CHAPTER – I
INTRODUCTION

1.1 Background

The modern day organizations are inundated with complexities and challenges relating to raising financial resources and their effective utilization. The pace of changing in economy and market has made it more competitive and complicated. There is difficulties in decision making for the investors because of rapid change in market, economy and investment. so it has changed the thought of investors, individuals or firm. So, a sound economy is essential for efficient transfer of funds from people who are net savers to firm and individuals who need capital.

Development of the financial institution shows the efficient flow and utilization of the funds in the most productive sectors. The nation which are collecting fund from nooks and corners of their country are making their investment in the productive areas at the present scenario. European and American economies are the best examples for this argument. Besides it, security against risk is also vital concern while making investment. Thus the very basic and important elements for an investment are fund as well as security.

Development of any country cannot be imagined without the development of financial institutions. As the world's economy is slowly shifted its dependency from traditional agriculture upon industrial development, Nepal is also moving towards industrial development. Due to this, different industries are coming in the Nepalese market. Funds are required for the operation of the business. So concept of the capital market is emerging in Nepal.

A firm can collect the fund through the several ways like issue of debentures, shares and plugging back of profits, but the equity capital i.e. share capital is the foremost taken as the primary source of the funds for the organization. Financial sectors collect the immobilized funds from the market and invest them into productive sectors which is the key role in the development of the nation. Nowadays, people are more intrested in investing their funds in shares rather than in any other investments. For the organized trading of the shares, securities market plays a crucial role for gathering the unused small savings from the public and investing them to the productive sectors.

A nation can progress in many aspects with the help of sound and effective capital market in the country. Capital market investment in this present context plays the major role in the economic development of the any country. For the development of economy, adequate amount of capital must be invested and mobilized into the productive sectors like trade and industries. In order to boost up the economy of any country, it is extremely essential to have a mechanism through which small amounts of savings can be collected and transferred into efficient uses. Hence the securities market plays such roles and thus contributes to the nation's economic development.

The smooth continuity of development activities widely depends on the adequate supply of medium as well as long-term capital funds in productive investment projects, which is concerned with finance. The finance is directly concerned with conversion or accumulation of capital funds to meet the financial needs of various institutions. For the efficient mobilization of financial resources, the financial market has an intermediary role to bridge funds from surplus units to deficit units. "Financial markets provide a forum in which suppliers and demanders of funds can transact business funds directly. Financial market constitutes money market and capital market. The money market is created by a financial relationship between suppliers and demanders of short-term funds, which have maturity of one year or less. Most of the money market transactions are made in marketable securities, which are short-term debt instruments, such as Treasury bills, commercial papers and negotiable certificates of deposits issued by government, business and financial institutions. The money market exists because certain individuals, businesses, governments and financial institutions have temporary idle funds that they wish to place in some type of liquid assets or short-term interest bearing instrument. At the same time, other individuals, businesses, government and financial institutions find themselves in need of seasonal or temporary financing. The money market thus brings together the suppliers and demanders of short-term liquid funds."(Gitman, 1988:30-31)

As the Nepalese economy is in developing phase, so in order to speed up this pace of development, financial sectors have crucial roles, as they can pool scattered savings for capital formation. The public investors are interested to invest their savings in the common stock of the financial institutions. As a result, such institution's shares are being traded among the investors in the secondary market in larger volume every day. In Nepal, Nepal Stock Exchange (NEPSE) is the only one secondary market for trading of shares of the companies. As a recent days in NEPSE the trading of shares is increasing day by day and the prices are

also fixed in the floor each and every day. The prices of shares of the listed companies have been affected on everyday as major or minor. The basis of change in price of shares could be the financial position of the company and other signaling effect due to the major events occurred in the country.

1.2 Capital Market

Capital market plays the intermediaries role for allocation of funds between saver and borrowers, this allocation will be optimum if the capital market has efficient pricing mechanism. Similarly if the capital market is efficient then current share prices of companies fully reflect available information and there is no question of share being under priced or overpriced. Capital market is mainly concerned with those private savings, individuals as well as corporate, those are turned into investments through new capital issues and also new public loans floated by government and semi government bodies. In the capital market demand comes from agriculture, industry, trade and government while supply comes from the individual or corporate savings institutional investors and surplus of governments. The saving institutions like banks, investment companies, specialized financial corporations and stock exchanges are some of the important constituents of capital market.

 Nepal aspires for a rapid economic growth that needs additional capital formation and investment. An efficient capital market is an essential pre-requisite of economic development and the development of capital market in an economy is dependent upon the availability of savings, proper organization of intermediary institutions to bring the investors and business ability together for mutual interest, regulation of investment, etc.

Capital market plays a vital role in the national economy. It mobilizes savings from surplus units and organized the funds for the productive investment. It renders very valuable services to the community by increasing the productive capacity of the country and thereby accelerating the pace of economic development. In short, the growth of economy is tied with the growth of capital market in the country. The capital market facilitates the allocation of funds between savers and borrowers. This allocation will be optimum if the capital market has efficient pricing mechanism. If the capital market is efficient, the current share prices of companies fully reflect available information and there is no question of share price being under priced and overpriced. The phenomenon of under or over valuation of shares is possible only is an efficient market. "Capital markets are the exchange systems designed to

transfer ownership of long-term (over one year) debt and equity securities, corporate bonds, treasury bonds and common stock."(Edmister, 1990:4)

The capital market in Nepal has been passing through a transitory phase over past few decades. Only after the inception of democracy in the country, a network of financial institutions was created through legislative measure to induce the growth of capital market. Securities Board (SEBO) and Nepal Stock Exchange (NEPSE) are the main bodies to make the stock market as competent and efficient as possible. Actual efforts have been made to develop the Nepalese stock market with the promulgation of Securities Transaction Act in 1983, which was subjected to frequent amendments. Nepal Stock Exchange limited is the only organized stock market facilitating the trading of corporate securities, mainly common stocks.

Securities Board, Nepal was established in May 26, 1993 A. D. under the provision of Securities Exchange Act 1983 A. D. (first amendment). Since its establishment, SEBO/N has been concentrating its effort to improve the legal and statutory framework, which one the bans for the healthy development of capital market. As a part of its continuous effort to build a sound system, the Securities Exchange Act 1983 was amended for the second time on January 30 1997 A. D. This amendment paved the way for establishing SEBON as an apex regulatory body as it livened the horizon of SEBON by bringing market intermediaries directly under its jurisdiction and also made it a mandatory for the corporate bodies to report to SEBON annually and semiannually. Although the second amendment in the Act established to make direct relationship of SEBON with market intermediaries and the listed companies, supremacy in its jurisdiction is yet to be established and clearly recognized.

NEPSE is a nonprofit organization, is operated under securities exchange act, 1983. The basic objectives of NEPSE is to impart free marketability and liquidity to the Government bonds and corporate securities by facilitating transactions in its trading floor through financial intermediaries such as broker, market maker etc. NEPSE appointed eleven issue managers and twenty-seven brokers to avail the daily transaction of buying and selling of securities under its restructure program in 1993 (2050 BS). NEPSE opened its trading floor on 13th January 1994 for its newly appointed brokers and market makers. NEPSE has adopted an "Open Cut-Cry" system. It means transactions of securities are conducted on the open auction principle on the trading floor. The buying broker with the highest bid will post the price and his code number on the buying column, while the selling broker with the lowest offer will

post the price and code number on the selling column on the quotation board. The market makers quote their bid and offer price on their own board before the floor starts. Once the bid and offer price match, contacts between the buying and selling brokers of between the brokers and market makers are concluded on the floor.

NEPSE is the stock exchange in the country owned by the government (58.67%), Nepal Rastra Bank (34.60%), Nepal Industrial Development Corporation (6.13%) and Security Businesspersons (0.60%). [Annual Report SEBO, 2001 (2058/59): p 4] The securities businesspersons such as stockbrokers, market makers and securities dealers registered with SEBO have to get membership of the stock exchange for conducting security business. Similarly, the managers who are engaged in the primary issuing activities also have to get membership of the stock exchange to conduct business. According to The Securities Bylaws, 1996 and the membership of The Stock Exchange and Transactions Bylaws, 1998, it is mandatory for the issuing companies to have their securities listed in the stock exchange within three months of the closure of offering. The stock exchange provides its' floor for the trading of shares of the listed companies. Hence, it creates liquidity on shares of the listed companies.

After the restoration of democracy in 1991, the government has adopted liberalization and open-market policy. As a result, there have been continued financial reforms and frequent amendments of bylaws related to the financial market to create a conducive environment for the development of competitive and efficient stock market. Accordingly, the Nepalese stock market is taking its pace for the development. However, here a question arises whether the Nepalese stock market is efficient enough to maintain the MPS according to financial position of a company. The highly fluctuating stock market prices at NEPSE may not be the symptom of the efficient market. In the recent stock market turmoil, most of the investors complain that they are suffering from unexpected fluctuations of share prices at NEPSE. Therefore, this study attempts to relate the share price with major financial indicators and the risk and return analysis for providing suitable bases for investment in common stocks of the sampled companies.

Standard Chartered Bank Nepal Ltd., Everest Bank Ltd. & Himalayan Bank Ltd. are the three joint venture banks out of twenty-one joint venture banks operating within tertiary of Nepal. . These banks are established in different time period .So, I think these sample banks with

difference service can cover all information for the thesis and make meaningful. Such banks are studied to identify and to analyze statement of the problems.

1.3 Statement of the Problem

Earning is that amount which remains after deducting or submitting all operational and non-operational expenses. People invest their money for expected return. Because of this objectives, firms distribute the earnings to their shareholders. Stockholders expectations may vary with their investment priorities. So capital market investment in this present context plays the major role in the economic development of the country. The public limited companies are increasing tremendously in response to the economic liberalization and globalization policies adopted by the Nepalese government. Such institutions provide banking, insurance and financing services as well as participating in developmental works, manufacturing and processing and other various areas. After the emergence of NEPSE in 1997, the concept of capital market has been developed and growing rapidly within a short span of time.

The recent trend of investment shows that the general people are interested to invest their small money on the common stock of financial institutions like commercial banks. But due to the lack of proper information about market status and situation and poor knowledge, market intermediaries exploit investors.

Most of the investors are not aware of the financial position of the companies in terms of their financial indicators, in which they are investing their funds through secondary market-NEPSE. The market price of common stock (share) does not seem to be in accordance with the financial indicators- Earning per share (EPS), Dividend per share (DPS) and Net worth per share (NWPS).

As mentioned above ,following are the major problem that have been identified for the purpose of this study.

- What is the right time for right investment?
- Are the investors able to judge the financial position of the companies?
- Can the investors make appropriate and correct decision ?
- Are the investors fully aware of market status and its situation?

1.4 Significance of the Study

The people's interest and participation in security investment and stock trading is increasing day by day. The recent trend and people's attitude towards common stock investment shows that there is a high potentiality in stock investment, which results an increase in economic activity. It is important to increase financial and economic activities of the nation. Thus this study has tried to fulfill the need in this aspect. A part from above, this study will be a matter of interest for academicians, students and practitioners.

The focus of the study is on the analysis of investment in shares of Nepalese Commercial banks with risk and return perspective, which will enable all the related persons to guide the investment related activities. Benefits of the study will receive primarily by potential investors. Security business persons, issue manager, broker and marketing managers will also be benefited by this study. General people are not so much aware about the fact of news that by which the prices of shares are being changed every day. What are the major reasons behind the fluctuation of price of the shares of the companies, which they hold? The cause of price change may be signaling or informational effect, low return, high risk, lack of knowledge, low income of the investors and high price of the stock. Since the market price of the share is the function of information, this research will be focused on how well the share prices absorb information in the Nepalese capital market. In the other words, this study is focused on to know how Nepalese investors react to the information disseminated to capital market.

1.5 Objective of the Study

The main objective of the study is to analyze the performance of stock market and the behavior of share price of listed commercial banks. However, the specific objectives of the study are as follows:

1. To provide a brief view of the present to Nepalese stock market.
2. To depict the detail about the share price behavior of the commercial banks listed in NEPSE
3. To compute and analyze the risk involved in the common stock investment of the sampled commercial banks.
4. To evaluate return and risk proportion of investments on stock of sampled commercial banks.

5. To provide suggestions, some practical ideas and recommendations based on the analysis of the data.

1.6 Limitation of the Study

Due to various reasons this research work is not able to study the whole Nepalese capital market in detail. For the sake of ease this tries to study its subject matter by concentrating on some important variables and ignoring others. That is why this research is also not free from limitations. The major limitation of the study is presented below:

1. The core of this study is based on the secondary sources of information. Hence any incorrectness in the key information like NEPSE index gathered from the secondary sources might affect the accuracy of the outcome of the study.

2. The study has been designed (to concentrate on some of the banking sector, which is a part of total capital market). So the conclusion cannot be generalized on the total capital market.

3. For the purpose of study only common stocks or ordinary stocks are taken.

4. There might be various techniques and method to perform the study on stock price movement, but the study is focused only on the run test, risk and return analysis and some ratios analysis.

5. This study has been conducted to fulfill the requirement of the MBS programs of T.U. for a prescribed time, not for generalization purpose.

6. As a research student the study will be unbiased but resources and time period is limited.

1.7 Organization of Study

The study is divided into five chapters as follows:

Chapter I: Introduction

 Chapter 1: Introduction

> ➢ Background
> ➢ Capital market
> ➢ Statement of the Problem
> ➢ Objective of Study
> ➢ Significance of the Study
> ➢ Limitation of the Study
> ➢ Organization of the Study

Chapter II: Review of Literature

This chapter is devoted for the brief review of literature available. Review from books, journals (articles), thesis etc are included in this chapter. Conceptual framework about risk and return is briefly reviewed.

Chapter III: Research Methodology

This unit presents methodology used in the study. It consists of following subtopics:

➢ Research Design
➢ Population and Sample
➢ Sources of Data
➢ Tools for Analysis
➢ Methods of Presentation of Analysis etc.

Chapter IV: Data Presentation and Analysis

In this chapter, data collected from various relevant sources is presented and analyzed using various statistical and non-statistical methods.

Chapter V: Summary, Conclusion and Recommendation

This chapter is for major findings, summary conclusion and recommendation.

Bibliography and appendices are incorporated at the end of the study.

CHAPTER-II
REVIEW OF LITERATURE

This chapter provides some glimpses on the literature that is available in the topic. The chapter review of literature includes the review of concept and finding of previous research on the some field. Books, journals and unpublished thesis are reviewed for this purpose. In this regard, basic academic course book on finance, recently published books specially related to this topic, some of the major research based journals and the related studies are reviewed.

There is no any special book and research work about the topic Risk and Return analysis of common stock, and we do not have sufficient required journals and relevant books. Some master degree thesis is available in Tribhuvan University, which are related to this topic to some extent. These theses are also reviewed to the extent they found related. In addition, independent studies carried out by well-known Nepalese financial experts are also taken into consideration.

To develop the concepts and ideas about the selected topic, the review of relevant materials is very important and crucial. In fact, review of literature begins with a search for a suitable topic and continuous throughout the duration of the research, either a dissertation or a thesis. Review of literature means reviewing research studies or other relevant propositions in the related area of the study so that all the past studies, their conclusions and deficiencies may be known and further search can be conducted. It is an integral and mandatory process in research works. It deals with a literature survey of existing volumes of similar or related subjects and a careful check should be made that the proposed study has not carried out previously. Completely new and original problems are very rare, however a previous study should not exactly replicate unless the techniques used facilitate to trace out the doubtful conclusions or some new sources of information identified.

The main reason for a full review of research in the past is to know the outcomes of those investigations in areas where similar concepts are methodologies had been used successfully. In this connection, a review of previous related research, articles reports, findings, books will help the researcher to formulate a satisfactory structure for the study.

Mainly it helps:

- It gives the basis for the future researchers.
- It avoids needless duplication of costly research effort.
- to explains the results in simple and lucid manner.

2.1 Conceptual Framework:

A book by Dr. R. S. Pradhan's is very valuable for the purpose of analyzing the capital market in Nepal. In his book, he writes about the Stock Market behavior in Nepal that "A number of studies have been conducted on the stock market behavior in developed and big capital markets but their relevance is yet to be seen in the context of smaller and underdeveloped capital markets."(Pradhan, 1994:42-43)

As per the book, the stock market behavior in smaller and underdeveloped capital markets is thus one of the important areas of the study in finance. Information on stock market behavior in such smaller and underdeveloped capital market would help development of realistic theoretical models and formulation of relevant hypotheses for empirical testing in finance. Thus, it if felt necessary to study stock market behavior in the context of smaller and underdeveloped capital markets, and this chapter prepared with reference to Nepal is a small attempt towards that end.

"In Nepal, the listing of shares in Stock Exchange Centre (SEC) and their trading in the stock market is a recent phenomenon. The Nepalese stock market is characterized by low trading volume, absence of professional brokers, early stage of growth, limited movement of share prices and limited information available to investors. A number of researchers are available on government owned public enterprises but researches on enterprises whose stocks are listed in SEC and traded in stock market are yet to come up in Nepal. Viewed in this way, this chapter is expected to provide at least some insights into stock market behavior in Nepal. This chapter can be considered important, as Nepal has already started the process of privatization of public or government owned enterprises."

In the book, "Shareholder's Democracy and AGM feedback" Prof. Manohar Kumar Shrestha has focused various issues related to protection of shareholder's expectation. Success of companies directly depends on the protection of their owners. But how can this be accomplished is the main question. Thus it is necessary to develop a possible guidance for enhancing the efficiency for public limited companies to contribute directly in the growth of

national economy on one hand and ensuring handsome return to the shareholders on the other hand to make their investment meaningful and worthwhile. At present, the overall shareholders' democracy in terms of protection their interest is basically focused on the payment of satisfactory dividend and maximization of shareholders' wealth by appreciating the value of shares they sold. (Shrestha, 1999:25)

"Investors were enlightened and they stated inquiring about company's financial health and future prospect before buying or selling shares. People turned to price-earnings multiples: NEPSE indexes informed trading became sort of a norm when stock market entered 1995. Many who could not cope with the system of intelligent speculation left the ground. As a result, the numbers of buyers gradually came down and so did the prices." (The Kathmandu Post, May 18, 1996:6)

Panta, Rekha analyzed in her, "Current status of share market in Nepal", the trend of Nepalese stock market and present state of primary and secondary market was found satisfactory. According to her study, the development of stock market primarily depends on program and implementation in Nepal. The overall policy environment has not been conducted to the development of stock market. Therefore, it is difficult to develop more efficient secondary market. Treading system for both equity and debt securities.

Capital market is concerned with long-term finance; widely consists of series of channels which the saving of the community is made available for industrial and commercial enterprises and authorities. It is concerned with that private saving; individual as well as corporate that is turned into investment through the new capital issue and also new public loan floated by government and semi government bodies.

Capital market means anybody or individuals, whether incorporated or not, constituted for the purpose of regulating or controlling the business of buying selling or dealing in securities. (Bhalla, 1995:21)

The history of capital market in Nepal is not so old. The capital market was developed after the establishment of Security Exchange center on 2033 B.S. The number of listed companies and their trading was very negligible until the government of Nepal has made economic reforms along with broad financial policy in the process of economic liberalization. The privatization of public entities have been started various finance and insurance companies in the private sector are being established with local and foreign investments. Those companies have to issue some of their share of the general public. (Vaidya, 2057:70)

Capital market consists of securities market and non-securities market. Securities markets imply mobilization of the funds through issuance of the securities like shares, bonds and debentures by corporate sector and bond, bills and debentures by government. These securities traded in the secondary market are generally negotiable and hence can be traded in the secondary markets. Non-securities market refers to the mobilization of the financial resources by the financial institutions in the form of deposits and loans.

Primary and secondary markets are the two wings of the capital market. Primary market concerns with the issue of new companies stock whereas the secondary market deals with the previously issued shares. The majority of all capital market transactions occur in the secondary market. The proceeds from the sale of securities in this market do not go the original issuer, which means that it does not create new additional capital. In other words, securities are traded among the individual as well as institutional investors.

There are two theories of stock price behavior i.e. classical approach and efficient market theory approach. Classical or conventional approach includes Fundamental Analysis and Technical Analysis Theory. Under efficient market theories, there are three forms of efficient market hypothesis. Classical approach assumes market as inefficient whereas the efficient market theory argues that the market is efficient. Prior to the development of the efficient market theory, investors were generally divided into two groups, fundamentalists and technicians.

a. Classical Approach

The classical approach includes fundamental analysis and technical analysis theories. One of the major divisions in the ranks of financial analysis is between those using fundamental analysis (known as fundamental analysis or fundamentalists) and those using technical analysis (known as technical analyst or technicians). Fundamental approach forecast stock price on the basis of earnings and dividends of the company whereas technical analysis forecast stock prices on the basis of past price behavior of the company.

i. Fundamental Analysis

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 assets expects to forecast the timing and the size of these cash flows and then converts the cash flows to their equivalent present value using an appropriate discount rate. (Gordon, 2000: p12)

Fundamental analysis approach involves working to analyze various factors like economic influences, industry factors, firm's financial statement and pertinent company information such as product demand, earnings, dividends and management in order to calculate an intrinsic value for the firm's securities. The theory assumes that knowledge about the future companies is not perfect, some stocks are under priced and others are overpriced. The investor's task is to study certain fundamental factors that may enable them to select undervalued stock for purchase and sell overvalued stocks. After extensive analysis, the investor derives an estimate of the 'intrinsic' value of the security, which is then compared to its market price. If the value exceeds the market price, the security should be acquired and vice versa. (Reily, 1986:347)

The objective of the fundamental analysis is to appraise the intrinsic value of the security. The intrinsic value is the true economic work of the financial assets. Therefore, fundamental analysts work to find new information before other investors, so they can get into the position of profit form the price changes they anticipate. Fundamental analyst use different models like Top-Down versus Bottom-up forecasting, probabilistic forecasting, econometric models, financial statements analysis etc. to estimate the value of security in an appropriate manner for making investment decision.

Some demerits of the this approach are as follows:
The approach, though sound and based on basic financial figures does not suffer from the drawbacks and to make this approach work effectively, one must be aware of them. The fundamental approach is based on rational scientific analysis of data, but the market is rarely rational.

The information and analysis may itself be incorrect.
Many companies with the help of creative and innovative accounting and accounting cosmetic disguise the real earnings.
The fundamentalist's estimate of intrinsic value may be incorrect. This is not only possible but also probable that he often forecast growth, profit and other factors without grasping all the facts.
The fundamentalists may not fully understand the economy or the industry, as there are several external factors.

Therefore, fundamental analysis is a never ending process because values change overtime. Ideally, revision in analysis should occur whenever new information affecting the future benefits to security holders become available.

ii. Technical Analysis:

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 certain aspects of supply and demand.(J.Francis,1991:521-522)

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 sometimes called market or internal analysis. (Charles, 1988: 396) technical analysis is based on some assumption that the past information of prices and trading of stock provides some pictures of the future price of stocks. Technicians seek to forecast security prices rather than security value especially trends in the price changes. Price and volume are the primary tools of the technical analyst. Technicians believe that the forces of supply and demand show up in patterns of price and volume. Volume data are used to gauge the general condition in the market and to help assess its trend. The evidence seems to suggest that rising (falling) stock prices are usually associated with rising (falling) volume. If the stock prices but volume activity does not keep pace, technical analyst would be skeptical about the upward trend. A downside movement forms some pattern or holding point, accomplished by heavy volume, would be taken as a bearish sign. (Charles, 1988:p396)

Typically, technical analyst records historical, financial data on charts, study these charts in search of patterns that they find meaningful and endeavor to use the patterns to predict future prices. Some charts are used to predict movements of market index and still others are use to predict the action of both individual asset and the market. (Francis, 1991:521-522)

Technical analysis however may be useful in timing a buy or sell order that may be implied by the forecasts of return and risk. For example, the technical analysis may reveal that a drop in price is warranted. Postponement of purchase, then, if the technical analysis is correct, will raise the forecast holding period yield (HPY). Conversely, a sale order might be postponed because the charts reveal a raise in the price of the security in question. (Fischer, 1995: 510)

Technical analysis has some assumption:

Market value is determined by interaction of supply and demands. Supply and demand is governed by numerous factors, both rational and irrational. Security prices tend to move in trends that persist for an appreciable length of time, despite minor fluctuations in the market. Changes in trend are caused by the shifts in supply and demand. Shifts in supply and demand, no matter why they occur, can be detected sooner or later in charts of market transactions. Some chart patterns tend to repeat themselves. (Francis, 1958: 86) Thus the technical analyst believe in the changes in the pattern or trend of security price take place on account of changes in the demand and supply of the securities, and that crucial insights into these patterns can be obtained by keeping track of price chart. The technical analyst can tell whether the price of a share is on upswing or on the downswing in future. Technical analysis involves the examination of past market data, such as prices and the volume of trading, which lead to an estimate of future piece trends and therefore, an investments decision. Whereas fundamental analysts use economic data that are usually separate from the stock or bond market, the technical analyst believes that using data from the market itself is a good idea because ' market is its own best predictor'. Technical analysts base trading decisions on examination of prior price and volume data to determine past market trends from which they predict future behavior for the market as a whole and for individual security.

Technical Tools:

Dow Theory

This tool is originated by Charles Dow, the founder of the Dow Jones Company, one of the oldest and famous technical methods of analyzing security prices. The objective 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 to day. The second is the short swing, running from two weeks to a month or more; third is the main movement covering at least four years duration." (Francis, 1900: Dec 19)

So we can say that there are three forces simultaneously affecting the stock prices, basically called the primary or major trend, secondary or intermediate trend and finally tertiary or bullish trends. The primary price movements are held to constitute the bearish or bullish trends, whereas the secondary movements are regarded as passing phases. Tertiary price movements are daily price fluctuations, which to Dow attribute to no significance or ignore the role of this trend. The Dow Theory employs two indicators called Dow Jones Industrial

Average (DIJA) and Dow Jones Transportation Average (DJTA). The DJIA is a key indicator of underlying trends while DJTA usually serves as a check to inform or reject that signal. (Bodie, 2002:344)

The Dow Theory is built upon the assertion that stock prices tend to move together. If the DJIA is rising then the DJTA should also be rising. Such a simultaneous price movements suggests a strong bull market. Conversely, a decline in both the averages suggests a strong bear market. However, if the averages are moving in opposite direction, then the stock market is uncertain regarding to direction of future stock prices. The forecasting 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 reserves itself in the short or the intermediate term. This theory fails to explain a consistent pattern of the short price movements.

Barron's Confidence Index

In the literal sense, the confidence index is defined as the ratio of high-grade bond yields 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 yields on the high-grade bonds to 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 issue erroneous signals and should therefore not be used without confirming evidence from other indicator. (Francis, 1991:531)

Odd Lot Theory

This theory concerns the purchase and sales of securities by small investors. These investors do transactions of less than 100 shares. Some technicians take the ratio of these odd lot purchases to odd lot sales as an indicator of the direction of the future prices. An increase in the index suggests relatively more buying, a decrease indicates relatively more selling. During most of the market cycle, odd lots are selling the advances and buying the declines. Odd lotters try to do the right thing most of the time; that is, they tend to buy the stocks as the market retreats and sells stocks as the market advances. However, technicians feel that odd lotters are inclined to so the wrong thing at critical turns in the market. (Fischer, 1995:515)

b. Efficient Market Theory

Theory describing the behaviour of an assumed "Perfect market in which (1)Securities are typically equilibrium,(2)Securities prices fully reflect all public information available and react swiftly to new information, and(3)because stocks are fully and fairly priced, investors need not to waste time looking for mispriced securities."(Gitman 2011,P.290)

An efficient capital market, current market prices fully reflect available information. (Eugene, 1196:133). Therefore, if the market is efficient, it uses all the available information to it setting price. When security prices at all times rationally reflect all available, relevant information, the market in which they traded is said to be efficient. This implies that any new information 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 new information and therefore the current prices of securities reflect all information about the security.

There are several concepts of market efficiency and there are many degrees of efficiency, depending on the market. Markets in general are 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 absorb large amount of securities without destabilizing the prices. (Stanley,1998:420)

In an efficient market, a security's price would correctly reflect the important variables for that security and would represent and unbiased estimate of its investment value (Mosses, 1992:746). The efficient hypothesis suggests that investors cannot expect to out perform the market consistently on a risk-adjusted basis over an extended period of time. This hypothesis is based on the premise that security prices reflect all available information concerning a firm and that security prices changes rapidly in response to new information. Market efficiency also implies that as new information becomes available, the market quickly analyses it, and any necessary price adjustment occur rapidly.

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
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 (Haugen, 2001:575). This hypothesis holds that no investor can earn excess returns by developing trading rules based in 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 misplaced securities is futile if market is weak form efficient. Although this form of inefficiency might seem rather mild, it implies that searching for patterns in historical prices that will be useful in identifying mispriced stocks will not work. (Ross, 2003:407)

Under semi strong form, all publicly available information is pre assumed to reflect 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, 2002:575). This form of efficiency is most controversial. The reason this form is controversial is that if implies that a security analysts who try to identify mispriced using, for example, 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 of inside information as well as that which is publicly available. Under this form, those who acquire inside information act on it, buying or selling the stock. Their action affect the price of the stock and the price quickly adjusts to reflect the inside information (Haugen, 2001:575). 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, 1991:5). Thus the strong from of the efficient market correctly prices securities adjusting quickly to new information either public or private.

2.2 Stock Exchange

The stock exchange is an institution where quoted securities are exchanged between buyers and sellers. The stock exchange provides market a wide range of traded securities, generally of medium to long-term maturities, issued by companies, government and public organization. (Winfield, 1985:22)

Most are the investors are attracted to the equity shares because of its marketability and liquidity. One may like to buy more shares or selling existing shares from time to time when he is in need of money or when he wants to shuffle his portfolio. Since the stock exchange is a place where a large number of buyers and sellers congregate, once can, by and large, easily find his counterpart for sale or purchase of shares. The investor can convert his shares into cash at the prevailing market prices readily. The existence of stock exchange facilitates all these functions without which it is almost impossible to do so.

The key function of securities exchange is to create a continuous market for securities at a price that is not very different from the price at which they were previously sold. The continuity of securities market provides the liquidity necessary to attract investor's funds. Without exchanges, investors might have to hold debt securities to maturity and equity securities indefinitely. It is doubtful that many people would be willing to invest under such conditions. A continuous market also reduces the volatility of securities prices further enhancing liquidity. (Gitman, 1992:458)

The securities exchanges help us to allocate scare fund to the best uses. That is by disclosing the price behavior of securities and requiring the disclosure of certain corporate financial data; they allow investors to access the securities risk and return and to move their fund into the promising investments. An efficient market is one that allocates fund to the most productive uses. Along with this, there is lot of functions of security exchange such as ready market and continuous market, evaluation of securities, safety of transactions, and canalization of savings and widening the share ownership etc. however, besides these functions, there are three things a security exchange must do:

- Determine a fair price for the securities it trades or price discovery function.
- Minimization of transaction cost.
- Enable transaction to be made at this price quickly and easily or provision for liquidity.

2.3 Security Market

Security Market is interchangeably known as the integral part of capital market is in fact basis of the economy of the country. The most effective use of idle and surplus resources can be brought into practice only by means of market mechanism which mobilized the fund of savers to the user and thus this financialization boosts the industrialization and trading activities, which will bring the positive result to the economy as a whole. (Sharma, 2002:16)

There are two important functions of securities market, namely the raising of funds in form of shares and debentures and trading the securities already issued by companies. While the first aspect is obviously much more important form the point of view of economic growth, the second aspects is also considerably important. In fact, if facilities for transferring of existing securities are abundant, the raising of new capital is considered assisted as the buyer of a new issue of security become confident that whenever he wants to get cash he can find buyer of the security without much difficulty. This aspect is called the liquidity of the stock market. Thus the liquidity of the stock market affects the raising of new capital form the market. (Levine, 1992:33)

Security market sets a price for the securities it trades and makes it easy for people to trade them. Securities market facilitates the sale and resale of transferable securities. The security market can be defined as mechanism for bringing together buyer and sellers of financial assets to facilitate trading. Securities market is classified into two: the market in which new securities are sold is called the primary market and the market in which the existing securities are resold is called the secondary market. Securities market is created by brokers, dealers and market makers. Brokers bring buyers and sellers together with themselves actually buying or selling; dealers set price at which they themselves are ready to buy and sell (bid and ask price respectively). Broker and dealer come together organized market or in stock exchange. (Gitman, 1992:457)

a. Securities Market in Nepal

The history of securities market began with the floatation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. in 1937. Introduction of the Company Act in 1964, the first issuance of Government Bond in 1964 and the establishment of Securities Exchange Centre Ltd. in 1976 were other significant development relating to capital markets. Securities Exchange Centre was established with an objective of facilitating and promoting the growth of capital markets. Before conversion into stock exchange it was the only capital markets institution undertaking the job of brokering, underwriting, managing public issue, market making for government bonds and other financial services. Nepal government, under a program initiated to reform capital markets converted Securities Exchange Centre into Nepal Stock Exchange in 1993. Nepal Stock Exchange, in short NEPSE, is a non-profit organization, operating under Securities Exchange Act, 1983.

The basic objective of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transactions in its trading floor through member, market intermediaries, such as broker, market makers etc. NEPSE opened its trading floor on 13th January 1994. Nepal government, Nepal Rastra Bank, Nepal Industrial Development Corporation and members are the shareholders of the NEPSE

b. Trading System

NEPSE has adopted an "Open out -Cry" system. It means transactions of securities are conducted on the open auction principle on the trading floor. The buying broker with the highest bid will post the price and his code number on the buying column, while the selling broker with the lowest offer will post the price and code number on the selling column on the quotation board. The market makers quote their bid and offer price on their own board before the floor starts. Once the bid and offer price match, contracts between the buying and selling brokers or between the brokers and market makers are concluded on the floor.

2.4 Securities Board of Nepal

Securities Board, Nepal (SEBO) was established as an apex regulator of the securities markets in Nepal by Government of Nepal on June 7, 1993 under the Securities Exchange Act, 1983 (first amendment). The main objective of SEBO is to regulate and promote the securities market and protect investors' interests. As per the Securities Exchange Act and regulation, following are the major functions of SEBO. Develop and implement policies and programs for the development of securities market and advice Nepal government in this regard. Register securities and grant issue approval. Provide license to corporate bodies to operate stock exchange business. Provide license to operate securities businesses. Supervise and monitor stock exchange and securities businesspersons. Conduct research, study and awareness programs regarding securities market.

The Governing Board of SEBO is composed of seven members including one full time chairman appointed by Government of Nepal for tenure of four years. Other members of the Board include representatives one each from Ministry of Finance, Ministry of Law, Justice and Parliamentary Affairs, Ministry of Industries, Commerce and Supplies, Nepal Rastra Bank (the central bank), Federation of Nepalese Chambers of Commerce and Industries and Association of Chartered Accountants of Nepal.

There are two departments, six divisions and ten sections in the organization of SEBO. Under the Corporate Finance and Administration Department, there are three divisions namely

Corporate Finance and Reports Review Division, Accounts and Administration Division and HRD and Education Division. There are also three divisions under the Securities Market Regulation Department, which are Legal, and Enforcement Division, Market Regulation and Compliance Division and Market Analysis and Planning Development Division.

The major source of financing of SEBO is basically the government grant. Other financing sources include registration of corporate securities, registration and renewal of stock exchange and market intermediaries and the income from mobilization of its revolving fund.

2.5 Review of Relevant Studies

As stock market is in infancy stage in Nepalese context, there are limited books, journals and research studies concerning stock market and its pricing behavior. So, the available articles, books, previous research works, which are related to stock market are consulted and reviewed.

a. Review of journal

An article of Mr. Jitendra Dangol (2009)' "A survey of stock market reaction to public information"(PYC Journal of Management 2009 vol. II)

According to his survey ,he got following major findings.

- Shares of commercial Banks,developments banks and finance companies were more popular among the Nepalese investors.
- Capital appreciation is the main important motive behind investing in the common stock.
- Based on the flow of new information most of the respondents have been found to have strong belief on impact of new information of Price movements.

An Article of Rabindra Joshi 2008 " Impact of Dividend and Retained earnings on share price." (PYC Journal of Management 2008 vol. I)

Objective of his research was:-

-To explain relationship between Dividend, Retained Earnings and Share prices

Major findings of his studies were:-

- Both dividend and retained earnings have significant impact on the variation of price no matter whether they are financial sector or non-financial sector.
- The relationship of dividend and share price is positive in almost all cases but in some cases there is negative relationship between retained earnings and share prices.

An Article of Bijay Nath Gautam (2008)"How to Start in Stock Market"

Nowadays people are interested in buying shares form the secondary market (Nepal Stock Exchange) as they are searching for good investment avenues when the interest rates offered by the commercial banks on the deposits have fallen to record low. Here is some advice to buyers who are new to it, are not investing a huge amount and whose motive is to make some monetary gains out of the shares only (as dividend and capital gain) rather than holding in influential stake in the company. In this issue the advice is for decisions while buying stock.

Making a decision before buying a share without proper knowledge about the particular company is like plunging head on into an unknown pond. Before diving into a pond, one should have sufficient information about its depth, the contents at the bottom and some other related matter. Similarly, a person wanting to buy shares of any company must have sufficient knowledge about different aspects of that company and among those, the financial aspects is most important. If a decision is made without proper knowledge of various facts affecting the market value and profitability of the stock concerned, it may result in heavy loss.

These advices are especially for those buyers who do not intend to hold the shares for long period or buy shares in huge quantity with motive of influencing future decisions of that company. The main interest of such people is to maximize their profits in a reasonably short period. Such interest may be to take advantage from rising market price, to add the stock of shares on holds incurring minimum extra cost, to gain maximum in terms of dividend and so on. Similarly, minimizing the probable financial loss from the stock purchased should always be given top priority. For this, the financial statements, especially annual report submitted in the annual general meeting of the company, should be studied and analyzed seriously. Apart from this report, the future programs of the management and the history of the company should also be studied. If possible the buyers should develop the habit of studying the quarterly financial reports too and compare such reports of one company with that of another similar company. Finance companies or banks publish their financial reports very three or six months in the national dailies. Such reports can also be obtained from the company's corporate office.

Looking at the trend of our share market, it is recommended that new investors choose shares only form the banking or finance sectors initially because such shares can be more easily sold and involve less risk compared to shares from manufacturing or other sectors. When one has

gained some experience in buying and selling such shares and does a lot of homework, he/she can gain sufficient knack for future transactions. If possible, it is advisable to record the homework before deciding to choose a particular stock, such as why it was chosen, what was the estimated profit from that choice and what was the logic used to estimate that profit. This estimation should be compared with the actual result periodically. If the estimate is nearer to the actual result, congratulate yourself, and if it very far from the actual result, try to find out what may have been the cause behind it. In this way, one will gradually gain experience, and will not be easily fooled in future.

Generally it is safe to purchase shares when the price is going up gradually. But one should be very careful as no one knows when this trend stops. Furthermore, there are always some players who try to mislead the general public and manipulate the price of shares for their personal benefit. One should be careful about such possibilities and try to find out if this is the case with the stock in which the market price is steadily increasing or decreasing. Choosing a bank or finance company to invest is however a tough job, it demands a lot of homework and an analysis of various facts affecting the profitability and market price of the share concerned. For this, the interested person should be quite familiar with some frequently used terminology in financial reports and the way to analyze them properly and to interpret what the results indicate and where those reports are found.

b. Review of Unpublished Thesis:

There are many masters Degree theses prepared by various researchers. Among them some thesis are reviewed here for analysis of literature.

Devkota (2008) in his Master's Thesis, "Stock Price Determinants in Nepal Stock Exchange", has a major objective of identifying the prime determining factor of share price fluctuation of Nepalese Commercial Banks. The other supporting objectives of his research are:

- To examine and evaluate the relationship between MPS with the various financial indicators like EPS, BPS, DPS etc.
- To analyze the market trends of MPS with financial indicators.
- To conduct the opinion survey of potential investors regarding various aspects of share behaviors in Nepal.

The major findings of Devkota are as follows:

DPS of BOK is much volatile in comparison to MPS, BPS and EPS. Bank of Kathmandu has positive correlation with between their Market price per share and DPS, BPS and EPS. This indicates that they directly affect the Share Price of BOK.BPS and EPS are positively correlated in the case of Everest Bank Limited whereas DPS is negatively correlated. This indicates that increase in DPS of this Bank don't contribute on the increase of Share Price rather it decreases it. But increase in BPS and EPS increase the share price and vice versa. DPS is much volatile in comparison with MPS, BPS and EPS. The correlation between MPS and other indicators are found to be insignificant for most of Banks. It shows that they individually influence very less but jointly they influence a lot. There can be other factors which influence the share price of the organization.

Dividend pattern plays a great role on share price movement. Higher the DPS, more will be the Share Price. Most of the investors like to analyses the Dividend pattern of the company before they invest in their shares.

A study of Mr.Khagendra Prasad Ojha,**on"Financial Performance and Common stock pricing" at 2000 were:**

- To study and examine the difference of financial performance and stock price.
- To examine the relationship of dividend and stock price.
- To explore the signaling effect on stock price,

According to objectives, he got following major findings:

- Nepalese stock market is in infancy stage. In general it is very new and just started to develop.
- Dominance of banking sector is prevalent in the market due to other industries including finance companies, insurance and manufacturing is not encouraging.
- Due to the lack of the proper investment opportunity most of the investors have directed their savings towards the secondary market.
- Corporate firm with long history have a relatively stable profitability parameters than the firm established after the economize liberalization of 1990.
- Older firms have been issuing bonus share more times than the new one.
- Dividend per share is relatively more stable than dividend pay out ratio. That's why pay out ratio and dividend yield has been highly fluctuating.

- There is significant positive correlation between the dividend the dividend paid and stock prices of banking and manufacturing industries. All other industries have not the perfect correlation between the dividends paid and stock prices.

By the study of Mr.Ojha Nepalese stock market is in developing stage. Corporate firms with long history have relatively stable profitable parameters than that of newly established firms. Similarly dividend pay out ratio and dividend yield is more fluctuating and there is positive relationship between dividend and stock price of the firms. However, it may be affected due to the change in time period and other constraints at present.

Study of Mr. Bachhu Ram Dahal: A research paper on "Stock Market behavior of listed Joint Venture Company"(2002) in Nepal describe the Nepalese Stock market as follows:

The main objective of his research study is to study, examine and analyze the stock market behavior. The specific objectives are:

- To study and analyze the stock price trend and volume of stock traded on the secondary market.
- To study and analyze the rate of listing of new companies and maintenance of listed company in Nepal Stock Exchange Ltd.
- To study and analyze the investors views regarding the decision on stock investment.
- To study and examine the signaling factors' impact on stock price with the help of NEPSE index.
- To suggest the abstract to the interested parties related to stock market.

In his conclusion, Mr. Dahal says that Stock Market is the backbone of investment sector of the country. So by promoting the stock market in sizeable economic sector raise the economic development by mobilizing swing into productive sectors y making suitable investment environment different elements like price trend NEPSE index, volume of stock traded, rate of listing. Signaling factors should be analyzed. 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 the study of market behavior is very useful subject matter if properly analyzes for the development of stock market.

Nepal stock exchange limited is analyzing stock market behavior in very little area 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. The data analysis showed that Nepal Stock Exchange is not providing facilities for investors such as

general awareness about investment, investment procedure for general public and movement of stock trend in different periods and their cause are not explained. Most of the investors are complaining that the market makers brokers and NEPSE's staffs are making coalition for fraudulent activities towards investors. So NEPSE should clear this type of charge for the development of stock market.

The role of market players in the market should be made effective in promoting capital market in the country by giving proper training and adopting changes environment with modern tools and technique. Investment is lifeblood of economic development. It is evident that stock exchange will continue to fulfill their vital functions in the national economy. So long as private enterprises exist, we know that the stock exchange is the place where stock and shares are bought and sold. The substantial competition in innumerable buyer and seller determines the prices with a measure of precision that cannot be obtained in other unorganized market. So, stock market is the proper market for the development of national economy.

The development of stock market in Nepal is both challenging and difficult. Though the viewpoint of share transition, public interest towards stock market, the trend of the price movement, information system etc. indicates the low performance of the stock market. The problem like lack of strong professional analysis, independent buyer and seller, well trained manpower and management delay in transfer of shares, rational investor exist form the Nepalese stock market. Moreover, there is much other attraction that stock market able to attract the new generation towards it. Stock market will be strong market for the unemployed young generation to build their career in capital market; i.e. it has lots of prospects of development. From Dahal's study if seems that no comprehensive research has been conducted in relation to the development of stock market in Nepal, major problems facing by Nepalese stock market and expectation of future growth. Thus, the stock market further requires timely research to explore details of the problems and prospects of stock market in Nepal.

Surya Chandra Shrestha (1999) has conducted research on "Stock Price Behavior in Nepal". This study aims to examine the efficiency of stock market in Nepal. The objective of the study was:

- To examine the serial correlation of successive daily price changes of the individual stocks.

- To determine whether the sequence of price changes is consistent with changes of the series of random numbers expected under the independent Bernoulli process.
- To determine the efficiency of the stock market through the theoretical model of efficient market hypothesis in Nepalese stock market.
- To provide feedback policy towards institutional development of efficient market.

He used the data considering the daily closing price of 30 listed companies' shares (ordinary) in the NEPSE. His study period was consists of almost hour and half years. He used the as serial correlation test and run test as Test Methodology.

Serial Correlation Test: He applied serial correlation to test the stock price behavior of Nepal Stock Exchange by giving sight in whether the price changes of shares are independent to each other. For this purpose he computed the serial correlation of 1-15 days applying the natural logarithm model for daily price changes.

Run Test: he also, in order to test independence of stock prices, applied runs test. He analyzed runs by total numbers of expected runs and runs signs.

The major findings and conclusions drawn on this study were:

After applying the required models and methodologies he found average correlation coefficient of 0.2055, 0.0825, and 0.0704 for 1, 2 and 3 lag days respectively. And for lags 5 to 15 days were less than 0.07 in overall, large number of serial correlation coefficients of the log price changes of the 30 stocks for the sample periods are significantly departed from zero. In addition runs analysis also followed the serial correlation results that mean there has significant difference between actual numbers of runs for series of daily closing prices changes of the market. By the result of his applied models and methodologies he concluded, the successive price changes are not independent random variable for the 30 sample stocks listed in the NEPSE. Therefore, the random walk theory is not suitable description for the stock market behavior in Nepal.

By the study of Shrestha, large number of serial correlation coefficients of the log price changes of the 30 stocks for the sample periods is significantly departed from zero. In addition runs analysis also followed the serial correlation result that means there has significant difference between actual numbers of runs for series of daily closing prices changes of the market. In the study Mr. Shrestha has applied for technical analysis only to get the result of share price behavior and has not used any fundamental tools for analysis.

From the above all studies conducted by various researchers, it seems that Nepalese stock market is still in developing stage and it is facing various challenges. Furthermore it also shows that there are few research works conducted about the market price behavior on the stock market. Most of the above stated studies use technical methods and statistical methods like run test, correlation coefficient, NEPSE trend etc. for the analysis purpose. Only few of the studies use fundamental analysis tools for the research work. More than that of none of the studies uses fundamental analysis tools for the research work. More than that none of the studies are concerned about the financial indicators like EPS, DPS, and NWPS which are the most influencing factors for the MPS. So, this study tries to analyze the relationship of these factors with the pricing behavior of the stock of the selected companies as well as it also tries to show the influence of the important events happened in the country on market price of the stock.

2.6 Research Gap

Keeping in view the fact that there is no comparative study on performance of investment in common stock this research has been carried out. The previous researchers have done investigation about the risk and return part of other different bank. The concerned bank taken as sample in this research are also the leading bank of the country having huge market share and their performance and activities significant impact on the national economy.

The study focuses on the performance of common stock of sample bank and overall Stock market. Not only this study analyses the return, risk and their required rate of return but also gives the comparative knowledge of their performance along with Stock market. This research will help the investors who want to know where and when to invest their hard-earned money in stock market. so, this study will fruitful those interested persons, parties, ,students, teachers and Government for academically as well as policy perspective.

CHAPTER - III
RESEARCH METHODOLOGY

Research Methodology is a systematic way to solve the research problems. It describes the methods and process applied in the entire aspects of the study. It refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view (C.R. Kothari, 1994. Research Methodology, Methods and Techniques. New Delhi: Vikash Publication, planets-19). This chapter contains the research design, sample size, sample selection procedure, data collection procedure, data processing tool and techniques, variables etc.

The main objective of the study is to analyze the risk and return of common stock investment of listed companies i.e. commercial Banks. Thus this chapter is designed to meet the set objectives. The brief discussion of the methodology followed in the study is given below. This chapter includes the brief description of research design, population and sample, sources of data, data collection instrument and procedures and method and tools used for analyzing the data.

3.1 Research Design

A research design is a plan for the collection and analysis of data. In other words, it is an integrated frame that guides the researcher in planning and executing the research works. It present a series of guide posts to enable the researcher to progress in the right direction in order to achieve the goal. The present study is basically related with the Nepalese stock market and share price behavior of the selected listed companies. The study will explore the collection of data, compilation and tabulation of data, computation of compiled data and financial parameters, findings, conclusions and recommendations.

3.2 Population and Sample

The large group about which the generalization is made is called the population under study. Because of the large group size, it is fairly difficult to collect detail information from each member of population. Rather than collecting detail information from each number, the small portion is chosen as representation of the population is called the sample. Altogether twenty-one commercial banks operating in Nepal are considered to be the total population of the study. Due to lack of time and resource factor, it is not possible to study all of them. Hence,

the four commercial banks have been taken as sample which are listed and doing shares transaction in NEPSE from population. The sample selections for this study are:

- Standard Chartered Bank Nepal Limited
- Everest Bank Limited
- Himalayan Bank Limited

This study will try to explore the objectives set in the previous section and it is also expected that this study will help in analyzing the stock market scenario. This study is aimed at producing tested affect of historical information on future price movements of the commercial banks' stocks.

Due to low volume of share transaction and insufficient data, other sectors like Mfg. Sector, service sector, insurance sector and other sectors have been omitted while taking the sampling companies from listed companies in NEPSE.

3.3 Sources of Data

The main source for data collection was from the office of Nepal Stock Exchange (NEPSE), Singhadurbar, Securities Board of Nepal (SEBON), Gaushala as well as economic survey published by Ministry of Finance and Nepal Rastra Bank. The main source of data is annual report of the SEBO/N and trading report of NEPSE. Bedsides annual report, various bulletin available, journals, articles and other publications published by different financial institutions and other useful resources are also taken into consideration. The study is based on the secondary sources of the data. The secondary source of data is the annual report of selected respective companies and Security Board of Nepal, Different books from library, periodicals, newspaper cuttings company's magazines etc. related unpublished master degree thesis has also taken for the purpose of study. Significant and necessary information has also been collected form Internet and various websites.

3.4 Data Collection Procedure:

As the study is based on primary and secondary data, Primary data has been collected through questionnaire distributed to the respondents and the response has been collected from the respondents duly filled and for secondary data, information is collected through the annual reports of selected companies and Securities Board of Nepal (SEBO/N), trading report

published by NEPSE, Economic Survey, published by Ministry of Finance and different monthly, quarterly, half yearly and yearly bulletins published by Nepal Rastra Bank.

3.5 Data Processing Procedure:

Data collected from primary and secondary sources were analyzed through various statistical and financial tools as follows.

a. Financial Tools

Financial tools are used for the analysis and interpretation of financial data. These tools can be used to get precise knowledge of a business, which are fruitful in exploring the strength and weakness of the financial aspects and strategies. Under the financial tools following ratios have been calculated:

i. Earnings Per Share (EPS):

EPS ratio is used to measure the profitability of a firm from the owner's viewpoint. The market value of shares of a company is dependent on the earnings of the company. EPS also measures the return of each equity shareholder. It can be calculated by dividing the net profit after tax by the total number of the common shares outstanding. It reveals the earning power of each share over the period basically in one year. It is calculated as under:

$$EPS = \frac{\text{Net Profit after tax}}{\text{Number of common share outstanding}}$$

ii. Dividend per Share (DPS):

Dividend refers the percentage of earnings paid in cash to its stockholders. "As long as there are investment projects with returns exceeding those that are required, it will use retained earnings and the amount of senior firm has retained earnings left over after financing all acceptable investment opportunities, these earnings then would be distributed to stockholders in the form of cash dividends, if not there would no dividends" (Van Horne, 1990:328). People make investment in stock because they will get dividend in return. Therefore, the price they are willing to pay will depend on their expectations of dividends. DPS is the net distributed profit belonging to the shareholders divided by the number of ordinary shares outstanding. It measures the financial performance of the company. It is calculated as under:

$$DPS = \frac{\text{Amount paid to equity shareholders}}{\text{Number of common share outstanding}}$$

iii. Expected Rate of Return

The expected rate of return is computed in the base of the expected cash receipts over the holding period and the expected ending or selling price (J. Fred Weston & Brigham; 1990:146). The expected return on an investment is the mean value of the summation of the possibility distribution of its possible returns (John. M. Chenny and Edward A.Moses, 1992:34). It can be expressed as an equation.

$$E(r_t) = \sum_{t=1}^{n} p_t r_t$$

Where,

p_t = Probability of the return for that event

r_t = Possible returns of each event

n = number of observations or returns

t = Different

In case of single holding period, the expected rate of return can be computed by cash dividends paid during the together with an appreciation in market price, or capital gain realized at the end of the year.

$$\text{Single Period Return (r)} = \frac{\text{Dividend} + (\text{Ending Price} - \text{Beginning Price})}{\text{Beginning Price}}$$

Here, ending price and beginning price indicates the cost of investment and the return realizes from that investment at the end of holding period. The nature of investment should be in revenue type of expenditure. The investors expect a regular payment of dividends over the Holding period with less chance of risk and price variations. The high expected rate of return is appreciated by investor s to invest such type of business and vice versa. Therefore, the investor decisions are larger influenced by the nature of investors.

iv. Required Rate of Return

Required rate of return is calculated as the risk free rate plus the risk premium on the risk of the particular stock. Total risk contains two parts diversifiable or unsystematic risk and under the assumption of CAPM, investors are not compensated for total risk, rather they are compensated in the market for facing the systematic risk. According to the CAPM the required rate of return on any stock is equal to the risk free rate of return plus market risk premium times stock beta.

$$R_j = R_f + [E(R_m) - R_f] \beta_j$$

Where,

R$_j$ = required rate of return on stock j

R$_f$ = risk free rate of return

E (R$_m$) = market return or average return

B$_j$ = beta coefficient of stock j

v. Market Return {E(R$_m$)}

Market return is the average return of the stocks of all companies in an industry. For this research purpose, market return has been calculated by dividing the difference of this year's market index and previous year's market index. Hence,

$$E(R_m) = \frac{\text{This year's market index} - \text{Last year's market index}}{\text{Last year's market index}}$$

B. Standard Deviation

Standard deviation, usually denoted by the letter σ (small sigma) of the Greek alphabet, which was first suggested by Karl Pearson as a member of dispersion in 1893. It is quantitative measure of total risk of assets. It provides more information about the risk of the 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:

$$\sigma_j = \sqrt{\frac{\sum\left(R_j - \overline{R_j}\right)^2}{n}}$$

Where,

σ$_j$ = standard deviation of stock j

R$_j$ = realized rate of return at a time.

$\overline{R_j}$ = expected realized rate of return.

n = number of observations in sample.

C. Coefficient of Variation

The relative measure of dispersion based on the standard deviation is known as the coefficient of standard deviation. The coefficient of dispersion based on standard deviation multiplies by 100 is known as the coefficient of variation (CV). It is suitable for comparing

the variability, homogeneity or uniformity of two or more distributions. A distribution having less CV is said to be less variability or more uniformity homogeneity, consistency etc. and vice versa. The risk per unit of expected return can be measured by coefficient of variation, which is computed as follows:

$$CV = \frac{\sigma_j}{\overline{R_j}} \times 100$$

Where, CV = coefficient of variation

$\overline{R_j}$ = expected realized rate of return

σ_j = standard deviation of stock j

D. Beta Coefficient

Total risk of stock consists two parts of risks; one is systematic (market risk) and another is unsystematic (unique risk) and commonly denoted by standard deviation (σ). Statistically, systematic risk and unsystematic risk can be measured by coefficient of determination or beta coefficient and by subtracting the systematic risk through 1 respectively. Less standard deviation and beta coefficient indicate less risk and vice versa. If beta is larger than one, then the assets is more volatile than the market which is called aggressive asset. If the beta is less than one, then the assets is considered defensive assets as its price fluctuations are less than the market. On the other hand, if the beta is equal to one, then the assets is said to average as its price moves proportionate to the market changes. So, these are applied to each sample commercial banks for testing and categorizing the form of stock relation to risk. Beta coefficient is computed by:

$$\beta_j = \frac{\text{Covariance } (R_J, R_m)}{\sigma m^2}$$

Where,

β_j = beta coefficient of stock

Covariance (R_J, R_m) = Covariance of the returns of stock j and market.

σm^2 = variance of the market

E. Sharpe ratio

The **Sharpe ratio** developed by **William F. Sharpe**,(1966) is the ratio of a portfolio's total return minus the risk-free rate divided by the standard deviation of the portfolio, which is a measure of its risk. The Sharpe ratio is simply the risk premium per unit of risk, which is quantified by the standard deviation of the portfolio.

Risk Premium = Total Portfolio Return – Risk-free Rate

Sharpe Ratio = Risk Premium / Standard Deviation of Portfolio

$$Si = \frac{\overline{Ri} - \overline{Rf}}{\sigma i}$$

Where, Si =Sharpe ratio

$\overline{Ri}$= Realized rate of return of the stock

$\overline{Ri}$ =Risk free rate

σi= Standard Deviation of Portfolio

The risk-free rate is subtracted from the portfolio return because a risk-free asset, often exemplified by the T-bill, has no risk premium since the return of a risk-free asset is certain. Therefore, if a portfolio's return is equal to or less than the risk-free rate, then it makes no sense to invest in the risky assets.

Hence, the Sharpe ratio is a measure of the performance of the portfolio compared to the risk taken—the higher the Sharpe ratio, the better the performance and the greater the profits for taking on additional risk.

F. Treynor Ratio

While the Sharpe ratio measures the risk premium of the portfolio over the portfolio risk, or its standard deviation, Treynor's ratio, popularized by Jack L. Treynor,(1966) compares the portfolio risk premium to the diversifiable risk of the portfolio as measured by its beta.

$$\text{Treynor Ratio} = \frac{\text{Total Portfolio Return} - \text{Risk-Free Rate}}{\text{Portfolio Beta}}$$

$$Ti = \frac{\overline{Ri} - \overline{Rf}}{\beta i}$$

Where, Ti= Treynor Ratio

$\overline{Ri}$= Realized rate of return of the stock

$\overline{Ri}$ =Risk free rate

βi=Portfolio beta

Note that since the beta of the general market is defined to be 1, the Treynor Ratio of the market would be equal to its return minus the risk-free rate.

G.Jensen's Alpha

Alpha is a coefficient that is proportional to the **excess return** of a portfolio over its required return, or its expected return, for its expected risk as measured by its beta. Hence, alpha is determined by the fundamental values of the company in contrast to beta, which measures the return due to its volatility. **Jensen's alpha** developed by Michael C. Jensen,(1964) uses the capital asset pricing model (CAPM) to determine the amount of the return that is firm-specific over that which is due to market risk, which causes market volatility as measured by the firm's beta.

Jensen's Alpha = Total Portfolio Return – Risk-Free Rate – [Portfolio Beta x (Market Return – Risk-Free Rate)]

$$\boldsymbol{\alpha}\text{p}= \overline{r}\boldsymbol{p}\text{-[Rf+}\beta\boldsymbol{p}[\overline{rm} - \boldsymbol{Rf}]$$

According to Jensen's measurement +ve αp indicates the superior performance or selecting undervalued portfolios whereas –ve αp indicates worst performance or selecting overvalued portfolios.

CHAPTER - IV
DATA PRESENTATION
AND ANALYSIS

The chapter Data presentation and analysis is the main body of the study. The purpose of this chapter is to analyze the collected data to achieve the objective of the study in an understandable manner. On the background of various reading and literature review in the preceding chapter, it is tried to analyze and explore the recent Nepal stock market movement, with taking a special reference with commercial banks of Nepal. In this course of analysis, data gathered from various sources have been presented in the tabular form and shown in diagram form. The data have been analyzed by using financial and statistical tools. The results of the computation have also been summarized in appropriated tables. The samples of computation of each model have been included in annexes.

Among the listed commercial banks only three commercial banks are taken as sample namely,

- Standard Chartered Bank Nepal Limited
- Everest Bank Limited
- Himalayan Bank Limited

4.1 A Glimpse of Stock Market Trading

The main purpose of this section is to simply provide quantitative information of stock market functioning. The organized stock market is a recent phenomenon in Nepal. NEPSE has adopted an "Open Out -Cry" system. It means transactions of securities are conducted on the open auction principle in the trading floor. The buying broker with the highest bid will post the price and his code number on the buying column, while the selling broker with the lowest offer will post the price and code number on the selling column on the quotation board. The buying price will change when any other broker increases it and the selling price will change when someone will be ready to sell at low price. When the price matches the buying broker declares the quantity and the selling broker either accepts it or announces the quantity.

4.2 Behaviour of Nepse Index

Market index has always been of great importance in the world of security analysis and portfolio management. This index is used as a benchmark by the individual and institutional investor to evaluate the performance of their own or institutional portfolio. Market indices are used to determine the relationship between historical price movements and economic variables and to determine the systemic risk for individual securities and portfolios. The index can also be used as 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. Higher the index means the better performance of stock market and vice versa.

Table 4.1

Monthly Closing NEPSE Index (Fiscal Year2008/09)

Month	NEPSE INDEX(closing)
July/August	1084.76
August/September	976.01
September/October	933.97
October/November	806.90
November/December	734.85
December/January	659.81
January/February	663.52
February/March	667.20
March/April	661.27
April/May	660.96
May/June	678.74
June/July	749.10

Source : Annual report of NEPSE, 2009

From the above table it is clear that NEPSE Index is decreasing trend, the end of this fiscal year, NEPSE index decreased by 214.26points close at 749.10points. NEPSE index at the end of the last fiscal year was 963.36points. During this fiscal year the highest points of NEPSE index was 1084.76 recorded in the month July/August, while the lowest points was 659.81recorded on December/January. The monthly trend of NEPSE index is presented in below chart.

Figure 4.1

Monthly Closing NEPSE Index (Fiscal Year2008/09)
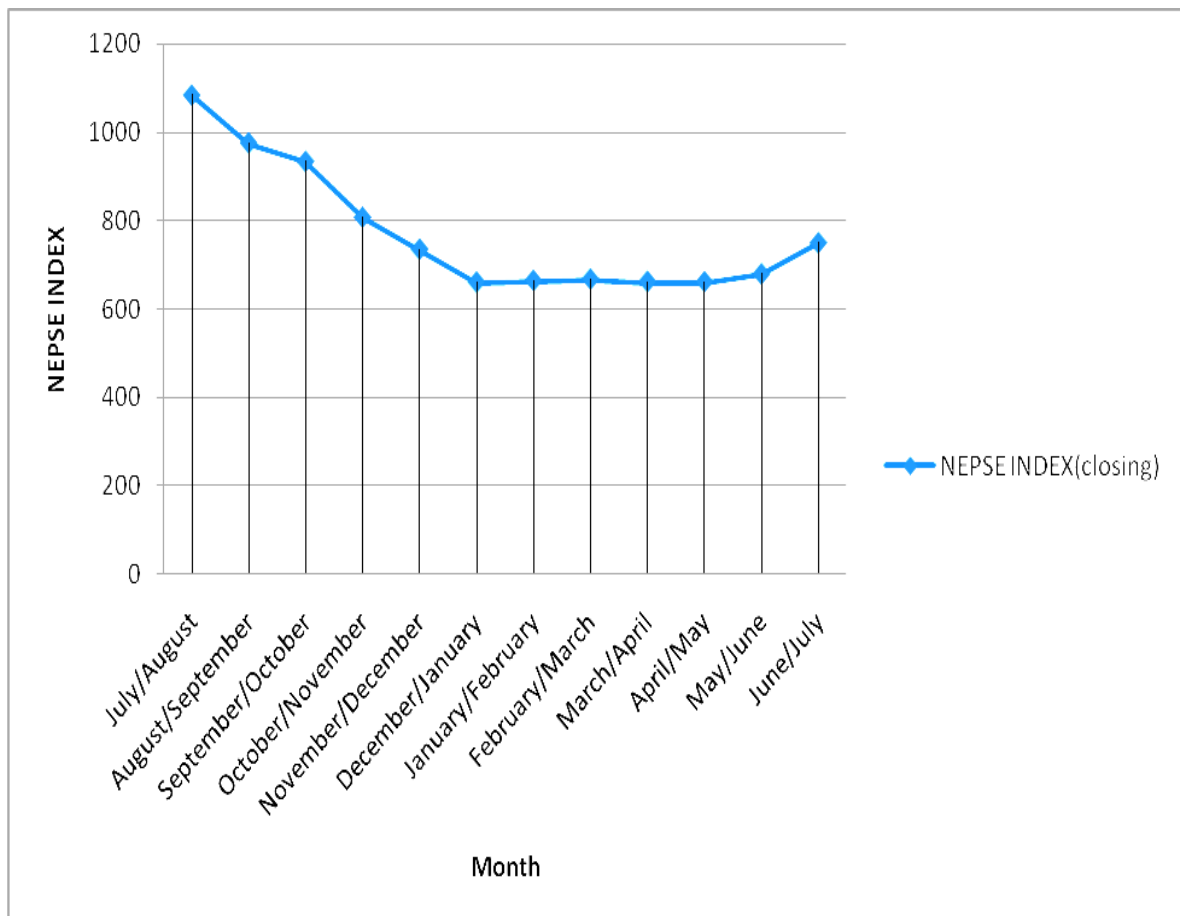
4.3 Present Situation Of Stock Market In Nepal:

Out of the 149 listed companies more than 68% of the transactions took place in the stock exchange related to the securities of the commercial banks and financial institution. Present Government is taking more seriousness to develop the securities market in the country. Currently, we are operating the exchange through manually basis. There are no custodians. The government has given higher priority to strengthen the Capital Market, and has lunched Corporate Financial Governance Project for the trading automation under the assistance of Asian Development Bank.

4.4 Number of Listed Companies in Nepse:

As concerned with the number of listed companies present in table shows that the rate of listing companies for the fiscal year 2004/2005is 9.65% which is highest increase rate.

Table 4.2

Number of Listed Company in NEPSE

Year	No of listed company	Percentage change
2003/2004	114	–
2004/2005	125	9.65%
2005/2006	135	8%
2006/2007	135	0%
2007/2008	142	5.19%
2008/2009	149	4.93%

Source : Annual report of NEPSE, 2009

While talking about in terms of numbers it is 114 for the FY 2003/04. There are Increase in number of listed companies for the FY 2004/05 with 9.65% highest from 5yrs.there is no change in FY206/07.The number of listed companies increased by 7(4.93%) to 149in FY2008/09 while this number had increase by 135 in 2006/2007 to 142 in FY2007/2008.Increase in the number of listed companies indicates increasing interest of public towards the establishment of companies in the country.

Figure 4.2

Number of Listed Company in NEPSE
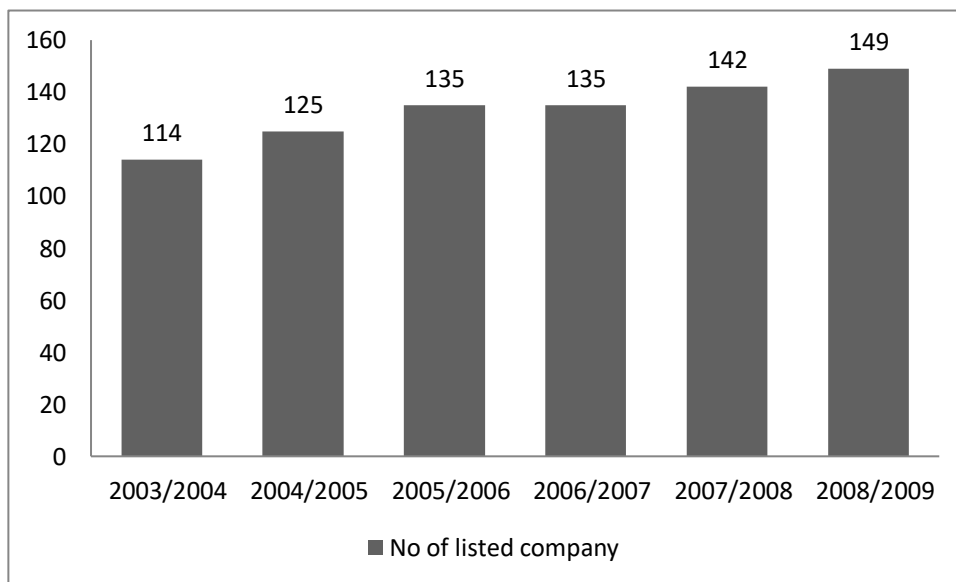
In regards to the trends of listed companies in NEPSE, also presented in bar chart shows the increasing trend, which clears that these aer positive position of listed companies.

4.5 Trading Performance of Sample Stocks:

The table in appendix - F gives different quantitative information about the stock market functioning during the fiscal year 2008/09 for companies taken as sample. In the third column of the table the number of outstanding shares has been demonstrated. In fourth column, closing price of securities has been given. Column 5, 6, 7, and 8 contains the paid up value, number of transactions, shares traded in units and traded amount respectively. Within the samples highest number of transaction has been secured by SCBNL, which is 2960 along with highest number of shares traded which are 225.18 thousand shares and the highest traded amount SCBNL with Rs.1248.55 million. Column 9, presents total paid–up values of common stocks. Multiplying the outstanding equity with paid-up values derives each entry in this column. The highest total paid-up capital is Rs.1216.22 million for HBL and the lowest value belongs to SCBNL with Rs.931.97 million. Multiplying the outstanding equity and closing price of share of each company derives column 10, which contains total market value. The highest total market value is Rs.56011.18 million which is for SCBNL among all whereas the lowest total market value is Rs.21405.38 million recorded for HBL.

Figure 4.3

Trading Performance of Sample Stocks
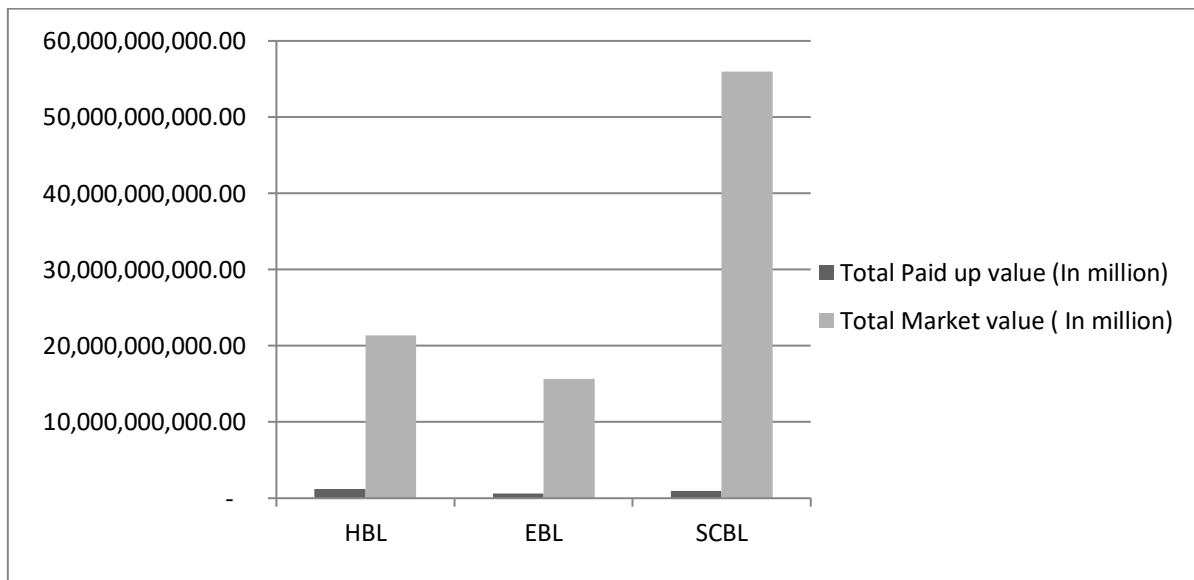
Source: appendix - F

4.6 Descriptive Analysis of Banks:

A. Standard Chartered Bank Nepal Limited

The Bank was originally established as a joint venture of Grindlays Bank PLC London and Nepal Bank Limited in 1985 with the shareholding ratio of ANZ Grindlays Bank Limited 50%, Nepal Bank 33.33% and the General Public 16.66%. Along with the change of ownership to Standard Chartered, the banking area of SCBNL saw the rise of a new dawn changing the general image of the bank. With this acquisition, Standard Chartered Bank now owns 50% shares of Nepal Grindlays Bank Limited (NGBL) previously owned by ANZ Grindlays. The name of the bank change to Standard Chartered Bank Nepal Limited. With the mission statement "To be the leading international bank in our principal markets", the bank operates through 11 offices, spread throughout Nepal and focuses mainly on corporate, consumer and commercial banking, providing services for international firms, as well. The bank contributed to a large extent in the development of the country by way of loans to industrial projects, the priority and deprived sectors. Further, it's been a major contributor to the government offices as the highest private corporate taxpayer in the Nepal.

Table 4.3

MPS, DPS, EPS, P/E Ratio & Market Book Value Ratio of SCBNL

YEAR	Closing Price(Rs)	DPS (Rs)	Stock Dividend%	EPS (Rs)	P/E Ratio	MBVR
2004/05	2345	120	-	143.14	16.38	5.55
2005/06	3775	130	-	175.84	21.47	8.06
2006/07	5900	80	10.00%	167.37	35.25	11.52
2007/08	6830	80	50.00%	131.92	51.77	17.01
2008/09	6010	50	50.00%	109.99	54.64	18.35

Source: Appendix A (I)

The above table shows that the highest closing market price of share is Rs.6830.00 in the year 2007/08. The MPS of SCBNL is ranging from Rs.2345.00 to Rs.6830.00. This bank has paid cash dividend to the investors ranging from Rs.50.00 to Rs.130.00. SCBNL has distributed stock dividend 10% in year2006/07 and 50.00% stock dividend in year 2007/08 and 2008/09. Company's EPS ranges from Rs.109.99 to Rs.175.84. P/E Ratio and Market Book Value Ratio are also fluctuating in the ratio of fluctuating trend of MPS. P/E Ratio and MBVR are highest in the year 2008/09 i.e. 54.64 times and 18.35 times respectively.

B. Everest Bank Limited

Everest Bank Limited was registered on November17, 1992 and come into operation on October 18, 1994with objectives of extending professionalized and efficient banking services to various segments of the society. The bank had an initial paid up capital of Rs 300 million. Today the bank has grown to become one of the leading banks in Nepal.PNB joined hands with EBL as a Joint Venture in 1997and turned it around to a highly profitable bank. There has been no looking back since then. PNB provide stop management support under the Technical Service Agreement. Capital structure of Bank consists of 50 % of equity the shares are owned by the local promoters,20% by Punjab National Bank, India and 30% of the shares are owned by the general public. The bank has been conferred with, Bank of the Year 2006, Nepal. Recognizing the value of offering a complete range of services, The Bank has been pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus(Future Lease Rental), Home Equity Loan, Loan Against Share, Loan Against Life Insurance Policy and Loan for Professionals EBL was one of the first bank to introduce Any Branch Banking System (ABBS) in Nepal EBL has introduced Â Bank on WheelÊ system, whereby the bank is installed in a vehicle and moves around to various places to serve the segment deprived of proper banking facilities through its Birtamod Branch EBL is the only bank having representative office in foreign soil. The office facilitates remittance and Nepalese working in India can even open accounts through the office. Now a day's bank is providing services to its customer through 39 branches throughout the country.

Table 4.4

MPS, Dividend, EPS, P/E Ratio & Market Book Value Ratio of Everest Bank

YEAR	Closing Price(Rs)	DPS (Rs)	Stock Dividend %	EPS (Rs)	P/E Ratio	MBVR
2004/05	870	-	-	54.22	16.04	3.95
2005/06	1379	25	20%	62.78	21.97	6.34
2006/07	2430	10	-	78.42	30.99	8.65
2007/08	3132	20	30.00%	91.82	34.81	9.73
2008/09	2455	30	30.00%	99.99	24.55	7.83

Source : Appendix A(II)

The above table shows that the highest closing market price of share is Rs.3132.00 in the year 2007/08. The MPS of Everest is ranging from Rs.870.00 to Rs.3132.00. Everest bank has paid dividend per share of different amount from the year 2005/06 to 2008/09 in the range of Rs.25.00 to Rs.30.00 respectively. Everest bank has distributed stock dividend 20% in years 2005/06 ,2007/08 and 2008/09 respectively. Company's EPS ranges from Rs.54.22 to Rs.99.99. P/E Ratio and Market Book Value Ratio are also fluctuating in the ratio of fluctuating trend of MPS. P/E Ratio is highest in the year 2007/08 i.e. 34.81 times and MBVR is highest in the year 2007/08 i.e. 9.73 times.

C. Himalayan Bank Limited

Himalayan Bank Limited was established in 1991 in joint venture with Habib Bank Limited of Pakistan, the fourth joint venture bank in Nepal. Unlike the banks previously mentioned, the shareholding pattern of the foreign counter part is only 20% where as the remaining part is financed by promoter group 51%, Nepalese financial institute 14% and general public 15%. Himalayan Bank Limited was incorporated in 1992 by the distinguished business personalities of Nepal in partnership with employees Provident Fund and Habib Bank Limited of Pakistan. Bank operation was commenced from January 1993. It is the first commercial bank of Nepal with maximum number of share holding by the Nepalese private sector. Besides commercial activities, the bank also offers industrial and merchant banking. Products such as Premium Savings Account, HBL Proprietary Card and Millionaire Deposit Scheme besides services such as ATMs and Tele banking were first introduced by HBL. At present, the bank has 23 branches working around the country. The bank has a very aggressive plan of establishing more branches in different parts of the kingdom in near future. The bank provides services like 'Any Branch Banking Facility', Internet Banking and SMS Banking. Living up to the expectations and aspirations of the customers and other stakeholders of being innovative, HBL very recently introduced several new products and services. Millionaire Deposit Scheme, Small Business Enterprises Loan, Pre-paid Visa Card, International Travel Quota Credit Card, Consumer Finance through Credit Card and online TOEFL, SAT, IELTS, etc. fee payment facility are some of the products and services. Himalayan Bank's policy is to extend quality and personalized services to its customers as promptly as possible. To extend more efficient services to its customers, Himalayan bank has been adopting innovative and latest banking technology. Himalayan bank is committed to be a "BANK WITH A DIFFEERENCE"

Table 4.5

MPS, DPS, EPS, P/E Ratio & Market Book Value Ratio of HBL

YEAR	Closing Price(Rs)	DPS (Rs)	Stock Dividend %	EPS (Rs)	P/E Ratio	MBVR
2004/05	920	11.58	20.00%	47.91	19.20	3.84
2005/06	1100	30	20.00%	59.24	18.57	4.81
2006/07	1760	15	5.00%	60.66	28.69	6.57
2007/08	1980	25	25.00%	62.74	31.56	7.98
2008/09	1760	12	20.00%	61.90	28.43	6.86

Source : Appendix A(III)

The above table shows that the highest closing market price of share is Rs.1980.00 in the year 2007/08. The MPS of HBL is ranging from Rs 920.00 to Rs.1980.00. HBL has paid dividend per share of different amount from the year 2004/05 to 2008/09 in the range of Rs.11.58 to Rs.30.00. Company's EPS ranges from Rs.47.91 to Rs.62.74. P/E Ratio and Market Book Value Ratio are also fluctuating in the ratio of fluctuating trend of MPS. P/E Ratio and MBVR are highest in the year 2007/08 i.e. 31.56 times and 7.98 times respectively.

4.7 Nepse Market

Expected Return on Market E(Rm) = the market return is the return on the market portfolio of all traded securities. Year ended the NEPSE index is used as the market return into account.

Table 4.6

NEPSE Index & Annual Return

Year	NEPSE Index	Annual Return (R)
2003/04	222.04	_
2004/05	286.67	0.29
2005/06	386.83	0.35
2006/07	683.95	0.77
2007/08	963.36	0.41
2008/09	749.10	-0.22
	Total	1.60

Source : Appendix B(V)

Figure 4.6

NEPSE Index
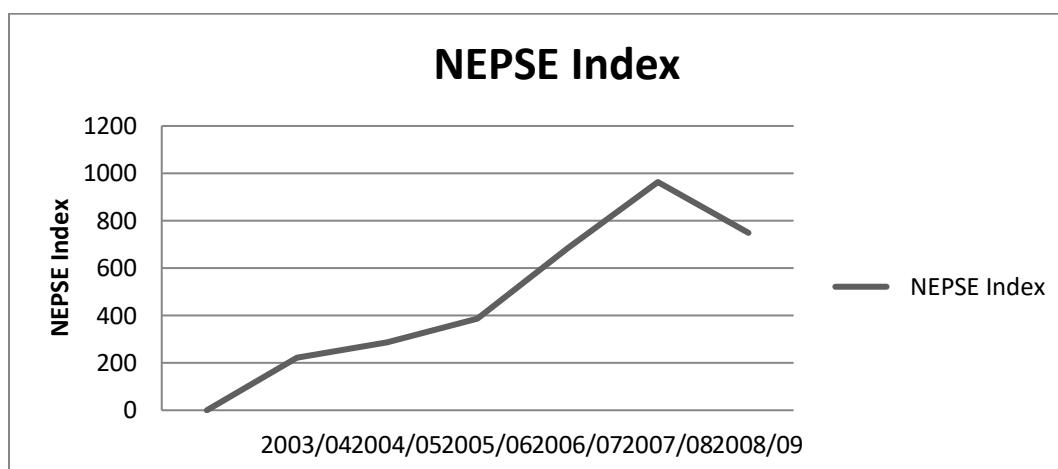
NEPSE Index

NEPSE Index

The above table shows that by the end of fiscal year, the price index of the listed securities (NEPSE Index) remained at 749.10 points, which is lower by

21426 points than that of the last fiscal years' index 963.36points. In this research fiscal year, the highest index of 963.36was noted on year 2007/08 and the lowest index of 222.04 was noted on year 2003/04.

4.8 Risk and Return Analysis

Risk measures the degree of volatility in the market price movements of individual securities. The higher the magnitude of fluctuations, higher will be degree of risk though 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. All these are calculated by using the formula described in research methodology chapter.

A. Standard Deviation

Standard deviation is a strong statistical device to measure the total risk involved in an investment, which consists of both market risk and diversifiable risk. Moreover it denotes the volatility of the expected rate of return. The calculated value of expected realized return and standard deviation of four sampled different banks are presented in the following table.

Table 4.7

Standard Deviation of Sampled Commercial Banks

Stocks	Expected Realized Return (%)	Standard Deviation (%)	Ranking of riskiness based on Standard Deviation
Standard Chartered Bank Nepal Ltd.	34.14%	28.25%	2
Everest Bank Ltd.	35.06	33.47%	1
Himalayan Bank Ltd.	19.7%	27.2%	3

Source : Appendix B(I, II,III)

- Based on the assumption of the standard deviation, investment in the common stocks of Everest Bank is more risky followed by Standard charted bank limited. Stock of Himalayan Bank could be considered as less risky than the other three banks, being the standard deviation lower than other. The common stock of Everest Bank is associated with 33.47% of the highest risk, which indicates that the expected return can be deviated, by 33.47% in case of common stock investment than the other three sampled banks taken into study. I have shown the above calculation in the Appendix - B (I), B (II), & B (III) respectively.

B. Coefficient of Variation

The standard deviation may not be appropriate measure of risk when the realized rates of returns are not same in all of the companies taken under consideration. Hence also the average realized rates of return are not same for the entire sample. Therefore, it is recommended to use the coefficient of variation to measure the risk involved in individual bank. The coefficient of variation measures the risk per unit of return. The coefficients of variation of the realized rates of return of the sampled banks are shown in the following table.

Table 4.8

Coefficient of Variation of Sampled Commercial Banks

Stocks	Coefficient of Variation
Himalayan Bank Ltd.	1.38
Everest Bank Ltd.	0.95
Standard Chartered Bank Nepal Ltd.	0.82

Source: Appendix B(I, II, III)

On the basis of coefficient of variation, common stock of Himalayan Bank seems to be most risky. The common stock of Standard Chartered Bank Nepal Limited seems to be less risky in comparison with the other sampled banks. The above calculation has been derived from the Appendix – B (I), B (II), & B (III) respectively.

C. Beta Coefficient

Standard deviation measures the total risk of an investment and the coefficient of variation measures the risk per unit of return. But the beta coefficient measures the market sensitivity or systematic risk of an investment. As we know, systematic risk is that portion of risk which is directly associated with market phenomenon and cannot be reduced by diversification. The beta coefficient of an individual stock provides the clear picture about the tendency of movement of the stock with market. It measures the stock volatility relative to that of the average stock. An average stock is that which trends to move up or down with the general market as measured by some index. Here, capital NEPSE index is taken into consideration to measure the movements of the general market regarding the stocks of listed commercial banks. Higher beta indicates the greater reaction by individual common stock with the given movement in the market status. The following table shows the degree of riskiness of each stock of entire sample in relation to the general market.

Table 4.9

Beta Coefficients of Sampled Commercial Banks

Stocks	Beta Coefficient	Ranking of riskiness based on Beta Coefficient
Himalayan Bank Ltd.	0.62	3
Everest Bank Ltd.	0.95	1
Standard Chartered Bank Nepal Ltd.	0.68	2

Source: Appendix B(I, II, III)

By analyzing the above table, we note that Everest Bank is much more sensitive to the market than other Bank because the beta coefficient of variation of this bank is more than other. The stock of Himalayan Bank and Standard Chartered Bank Nepal Ltd have beta coefficient less than one and can be concluded as defensive stock. Following the Everest Bank with0.95, For example in the case of Everest Bank, the calculated beta coefficient imply that one percent variation in the market rate of return leads to 0.95 % variation in their realized rate of return. Hence highly sensitive stocks make quick response to the market change. The above calculation has been derived from Appendix – B (I), B (II), & B (III) respectively

D. Sharpe's Performance measurement analysis

The **Sharpe ratio** is the ratio of a portfolio's total return minus the risk-free rate divided by the standard deviation of the portfolio, which is a measure of its risk. The Sharpe ratio is simply the risk premium per unit of risk, which is quantified by the standard deviation of the portfolio.

Hence, the Sharpe ratio is a measure of the performance of the portfolio compared to the risk taken—the higher the Sharpe ratio, the better the performance and the greater the profits for taking on additional risk.

Table 4.10

Sharpe's index of Sampled Commercial Banks

Stocks	Sharpe's index	Sharpe's market index	Ranking
Standard charted	0.977	0.803	1
Everest Bank	0.851	0.803	2
Himalayan bank	0.483	0.803	3

Source: Appendix H

By analyzing above table, that Standard charted bank has the best performance measure and Himalayan bank has the worst according to Sharpe's performance measure. Standard charted bank and Everest bank are performing above the market return where as Himalayan bank's performance below the market return. According to this measurement, rank can be given to Standard charted bank, Everest Bank and Himalayan Bank 1,2,and 3 respectively on the basis of their performance.

E. Treynor's Performance measurement analysis

Treynor's ratio, popularized by Jack L. Treynor, compares the portfolio risk premium to the diversifiable risk of the portfolio as measured by its beta.A higher value means a better performing portfolio as this indicates higher risk premium per unit of total risk.

Table 4.11

Treynor's index of Sampled Commercial Banks

Stocks	Treynor's index	Treynor's market index	Ranking
Standard charted	4057%	25.45%	1
Everest Bank	30.01%	25.45%	2
Himalayan Bank	21.21%	25.45%	3

Source: Appendix- I

By analyzing above table, that Standard charted bank has the best performance measure and Himalayan bank has the worst according to Treynor's performance measure. Standard charted bank and Everest bank are performing above the market return where as Himalayan bank's performance below the market return. According to this measurement, rank can be given to Standard charted bank, Everest Bank and Himalayan Bank 1,2,and 3 respectively on the basis of their performance.

F. Jensen's Alpha

Alpha is a coefficient that is proportional to the **excess return** of a portfolio over its required return, or its expected return, for its expected risk as measured by its beta. Hence, alpha is determined by the fundamental values of the company in contrast to beta, which measures the return due to its volatility. **Jensen's alpha** developed by Michael C. Jensen, uses the capital asset pricing model (CAPM) to determine the amount of the return that is firm-specific over that which is due to market risk, which causes market volatility as measured by the firm's beta.

Jensen's Alpha = Total Portfolio Return – Risk-Free Rate – [Portfolio Beta x (Market Return – Risk-Free Rate)]

$$\boldsymbol{\alpha}\text{p}= \bar{r}p\text{-}[\text{Rf}+\beta p[\overline{rm}-Rf]$$

According to Jensen's measurement +ve αp indicates the superior performance or selecting undervalued portfolios whereas –ve αp indicates worst performance or selecting overvalued portfolios.

Table 4.12

Jensen's Alpha values of sampled commercial bank

Stock	Jensen's Alpha values	Ranking
Standard charted	10.28	1
Everest bank	4.33	2
Himalayan bank	-4.12	3

Source: Appendix -J

By analyzing above data we can say that the standard charted bank has best performance and Himalayan Bank has worst according to Jensen's performance measurement because The value of alpha of Standard charted bank and Everest bank is positive and Himalayan Bank has negative value. According to performance of commercial bank preference can be given at 1st,2nd and 3rd to Standard charted bank, Everest bank and Himalayan respectively.

4.9 Price Analysis:

In this section the pricing of the shares of the sample companies were analyzed and interpreted. The result derived from the calculation by using Security Market Line equation was presented in the below table, studying the period of 2003/04 to 2008/09.

Table 4.13

Valuation of Stocks of Sampled Commercial Banks

Stocks	Required Rate of Return	Expected Rate of return	Status of the Company
Himalayan Bank Ltd.	22.33%	19.7%	Over priced
Everest Bank Ltd.	31.49%	35.06%	Under priced
Standard Chartered Bank Nepal Ltd.	23.86%	34.14%	Under priced

Source: Appendix B(I, II,III)

From the above table, it was found that three commercial banks taken as samples were found two are under-prices and one over priced This shows that the market of the sampled banks was very much inefficient. The detailed calculation of the values of shares is presented in the Appendix – B (I), B (II) & B (III) respectively.

4.10 Major Findings of the Study:

On the basis of the detailed study of the listed commercial bank in regards to investment in common stock including risk and return analysis following major findings have seen, they are presented as follows;

- Number of listed companies under NEPSE, shows the increasing trend with positive percentage change, which indicates increasing interest of public towards the establishment of companies in the country.

- Professional traders either individual or institutional have influenced the market heavily because of poor tools used in the prediction of the randomness in the stock price movements, Therefore to make greater profit, actual fundamental and other analysis are required which accurately predict the appearance of the new information in the market that have impact on prices.

- According to the calculated of Actual rate of return and Required rate of return of Himalayan Bank was found to be lower, so the stock of HBL are overvalued. The

remaining two bank Everest Bank and Standard charter Bank have Actual return more than the required rate of return so the stock price of those Bank are undervalued.

- On the basis over all NEPSE index all the market risk and return can be accessed. Corresponding to the fluctuations in individual industries the overall market index has also moved accordingly. It has reached maximum in the initial observation month and it started decreasing trend till the month of April/May. But from the month of May/June the market index are started to increasing.

- Data presentation and its analysis reveal that standard deviation of Everest bank is 33.47%which is highest of all the banks selected for the study. Standard deviation of HBL and SCBNL are 27.2% and 28.25% respectively. Depending upon this parameter i.e. S.D., HBL stock is said to be relatively less risky.

- From the above calculated average realized rate of return of all the sampled bank, it can be seen that they are not the same over the sampled periods. Therefore, the coefficient of variation can be preferred over the standard deviation as measure of risk On the basis of coefficient variation, HBL shares can be considered as more riskier whereas SCBNL's shares can be measured as less riskier. Stocks of Everest Bank are a little bit aggressive to market changes as revealed by the highest beta coefficient of 0.98 and the least beta coefficient is yielded by Himalayan Bank of three sampled banks.

- Nepal stock exchange is analyzing stock market behaviour in less number of area. It is recommended that Nepal stock exchange should recruit those professional and expert who can analysis the market behaviour in efficient way and in wider area.NEPSE should conduct the awareness program about investment and its procedure for the general public. Thus stock market further requires timely research to explore details of the problem and prospects of stock market. The finding of this study also implies that Nepal Stock Exchange is operated under the limitation of talented and expert financial and market analysts.

CHAPTER- V
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

Risk and return, analysis concept is a foundation of modern investment. The study was conducted to find out the behavior of stock price of three sampled commercial banks with respect to the movement of various financial indicators, tentative external events and some other factors. The chapter consists of three sections; the first section provides the summary of the study; the second section draws the conclusion of the study. Finally, the third section proposes recommendations to solve the problems observed on the basis of the findings.

As we know that every investment has the risk factor. And to maximize the profit we should minimize the risk. Every rational investor has to follow the following statement, 'not to -put all the eggs in one basket' It means by making or constructing appropriate portfolio investor can increase their return instead of investing in a single security. A portfolio is the combination of different investment assets. It should be able to reduce unsystematic or diversifiable risk. The main focus of the study is the stock market investment.

The main objective of study is to analyze the share price behavior and risk and return attributes of investment with the help of three sampled commercial banks namely Himalayan Bank, Everest Bank and Standard Chartered Bank Nepal. It is mainly focused to developed the model accordingly and its empirical test in previous chapter. The model consists of standard deviations; coefficient of variations, beta coefficient, Sharpe's, Treynor's, and Jemison's model and under and overpricing of shares were adopted as test methodologies.

Before analyzing the results of test, the overview of the Nepalese stock markets has been sketched. The recent position and performance of market in Nepal has been analyzed. The Nepalese stock market has not been developed remarkably in the economy because of various market imperfections like limited number of buyers and sellers, effective government policies, negligence in development of corporate sectors etc. Market price of stock is the main outcome of investor's psychology. The psychology of investors is affected by various factors. Here in Nepalese market, dividend and price appreciation of stock is major factors for the investors to decide about purchasing of shares. Along with DPS and price appreciation,

EPS, market rumors, political and economic environment etc are the other factors to influence the buying and purchasing behavior of the investors. Every investor must consider the financial status of organization before making any decision regarding the investment.

The study is concerned with the identification of the price of stock whether it is overpriced, underpriced or equilibrium priced. For this purpose, different financial and statistical tools such as standard deviation, coefficient of variation, beta coefficients as well as Sharpe's, Treynor's, and Jemison's model etc have been used. To find out the pricing status of stocks; expected rate of return and required rate of return has been compared. Generally, the trend is that the MPS of public quoted companies is above their book value. The market value is determined by the supply and demand functions. However, in an efficient market MPS fully reflects all the historical information publicly available. As per the presentation, the highest required rate of return is 31.49% of EBL and the lowest is 22.33% of HBL. In case of expected rate of return, EBL has highest return i.e. 35.06% and the lowest is 19.7% of HBL. From the comparison it has been found that the stocks of two sampled commercial banks are underpriced and one sample commercial banks is overpriced. The main reason for underpriced of the stock valuation is that the price of the stock had reached the highest point during the study period but the NEPSE index did not follow the same speed and the rate of Treasury bill issued by NRB also heavily decreased during the study period. It makes the expected rate of return of the sampled banks are high and required rate of return low. Hence, sampled two banks' share prices are underpriced during the study period. Similarly Sharpe model reveals that SCBNL and EBL performance (Risk premium per unit measured by standard deviation) are above the market return whereas the HBL performance is below the market return.Treynor model also suggests the same thing that is SCBNL and EBL performance (Risk premium per unit measured by beta) are above the market return.According to Jenison model the value of SCBNL and EBL is positive which means their expected return are greater than their required rate of return, but the HBL has negative value which indicates expected return is lower than its required rate of return.

The decision for investment generally depends on the information about the performance of the company. In general, most investors prefer to buy shares of those companies whose earnings are very attractive and dividend payout ratio is high. However, rational investors not only analyze earnings but also various information regarding the company's management, dividend policy, market penetration, financial situation, and other internal and external

factors before making investment decision. It is also found that some of the investors invest in shares for dividend and price appreciation and most of them are not interested about the other indicators which could affect the price of shares. It also seems from the research that the investors are conscious about the market price of the share they have bought as many investors seek for their share's price daily or weekly. Although they seek for their share price, most of them are not trading their shares in secondary market, which shows that most of the investors are holding their shares for only dividend and they are not using the change in share price for speculative purpose.

5.2 CONCLUSIONS

In Nepal the shares of commercial bank are largely traded in the stock market. These shares play a key role in determination of stock exchange indicators. This study tries analyzing the result of the investment of shares of the commercial banks from risk and returning perspective. As we know that the prices of shares tends to fluctuate from time to time as a result the investors can buy shares when the value of shares decreases and hold till the share price increase. The dependence in the series of price changes observed implies that the price changes in the future market will not be independent from the price changes of the future days. It brings about that the information of the past price changes is helpful in predicting future price changes. Therefore, sufficient opportunities are available to institutional and individual investors to make higher expected profits in future based on those historical price series. In the mean time while the statistical analysis regarding the risk and return of the sampled stocks shows that the all the banks seems to be risky than the average stock. But as most of the banks are offering cash dividends every year which may not be applicable to other types of no banking firms, there is race of investors towards the stocks of banking sectors.

Among the various financial indicators EPS seems to be most significantly related with the market price of shares. Two of sampled banks' stock price found to be underpriced because their required rate of return is lower than the expected rate of return and one sampled banks' stock price found to be overpriced because their required rate of return is greater than the expected rate of return. The study also shows that Nepalese investors are more conscious towards the dividend and price appreciation of the shares they are investing but most of the investors are only using buy and hold strategy as only few of them are trading their shares in secondary market. This shows that there is lack of professionalism among Nepalese investors.

5.3 RECOMMENDATIONS

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

- The study reveals that Nepalese investors do not have sufficient knowledge about security market. Because of lacking of professional investors many other aspirants are not coming in the stock market. Hence, the concerned authority is recommended to make aware about the security market to the general public so that they are interested to invest in security market and the previous investors could change as professional investors.

- Nepalese investors are trading the stocks without having proper concept, logic analysis power of the financial indicators of concerned companies. Hence, investors are recommended for the detail study of the financial indicators of those companies before trading the stocks and they must be ready to get the maximum benefits from the investment in short term speculation.

- According to above study and analysis, two of the stocks of sampled banks are found to be undervalued in the stock market. So, investors are recommended to buy these undervalued stocks by selling their overpriced stocks.

- It is suggested to the public investors not to directly invest their savings in shares before conducting proper analysis. They should at least analyze or get suggestions from expert about the financial position and the level of risk prior to taking an investment decision.

- To make positive impact on the stock market development, the pace of economic development should be accelerated and the political system should be stable.

- Without the development in the financial institutions, no other sectors could be developed in the full extent. So, government and other related sectors should try to stabilize and modify the rule and regulations concerning to the development of the effective pricing of the shares of such financial institutions as well as other sectors.

- As we know that the system implemented by the NEPSE "Open-out-cry trading system" was found to be out-of-date in present context. It is recommended to

implement Computer Trading System as soon as possible to meet the expectations of investors, brokers, other concerned bodies and individuals as it will also be helpful for researchers to carry out further more research work on the stock price behavior to develop an efficient market.

- Professional traders either individual or institutional have influenced the market heavily because of poor tools used in the prediction of the randomness in the stock price movements, Therefore to make greater profit, actual fundamental and other analysis are required which accurately predict the appearance of the new information in the market that have impact on prices.

- Government should formulate a separate strong body for regular monitoring and analyzing the strength and weakness of public companies, which will disclose right and value information and suggestion to public investors to take proper investment decision at the right time to avoid or minimize the level of risk.

- In the absence of computer trading system it has been difficult to explore the movement of the share of whole sector of listed companies. Thus it is recommended to future researchers to undertake comprehensive study by appropriate method, related to the whole sector wise share price movement.

At last, it can be concluded that investment in common stock is risky task. One should know the basic models of security evaluation, concept of time value of money, security market operating procedure, fundamental analysis, tools of financial analysis and process of portfolio management. Investor can get much knowledge from the above key factor which will enable them to get maximum benefit from their investment by minimizing their level of risk.

APPENDIX

APPENDIX – A (I)

STANDARD CHARTERED BANK NEPAL LIMITED

NAYA BANESWOR, KATHMANDU

Authorized Capital: Rs.1,000,000,000.00   Paid Up Value per Share: Rs.100.00

Issued Capital: Rs.1,000,000,000.00   No. of Shareholders: 7157

Paid Up Capital: Rs. 931,966,400.00   Incorporation Years: 2042 B.S.

Par Value per Share:Rs.100.00   Listing Date: 21/03/2045

CHANGES IN PAID-UP CAPITAL (Rs. in Million)

Year	Before	After	Remarks
2004/05	374.64	374.64	-
2005/06	374.64	374064	-
2006/07	374064	413.25	10.00%(Bonus)
2007/08	413.25	620.78	50.00%(Bonus)
2008/09	620.78	931.97	50.00%(Bonus)

EQUITY SHARE DATA

Year	2004/05	2005/06	2006/07	2007/08	2008/09
Paid-Up Price per Share (Rs.)	100.00	100.00	100.00	100.00	100.00
Market Price per Share:	2345.00	3775.00	5900.00	6830.00	6010.00
Closing Price (Rs.)	2345.00	3775.00	5900.00	6830.00	6010.00
Earnings Per Share (Rs.)	143.14	175.84	167.37	131.92	109.99
Book Value per Share (Rs.)	422.38	468.22	512.12	401.52	327.53
Cash Dividend per Share (Rs.)	120.00	130.00	80.00	80.00	50.00
Dividend %	120	130	80	80	50
PE Multiple	16.38	21.47	35.25	51.77	54.64
Market Capitalization of Closing Price (Rs. in millions)	8785.32	14142.68	24382.03	46497.55	56011.18
Market Price/Book Value	5.55	5.88	12.08	14.90	15.12

APPENDIX – A (II)
EVEREST BANK LIMITED
LAZIMPAT, KATHMANDU

Authorized Capital: Rs.800,000000   Paid Up Value per Share: Rs.100.00

Issued Capital: Rs.640,620000   No. of Shareholders:

Paid Up Capital:Rs638,821000   Incorporation Years: 18 oct 1994

Par Value per Share: Rs.100.00   Listing Date:

CHANGES IN PAID-UP CAPITAL (Rs. in Million)

Year	Before	After	Remarks
2004/05	315.00	315.00	-
2005/06	315.00	378.00	20.00% (Bonus) 2006/07
	378.00	378.00	-
2007/08	378.00	491.4	30.00%(Bonus)
2008/09	491.40	638.80	30.00%(Bonus)

EQUITY SHARE DATA

Year	2004/05	2005/06	2006/07	2007/08	2008/09
Paid-Up Price per Share (Rs.)	100.00	100.00	100.00	100.00	100.00
Market Price per Share:	870.00	1379.00	2430.00	3132.00	2455.00
Closing Price (Rs.)	870.00	1379.00	2430.00	3132.00	2455.00

Earning

Per Share (Rs.)	54.22	62.78	78.42	91.82	99.99
Book Value per Share (Rs.)	219.87	217.67	280.82	321.77	313.64
Cash Dividend per Share (Rs.)	-	25.00	10.00	20.00	30.00
Dividend %	-	25	10	20	30
PE Multiple	16.04	21.97	30.99	34.81	24.55
Market Capitalization of Closing Price (Rs. in millions)	52085.95	5212.62	9185.4	15390.65	15683.05

Market Price/Book Value 3.95   6.34   8.65   9.73   7.83

APPENDIX – A (III)

HIMALAYAN BANK LIMITED
THAMEL, KATHMANDU

Authorized Capital: Rs.2, 000,000,000.00   Paid Up Value per Share: Rs.100.00

Issued Capital: Rs.1, 216,215,000.00   No. of Shareholders: 8186

Paid Up Capital: Rs. 1,216,215,000.00   Incorporation Year: 2048 B.S.

Par Value per Share: Rs.100.00   Listing Date: 21/03/2050

CHANGES IN PAID-UP CAPITAL (Rs. in Million)

Year	Before	After	Remarks	
2004/05	536.24	643.50	20.00%(Bonus)	2005/06
	643.50	772.20	20.00%(Bonus)	
2006/07	772.20	810.81	5.00%(Bonus)	2007/08
	810.81	1013.51	25.00%(Bonus)	2008/09
1013.51	1216.21	20.00%(Bonus)		

EQUITY SHARE DATA

Year	2004/05	2005/06	2006/07	2007/08	2008/09
Paid-Up Price per Share (Rs.)	100.00	100.00	100.00	100.00	100.00
Market Price per Share	920.00	1100.00	1760.0	1980.00	1760.00
Closing Price (Rs.)	920.00	1100.00	1760.0	1980.00	1760.00
Earnings Per Share (Rs.)	47.91	59.24	60.66	62.74	61.90
Book Value per Share (Rs.)	239.59	228.72	264.74	247.95	256.52
Cash Dividend per Share (Rs.)	11.58	30.00	15.00	25.00	12.00
Dividend %	11.58	30	15	25	12
PE Multiple	19.20	18.57	28.69	31.56	28.43
Market Capitalization of Closing Price (Rs. in millions)	4830.00	8494.2	14270.20	24081.06	21405.38
Market Price/Book Value	3.84	4.81	6.57	7.98	6.86

APPENDIX - B (I)

Year	MPS	D	R	X	X^2	Y	XY
Standard Chartered Bank Nepal Limited							
2003/04	1745	-	-	-	-	-	-
2004/05	2345	120	0.41	0.0686	0.0047	-0.03	-0.0021
2005/06	3775	130	0.66	0.3186	0.1015	0.03	0.0095
2006/07	5900	80	0.58	0.2386	0.0569	0.45	0.1074
2007/08	6830	80	0.17	-0.1714	0.0294	0.09	-0.0154
2008/09	6010	50	-0.113	-0.4544	0.2065	-0.54	0.2453
Total			1.707		0.399		0.3447

Average Rate of Return of Market $\left(\overline{R_m}\right) = \dfrac{\sum R_m}{n} = 0.3414$

Standard Deviation $\left(\sigma_j\right) = \sqrt{\dfrac{\sum\left(R_j - \overline{R_j}\right)}{n}} = 0.2825$

Coefficient of variation (CV) $= \dfrac{\sigma_j}{R_j} = 0.82$

Covariance $(R_j, R_m) = \dfrac{\sum\left(R_j - \overline{R_j}\right)\left(R_m - \overline{R_m}\right)}{n} = 0.068$

Beta Coefficient $(\beta_j) = \dfrac{Cov\left(R_j, R_m\right)}{\sigma_m^{\ 2}} = 0.68$

Required Rate of Return $(R_j) = R_f + [E(R_m) - R_f]\ \beta_j = 0.2386$

APPENDIX - B (II)

Everest Bank Limited							
Year	MPS	D	R	X	X^2	Y	XY
2003/04	680	-	-	-	-	-	-
2004/05	870	-	0.279	-0.0716	0.005	-0.03	0.002
2005/06	1379	25	0.614	0.2634	0.069	0.03	0.007
2006/07	2430	10	0.769	0.4184	0.175	0.45	0.188
2007/08	3132	20	0.297	-0.0536	0.002	0.09	-0.004
2008/09	2455	30	-0.206	-0.5566	0.309	-0.54	0.30
Total			1.753		0.56		0.493

Average Rate of Return of Stock $(\overline{R_j}) = \dfrac{\sum R_j}{n} = 0.3506$

Standard Deviation $(\sigma_j) = \sqrt{\dfrac{\sum(R_j - \overline{R_j})}{n}} = 0.3347$

Coefficient of variation (CV) $= \dfrac{\sigma_j}{R_j} = 0.95$

Covariance $(R_j, R_m) = \dfrac{\sum(R_j - \overline{R_j})(R_m - \overline{R_m})}{n} = 0.0986$

Beta Coefficient $(\beta_j) = \dfrac{Cov(R_j, R_m)}{\sigma_m^2} = 0.98$

Required Rate of Return $(R_j) = R_f + [E(R_m) - R_f]\,\beta_j = 0.3149$

Year	MPS	D	R	X	X^2	Y	XY
2003/04	840	-	-	-	-	-	-
2004/05	920	11.58	0.109	-0.09	0.0081	-0.03	0.0027
2005/06	1100	30	0.228	0.031	0.096	0.03	0.0009
2006/07	1760	15	0.614	0.417	0.174	0.45	0.187
2007/08	1980	25	0.139	-0.058	0.0034	0.09	-0.005
2008/09	1760	12	-0.105	-0.302	0.09	-0.54	0.163
Total			0.985		0.371		0.348

(Himalayan Bank Limited)

$$R = \frac{\text{Dividend} + (\text{Ending Price} - \text{Beginning Price})}{\text{Beginning Price}}$$

$$= \frac{11.58 + (920 - 840)}{840}$$

$$= 0.109$$

Average Rate of Return of Stock $(\overline{R_j}) = \frac{\sum R_j}{n}$

$$= \frac{0.985}{5} = 0.197$$

Standard Deviation $(\sigma_j) = \sqrt{\frac{\sum (R_j - \overline{R_j})}{n}}$

$$= \sqrt{\frac{0.371}{5}} \qquad = 0.272$$

Coefficient of variation (CV) $= \dfrac{\sigma_j}{R_j} = \dfrac{0.272}{0.197} = 1.38$

Covariance $(R_j, R_m) = \dfrac{\sum \left(R_j - \overline{R_j}\right)\left(R_m - \overline{R_m}\right)}{n} = \dfrac{0.348}{5} = 0.0696$

Beta Coefficient $(\beta_j) = \dfrac{Cov\left(R_j, R_m\right)}{\sigma_m^{\;2}} = \dfrac{0.0696}{(0.317)^2} = 0.62$

Required Rate of Return $(R_j) = R_f + [E\,(R_m) - R_f]\,\beta_j$

$\qquad\qquad\qquad = 0.0655 + (0.32 - 0.0655)\,0.62 \quad = 0.2233$

APPENDIX – B (IV)

NEPSE Index & Annual Return				
Year	NEPSE Index	Annual Return (R)	$(R_m - \overline{R_m})$	$(R_m - \overline{R_m})^2$
2003/04	222.04	-	-	-
2004/05	286.67	0.29	-0.03	0.0009
2005/06	386.83	0.35	0.03	0.0009
2006/07	683.95	0.77	0.45	0.2025
2007/08	963.36	0.41	0.09	0.0081
2008/09	749.10	-0.22	-0.54	0.291
Total		1.60		0.5034

MPS = Market Price per Share   D = Dividend   R = Annual Return

X= $(R_j - \overline{R_j})$ **Individual Bank** $Y = (R_m - \overline{R_m})$ **Market**

Average Rate of Return of Market $(\overline{R_m}) = \dfrac{\sum R_m}{n}$

$$= \frac{1.60}{5} \quad = 0.32$$

Standard Deviation $(\sigma_m) = \sqrt{\dfrac{\sum(R_m - \overline{R_m})}{n}}$

$$= \sqrt{\frac{0.5034}{5}} \quad = 0.317$$

APPENDIX - C (I)

Required Rate of Return of Banks	
Banks/Indicators	Required Rate of Return (%)
Himalayan Bank Ltd.	22.33
Everest Bank Ltd.	31.49
Standard Chartered Bank Nepal Ltd.	23.86

APPENDIX - C (II)

Variance and Coefficient of Variation of Banks		
Banks	Variance (%)	Coefficient of Variation
Himalayan Bank Ltd.	7.40	1.38
Everest Bank Ltd.	11.20	0.95
Standard Chartered Bank Nepal Ltd.	7.98	0.82

APPENDIX - D

Risk and Return of Banks			
Banks	Price	Return	Risk
HBL	Over priced	Lesser than the market	Defensive with high systematic risk, less volatile than market
EBL	Under priced	Higher than the market	Defensive with high systematic risk, more volatile than market
SCBNL	Under priced	Higher than the market	Defensive with high systematic risk, less volatile than market

APPENDIX - E (I)

Beta Coefficient of Banks	
Banks	Beta Coefficient
Himalayan Bank Ltd.	0.62
Everest Bank Ltd.	0.98
Standard Chartered	0.68

APPENDIX - E (II)

Coefficient of Variation of Banks	
Banks	Coefficient of Variation
Himalayan Bank Ltd.	1.38
Everest Bank Ltd.	0.95
Standard Chartered Bank Nepal Ltd.	0.82

APPENDIX - E (III)

Expected Required Rate of Return of Banks	
Banks	Expected Required Rate of Return (%)
Himalayan Bank Ltd.	19.70
Everest Bank Ltd.	35.06
Standard Chartered Bank Nepal Ltd.	34.14

APPENDIX –F

S.N.	Banks	O/S Equity	Closing Price	Paid up Value	No.of Transaction	Traded Shares in Units (in '000)	Traded Amount Rs. (in million)	Total Paid Value (in million)	Total Market Value (in million)
1	HBL	12,162,150	1,760	100	1562	163.99	338.37	1216.22	21405.38
2	EBl	6,388,210	2,455	100	2352	188.61	863.65	965.75	15683.5
3	SCBNL	9,319,664	6,010	100	2960	225.18	1248.55	931.50	56011.18

Trend Values of NEPSE Index

Year (t)	NEPSE Index (y)	x = (t – 2006)	x^2	xy	$Y_c = a + bx$ $Y_c = 503.32 + 217.22x$
2004	222.04	- 2	4	-444.08	68.88
2005	286.67	- 1	1	-286.67	286.10
2006	386.83	0	0	0	503.32
2007	683.95	1	1	683.95	720.54
2008	963.36	2	4	1926.72	937.66
2009	749.10	3	9	2247.30	1154.98
Total	$\sum y = 3091.95$	$\sum x = 3$	$\sum x^2 = 19$	$\sum xy = 4127.22$	

Now,

$$a = \frac{\sum y}{N} \qquad = 3091.95 / 6 \qquad = 503.32$$

$$b = \frac{\sum xy}{\sum x^2} \qquad = 4127.22 / 19 \qquad = 217.22$$

Year (t)	x = (t – 2006)	$Y_c = a + bx$ $Y_c = 503.32 + 217.22x$
2010	4	1372.20
2011	5	1589.42
2012	6	1806.64
2013	7	2023.86
2014	8	2241.08

APPENDIX – H

Sharpe performance measure

Stock	$\overline{Ri}$ %	σi %	Rf %	$Si=\dfrac{\overline{Ri}-Rf}{\sigma i}$	
Standard	34.14	28.25	6.55	0.977	**Market performance under Sharpe measure**
Everest	35.06	33.47	6.55	0.851	
Himalayan	19.7	27.2	6.55	0.483	

$$=\frac{32\%-6.55\%}{31.7\%}=\mathbf{0.803}$$

APPENDIX -I

Treynor's performance measure

Market performance under Treynor's measure

Stock	$\overline{Ri}$ %	β %	Rf %	$Ti=\dfrac{\overline{Ri}-Rf}{\beta i}$	
Standard bank	34.14	0.68	6.55	40.57	$=$ $\dfrac{32\%-6.55\%}{1}$ $=25.45\%$
Everest bank	35.06	0.95	6.55	30.01	
Himalayan bank	19.7	0.62	6.55	21.21	

Jension's performance measure

Stock	αp%	β	Rf %	αp=$\bar{\sigma}p$-[Rf+$\beta p[\overline{rm} - Rf]$
SCBL	34.14%	0.68	6.55	10.28
EBL	35.06%	0.95	6.55	4.33
HBL	19.7%	0.62	6.55	-4.12

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