market Noise	20
5	Others (Specify)	consult business students look board of directors

Source: Field Survey

To know about the investors behavior to take decision before investment, multiple choice option was presented, among the respondent, 48 % of total respondent evaluate at least Economic/ Financial Indicators before investment, 24 % consult with their friends and Peers, 8 % consult with consultant or specialist and News and Market Noise affect 20 % of the investors.

4.10.3 Investor's Behaviour on Stock Price Fluctuation

Table 4.27

Investor's Behaviour on Stock Price Fluctuation

S.N.	Options (multiple option regarded)	When	When
		Increasing	Decreasing
		Percent	Percent
1	Wait for further information	48	34.78
2	Consult with friends and peers	16	8.69
3	Buy the share on the moment	12	39.13
4	Sell the share on the moment	24	17.39
5	Other (Specify) _____		

Source: Field Survey

On the question regarding the investors behavior in response to the fluctuation of stock price, 48% of the respondents said that they would do wait for further information while the stock price goes on increasing and 39.14% of the investor said that they would buy the stock while stock price starts to decrease. Only 24% of respondent said that they would sell the stock while the share price goes increasing and 12% said they would still buy the share. These 12% of investor are unknown whether they are investing in the share taking high risk with the view to earn high return or they are ignorant about the knowledge of the market.

4.10.4 Perspective on Stock Market Maturates

Table 4.28

Perspective on Stock Market Maturates

S.N	Options	Percent
1	Yes	5.26
2	No	89.48
3	Don't Know	5.26

Source: Field Survey

While trying to know about the perception of Investors whether stock market (capital market) in Nepal is adequately matured or not, 89.48 % of respondents said that stock market is not matured in Nepal, and 5.26 % said that it is matured and same (5.26) % of the respondent don't know whether the capital market in Nepal is matured or not.

4.10.5 Perspective on Pricing of Stock in Capital Market

Table 4.29

Perspective on Pricing of Stock in Capital Market

S.N	Options	Percent
1	Yes	10.53
2	No	89.47

3	Don't Know	
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Source: Field Survey

While asking are stock properly priced or not almost those who think the stock market in Nepal is not matured response that the stock price is not properly priced (89.47%) and rest think that stock price is properly priced. The result shows that one of the reasons of stock price volatility is associated with capital market immaturity.

4.10.6 Use of Market Price per Share

Table 4.30

Use of Market Price per Share

S.N.	Options (multiple choice)	Percent
1	To predict future prices	31.58
2	To predict future average return	10.53
3	To differentiate good and bad share	26.32
4	To make buy and sell decision	21.05
5	Other ____ (cannot be used)	10.52

Source: Field Survey

To analyze the cause of information available, i.e. use of MPS by investor, which may be one of the reason behind for fluctuation of share, the use of current market price of share was asked. Being the multiple choices, among the total responses on the certain option was analyzed, among them, 31.58% of responses thought that current MPS could be used to predict future price of share, 26.32% thought that it could be used to differentiate the good and bad share, 21.05% responses were to use the current MPS to make buy and sell decision. 10.53% of responses were to

predict for average return of company and almost same i.e. 10.52% of responses are current MPS cannot be used to predict any matter.

While analyzing, we could conclude that one of cause for stock price volatility in capital market of Nepal is the way of analyzing the information. As well, the information provided by the company also affects the stock price and the way to analyze it makes the stock price volatile. While compared with the above result, as almost 32 percent of responses thought that current MPS can be used for predicting future price, today's price affect the investment behavior or current MPS affect the future demand. As known, the stock price is determined on demand and supply of the stock, the result is one of the variables responsible for stock price volatility. Also, the different thought on the same variable (current MPS) shows that capital market of Nepal is dependent on investor's perspective, rather than some technical analysis of the information and data available.

4.10.7 Accessibility of Information

Table 4.31

Accessibility of Information

S.N.	Options	Percent
1	Yes	31.58
2	No	68.42
3	Don't Know	-

Source: Field Survey

Large no of investors (68.42%) said that the information is not equally accessible to all the investors, and just 31.58% of investors said the information is equally accessible. To get the answer on why these two thought appear on availability of information, some reason to their thinking why they think information is accessible/ not accessible was asked on the time of interview(the question which questionnaire didn't cover). On the answer of such question, the population who

think the information is equally accessible said that the information is made publicly on quarterly and yearly basis on daily newspaper, and information is available on electronic mean such as web of concerned company, NEPSE and NRB. The population who think that information is not equally accessible think that though some of the information is made publicly but other internal information such as the relation of board of directors with CEO's, their future planning and other information is not available. They also think that some of the investors are known about the company's policies before the information is being publicly and some investors don't understand the publicly available information also.

4.10.8 Risk Consideration by Nepalese Investors

Table 4.32

Risk Consideration by Nepalese Investors

S.N.	Options	Percent
1	Yes	31.58
2	No	68.42
3	Don't Know	-

Source: Field Survey

To understand the investor's perspective on investors behavior, the question whether Nepalese investor consider the risk or not on share investment, the equal no of investors who think information is equally accessible said that Nepalese investors consider risk, and the other part who thinks information is not equally accessible said that Nepalese investors do not consider the risk. Comparing and analyzing these two matters we could conclude that those investors who get and use the information consider the risk and who do not get the information could not consider the risk. As well, it could be concluded that until and unless investors consider the risk and invest, it cannot be said that the capital market is matured. In

a mature market, investor should get the information equally and they should understand the information and risk factors.

4.10.9 View of Investors on Stock Price Volatility

Table 4.33

View of Investors on Stock Price Volatility

S.N.	Options	Percent
1	Yes	63.16
2	No	10.53
3	Don't Know	26.32

Source: Field Survey

Our assumption on the stock price before this study was that the stock price in capital market is volatile. On the period of study, to get the view of investors regarding this assumption one of the questions was asked. Do the investors think that the stock price in Nepal is volatile or not? Just as our assumption, 63.16% of the investors said that stock price in capital market of Nepal is volatile, in opposite 10.53% of the investor thought that the stock price in Nepal is not volatile and 26.32% of the investors are unknown about this matter.

Here concluding this result we can say that the population who thin think that stock price is properly priced (10.53%) response that stock price in Nepal is not volatile (10.53%). And the result of 26.32% who are unknown about the stock price volatility helps us to conclude that this population doesn't have the close watch on the overall capital market.

4.10.10 Factors responsible for deficiency in development of stock market

While asking the investor to rank the following factors responsible for stock market deficiency in Nepal, The ranking appear in the form as presented in the table below. The ranking of 1 indicate the most responsible factor and 6 represent less responsible among these given factors.

Table 4.34

Factors Responsible for Deficiency in Development of Stock Market

S.N.	Options	Rank
1	Government Policy regarding investment	1
2	Market Operation System	2
3	Company information	3
4	Lack of buying and selling habit of the investors	4
5	Lack of profitability of the company	5
6	Others (False rumors)	6

Source: Field Survey

Major investor rank Government policy regarding investment responsible for development of stock market deficiency in Nepal. While market operation system, company information, lack of buying and selling habit of the investors, lack of profitability of the company and false rumors remain in 2nd, 3rd, 4th, 5th and 6th position in ranking.

4.10.11 View Regarding Seasonal effect in Stock Market

Table 4.35

View Regarding Seasonal effect in Stock Market

S.N.	Options	Percent
1	Yes	78.96
2	No	10.52
3	Don't Know	10.52

Source: Field Survey

Among the selected sample investors for this survey, 78.96% of investors said that seasonal effect presents in Nepalese capital market, while 10.52% of them said that seasonal effect doesn't appear in Nepalese capital market and same percentage of investors are unknown about this type of effect.

While asking about the type of seasonal effect among those who think that there exist seasonal effect in capital market of Nepal, 47.37% of them said there exist End of the year effect (fiscal year), 15.79 % said that there exist Day of the week effect and same percent said month of the year effect. 21% of them said other such as Sunday effect, Festival effect etc.

4.10.12 Investors Response on Types of Seasonal Effect

Table 4.36

Investors Response on Types of Seasonal Effect

S.N.	Options (Multiple choice)	Percent
1	Month- of the Year effect (Stock return differ from month to month)	15.79
2	Day of the week effect (Stock return differ from day to day within the week.	15.79
3	End of the year effect (Stock return differ at the year end month than in other) (Fiscal Year)	47.37
4	Weekend Effect (Stock return differ at weekend day than in other day)	-
5	Others _____	21

Source: Field Survey

4.10.13 Factors Influencing Stock Seasonality

Table 4.37

Factors Influencing Stock Seasonality

S.N.	Factor	Ranking
1	Turn of Fiscal Year	1
2	Seasonality in firms cash flow, announcement of dividend and bonus share etc	2
3	Historical pattern of stock return	3
4	Political condition, Big stock holders Interest	other specific

Source: Field Survey

Among the given factors, the factors to influence stock seasonality in the form of their importance remain in the order as in table above. This shows that, turn of fiscal year remains one of most important factor to influence the stock seasonality. Season of announcement of dividend, bonus share, right share etc remain as in second most important factor and Historical pattern of stock return remain in third rank. Beside the given options, two major factors were indicated by the investors which affect the stock seasonality and these two factors were political condition and situation and big stockholders Interest.

Here, on the time of interview, researcher focused on one factor i.e. big stockholders interest, on the query of this factor investor said that due to small no of broker in Nepalese capital market, sometimes the stock market is affected by the cartel on stock invest. As well, they also said that if some investors have large no of stock of any concerned company, they may utilize it as per their interest taking the benefit of unaware investor in Nepalese capital market.

The above result gives the strength to the saying that stock market in Nepalese is volatile, due to unscientific reason.

4.10.14 Agreement on the Statement Given

Table 4.38
Agreement on the Statement Given

No.	Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree	Total Percent
1	Uncertainty about the constitution and elected government formation influences the stock return volatility.	57.89%	26.32%	10.53%	5.26%	-	100%
2	Unclear government policy regarding capital market, increases the stock returns volatility.	68.42%	10.53%	15.79%	-	5.26%	100%
3	Long term and Short term interest rates is important for stock price determination.	31.58%	36.84%	15.79%	10.53%	5.26%	100%
4	Fluctuation of foreign exchange fluctuate the stock price and there by stock return	-	15.79%	21.05%	15.79%	47.37%	100%
5	Level of Money supply determines the level of stock price and there by stock return.	5.26%	26.32%	36.84%	-	31.58%	100%
6	Cash flow, Earning and Dividend paid by the firm are important for share price determination. They affect the stock price.	73.68%	10.52%	5.26%	10.52%	-	100%
7	Management Ability, experience and reputation are considered by Nepalese investors while investing in stock.	52.63%	21.05%	5.26%	21.05%	-	100%

Source: Field Survey

Several statements were asked with the investors whether they agree with the statement or not. These statements were focused on the factors that may affect the stock price volatility. The investors need to rank the degree of their agreement.

On the statement, Uncertainty about the constitution and elected government formation influences the stock return volatility 57.89% of the respondent strongly agreed on the statement, 26.32% agreed on the statement. 10.53% of the respondent neither agreed nor disagreed and only 5.26% of the respondent disagreed on the statement. This in result showed that 84.21% of the respondent accept that current situation i.e. uncertainty about the constitution and elected government formation influence the stock return volatility, while just 5.26% in opposition with this statement.

On the second statement, unclear government policy regarding capital market increases the stock returns volatility 68.48% of the respondent strongly agreed on the statement, 10.53% agreed on the statement, 15.79% respondent neither agreed nor disagreed and 5.26% strongly disagreed on the statement. This in result showed 79.01% agreed on the statement and 5.26 strongly disagreed on the statement.

On third statement, the statement concerned with long term and short term interest rates, 31.58% of the respondent strongly agreed on the statement, 36.84% agreed, 15.79% of the respondent didn't give their clear view on the statement 10.53% of the respondent disagreed on the statement and 5.26% of the respondents were strongly disagreed. This result 68.42% on the respondent agreed with the statement that long term and short term interest rates is important for stock price determination.

The statement, fluctuation of foreign exchange fluctuate the stock price and there by stock return is strongly disagreed by 47.37% and disagreed by 15.79% this in total give 63.16% on disagreement with the statement. While only 15.79% of respondent simply agreed with the statement and rest respondent neither agreed nor disagreed. With this result we could conclude that there is no relationship between foreign exchange rate volatility and stock price volatility.

Level of Money supply determines the level of stock price and there by stock return this statement is strongly agreed by 5.26% and simply agreed by 26.32% of the respondent. In opposition with this statement 31.58% which is equal to the sum of strongly agreed and simply agreed, strongly disagreed with the statement and rest of the respondent gave the view on neither agreed nor disagreed.

The highest agreement is with the statement Cash flow, Earning and Dividend paid by the firm are important for share price determination. They affect the stock price. 73.68% of the respondents were strongly agreed on the statement and 10.52% were agreed with the statement. 5.26% didn't give their specific view on agreement, and only 10.52% of the respondent only disagreed with the statement. This result shows that cash flow, earning and dividend affect the stock price, as 80.20% of the total respondent agreed with the statement. In above question about factors influencing stock seasonality, Seasonality in firm's cash flow, announcement of dividend and bonus share etc remain in the second ranking as well on the analysis of DPS and MPS of sample banks, the result showed the positive correlation between DPS and MPS. Taking all these factors in consideration we could conclude that the policy of paying dividend, the cash flow of company, and the earning of the company affect the stock price or simply we could conclude this is also the factor associated for stock price volatility.

On the statement given Management Ability, experience and reputation are considered by Nepalese investors while investing in stock 52.63% of respondent strongly agreed with the statement where 21.05% of respondent simply agreed. While 21.05% of respondents disagreed and 5.26% of the respondent neither agreed nor disagreed.

Analyzing all the statements and responses to the statement, we could conclude that cash flow, earning and dividend, Unclear government policy in capital market, Uncertainty of constitution and elected government, management of the company and Interest rate are the factors associated for stock price volatility, while foreign exchange rate volatility and level of money supply are not associated for stock price volatility.

4.10.15 View Regarding Regional Effecting Stock Return

Table 4.39

View Regarding Regional Effecting Stock Return

S.N.	Options	Percent
1	Yes	47.37
2	No	47.37
3	Don't Know	5.26

Source: Field Survey

The equal percentage of respondent (47.37%) said that there is/not regional effect in stock return and 5.26% of respondent were unknown whether there is regional effect or not.

4.10.16 View Regarding Company's Location's Effect on Stock Return

Table 4.40

View Regarding Company's Location's Effect on Stock Return

S.N.	Options	Percent
1	Yes	42.10
2	No	52.64
3	Don't Know	5.26

Source: Field Survey

On the question whether company's location effect stock return and stock price, more than half of the respondents (52.64%) said No to the question, while 42.10% thought company's location affect on stock return and stock price. 5.26% of the respondent were unknown with this type of effect.

4.10.17 View on Kathmandu based Company has Higher Return than Outside Kathmandu Valley

Table 4.41

Kathmandu Based Company has higher return

S.N.	Options	Percent
1	Yes	57.89
2	No	42.11
3	Don't Know	-

Source: Field Survey

Among the respondents, 57.89% of the respondents said that Kathmandu based company has higher return than company outside Kathmandu Valley, while 42.11% of the respondents disagreed that Kathmandu based company has higher return.

4.10.18 Cause of Regional Effect in Stock Return

Table 4.42

Cause of Regional Effect in Stock Return

S.N.	Options	Percent
1	Specific features of locality	10.53
2	Easy access of information of local companies	57.89
3	Influence of local friends	-
4	Locality bias of the investors.	36.84
5	Others (Please specify) _____	-

Source: Field Survey

Among the respondent who said there is regional effect on stock return, 57.89% of them said the cause of regional effect in stock return is easy access of information of local companies, 36.84% said that there remain locality bias of the investors which cause the regional effect and 10.53% said that the cause of regional effect is the specific features of the locality.

4.11 Major Findings of the Study

Analyzing the data and its interpretation as well based on the investor's perspective and their response to the question raised to them, the major finding of the study are as follows.

4.11.1 Findings form Market Index and Financial Tools

-) The NEPSE index was highest in the year 2007/2008 with 963.36 points and it was lowest in the year 1997/98 with 163.35 points. From the NEPSE index from year 1994/95 to 2009/10, the highest percentage of change in index can be seen in the year 2006/07 with 76.31% of increment than the previous year's which means that even though NEPSE Index point is highest in the year 2007/2008 the percentage change is lower than the past year. The year 2009/10 faced a change with 36.26% decrement than previous year's NEPSE

Index. The range of percentage change lies between +76.81 to -36.23, which show that the stock price in capital market is volatile.

- J The monthly analysis of NEPSE Index (stock price of overall market) shows deviations of NEPSE Index remain highest in the month of July. The remarkable deviation or higher volatility is also seen in the month of November and least volatility is seen in the month of February. The volatility of stock price goes on increasing from month of March to July.
- J From the analysis of Earning per share, it can be seen that the Earning per share of Standard chartered bank is highest and average Earning per share of Laxmi Bank is Lowest. So, the demand for Standard Chartered Bank is high as a result the Average MPS of SCBNL is highest with Rs 5320 during the study period. The coefficient of variation of EPS between the sample banks, Laxmi Bank has the highest variation of 47.88 percent, while the same of Himalayan Bank is lowest. The data shows HBL has the consistent EPS during the period of Study. As a result, LBL couldn't remain in top position, while other SCBNL and HBL remain in top position. So, the conclusion is made that earning of a company affect the stock price.
- J NABIL bank could be regarded as the better one in terms of dividend payment. Its variation in dividend payment ratio is also not so higher as compared to other and has the highest ratio. The variation on the DPR of BOK is 28.70% and it pays 58.08 percent of dividend to shareholder in average. Standard Chartered pays 61.17% of its earning as dividend and has the variation of 23.05% of this ratio. EBL seems to be in second rank according to the DPR, as it pays 71.40% of earning as dividend and has the variation of 18.43 percent on this ratio. LBL has not paid dividend in the year 2004/05 to 2006/07 as it has just the EPS in the range in between 4.34 to 8.99 in these 3years. So, the C.V. of LBL seems to be much higher than other banks.

) While observing the average Dividend per share, NABIL is in first position with Rs.96. Similarly SCBNL, HBL, EBL, BOK and LBL remain in 2nd, 3rd, 4th, 5th and 6th position of average DPS with Rs.90, Rs.39.03, Rs.39, Rs.28.07 and Rs.5.26 respectively. The data presented in above table shows that Laxmi bank did not paid the dividend during the year 2004/05 to 2006/07. This result indicates that on the base of dividend, NABIL is better than that of other banks in comparison. The average DPS of EBL and HBL seems to be slightly different with Rs 0.03, among these two banks; HBL seems to be more consistent with coefficient of variation of 13.02 percent. The coefficient of variation of EBL seems to be 38.38 percent. Using the C.V. criterion, consistency in DPS for the period studied, HBL has the lowest C.V(13.02%) and LBL has the highest(154.94%) among these sample banks. The Coefficient of Variation (C.V) of BOK, NABIL, SCBNL and EBL is 46.53%, 24.95%, 29.81% and 38.38 percent respectively. This shows there is wide variation on distribution of dividend among the banks within the year, which as result the cause for stock price volatility. And the dividend policy affects the stock price.

) The stock price generally gets higher in the month of June/July. During the month of February and March the stock price goes down. The month November is also the positive month for those who are involved in the capital market, the price of stock rises upward in the month of November and follows the downward movement there after till the month of March. The finding of monthly volatility or deviation and monthly average price of stock seems similar, that reflects that during the high price of stock, the fluctuation or volatility also seems high.

4.11.2 Findings form Correlation, Regression and Hypothesis Testing

) The correlation of Market price of Share with Earning per share and Dividend per share of BOK, EBL, HBL, and LBL is significant, but the same

of SCBNL and NABIL is Insignificant. The correlation between P/E Ratio and MPS seems to be significant though the correlation between them of EBL and LBL seems to be insignificant. Correlation between Net profit to operating income and Market price don't have the relation between each other, as all of the selected banks have insignificant relation except LBL.

-) That means there is positive relationship between Dependent variable (MPS) and Independent variable (EPS and DPS). Significant positive correlation is found in between dependent variable MPS and two independent variables EPS and DPS in every sample banks. So, it is concluded that EPS and DPS are the factor responsible for stock price volatility.
-) In Hypothesis testing, while having F test, the calculated value of F at 5% level of significance higher than tabulated value of F (at 2,12 df), in case of every sample banks, the Null Hypothesis i.e " There is no relation between dependent variable and independent variable. There is no effect of EPS and DPS in MPS" is rejected. It means MPS is dependent on EPS and DPS.
-) The correlation between NEPSE Index and Gold Price in Nepalese market shows that there is low degree of positive correlation between them. As the correlation coefficient is greater than 6 times of Probable error, significant correlation coefficient is between NEPSE Index and Gold price is observed.

4.11.3 Findings Compared with International Market Index

-) The correlation between NEPSE Index and other International market index i.e. SENSEX, DJIA, S&P 500, SSE and FTSE is found having positive correlation. As the correlation coefficient of NEPSE with SENSEX index is 0.37, NEPSE with DJIA is 0.61, correlation with S&P 500 is 0.50, correlation with SSE is 0.59 and correlation with FTSE is 0.37. Among these indexes, NEPSE correlation with SENSEX is highest 0.84. While testing the correlation coefficient with Probable error, only the correlation with SENSEX is seen significant.

4.11.4 Findings from Risk and Return

- J BOK remains in the first in terms of expected return and NABIL bank is seen in higher risk in terms of standard deviation of expected return. The coefficient of variation of NABIL bank during this study period in terms of expected return seen in higher risk and inconsistent than other. Coefficient of variation of SCBNL is least among these sample banks during this study period. It has the variation of 69.59% while the highest coefficient of variation was of NABIL with 133.13%. So, in terms of expected return and standard deviation SCBNL may be regarded as more consistent and the likely share to invest.
- J In this study NABIL, BOK and EBL have beta coefficient greater than 0.5 which indicates that the stock price of these banks are more volatile in comparison to the similar average stock in the market. NABIL has the highest beta coefficient i.e. 0.80 which means that the stock of NABIL is more volatile than the average stock in the market in reference to the un-diversifiable risk or market risk. The stocks of NABIL is more aggressive stocks in comparison to other stocks in the market and tend to rise and fall faster than other stocks in the NEPSE. While HBL, LBL and SCBNL has beta less than 0.5, which represent that the stock price of these banks are less volatile than other banks. SCBNL has the beta of 0.35 which is the least among the selected sample banks.

4.11.5 Findings from Field Survey

- J Evaluating the result, views and responses of the different statements the major finding from the field survey are
- J only 48% of the respondent said that they would calculate the financial indicators, major percentage of respondent said that the Nepalese capital is still not mature, the price of stock are not properly priced, Nepalese investor do not consider risk. The majority think that Nepalese capital market is

volatile, as well high percentage thought that there exist seasonal effect on stock price and fiscal year end effect is the reply of majority. Majority of investor think that government policy regarding capital market, uncertainty of constitution and elected government and cash flow, and dividend declaration affect the stock price. Finding shows that Nepalese investor look after the Management team before investment. False rumors and interest of big stockholders are other main point that respondent think for stock price volatility.

Major findings of the overall study have been pointed out as above.

CHAPTER - V

SUMMARY, CONCLUSION & RECOMMENDATIONS

The last chapter of the thesis presents the summary, conclusion and recommendations. Summary refers the short form of whole study, conclusion draw from the analysis and recommendation suggests the improving to test the causes of stock price behavior in Nepalese stock market. Generally, study is related with the price of secondary stock market. There are no any price behaviors in the primary stock market but there are high price behaviors in the secondary stock market. Due to exchange process were possible by only brokers and market makers. The various statistical tools and financial tools were adopted and computer software was used as test methodology.

5.1 Summary

Capital markets are a vital part of the financial development and economic development of a country. They provide an alternative vehicle for financial resource mobilization. The development of endogenous growth theory in recent years has offered the opportunity to define and explain the link between financial development and economic growth. Some of the study had concluded that the financial development could affect the rate of economic growth by altering productivity growth and the efficiency of capital. It also affects the accumulation of capital through its impact on the saving rate or by altering the proportion of saving. Capital market is the backbone of any economy, and Nepal is not an exception. Under the capital market, stock market has played the vital role to pull and push 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 price trend of

NEPSE index, stock price movement and volatility situation, seasonal and regional effect, effect of GDP growth rate and Inflation rate on stock price as well the effect of international stock price movement have been analyzed.

The main objective of the present study was to examine those factors associated with stock price volatility and to examine price movement of NEPSE Index. To excess knowledge regarding the objective, price movement trend in Nepal stock exchange, trend in changing the MPS of selected company, dividend policy of the selected sample, relation of NEPSE Index with other macroeconomic indicators such as GDP growth rate and Inflation rate, effect of gold price volatility in stock price, and behavior of NEPSE Index with International market index were observed. As the stock price are priced on the demand and supply of the stock, to access the real situation, primary data was collect using questionnaire and taking the view of investor in Nepalese capital market as well the data collected form secondary source were managed and concluded them analyzing with different financial and statistical tools.

The variation of percentage change in NEPSE Index from +76.81% to -36.23% than that of previous year, showed that the stock price in capital market of Nepal is volatile. The monthly analysis of NEPSE Index showed the positive effect in the month of March to July. In the month of February the NEPSE Index was seen in the lower position. All significant positive correlation between the EPS and DPS of the concerned sample bank showed that the dividend policy and earning of the company have the impact on stock price. Differed with the past result, the research was unable to show the positive significant correlation with GDP growth rate and was unable to prove the direct negative relation with Inflation rate, but the low degree of positive correlation was found with gold price and NEPSE index in capital market of Nepal. And only significant correlation was found with SENSEX, the correlation with S&P 500, SSE, DJIA and FTSE was not significant.

Market sensitivity analysis showed that the company with low un-diversifiable risk has the consistent and higher Market price of share. As well, the trend of volatility and the perception of investors showed that Nepalese stock market is still not matured. The investors are not well effective for competitive and understanding market fully. Only 48% of respondent to use the financial indicator for making decision regarding the investment, almost 90% responses to un mature stock market in Nepal and almost same percentage responses to stock price in market is not properly priced were seen. The management ability is considered by investors. Majority of Investors reflect the view that uncertainty of constitution and elected government, and unclear government policy are associated for stock price volatility. Some emerging views from free opinion were false rumor and big stockholders interests were reported in the time of field survey, as the factor to cause stock price volatility.

5.2 Conclusion

From this research work we need to conclude that the stock market in Nepal is not adequately matured yet. It is still in the phase of developing. The stock market of Nepal is volatile, and the government policy regarding capital market is not effective.

The study also concludes that there is gap between theory and practice in the investment decision and effect of different factors in capital market. Beside this the following conclusion are made:

Conclusion from Secondary Data

There is the high variation of percentage change in NEPSE Index during the year (+76.81 to -36.23%) so it is concluded that stock price in capital market is volatile. The research showed that the stock price increase in the month of June and July, than other months. Research also showed that almost 48% of the respondent said

that there is fiscal year end stock seasonality, so it is concluded that there remain the stock seasonality in capital market of Nepal. The multiple regression analysis showed that there remain significant positive correlation between dependent variable MPS and two independent variable EPS and MPS. The significant but low degree of correlation between gold price and NEPSE index helps us to conclude that not all but there certain percentage of investor who use gold for alternative mean to invest in case of Stock. So, gold price is also regarded as one of the factors for the cause of stock price volatility.

Conclusion from Primary Data

From the primary data i.e. respondent view, it is concluded that Nepalese capital market not yet mature. The availability, use and analysis of information by investor is not perfect. Investors are not fully known about their investment risk. Almost 90% of respondent respond that stock price in Nepal is not properly priced, majority of respondent viewed that political instability and uncertainty of constitution affect the stock price. Also majority of respondent viewed that interest rate affect the stock price. Though, information is not properly analyzed and used Nepalese investor consider management team and Fiscal year end affect is seen to be the most important factor that affect stock price & it is concluded that there are various factors that cause the stock price volatility.

Lastly, during this research analysis, it was found that the company in best position analyzed with one tool may not always be in best while analyzed with other financial tools, so it is concluded that only single factor is not responsible for stock price volatility in capital market of Nepal. Every indicators, the national and international effect, and especially the political environment and policy and program of government are those factors which cause the stock price volatile.

5.3 Recommendations

Securities market is a fundamental part of the financial development and economic development of the country. It provides an alternative medium for financial resource mobilization. In developing countries like Nepal, there is a strong need of financial resources for the overall development of the country.

On the basis of analysis and findings of the study, following strategies have been recommended to overcome weakness, inefficiency and to improve the overall stock market in Nepal.

-) It is recommended to every company to publish their financial statements timely and make publicly to ensure their strength position. As the financial reports is one of the matters to take the investment decision by investors.
-) To promote a competitive and healthy share market and to check domination and undue speculation it is important to have adequate market intermediaries in the stock exchange. It is necessary that the NEPSE would conduct a proper research to ensure that there are enough brokers and market intermediaries for a competitive functioning of the stock market.
-) The national development depends upon economic development of every nation. For economic development industrial development is necessary. Stock market development is associated with the industrial presence, involvement and development. So, governments therefore need to encourage and consider industrial development in the country.
-) The price fluctuation trend is not predictable by general investors, so technician facilitates should be provided by Nepal stock exchange ltd., so that general investors should also get benefit from the Nepal security exchange center ltd.
-) Government of this nation formulate proper and perfect ruled, regulation, article of association and code of conduct to develop the capital market of

nation. For this purpose national and international stock experts should hire to develop the system.

-) The role of market players in the stock market should be made effective in promoting capital market on the country by giving proper training and adopting changed environment with modern tools and technique.
-) On seeing the investment priority of investors, majority of investors were found attached with banking/finance. Therefore, the diversification of investment in other sector must be done by taking action towards the unproductive manufacturing, trading, insurance and others. The companies which are not performing their activities should be removed from the list of Nepal Security Exchange Ltd.
-) Every political party needs to give their view on what type of thought they put on capital market.
-) Influence of political party in the name of labor union and labor law is increasing in these days. The demands which are unable to fulfill are being the cause of industrial conflict which as a result affects the industry and stock market as well national economy as a whole, so it is recommended that unnecessary influence of political parties and labor union needs to be avoided.
-) Environment for economic activities is the most for the development of nation so, industrial sector should be free from strike, bandha etc.
-) In order to increase awareness on share investment among public investors various education and awareness programs including quarterly publication of newsletters must be initiated. SEBON took persuasive measures to the listed companies for their noncompliance and for timely disclosures.
-) It is recommended that investors could take into consideration the nature of volatility in gold price, exchange rate, inflation rate and other macro economic variables in the economy to make an informed decision as to where to direct their investments.

- J As seasonal effect is observed, investors are recommended to find out the seasonal appropriateness for their investment decision.
- J Investors are recommended to evaluate the cause of price volatility rather than running towards the false rumors.

While much work remains to be done, a growing body of evidence suggests that stock market is not merely casinos where players come to place bets. Stock markets provide services to the non-financial economy that are crucial for long term economic development. The ability to trade securities easily may facilitate investment, promote the efficient suggests that stock market price encourages or at least strongly forecast corporate investment even though much of this investment is financed through retained earnings, bank loans rather than equity issues. Those experts who suggest investors to invest carefully when the NEPSE index is in bullish trend should also aware investors when the index is going down. There are millions of investors who are willing to buy shares from primary market but the number of investors willing to invest in secondary market are very few due to which stock market has been a playground for some limited players. Thus the government should come up with some solid policies regarding stock market so that the more and more investors come forward to invest, not only in financial sector but also in industrial sector which will lead Nepal Stock Market to the real height.

Suggestions for Further Research

There are some possible areas for future research on Factor Associated for Stock Price Volatility in Nepalese context.

First, the sample to represent the stock market, commercial banks is used in the study. Hence, in order to provide a complete picture of Stock Price Volatility in

Capital Market of Nepal, all or combination of different sector sample can be used to get the real situation.

Second, it may be worthwhile to examine daily share price, as this study is calculated with monthly ending price and year end price.

Third, for further research in stock price volatility, seasonality effect, and the political effect (stock price volatility compared with Finance Minister, and the leading party in the government.) to get further detail findings.

Fourth, this study does not cover the policy impact for stock price volatility in detail, only dividend policy and its impact is observed so, this research will be useful for those who wish to analyze other policy impact such as margin lending, fiscal, monetary, Tax policy etc.

Finally, the field survey is conducted in Kathmandu valley with investors, for further research field survey may be conducted nationally. And also to correlate with foreign market, NEPSE index was compared with other 5 international Market index, other more sample for international market index could be used in order to have other findings.

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ANNEXURE

Annex - I

Questionnaire

Study on Factors Associated For Stock Price Volatility in Capital Market, Nepalese Evidence

Dear Respondent,

The request for information in this questionnaire is for research purpose only. The research study entitled "Factors associated for stock price volatility in Capital Market- Nepalese Evidence" as partial fulfillment of the Masters degree in Business Studies, Shanker Dev Campus.

Your answer for every question is valuable. Your every answer reflects and affects the study finding. So, I would like to request and appreciate for your full response for every question. But, if you don't want to answer a particular question, you can skip that question. All of the information that you provide is fully confidential. Participation in this survey is completely voluntary. If you need clarification on any question, please feel free to contact me. I hope you will participate in the survey, and provide your valuable inputs.

Completing this questionnaire will take approximately 10-15 minutes. I would like to thank you for providing your much valuable time for this study.

Thank you,
Shatish Paudel MBS Student Shanker Dev Campus

Respondent Profile:

Name: (Optional).....

Sex: Male: Female:

Institution:.....

Occupation:

Student

Service

Other _____

Education Level:

Primary or below

Secondary and Higher Secondary

Higher education (Bachelors, Masters, PhD)

Respondent View:

1.1 When have you firstly invest on Share?

- Within this year
- Before one Year & within 2 years before
- Before 2-5 years
- Before 5 years

1.2 How many number of Share do you hold presently?

- Below 500
- 500 – 1000
- 1000-5000
- Above 5000

1.3 Why have you invested on Share?

- There is high profit in Share investment.
- Low bank interest
- No other better field to Invest
- Just I am interested in this field
- Other _____

1.4 How will you decide before investing in Share?

- Evaluating Economic Indicators
- Consulting with Peers and Friends
- Consult with consultant, or specialist
- Listing to News and Market Noise
- Others (Specify) _____

1.5 What will you do when the price of share starts fluctuate? (Select all appropriate)

When start increasing

Wait for further information

When start decreasing

Wait for further information

Consult with friends and peers
Buy the share on the moment
Sell the share on the moment
Other (Specify)

Consult with friends and peers
Buy the share on the moment
Sell the share on the moment
Other (Specify)

Stock Related:

1. Is the stock adequately mature in Nepal?

Yes

No

Don't Know

2. Are Stock Properly Priced in Nepal?

Yes

No

Don't Know

3. Current Market Price of Share can be used

To predict future prices

To predict future average return

To differentiate good and bad share

To make buy and sell decision

Other _____

4. Do Nepalese Investors consider the risk while investing in stocks?

Yes

No

Don't Know

5. Is information equally accessible to all the investors in Nepalese Stock Market?

Yes

No

Don't Know

6. Is Stock Market in Nepal Volatile?

Yes

No

Don't Know

7. In your opinion, Which factor is more responsible for the deficiency in the development of stock market ?

(Please rank in order of their importance, using 1 for most important)

1 2 3 4 5 6 Company information

- 1 2 3 4 5 6 Market operation system
- 1 2 3 4 5 6 Government Policy regarding investment
- 1 2 3 4 5 6 Lack of profitability of the company
- 1 2 3 4 5 6 Lack of buying and selling habit of the investors
- 1 2 3 4 5 6 Others (Specify)
-

Seasonal Effect:

1. Do you think there is seasonal effect on Stock return in Nepal?

Yes

No

Don't Know

If yes, what type of effect may exist? (Select all appropriate options below)

Month- of the Year effect (Stock return differ from month to month)

Day of the week effect (Stock return differ from day to day within the week.

End of the year effect (Stock return differ at the year end month than in other)

Weekend Effect (Stock return differ at weekend day than in other day)

Others _____

2. Following are some factors that influence “Stock Seasonality”

Please rank them in order of their importance. Starting most important to less important, Most important as 1.

Rank	Factors
	Feasts, Festivals and socio cultural factors
	Turn of Calendar Year
	Turn of Fiscal Year
	Behavior of the investors
	Change of Climate (winter/ summer)

	Stock Market Characteristics
	Historical pattern of stock returns
	Seasonality in firms, cash flow, announcement of dividend and bonus share etc.
	Other _____

3. Please rank the degree of your agreement about the following statements.

1 = Strongly Agree, 2 = Agree, 3 = Neither agree nor disagree, 4 = Disagree, 5 = Strongly Disagree.

- 1 2 3 4 5 Uncertainty about the constitution and elected government formation influences the stock return volatility.
- 1 2 3 4 5 Unclear government policy regarding capital market, increases the stock returns volatility.
- 1 2 3 4 5 Long term and Short term interest rates is important for stock price determination.
- 1 2 3 4 5 Fluctuation of foreign exchange fluctuate the stock price and there by stock return
- 1 2 3 4 5 Level of Money supply determines the level of stock price and there by stock return.
- 1 2 3 4 5 Cash flow, Earning and Dividend paid by the firm are important for share price determination. The affect the stock price.
- 1 2 3 4 5 Management Ability, experience and reputation are considered by Nepalese investors while investing in stock.

Special Effect

1. Do you think there is any regional effect on stock return?

Yes

No

Don't Know

2. Do you think location of company's headquarters has effect on stock return?

Yes

No

Don't Know

3. Do you think that the return of stock of Kathmandu Valley based Company headquarters is higher than the company headquarters located outside Kathmandu?

Yes

No

Don't Know

**4. What may be the cause of Special effect (Regional effect) on stock return?
(Select all appropriate options)**

Specific features of locality

Easy access of information of local companies

Influence of local friends

Locality bias of the investors.

Others (Please specify) _____

Other:

**Any other opinion/remarks on Stock return or Stock price volatility in Nepal.
(Please give your opinion on stock returns behavior and other major factors
associated for stock price volatility that was not covered in the questions above)**

1.
2.
3.
4.
5.

Thank you for your time and effort to provide information!

Annex- II
Calculation of Mean, Standard Deviation, and
Coefficient of Variation of EPS of BOK

Year	EPS (X)	X- \bar{X}	(X- \bar{X}) ²
2004/05	30.10	-16.28	265.0384
2005/06	43.67	-2.71	7.3441
2006/07	43.50	-2.88	8.2944
2007/08	59.94	13.56	183.8736
2008/09	54.68	8.3	68.89
n =5 year	$\sum x = 231.89$		$\sum(x - \bar{X})^2 = 533.4405$

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = \frac{231.89}{5}$$

$$\bar{X} = 46.38$$

$$\begin{aligned} \text{Standard Deviation } (\sigma) &= \sqrt{\frac{\sum (X - \bar{X})^2}{n}} \\ &= \sqrt{\frac{533.4405}{5}} = 10.33 \end{aligned}$$

$$\text{Coefficient of Variation (C.V.)} \quad \text{C.V} = \frac{\sigma}{\bar{X}} = \frac{10.33}{46.38} = 22.27\%$$

Calculation of Mean, Standard deviation and Coefficient of Variation in the study else is done same as above model.

Annex – III

Calculation of Correlation Coefficient and Probable Error between EPS and MPS of BOK

Let, $X_1 = \text{EPS}$ and $X_2 = \text{MPS}$

X_1	X_1^2	X_2	X_2^2	X_1X_2
30.10	906.01	430	184900	12943
43.67	1907.0684	850	722500	37119.50
43.50	1892.25	1375	1890625	59812.50
59.94	3592.25	2350	5522500	140859
54.68	2989.90	1750	3062500	95690
231.89	11288.0325	9755	11380325	346424

Number of Observation $n = 5$

$$\sum X_1 = 231.89$$

$$\sum X_1^2 = 11288.0325$$

$$\sum X_2 = 6755$$

$$\sum X_2^2 = 11380325$$

$$\sum X_1X_2 = 346424$$

$$\begin{aligned} \text{Correlation } r_{12} &= \frac{n\sum X_1X_2 - \sum X_1 \sum X_2}{\sqrt{n\sum X_1^2 - (\sum X_1)^2} \sqrt{n\sum X_2^2 - (\sum X_2)^2}} \\ &= \frac{5 \times 346424 - 231.89 \times 6755}{\sqrt{5 \times 11288.0325 - (231.89)^2} \sqrt{5 \times 11380325 - (6755)^2}} \\ &= \frac{165703.05}{173388.3021} = 0.96 \end{aligned}$$

$$\text{Probable Error} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-(0.96)^2}{\sqrt{5}} = 0.02365$$

$$6 \times \text{PE} = 0.14$$

$$r > 6 \times \text{PE}, \text{ or, } 0.96 > 0.14$$

So, Correlation coefficient is Significant.

Calculation of Correlation Coefficient and Probable Error in the study else is done in the same model as above.

Annex- IV

Regression Analysis and Test of Hypothesis

Let, X_1 , X_2 , X_3 denote MPS, EPS DPS of BOK respectively. Since, MPS is dependent variable and EPS and DPS are two independent variables, we have to estimate multiple regression equation of X_1 on X_2 X_3 .

The multiple regression equation of X_1 on X_2 and X_3 be

$$X_1 = a_1 + b_1 X_2 + b_2 X_3 \quad \text{--- equation (i)}$$

The value of constant a_1 , b_1 , and b_2 can be determined by solving following the normal equations simultaneously.

$$\sum X_1 = n a_1 + b_1 \sum X_2 + b_2 \sum X_3 \quad \text{--- equation (ii)}$$

$$\sum X_1 X_2 = a_1 \sum X_2 + b_1 \sum X_2^2 + b_2 \sum X_2 X_3 \quad \text{--- equation (iii)}$$

$$\sum X_1 X_3 = a_1 \sum X_3 + b_1 \sum X_2 X_3 + b_2 \sum X_3^2 \quad \text{--- equation (iv)}$$

Calculation of Sum of Values between MPS, DPS, and EPS of BOK

MPS	EPS	DPS						
X_1	X_2	X_3	$X_1 X_2$	$X_2 X_3$	$X_1 X_3$	X_1^2	X_2^2	X_3^2
430	30.10	15	12943	451.50	6450	184900	906.01	225
850	43.67	18	37119.50	786.06	15300	722500	1907.0689	324
1375	43.50	20	59812.50	870	27500	1890625	1892.25	400
2350	59.94	40	14.0859	2397.60	9400	5522500	3592.8036	1600

1750	54.68	47.37	95690	2590.1916	82897.5	3062500	2989.9024	2243.9124
6755	231.89	140.37	346424	7095.3516	226147.5	1183025	11288.0349	4792.9169

Substituting the value in normal equations,

$$6755 = 5a_1 + 231.89 b_1 + 140.37 b_2 \text{ . equation.....(v)}$$

$$346424 = 231.89 a_1 + 11288.0349 b_1 + 7095.3516 b_2 \text{ equation.....(vi)}$$

$$226147.5 = 140.37a_1 + 7095.3516 b_1 + 4792.9169 b_2 \text{ equation.....(vii)}$$

Multiplying equation (v) by 231.89 and equation (vi) by 5 subtracting equation vi from v

$$\begin{array}{r} 1566416.95 = 1159.45a_1 + 53772.9721b_1 + 32550.3993b_2 \\ 1732120 = 1159.45a_1 + 56440.1745 2b_1 + 35476.758b_2 \\ \hline - 165703.05 = - 2667.2024 b_1 - 2926.3587b_2 \end{array} \text{ equation(viii)}$$

Again,

Multiplying equation (v) by 140.37 and equation (vii) by 5 and subtracting equation (vii) from equation (v).

$$\begin{array}{r} 948199.35 = 701.85 a_1 + 32550.3993 b_1 + 19703,7369 \\ 1130737.50 = 701.85a_1 + 35476.758 b_1 + 23964.5845 \\ \hline - 182538.15 = -2926.3587 b_1 - 4260.8476 b_2 \end{array} \text{ equation.....(ix)}$$

Solving equation (viii) and equation (ix)

Multiplying equation (viii) by – 2926.3587 and equation(ix) by – 2667.2024 and subtracting equation (ix) from (viii)

$$\begin{array}{r} 484906562 = 7805190,948 b_1 + 8563575.241 b_2 \\ 486866191.8 = 7805190,948 b_1 + 11364542.94 b_2 \\ \hline -1959629.788 = -2800967.704 b_2 \end{array} \text{ equation.....(x)}$$

$$b_2 = 0.700$$

Substituting the value of b_2 in equation (viii)

$$4849062 = b_1 \times 7805190.948 + 0.700 \times 85635.241$$

$$478915262.2 = 7805190.948b_1$$

$$b_1 = 61.359$$

Substituting the value of b_1 and b_2 in equation (v)

$$6755 = 5a_1 + 61.36 \times 231.89 + 0.70 \times 140.37$$

$$- 7571.642536 = 5a_1$$

$$a_1 = -1514.329.$$

Calculation of Total variation, Explained variation and unexplained variation

X_1	X_2	X_3	$x_1(a_1+b_1X_2 +b_2X_3)$	$(X_1-\bar{X}_1)_2$	$(X_1-\bar{x}_1)_2$	$(X_1-x_1)^2$
430	30.10	15	343.0584812	848241	1015946.11	7558.828
850	43.67	18	1177.792993	251001	30000.67	107448.20
1375	43.50	20	1168.76129	576	3340.95	42534.41
2350	59.94	40	2191.488504	998001	706420.93	25125.89
1750	54.68	47.37	1873.898732	159201	273423.08	15350.90
6755	231.89	140.37	6755	2257020	2059001.73	198018.30

$$x_1 = a_1 + b_1 X_2 + b_2 X_3$$

$$\bar{X}_1 = \frac{\sum X}{n} = \frac{6755}{5} = 1351$$

$$\bar{X}_2 = \frac{231.89}{5} = 46.378$$

$$\bar{X}_3 = \frac{140.37}{5} = 28.074$$

Here,

$$\text{By formula, Total variation} = \sum X_1^2 - (n (\bar{X}_1)^2)$$

$$\text{Explained variation} = b_1(\sum X_1X_2 - (n \times \bar{X}_1 \times \bar{X}_2)) + b_2(\sum X_1X_3 - (n \times \bar{X}_1 \times \bar{X}_3))$$

Unexplained variation = Total variation – Explained variation

Or, By table ,

$$\text{Total variation} = \sum(X_1 - \bar{X})^2 = 2257020$$

$$\text{Explained variation} = \sum(x_1 - \bar{X}_1)^2 = 2059001.73$$

$$\text{Unexplained variation} = \sum(X_1 - x_1)^2 = 198081.30$$

$$\text{Standard Error of Estimate} = \frac{\text{Unexplained Variation}}{n-3}$$

Where,

$$S_{1.23} = \sqrt{\frac{\sum(X_1 - x_1)^2}{n-3}} = \sqrt{\frac{198008.27}{5-3}} = 314.66$$

Where

X_1 = actual values of variable X_1

x_1 = predicted value of X_1 as calculated from the fitted regression equation

n = number of observation in the sample

Coefficient of multiple determinations

$$R^2_{1.23} = \frac{a_1 \sum X_1 + b_1 \sum x_1 X_2 + b_2 \sum X_1 X_3 - n(\bar{X}_1)^2}{\sum X_1 - n(\bar{X}_1)^2}$$

$$= \frac{1514.33 \times 6755 + 61.36 \times 396424 + 0.70 \times 226147.00 - 5(1351)^2}{11383025 - 5(1351)^2}$$

$$= \frac{2059575.74}{2257020}$$

$$= 0.91$$

ANOVA TABLE

Source of Variation	Sum of Square	Degree of Freedom(d.f.)	Mean Sum of Square	F-Ratio
Explained	SSC= 2059001.731	$k-1 = 3-1 = 2$	$MSB = \frac{SSB}{d.f.}$ =1029500.87	$F = \frac{MSB}{MSW}$ = 62.39

Unexplained	SSW = 198018.269	N-k = 15-3 = 12	MSW = $\frac{SSW}{d.f.}$ =16501.52	
Total	SST = 2257020	N-1 = 15-1 = 14		

SSC = Sum of Square of deviation between samples.

SSW = Sum of Square within Sample.

SST = Total Sum of Square

MSB = Mean Sum of Square between sample

MSW = Mean sum of square within sample

k = no of constant

N = Total no of Observation.

Calculation of Regression constants and testing of hypothesis through F test in the study is done same as above model.

Annex V

Calculation of Realized Rate of Return, Expected rate of return, standard deviation, coefficient of variation and Beta coefficient for BOK.

F/Y	MPS	DPS	Realized Rate (Rj)	Rj- ERj	(Rj-ERj) ²	Rm-ERm	(Rj-ERj) (Rm-ERm)
2004/05	430	-	-	-			
2005/06	850	18	1.018605	0.478605	0.229062412	0.019391	0.01
2006/07	1375	20	0.641176	0.101176	0.010236678	0.019391	0.00
2007/08	2350	40	0.738182	0.198182	0.039276033	0.039276033	0.00
2008/09	1750	47.37	-0.77516	-0.77516	0.600875664	0.019391	-0.02
			2.162801	0.002801			

Realized Rate (Rj)

$$= \frac{D_t + (P_t - P_{t-1})}{P_{t-1}}$$

$$ERj = \frac{\sum Rj}{n} = \frac{2.162801}{4} = 0.54$$

Correlation between BOK and market = 0.848268

Standard Deviation of BOK = 0.54

Standard deviation of Market = 0.44

$$\begin{aligned} \text{Beta coefficient} &= \frac{\text{Correlation } \rho_{jm} \sigma_j \sigma_m}{\sigma_m^2} \\ &= \frac{0.848268 \times 0.54 \times 0.66}{0.44} = 0.69 \end{aligned}$$

Annex VI
Financial Indicators of Sample Banks

Bank of Kathmandu Limited

Brief Financial Indicators	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009
Networth Per Share	155.47	181.14	162.81	222.51	206.25
Earning Per Share	30.10	43.67	43.50	59.94	54.68
Dividend Per share	15.00	18.00	20.00	40.00	47.37
ROA	1.41%	1.65%	1.80%	2.04%	2.25%
Earning Yield (EPS/MPS)	7.00%	5.14%	3.16%	2.55%	3.12%
Price Earning Ratio (In case of old co)	14.29	19.46	31.61	39.21	32.00
Market Price	430	850	1375	2350	1750
ROE	19.36%	24.11%	26.72%	26.94%	26.51%

Himalayan Bank Limited

Brief Financial Indicators	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009
Networth Per Share	239.59	228.72	264.74	247.95	256.52
Earning Per Share	47.91	59.24	60.66	62.74	61.90
Dividend Per share (with bonus share)	31.58	35.00	40.00	45.00	43.56
ROA	1.12%	1.55%	1.47%	1.76%	1.91%
Earning Yield (EPS / MPS)	5.21%	5.39%	3.49%	3.17%	3.52%
Price Earning Ratio (In case of old co)	19.20	18.57	28.69	31.56	28.43
Market Price	920	1100	1740	1980	1760
ROE	20.00%	25.90%	22.91%	25.30%	24.13%

Standard Chartered Bank Nepal Limited

Brief Financial Indicators	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009
Networth Per Share	422.38	468.22	512.12	401.52	377.87
Earning Per Share	143.14	175.84	167.37	131.92	110.33
Dividend Per share	120.00	120.00	80.00	80.00	0.00
NPA %	0.00%	0.00%	0.00%	0.00%	0.00%
Earning Yield	33.89%	37.55%	32.68%	32.85%	29.20%
Price Earning Ratio (In case of old co)	16.38	21.47	35.25	51.77	70.24
Market Price	2345	3775	5900	6830	7750

Everest Bank Limited

Brief Financial Indicators	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Networth Per Share	160.74	185.87	231.95	231.08	262.71	283.64
Earning Per Share	32.47	45.81	57.22	54.27	76.15	20.94

Dividend Per share (with bonus share)	20.00	25.00	40.00	50.00	60.00	0.00
ROA	1.43%	1.49%	1.38%	1.66%	1.73%	0.45%
Earning Yield (EPS / MPS)	3.73%	3.32%	2.35%	1.73%	3.10%	0.88%
Price Earning Ratio (In case of old co)	26.79	30.10	42.47	57.71	32.24	114.16
Market Price	870	1379	2430	3132	2455	2390
ROE	20.20%	24.65%	24.67%	23.49%	28.99%	7.38%

Laxmi Bank Ltd

Brief Financial Indicators	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009
Networth Per Share	105.53	111.33	118.46	126.63	122.32
Earning Per Share	4.34	5.80	8.99	13.14	17.21
Dividend Per share	0.00	0.00	0.00	21.05	5.26
ROA	0.69%	0.68%	0.76%	0.95%	1.03%
Earning Yield (EPS / MPS)	1.52%	1.58%	1.30%	1.18%	1.62%
Price Earning Ratio (In case of old co)	65.67	63.43	76.78	84.68	61.70
Market Price	285	368	690	1113	1062
ROE	4.11%	5.21%	7.59%	10.38%	14.07%

NABIL Bank Ltd

Brief Financial Indicators	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009
Networth Per Share	337.16	381.36	418.39	353.62	424.13
Earning Per Share	105.79	129.21	137.08	108.31	106.76
Dividend Per share	70	85	140	100	85
ROA	3.05	2.84	2.47	2.01	2.35
Earning Yield (EPS / MPS)	7.03	5.77	2.71	2.05	2.18
Price Earning Ratio (In case of old co)	14.23	17.34	36.84	48.70	45.89
Market Price	1505	2240	5050	5275	4899
ROE	31.38	33.88	72.76	30.63	32.74

Source: Annual Report of Concern Banks and www.nepalstock.com