CHAPTER – I
INTRODUCTION

1.1 General Background

Financial Market is the place where the financial instruments like share, bond and debenture are traded. "A financial market is a market for creation and exchange of financial assets if you buy or sell financial assets, you will participate in financial market in some way or other" (Prassanna, 2002:24).

Financial markets can be divided into money markets and capital markets. Money markets are the markets for debt securities with maturities of less than one year. Money markets basically involve the trading of short securities. Money markets are sometimes classified as organized and unorganized markets. The organized or formal money markets provide and institutional mechanism for the transactions of short-term securities and commercial banks, Finance companies and other savings/credit unions are the players in the money market. Local merchants, indigenous bankers and relatives come under the informal sector or unorganized sector. Capital market are the markets for long term debt and corporate stock. Capital markets are also classified as primary market and secondary markets. Primary markets are the markets in which corporate bodies raise new capital and in which newly issued securities are involved. Secondary markets are market in which existing/outstanding securities are traded among by the SEBON and the other services such as issue managers, underwriting and listing of corporate stocks are provided by licenses company/bodies. NEPSE is the only one organized stock market which provides floor for the trading (buy and sell) of securities already issued.

Each market serves a different set of customer or deals with different types of security. Transfers of capital between savers and those who need capital take place in different ways like direct transfer, indirect transfer through investment banks and indirect transfer through financial intermediaries.

To reflect this dynamic environment, the functions and objectives of the Bank have been recast by the new NRB Act of 2002, the preamble of which lays down the primary function of the Bank as: to formulate necessary monetary and foreign exchange policies to maintain the stability in price and consolidate. The balance of payments for sustainable development of the economy of the kingdom of Nepal; to develop a secure, healthy and efficient system of payments; to make appropriate supervision of the banking and financial system in order to maintain its stability and foster its healthy development; and to further enhance the public confidence in Nepal's entire banking and financial system.

1.1.1   Securities Board Nepal (SEBON)

Securities Board, Nepal was established on 26 May 1993, under the provision of the securities exchange Act, 1983. It was established with the objective of promoting and protecting the interest of investors by regulating the securities market. It also assumes the responsibility of development of securities market in the country, besides the regulatory role. Board has identified the policy development, legal and regulatory reform, standardizing disclosures, bringing enforcement to ensure compliance and promoting broad based market as a priority area to reform. The Private sector has also been participating equally in establishing a sound system of securities exchange. In private sector – investors, listed companies, financial and market intermediaries and in government sectors Ministry of Finance, registrar of companies (Ministry of Industry, commerce and Supply), Nepal Rastra Bank, Nepal Stock Exchange, Federation of Nepalese chamber of Commerce and Industries (FNCCI), Institute of Chartered Accountants of Nepal (ICAN) and Association of Chartered Accountants have been playing vital role in promoting the capital market of the country.

The objectives of the Board are to promote and protect the interest of the investors by regulating the issuance, sale and distribution of securities and purchase, sale or exchange of securities, to supervise, look after and monitor the activities of the stock exchange and other related firms on securities business, and to render contribution to the development of capital market by making securities transactions fair, healthy, efficient and responsible.

1.1.2 Nepal Stock Exchange (NEPSE)

Nepal Stock Exchange was established in 1993 under Securities Exchange Act 1983. Nepal stock exchange was known as securities exchange centre earlier.

Securities exchange centre was established with and objective of facilitating and promoting the growth of capital markets. The major task undertaken by Nepal stock exchange are brokering, underwriting, and managing public issue, marking market for government bonds and other financial services. Nepal stock exchange is a non-profit organization operating under Securities Exchange Act, 1983.

It was established with joint effort of Nepal industrial Development Corporation and Nepal Rastra Bank to mobilize the public saving for ensuring public ownership in the shares of pubic limited companies. In order to promote the stock exchange business, the centre made a series of studies in the beginning regarding both the public limited companies and undertaking the business of buying and selling of securities. Nepal stock exchange started its trading operation on 13 February1994 through its licensed member.

According to the Securities Act.1983, the board of directors of NEPSE of NG and different institutional investors nominate nine directors, among them six directors are nominated by NG and different institutional investor. Two from the licensed members and the General Manager of the NEPSE are the Ex-officer Directors of the board.

The authorized capital of exchange is Rs. 50 million and Rs. 30.41 million are subscribed by NG Nepal Rasta Bank, Nepal Industrial and Development Corporation and licensed member .

At present, there are 24 member's broker and 2 market maker; besides this, it has licensed both dealers as primary and secondary market.

In 15th July 2005 (Asar 31,2062) 128 companies have listed their securities. These members of NEPSE are permitted to act as intermediaries in buying and selling of government bonds and listed corporate securities.

NEPSE has adopted an "Open Out Cry system. It means transactions of securities are conducted on the open auction principle on the trading floor, where the price is determined when bid and offer price match.

NEPSE has fixed the board lot of 10 shares if the face value is Rs.100 or100 shares if the value is Rs.10. The transactions on regular trading should be done on at least one board lot. The transactions of less than 10 shares are permitted only on odd lot trading hours.

NEPSE has adopted a T+3 systems, which mean that settlement of transactions, should be done within 5 working days following the transactions per day.

The rate of brokerage on equity transactions ranges from 1 percent to 1.5 percent depending on the traded amount.

Similarly the basic objectives of Nepal Stock Exchange is to impart free marketability and liquidity to the government and corporate securities by facilitation transactions on its trading floor through market intermediaries such as brokers, market makers etc.

1.1.3 Securities Market

In simple sense, securities market is a place where people by and sell financial instruments. There financial instruments may be in form of government bonds, corporate bonds or debentures, ordinary share, preference share etc. So far securities market is concerned; it is an important constituent of capital market. It has a wide term embracing the buyers and sellers and all the agencies and institutions that assist the sale and resale of corporate securities. Although securities market is concerned in few locations, they refer more to mechanism rather than to pace designed to facilitate the exchange of securities. This securities market can be defined as a mechanism for bringing together buyers and sellers of financial assets in order to facilitate trading. In order to allocate capital efficiently and maintain higher degree of liquidity in securities, the securities market should be efficient enough in pricing the shares solely by economic considerations based on publicly available information.

An efficient market is one where current price of the share gives the best estimate of its true worth. Thus the securities market is a place where shares of listed companies are traded or transferred from one to another a fair price through the organized brokerage system. The major function of securities market is to provide ready and continuous market for purchases and sales of securities at a competitive price thereby, importing future market ability and liquidity. It is a medium through which scattered savings and scarce resources and transferred to productive areas that ultimately help in the economic development and industrialization of the nation.

Primary Market

Primary Markets denote the market mechanism for the original sale of securities by an issuer to the public. It is the market in which the securities are sold at the time of their initial issuance. In other words, a market for newly issued securities is called primary market. Corporate bodies issue new securities in the primary market. Securities available for the first time are offered through the primary securities market. The issuer may be a brand new company or one that has been in business for many years. The securities offered might be a new type for the issuer or additional amount of a security – used frequently in the past. The key is that these securities absorb new funds for the coffers of the issuer.

All the securities whether in the money market or capital market, are initially issued in the primary market. This is the only market in which the corporate or government issuer is directly involved in the transaction and receives direct benefit form the issue that is the company actually receives the proceeds from the sale of securities.

Secondary Market

Secondary Market is the market in which securities are traded that has been issued at some previous point of time. In other word, where outstanding securities are traded is referred to as the secondary market or more popularly known as the stock market. Share or stock market is a major component of the securities market. Stock market is a medium through which corporate sector mobilizes funds to finance productive projects by issuing shares in the market. The efficient collection of small amounts of savings and transferring

funds into the competitive and efficient uses requires a well functioning capital market to facilitate the process. Thus secondary market deals with previously issued shares mainly traded through stock exchange, over the counter market or direct sealing.

Secondary market in simple sense, are markets in which existing, already outstanding securities are traded between investors. It is the market that creates the price and allow for liquidity. If secondary market did not exist, the investors would have no place to sell their assets. Without liquidity many people would not invest at all. The corporations whose securities are being traded are not involve in secondary market transactions and thus do not receive any funds from such a sale. The function of secondary market is to provide liquidity for the securities purchased in the primary market.

1.2 Statement of the Problem

In this present context investment in capital market plays a major role in the economic development of the country. The stage of development of capital market in any country and it effective growth depends upon the aggregate economic condition, saving and investment opportunities etc.

There are various institutions involved in the capital market but they are not showing positive and good performance as per the investor's expectations. On the other hand, the investors are not responsible for having self control, self judgment in the choice of the securities for investment. Besides that price earning information are not made available to the investors and the investors cannot identify good and bad stocks. Thus having lack of adequate information and knowledge about the certain companies, investors are unsystematically investing in stocks.

Existing economic imbalance, political instability, ineffective implementation of liberal economic policy of the country have generated negative symbols in the economy. The prices of the securities especially common stock have been randomly fluctuating and declining over the past years. Consequently, some companies were liquidated and some are operating hardly in the market. The policy makers are unable to make the appropriate

policy for the development of the stock market. Most of the government level efforts for the development of the stock market have poorly contributed.

Stock price is determined by demand and supply. Both the qualitative and quantitative

Factor determines the stock price. However, to specify exactly what factor do determine stock price is a controversial/unpredictable issue. Share price is the function of the several factors. The stock price fluctuates time to time and stock exchanges react to the environmental changes. However, for some environmental changes, the stock exchanges have no effect. This study will by to identify the determinants of stock price and find out the degree of affection of these determinants more.

The stock market is showing a bullish trend. Some analysts agrees that the Nepal stock exchange is following the global trend. But up to till date, we can't say that the Nepal stock, market is able to sense the global effect. Nepal Stock Market is not concentrated the domestic environments, such as the once outside the Katmandu valley. The market has increased even when there are general bomb blast and general strikes in and outside the Katmandu valley for example; when the Maoists called for a week long general strike beginning February 5th in 2006. NEPSE index increased 123 point on February 7. Some as NEPSE index in creased by 25% during one year of the Kings direct administration. After the Loktantra 2006 June NEPSE makes new history one by one. NEPSE Index crosses over 600 points in its 14 years history.

More specifically, this study is expected to answer the following research questions:

1. What are the major determinants of the stock price in NEPSE?
2. How do political and economic instability affect the stock price?
3. How does administrative power of state affect the stock price?
4. How do earning and book value affect the stock price?

1.3 Objective of the Study

Investors require proper knowledge of share price i.e. how it is formed, why does it fluctuate, what factors are responsible for the determination of its price and so on. Furthermore, this study is proposed to meet the following objective:

) To identify financial indicators, which have major influence in determining stock price

) To identify the major determinants of the stock price in NEPSE.

) To identify whether stocks of the sampled companies are over-priced, under priced or at equilibrium price.

) To analyze investors response regarding on the change of stock price.

) To identify qualitative as well as quantitative factors affecting the stock price in NEPSE with focus to listed company.

1.4 Significance of the Study

The study may draw the attention from every investors and academicians and also other interested parties.

- This study extremely helpful to the financial managers of corporate firms to Know about the movement and price formation of stock of their share price with respect to change in financial position of the firms.

- This study is very useful to potential investors who are interested to know the effect of price trend, volume of stock and impact of signaling factors in NEPSE index.

1.5 Limitations of the Study

The study has some limitations; basically the study is done for the partial fulfillment of masters of business studies. This study tries to explore the factor determining the stock price in Nepal Stock Exchange both the primary and secondary data are analyzed. However this study may face the following limitation during the course of research.

- Time constraints

- Takes into account a few number of selected organization from among the listed companies.

- The resources are limited.

- Most of the primary data based on research questionnaires.

1.6 Organization of the Study

The present study is organized in such way that the stated objectives can easily be fulfilled. The structure of the study will try to analyze the study in a systematic way. The study report has presented the systematic presentation and finding of the study. The study report is designed in five chapters, which are as follows:

Chapter – I: Introduction

This chapter describes the basic concept and background of the study, introduction commercial bank origin of bank in Nepal, introduction of Nabil bank, lending management, statement of the problems, objectives of the study, significance of the study and limitations of the study.

Chapter – II: Review of Literature

This chapter includes conceptual review, review of related study, different thesis, and review of journals, articles and research studies published by various authors.

Chapter – III: Research Methodology

This chapter includes research design, data collection, methods and analysis and research variables.

Chapter – IV: Presentation and Analysis of Data

This chapter analyses the data related with study and presents the finding of the study. Data processing, data analysis and interpretation are given in this chapter.

Chapter – V: Summary, Conclusions and Recommendations

The last chapter contains the findings of whole study after which major conclusions and recommendations are provided.

CHAPTER - II

REVIEW OF LITERATURE

This study is primarily associated with the determinants of equity price i.e. market price of share. Therefore in this chapter, full efforts made to explore the theoretical aspects of the concerned topic. Investors' prime focus is to get the highest market price of their holdings (shares). And, in the same manner, financial goal of any corporation is to maximize shareholders' wealth. Hence, market price of equity is the meeting point of both - the investors and the corporation. This is the main issue due to which equity price has got tremendous concentration in financial management. Most of the consulted books bring at least one chapter in connection with the issue. However this chapter deals with the basic theoretical concept upon which this study is based. This chapter is divided into two sections - the first section deals with theoretical framework and 'factors influencing stock price' and the second reviews previous studies.

2.1. Theoretical framework

This segment mainly focuses the theoretical aspect of common stock, its trading on stock market along with the concept of efficient market hypothesis. In other words, this segment is the book review of this chapter.

2.1.1 Common stock

Common stock represents equity or an ownership position in a corporation. It is a residual claim, in the sense that creditors and preferred stock holders must be paid as scheduled before common stockholders can receive any payment. In bankruptcy, stockholders are in principle entitled to any value remaining after all other claimants have been satisfied. Hence, common stock is a legal representation of the right to receive perspective future benefit under stated conditions.

Common stocks are generally 'fully paid and non-assessable'. It is in the sense that common stockholders may lose their initial investment, but not more. That is, if the corporation fails to meet its obligations, the stockholders cannot be forced to give the

corporation the funds that are needed to pay off the obligations. However, as a result of such a failure, it is possible that the value of a corporation's share will be negligible. This will result in the stockholders' have lost an amount equal to the price previously paid to buy the shares.

Common stockholders are entitled to stock certificate, which in fact represents ownership position. In other words, a single certificate has typically represented the ownership of a firm's stock with the number of shares held by the particular investors noted on it. Such a stock certificate is usually registered with the books. Dividend payments, voting materials, annual and quarterly reports and other mailing are sent directly to the investors taking in to account the size of his or her holdings.

A share of a common stock can be authorized either with or without par value. The par value of a stock is merely a stated figure in the corporate charter and is of little economic significance.' A company should not issue stock at a price less than par value because stockholders who bought stock for less than par value would be liable to creditors for the difference between the below - par price they paid and the par value.' As stated frequently, common stockholders are legal owners of the corporation and thus they are entitled to bear the risk of ownership. Common stock entitles its owner to dividends but only if the company has earnings out of which dividends can be paid and only if management chooses to pay the dividends rather than to retain all the earnings. Common stock in legal sense does not provide any promise to pay dividends. The holders of common stock may expect dividends but such expectation may not in fact be met. It is, therefore, said that investing in common stock is riskier than investing in any other 'fixed income securities'. In this way, common stockholders expect to collect dividends and eventually cash dividends stream and the price appreciation. Suppose that the current price of share is P0, the expected price at the end of a year is P1 and the expected dividend is D1, the rate of return that investors expect from the share over the next year is defined as the expected dividend per share D1 plus expected price appreciation per share P1- P0, all divided by the price at the start of the year P0.

$$\text{Expected return} = \frac{P_1 Z P_0 \Gamma DIVIDEND}{P_0}$$

$$= \text{Dividend yield} + \text{capital gain yield}$$

This return that is expected by investors is often called the market capitalization rate.

As far the legal rights and privileges of common stockholders, they are the owners of a corporation. They have the right to elect the firm's directors, who in turn elect the officers who will manage the business. Each share of stock has one vote. Stockholders can appear at the annual meeting and vote in person, but typically they transfer their right to vote to a second party by means of proxy. Proxy is an "a document giving one person the authority to act for another, typically the power to vote shares of common stocks" (Weston & Brigham, 2002:676). Management always solicits stockholders' proxies and usually gets them. However, if earnings are poor and stockholders are dissatisfied, an outside group may solicit the proxies in an effect to overthrow management and take over control of the business. This practice is widely known as proxy fight by which we mean ' an attempt by a person, group, or company to gain control of a firm by getting the stockholders to grant them the authority to vote their shares of stock in order to vote a new management' into office. In this way, voting right is the main and foremost important right of stockholders.

2.1. 2 Capital market

A place where long term lending and borrowing takes place is known as capital market. Therefore, the capital market is the market for long term borrowing and lending. The primary instruments of the capital market are stock and bonds (equity and debts). Therefore it includes both the new issue market and the old market. Capital market is concerned with the long-term finance: widely it consists of series of channels through which the saving of individuals and corporations and acts as a mediator to convert the saving in to productive activities which ultimately yields additional capital.

The history of capital market is not so old. The establishment of securities exchange center on 2033 BS developed the capital market. 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. The privatization of public entities has been started and various banking and finance companies as well as other manufacturing and processing companies in private sector are being established with domestic and foreign investments. As they were established as public limited companies, these companies had to issue some of their shares to the general public. So the real role of the securities market in Nepal took it place only when the banks and finance companies, insurance companies were established.

Nonetheless, the establishment of securities market has guaranteed the trading of shares. NEPSE index is the only one measuring rod of Nepalese economy, which more or less reflects the current status of Nepalese economy.

2.1.3 Security market

It is the mechanism created to facilitate the exchange of financial assets. Therefore, security market exists in order to bring together buyers and sellers of securities. Hence, the main focus of security markets is to trade financial assets by way of being the mediator between the buyers and sellers. Security markets can be distinguished in various ways. One way is primary and secondary markets. Primary markets are the markets from where corporations raise new capital. The corporation, selling the newly created stocks, receives the proceeds from the sale in a primary market transaction. Secondary markets are markets in which existing, already outstanding securities are traded among investors. In short, security markets are secondary (opposed to primary) markets because the financial assets traded on them, were issued at previous point in time.

Stock market are said to provide at least four economic functions,
Security exchange facilitates the investment process by providing a market place to conduct efficient and relatively inexpensive transaction. Investors thus assured that they would have a place to sell their securities if they decide to do so. The securities markets

investors who are wiling to accept a lower rate of return on securities than they would otherwise require provide increased liquidity.

They are capable of handling continuous transactions, testing the value of securities. The purchase and sale of securities record judgments on the values and prospects of t community have higher value, which facilitate new financing and growth.
Security prices are relatively more stable because of the operation of the security markets. Securities markets improve liquidity by providing continuous markets that make for more frequent but smaller price changes. In the absences of active markets, price changes are less frequent but more violent. The securities markets aid in the digestion of new security issues and facilitate their successful flotation (Weston and Copeland: 1999:92).

In conclusion, the most effective use of idle and surplus resources can be brought in to practice only by means of market mechanism. Securities market, a structural network of savers and users of fund, is such a market mechanism, which mobilized the fund of savers to the users and thus their financialization boosts the industrialization and trading activities, which will bring the positive result to the economy as a whole. Importantly, securities market performs two functions, namely the raising of funds in form of shares and debentures and trading the securities already issued by the companies.

2.1.4 Stock exchange

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

Most of the investors are attracted to the equity share 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, one can, by and large, easily find his counterpart for sale or purchase of shares. The investors can

convert his shares in to cash at the prevailing market prices readily. The existence of a 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 investors' fund. Without exchange, investors might have to hold debt security to maturity and equity security to indefinitely. It is doubtful that many people would be willing to invest under such conditions. A continuous market also reduces the volatility of security prices further enhancing liquidity.

The securities exchange helps 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 assess 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 a lot of functions of securities exchange such as ready market and continuous market, evaluation of securities, safety transactions, capitalization of savings and widening the share ownership etc. however, besides these functions, there are three things a securities exchange must do:

Determine a fair price for the securities it trades or price discovery.

Enable transaction to be made at as low cost as possible or minimization of transaction cost.

Enable transaction to be made at this price quickly and easily or provision for liquidity.

2.1.5 Function of stock exchange

Security is a legal representation of the right to receive future benefits under conditions. Its value depends on expectation of the amount of those benefits and evaluation of risks involved. Expectation and evaluation reflect both the information available and the conclusions, people draw from that information. Since the market may quite big, no single buyer or seller can influence the price of shares to any significant extent.

Price discovery is the process of arriving at fair prices for securities. Fair price indicates the compromise between fair offer prices (lower price at which any well informed buyer is willing to pay). Different markets do this in different way and different ways of organizing a market affect how closely the market approaches the idea of fair prices. In this connection, the profound concept of ideal market or market efficiency is most, since it is the fundamental precondition for approaching to the fair price. In an ideal market, value of securities equals its price and price reflects all available information about the market.

In the securities market, there is a great importance of demand and supply for price fixation. Exclusively the interacting forces of demand and supply converting on such stock at a given time determine the price of a given stock, that the price and volume of its past transactions are meaningful indicators of the probable relationship of the future and demand pressure. It is likely to encounter in the market and that such relationship is the most important element in determining the probable direction of the price movements.

2.1.6 Price determination

The main issue that this study tries to bring in light is the identification of 'Determinants of Equity Price'. Books, researches and consulted journals have suggested that there is no any such factors which directly shape the MPS in terms of its monetary value. However, the true fact is that certain factors must affect equity price. In this connection, full efforts have been made to identify such factors, which shall be dealt in the following chapters.

The share price is determined in the floor of security market, by the interaction of market forces i.e. demand and supply. The price is determined by the point of equilibrium between supply and demand, the shifting of this balance results in incessant adjusting of price in search of the ever- changing new equilibrium. Then market price moves upward and downward. There are many other reasons that causes the stock price fluctuation, major of them are economic, non-economic and market factors.

Dividend and price appreciation is the most important factors among the determinants. Dividends are strongly influenced by the earning power of the firm. There is a very close correlation between corporate earnings and dividends. Earning power, in turn, is strongly influenced by interest rates. In this way, the most fundamental factors in stock price fluctuation lie in the changes in corporate earnings (which shape dividend), growth rate in earnings and dividends, earning multiplier, required rate of return and the net worth. The secondary factors in this regard are business cycle trends and other factors of general business environment such as changes in political conditions, administrative change, technological advancement, cultural changes and the like. Similarly the other influencing factors are informational/signaling factors, which ultimately affect the demand-supply relationship. The work of securities' price determination is really a difficult task. Therefore, two approaches to analyzing the securities are being used: they are fundamental analysis and technical analysis. Fundamentalists use the internal factors of equity price movement where as technicians use market related factors, forming the chart of historical data of price movements and their consequences.

2.1.7 Theory of price behavior

Demand and supply forces interact to determine the stock market price. If demand is high and supply is low then the price of stock goes up and vice-versa. There are essentially two schools of thought to explain the stock price behavior. They are:

I   Inefficient market theory

II   Efficient market theory

2.1. 7.1 Inefficient market theory

The main theme of this theory is that the security market is inefficient. This theory is also known as conventional approach of security price analysis. It includes technical analysis theory and fundamental analysis theory, because "Prior to the development of efficient market theory, investors were generally divided into two groups: Fundamentalists and Technicians" (Reilly: 1986:347). The two groups are explained as follows:

1) Technical analysis

Technical analysis is an important approach to analyzing securities price. Under this topic, the philosophy of technical analysis and tools used by technician are explained.

A technical analysts or technician is a security analyst who believes, it is not productive to work through all the fundamental facts about the issuing corporation- the company's earnings, its products, forthcoming legislation that might affect the firm, ad infinitum. Instead, technical analysts believe that these innumerable fundamental facts are summarized and represented by the market prices of a security. Technical analysts focus most of their attention on charts of security prices and on related summary statistics about security transactions. As a result, technical analysts are sometimes called chartists. Most technical analysts prepare and study charts of various financial variables in order to make forecasts about security prices, but an increasing number use quantitative rather than graphical tools. Professional technical analysts use dozens of different techniques.

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. Typically, technical analysts record 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 the movements of a single security, others are used to predict the movements of a market index, and, still others are used to predict the action of both individual assets and the market. The basic assumptions underlying technical analysis are listed below:

I. Market value is determined by the interaction of demand and supply.
II. Supply and demand is governed by numerous factors, both rational and irrational.
III. Security prices tend to move in trends that persist for an appreciable length of time, despite minor fluctuations in the market.
IV. Changes in a trend are caused by the shifts in supply and demand.
V. Shifts in supply and demand, no matter why they occur, can be detected sooner or later in charts of market transactions.

VI. Some chart patterns tend to repeat themselves (Francis: 1986:522).

Price moves in trends. A trend indicates that there exists an inequality between the forces of supply and demand. Such changes in the forces of demand and supply are usually readily identifiable by the action of the market itself as displayed in the prices. Certain patterns or formations that appear on the charts have a meaning and can be interpreted in terms of probable future trend development.

Followings are the tools used by technical analysts to measure supply and demand and forecast securities prices. The remarkable limitation of these tools is that it is quite descriptive or subjective in its type.

A) The venerable Dow Theory

The Dow Theory is one of the oldest and most famous technical tools: Charles Dow, founder of the Dow Jones Company and editor of the wall street journal around 1900, originated it. Though, the Dow Theory is old, many versions of the theory exist and are used even today: it is the basis for much of the work done by technical analysts. The Dow theory is used to delineate trends in the market as a whole or in individual securities. Dow Theory practitioners refer to these components as:

I. Primary trends are commonly called bear or bull markets. Delineating primary trends is the primary goal of the Dow theorists.

II. Secondary movements last only a few months. Secondary movements are sometimes called corrections.

III. Tertiary moves are simply the daily fluctuations. The Dow theory asserts that daily fluctuations are essentially meaningless random wiggles. Nonetheless, the chartist should plot the asset's price or the market average each day in order to trace out the primary and secondary trends.

B) Bar charts

Technical analysts employ different charting techniques. Bar charts have vertical bars representing each day's price movement. Each bar spans the distance from the day's highest price to the day's lowest price, and a small cross on each bar marks that day's closing price.

Line charts and bar charts usually have bar graphs along the bottoms of the charts showing the volume of shares traded at each date. Next to the prices, trading volume is the second most important statistic technicians follow. As an example of how technical analysts try to relate stock price moves and the volume of shares traded, we can consider a "head and shoulders" pattern formation. A head and shoulders top (HST) is a formation, which is supposed to signal that the security's price has reached a top and will decline in the future. The market action that firms a HST can be broken down in to four phases.

I. Left shoulder: A period of heavy buying followed by a lull trading pushes the price up to a new peak before the price begins to slide down.

II. Head: A spurt of heavy buying raises prices to a new high and then allows the price to fall back below the top of the left shoulder.

III. Right shoulder: A moderate rally lifts the price somewhat but fails to push prices as high as the top of the head before decline begins.

IV. Confirmation or break out: Prices fall below the neckline, that is, line drawn tangent to the bottoms of the left and right shoulders. This break out is supposed to precede a price drop and is a signal to sell.

C) Confidence index

Two indicators of confidence have been popular with market analysts. One is based upon Barron's ratio of higher to lower-grade bond yield. The other compares Standard and Poor's low priced and high - grade common stocks.

Barron's indicator divides high-grade bond yields by the relatively higher yields of low-grade bonds. A rise in the index indicates a narrowing of the spread between high-and low-grade bonds. Narrowing yield spreads were indicative of boom times or rising stock

markets: so a fall in index would imply widening yield spreads and recessed conditions in the economy and markets. The assumptions behind the value of index is that 'smart' money moves from high to low quality, or vice- versa, in anticipation of major market shifts, and such a move causes yield spreads to change. To the extent that this is true, Barron's confidence index is a leading indicator of the economy and the stock market.

The S & P confidence indicator measures low priced common stocks and high-grade common stocks. Speculative stocks are assumed to be closely identified with low priced shares. When the market is become advance, investors are willing to take greater risks and buy speculative (low priced) stocks. During market declines, quality (in high-grade stocks) is sought. The index (low-priced/high grade) would fall prior to a market peak as confidence wanes and speculative stocks are changed for high quality shares. A rise in the index would signal revival from a market bottom.

D) Breadth of market

Breadth -of - market indicators are used to measure the underlying strength of market advances or declines. To gauge the real underlying strength of the market, analysts need tools to measure the breadth of the market's moves. One of the easiest tools is to compare the number of issues that advanced in price and the number that declined in some particular market. More specifically, the number of issues whose prices declined is subtracted from the number of issues whose prices advanced each day to get daily net advances or declines. Cumulating the daily net advances and declines: the breadth of market statistic is obtained. Only the direction, not the level, of the breadth of market statistics is relevant.

E) Relative strength analysis

The relative strength approach to technical analysis suggest that the prices of some securities rise relatively faster in a bull market or decline relatively more slowly in a bear market than other securities- that is Some securities exhibit relative strength. Relative strength technicians believe that by investing in securities that have demonstrated relative strength in the past, an investor will earn higher returns because the relative strength of a

security sometimes continues for some times. The relative strength may be applied to individual securities or industries. Technicians measure relative strength in several ways. Some simply calculate rate of returns and classify those securities with historically high average returns as securities with high relative strength.

F) Charting volume of shares traded data

Many technical analysts believe they can get a better idea of whether a market is bullish or bearish by studying trading volume. Volume is supposed to be a measure of the intensity of investors' emotions. There is a Wall Street adage that " it takes volume to move a stock", either up or down in price. And a large amount of trading volume is often associated with large price changes. Thus, it is reasonable for stock price chartists to study volume data in an effort to discern what might cause specific stock price movements. But the cause-and-effect relationship between the volume of shares traded and the price change in the traded security is vague and hard to unravel.

Some technicians also look for "speculative blow off" to mark the end of a bull market. A speculative blow off is a high volume of buying that pushes prices up to a peak: it is supposed to exhaust the enthusiasm of bullish speculators and make way for a bear market to begin. Technicians who believe that a speculative blow off marks the end of a bull market say, "The market must die with a bang, not a whimper."

G) Moving-average analysis

Technicians, who follow this tool to analyze and predict the security price, are called moving average technicians or rate of change technicians. Under this method, they predict security price by watching a moving average of the price of security. The moving average is used to provide a smoothed, stable reference point against which the daily fluctuations can be gauged. Rate-of-change analysis is used for individual securities or market indexes.

Selecting the span of time over which to calculate the moving average affects the volatility of the moving average. Some technicians who perform rate of change analysis

use a 200-days moving average of closing prices. The moving average changes each day as the most recent day is added and the two-hundred-and first day is dropped. In this way, technicians construct moving average chart.

2. Fundamental analysis

Fundamental analysis approach involves working to analyze different factors such as economic influences, industry factor, governmental actions, firm's financial statement, its competitors and pertinent company information like product demand, earnings, dividends and management in order to calculate an intrinsic value for firm's securities. The analyst who believes on fundamental facts to determine the intrinsic value of stock is popularly known as fundamental analyst or fundamentalist.

Fundamentalists forecast stock price on the basis of economic, industry and company statistic. The principle decision variables ultimately take form of earnings and value with as risk-return framework based upon earning power and the economic environment. Fundamental analysts believe in to companies' earnings, their management, economic outlook, firm's competitors' market conditions and many other factors.

"The value of common stock is simply the present value of all the future income which the owner of the shares will receive" (Francis: 1986:398). The actual price should reflect intrinsic value of the stock i.e. good anticipation of cash flows and capitalization rate corresponding to future time period. But in practice, first it is not known in advance what the appropriate discount rate should be for a particular stock? Therefore, fundamentalists estimate their intrinsic value by studying in detail of all matters that is relevant to company. There are various factors that fundamentalists take in to account to reflect the price of the securities. These factors are identified as the determinants of equity price. In 'analysis' chapter of this study, their relationship with market price of equity and effects of such factors over MPS shall be explored. Fundamental analysis includes the following variables under consideration:

A. Business environment analysis
B. Industry analysis

C. Company analysis

A) Business environmental analysis

The primary motive for buying a stock is to sell it subsequently at a higher price. In many cases, dividends will be expected also. Dividends and price changes are the principal ingredients in what investors regard as return or yield.

If an investor had impeccable information and insight about dividends and stock price over subsequent periods, he would be well on his way to great riches. But the real world of investing is full of political, economic, and social and other forces that we do not understand sufficiently to permit us to predict anything with absolute certainty. Forces intermix and flow at cross currently. Nothing is static.

Business environmental influence is the root cause, which appears in the general economic environment and has great influence over stock price. General economic environment includes national income, defense expenditure, monetary policy, fiscal policy, trade and commerce, export and import etc. it indicates the economic movement of the country. For example, issuance of new financial policy, new monetary policy, rules and regulation regarding trade and industry, changes in economic growth rate, existing political situation and so on.

It is important to predict the courses of the national economy because economic activity affects corporate profits, investor attitudes and expectations and ultimately security prices. An outlook of sagging economic growth can lead to lower corporate profits, a prospect that can engender investor pessimism and lower security prices. Some industries may not decline as much as securities in general. The key for the analyst is that overall economic activity manifests itself in the behavior of stocks in general- or the stock market, if the analyst will. This linkage between economic activity and the stock market is critical.

B) Industry influences analysis

Investing is a business of relative changes. When the economic outlook is assessed along with the direction of changes in the overall market for stocks, the analyst must realize that even though industry groups and/or individual companies may find it difficult to 'buck the trend', they do not necessarily respond to the same degree.

For the analyst, industry analysis demands insight into 1) the key sectors or subdivisions of overall economic activity that influence particular industries and 2) the relative strength or weakness of particular industry or other groupings under specific sets of assumptions about economic activity.

Economic researches and studies have proved that when the GNP is growing, unemployment is relatively low and the general economic climate is optimistic. An economic forecast based upon any of the approaches would probably show high and increasing levels of expenditures on consumer durables, inventory and plant & equipment. Because business is buoyant and it is generally expected that this will continue, businessman accumulate inventory in anticipation of still higher sales level and they also increase their capacity through plant and equipment expenditures.

Industry analysis supports investors by providing the information about various aspects of concerned industry. Therefore, industry influences are regarded as one of the major determinant of equity price. In this connection, full efforts will put to enumerate and discuss the following key characteristics.

1) Past sales and earning performance

Before taking any investment decision, investors sought information about the past performance of the concerned industry in terms of past sales and earnings. It is generally believed that industries having better performance in the past will perform at least the same as of before if other factors remained constant. Due to this reason, assessment of the historical performance is regarded as one of the most effective steps in forecasting company's future.

Certainly, two factors with a central role in the ultimate success of any security investment are sales and earnings: therefore, in order to gain a perspective from which to forecast, looking at the historical performance of sales and earnings is helpful.

Cost structure of the industry is another related factor that the analyst must also consider. It is due to the reason that cost structure shapes corporate profit. By cost structure, we mean the relationship of fixed to variable costs. Higher the fixed cost component, the higher the sales volume necessary to achieve the firm's break-even point. Conversely, the lower the relative fixed costs, the easier it is for a firm to achieve and surpass its break-even point.

2) Permanence of the industry

Another important factor in an industry analysis is the relative permanence of the industry. Permanence is a phenomenon related to the products and technology of the industry. If the investors feel that the need for this particular industry will vanish in an extremely short period of time, it would seem foolish to invest funds in the industry. Sometimes an industry fades from the scene because of a replacement industry that eliminates or diminishes the need for the original industry. Thus in this age of rapid technological advancement, the true degree of permanence of an industry has become an ever more important consideration in industry analysis.

3) The attitude of government toward the industry

It is another factor, which is more influential in determining the possible investment decision. It affects equity price by way of shaping corporate profits. Therefore, it is important for the analysts or perspective investors to consider the probable role: government will play in the industry. Will it provide support- financial or otherwise? Or will it restrain the industry's development through restrictive legislation and legal environment?

As government becomes more influential in attempting to regulate business and to advocate consumer protection, the permanence of the industry might well be necessarily

drive it out of business, but in that profits of the industry can be substantially lessened. Sometimes an industry declines in importance because of legal restrictions that are placed upon it.

4) Labour conditions

Another influential factor, which affects corporate profit, is the state of labour conditions. That is, as unions grow in power in economy, the state of labour conditions in the industry under analysis becomes ever more important. In other words, if we are dealing with a very labour intensive production process or a mechanized capital-intensive process where labour performs crucial operations, the possibility of a strike looms as an important factor to be reckoned with.

In a labour intensive industry, the variable costs would undoubtedly dominate the fixed costs: however, even here, the loss of customer goodwill during a long strike would probably more than offset the possible advantages of low fixed costs. That is, customers would find other suppliers and even the low fixed costs might be difficult for the firm to cover.

5) Competitive conditions

Another significant factor in industry analysis is the competitive conditions in the industry under study. One way to determine the competitive conditions is to observe whether any barriers to entry exist. Three general types of barriers are

I.   A product differentiation edge that forestalls the entry of competition

II. Absolute cost advantages

III. Advantage arising from economies of scale.

The investment implication when examining an industry that has significant barriers to entry should be clear. An analyst or perspective investor would like to see that the industry in which he is considering investment seems to be well protected from the inroads of new firms: if the industry were protected by product differentiation, not only would it be difficult for new firms to enter it but it would also be exceedingly difficult for

new industries to develop in completion with the market currently owned by existing industry. Hence, competitive conditions demand for the best product and services in order to survive in the market. The successful companies shall have remarkable corporate profit and as a result such companies' equity price certainly mounts up. In this way, competition is regarded as one of the important determinant of equity price.

2.1.7.2 Efficient market hypothesis

Market efficiency means that the market price of a security represents the market consensus estimate of the value of security. If the market is efficient, it uses all information available to it in setting a price. Investors who choose to hold a security are doing so because their information leads them to think that the security is worth at least its current market price. Those who do not purchase the stock interpret their information as a lower appraisal.

An efficient financial market exists when security prices reflect all available public information about the economy, financial markets, and the specific company involved. The implication is that market prices of individual securities adjust very rapidly to new information. As a result, securities prices are said to fluctuate randomly about their 'intrinsic' values. New information can bring change in the intrinsic value of a security, but subsequent security price movements will follow what is known as random walk (changes in price will not follow any pattern).

Market efficiency is another most profound idea to affect the investment decision process in security market, mainly in equity market. This means that efficiently priced markets in which the prices of security do not depart for any length of time from the justified economic values. Security value (estimated economic values) in market is determined by investment expectation about earning, risk and so on. In an efficient market, if the efficient market value is going to be changed as rational investors, they react with new information and set revised estimated economic value quickly and accurately. Thus securities are efficiently priced on a continuous basis obviously and positively the stock market has an efficient and significant implication for investors.

Efficient market hypothesis (EMH), which has a significant implication for investors in stock market, would directly affect the investment process and investment decision. Information is the center of efficient market concept, from which investors assess the economic value of stock. Information indicates both the known information and belief about the future. So 'efficient refers to quick and accurate reflection of information in prices' (Johns: 1992: 423). Efficient market concept also assures that availability of information must be reflected in prices. It includes past and current information as well as unannounced information. Furthermore, information that can be reasonable inferred is also assured and reflected in prices. These types of information have quickly and accurately transferred nature i.e. security price quickly adjust such information. Thus the efficiency of security prices depends on the speed of price adjustments to any available information. The more speed of adjustment are, the more efficient the prices.

"An efficient market is one where a security's current price gives the best estimate of its time watch. In an efficient market, there are higher free launches non-expensive dinner. It is not possible to systematically gain or lose profits from trading on the available public information" (Weston and Copeland: 1995: 731).

All these definitions are related to information efficiency. Finally, it can be concluded that information dissemination in market plays a significant role to estimate the market price of securities. Rapid and accurate adjustment of information system has signified more efficient market and only possible to earn normal profits and normal gain. The subject of market efficiency has been much concerned area of the study in recent time. The efficient markets are not only related to informational efficiency but also operational and allocation efficiency. Allocation efficiency signifies that rate of return adjusted the risk that are equated the margin for all investors.

Efficient market can exist if the following events occur:
1. A large number of knowledgeable profit maximizing investors exists who actively participate in the market by analyzing, valuing and trading stocks. These investors are price taking that is one participant alone cannot affect the price of the securities.

2. Information is costless and widely available to market participants at approximately the same time.

3. Information is generated in a random fashion such that announcements are basically independent of one another. Investors reach quickly and accurately to the new information causing stock price to adjust accordingly" (John: 1999:225).

If above conditions meet in practice, the investors adjust security price rapidly and accurately assuming that price maker informational factors are independent to each other and also more random. The price change of today is independent as compared to yesterday because investors react to the new information independently in the market today. The question exists after achieving the efficient market that how efficient exists and which is implied for investors. The 'How' question is related to form of market efficiency and 'What' question is related to implication of market efficiency.

EMH theory holds:

1. that stocks are always in equilibrium and

2. that it is impossible for an investor to consistently ' beat the market'

Essentially, those who believe in the EMH note that as new information about a stock becomes available, all analysts or perspective investors receive and estimate it at approximately the same time. Therefore, the price of the stock adjusts immediately to reflect any new development.

Financial theorists generally define three forms, or levels of market efficiency.

1. The weak form of EMH states that all information contained in past price movements is fully reflected in current market prices. Therefore, information about recent trends in a stocks price is of no use in selecting stock- the fact that a stock has risen for the past three days, for example, gives us no useful clues as to what it will do today or tomorrow. People, who believe that weak-form efficiency exists, also believe that "tape watchers" and "chartists" are wasting their time.

2. The semi-strong form of the EMH states that current market prices reflect all publicly available information. If this is true, no abnormal returns can be gained by analyzing

stocks. Thus, if semi strong form efficiency exists, it does not good to pore over annual reports or other published data, because market prices will have adjusted to any good or bad news contained in such reports as soon as they came out. However insiders (say, president of companies), even under semi-strong form efficiency, can still make abnormal returns on their own companies' stocks.

3. The strong form of EMH states that current market prices reflect all pertinent information whether publicly available or privately held. If this form holds, even insiders would find it impossible to earn abnormal returns in the stock market" (Weston and Brigham: 1999: 242).

Many empirical studies have been conducted to test for the three forms of market efficiency. Most of these studies suggest that the stock market is indeed highly efficiently in the weak form and reasonably efficient in the semi strong form, at least for the larger and more widely followed stocks. However, the strong form EMH does not hold, so abnormal profits can be made by those who possess inside information.

What being does the EMH have on financial decisions? Since stock prices do reflect public information, most stocks do seem to be fairly valued. This does not mean that new developments could cause a stock's price to soar or to plummet, but it does mean that stocks, in general, are neither overvalued nor undervalued- they are fairly priced and in equilibrium.

If the EMH is correct, it is a waste of time for most of us to analyze stocks by looking for those that are undervalued. If stock prices already reflect all available information and hence are fairly priced, one can "beat the market" only by luck, and it is difficult, if not impossible, for any to consistently out perform the market averages. Empirical tests have shown that the EMH is, in its weak and semi strong forms, valid.

2.1.8 Determinants of equity price

What factors determine equity price? This is the core question of this study. Technicians and fundamentalists analyze numerous factors to trace out the track of equity price.

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Along with their conclusions, one emerging concept regarding the stock price is "Random walk theory". The basic theme of random walk theory is that Market forces determine equity price. The interaction of demand and supply forces ultimately yield equity price. If the theory is adopted, the real determinants may be the whole factors, which primarily influence demand and supply.

However, this study tries to explore the inherent strength from which the equity price takes its initial shape. Stocks price fluctuate remarkably on the passage of time. Thousands of factors influence during the trading. It is impossible to cover these all. Therefore, well-known equity related financial indicators are taken under consideration to achieve the objective of this study. It is in practice that firms and companies report some financial indicators as a basis   or a measuring rod of their financial health. The popular financial indicators are EPS, DPS, NWPS and price appreciation (Capital Gain). These financial indicators are tested on the basis of correlation coefficient. If there are proper relationship between the market price of stock and the selected financial indicators, these indicators are assumed as the determinants of equity price. Obviously, EPS, DPS, NWPS and price appreciation have good relationship (either negative or positive) with MPS. Various theories and models also prove this fact. Therefore, EPS, DPS, NWPS and Capital gain are the real determinants of equity price.

a) **Earning per share**

It is the most popular financial indicator. It gives close insight about the earning power of the firm. In fact, it is the net profit, represented in terms of per share. Equity shareholders shall receive cash dividend from this EPS. If EPS is not sufficient, shareholders entitle no any cash benefit. Therefore, EPS is assumed as the source of benefit to existing shareholders. It is directly connected with the profitability of firm. It reflects the financial performance because higher the amount of net profit more will be the EPS. Investors invest their funds in equity share for future benefit. That is, their prime desire is to achieve higher cash divided annually. Here notable point is that cash dividend is the product of EPS. Stocks having EPS is more marketable than the stocks having lower

EPS. Therefore EPS is regarded as the root determinant of MPS. EPS always influence MPS positively. It is seen that firms, having zero or negative EPS, have market value below than par. If cash dividend is not distributed from EPS, or the firm retains profit, this also benefits investors because it pushes up the amount of price appreciation. Therefore EPS is must for every organization to have higher market value of their common stock.

b) Dividend per share

Common stocks or share represents the ownership position in a company and the holders of common stocks are the owners who share all the profit and losses of the corporation. In this ground, investor forgoes opportunity in the expectation of receiving handsome annual return with increased value of their holdings.

Dividend refers the portion of firm's net earning which are paid out to the shareholders. After the successful completion of business operation, every corporation in each fiscal year reports their financial statement from which new information about the corporation can be gathered. One of the mostly valued information is net profit. This net profit will be appropriated among various stakeholders i.e. some of its part will be distributed to the stockholder as a cash dividend and some portion will be retained for investment. When cash dividend is distributed, it is the direct benefit to the common stockholders and retained earning will benefit them in future by way of having appreciated price of the stock from which investors will able to achieve capital gain. Therefore, the amount of cash dividend is highly influenced by corporate profit and the management's decision regarding the distribution of cash dividend.

"When the board of director of a corporation declares a cash dividend, it specifies a date of record. At the closes of business that day, lists of stock holder on the list are entitled to the dividend" (Van Horne: 2003: 309).

c) Net worth per share

It is also called book value per share. It is one of the most popular indicators among numerous financial indicators. Net worth per share (NWPS) indicates the shareholder's wealth is terms of per share. Net worth per share is the core value of equity. In other words, net worth is the shareholders capital, which includes equity contributed by shareholders along with undistributed profit. More precisely, it includes paid up capital, share premium, general reserve, special reserve, capital reserve, sinking fund, and any undistributed profit appearing in balance sheet. However, fictitious assets must be deducted while computing shareholder capital.

By definition, there is always positive relationship between market price and net worth. Higher the amount of net worth more will be the amount of MPS. As stated earlier, net worth is the book value of shares outstanding. Net worth is also a good measuring rod of financial health of any corporation. If net worth per share is less than paid up capital per share: such companies' shares are less tradable and reliable in the security market. Investors' hesitate to buy and sell of such securities. Considering this fact, our study has taken NWPS as a principal determinant of equity price.

d) Capital gain / Capital loss

By investing in equity share, investors are benefited from two ways:

1. Annual cash inflow in form of cash dividend
2. Price appreciation of their holding.

Price appreciation is the synonym of capital gain. Shareholders extremely desire for higher market value of their holding. Because they can earn high volume of instant cash benefit if selling price of share is significantly higher than their purchase price. Capital gain is represented by the capital gain yield, which is calculated as under:

$$X \frac{clo \sin gMPS \, Z \, BeginningMPS}{beginingMPS}$$

In case of Nepalese stock market investors are highly tempted by capital gain. The recent trend in this regard is that investors participate in IPO or bought share, they sold their

holdings when price of their holdings approaches maximum amount therefore capital gain to a significant extent influences trading and forming of market price of equity. Investors first analyze the historical pattern of capital gain, if it is positive, demand of such securities mounts up resulting higher closing price. It is just the trend: there is no any theoretical base in this regard. However, the demand and supply theory and interaction between demand and supply, which is from economics, provide some theoretical basis.

2.1.9 Pricing status of stock

Analysts or prospective investors take pricing status of common stock under consideration to draw concrete conclusions from their analysis. Pricing status analysis suggests investors about whether a particular stock is over priced or under priced. It also gives the idea that the common stock is whether defensive or aggressive in comparison to market. To test the pricing status, two major factors should be calculated. They are actual realized rate of return and required rate of return. In the same way, comparing stock's beta with market beta coefficient, which is assumed as 1, supports us to declare whether the stock is aggressive or defensive. If stock's beta exceeds market beta, then it can be classified as aggressive stock. If stock's beta is less than market beta i.e. 1, such stock is called defensive stock.

I) Actual/ Realized rate of return

It is calculated by obtaining annual dividend yield and capital gain yield. The sum of dividend yield and capital gain yield is the annual realized return. Dividend is the direct cash benefit to the investors where as capital gain occurs due to the price appreciation and it is receivable when investors sell their holdings. High actual realized return attracts investors, which eventually pushes demand of stocks. Investors invest their funds in the expectation of high monetary benefit. They primarily concern to that rate of return, which must commensurate their required rate of return.

Symbolically,

Actual realized rate of return = dividend yield + capital gain yield.

$$\overset{z}{R} X \frac{dividend}{clo\sin gMPS} \Gamma \frac{closiMPS \ ZopeningMPS}{clo\sin gMPS}$$

Thus, actual realized rate of return is total rate of return from a stock consists of a dividend yield plus a capital gains yield.

II) Required   rate of return

It is the return, which a particular security must provide. In other words, it is the expected return on an individual security or productive investment, represented by the risk free rate of interest plus a risk premium. According to capital market theory, the risk premium to be equal to the market premium $\overset{z}{R} m$ - Rf, weighted by the index of the systematic risk, S of the individual security or productive investment. Thus the return required for any security is equal to the risk free rate plus the market risk premium times the security's beta.

Symbolically,

Required return= Risk free rate + Risk Premium

$$E (R_j) = R_F + (\overset{z}{R}_m - R_f) \times S$$

Where,

E (R_j) = required rate of return.

R_f = Risk free rate of return.

S = Beta coefficient of the stock.

$\overset{z}{R}_m$ = Required rate of return on a portfolio consisting of all stocks

$\overset{z}{R}_m - R_f$= Market risk premium.

III) Beta coefficient

S for an individual security reflects industry characteristics and management policies that determine how returns fluctuate in relation to variations in over all market returns. If the general economic environment is stable, if industry characteristics remain uncharged

and management policies have continuity, the measure of S will be relatively stable when calculated for different time periods. However, if these conditions of stability do not exit, the value of S will vary.

2.2 Review of Related Studies

2.2.1 Review of Journals

The behavioral study of stock market plays a significant role in the development of capital market and to find out the realistic theoretical model to test the appropriate hypothesis in stock market. Considering this, various studies have been conducted about stock price / market behavior in developed countries and international prospects. These studies also have an important note in least developed countries. In Nepalese context, there are few studies associated with stock prices and stock market and most of them are related to theoretical concept. Similarly, they are also associated with behavioral aspects and essential in stock market and also in capital markets.

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

Roberts (1959) carried out in study ,*Institutional Investment Patterns and Corporate Financial Behavior,* tests by comparing the simulation of random numbers and the Dow Jones Industrial Average Index (DJIA) for about one year starting from Dec-30, 1955 to Dec-28, 1956 and found similarity between these two series. He further observed that the first difference of these two series produce the same pattern. His work was significant in that scene: he gave a number of methodological suggestions for testing what we call the chance model. In particular, he suggested runs analysis for testing independence of price changes.

Fama's (1965) study's entitled ,*Review of Financial Studies,* on the random walk model was one of best definitive and comprehensive ever study conducted. He observed the daily proportionate price of each 30 individual stock of the Dow Jones Industrial average. The time periods covered started from end of 1957 to 26th September 1962. He employed the statistical tools such as serial correlation and runs test to draw inference about dependence of the price series. He calculated auto correlation coefficient for daily change in log prices for log from 1 to 30 and found that the coefficient for daily changes in average was +0.30, which is nearer to zero. But on the daily price changes 11 out of 30 stocks had correlation coefficients more than twice their computed standard errors. The coefficients ranged from smallest 0.06 to the largest 0.123. Fama concluded, "Dependence as such as small order of magnitude is from a practical point of view, probably unimportant for both the statistician and the investor." He also calculated serial correlation for lag from 1 to 10 for non-overlapping differencing intervals of four, nine and sixteen days to examine the possibility if price change across longer interval shows dependence. All the results are again not significantly different from zero.

Kent and Suvrahmandam (1998) conducted study about *'Investor's psychology and security marke't* under and over reaction in American Journal of finance. The basic objective of this study is to find out investors' psychology in stock market under react and overreact of securities. To find out it, this theory done by two psychological bases: (1) Investor's over confidence about precise of private information (2) Biased self-attribution, which causes asymmetric shift in investors' confidence as a function of their investment outcomes. In brief they describe that, "This theory is based on investors' over confidence arising from biased self attribution. The premise of investors' over confidence is derived from a large body of evidence from cognitive psychological experiments and surveys which show that individual over estimate their own abilities in various contexts".

Information dissemination to public investors and arbitration of individual investors about private information has significant effects on investment decision in stock market. They have mentioned about it that "The market tendency to over and under react to different types of information allows us to address the remarkable pattern that the average

announcement date return is virtually all event study, and are of the same sign as the average post-event abnormal return. Suppose that the market observers note a public action taken by an informed party such as a firm at least partly in response to market mispricing, for example, a rationally managed firm may tend to buy back more of its stocks when manager believed, their stock is under valued by the market. In such cases, the corporate event will reflect the manager's belief about the market valuation errors and will therefore predict future abnormal return and equity offerings will predict the positive"

This study has made some assumptions, which are as follows:

1) Investors are quasi rational and they are optimizer except for then biased updating of this precision.

2) The model explains the price anomalies as market inefficiencies.

3) Investors have a prior on the precision of these private signals and use an updating rule that reflects self-attribution biases.

To achieve above objectives, the paper develops a theory based on investors' confidence and change in confidence resulting from biased self-attribution of investment outcomes. The theory implies that investors over react to private information signals and under react to public information signals. In contrast with the common correspondence of (positive) negative return, auto correlation with under reaction (over-reaction) to new information. We show that positive return auto correlation can be constituent with long run negative auto correlation. The theory also offers an explanation for the phenomenon of average public even stock price reaction of the same sign as post event long run abnormal returns. This pattern has some time been interpreted as market under reaction to the event.

Common stock has one important investment characteristic and one speculative characteristic. Their investment value and average market price tend to increase irregularly but persistently over the decades as their net worth builds up through the reinvestment of undistributed earnings. However, most of the common stocks are subject to irrational and excessive price fluctuations in both decisions as the consequence of the

ingrained tendency of most people to speculative or gamble, i.e. to give way to hope, fear and greed"(Chandra: 1995: 35).

Hara (1998) wrote the article, *Financial portfolio analysis,* at information plays important role in the discovery of assets (securities). Further, the writer says that," the premise developed in this talk is that liquidity and price discovery are important dimensions of asset markets and by extension, of asset prices. That information should affect asset prices is hardly new: finance researchers have long focused on the information efficiency of asset prices. The innovation here is the argument that when information is asymmetric, uniformed investors demand compensation for portfolio induced risks which they cannot diversify."

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

Fama and French (1998) in his study, *Efficient Capital Market,* pushed the common expected returns argument for market efficiency one step further. They argued that there are systematic patterns in the variation of expected returns through time that suggested that it is rational. They found that the variation in expected returns tracked by D/P or the default spread (the slopes in the regressions of returns on D/P or the default spread) increase from high- grade bonds to low- grade bonds, from bonds to stocks, and from large stocks to small stocks. This ordering corresponds to intuition about the risks of the securities. On the other hand, the variation in expected returns tracked by the term spread is similar for all long term securities (bonds and stocks), which suggests that it reflects variation in a common premium for maturity risks.

Mahat (2002) published a book about capital market entitled"*Capital markets financial flows and Industrial finance in Nepal"* was written in the early period of the development of capital market and before the establishment of stock exchange. The study gives the

first priority to establish stock exchange for the development of stock market. He has also written that Nepalese stock market is still in infancy stage and some drawbacks to the development of stock markets are strong historical and social reasons as well as mass poverty and illiteracy in Nepalese society. He further pointed out that some conscious and educated people of urban areas are also not investing in the industrial sector instead they are investing on the real estate especially in building construction. Although the book was written in the early stage of the development of stock market, the limitations of Nepalese society regarding the investment in stock market is still reality of Nepalese capital market.

Pradhan (1994) provides very close insight in '*A study Report on Stimulating and Development of Primary Issue Market in Nepa'l* for analyzing the capital market in Nepal. He advocated, "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."

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 markets would help development of realistic theoretical models and formulation of relevant hypotheses for empirical testing in finance.

In Nepal, the listing of shares in stock exchange center (SEC) and their trading in the stock market is a recent phenomenon. Low trading volume, absence of professional brokers, early stage of growth, limited movement of share prices, and limited information available to investors characterize the Nepalese stock market. 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 info stock price behavior in Nepal.

Shrestha (1999) in his book "*shareholder's democracy and AGM feedback*" 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 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.

Manandhar (1998) conducted the study about "*Dividend policy and value of the firm in small stock market*" in the context of Nepal in management dynamics. The basic objective of this study is to find out the financial variables that are related to market equity, "The study is aimed at identifying some of the significant variables that are significant to the value of firm. The analysis, to some extent, helped to understand the dividend policy of the sample companies and their effects on market value of the firm as represents by market capitalization and this understanding helps to know the relevancy and irrelevancy of dividend policy on market capitalization in the stock market in Nepal". At the time of research, he has found the following problems in stock market and dividends practices.

1) Most companies are underrating the expectation of investors and thereby resulting marketability of share and trading floor of stock exchanges.
2) Majority of the companies are declaring dividends less than risk free rate plus market risk premium.
3) The relationship between earnings, dividends pay out and growth of the expansion program of the companies doesn't match with financial needs of companies.
4) Companies do not follow sound dividend policy. These are the main causes that are related to the low price of stock and low volume in stock market.

To find the above objective, this study has included the financial data that are related to secondary market of top ten companies of the year 1995/96 on the basis of traded amount. According to this study, the model developed to test the hypothesis that multiple

regressions is implied to test and analyze the cause and effect relationship between dependent and independent variables. So the independent variables are dividend per share, earning per share, return on equity and dividend by closing market price and market equity is dependent on variables. At least, this study found out that "The financial variables taken under study to understand the dividend policy followed are DPS, EPS, P/E, ROE and D/P ratio through not exhaustive. Based on analysis, it is found that DPS, ROE and D/P ratio have significant impact where as ROE and P/E have no significant impact on market value.

Basnet (2004) write his article "*Evaluate stocks: Don't Pay More*" that common stock investor holds a piece of paper, an engraved stock certificate, which can be sold in stock market at a price that varies from moment to moment and which is often unreflective of the balance sheet value. But there is a pre-determined price of stock derived from its true and inherent worth. This 'intrinsic' price of valuation of the stock generally differs from the market price because no two investors ever agree on what the intrinsic price of a particular stock ought to be. According to him, there are numerous modalities to calculate the buying price of a stock and it has been observed that one methodology applied in a particular scenario may not be a useful guide at others. However, though the price so calculated may not be completely authentic or exact, it will nevertheless be a point towards formulation of a price based on reasonably sound judgment on whether the stock is overpriced or under priced. He further added that there are three main criteria, which generally regarded as crucial in this context. They are: a satisfactory ratio of earnings to price, a sufficiently strong financial outlay and the prospect of its earnings over the years. In this article, he addressed strongly, the role of earning multiplier to judge the initial trading price of common stock. Accordingly, he prescribed that the product of average earning multiplier and EPS generate initial trading price of stock. With this simple calculation investor can at least set his mind with the theme of acquiring and holding suitable stocks at suitable prices.

However, one should not forget significant added consideration like measure of managerial competence, progressive dividend history and long-range trend of the average

market value. A stock combined with these intangible soundness with proper price paid shall never fail investors, Thus stock investment is most intelligent when it is most business like, hence it requires a background of preparation and disciplined capacity and the first lesson is to avoid anything that appears over priced i.e. stick to valuation, don't pay more.

2.2.2 Review of Thesis

Regarding with various unpublished dissertations (which were prepared for the partial fulfillment of MBS and other faculties) this study is mainly concerned with recent paper about determinants of equity price and behavioral aspect of stock market.

Bhatta (1999) conducted research on the topic of *"Dynamic of Stock Market in Nepal"*. On the study he focused that resource mobilization has a vital role in the developing economy like Nepal .The development of the stock market is a must for the resource mobilization: there are various problems of Nepalese stock market, which have checked the resource mobilization in the economy. In his research work "Dynamic of stock market in Nepal", he set the main objectives which are given below:

1. To analyze the trend of the Nepalese sock market.
2. To diagnose and compare the sectoral financial status of the stock in Nepalese stock market.
3. To analyze the market share prices of the Nepalese stock market.
4. To find out the impact of the secondary or primary market and vice versa.

According to the above research study the major finding are as follow

1. Although it has become late to take steps to overcome such problems of the Nepalese stock market in order to make it active and supportive, the stock market has a good prospect for the resource mobilization to finance the productive enterprises in the Nepalese economy.
2. The government should make not only policies for the capital market development but also implement these polices appropriately. The regulatory

authorities of the stock market should create an environment to rise the trading of shares in the stock exchange

3. Investment in corporate sector should be encouraged and their share should be listed in the stock exchange.

4. 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.

5. Further more, it also shows there are very few research conducted about the market price behavior on the stock market.

Aryal (1995) conducted research on the topic of *"The General Behavior of Stock Market Price."* This study is based on secondary information obtained from Nepal stock Exchange. This study covers almost 8 months period: 13 Jan 1994 to 13 Sept 1994 and took about 21 stocks listed in NEPSE. He has applied run test as statistical tools to analyze the data and get results.

The main objectives of this study are as follow

1. To discuss the movement of stock market prices
2. To know the development of stock market prices
3. To know the empirical probability distribution of successive price change of an individual common stock and a stock market as a whole.

The major findings of the research study are as follow:

1. The investors, on the floor of stock exchanges for securities, can make higher expected profits in the future based on these historical price series.

2. While analyzing the regression equation of finance sector, it is found that EPS and DPS of finance sector negatively influenced the MPS. That is changes in these two factors surely brought change but in adverse direction

3. Today's price change is positively depending upon yesterday's price change. This implied that there is a sufficient lack of financial and market analysis which are sophisticated and superior in analyzing the general market fluctuations, predicting

the occurrence of future potential and economic events that their eventual affects on price series.

4. Correlation analysis has shown that financial indicators of banking sector were poitvly correlated with MPS except capital gain. This gives the idea that MPS of banking sector shall fluctuate not by the core factor but by rumors or irrelevant factors. It is also seen in actual practice if we analyze the daily reporting of NEPSE where share prices were maximum with out having any concrete financial cause and effect.

5. Similarly, in case of finance sector, it is seen that financial indicators were positively correlated except DPS. It clearly underlines the fact that the movement of MPS was similar to the movement of selected financial indicators.

6. According to regression analysis, MPS of NSBIL is negatively influenced by DPS and NWPS where as the combined effect of EPS and Capital gain on MPS during the study period is positive which signifies that increase in EPS and Capital gain lead to increase in MPS, holding other variables constant.

7. The assumption of independence, as predicted by random - walk model of security price behavior, has been refused at least for Nepalese context as the first approximation even in the rough way for early days of stock market operation. This rejection of hypothesis made clear that the knowledge of past and now becomes useful in predicting the future movements of stock market prices. In other words, the dependence nature of price series produced by general market fluctuation statistically implied.

8. Today's price change is positively depending upon yesterday's price change. This implied that there is a sufficient lack of financial and market analysis which are sophisticated and superior in analyzing the general market fluctuations, predicting the occurrence of future potential and economic events that their eventual affects on price series.

Phuyal (2004) conducted the research on the topic of *'Stock Price Behavior of Selected Banking and Insurance Companies'* in is related with stock price behavior. He has tried to show the functional relationship of MPS with other financial indicators: DPS, EPS,

NWPS and price appreciation along with the fundamental concept of stock market. He has attempted to show the behavior of chartists (Technicians) and fundamentalists in relation to projection of equity prices. To achieve the basic aim of this study, he set following objectives at the time of research.

1) To identify the major financial indicators which affect on determining MPS.

2) To examine and evaluate the relationship of MPS with various financial indicators like: EPS, NWPS, DPS and current years dividend.

3) To identify whether stocks of the sampled companies are over priced, under- priced or equilibrium priced.

4) To study the singling and informational effect on share price.

5) To examine Nepalese investors' response on the change of stock.

6) To provide suggestions on the basis of findings.

This study tries to explore the determinants of equity price by way of showing the functional relationship between the equity price and financial indicators along with the fundamental knowledge of stock market in Nepalese context. The major findings of this study are given below:

1. Nepalese investors have limited knowledge about security market. It lacks of professional investors.

2. Most of the stocks of banking and finance companies are under valued in the stock market.

3. Investors are trading the stocks without proper analysis of the financial indicators.

4. The price fluctuating trend is not predictable by general investors.

5. Signaling factors should be analyzed on regular basis by the concerned authority so that the future movements of price can be predicted from the side of analyst and investors.

6. Econometric model show the relationship between the independent variables and their linear impact on MPS. Correlation coefficient and regression equations were calculated and derived to estimate future MPS. However, this study covered very few variables due to which the inferences drawn might lead to wrong conclusion.

7. In research design, he explained, "To draw inferences on the market performance of stock market and price formation, different measures have been used, while collecting and interpreting relevant data, facts and figures with a view to systematic data collection and data's interpretation. Simple statistical tools have been used to finish this research works, which represent the explanatory and descriptive analysis of the relevant information and data."

Paudel (2005) entitled *"Stock price behavior of commercial banks in NEPSE"* with the objective to examine monthly closing price of 6 listed commercial banks during the period of three consecutive years from 2002 to 2004. He used correlation coefficient, regression analysis, and run test and auto correlation

The main objective of his study was:

1. To find out Nepalese people's awareness of the securities investment.
2. To identify the stock maeket participation trend in Nepal
3. To study and examine the major investment influencing factors.
4. To provide some useful suggestions regarding stock market participation.

The major findings of this study are given below:

1. Pricing status analysis of the stocks of sampled companies has shown that all of them were under priced during the study period because actual returns were remarkably higher than required returns.
2. The successive price changes were correlated with previous price series. He also found that most of the stocks did not follow random walk hypothesis.
3. The present stock prices were dependent to the historical prices. The EPS was the most affecting factor for the price change of the stock. Most of the investors wanted to invest in the shares of commercial banks because the fluctuation in NEPSE index was due to the transaction of commercial bank shares.
4. Data used in this study, monthly closing price of stocks not enough to predict the behavior of share prices.

5. In the same way, few companies among the listed companies in NEPSE are performing satisfactorily. Therefore, NEPSE index is declining rapidly, which eventually yield lower rate of market return. Thus, these all are the key reasons due to which required return is significantly lower during the study period.

Mainali (2006) has conducted research on *"A Study on Share Price Behaviour of Listed Companies"*. The main objectives of this study were:

1. To analyze the behavior of stock price of Listed Companies.
2. To examine the stock price trend and volume of stock traded on the secondary market.
3. To identify the factors affecting stock price.
4. To analyze the investors' view regarding the decision on stock investment.

Research Study on Share Price Behaviour of Listed Companies, The following major findings of this study are as follows:

1. The Share trading system in share market is still uncivilized even in this IT age. Though the volume to trading has increased the number of brokers has not increased. Therefore, for the systematic operation of the share market, the number of brokers should be increased according to the volume of trading.
2. Similarly, the automation system has to be put in to practice to make the share market effective and competitive.
3. The public investors not direct their savings in shares haphazardly. They should at least analyze or get suggestions from experts about financial position and the level of risk prior to taking and investment decisions. Because of the persistence in the stock price movements professional traders either institutional or individual can beat the market. Thus it is suggestions that the investors should be alert to exploit the opportunities
4. The studies in stock market support the idea that Nepalese stock market is not efficient even in the weak form hypothesis. Nepalese investors are not efficient enough to recognize potential for excess return.

Gyawali, (2007) has conducted research on "*Rights share practice and its impact on share price movement.*" The researcher sketches various conclusions through the research.

The main objectives of the study are as follow

) To explain the price movement before the right offering.

) To analyze the relationship between share price movement and market movement.

) To identify the problem associated with the right practice.

) To study investors opinion regarding various aspect of right offering.

The following major findings of this study are as follows:

1. The impact of right offerings on share price movement variations from company to company in case of listed companies such differences are not only between the companies of different sectors but also between the companies with in the scoter.

2. Different on share price movement before and after right offering are significant as well as in significant.

3. Marketability and profitability are the major motivating factors of investment for investors. Majority of them make share purchasing decision without analyzing the financial performance of the company and without consulting the experts.

4. Most of the respondents feel the company registrar's office should play vital role in providing the financial statement of particular company to SEBO and NEPSE. They further added that the government should play the important role to increase investment in stock.

5. There is a lack of systematic policy of bonus distribution in Nepalese corporate firms. It was not found that Nepalese firms were issuing bonus share after analyzing and considering its effects on future dividend policy. They are issuing bonus share with out analyzing investor attitude towards it but only for the purpose of fund raising for increased paid up capital.

Paudel, (2008) "*Dividend policy and its impact on share price in Nepalese context*". The study is concentrated on factual analysis of the prevailing practices among Nepalese commercial bank regarding the issue of Dividend policy. Besides issue of bonus share is characterized by aphorism and imperfect and under-developed capital market, the study fulfills the research gap and add inputs to financial literatures relating to this topics.

The main objectives of the study are given below

-) To examine the prevailing practice and effect made in dividend policy.
-) To analyze dividend policy and its impact on share price
-) To access the relationship between the dividend with earning, market price of share and net worth.
-) To provide the suggestion to policy maker and execute to overcome the various issue and gaps.

The major findings of this study are given below:

1. In most of the cases companies issue bonus share without distributing cash dividends, which ultimately discourages rational investors and faces drastic fall in their share prices.
2. The price of the stock decreases after stock dividend issue but it gradually increases after some months. In most of the cases the actual market price of the stock is higher than theoretical price of the stock which means impact of bonus share issue on market price is positive
3. The effect of dividend share issue on value of the firm is also positive. In most of the case the aggregate market valuation of the operate firm's equity capital increased as the result of bonus share issue 100 percent of the dividend issue cases are recorded different level gain over the base date price, after adjusting of the general market movement in share price
4. The share price in most of the cases does not decrease after bonus share issue according to bonus ratio as theory says. The reason behind the situation may be that investors can not interpret the information and data. There is the misconception about bonus share that the general investors think that they receive additional share within the same value.

5. The feasibility of the conclusion made in this study depends upon the accuracy of secondary data. The study shows that the MPS of the share is consequent result of the various factors. Study aims to finding to impact of dividend policy on market price of share.

6. The common stocks of banks and finance companies highly traded than other companies which means that Nepalese investors are interested to invest in banks and finance companies. General investors think that investing in non banking sector are more risky than banking sector.

7. The dividend ratio and percentage increase in value of the firms are positively correlated, which mans higher the dividend ratio higher would be the value of the firm. Dividend is the major factors affect in the price of the stock in the market.

8. In sum, the issue of dividend has the positive impact on the value of the firm and both management of the firms and shareholders have positive attitude towards bonus share.

CHAPTER - III
RESEARCH METHODOLOGY

This chapter deals with some methods that are used in the period of research and also brief introduction to financial parameters used in the study. Hypothesis, research design, sources and nature of data, sampling method, and statistical and financial tools for data analysis are basically explained in this chapter. By definition, research is a systematic and organized effort to investigate specific problems that needs solution. In addition, methodology refers various steps that are generally adopted by a researcher in studying his research problem along with the logic behind it. Thus, research methodology is a way to systematically solve the research problem, what we are doing at present.

Basically, historical and diagnostic types of research are employed to fulfill the objective of research work. "A historical research is concerned with past phenomena. It is a process of collecting, evaluating verifying and synthesizing past evidence systematically and objectively to reach a conclusion." (woolf and Pant, 1975:54)

In this study, historical data of various firms are taken under consideration to show their relationship with MPS in the past and how did they affect in shaping the MPS? Thus, historical research requires accuracy of gathered information, as it is the main ingredients of success in this type of research. The diagnostic analysis mainly highlights to explore the degree of influences of various financial variables upon market price of equity, formation of equity price and its pricing behavior, and finally the responsiveness of share price when the determinants are fluctuated. Further, it is associated with the calculation of risk and return of over all market, each sector and also individual companies. These all computations and analysis will be conducted by using statistical tools of multiple regressions and also financial tools. So, the methodology is based on some statistical and financial tools to analyze and presentation of data.

3.1 Research Design

The research design includes specification of the method of the purposed study and detailed plan for carrying out the study with various empirical data for the analysis of the problem. "Research design is a plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control variances."(Kothari, 1991:24) for identifying the major determinants of equity price, the relationship of selected variables with the market price of share shall be analyzed. Correlation coefficient measures the relationship where as multiple regressions analysis measures the degree of influences of each identified variables upon observed market price. In this connection, historical data will be used. Hence it is the historical research design. Data required for this study will be extracted from www.nepalstock.com. Therefore, secondary sources of data collection shall be applied in this study.

The major activities of this study are the collection of data, tabulation and compilation of data, computation of complied data and financial parameters, findings, conclusion and recommendations. These activities will be arranged as according to the model prescribed by TU, faculty of Management. Full efforts made to cover all significant factors, which either implicitly or explicitly shape market price of share. Numerical analysis will be carried as far as practicable and the technique of descriptive analysis will also be used whenever necessary. For example, informational forces cannot be measured discretely. So their impact on MPS has been quantified in descriptive manner in chapter-II of this study. The research design is thus an integrated frame that guides the researcher in planning and executing the research works.

3.2 Nature and sources of data

The study is primarily based on secondary sources of data. The required data have been collected from financial statements of listed companies which were located at www.nepalstock.com, an official website of Nepal Stock Exchange Ltd.
Financial data of previous 5 year i.e. July 2002/3 to July 2007/8 of the selected companies are downloaded from www.nepalstock.com. Different books from library, periodicals, newspaper cuttings, company's magazines will also be used whenever

required. Needless to say that this study is associated with past phenomena, therefore, only the secondary data will be used to carry out the whole calculations. Thus, the historical data from the NEPSE's website shall be used which obviously the secondary sources and past phenomena in nature.

3.3 Sampling Procedure

The analysis of the determinants of equity price along with their pricing behavior largely depends on the number of such companies listed in the Nepal Stock Exchange (NEPSE) and the trading of their stocks on security market floor. We have already discussed that along with the various factors, the volume of trading of common stock also largely influence in shaping the price of common stock.

To arrive at logical inferences, three major sectors of the stock market are taken under consideration. here only Banking sector company are taken as sample. Though there are other development bank, Finance company insurance company and other sectors as well, but due to the low volume and amount of share transaction and insufficient data, other sectors (insurance, Mfg. Sector, service sector) have been ignored, further more, the sampling procedures also consider financial status, size, maturity, and market value of listed companies. The samples will be taken using stratified as follows:

Sample Bank

Standard Chartered Bank Limited

Nepal SBI Bank Limited

Nabil Bank Limited

Himalayan Bank Limited

Nepal Investment Bank Limited

For the research work, only 5 companies as stated above, has been taken as sample companies out of total 27 population. Due to the high volume of share transactions and business volume as well as more contribution to the economy, more than 50% market cover by commercial banks. so here taken only commercial Bank only

3.4 Tools of analysis

To analyze and interpret relevant data some statistical tools and financial tools are used.

3.4.1 Financial tools

a) Capitalization of earnings: EPS ratio is used to measure the profitability of a firm from the owner's viewpoint. In this model the market value of shares of a company is dependent of the earnings of the company. The rate of earning or the earning per share is capitalized, by normal rate of return, in order to measure the present market value of the equity shares. The market value of equity share is the capitalized value of the earning per share of a company at the cost of equity (Ke). Hence,

$$P_o \text{ X} \frac{EPS}{Ke}$$

Where,

Po   =   Expected value of an equity

EPS   =   Earning per share

Ke   =   Cost of capital

b) Capitalization of Dividends: 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 form of cash dividends." [Van Horne, 1990:328]. People make investment in stock because they shall get dividends as return. Therefore, the price they are willing to pay will depend on their expectation of dividends. Under this model, future streams of cash dividends are to be evaluated and discounted by the cost of equity (Ke). Hence the value of an equity share is the present value of all future streams of cash dividends an investor expects to receive, according to this model. (Timilsina, 2001:20)

$$Po\ X\ \sum_{T\,Xl}^{|} \frac{Dt}{(1\Gamma Ke)^t}$$

Where,

Po   =   Present Market value of an equity.

Ke   =   The required rate of return for equity.

Dt   =   Expected future dividend at each future date t.

c) Risk free rate (Rf): The risk free rate has been taken from Nepal Rastra Bank (NRB) 91 days treasury bills of different years. In other words Rf, in this study, is the discount rate of 91 days T-bills issued by NRB, which are as follows:

Table showing interest rate of 91 days T-bills during 2003/04 to 2007/8

Table No. 3.1

Fiscal Year	Average Risk Free rate
2004	3.5037
2005	2.1222
2006	4.5812
2007	4.9535
2008	4.7171

d) Rate of return on common stock:

Rate of return on common stock can be defined as the change in value plus any cash distribution expressed as percent of the beginning of period investment value. An investor can obtain two kinds of income from an investment in a share of stock: Income from price appreciation or losses from depreciation and income from cash dividend. The rate of return on common stock can be expressed in percentage as follows:

$$\text{Rate of Return} = \frac{\text{Price Change } \Gamma \text{ Cash Dividend}}{\text{Purchase price at the bg. of period}}$$

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

Where,

Pt   =   Ending Stock Price

Pt-1   =   Starting Stock Price

Dt   =   Cash Dividend for time t.

e)Required rate of return (Ke): 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 non-diversifiable or systematic risk. 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 model, the required rate of return on any stock is equal to the risk free rate plus market risk premium times stock beta. However, it is not possible to calculate annual beta of the stock's return of any individual company. Therefore, average beta coefficient of the observation period will be taken as the stocks' beta. The formula of calculating the required return is given as below:

$$Ke = R_t + (\overline{R}_m - R_t) \times \beta_j$$

Where,

Ke   =   required rate of return on stock j

Rf   =   Risk free rate of return

$\overline{R}_m =$ Market return or average return

β_j =   Beta Coefficient of Stock j

 f) Market Return ($\overline{R}_m$): Market return is the average return of the stocks of all companies in an industry. For this research purpose, market return will be calculated by dividing the difference of this year's market index and previous year's market index. The method of calculating market return is given as,

$$\overline{R}_m \text{ X} \frac{\text{This year's market index - last year's market index}}{Last \text{ year's market index.}}$$

g) Financial Parameter: Some of the financial variables, stated as below have been employed to analyze the market price of stock.

Earning Per share: Net earning means after tax profits, which are considered after deducting reserves etc. to shareholders. Earning per share would be calculated by dividing net earning by the total number of common shares outstanding. Symbolically,

$$EPS \text{ X} \frac{\text{Profit after tax}}{No.\text{of Shares outstanding}}$$

Dividend per share: Dividend is the portion of profit that is ready to be available for shareholders. Dividend per share would be calculated after deducting retained earnings from the total value of earnings.
Symbolically,

$$DPS \text{ X} \frac{\text{Earning available to share holders — R | E}}{No.\text{ of Shares O | s}}$$

Price Earning Ratio: The reciprocal of the earning yield is called the price-earning ratio. It is widely used by the security analysis to value the firm's performance as expected to investors and also the growth of firm's earnings.

$$\text{Price earning ratio X} \frac{\text{Market Value per share}}{Ear\text{ning per share}} \text{ X} \frac{MV}{EPS}$$

Return on Equity (ROE): The return of shareholders equity is net profit after tax divided by shareholder's equity. It indicates how well the firm has used the resources of owners.

$$\text{Return on equity X} \frac{\text{EPS}}{\text{Book value per shrare}}$$

This also reflects the rate of return at which the firm can actually plough back its retained earnings.

Retention ratio: It is the ratio, which shows the portion of net profit to be retained by the firm. Profit will be retained for various purposes. However, it must generate returns at least equal to ROE.

Symbolically,

Retention Ratio X1 - $\dfrac{DPS}{EPS}$

$=$ 1 Z Dividend payout ratio

Growth rate: It indicates the growth potentialities of firm's earnings. Exactly, the growth rate is the product of return on equity time's retention ratio.

Symbolically,

Growth rate= ROE X Retention ratio

3.4.2 Statistical Tools:

a) Arithmetic Mean (AM): Am of a given set of observation is their sum divided by the number of observations. In general, if X1, X2 ......Xn are the given 'n' observations then their arithmetic mean, usually denoted by $\overline{X}$ is given by,

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

Where,

x = Sum of Observation

N = No. of observation

To calculate average return of different companies as well as overall market, the arithmetic mean has been employed.

b) Standard Deviation/Variance: It is a quantitative measure of the total risk of assets. It provides more information about the risk of the asset. It measures the dispersion of returns around the mean. Its advantage is that the uncertainty of returns can be summarized into a single easily calculated number. The standard deviation of a distribution is the square root of the variance of returns around the mean.

$$\text{S.D. } (\square) = \sqrt{\frac{(r_j \ Z\bar{r}_j)^2}{n \ Z1}}$$

Where,

rj = return on asset A.

$\bar{r}_j$ = expected return on asset A.

The square of standard derivation is known as variance of the asset's return from the average return.

c) Karl Pearson's Coefficient of Correlation: It is a statistical tool for measuring the intensity or magnitude of linear relationship between the two variables series. Karl Pearson's measure, known as Pearsonian Correlation coefficient between two variables (series) X and Y, usually denoted by "r(x,y)" or rxy or simply 'r' can be expressed as,

$$r \ X \frac{n \ xy - x \ . \ y}{\sqrt{\{n \ xy^2 \ Z(\ x)^2\} \ | \ \{n \ y^2 \ Z(\ y)^2\}}}$$

Where,

N= No. of observation in series X and Y

X = Sum of observations in Series X

y = Sum of observations in Series Y

x^2 = Sum of squared deviations in Series X

y^2 = Sum of squared deviations in Series Y.

xy = Sum of the product of observations in Series X and Y.

The value of the correlation coefficient 'r' lies between $\pm$ 1 i.e. $Z1^{TM}r^{TM}1$. If r=1, there is perfect positive relationship and if r=-1, there is perfect negative relationship or if r=0, then there is no relation at all.

The closer the value of 'r' with 1, the closer the relationship between the variables and the closer 'r' is to 0 the less close relationship. (shrestha and Manandhar, 1992:234)

d) Multiple regression analysis: The factors that affect estimates of the MPS may be quantified and estimated econometrically using multiple regression analysis. Multiple regression analysis is a statistical tool, which facilitates in estimating or predicting the value of dependent variable from the value of independent variable. It is a mathematical measure of the average relationship between two or more variables in terms of the original units of the data. And then estimates the value of unknown variable (dependent) on the basis of other known variable (independent). The variable whose value is influenced or is to be predicted is called dependent variable and the variable which influences the values or is used for prediction, is called independent variable.

Generally, in multiple regression analysis, methods of least square, standard error of estimate and multiple coefficient of determination are computed for this purpose.

The multiple regression equation is

$MPS = a + b_1 EPS + b_2 DPS + b_3 DWPS + b_4 CG + \mu$

Where,

a= Regression intercept, which indicates MPS does not go below this point even if other variables have zero value.

b's = Multiple regression coefficient.

μ = Unexplained error, which indicates that the estimation of MPS may vary by this amount.

e) Trend Analysis:

Among the various methods of determining trend of time series, the most popular and mathematical method is the least square method. Using this least square method, it has been estimated the future trend values of different variables. For the estimation of linear trends, line following formula can be used:

$$y = a + bx$$

Where,

y= Dependent variable

x = Independent variable

a = Y – intercept

b = Slope of the trend line

f) Application of computer software: This study has covered six years data of 5 commercial banks, 3 insurance companies and 2 insurance companies. To carry out the multivariate correlation analysis and multiple regressions with four independent variables, the most popular statistical software- SPSS has been used. Data will be presented in tabular firm, after plotting the tabulated data in graph, correlation coefficients will be calculated by this software and finally these variables shall be inserted in pre-defined regressions model in SPSS software. It is too difficult to carry out such calculations manually therefore this software is used to arrive at concrete conclusions

CHAPTER – IV

DATA PRESENTATION AND ANALYSIS

In this chapter, to achieve the objectives, which are set in introduction chapter, the relevant data and information on dividend policy and its effect on stock price of commercial banks are presented. Presentation and analysis of data is the major part o this research study. So, we analyze the data to achieve our objective of this study, using the various financial variables and statistical tools discussed in 'Research Methodology.

4.1 Presentation of Financial Variables

Market Capitalization:

The market capitalization value of listed securities in the end of this fiscal year 2006/07 is Rs. 186301.30 million. The market capitalization value was Rs. 96813.74 million in the last year.

Table 4.1

Market Capitalization

S.N.	Sector	Market Capitalization Value (Rs. in million)	Percentage
1.	Commercial Banks	259955.3	70.98
2.	Development Banks	17997.8	4.91
3.	Finance Companies	37674.4	10.29
4.	Insurance Companies	11241.4	3.07
5.	Hotels	4809.6	1.31
6.	Manufacturing and Processing	7516.9	2.05
7.	Trading	1170.2	0.32
8.	Others	25881.9	7.07
	Total	**366247.5**	**100**

Source: Trading Report NEPSE 2007/08

Figure No 4.1

Market Capitalization of Listed Securities
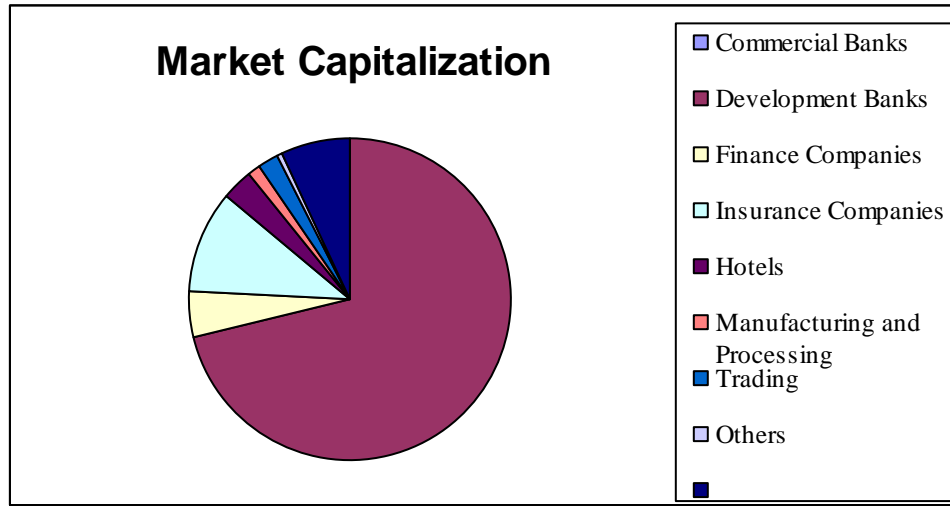
Table 4.6 and the Figure 4.7 represents that the highest market capitalization by commercial banks and it's covered the 70.98 percent (1259955.3 million out of 366247.5 million). the second highest market capitalization by finance company and it's covered the 10.29 percent. Here the lowest market capitalization by trading sector and it's covered only 0.32 percent.

4.1.1 Analysis of EPS of the sample banks

The earnings per share of the banks under study are tabulated as follows:

Table 4.2

Comparative Earnings per Share of banks under study

Bank	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V. %
SCBNL	149.30	143.55	143.14	175.84	167.37	155.84	14.90	9.56
NSBL	11.47	14.26	13.29	18.27	39.35	19.33	11.47	59.32
NABIL	84.66	92.61	105.79	129.21	137.08	109.87	22.72	20.68
HBL	49.45	49.05	47.91	59.24	60.66	53.26	6.15	11.55

NIBL	39.56	51.70	39.50	59.35	62.57	50.54	10.79	21.36

The earnings per share of the banks under study are presented in graphical form as below:

Figure No 4.2

Comparative Earnings per Share (EPS) of Banks
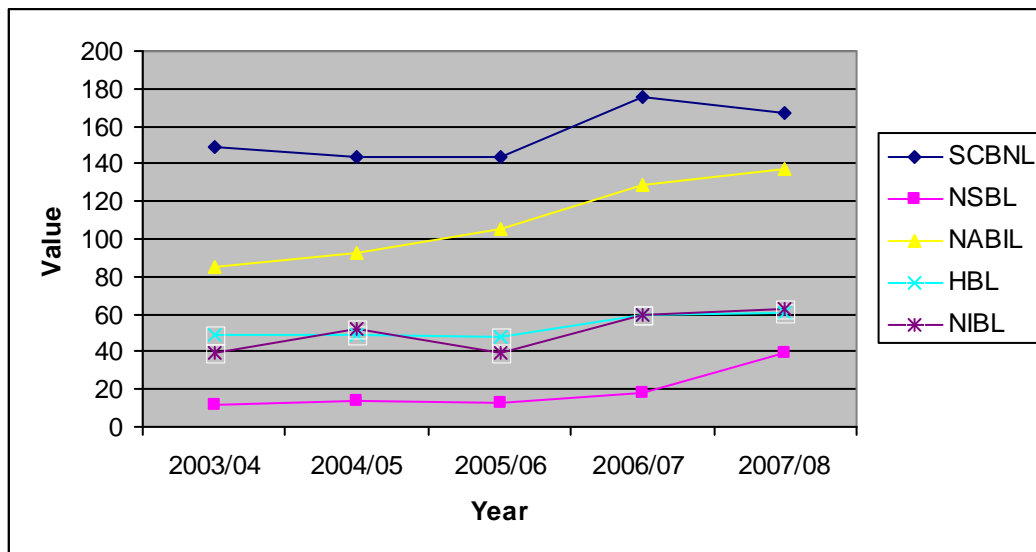
The EPS of SCBNL ranges between Rs. 175.84 to 143.14 during the period of study. During this period, the average EPS is Rs. 155.84. The S.D of the EPS under the period of study is 14.9. The C.V of the bank is 9.56%, which indicates that there is a moderate level of fluctuation in the EPS of SCBNL during the period of study.

Nepal SBI Bank Ltd. (NSBL) has an average EPS of Rs. 19.33 during the period of study, with S.D. of 11.47. The EPS range between Rs. 39.35 to Rs. 11.47. The C.V. of 59.32% shows that there is a high level of fluctuation in the EPS during the period of study.

The average EPS of Nabil Bank Ltd. is Rs 109.87 during the period of study. It stayed within the range of Rs 137.08 to Rs. 84.66. The S.D. of EPS is 22.72, and its C.V. is 20.68%, which is moderate during the period of study.

The Himalayan Bank Ltd. (HBL) has an average EPS of Rs. 53.26 during the period of study. It ranges from Rs. 60.66 to Rs. 49.05. The S.D. of EPS during the study

is 6.15, which is the lowest among other banks under study. Its C.V. of EPS is 11.55%, which is only slightly higher than that of SCBNL, and it can be considered as low.

Nepal Investment Bank Ltd. (NIBL) has an average EPS of Rs. 50.54, during the period of study. It ranges from Rs. 62.57 to Rs. 39.50. The S.D is 10.79 and the fluctuation of 21.36% in the EPS is seen during this study period.

From the above analysis, it can be seen that the average EPS of SCBNL is the highest and that of NSBL is the lowest under the study period. NSBL also has the highest C.V. among other sample banks, and its average EPS is also lowest among other sample banks. It can be seen that HBL and SCBNL have the most consistent EPS among all sample banks. And the EPS of Nabil bank is second highest, whereas HBL and NIBL have almost equal average EPS during the period of study.

4.1.2 Analysis of DPS of sample banks.

The dividend per share of the sample banks under study are tabulated as under:

Table 4.3

Comparative Dividend per Share of banks under study

Bank	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.%
SCBNL	110.00	110.00	120.00	120.00	80.00	108.00	16.43	15.21
NSBL	8.00	0.00	0.00	5.00	12.59	5.12	5.40	105.46
NABIL	50.00	65.00	0.00	5.00	12.59	26.52	29.12	109.82
HBL	1.32	0.00	11.58	30.00	15.00	11.58	12.15	104.91
NIBL	20.00	12.50	20.00	5.00	62.57	24.01	22.43	93.41

Source: *Annual Report of concern Banks*

The dividends per share of banks under study are presented in graphical form as below:

Figure 4.3

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Comparative Dividend per share (DPS) of banks under study
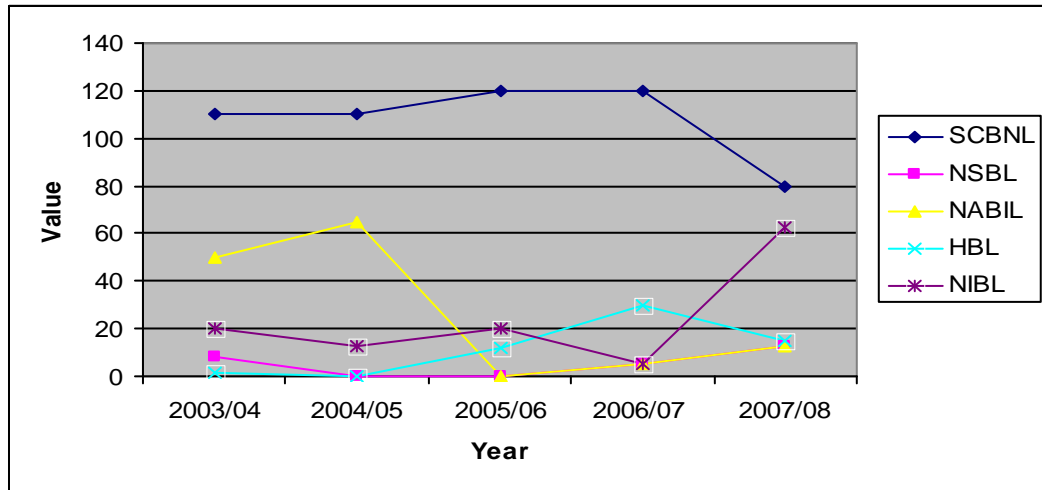
The average DPS of SCBNL is Rs. 108 with the S.D. of 16.43. The highest ad lowest DPS during the period of study are Rs. 120 and Rs. 80 respectively. The C.V. is 15.21%, which shows that there is more consistency in their dividend payment, during the period of study.

Nepal SBI Bank Ltd. (NSBL) had an average DPS of Rs. 5.12. The S.D. is 5.40 with C.V. of 105.46%, which means there is high degree of fluctuation in their dividend payment.

The average DPS of Nabil Bank Ltd. is Rs. 26.52. It is within the range of Rs. 65 and Rs. 12.59. The S.D. of DPS is 29.12 whereas the C.V. is 109.82. This indicates that there is a high degree of fluctuation in dividend payment during the period of study.

During the period of study, the Himalayan Bank Ltd. (HBL) had an average of DPS of Rs. 11.58. Its S.D. is 12.15 and C.V. is 104.91%, which means it has high degree of fluctuation in its dividend payment.

Nepal Investment Bank Ltd. (NIBL) has an average DPS of Rs. 24.01 during the period of study. The S.D. is 22.43 and C.V. is 93.41%, which also indicates high level of fluctuation.

From the above analysis, we can say that SCBNL has the highest average DPS among all sample banks during the period of study. The C.V. indicates that among the sample banks during the study period, SCBNL has the highest consistency in paying dividend, whereas DPS of other banks are highly fluctuating. Nevertheless, Nabil bank comes second in terms of amount of dividend paid.

4.1.3 Analysis of Dividend Payout Ratio (DPR)

The dividend payout ratio of the sample banks are presented below:

Table 4.4

Comparative Dividend Payout Ratio of banks under study

Bank	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.%
SCBNL	73.68	76.63	83.83	68.24	47.80	70.04	13.65	19.48
NSBL	69.75	0.00	0.00	27.37	31.99	25.82	28.74	111.29
NABIL	59.06	70.19	0.00	3.87	9.18	28.46	33.41	117.38
HBL	2.67	0.00	24.17	50.64	24.73	20.44	20.48	100.20
NIBL	50.56	24.18	50.63	8.42	100.00	46.76	34.80	74.42

Source: *Annual Report of concern Banks*

The DPR of the banks under study are presented in the figure as follows:

Figure 4.4

Comparative Dividend Payout Ratio of banks under study
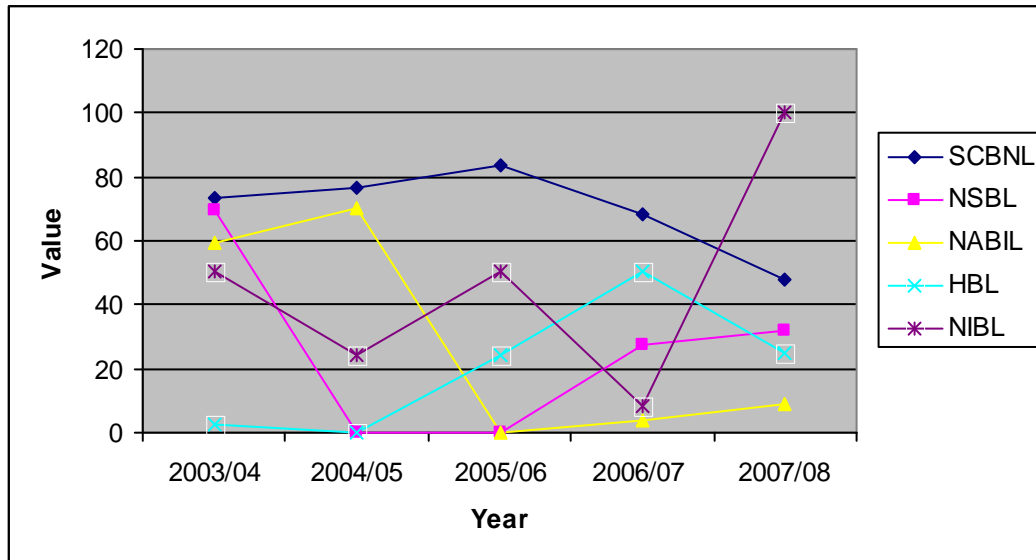
An average DPR of SCBNL is 70.04% during the period of study. It shows that SCBNL generally pays 70.04% of its total earning as dividend to its stockholders. The S.D. of DPR is 13.65, and the C.V. is 19.48%, which shows that there is moderate variation in dividend payout.

NSBL has average DPR of 25.82%, which means, it pays out 25.82% of its total earning as dividend to its stockholders. The S.D. is 28.74 and C.V. is 111.29%. The C.V. indicates that the DPR of NSBL is highly fluctuating during the period of study.

The average DPR of Nabil Bank Ltd. is 28.46%, which means, it generally pays out 28.46% of its total earnings as dividend to its stockholders. The S.D. is 33.41 and C.V. is 117.38%, which shows the high fluctuation in the DPR during the period of study.

HBL has an average DPR of 20.44%. The S.D. of DPR is 20.48, whereas its C.V. is 100.20%. The coefficient of variation of HBL shows that there is high degree of fluctuation in the DPR during the period of study. All the banks under study have high level of C.V and their dividend payment is also inconsistent. NIBL has second highest mean DPR, after SCBNL.

Nepal Investment Bank Ltd (NIBL) has an average DPR of 46.76%. It means NIBL is generally paying 46.76% of its earning as dividend to its stockholders. The S.D.

of DPR is 34.80. The C.V. of 74.42% shows that there is a high level of inconsistency in dividend payment behavior.

The above calculations show that SCBNL has high average DPR among all the banks under study, and its C.V. is also lowest among all the banks under study. It shows that SCBNL has consistent dividend payment.

If analysis is done taking the mean DPR of the sample banks, the average dividend payout ratio of the sample banks comes out to be 38.30% with a standard deviation of 20.31 and C.V. of 53.03%. It indicates that, in average, out of the total earnings made 38.30% is distributed as dividend to the stockholders with a fluctuation of 53.03%, which is quite high than moderate level.

4.1.4 Analysis of Market Price of Share (Stock Price)

MPS is the price of stock on which stocks are treated in the secondary market. The closing stock price of the banks under study is presented in table as follows:

Table 4.5

Comparative MPS of banks under study

Bank	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.%
SCBNL	1640.00	1745.00	2345.00	3775.00	5900.00	3081.00	1791.05	58.13
NSBL	656.00	307.00	335.00	612.00	1176.00	617.20	349.88	56.69
NABIL	740.00	1000.00	1505.00	2240.00	5050.00	2107.00	1741.80	82.67
HBL	836.00	840.00	920.00	1100.00	1740.00	1087.20	380.29	34.98
NIBL	795.00	940.00	800.00	1260.00	1729.00	1104.80	396.78	35.91

Source: *Annual Report of concern Banks*

The Closing Market Price per share of the banks under study is also presented in the graphical form as below:

Figure 4.5

Comparative MPS of banks under study
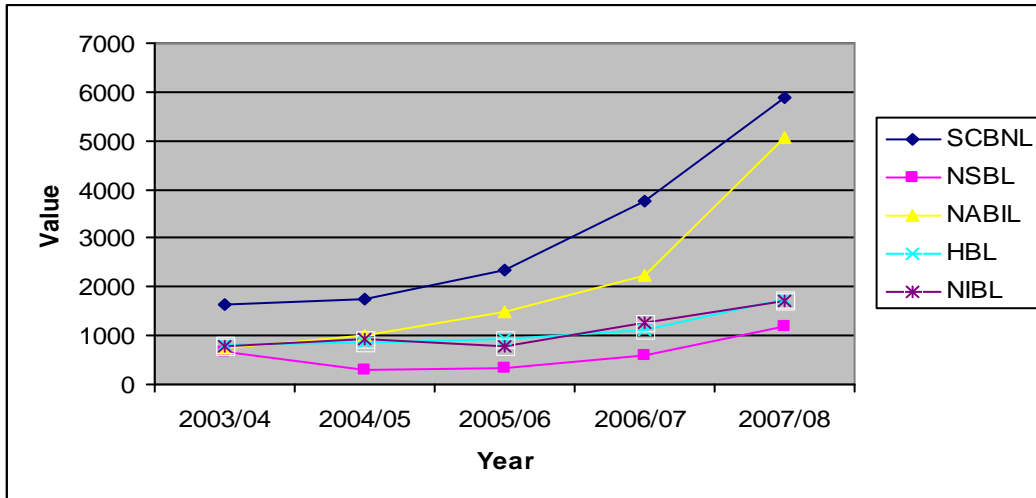
The closing MPS of SCBNL ranges between Rs. 5900 to Rs. 1640 during the period of study. The average of closing MPS of Standard Chartered Bank Nepal Ltd. is Rs. 3081 with a S.D. of 1791 and a C.V. of 58.13%, which means its MPS has fluctuated quite a lot, but in increasing way, during the period of study.

During the period of study, NSBL has an average of closing MPS of Rs. 617.20 with a S.D. of 349.88. The C.V. shows that there is a fluctuation of 56.69% in closing MPS of NSBL during the period of study, which is quite high. The highest and lowest prices are Rs. 1176 and Rs. 307 respectively.

The average of closing MPS of Nabil Bank Ltd. is Rs. 2107 during the period of study. The highest and lowest closing MPS of Nabil Bank Ltd. during the period of study are Rs. 5050 and Rs. 740 respectively. The S.D. of closing MPS is 1741 with a C.V. of 82.67%. However, its MPS has also increased over the periods of study.

The average of closing MPS of HBL is Rs. 1087.20 with a S.D. of 380.29 and a C.V. of 34.98%. The C.V. indicates moderate fluctuation in the closing MPS of the bank. The highest and lowest closing MPS during the period of study are Rs. 1740 and   Rs. 836 respectively.

The average closing MPS of NIBL within the period of study is Rs. 1104.80, and it ranges between Rs. 1729 to Rs. 795. The S.D. is 396.78 and the fluctuation of 35.91% is seen in the closing MPS during the period of study, which shows that there is moderate fluctuation; however, its MPS has increased over the periods of study.

From the above data and calculations, it can be seen the average closing MPS of SCBNL is the highest, followed by that of Nabli Bank Ltd. Also the C.V. of Nabil is highest among the banks under study. HBL and NIBL have relatively low C.V. The MPS of SCBNL in the year 2007/08 is Rs. 5900, which is highest among all the sample banks during the period of study.

4.1.5 Analysis of Price-Earning Ratio (P/E) of the sample banks

The price-earning ratios of the banks under study are presented in the table as follows:

Table 4.6

Comparative P/E of Banks under study

Bank	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.%
SCBNL	10.98	12.16	16.38	21.47	35.25	19.25	9.85	51.16
NSBL	22.24	21.54	25.21	33.49	29.89	26.47	5.12	19.33
NABIL	8.74	10.80	14.23	17.34	36.84	17.59	11.25	63.96
HBL	16.91	17.12	19.20	18.57	28.69	20.10	4.90	24.37
NIBL	20.10	18.18	20.25	21.23	27.63	21.48	3.61	16.82

Source: *Annual Report of concern Banks*

The Price-Earning Ratios of the banks under study are also presented in graphical form as follows:

Figure 4.6

Comparative P/E of banks under study
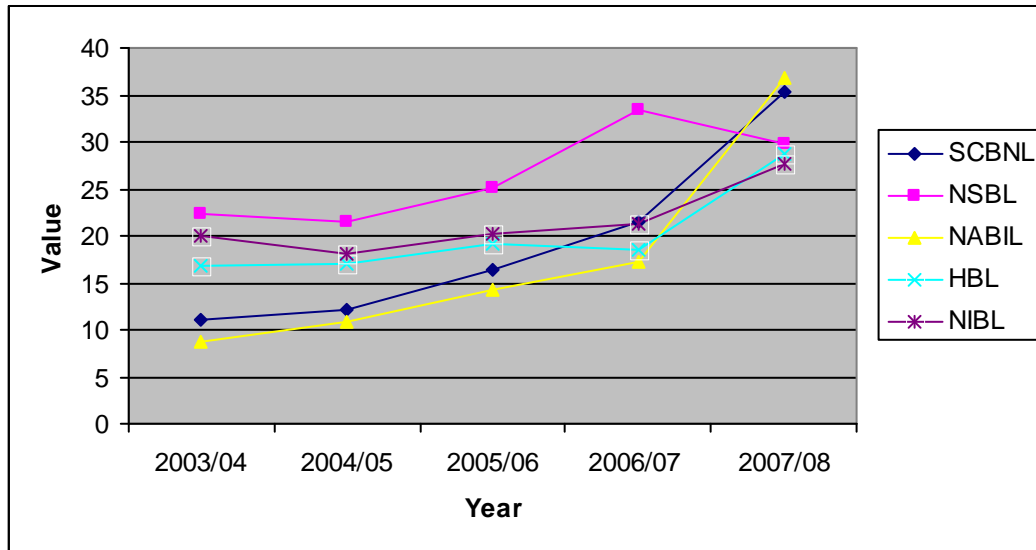
The average P/E ratio of SCBNL during the period of study is 19.25. It is within the range of 21.47 to 10.98. The S.D. of P/E ratio is 9.85 whereas the C.V. is 51.16%, which means the bank has high level of fluctuation in P/E ratio during the periods of study.

Nepal SBI bank Ltd. (NSBL) has an average P/E ratio of 26.47, ranging from 33.49 to 21.54. The S.D. of P/E ratio is 5.12 and C.V. is 19.33%, which is moderate.

Nabil Bank Ltd. has an average P/E ratio of 17.59. The S.D. is 11.25 and coefficient of variation is 63.96%. It indicates that P/E ratio of Nabil Bank Ltd. is somewhat high.

The average P/E ratio of HBL is 20.10, with standard deviation of 4.90. The coefficient of variation is 24.37%, which indicates that P/E ratio of HBL is moderately fluctuating.

Nepal Investment Bank Ltd. has an average P/E ratio of 21.48, with standard deviation of 3.61. The coefficient of variation of NIBL is 16.82%, and it is the lowest among other banks under study.

From the above calculations, NSBL has the highest average P/E ratio and Nabil has the lowest. The C.V. indicates that among the banks in the study period, NIBL has the highest consistency in P/E ratio whereas the P/E ratio of Nabil is highly fluctuating. P/E ratio of Nabil Bank Ltd. in F.Y. 2007/08 is highest among the sample banks.

4.1.6 Analysis of Dividend Yield (D.Y) of the sample banks

The dividend yields of the banks under study are presented in the table as below:

Table 4.7

Comparative Dividend Yield of banks under study

Bank	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.%
SCBNL	6.71	6.30	5.12	3.18	1.36	4.53	2.24	49.50
NSBL	1.22	0.00	0.00	0.82	1.07	0.62	0.59	94.18
NABIL	6.76	6.50	0.00	0.22	0.25	2.75	3.55	129.17
HBL	0.16	0.00	1.26	2.73	0.86	1.00	1.09	109.17
NIBL	2.52	1.33	2.50	0.40	3.62	2.07	1.24	59.74

Source: *Annual Report of concern Banks*

The dividend yields of the banks under study are presented in the graph as below:

Figure 4.7

Comparative Dividend Yield of banks under study
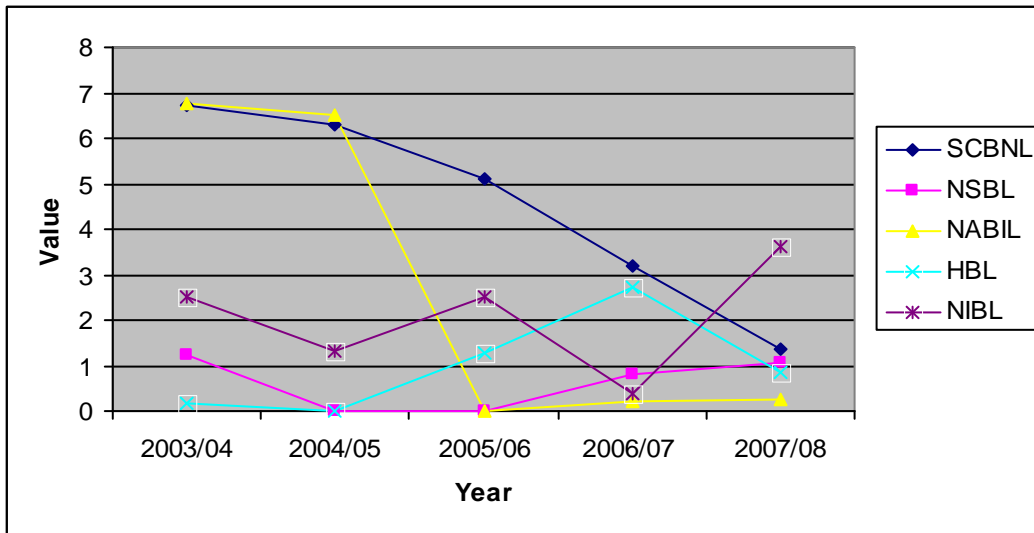
The D.Y. of SCBNL ranges from 6.71% to 1.36% during the period of study. During this period, the average D.Y. is 4.53%. The standard deviation of the D.Y. is 2.24 and its C.V. is 49.50%, which indicates there is low fluctuation as compared to other sample banks.

During the period of study, Nepal SBI Bank Ltd. (NSBL) has an average D.Y. of 0.62%, with a S.D. of 0.59. The D.Y. ranges from 1.22 to 0. The C.V. of 94.18% shows there is high level of fluctuation in dividend yield.

The average D.Y. of Nabil Bank Ltd. During this period of study is 2.75%. It stayed within the range of 6.76% to 0%. The S.D. of D.Y. is 3.55 whereas the coefficient of variation is 129.17%, which is very high.

HBL has an average D.Y. of 1% during the period of study. It ranges from 2.73% to 0.40%. The S.D. of dividend yield is 1.09 and its C.V. is 109.17%, which is quite high.

NIBL has an average D.Y. of 2.07% during the period of study, ranging between 3.62% and 0.40%. The S.D. is 1.24, whereas the C.V. is 59.74%, somewhat more than that of SCBNL.

From the above data and calculations, it can be seen that the average D.Y. of SCBNL is the highest and that of NSBL is the lowest. The D.Y. range of the banks under study during the period is between 6.71% and 0%. The C.V. of these banks shows a high level of fluctuation in dividend yield. If compared, SCBNL has the most consistent D.Y. among the sample banks.

4.1.7. Analysis of NWPS of the sample banks

The Net worth per share of the banks under study is stated in the table as follows:

Table 4.8

Comparative Analysis of Net worth per Share of banks under study

Bank	2003/04	2004/05	2005/06	2006/07	2007/08	Mean	S.D.	C.V.%
SCBNL	403.15	399.25	422.38	468.22	512.12	441.02	48.27	10.95
NSBL	134.03	146.80	159.54	153.44	179.58	154.68	16.84	10.88
NABIL	267.30	301.00	337.16	381.36	418.39	341.04	60.55	17.75
HBL	444.26	427.40	239.59	228.72	264.74	320.94	105.86	32.98
NIBL	216.24	246.89	200.80	239.67	234.37	227.59	18.78	8.25

Source: *Annual Report of concern Banks*

The net worth per share of the banks under study is presented in the graphical form as below:

Figure 4.8

Comparative Analysis of NWPS of banks under study
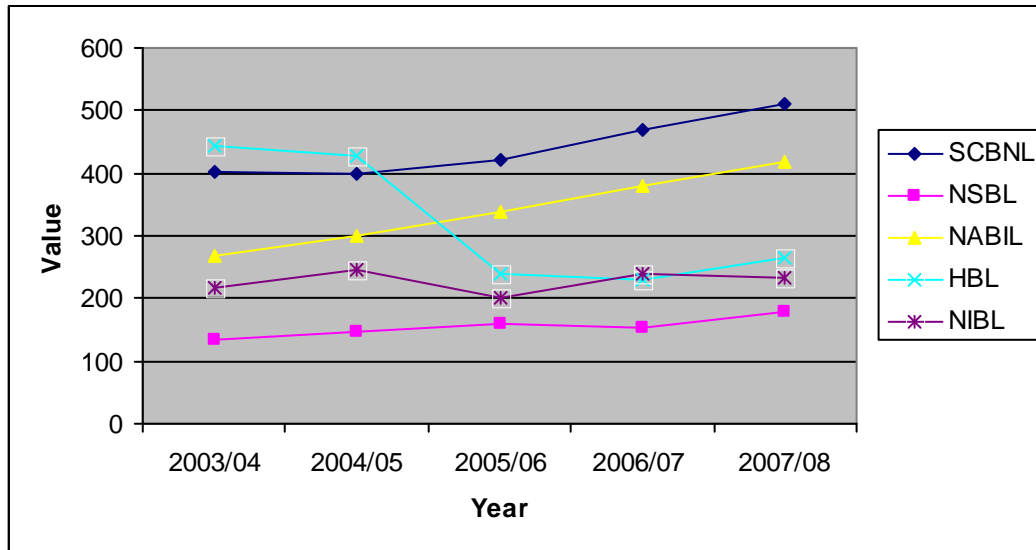
The above calculation shows that SCBNL has the highest average NWPS among all sample banks i.e. Rs. 441.02. The S.D. is 48.27 and C.V. is 10.95%. The C.V. indicates that there is less fluctuation in net worth of SCBNL during the period of study.

The average net worth per share of NSBL is Rs. 154.68, with S.D. of 16.84 and C.V. of 10.88%. The C.V. indicates that there is less fluctuation in net worth of NSBL during the period of study.

Nabil has an average NWPS of Rs. 341.04, with S. D. of 60.55. The C.V. is 17.75%, which means there is moderate level of fluctuation in NWPS of Nabil Bank Ltd. during the period of study.

The average NWPS of HBL is Rs. 320.94, with S.D. of 105.86. The C.V. is 32.98%, which means there is somewhat high degree of fluctuation in NWPS of Himalayan Bank Ltd., during the period of study.

The average NWPS of NIBL is Rs. 227.59, with S.D. of 18.78. The C.V. is 8.25%, which indicates that there is less variation in the NWPS of Nepal Investment Bank Ltd., during the period of study.

The above analysis shows that SCBNL has the highest average net worth per share, and that of NSBL is the lowest. The NWPS of the banks under study during the period ranges from Rs. 468.22 to Rs. 134.03. Similarly, the S.D. of HBL is the highest, and that of NSBL is the lowest. The C.V. of these banks shows that there is moderate

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level of fluctuation in net worth per share, among them NIBL has the most consistent level of NWPS.

4.2 Statistical Analysis

4.2.1 Correlation Analysis

The correlation analysis is generally used to describe the degree to which one variable is related to another. It helps to determine whether a positive or a negative relationship exists. The positive correlation indicates that increase in value of one variable leads to increase in value of other variable, and the negative correlation indicates that increase in value of one variable leads to decrease in value of the other variable. The correlation coefficient lies between +1 and -1. The +1 coefficient indicates that the variables are perfectly positively correlated and -1 coefficient indicates that the variables are perfectly negatively correlated. And if the correlation coefficient is 0, it means that the variables are not related to each other. The number indicates the degree of correlation between the variables.

The table given below shows the correlation coefficient (r) between the financial variables of banks under study.

4.2.1.1 Correlation Coefficient of SCBNL

Table 4.9

Correlation Coefficient of SCBNL

	EPS	DPS	DPR	P/E	D.Y.	NWPS
MPS	0.764	- 0.722	-0.902	0.994	-0.985	0.993
EPS	-	-0.279	-0.704	-	-	-
DPS	-	-	0.878	-	-	0.537

Through: *SPSS Data Editor*

The above table depicts that the MPS of SCBNL has negative correlation with its DPS and DPR. It is because of the reason that it is paying dividend regularly, and with the payment of dividend, the MPS has been increasing with high degree of fluctuation. In the same way, MPS of SCBNL is positively correlated with its P/E ratio. On the other

hand, MPS is negatively correlated with D.Y, but positively correlated with NWPS. Also, the DPS of SCBNL is positively correlated with DPR and NWPS.

4.2.1.2 Correlation between financial variables of NSBL

Table 4.10

Correlation coefficient of NSBL

	EPS	DPS	DPR	P/E	D.Y.	NWPS
MPS	0.883	0.969	0.508	0.502	0.782	0.602
EPS		0.743	0.048			
DPS			0.704			0.391

Through: *SPSS Data Editor*

The above table indicates that MPS of NSBL is positively correlated with its EPS, DPS, DPR, P/E ratio, D.Y. and NWPS. Similarly, the EPS is positively correlated with its DPS and DPR. It is because of the reason that the DPS and DPR are decreased with the decrease in the EPS. Also the DPS of NSBL has positive correlation with the DPR and NWPS.

4.2.1.3 Correlation between financial variables of Nabil Bank Ltd.

Table 4.11

Correlation coefficient of Nabil Bank Ltd.

	EPS	DPS	DPR	P/E	D.Y.	NWPS
MPS	0.876	- 0.506	- 0.562	0.998	- 0.634	0.902
EPS	-	- 0.734	- 0.783	-	-	-
DPS	-	-	0.996	-	-	- 0.725

Through: *SPSS Data Editor*

From the above table it can be seen that the MPS of Nabil has positive correlation with its EPS, P/E ratio, and NWPS. But it has negative correlation with its DPS and DPR. This is because of irregularity in paying dividend. The EPS of Nabil is negatively

correlated with DPS and DPR, because with they are decreasing with the increase in EPS. Also, the DPS is positively correlated with DPR, but negatively correlated with NWPS.

4.2.1.4 Correlation between financial variables of HBL

Table 4.12

Correlation coefficient of HBL

	EPS	DPS	DPR	P/E	D.Y.	NWPS
MPS	0.833	0.428	0.388	0.976	0.208	- 0.507
EPS	-	0.747	0.687	-	-	-
DPS	-	-	0.995	-	-	- 0.853

Through: *SPSS Data Editor*

The above table reveals that the MPS of HBL is positively correlated with its EPS, DPS, DPR, P/E ratio, and D.Y., but negatively correlated with NWPS. Its EPS is positively correlated with DPS and DPR, whereas the DPS of HBL is positively correlated with DPR, but negatively correlated with NWPS.

4.2.1.5 Correlation between financial variables of NIBL

Table 4.13

Correlation coefficient of NIBL

	EPS	DPS	DPR	P/E	D.Y.	NWPS
MPS	0.902	0.716	0.519	0.898	0.285	0.490
EPS	-	0.383	0.128	-	-	-
DPS	-	-	0.964	-	-	- 0.022

Through: *SPSS Data Editor*

The above table shows that the MPS of NIBL has positive correlation with its EPS, DPS, DPR, P/E ratio, D.Y., and NWPS. It is because its MPS is increasing with increase in EPS and vice versa. In the same way, the EPS of NIBL is positively correlated with its DPS and DPR. Also, its DPS is positively correlated with DPR, but negatively correlated with NWPS.

From the above analysis, the MPS of SCBNL and Nabil is negatively correlated with their dividend components i.e., DPS and DPR despite the fact that SCBNL has been paying dividend regularly, but Nabil didn't pay dividend in F.Y. 2004/05. Their dividends also show high degree of fluctuation. It also shows that MPS is not solely dependent upon dividend. For these two banks, the M.M. Model holds good to some point. However, the MPS of all the banks are positively correlated with their EPS, which means that with the increase in EPS, there is increase in stock price.

The MPS of NSBL, HBL, and NIBL is positively correlated with their DPS and DPR, which points to the fact that dividend policy is not irrelevant. Even though, their EPS is not as high as that of SCBNL and Nabil, nevertheless, the dividends of these banks have had positive effect on their stock price. Also, we can see from the above analysis that the MPS of sample banks is positively correlated with their P/E ratio. The MPS of SCBNL and Nabil is negatively correlated with their dividend yield, which is because of their high stock price and low dividend yield, and their stock prices has increased with decrease in D.Y, and vice versa, over the period of study.

Analyzing the relation between EPS-DPS and EPS-DPR, there is positive correlation for all the banks except for SCBNL and Nabil. It indicates that with the increase in EPS, both DPS and DPR will increase and vice versa. But in the case of SCBNL and Nabil, the EPS is negatively correlated with DPR. It is due to the fact that DPR has not increased with the increase in EPS.

Regarding the correlation of DPS with DPR and NWPS, only the DPS of SCBNL and NSBL are positively correlated with their DPR and NWPS. The DPS of Nabil, HBL, and NIBL is positively correlated with their DPR, but negatively correlated with their NWPS.

4.2.2 Regression Analysis

The regression analysis is used to determine the statistical relationship between two or more variables and to make prediction of one variable on the basis of the others.

4.2.2.1 Regression analysis between MPS on EPS

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Table 4.14

Regression Analysis of MPS on EPS

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Bank	Variables	b	Std. error of b	T Value	Sig. T	R^2
SCBNL	Constant (a)	-11234.09	-	-1.6	0.21	0.58
	EPS	91.89	44.76	2.05	0.13	
NSBL	Constant (a)	96.56	-	0.53	0.63	0.78
	EPS	26.94	8.28	3.25	0.05	
NABIL	Constant (a)	-5273.11	-	-2.21	0.11	0.77
	EPS	67.17	21.34	3.15	0.05	
HBL	Constant (a)	-1656.97	-	-1.57	0.22	0.70
	EPS	51.52	19.72	2.61	0.08	
NIBL	Constant (a)	-570.45	-	-1.21	0.31	0.81
	EPS	33.15	9.17	3.62	0.04	

Through: *SPSS Data Editor*

The above table of regression analysis shows that all the banks under study have positive relation between MPS and EPS. The regression relation between MPS and EPS of SCBNL indicates that with an increase of Rs. 1 in EPS, the MPS will increase by Rs. 91.89. Similarly, there will be increase in MPS of NSBL, NABIL, HBL, and NIBL by Rs 26.94, Rs. 67.17, Rs. 51.52, Rs. 33.15 respectively with an increase in EPS by Rs. 1, with other variables remaining constant.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL, and NIBL are 44.76, 8.28, 21.34, 19.72, and 9.17 respectively. These values indicate the probable error in the predicted value for the respective banks. Here, S.E.E is lowest in NSBL, which shows that estimation of EPS can be predicted nearer to accuracy.

The coefficient of multiple determination (R^2) is lowest for SCBNL (0.58), which indicates that only 58% in MPS is explained by EPS i.e 58% variation in MPS of the bank is explained due to change in the value of EPS of the bank. The value of R^2 of NSBL, NABIL, HBL, and NIBL are 0.78, 0.77, 0.70, and 0.81 respectively, which indicates that 78%, 77%, 70%, and 81% variation in the MPS of these banks are explained by the change in EPS of the respective banks.

4.2.2.2 Regression analysis between MPS on DPS

Table 4.15

Regression analysis of MPS and DPS

Bank	Variables	b	Std. error of b	T Value	Sig. T	R^2
SCBNL	Constant (a)	11580.000	-	2.440	.093	.521
	DPS	-78.694	43.544	-1.807	.168	
NSBL	Constant (a)	295.742	-	4.545	.020	.939
	DPS	62.809	9.249	6.791	.007	
NABIL	Constant (a)	2908.895	-	2.627	.079	.256
	DPS	-30.240	29.792	-1.015	.385	
HBL	Constant (a)	932.078	-	3.593	.037	.183
	DPS	13.396	16.334	.820	.472	
NIBL	Constant (a)	800.819	-	7.133	.037	.512
	DPS	12.658	7.133	1.775	.174	

Through: *SPSS Data Editor*

The above table of regression analysis of MPS on DPS shows that among the banks under study, NSBL, HBL, and NIBL have positive regression relation between MPS and DPS, whereas SCBNL and NABIL have negative relation between MPS and DPS. With Rs. 1 increase in DPS of NSBL, HBL, and NIBL, their MPS will increase by Rs. 62.81, Rs. 13.40, and Rs. 12.66 respectively.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL, and NIBL are 43.54, 9.25, 29.79, 16.33, and 7.133 respectively. These values indicate the probable error in the predicted value for the respective banks. Here, S.E.E is lowest in NIBL, which means that estimation of DPS can be predicted nearer to accuracy. The coefficient of multiple determination is lowest for NIBL (0.18), which indicates that only 18% variance in the MPS, is explained by DPS, i.e. 18% variation in MPS of the bank is explained due to the change in value of DPS of the bank.

4.2.2.3 Regression analysis between MPS on DPR

Table 4.16

Regression Analysis of MPS on DPR

Bank	Variables	b	Std. error of b	T Value	Sig. T	R^2
SCBNL	Constant (a)	11370.467	-	4.881	.016	.813
	DPR	-118.360	32.768	-3.612	.036	
NSBL	Constant (a)	457.437	-	2.074	.130	.258
	DPR	6.187	6.054	1.022	.382	
NABIL	Constant (a)	2941.550	-	2.864	.064	.316
	DPR	-29.324	24.890	-1.178	.324	
HBL	Constant (a)	940.030	-	3.466	.040	.388
	DPR	7.199	9.881	.729	.519	
NIBL	Constant (a)	828.267	-	2.620	.079	.269
	DPR	5.914	5.628	1.051	.371	

Through: *SPSS Data Editor*

The regression analysis between MPS and DPR shows positive relation for NSBL, HBL, and NIBL, i.e. with an 1% increase in DPR, the MPS will increase by Rs. 6.19, Rs. 7.20, and Rs. 5.91 respectively, assuming that other variables remain constant. The regression analysis between MPS and DPR of SCBNL and NABIL is negative, which means that the price of their stock increased considerably despite their low DPR.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL, and NIBL are 32.77, 6.05, 24.89, 9.88, and 5.63 respectively. These values indicate the probable error in the predicted value for the respective banks. Here, S.E.E is lowest in NIBL, which shows that the estimation of DPR can be predicted to nearer to accuracy.

The coefficient of multiple determination (R^2) is lowest for NSBL (0.26), which indicates that only 26% in MPS is explained by DPR i.e. 26% variation in MPS of the bank is explained due to change in the value of DPR of the bank. The DPR is highest in

case of SCBNL (0.81), which means 81% change in value of MPS is due to change in the DPR. The value of R^2 for NABIL, HBL, and NIBL are 0.32, 0.39, and 0.27 respectively, which indicates that 32%, 39%, and 27% variation in the MPS of these banks are explained due to change in DPR of the respective banks.

4.2.2.4 Regression analysis between MPS on D.Y.

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Table 4.17

Regression Analysis of MPS on D.Y.

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Bank	Variables	b	Std. error of b	T Value	Sig. T	R^2
SCBNL	Constant (a)	6647.241	-	16.604	.000	.969
	D.Y.	-786.555	80.752	-9.740	.002	
NSBL	Constant (a)	326.454	-	1.868	.159	.612
	D.Y.	467.438	214.925	2.175	.118	
NABIL	Constant (a)	2961.591	-	3.220	.049	.402
	D.Y.	-311.213	219.196	-1.420	.251	
HBL	Constant (a)	1014.864	-	3.691	.034	.043
	D.Y.	72.192	196.354	.368	.738	
NIBL	Constant (a)	915.284	-	2.194	.116	.081
	D.Y.	91.377	177.430	.515	.642	

Through: *SPSS Data Editor*

The above table of regression analysis shows that all the banks have positive regression relation between MPS and D.Y. except that of SCBNL and NABIL. In case of NSBL, HBL, and NIBL their MPS will increase by Rs. 467.44, Rs. 72.19,   Rs. 91.38 respectively with a 1 % increase in D.Y, assuming other variables are constant.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL, and NIBL are 80.75, 214.93, 219.20, 196.35, and 177.43 respectively. These values indicate the probable error in the predicted value for the respective banks. Here, S.E.E. is lowest in SCBNL, which shows the estimation of D.Y. can be predicted nearer to accuracy.

The coefficient of multiple determination (R^2) is lowest for HBL (0.04), which indicates that only 4% in MPS is explained by D.Y. i.e. 4 % variation in MPS of the bank is explained due to change in the value of D.Y. of the bank. The value of R^2 of SCBNL, NSBL, NABIL, and NIBL are 0.97, 0.61, 0.40, 0.08 respectively, which indicate that 97%, 61%, 40% variation in the MPS of these banks are explained due to change in D.Y. of the respective banks.

4.2.2.5 Regression analysis between DPS on EPS

Table 4.18

Regression Analysis of DPS on EPS

Bank	Variables	b	Std. error of b	T Value	Sig. T	R^2
SCBNL	Constant (a)	155.890		1.630	.202	.078
	EPS	-.307	.611	-.503	.650	
NSBL	Constant (a)	-1.642		-.412	.708	.552
	EPS	.350	.182	1.922	.150	
NABIL	Constant (a)	129.928		2.314	.104	.539
	EPS	-.941	.502	-1.873	.158	
HBL	Constant (a)	-66.986		-1.650	.197	.558
	EPS	1.475	.758	1.946	.147	
NIBL	Constant (a)	-16.247		-.285	.794	.147
	EPS	.797	1.108	.719	.524	

Through: *SPSS Data Editor*

The regression analysis between DPS and EPS shows a positive relation for all banks except SCBNL and NABIL. The regression relation between DPS and EPS indicates that with an increase of Rs. 1 in EPS, there will be increase in DPS of NSBL, HBL, and NIBL by Rs. 0.35, Rs. 1.48, and Rs. 0.80 respectively assuming that other variables remain the same.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL, and NIBL are 0.61, 0.18, 0.50, 0.76, and 1.11 respectively. These values indicate the probable error in

the predicted value for the respective banks. Here S.E.E. is loves for NSBL, which shows that the estimation of EPS can be predicted to nearer to accuracy.

The coefficient of multiple determination (R^2) is lowest for SCBNL (0.08), which indicates that only 8% in DPS is explained by EPS i.e. 8% variation in DPS of the bank is explained due to change in the value of EPS of the bank. The value of R^2 for NSBL, NABIL, HBL, and NIBL are 0.55, 0.54, 0.56, and 0.14 respectively, which indicates that 55%, 54%, 56%, and 14% variation in DPS of these banks are explained due to change in the EPS of the respective banks.

4.2.2.6 Regression analysis between DPS on NWPS

Table 4.19

Regression Analysis of DPS on NWPS

Bank	Variables	b	Std. error of b	T Value	Sig. T	R^2
SCBNL	Constant (a)	204.867	-	3.079	.054	.416
	NWPS	-.220	.150	-1.463	.240	
NSBL	Constant (a)	-14.276	-	-.539	.627	.153
	NWPS	.125	.170	.736	.515	
NABIL	Constant (a)	145.460	-	2.203	.115	.526
	NWPS	-.349	.191	-1.824	.166	
HBL	Constant (a)	43.006	-	3.719	.034	.728
	NWPS	-.098	.035	-2.833	.066	
NIBL	Constant (a)	30.048	-	.191	.861	. 000
	NWPS	-.027	.689	-.038	.972	

Through: *SPSS Data Editor*

The above table of regression analysis shows that, among the banks under study, only NSBL has positive regression relation between DPS and NWPS, and remaining banks have negative regression relation between DPS and NWPS. In case of NSBL, with an increase of Rs. 1 in NWPS the DPS will increase by Rs. 0.13, assuming other

variables remain constant. In contrast, with an increase of Rs. 1 in NWPS of SCBNL, NABIL, HBL, and NIBL, the DPS will decline by Rs. 0.22, Rs. 0.35, 0.01, and 0.03 respectively, assuming other variables remain constant.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL, and NIBL are 0.15, 0.17, 0.19, 0.04, and 0.69 respectively. These values indicate the probable error in the predicted value for the respective banks. Here, S.E.E. is lowest in HBL, which shows the estimation of NWPS can be predicted nearer to accuracy.

The coefficient of multiple determination (R^2) is highest for HBL (0.73), which indicates that 73% variation in DPS is explained by NWPS of the bank. The value of R^2 of SCBNL, NSBL, NABIL, HBL, and NIBL are 0.42, 0.15, 0.53, and 0.00 respectively, which indicate that 42%, 15%, 53%, and 0% variation in the DPS of these banks are explained due to the change in NWPS of the respective banks.

4.2.2.7 Regression analysis of MPS on P/E Ratio and DPS

Table 4.20

Regression Analysis of MPS on P/E Ratio and DPS

Bank	Variables	b	Std. error of b	T Value	Sig. T	R^2
SCBNL	Constant (a)	-1246.466	-	-.806	.505	.990
	P/E Ratio	188.902	19.237	9.820	.010	
	DPS	6.403	11.528	.555	.634	
NSBL	Constant (a)	67.617	-	.238	.834	.954
	P/E Ratio	9.299	11.257	.826	.496	
	DPS	59.281	10.673	5.554	.031	
NABIL	Constant (a)	-549.986	-	-3.087	.091	.997
	P/E Ratio	152.952	6.894	22.188	.002	
	DPS	-1.261	2.663	-.474	.682	
HBL	Constant (a)	-422.419	-	-2.468	.132	.977
	P/E Ratio	72.218	8.675	8.325	.014	
	DPS	5.024	3.498	1.436	.287	
NIBL	Constant (a)	-1768.824	-	-1.418	.292	.845
	P/E Ratio	142.646	68.716	2.076	.174	
	DPS	-7.917	11.065	-.716	.549	

Through: *SPSS Data Editor*

The Multiple Regression Analysis shows that with an increase of 1% in P/E ratio, the MPS of SCBNL, NSBL, NABIL, HBL, and NIBL will increase by Rs. 188.90, Rs. 9.30, Rs. 152.95, Rs. 72.22, and Rs. 142.65 respectively, keeping DPS constant, and with an increase of Rs. 1 in DPS, the MPS of SCBNL, NSBL, and HBL will increase by Rs. 6.40, Rs. 59.28, and Rs. 5.02 respectively, keeping P/E ratio constant. Whereas, in case of NABIL and NIBL, with an increase of Rs. 1 in DPS, the MPS will decline by Rs. 1.26 and Rs. 7.92 respectively.

The value of coefficient of multiple determination (R^2) of SCBNL, NSBL, NABIL, HBL, and NIBL are 0.99, 0.95, 0.99, 0.97, and 0.85 respectively, which indicate that 99%, 95%, 99%, 97%, and 85% variation in the MPS of these banks are explained due to change in P/E ratio and DPS of the respective banks.

4.2.2.8 Regression analysis of MPS on EPS and DPR

Table 4.21

Regression Analysis of MPS on EPS and DPR

Bank	Variables	b	Std. error of b	T Value	Sig. T	R^2
SCBNL	Constant a)	4900.211	-	.482	.677	
	EPS	30.860	46.907	.658	.578	
	DPR	-94.642	51.223	-1.848	.206	.846
NSBL	Constant (a)	-36.894	-	-1.230	.344	
	EPS	26.249	1.262	20.806	.002	
	DPR	5.683	.503	11.290	.008	.997
NABIL	Constant (a)	-7840.451	-	-1.623	.246	
	EPS	86.245	38.280	2.253	.153	
	DPR	16.575	26.032	.637	.589	.807
HBL	Constant (a)	-2314.786	-	-1.588	.253	
	EPS	66.364	29.508	2.249	.153	
	DPR	-6.491	8.863	-.732	.540	.759
NIBL	Constant (a)	-691.727	-	-3.510	.072	
	EPS	31.223	3.815	8.185	.015	.979
	DPR	4.676	1.183	3.951	.058	

Through: *SPSS Data Editor*

The above table of multiple regression analysis shows that among the banks under study, NSBL, NABIL and NIBL have positive relation between MPS on EPS and DPR. All the banks also have positive relation between MPS on EPS, but SCBNL and HBL have negative relation between MPS on DPR. With an increase of Rs. 1 in EPS of SCBNL, NSBL, NABIL, HBL, and NIBL, the MPS will increase by Rs. 30.86, Rs. 26.25, Rs. 86.25, Rs. 66.36, and 31.22 respectively, keeping DPR constant. Similarly, with an increase of 1% in DPR of NSBL, NABIL, and NIBL, the MPS will increase by

Rs. 5.68, Rs. 16.56, and Rs. 4.68 respectively, whereas, it will cause to decline the MPS of SCBNL and HBL by Rs. 94.64 and Rs. 6.49 respectively, keeping EPS constant.

The value of coefficient of multiple determination (R^2) of SCBNL, NSBL, NABIL, HBL and NIBL are 0.85, 0.99, 0.81, 0.76, and 0.98 respectively, which means that 85%, 99%, 81%, 76%, and 98% variation in the MPS of these banks are explained due to change in EPS and DPR of the respective banks.

4.3 Major Findings of the Study

The study covered only five commercial banks and only for the last five fiscal years from 2003/04 to 2007/08. The available secondary data had been analyzed using various financial and statistical tools. So, the reliability of the conclusions of this study is dependent upon the accuracy of secondary data.

The major findings of this study can be summarized as follows:

Ñ The average earning per share of banks did not seem satisfactory except for SCBNL and NABIL. The coefficient of variation indicates that except for NSBL, other banks' EPS seem satisfactory. The C.V. ranges from 59.32% to 9.56%. Among the banks under study, SCBNL had highest average EPS and lowest C.V. NSBL had lowest average EPS with highest degree of fluctuation.

Ñ The average DPS showed that there was no consistency in payment of dividend. The C.V. ranged from 109.82% to 15.21%. Among the banks under study, SCBNL had the highest average DPS, and NSBL had the lowest. Except for SCBNL, other banks had high degree of fluctuation in dividend payment.

Ñ The analysis of DPR also showed high degree of fluctuation for other banks except for SCBNL. The fluctuation ranged from 117.38% to 19.48%. The study shows that, HBL has the lowest DPR.

Ñ The analysis of MPS also showed that the average MPS of the MPS had quite high level of fluctuation. SCBNL had the highest average MPS followed by NABIL. Among the banks under study, NABIL had highest level of fluctuation whereas HBL and NIBL had low level of fluctuation.

Ñ The average dividend yields of the banks ranged from 4.53% to 0.62%. Among the banks SCBNL had the highest dividend yield with low level of fluctuation. The fluctuation of dividend yield ranged from 129.17% to 49.50%.

Ñ The analysis of net worth per share showed that SCBNL has the highest average NWPS and NSBL had the lowest. The C.V. indicated that there was a moderate level of fluctuation in NWPS of the banks under study.

Upon using the major statistical tools i.e. correlation and regression, the findings were as follows:

⌡ The MPS of SCBNL had positive correlation with its EPS but negative correlation with its DPS, DPR and D.Y. This was due to high degree of fluctuation in MPS; even when DPS, DPR, and D.Y. were decreased, the MPS was high.

⌡ The MPS of NSBL had positive correlation with EPS, DPS, DPR, and D.Y. This was due to the fact that MPS of NSBL had low level of fluctuation and there was no extreme value of MPS.

⌡ The MPS of NABIL also had positive correlation with its EPS but negative correlation with its DPS, DPR and D.Y. This was also due to high level of fluctuation in MPS, and it could also be that the M.M. model holds good in the case of SCBNL and NABIL, which says that stock price depends upon earning and not dividend. The EPS of these two banks were higher than other sample banks under study.

⌡ The MPS of HBL had positive correlation with its EPS, DPS, DPR, and D.Y. There was also positive correlation between DPS and EPS.

⌡ The MPS of NIBL was also positively correlated with its EPS, DPS, and DPR, D.Y, P/E ratio and NWPS.

⌡ The regression analysis of MPS on DPS indicated that the regression coefficient (b) is negative for SCBNL and NABIL, whereas it was positive for NSBL, HBL, and NIBL. The coefficient of multiple determination for the regression analysis of MPS on DPS of NSBL was highest among sample banks, followed by that of SCBNL.

⌡ The regression analysis of MPS on DPR showed that the regression coefficient (b) is negative for SCBNL and NABIL, but it was positive for other sample banks under

study. The coefficient of multiple determination (R^2) of SCBNL was highest among the sample banks.

⌡ The regression coefficient (b) of the regression analysis between MPS and D.Y. showed that all banks have positive relation except SCBNL and NABIL. The coefficient of multiple determination (R^2) of SCBNL was highest among the sample banks.

⌡ The regression coefficient (b) for the analysis between DPS on EPS is positive for all sample banks except SCBNL and NABIL. The coefficient of multiple determinations (R^2) was high for HBL and NSBL than other banks under study.

⌡ The regression coefficient (b) for the analysis between DPS and NWPS was positive for NSBL but it was negative for other sample banks under study. The coefficient of multiple determination (R^2) of HBL was highest among sample banks.

⌡ The multiple regression analysis of MPS on P/E ratio and DPS showed that the regression coefficient (b) is positive for both P/E ratio and DPS in case of SCBNL, NSBL, and HBL. For NABIL and NIBL, it was negative for DPS.

⌡ The multiple regression analysis of MPS on EPS and DPR showed that NABIL, NSBL, and NIBL have positive regression coefficients (b) for both EPS and DPR. The coefficient was negative for DPR in case of HBL and SCBNL, but it is positive for EPS.

CHAPTER - V
SUMMARY, CONCLUSIONS AND RECOMMENDATION

This chapter presents the summary conclusions and recommendation drawn from the analysis of the study. This study is conducted to identify the core factors, which shape equity price, and to examine the behavior of stock price with respect to the movement of various financial indictors. For this purpose, 5 sampled companies were selected and the study was based on the six years data of the selected companies from 2002/3 to 2007/8. Various statistical tools and financial concepts were applied as test methodology. Multiple regression analysis was taken as a key instrument of analysis.

5.1 Summary

Various factors heavily influenced the pricing of equity. It is still mysterious that which factors to what extent shape equity price? Nevertheless, this study has tried to show that popular financial indicators shaped equity price. In fact, price of security is the outcomes of investors' psychology. The psychology of investors is affected by various factors. In Nepalese context, dividend streams and price appreciation of stock is a major factors for investors to decide about purchasing of shares. Along with the DPS and price appreciation, EPS, NWPS, market rumors, political an economic environment etc are the other major factors which ultimately affect the buying and selling behavior of the investors. Stock exchange is the trading mechanism, which is a fixed engine to report daily closing price at every day end. In our context, NEPSE plays such roles. However, one must look into financial status of organization before making investment. If the organization is not financially strong, then there is a great probability to loose one's investment one day or other.

This study has covered most of the aspects of equity price. The prime objective of this study is to put full efforts to identify the core factors upon which equity price built. So to achieve set targets, behavioral techniques of price determination, function of security market, fundamental analysis, technical analysis, efficient market hypothesis etc are dealt. Basically, four popular financial indicators are selected because stock markets

generally report these four indicators as a measuring rod of economy thus the combined effects of these variables upon MPS has been tested by means of correlation analysis and regression analysis. This study has shown that MPS of sampled companies were heavily influenced by the fluctuations in these selected financial indicators. Related theories have argued that EPS, DPS, NWPS, and price appreciation are the fundamental factors that shape equity price to a significant extent. MPS of banking sector has taken random walk during the study period. Thus, it can be concluded that signaling effects and bidding practice in banking sector, have occupied major parts and these selected indicators were fallen in shadow. In finance sector, it has been observed that MPS has moved as according to the movement of these selected financial indicators. Coefficient of determination has also proved this fact because r^2 is 0.986. Not the least, EPS, NWPS and capital gain were positively correlated with MPS but DPS was negatively correlated with MPS during the study, which is absolutely consistent with theory because dividend in long term will reduces MPS. Thus, in case of finance sector, selected financial indicators can be assumed as the perfect determinants of equity price. While analyzing insurance sector, it has been found that the selected financial indicators caused 93.4% variation in equity price. Since all variables were positively correlated with MPS, but regression analysis has shown that DPS and NWPS have negative impact on equity price of insurance sector.

The stockholders have a high desire and expectation that market price of share will be higher than net worth and getting high percent of dividend from earnings. So distributing dividend to the shareholders is effective to achieve the trust of investors and encourage them to invest in shares. Besides this dividend paying ability reflects the financial position of the organization in the market. So the funds that could not be used due to the lack of investment opportunities would be better as dividend, since stockholders have investment opportunities elsewhere.

The first objective of this study is to find out the relationship of MPS with various financial indicators like EPS, DPS, NWPS and price appreciation. The 4th chapter of this study has presented multivariate correlation analysis. Dividend paying banks have been

selected for the study, so the references can be made about implication of dividend policy they have adopted in their market price per share. Even if market price is governed by various other factors, this study is made to analyze one of the important factors i.e. dividend.

5.2 Conclusions

From the analysis of financial and statistical indicators of all the sample banks, following conclusions are drawn:

) To arrive at concrete conclusion, pricing status of the common stocks of sampled companies has also been tested which strongly concluded that no any stocks were equilibrium priced. More precisely, they are under priced during the study period. If stocks are under priced, their demand in stock market heavily mounts up. Insufficient supply of stocks caused price to rise. At present, this situation is prevailing in Nepalese stock market due to which equity price of banking sector has approached to maximum point with out having any concrete financial reason.

) The market price per share i.e. stock price is affected by the dividend related financial variables such as DPS and DPR either positively or negatively. The changes in DPS affect the stock price differently in different banks. In case of some banks, there exists positive relation between dividend and stock price, while for others, there is negative relation. Besides this the stock price largely depends upon dividend. The stock price of SCBNL and NABIL is shown to be dependent on EPS rather than DPS. However, SCBNL has been paying dividend regularly.

) Along with the above reasons, political, economic and social environment have also close relationship with the pricing behavior of share and they influence the stock market with respect to the importance of the event. Though this study could not over this fact numerically, it is true that such factors hugely shape equity price because, in Nepalese context also, frequent bandh causes NEPSE index to go below yielding instant capital loss. During the course of study, it has also seen that Nepalese investors are more conscious towards the dividend stream, bonus share, price appreciation and marketability of equity share.

) The stock price is also affected by other factors such as earning per share, price-earning ratio, net worth per share etc. Their effect is also different for different banks.

) The dividend per share is affected by earning per share, retention ratio, net profit and net worth per share differently in different banks.

) An analysis of the average DPR of the banks shows that out of the total income generated, about 38.30% is distributed as dividend in general. If the individual DPR of the banks are compared to this figure, SCBNL and NIBL has the average DPR of 70.04% and 46.76% respectively, which is above the average DPR of all banks. NSBL, NABIL, HBL have below average DPR.

) The coefficient of variation of the average DPR of the banks indicates that the fluctuation in the payment of dividend is 84.55%, which is above moderate level. Thus it can be concluded that Dividend Policy of the banks are not stable. There is no strategy of calculating growth in the dividends paid by banks, which shows that the dividend policy of the commercial banks is not uniform and consistent. There is fluctuation in the dividend payment even if the banks are making profit regularly. The dividend payout ratio also does not show any stability and coordination with other variables.

) There is large fluctuation in dividend in each year. There is not certain criterion for paying dividend. Dividends are distributed at an ad hoc basis. From this, the researcher of this study concludes hat there is no long-term vision regarding the dividend policy.

) Stock price or market price of the listed commercial banks under study is higher than net worth per share. There exists vast difference between MPS and NWPS. This situation clearly indicates that the investors are not comparing book value and market value of shares. They are investing in stocks to gain advantage from capital appreciation rather than dividends.

Thus, it can be concluded that four financial indicators -EPS, DPS, NWPS and capital gain, heavily determine the equity price. Other extraneous factors also caused equity

price to fluctuate. Investors must look after all factors, which explicitly or implicitly affect equity price so that they can arrive at rational decision.

5.3 Recommendations

Based on the major finding of this study, some recommendations have been made so as to overcome some shortfalls regarding the issue of with the stock market activities. Thus, the following recommendations can be outlined for the concerned. These recommendations may also have some repercussions, but there is no doubt of the measures to improve the existing conditions.

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

2. From the study, it seems that Nepalese investors have limited knowledge about security market it lacks of professional investors. So 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.

3. Concerned authority are requested to look after the data manipulation, fabrication and other such kinds of window dressing strictly as Nepalese commercial banks are doing to show huge amount of net profit. Corporations are violating the standard norms due to which evil practices are taking places rapidly.

4. This study has shown that most of the stocks of banking, finance and insurance companies listed in NEPSE are under priced in the stock market. So investors are recommended to buy these under valued stocks by selling other over valued stocks.

5. EPS and DPS play a vital role to determine the market price of the share and also indicate the financial performance of banks. Higher EPS and DPS indicate the banks

6. As per the study, it has been found out that EPS, DPS, NWPS and price appreciation are the foundation upon which equity price built. So investors are

recommended for the detail study of the financial indicators before investing and trading stocks of any company.

7. Rumors and bidding are playing vital rote in Nepalese stock markets due to which hypothetical value is assigned for the equity as shown by this study, so investors and brokers are recommended to leave such practices and adopt standard financial norms with honesty so that actual position shall be visualized.

8. Dividend payment of commercial banks is neither stable nor constantly growing. Due to the uncertainty and high degree of risk, the market price per share may be adversely affected. So the commercial banks should follow either stable or constantly growing dividend payment policy

9. The price fluctuating trend is not predictable by general investors. So investors are recommended to get the consultancy service from the investment experts while making the investment.

10. Signaling factors should be analyzed on regular basis by the concerned authority so that the future movements of price can be predicted from the side of analysts and investors.

11. The legal rule for treatment of dividend is for the smooth growth of the banks as well as growth of national economy, but there is lack of proper legal provisions regarding the dividend payment. The government as well as the central bank of Nepal, Nepal Rastra Bank should pay their attention in this matter for prescribing certain provisions and rules regarding the percentage of earning as payment of dividend.

12. The commercial banks are paying dividend without adopting any appropriate policy. It seems impossible to increase shareholders wealth. The commercial banks management is advised to adopt the long-run dividend policy also. It is a stable dividend policy, constant payout ratio or low regular plus extra dividend policy, which helps to boost up the wealth of shareholder.

13. Nepalese investors are investing their funds on commercial banks haphazardly, randomly and without consulting capital market analyst. So, they are suggested to analyze the capital market situation before pouring their fund.

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