

Share Price Determination in Nepalese Capital Market *(With Reference to Selected Companies)*

A Thesis

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Exam Symbol No.: 252468

Campus Roll No.: 460/063

T.U. Registration No.: 7-2-25-36-2003

Submitted to:

Office of the Dean

Faculty of Management

Tribhuvan University

In Partial Fulfillment of the Requirements for the Degree of
Master of Business Studies (MBS)

Kathmandu
January, 2013

RECOMMENDATION

This is to certify that the thesis

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(With Reference to Selected Companies)

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

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Declaration

I hereby declare that the work reported in this thesis entitled "**Share Price Determination in Nepalese Capital Market (*With Reference to Selected Companies*)**" submitted to Office of the Dean, Faculty of Management, T.U., is my original work done in the form of partial fulfillment of the requirements for the Master of Business Studies (MBS) under the supervision of **Mr. Prakash Shrestha**, Lecturer, Nepal Commerce Campus, T.U. It is forwarded to examine.

I appeal this thesis for acceptance.

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Acknowledgements

This thesis entitled "**Share Price Determination in Nepalese Capital Market (With Reference to Selected Companies)**" is prepared for the partial fulfillment of the requirement of the degree of Master's Degree of Business Studies (MBS). At the end of my thesis, I would like to thank all those people who made this thesis possible and an unforgettable experience for me.

First of all, I would like to express my deepest sense of gratitude to **Prakash Shrestha**, Lecturer, Faculty of Management, T.U., Nepal Commerce Campus, who offered his continuous advice, support and constant encouragement throughout the course of this thesis. I would like to appreciate him for this supervision and commitments to improve the quality of this thesis.

I am really grateful to **Associate Prof. Dr. Sushil Bhakta Mathema**, Head, Research Department of Nepal Commerce Campus, for his suggestions to improve the quality of this work.

I acknowledge my gratitude to the all the investors and employees of the sampled banks for their absolute supports to the thesis. I am also very much grateful to Securities Board of Nepal for their comments for this research work. Especially I would like to thanks staffs of Securities Board, Nepal. I also like to give thanks the all staff members of Nepal Commerce Campus, for their kind co-operation in preparing this thesis. To accomplish this study, I have done the optimum effort from my level to offer precise information in the related topics and hope it will act as a reliable reference to upcoming students, respective institutions as well as seekers of related studies.

Finally, I take this opportunity to express the profound gratitude from my deep heart to my beloved parents and members of my family for their love and continuous support – both spiritually and materially.

January, 2013

Sapana Maharjan

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LIST OF ABBREVIATIONS

ADB	Agriculture Development Bank
AGM	Annual General Meeting
CAPM	Capital Assets Pricing Model
CV	Coefficient of Variation
DPS	Dividend Per-share
EBL	Everest Bank Limited
EPS	Earning Per-share
FY	Fiscal Year
GDP	Gross Domestic Production
GNPI	Gross National Per-capita Income
HDI	Human Development Index
Ltd.	Limited
MPS	Market Price of Share
NBL	Nepal Bank Limited
NEPSE Ltd.	Nepal Stock Exchange Limited
NIB	Nepal Investment Bank
NIDC	Nepal Industrial Development Committee
No.	Number
NRB	Nepal Rastra Bank
NWPS	Net Worth Per-share
OTC	Over the Counter Market
PFC	Provident Fund Corporation
RBB	Rastriya Banijya Bank
SD	Standard Deviation
SEBO/N	Security Board Nepal
SEC	Security Exchange Centre
SMC	Security Market Centre

Chapter II

REVIEW OF LITERATURE

This chapter deals with the literature review which is one of the most important parts of the thesis writing. Studying various books, journals, newspaper, magazine, old thesis, dissertation and very useful suggestion of the investigators and experts of the related field have systematically and effectively done this review. For this study prospectus, articles, and memorandum of the selected sampled of listed companies are also considered, referenced and reviewed. For this study various available books in investment analysis and management, capital structure management and other financial sectors has given idea about the study.

2.1 Conceptual Framework

In the context of Nepal, the development of capital or stock market and its regulatory system is not so old. The development of stock market is in increasing order in Nepal. The government has been trying to improve the stock market and its expansion. In the on going tenth-fifth year plan, the government has been taken many policies and programs for the development of capital market. The investment sector is getting flourished in recent years as other economic sector in any country. Today, most of the developed counties like as China, Japan, Malaysia, Korea, Singapore etc. are boosting their economic activities by the help of their investment sectors. This is the age of globalization. Whatever is happening any event in one corner of the world influences so most of the investment sectors. The incidental in one corner of he world brings the great changes in the whole world's share market. So, there are many causes where the intrinsic value of a security cannot be exactly determined. Most of the securities value move randomly around their intrinsic value if buyers and sellers of securities have received all information about stock and also accurately measured various internal and external factors like as economic, political, legal and company's specific factor such as financial indictors (EPS, DPS etc.) affect in the determination of the market

share price. On the other hand, earning prospects of the company determines the value of the share, which is related to the internal as well as external factors. To determine the accurate price of the shares, new information should be known to the market participants such as dependent factors to determine the share price, new technology that can be used to know about the different price of the share of the other competitive companies etc.

In the context of Nepal, a long time bearish securities market was turned bullish in the fiscal year 2006/07. All the statistics were showed an increase over the previous fiscal year 2005/06. One the major reasons for the upturn may be the causes of changing political environment that was boosted the investor's confidence and security in the investment but yet there was a doubt in the continuing of the confidence. Since long, the banking sector has been dominated the stock market with occupying 89% during the period. In the same time the turnover of commercial banks, insurance companies, finance companies, hotels and others increased over previous fiscal year but the performance of development banks, Manufacturing and processing, and trading sectors was remained unsatisfactory (www.nepse.com).

As the capital markets size is going to increase gradually. The present system of the capital market will not be able to cope with increasing market size in the following days. So, many Nepali stockholders used to say that the present system needs to be changed. Many folds existing “open-out cry” system cannot manage effectively and successfully have increased the capital market with increasing size of the market. So the present system needs to be changed into modern electronic system and to make the more economy a dynamic one, all the sectors should perform well. In other words, the financial market should be well operated and managed to compete with the other security market in the world.

2.1.1 Common Stocks

A share of stock is the smallest unit of ownership in a company. If any body owns a share a company's stock then he/she is a part owner of the company. Common stocks represent ownership interest in the corporation and the majority of stock held by the public also. It is a source of long-term financing. Common stock certificates are legal documents that evidence ownership for equity in a company that organized as a corporation. They are also marketable financial instruments. Common stock is a share

of ownership in a company that can be easily sold by its holders. Common stock is that they are highly liquid for the most part. Small and obscure company may not trade frequently, but most of the higher/larger companies traded daily creating an opportunity to buy or sell shares.

"Common stockholders of a corporation are its residual owners, their claim to income and assets comes after creditors and preferred stockholders have been paid in full. As a result, a stockholders return on investment is less certain than the return to a lender or to a preferred stockholder. On the other hand, the return to a common stockholder is not bounded on the upside, as are returns to the others. A share of stock-can be authorized either with or without par value. The par value of 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 its par value, because stockholders who bought stock for less than par value would be liable for the difference between below the par price they paid and the par value" (Van-Horne, 1997)

Similarly, common stock represents ownership in a publicly-traded company and carries certain rights and privileges, including voting rights for board of directors and sharing of profit and dividends. Common stock represents equity of an ownership position in corporation. It is a residual claim. In the sense that creditors and preferred stockholders must be paid as scheduled before common stockholders can receive any payments. In bankruptcy, common stockholders are principal entitled to any value remaining after all other claims have been satisfied. However, in practice, courts sometimes violate this principle. The great advantage of the corporate form of organization is the limited liability of its powers. Common stocks are generally "full paid and non-assessable", meaning of that common stockholders may lose their initial investment, but not more (Sharpe, 1998).

The prime motive for buying stock is to sell it subsequently at a higher price. In many cases dividend will be expected also from buying of stock. Dividends and price changes are the principal ingredients in what investors regards as return or yield. The investor's goals are usually expressed in terms of return sets theoretical and practical dimension of how securities prices are determined and the manner in which returns are measured. The strong relation between economic activities and securities prices requires that the investors forecast the direction and degree of change in economic

activities. So investor must examine and analyze factors that affects earning, dividends and the stock prices of the listed companies.

At the end, stock is the ownership interest of a corporation. Each share of stock is a fraction of the rights and privileges that belongs to the owners of a business. Stock certificates are proof of that fractional ownership; it is visible evidence, a certificate of title, to part of the company. The ownership of firms' stock has typically been represented by a single certificate, with the number of shares held by it. Such a stock certificate is usually registered, with the name, address, and holdings of the investor included on the corporation's books. Dividend payments, voting material, annual and quarterly reports and other mailing are then sent directly to the investor, taking into account the size of his and her holdings. Shares of stock held by an investor may be transferred to a new owner with the assistance of either the issuing corporation or more commonly its designated transfer agent. This agent will cancel the old stock certificate and issue a new one in its place, made out to the new owner (Sharpe, 1998).

Value of the Common Stock:

There are mainly three types of value of the common stock, which are given below:

a. Face value

The face value of the stock is mentioned in article of association and memorandum book of the company. The face value does not charges until there is a stock split or other such initiative by the board of directors, the par value of new issue is always Rs. 100, as directed by the company act, 1993. When a corporation is first chartered it is authorized to issue up to a stated number of shares of common stock each of which will often carry a specified par value. Legally a corporation may be precluded from making payments to common stockholders if doing so would reduce the balance the balance sheet value of stockholder's equity below the amount represented by the par value of outstanding stock. For this par value is typically low relative to the price for which the stock is initially sold (Sharpe, 1998).

b. Book value

Book value represents the assets value per share after entire obligation of the corporation is met. Book value can be calculated by the following.

$$\text{Book Value} = \frac{\text{Total Common Equity}}{\text{Number of Shares Outstanding}}$$

Here, total common equity is on the company balance sheet. In other words, the sum of the cumulative retained earnings and other entries such as "common stock" and "capital contributed in excess of par-value" under the stockholders equity is the book value of the equity. The book value per share is obtained by dividing the book value of the equity by the number of shares outstanding (Sharpe, 1998).

c. Market value

Market value of the common stock is based on the market forces such as demand and supply. So, these values are determined by the demand and supply factors and reflect the negotiation between investor and seller for the transaction. The market value of the share is influenced by various internal and external factors like economic and industry condition, expected earnings and dividends, speculations and other signaling effects like major events inside the country, governments stability etc.

2.1.2 Financial Market

The financial market is still in infancy in Nepal. Since, the financial market plays an important role in the efficient distribution and utilization of resources. So financial market is extremely important in a capital-poor country like Nepal. Hence, a financial market is defined as a mechanism for trading the financial assets or claims. "Financial markets provide a form in which suppliers of funds and demanders of loans and investment can transact business directly" (Gitman, 1998). The loans and investments of institutions are made without the direct knowledge of the suppliers of funds. "Suppliers in the financial markets do not know where their funds are being lent or invested. Two financial markets are the money market and the capital market. Transactions in short-term debt or marketable securities (Stocks and Bonds) are traded in capital market" (Gitman, 1988). There are mainly two types of financial market. First one is money market and second one is capital market. Short-term funds of firm are raised from money market and long and middle term funds of firms are raised from secondary market. This can be presented below:

Money Market

Money market is defined as short-term financial market. So money market is the act of supplying short-term debt or working capital needed for business, industries or

other sectors etc. In generally money market trades various bills, papers like as government Treasury bill, commercial papers, short-term bonds and debentures and promissory notes. "The money market is created by a financial relationship between supplier and demand makers of short-term funds, which has maturities of one year or less" (Ibid) Therefore a money market brings together the supplier and demanded of short-term liquid funds. The money market instruments include short-term marketable, liquid and low-risk securities. Further, the money market instruments sometimes are also called cash equivalents of just cash.

Capital Market

Capital market proved to be one of the important segments of the economy since it facilitates and provides better institutional arrangements for the borrowing and lending of long-term funds. So capital market is the general barometer that measures the proper collection and chhanalization of savings for investments in productive and income generating assets. Although capital market is the mechanism designed to facilities the exchange of financial assets by orders buyers and sellers of securities together. Similarly, capital market plays a crucial role in mobilization a constant flow of saving and changing these financial resources for expanding productive capacity in the counties. In other words, capital market mobilizes the market flows: capital to invest on the corporate sectors by the means of securities. Then, the capital market is also a financial relationship created by a number of financial institutions and arrangement that allows the suppliers and demands of long-term funds, the funds with the maturities of more than one year to make transactions. In the capital market different types of the financial securities are traded, like as ordinary and preference shares, treasury bills and debentures. in broad sense, capital market can be classified into two types of markets, which are described below:

a. Securities market

Under the securities market, all types of securities such as share debenture and bond are traded by the government and ruptured organizations. There are also six types of markets under the securers market, named by stock market, bond market, business series market, government secures market, primary market and secondary market. The securities market is a broad term embracing a

number of markets in which securities are bought and sold. Securities market includes how an individual investor goes about the business of placing any order to buy or sell, how the order is executed, the process of setting the payment and transfer costs, and one hope the payment of federal personal income taxes on the profits from the transactions. (Fischer and Fordan, 1992). These securities market can also be classified into two parts.

Primary market: The new securities are issued by the company to trade in the capital market. Here the securities of large business firms issued for the first time are bought and sold. In other words, the original issuance of the financial instruments of a company is traded in the primary market and the company should sell its approved share through the authorized issue and sales agent. The company has to register its shares in the SEBO to get the legal-authority to the issuance of the shares. Primary market provides an important allocate function by channeling the funds to those who can make the best use of them presumably, the most productive. Further described on the issues of such securities may directly sell through private placement without underwriting to the investors. Besides, the securities may be sold after being made understanding by the institution like investment banking. The issue company collects amount and invest in the productive sector to earn the profit. In the primary market, price of stocks always is in par value so there is no problem of share price determination.

Secondary Market: Secondary market provides the liquidity and marketability opportunity to the stock market. Stocks are traded secondary time in the agreement of buyer and seller in the stock market. Stock market may be either OTC market or registered stock market. Usually, those buying the securities for the first time went to see the securities within a short period. The secondary market also can be sub-divided into OTC market and registered stock market. Further in the secondary market, existing securities are traded and thus enabling disposal of these securities whenever the owner's wish.

An active secondary market is therefore a necessary condition for an effective primary market, as to investor wants to feel locked in to an investment. "If the owner of 100 shares sells his/her stocks, the trade is said to have occurred in the secondary market. Thus the market for outstanding shares in the secondary market, the company receives no new money when sales occur in this market." (Engene, Louis, and Ehrhardt, 1999).

OTC Market

The full name of the OTC market is the over-the counter market. The market where the not-listed securities of the companies are traded is known as 'Over-The-counter market. Further, "the OTC exchange is not an organization but an intangible market for the purchases and sellers of securities not listed by organized exchanges. it is not a formal exchange like organized stock exchanges. It neither requires membership for trading of securities nor are listings of securities not necessary in the OTC market. A sophisticated telecommunication network times active traders in this market. Then at which securities are traded "over the counter are determined by competitive bids and negotiation. The OTC, in addition to creating a resale market for outstanding securities, is a primary market in which new public issues are sold. Therefore OTC market competes with investment bankers and the organized exchanges because OTC dealers can operate in both the primary and secondary markets. National association of securities dealers automation quotation system is an example of an OTC market. OTC market is the computer linked network for the trading of OTC securities., It was initiated in 1971. It provides immediate information on a computer-linked system of bid asked prices for stocks offered by various dealers. The bid price is that at which a dealer is willing to purchase a security and asked price is that at which the dealer is willing to sell a security.

The over-the-counter market is broader in scope than stock exchanges. it will be recalled that stock exchanges limit their activities to trading on securities already issued. In contrast, the over-the-counter market handles both secures already issued and new securities being sold to the public where as the stock exchanges are action markets, the over-the-counter market is primarily negotiated market that is buyers and sellers may haggle over prices before the transaction is completed. Dealers in the over-the- counter market buy securities with the hope of being able to resell them at

higher prices. This process resembles any merchandising activity in which the traders buy at a higher price and sell at a lower price (Bhattacharai, 2005).

b. Non-securities Market

Non-securities market is that type of capital market where financial transactions are carried out between the lender and borrower for a longer period without issuing securities in the form of shares, debentures and bonds. Financial transactions between the lending institution such as development banks and the business house or individuals, between the contractual saving institutions and individuals or business houses etc. come under non-securities market.

2.1.3 Relationship between Primary and Secondary Market

There is a symbiotic relationship between the primary market and secondary market. The primary market creates long-term securities, while the secondary market provides liquidity through marketability of these securities. At the time of issues, fresh capital issues are influenced by the level of trend in stock prices. In reality, new issue activity in the primary market adds depth to the secondary market by enlarging the supply of securities for trading and investment in the secondary market. Therefore, stock prices in turn are influenced by the large size and bouncing of New Issues. Besides Primary and secondary market both are indispensable ingredients of the capital market and is the basis to meet the financial requirements of corporate bodies. Although Regulatory System of both primary and secondary market is inter-related by legal provisions also.

Most of the investors are wise to invest their saving funds in stocks with the expectation of future cash inflow as dividends and maximization of value of their holdings in the market. The dividends and value of the firm are linked with the earnings power of the firms, which ultimately affects the market price of shares. So brief discussion have been presented here:

Earning Per Share (EPS)

Accounting earnings that represent the difference between revenue and expenses, including the expenses associated with non-equity source of funds (such as interest to debt, dividend to preferred share) is also known as total earnings available for

common stock. If this portion of income is divided by number of outstanding shares, we get earnings per share (Sharpe, Alexander and Bailey, 2001).

Retained Earnings

The balance sheet account, which indicates the total amount of earnings, the firm has not paid out as dividends through its history; these earnings have been reinvested in the firm.

Dividend Per Share (DPS)

The percentage of earnings the firm pays in cash to its shareholders is known as dividend. The dividends, of course, reduce the amount of earnings retained in the firm and affect the total amount of internal financing. (Van Horne, 2000)

Krishhman opines that of two stocks with identical earnings record and prospect, but the one paying a large dividend than other, the former will undoubtedly command a higher price merely because stockholders prefer present to future values. Stockholders often act upon the principle that a bird in the hand is worth two in the bush and for this reason, which are willing to pay a premium for the stock with the higher dividend rate. (Pandey, 1995).

Nothing is more important than dividends to stockholders. They buy shares of firm with the hope of sharing profits earned by firms. The sole motive of stockholder is to receive return on their investment; nothing pleases them more than knowing the firm's earnings and more profits mean more dividends coming in. (Pradhan, 1996).

Market price per share (MPS)

The market price of any asset, indeed, depends on the future earning power of the asset. The value of an asset depends on the future cash flows that the asset is expected to generate. (Pahariu, 1996)

Once the shares, issued in the Primary market are listed in the stock exchange, investors are able to buy and sell the shares among themselves with the help of brokerage firm. Generally, the prices of shares are determined by demand and supply preferences. Due to the market imperfection and uncertainty, shareholder may give a higher value to the near dividends and capital gains. Thus payment of dividend may

significantly affect the market price of shares. Higher dividends increase the value of shares and low dividends reduce the value" (Pandey, 1995).

The price of firm's stock reflects expectation about its future earnings and dividends (Western and Copeland, 1992:P. 1113).

2.1.4 Common Stock Valuation

The common stockholders expect to be rewarded through periodic cash dividends and an increasing or at least non declining share value. Like current owners; Prospective owners and security analysts frequently estimate the firm's value. They purchase the stock where they believe that it is undervalued that its true value is greater than its market price. They sell the stock when they feel that it is overvalued that its market price is greater than its true value (Gitman, 2001).

2.1.5 Market Efficiency

Economically, rational buyers and sellers use their assessment of an asset's risk and return to determine its value. To a buyer, the asset's value represents the maximum price that he or she would pay to acquire it; a seller views the asset's value as a minimum sale price. In competitive markets with many active participants, such as the New York Stock Exchange, the interaction of many buyers and sellers result in an equilibrium price- the market value for each security. This price reflects the collective actions of buyers and sellers based on all available information. Buyers and sellers are assumed to immediately digest new information as it becomes available, and through their purchase and sales activities to quickly create a new market equilibrium price (Gitman, 2001).

2.1.6 The Role of Securities Exchange

Securities exchanges create continuous liquid markets in which firms can obtain needed financing. They also create the efficient markets that allocate funds to their most productive uses. This is especially true for securities that are actively traded on major exchanges, when the competition among wealth-maximizing investors determine and publicize prices that are believed to be close to their value. The price of an individual security is determined by the demand for and supply of the security. The

competitive market created by the major securities exchange provides a forum in which share price is continuously adjusted to changing demand and supply (Gitman, 2001).

2.1.7 Market Adjustment to New Information

A given level of risk, investors require a specified periodic return-the required rate of return (R), which can be estimated by using beta and CAPM. At each point of time, investors estimate the expected return, \bar{R} the return that is expected to be earned on a given asset each period over an infinite time horizon. (Gitman, 2001)

$R = \bar{R}_1$ the market is currently in equilibrium, and the stock is fairly priced.

2.1.8 NEPSE Index

"NEPSE index is an indicator of market capitalization of securities traded on NEPSE. NEPSE opened its trading floor on 13th January 1994 and started to calculate index, as NEPSE index since 12th February 1994. NEPSE is calculating the index on market value weight base and total market value of 12th February, 1994 has been taken as base value. The arbitrary index value for the base period has been assumed to be 100. it considers all the stocks listed in the exchange and their closing price, to calculate index. Therefore, the population has been taken as a sample and index represents all sectors' all stocks so, NEPSE index is the only index in Nepalese capital market." (Bhattarai, 2005).

2.2 Theories of Stock Price Movement

The prices of securities are typically very sensitive, responsive to the events, both real and imagined that cast light into the murky future. Though all factors give rise to the observed movement of share prices. It would be very hard to find a completely accepted price formation theory.

There are some short conceptual frameworks about the theories of stock price determination. The share price is determined in the floor 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 numerous reasons that cause the share price fluctuation .Of them are

- Economic factors,
- Non-economic factors and
- Market factors.

Before describing the efficient market theory, it would be proper to explain the conventional theory they are

- Technical analysis theory,
- Fundamental analysis theory and
- Efficient market theory

2.2.1. Technical Analysis Theory

Technical Analysis is one of the most important theory of share price determination and interpretation of the stocks and it includes the study of past price and value of stocks to forecast future movements. Technical analysis is also based on the widely accepted premise that securities price are determined by the demand and supply of securities. A technical analysts or a technician, is a security analysts who believes it is not productive to work through all the fundamental facts about the issuing corporation the company earnings, its products, forthcoming legislation that might affect the firm. Instead technical analysts believe that these innumerable fundamental facts are summarized and presented by the market prices of the security. Technical analysts focus most of their attention on charts of security market prices and on related summary statistics about transactions. As a result, technical analysts are sometimes called chartists. Most technical analyses 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. The tools of technical analysts are therefore designed to measure the certain aspects of demand and supply. 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

futures, prices. These charts are useful to analyze the single security, the market index etc.

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

"The technician believes the forces of supply and demand are reflected in patterns of price and volume of trading. By examination of these patterns, he predicts whether prices are moving higher or lower, and even by how much" (Fisher and Jordan, 2000).

"The technician usually attempts to predict short term price movements and thus makes recommendations concerning the timing of purchase and sales of either specific stocks or groups of stocks" (Sharpe and Alexander, 1990). Sometimes technical analysis to answer the question "When?" (Ibid).

"A highly specialized form of market analysis is practiced by technical analyst. They try to predict future stock prices just as we might predict that the pattern of wallpaper behind the mirror is the same as the above pattern above the mirror" (Malkiel, 1981).

Basic Assumptions of Technical Analysis

Edwards and Magee articulated the basic assumptions of technical analysis as follows:

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

Although, the existence of technical analysis in Nepal may be still doubtful. This was revealed in our conversation with the stockholders from Nepal Stock Exchange (NEPSE) Limited and some institutional and individual investors.

Market Prices of Shares as the Output of the Interaction between the Demand and Supply

"The share price is determined in the floor by the interaction of market forces like 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 factors that affect the price then the results of that stock price fluctuation. The major affecting factors are economic, non-economic and market factors.

Under the economic factors, one basis for the determination of share prices is dividends. Dividends are strongly influenced by the earning power of the enterprises. There is a very close relationship or correlation between the corporate earnings and dividends. Earning power in turns is strongly influenced by interest rates. In this way, the most fundamental factor in stock price fluctuations lies in changes in corporate earnings, which together with interest rates and business cycle trend contribute to making up the economic factors influencing stock price. The next factor, which affects the stock price determination, is non-economic factors. These factors consist the changes in political conditions, such as war or administrative changes, changes in the weather and other natural conditions, and changes in cultural conditions, such as technological advance and like. The last factors that affect the determination of share price are the market factors, or internal factors of the market. Market factors consist of the tone of the market and supply-demand relations, may be cited as the third category that influences the stock prices. The tone of the market is a form of over-estimating the intrinsic value of stock. When stock price is high because of business prosperity while underestimating its value at the time of market decline. The relationship of supply-demand are reflected directly in then volume of transactions, but there is also considerable effect from the actions of institutional investors, margin transactions, etc. although margin transactions increase purchases when stock price is going up, once the price begins to fall they become at selling factor and accelerate

price decline. The practice of margin in finance has not been influenced, so far, in Nepal

According to Doodha, "stocks and shares mostly traded in the securities market are one of the assets into which money can be invested. The investment further is more attractive to a majority of individuals because it is also liquid in character. But what is the most influencing factor in determining the price of the stock is interaction of demand and supply" (Doodha, 1962). In relation to the interacting forces of demand and supply, Acerman opines that, "the price of a given stock is determined exclusively by the two forces demand and supply, converting one such stock at a given time that the prices and volumes of its past transaction are meaningful indication of profitable relationship of future supply and demand pressure, it is likely to encounter in the market that such relationship is the most important element determining the probable direction of price movement" (Acerman, 1980).

2.2.2. Fundamental Analysis Theory

Simply, the fundamental analysis theory refers the formula and principle. According to the technical analyst, the fundamental analysis is idealist part of analysis. So it is not perfect and market principle of analysis of stock price movement. Fundamental analysis theory also claims that at any point of time an individual stock has an intrinsic value, which is equal to the present value of the future cash flows from the security discounted at appropriate risk, adjusted discount rate. "The value of the common stock is simply the present value of all the income which the owner of the share will receive" (Fransis, 1986). And the actual price should reflect the intrinsic value of the stock i.e. good anticipation of cash flows and capitalization rates corresponding to future time period. But in practice, first it is not known in advance what a stock's income will be for a particular stock. So, fundamentalists attempt to reach best estimates of the intrinsic value of share by studying company's sales, profits, dividends management competency and numerous other economic and industrial factors which determine its future income and prospect of the business opportunities. Fundamental analysts delve into company's earnings, their management, economic outlook, firm's competition, market conditions and many other factors (Fransis, 1986).

Fundamental analysis theory also involves working to analyze different factors like as economic influences, industry factor, governmental action, firm's financial statement, its competitor and pertinent company information like product demand, earnings, dividends and management in order to calculate on 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 analysts or fundamentalist.

Since the world of uncertainty, the anticipation of the values cannot be known exactly, there will be disagreement on the opinion about the estimation among the market participants. Then the actual prices fluctuate closely around the 'economic value' of share, because to far from the true value is profitable for the participants and they do not miss to exploit the situation. Over the time, with the continuous generation of new information related to company's earning prospect, the intrinsic value also changes. As a result, prices of the stock adjust to new intrinsic value. The actual price of the security therefore is considered to be a function of a set of anticipation. "Price changes as anticipation changes which in turn change as a result of new information" (Bhatta, 1983). Whenever the stocks are priced over or under the value of the stock, the recommendation of sales or purchase is called for, "After extensive analysis, the investor derives an estimated of the 'intrinsic' value of the security, which is then compared to its market price, if the value exceeds the market price, the security should be acquired and vice versa.

"Fundamental analysis uses different models like Top-Down versus Bottom-Up forecasting, Probabilistic forecasting, econometric models, financial statement analysis etc to estimate the value of security" (Sharpe, Alexander and Bailey, 2001). Therefore, the fundamental analyst reaches an investment decision on the basis of these analytical tools.

On the basis of such a study fundamentalist project a company' future profits and earning capacity with reasonable accuracy what the price of a company's share ought to be. This projected price is termed an intrinsic value. The intrinsic value of the stock is generally away form its present market value. Thus there is difference/gap between them. Fundamentalist reaches an investment decision by comparing this value with current market value, it is believed that price will rise. In this situation, fundamentalist will acquire shares as this difference presents them with an opportunity to make a

profit. Alternatively, if the intrinsic value is lower than the market value, the share is overpriced and is an indication to the fundamentalists to sell.

2.2.3 Efficient Market Theory

Efficient market theory refers the optimum price of the stock in the competition market. Stock price is neither over-valued nor undervalued in the market like monopoly market. This theory involves the study of random or efficient market hypothesis. "In 1900, French mathematicians Louis Bachelier write a scientific paper suggesting that day-to-day security price fluctuation were random walk theory" (Paul, 1962). The term efficiency also may be defined in various ways allocative efficiency, operational efficiency, and information's efficiency when the finance literature speaks of market efficiency it is generally speaking exclusively about informational efficiency in pricing the stocks. A market is said to be informational efficient if the current market price instantaneously and fully reflects all relevant available information. The market value of a particular share may be under or over-valued. An efficient market is one where shares are always correctly priced and where it is not possible to outperform the market consistently.

Thus efficient market theory contends that in a free and perfect competitive market, stock prices always reflect all the available information and adjust instantaneously every influx of new information. In an efficient market only price changes that would occur are those, which result from new information. "An initial and very important premise of an efficient market is that there are large numbers of knowledgeable and profit maximizing independence buyers and sellers, new information is generated randomly and the investors adjust the information rapidly" (Reilly, 1986: P. 166). Therefore, if market is efficient, it uses all available information to it in setting price. The measure of efficiency evolved from the notion of perfect competition, which assumes free and instantly available information, rational investors with no taxes or transaction cost. The following are the requirements for a securities market to be an efficient market:

- Prices must be efficient so that new inventions and better products will cause a firm's securities price to rise and cause investors to want to supply to the firm (i.e. buy its stock).

- Information must be discussed freely and quickly across the national so all investors can react to new information.
- Transactions costs such as sales commissions on securities are ignored.
- Taxes are assumed to have no noticeable effect on investment policy.
- Every investor is allowed to borrow or lend at the same rate.
- Investors must be rational and able to recognize efficient assets so that they will want to invest money where it is needed most (i.e., in the assets with relatively high returns) (Bhalla, 1983).

This constitutes the world of the efficient market theory or more popularly the capital assets pricing model.

As efficient market is concerned with the pricing mechanism of securities market it was two dimensions of price adjustment. One is the type of information reacting to and another is the speed and quality of a adjustment of security to the information. As any random infusion of information instaneously and correctly adjusted in prices; there will be no subsequently dependencies or lags that are profitable. Pricing not only should be instantaneous, but also should discount accuracy of information so that the prices fluctuate closely around its intrinsic value. So Keane rightly pointed out, "It would be clearly on add interpretation of efficiency if a doubling in price the price of a share were regarded as an efficient reaction to new information, simply because the movement was instaneous, if the information in fact warranted a substantial reduction in price" (Kene, 1903). Agreeing with this, Francis and Tylor noted, "Market efficiency refers to the ability of financial assets to quickly adjust and reflect all information that is relevant to value in its price" (Francis, 1986). Therefore it assumes that any given time, the market correctly prices all securities. The result or so the theory advocates, is that securities cannot be overpriced or under priced for a long enough period to profit there from. Although, efficient market theory is in completely at variance with the technical and fundamental analysis theory. A number of empirical researches have been done on varied set of data for different time periods to test the random walk efficient model for describing share price behaviour.

Though the subject of market efficiency has been much concerned area of the study for the academicians and researchers in recent times, 'The advocates of the efficient market theory are matched by an equally eloquent opposing camp which argues that

the stock market is neither competitive nor efficient. The critics content that one or more of the following factors cast their shadow over the efficiency and competitiveness of the stock markets:

- Information inadequacy: Information is neither freely available nor rapidly transmitted to all the participants in the stock market. In addition, there is a calculated attempt to many companies to circulate "misinformation".
- Limited information processing capabilities: Human information processing capabilities are sharply limited. As Nobel Laureate Herbert Simon observed: "Every human organism lives in an environment which generates millions of new bits of information every second, but the bottleneck of perceptual apparatus certainly does not admit more than a thousand bits per second and possible much less.
- Irrational behaviours: In theory, it is generally assumed that investor rationality will ensure a close correspondence between market prices and intrinsic value. In practice this may not be true. As J.M. Keynes argued in point of fact all sorts of consideration enter into the market valuations, which are in no way relevant to the prospective yields. L.C. Gupta made a similar observation: "Our findings suggest that the markets evaluation process work haphazardly almost like a blind man firing a gun. The market seems to function largely on a 'hit-or-miss' basis rather than on the basis of informed beliefs about the long-term prospects of individual enterprises" (Gupta, 1981).
- Monopolistic influence: In theory, the market is regarded as highly competitive. No single buyer or seller is supposed to have undue influence over price. In practice, powerful institutions and big operators wield great influence over the market. The monopolistic power enjoyed by them diminishes the competitiveness of the market.

Finally, due to the above challenges posed by the critics of efficient market theory, there are many factors to point the finger at its reality, validity and authenticity. This appears to be truer like relatively less developed capital market of Nepal. Nepalese capital market is getting to be efficient in terms of information as well as operations.

2.3 Review of Related Studies

2.3.1 A Review of Major Studies in Nepal

The stock market of Nepal has been less subjective to investment research than their counterparts elsewhere. Most of the researches that are related with the investigation of effect for certain financial variables on the studies have been available regarding the impact of stock market on economic development and vice-versa.

For instance, Pradhan (1993) addressed “Stock Market Behaviour in Small Capital Market”. In an attempt to assess the stock market behaviour in Nepal, it specifically examines the relationship of market equity, market value to book value, price earning and leverage assets turnover and interest coverage. The study is based on pooled cross sections data of 10 enterprises whose stocks are listed in stock exchange center and traded in the stock market. The result revealed the following the larger price earning ratio. Larger ratios of market value to book value are equity and smaller dividends. Larger stocks also have higher liquidity, higher beverage and lower profitability, lower assets turnover and lower interest coverage but these are more variable for smaller stocks than for larger sticks. Stocks with larger market value to book value ratios have lower liquidity, higher beverage, lower earning, lower turnover and lower interest coverage. Shocks paying higher dividends have higher liquidity, lower beverage, higher earning, and higher turnover and higher interest coverage.

Later in 1994, he studied stock market behaviour in Nepal, which concluded that the positive relationship between the ratio dividend per share to market per share and interest coverage.

Shrestha (2004) expressed in 'A Journal of Management and Development Review' that capital market proved to be one of the important segments of the economy since it facilitates and provides better institutional arrangements for the borrowing and lending of long term funds. Capital market is the general barometer that measures the proper collection and channelization of savings for investment in productive and income generating assets. The allocative-efficiency in the use funds is the basis for measuring the performance of capital market. In this way, he tries to study the impact of regulation on capital market in Nepal. But what matters crucial is the effective regulation of security market. However, experience in the number of advanced and

developing countries shows that regulation of securities market became a felt necessity as a result of manipulative practices and dishonest security dealings. He further describes even in our country, the Get-Quick-Rich traders in securities market turned logical idea into a noxious growth. And there is playing on public money by public limited companies by issuing with rosy prospectus to mislead investors in the absence of appropriate control and supervision through strong enforcement of the regulation. In the last few years, there has been a remarkable experience of stock market boom and bust cycles in Nepal's growing small stock market transactions (Five year strategic plan, 1998-2002, SEBO/N, 1998). Five years performance review from 1993-98 shows that the initial phase of development of SEBO/N a securities market regulator and developer with the restructuring of NEPSE as a sole market operator. At the same time, the irrational behaviour of the investors in stock market together with the operation non-professionally oriented brokers are responsible for having the birth of small Harsh Mehta in Nepal's stock market in the absence of effective regulation, monitoring and supervision of the stock market activities. The imperfect characters of the market with the poor performance of the most of manufacturing companies that consist of more than 50 percent of the listed companies and also some trading companies have undermined the confidence of investors in stock market. The influence of mass psychology despite having universal madness of crowds laid down by Theory of speculation also operates in Nepal. Despite these issues, SEBO/N is trying to insist through regulation to help investors behave rationally at least among those who actively participate in capital market. Efforts are going to make the information freely and widely available to market participants at the right time without delays and enable investors to be both price makers and price takers as well as avoid emotions on the part of investors to response to the new information that may come in the market. At the same time, investors have to think that any price change today is independent of the price that has been maintained yesterday on the assumption that prices move at random fashion. This is in consonance to the random walk hypothetical developed through empirical study and finding by eminent fiancé professor (Fama, 1965).

At last he suggested that in order to make the impact of regulation meaningful and purposeful, many improvements are required. Further although some measures taken are appreciable. The empowerment of SEBO/ K B Manandhar expressed in an article

published in "The Boss" 2006, that market prices of any share are ultimately governed by the demand and supply of shares. And fundamentally markets should have been guided by potential income of the company, dividend distribution and financial net worth. But share market now here has been found to be guided only by these fundamental factors. Everywhere some sort of speculative elements will be there. Now this speculative element in the share market. Sometimes drives up the market price and sometimes drives it down.

NEPSE is required to make the enforcement of regulation, supervision and monitoring of the capital market activities in the country. The New securities act, 2000 approved by Ministry of Finance has empowered the existing SEBO/N to monitor and supervise the capital market activities according to specified prudential norms.

2.3.2 Review of Different Master's Thesis/Dissertation

In this section, so some of studies those are relevant to this study, are reviewed. They are as follows:

Gautam (2007) conducted the study entitled "A study of stock market behavior in Nepal". She concluded that political instability and other laws related issues are the prominent factors for the underdeveloped of the security market in Nepal. She also further concludes that the stockbrokers and stock market are not being much active to create investment environment in stock market. Lack of the capital market may be one of the reasons for determination of share price by excessive speculation, lack of effective laws and effective implication of the existing laws are the contributing factors or elements for the less development of the capital market. The poor regulatory system and supervision of SEBO/Nepal and NEPSE is another responsible factor of her study. Finally, she has concluded that poor governance, political instability, lack of strict and favorable policy to follow in practice, lack of commitment to implement the policy, lack of awareness of investors are affecting the overall stock market in Nepal.

Shrestha (2008) conducted as study entitle "A Study on Stock Price behavior in Nepal, with the following main objectives:

- a. to examine the efficiency of the stock market of Nepal.

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

The major findings of this study are as given below and serial correlation and run test are the basis of these findings.

- The price changes of the past and present can be very helpful to forecast future price changes. Therefore, there exists the sufficient amount of opportunities for the sophisticated investors.
- When long days increase that mean value of serial correlation of coefficient is lower, that indicates that the past price changes may have low power to predict the future price changes in the long run.
- The price changes in the present and future stock market may not be independent of the price changes in the past and present respectively.
- There exist no profitable trading rules to make greater profit than they would make under the naïve-buy and hold strategy in their speculation through the information on past price changes.
- NPSE is not efficient in pricing shares.

Neupane (2009) conducts the study on "Determination of stock price in Nepal Stock Exchange". It was assumed that the market price of share is influenced with the changes in EPS, DPS and BPS. To determine the magnitude of the independent variables to the dependent variable, simple and multiple regression analysis were made and magnitude was identified after determining the regression equation.

- In NEPSE, there are controversial results that the share price in NEPSE is not significantly affected by the dividend; book value and earnings per share there might be other factors that played significant role to determine the stock price in Nepal.

- The MPS has not been significantly affected by interest rate, retention ratio, stock dividend, cost of equity, tax rate, value of US\$ and gold price, global economy, market liquidity, season, day of the week, size and change in management whereas these factors have simple effects in stock pricing.

In this way, Nepalese investors have not adequate knowledge and education about the capital market. Due to this reason, share price in NEPSE shows irrational behaviour. In NEPSE, EPS, DPS and BPS, individually do not have consistent relationship with the market price of share. Listed companies are not providing necessary information to the shareholders i.e. they are not transparent which leads to create inconsistency result and behaviors in share price of NEPSE. Political instability, strike demonstrating, civil wars affect the national economy and ultimately they play major role to the share price NEPSE. There is lack of adequate laws regulation to regulate the capital market in efficient way.

Bhatta (2010) made a study under the "Dynamic of Stock Market in Nepal" and he concluded that the stock market and economic activities move in similar direction. They influence each other. The development of the farmer is reflected in the latter. The stock market rises and mobilizes the investment resources of finance the long-term large project in the economy. The investors are interested to invest their resources in the shares of corporate sector through the stock market is not also functioning well in Nepal. There is almost no liquidity in the stock market for shares except that banking and some finance and insurance sectors.

Paudel (2011) conducted a study on "A study on share price movements of joint venture commercial banks in Nepal" is conducted by using both financial and statistical tools i.e. standard deviation, correlation, beta, coefficient, t-test etc.. The major objectives of this study are given below:

- a. to examine Nepal Stock Exchange market and to judge whether the market shares of different banking indicators (book value per share on major financial ratio) explain the share price movements.
- b. to analyze the scenario why the shares of selected banks emerge as blue-chips to the potential investors and to make a conclusion on the basis of financial ratios analysis.
- c. to examine how risky the investments in commercial banks shares.

The major findings of this study are presented below:

- The market shares of these banks do not capture the market share and the growth rates of different banking indicators used.
- The ordinary least square equation of book value per share on market value per share reveals that the independent variable does not fully explain the dependent variable on the basis of the above mentioned two points. Nepal stock exchange operates in a weak form of efficient market hypothesis indicating that the market prices move randomly. The market value per share does not accommodate all the available historical information.
- Having good track record of the financial position, the market potential investors buy the shares of joint venture commercial banks. Therefore, the shares of joint venture commercial banks emerge as blue-chip in the Nepalese stock market.
- The beta coefficient, which measures the riskiness of individual security in relative term, suggests that none of the shares of eight sampled banks are risky. Therefore, even a risk averter can go for making an investment in shares of these banks. The shares of publicly quoted joint venture commercial banks are less risky as compared to other average traded in the stock exchange.

Thus, very few studies have been done in the field of Determination of share price in capital market. Share price is the crucial phenomenon in the stock market so those studies need updating and there is an increasing trend in the common stock investment. One new attractive aspect of this study may be that it has attempted to understand how the investor's view towards on determination of share price by making different questions related to the share price. Although, different authors studied the share price behaviour, determination of share price etc. and concluded also differently. However, the results of the study largely depend on the sample size and the methodology used. But none of the authors have studied systematically about the "Determination of share price in capital market." Therefore, I am also interested in this topic and tried to fill the gap of the previous studies. Hence, this study may be the first of its kind.

Chapter III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is also known as a systematic way to solve the research problem. It describes the process and methods applied in the entire aspects of the study. Research methodology also refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives. This chapter contains the research design, variables, sample size, sample selection procedure, data collection procedure and data processing tools and techniques.

3.2 Research Design

Research design is a plan, structure, and answer to research question and to control variance. In other words, research design is the strategy for conducting research work, which describes the general framework for collection, analysis and evolution of identifying data. It also provides the basis about what the researcher wants to know and what has to be dealt with in order to obtain required information. In detail research design has two purposes:

- To answer the research question or test the relationship.
- To control the variance

In order to make any type of research a well-set research design is necessary to fulfill the objectives of the study. Generally, research design means definite procedure and technique, which guide to study and provide ways for research viability. It is arrangements for collection and analysis of data. To achieve the objectives of this study, historical, descriptive as well as analytical research design has been adopted. Some financial and statistical tools have been applied to examine facts and descriptive

techniques have been adopted to evaluate Determination of share price in Nepalese capital market.

Historical research is the critical investigation of events and experiences in the past. It addresses a present status of a phenomenon and examine the cumulative effects of past. It uses the both Primary and secondary sources for the finding the authentic facts and past evidences.

Descriptive research includes survey and fact-findings inquiries of different kind. This method assumes that the researcher has no control over the variables or researcher can only report what has happened or what is happening. A fact finding approach relative largely to the present and abstracting generalizations by the cross-sectional study of the current study is the descriptive research.

3.3 Variables

In this study, market price of the share is the dependent variable and other factors that affect to the share price in the market are the independent variables i.e. earning per share (EPS), Dividend per share (DPS), economic condition of the Nation, political situation, interest rate etc.

3.4 Population and Sample

For the qualitative factors analysis i.e. primary sources, individual investors, stock brokers, and listed companies of Nepalese capital market including institutional from Nepalese capital market all be the population of the study. Different experts from investment, market intermediaries, stock brokers, academicians, bankers, researchers, bureaucrats and investors are also the part of population of the study. Under this study the population is taken from the listed companies in NEPSE.

The judgment purposive sampling technique is taken for this study and two from commercial bank, two from financial companies, and two from insurance companies, one from manufacturing and processing companies and one from trading companies. While choosing the samples only average items are considered and extreme items tried to omit. Only individual investors, stock brokers and listed companies in NEPSE are included in the focus group for effective and efficient data presentation and it will

help to generalize the feelings and thought of shareholders regarding fluctuation of market share price in capital market. In this study eight sample companies are taken into consideration out of 337 listed companies in NEPSE and 50 investor, 15 stock brokers and 25 listed companies are selected for evaluating the qualitative factors.

For this study following sampled company has been taken for analyzing the secondary data:

1. Commercial Bank

- Nepal Investment Bank Ltd.
- Everest Bank Ltd

2. Financial Company

- Kathmandu Finance Ltd.
- NIDC capital Markets Limited (NCML)

3. Insurance Company

- Premier Insurance Company Ltd.
- Neco Insurance Ltd.

4. Manufacturing and Processing Company

- Nepal Lube Oil Ltd.

5. Trading Company

- Salt-trading Corporation Ltd.

3.5 Nature and Sources of Data

The major sources of secondary data are the books, annual reports or AGM-reports, magazines, journals and website of the listed companies and other related materials, which show the relationship between variables e.g. earning, book value and share price. Annual report, SEBO/N annual report, publication of different authorities, newspaper and unpublished thesis report were the sources of secondary data. To find out the major factors which affect the share price, the questionnaire was applied to the general investors, stock brokers and listed companies to collect the facts, knowledge and opinions regarding the fluctuation of share price in Nepal. The respondents have shared their ideas and feelings through questionnaire.

3.6 Data Collection Techniques

Data collection is also known as the fieldwork, which is the implementation of research design. In this study, both primary and secondary data have been used. For the primary data collection, the questionnaire method is adopted to collect the data from the three different respondent groups of Nepalese capital market. For the secondary data, annual reports of sampled companies are used. Annual reports, books, journals, magazines and website of the listed companies and other related materials were also reviewed to collect the data of the sampled company. A systematic process directed towards investigating problems, practices and view on existing issues is the beauty of the good researcher. The research problem is expressed in the form of interrogative sentences. In this study, facts, figures, knowledge and opinions have been collected through questionnaire schedule method. To reduce the time, cost researcher used in indirect method with the respondents.

3.7 Profile of the Sampled Company

Everest Bank Limited

Everest bank is established in 1992 under the company Act 1964 with an objective of carrying out commercial banking activities under the commercial bank act, 1974. United Bank of India Ltd. under technical services agreement signed between it and Nepali Promoters was managing the bank from the very beginning till November 196. Later on, it handed over he management to the Punjab National Bank Ltd. Nepalese Promoters hold its 50% of shares, PNB hold 20% and general public of Nepal hold 30% of shares.

Nepal Investment Bank Ltd

NIB is established on January 21, 1985. It is also third joint venture bank under the company Act 1964. Banque Indoseqz takes the management of this bank, Paris in accordance with joint venture and technical services agreement signed between it and Nepali promoters. The main objective of this bank is to provide loans and advances to the agriculture, industries and commerce and to provide modern banking services to the people. It was listed in NEPSE in 05/08/2044.

NIDC Capital Markets Limited

NIDC capital market is incorporate in year 1992 under the company act 1964 with the objectives of carrying out financial activities under finance company act, 1985 and securities exchange act 1983. The company from very beginning of its establishment, carrying out capital market activities such issue management, underwriting, securities register, portfolio management etc. The company changed its membership from market marker into securities dealer in January 1997 giving up the market function. It was listed in NEPSE in 2050/03/14.

Kathmandu Finance Limited

Katmandu finance was established under the company Act 1964. The main objective of this company is to accept despites and to provide loans and advances and other financial services under the finance company act, 1985. It was listed in NEPSE in 2052/03/29.

Neco Insurance Ltd.

Neco Insurance was established in 1994 under the company ct 1964. The main objective of the company is to operate insurance business throughout the company. The largest bank Rastriya Baniijya Bank has invested 2-0 percent in its capital. The company has operated non life insurance business and medical insurance business I the country. It was listed in NEPSE in 2054/12/17.

Premier Insurance Company Limited

Premier Insurance Company was incorporated on 12th may 1994 with the objective of promoting general insurance in this generation. It was listed in NEPSE in 2052/01/20. It has also established three regional offices at Birgunj, Biratnagar and Narayanghat.

Nepal Lube Oil Ltd.

Nepal Lube Oil Company was established in 1984 as a public sector company under the company act, 1964. The major objectives of this company is to produce lubricating oil and process them for the use of automatic machineries and also to contribute for the economic development of the country by reducing the import of

various lubricating oils. Nepal government was privatized this company in 1993 in accordance with privatization program. It was listed in NEPSE in 2043/08/29.

Salt Trading Corporation Limited

Salt trading corporation limited was established in 1963 with the objective of providing daily necessary food products of high quality i.e. Iodine mixed salt, ghee and oil with vitamin 'A' and 'D' flour with iron and other products etc. on reasonable price to eliminate malnutrition all over the country in a simple manner. The main objectives of that corporation are to import and distribute salt and other consumable goods with the kingdom of Nepal, to act as an agent of the national and international companies and to establish the industry. Salt Trading Corporation Ltd was listed in NEPSE in 2041/07/23. This corporation has promoted and managed different industries in Nepal like as Butwal spinning mills ltd National Finance company Ltd, Sagarmatha Insurance Company etc.

3.8 Data Analysis Tools

To obtain the above mentioned objectives, the primary and secondary data are collected from the respondents groups with asking some questions concerning the market price of share and the annual report of the sampled companies, journals, published and unpublished research book, report of NEPSE also etc. Then the statistical and financial tools are used as required by the study.

3.8.1 Statistical Tools

Data collected from secondary sources of data were analyzed by using the analytical tools like correlation and regression analysis, mean, trend analysis etc. Then the following statistical tool are taken, which are given below:

Mean (Average)

An average is a single value or observation related from a group of value or observations to represent them. i.e. a value is supposed to stand for whole group. There are also different types averages like arithmetic mean, weighted mean, geometric mean, harmonic mean, median and mode are the major types of averages. The widely and popular used mean is arithmetic mean. Adding together all the items

and dividing this total by the number of items can calculate the value of arithmetic mean. Mathematically, it can be presented below:

$$\text{Arithmetic Mean (AM)} = \frac{\sum x}{n}$$

$$\text{or, } \bar{X} = \frac{\sum x}{n}$$

Where, \bar{X} = Arithmetic mean

$\sum x$ = Sum of all the values of the variables x

n = Number of observations

Standard deviation

Standard deviation is a statistical measure of the variability of a distribution of return around its mean. So the standard deviation measures the absolute dispersion. In other words, it is the square root of the variance and measures the unsystematic risk on stock investment. Than the greater the standard deviation greater will be magnitude of the deviation of the values from the mean. Small standard deviation means a degree of uniformity of the observations as well as homogeneity of a series and vice versa. Mathematically, it can be presented below:

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

Coefficient of Variation (CV)

The standard deviation is absolute measures of dispersion but the coefficient of variation is a relative measure. To compare the variability between two or more series, CV is more appropriate statistical tool. In other words, CV is the ratio of standard deviation of return to the mean of that distribution. It is a measure of relative risk. The higher the coefficient of variation, the higher the relative risk of the investment. Symbolically, it is presented below:

$$CV = \frac{\sigma}{R} \times 100 \text{ or } CV = \frac{\sigma}{R} \times 100$$

Correlation Coefficient (r)

One of the widely used statistical tools of calculating the correlation coefficient between two variables is Karl Pearson's correlation coefficient. It is also known as Pearson's coefficient. Correlation coefficient is denoted by r.

Mathematically,

$$r = \frac{COV_{xy}}{\sigma_x \sigma_y} \text{ or,}$$

$$r = \frac{n\sum x_1 x_2 - (\sum x_1)(\sum x_2)}{\sqrt{n\sum x_1^2 - (\sum x_1)^2} \sqrt{n\sum x_2^2 - (\sum x_2)^2}}$$

Where

r = correlation coefficient between variable x and y .

COV_{xy} = Covariance between variable x and y .

σ_xσ_y = Standard deviation of variable x and y .

Covariance:

Mathematically, covariance between two variables is calculated by following formula:

$$\text{Cov}(x,y) = \frac{(x - \bar{x})(y - \bar{y})}{n - 1}$$

Simple Regression Equation

Regression Analysis is also the techniques of studying how the variations are one series are related to variations in other series. Regressions analysis shows that how the variable are related. Thus, regression is the estimation of unknown values or prediction of one variables form known values of other variables. so regression analysis is a mathematical measure of the average relation ship between two or more variables in terms of the original units of the data. The regression analysis confined to the study of only two variables at a time is called simple regression. In this study, the following regression line are taken as a statistical tool:

Regression Equation of Y on X

$$Y = a+bx \dots\dots\dots(i)$$

$$\sum y = na + b\sum x \dots\dots\dots(ii)$$

$$\sum xy = a\sum x + b\sum x^2 \dots\dots\dots(iii)$$

Multiple Regression Equation

The multiple regression equation describes the average relationship between one dependent variable and two or more independent variables and this relationship is

very much useful for estimating the dependent variables. The multiple regression equation of x_1 on x_2 and x_3 is given below:

$$x_1 = a_1 + b_1x_2 + b_2x_3 \dots\dots\dots(i)$$

$$\sum x_1 = na_1 + b_1\sum x_2 + b_2\sum x_3 \dots\dots\dots(ii)$$

$$\sum x_1x_2 = a_1\sum x_2 + b_1\sum x_2^2 + b_2\sum x_2x_3 \dots\dots\dots(iii)$$

$$\sum x_1x_3 = a_1\sum x_3 + b_1\sum x_2x_3 + b_2\sum x_3^2 \dots\dots\dots(iv)$$

Where,

X_1 = dependent variable

X_2 and X_3 = Independent variables

a_1 = value of X_1 when X_2 and X_3 equals to zero.

b_1 = Partial regression coefficient of X_1 on X_2 when X_3 is constant

b_2 = Partial regression coefficient of X_1 on X_3 when X_2 is constant

(i.e. amount of change in X_1 per unit change in X_3 , holding X_2 constant)

N = Number of Observations taking in the calculations.

3.8.2 Financial Tools

To conclude the findings, some financial tools have been used in this study. The major financial tools are as follows:

Beta coefficient (β)

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

$$\text{Mathematically, } \beta = \frac{COV(R_J, R_M)}{\sigma_m^2}$$

Where, β_j = Beta coefficient

$Cov(R_J, R_M)$ = Covariance between R_J and R_M

σ_m^2 = Variance of market return.

Market Price Per share (MPS)

The market price is the amount in which a share of the stock is traded in the market. Records of high, low and closing prices are studied for the purpose of this study. Since the calculation of real average price is constrained by lack of adequate information regarding volume and price of each transaction throughout the year, the closing price has been used as market price of share.

Mathematically,

$$\text{MPS} = \frac{\text{Total Market Capitalization}}{\text{No. of Outstanding Shares}}$$

Dividend

Both cash and stock dividend i.e. bonus share declared by each company have taken into account for the purpose of this study. Total amount of dividend can be calculated as follows:

Total amount of dividend = Cash dividend + (Stock dividend % x Net years MPS

In case of dividend declared is capitalized in paid up value,

Total dividend amount = cash dividend + (Capitalized % x Paid up value/share of preceding year)

Dividend per share (DPS)

The dividend per share is the amount paid as dividend to the shareholder of the stock

Mathematically,

$$\text{DPS} = \frac{\text{Total Dividend Paid}}{\text{No. of Outstanding Shares}}$$

Earning Per Share (EPS)

The earning per share (EPS) is the share of a stock on the earning of the company during the period.

Mathematically,

$$\text{EPS} = \frac{\text{Total Earning of Company}}{\text{No. of Outstanding Shares}}$$

Return on Common Stock Investment

Return in the income received on an investment plus any change in market price usually expressed as a percent of the beginning market price of the investment.

Mathematically,

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

Where,

R = Return on Investment

P_t = the share price at time t

P_{t-1} = the beginning share price at time t-1

D_t = Cash dividend at the end of time t.

Expected Return on Common Stock

Mathematically, expected return can be calculated as follows:

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

Where,

\bar{R} = Expected return on stock

$\sum R$ = Sum of return on stock

N = Number of years

3.9 Methods of Data Collection

For presenting the collecting data and information the different kinds of analytical and descriptive tools and technique in logical manner have been applied commonly, the collected data and information are presented in the simple spreadsheets which produced from excel and easy to understand. It is assumed that tables, charts, figures and diagram to represent the information of study could be more effective an informative to understand.

Chapter I

INTRODUCTION

1.1 Background of the Study

Capital market is the market meant for long term securities issued by the government or a corporation. The capital markets typically involve the financial assets that have life spans of greater than one year. The capital market also can be termed as long-term borrowing and lending market too. There are various instruments or securities used in the capital market such as share of stock, bonds or debentures, debenture stocks, stock bond etc. Efficient capital market helps to mobilize the financial resources and provides efficient channel to productive investment. Development and expansion of capital market is essential for the rapid growth of the country. The capital market helps in economic development by mobilizing long-term capital needed for productive sector. The capital market is a mechanism through which public saving are channelized to industrial business enterprises. The capital market also consists of both non-securities market and securities market. Non-securities market refers that the mobilization of the financial resources by the financial institutions in the form of deposits and loans.

Usually, the capital market also includes primary market i.e. issue market and secondary market. A series of channels are involved in these market through of which saving of individuals and communities are made available for lending and investing to the commercial and industrial enterprises as well as to the public authorities.

Primary markets are the markets in which corporations raise a new capital by issuing new securities. It is the place where corporations and government issue new securities and it is only market in which the company or government is directly involved in the transaction of securities and receives direct benefit from an issue that is the company actually receives the proceeds from sale of securities.

Secondary markets are market in which existing outstanding securities are traded among investors. In other words, secondary markets are those in which outstanding

previously issued securities are traded by far the most active secondary market and the most important one to the financial managers is the stock market. It is here that the price of the firm's stock are established and hence the primary goal of the financial management is to maximize the firm's stock price, knowledge of the market in which the price is established is essential for any one involved in managing the business. The stock price efficiency occupies an important place in financial management. If there are some imperfections in the stock markets, wise investor attempt to utilize them to achieve a better return. This perception has no rational significance in the world where shares are effectively priced. In an efficient market, price should adjust randomly upward and down ward with respect to the new information. Stock market efficiency cannot be tested directly. However the postulated some securities price behavior, one can have some idea about market efficiency. History indicates that much time and effort have been devoted in the field of the financial research to investigate the movement of the share prices. Thus study has been directed toward studying price movement and determination share price of Nepalese capital market. The concept of capital market is neither very old nor very complex in the context of Nepal. It is still in the beginning stages and different efforts have been made for development of the capital market since 1936 to till now. But Nepalese capital market got a proper structure only in the year 1993. In this year securities Board was established as regulator and stock trading commenced through the member brokers adopting open-out-cry auction system. Stock exchange in its usual role was then expected to develop as a powerful mechanism to mobilize savings for long-term investments. Today stock exchange has gained an experience e of over a decade. It is how a place where the financial products of 337 companies are traded (www.nepse.com).

Stock market has grown in the past decade but not to an extent desired. It is still in a early stage and has to grow significantly to play a more meaningful role in the banking dominated financial system. There should be concerted efforts to improve market size, liquidity, concentration and volatility in order to gain the status of a credible market (Kafle: 2004:P 22). It has become more relevant to focus on developing a credible market when banking sector is under its way of meaningful reform and pressure for integration to the world and the regional markets are mounting. There are also sufficient reasons to be enthusiastic for the growth of the

private sector and subsequently argue in favor of vast potential of the growth of the stock market in Nepal. However realizing such potential is possible only when supported by requisite changes in the legal and institutional infrastructure. Telecom and Aviation sector, new mega-investment hydro and physical infrastructure projects are likely to come up and absorb huge investment resources. Furthermore, some well performing closely held companies are also showing interest to come to the capital market. These potential investment sectors can play a catalytic role to trigger further market growth. It believes that the limited fund deployment needs in the domestic market and limited investment avenues are temporary phenomena that will get rectified as the economy becomes confident to come out from the prevailing conflict situation. Some basic reforms in the capital markets are already taking shape in Nepal. Effective regulation of products and intermediaries, appropriate regulation with effective enforcement, market operations and transparent standards are some of the key reform agendas. Further, the infra structural developments including information dissemination and order routing mechanism, trading system linkages and settlement and clearing arrangement fundamental to a well functioning market have been visualized. During the regime of Rana dynasty in Nepal, the development and expansion of the capital market had been prohibited and restricted due to participation in ownership of the corporate sector was limited within Rana family. However, the government has made the first effort of incorporating the security market center (SMC) in 1976 as a foundation of an organized capital market. The security market center was established under the company act 1936. The main objective of SMC was to mobilize the capital through market mechanism for corporate development in the industrial, agricultural and other sectors of the nation. But later it has been governed by the securities exchange act 1983, which was brought in implementation from 1984 and SMC converted into securities exchange center (SEC). A systematized and regulated capital market had become essential for trading of securities and the development of national economy of Nepal. For promoting such type of marketing in Nepal, various attempts had been made during the pre-democracy period by formulation and enforcement of company act 1936, establishment of Nepal Rastra Bank as a Central Bank, Securities Exchange Center and formulation and enforcement of securities Exchange Act also. Only after the inception of democracy in Nepal, a network of financial institutions was created through legislative measure to induce the growth of capital market. Nepal Rastra Bank (NRB), NIDC, Agriculture Development

Bank (ADB), Rastriya Banijya Bank (RBB), Providend Fund Corporation (PFC), Nepal Bank Limited (NBL) and lately established Securities Exchange Center (SEC) and Credit Guarantee Corporation are those institutions which comprises to form the nexus of Nepalese Capital Market. After restoration of democracy in Nepal, the government has made and included the plan and policy for development of capital market while formulating the Eighth plan in 1992-1997. The first amendment of the securities Exchange Act, 1983 was done in 1992 and subsequently Securities Exchange Regulation, 1993 has come. The second amendment to the Securities Exchange Act, 1983 has been done in 1996. The government also established the securities Board of Nepal under being Securities Exchange Act, with first amendment 1992 and Securities Exchange Regulation 1993. Since the establishment of SEBO/N, it has been concentrated its all efforts on improving the legal and statutory frameworks, which are the bases for the healthy development of the capital market in Nepal. The main objective of SEBO is to promote and protect the interest of the investors by regulating the issuance, sale and distribution of securities; supervise and monitor the activities of the stock exchange and of corporate bodies carrying on securities business. Another objective of SEBO is to render contribution to the development of capital markets by making securities transudation fair, healthy, efficient and responsible. The SEBO also does do various function like as, to advise the Nepal government on the issues related to the development of capital markets and protection of the investor's interest, and to conduct research and studies along the area of capital market. The conversion of Securities Exchange Center into Nepal Stock Exchange Ltd. (NEPSE) in 1993, which can be taken as the effort of the government regarding the capital market. NEPSE is a non-profit organization operating under the Securities Exchange Act, 1983. NEPSE has started its trading operation since 1994. The basis objectives of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transactions in its trading floor through members, market intermediaries like as brokers, market makers etc. NEPSE opened its trading floor on 13th January 1994. Nepal Government, Nepal Rastra Bank, NIDC and other members are the shareholders of the NEPSE. Therefore, the establishment of the specialized firm as NEPSE proved that to be a strong step towards the liberalization of the economy and a milestone in the way of economic development of the Nepal.

Capital market proved to be one of the important segments of the economy since it facilitates and provides better institutional arrangements for the borrowing and lending of long-term funds. Capital market is also the general barometer that measures the proper collection and channelization of savings for investments in productive and income generating assets. The allocative efficiency in the use funds is the basis for measuring the performance of capital market. But what matters crucial is the effective regulation of securities market. However, experience in the number of advanced and developing countries shows that regulation of securities market became a felt necessity as a result of the manipulative practices and dishonest security dealings. In order to allocate capital efficiently and to maintain higher degree of liquidity in securities, the stock market should be efficient enough in pricing the shares solely by economic considerations based on publicly available information. Efficiency in the stock market implies that all available relevant information regarding a given stock is instantly reflected in its price. An efficient market is one where the current price of share gives the best estimate of its true worth. It is not possible to systematically gain or loss abnormal profits on the basis of available public information. In such an efficient market, the prices of securities reflect investor's estimates of level of return and risk in future cash flows. The higher securities that are priced efficiently guide the financial market allocating funds to the most productive use. However, a question generally arises whether the Nepalese stock market is efficient enough to maintain the MPS according to financial position of a company. The highly fluctuating stock market prices at NEPSE could not be the symptom of the efficient market. Recently, most of the investors complain that they are suffering form unexpected fluctuation of shares prices at NEPSE. Therefore, this study mainly attempts to indicate and analyze the major Determination of share price, which are the causes of determining shares prices of any listed companies in NEPSE.

1.2 Focus of the Study

The market price of share moves upwards and downwards daily in Nepalese stock or security market. So what factor affects the market price of share? How the market price of share determine in the secondary market, finding the solutions of this problem, a case study of the securities market in Nepal is essential. Generally, accuses of price movement may be signaling effect, low return and high risk, lack of adequate

knowledge about share market, low income of the investor's and high price of the shares. So, there is close relationship between the share price and volume of the share traded, i.e. high price, low volume and low price, high volume.

Market price of share is determined by the interaction of demand and supply, but this situation is in the Nepalese securities market or not/ Report to study of this the price of the common stock in primary market is in par value and equal with the par value. What is the share price in the secondary market? What is the impact of price trend, volume of the share traded and what is the listing rate of joint companies in NEPSE? Do the investors see the price trend? Do the investors see the volume trend and other views while making investment decision? These are the burning issues regarding share price Determination of capital market in Nepal. So this study is mainly focused on it.

1.3 Statement of the Problem

The market price of share seems to be in accordance with deference financial indicators such as NWPS, EPS, DPS, ROE etc. and statistical indicators such as beta coefficient, covariance etc. But only the strength of the companies cannot determine the market price of the share. The market value is determined by the supply and demand functions basically also.

The concept of the capital marketing in Nepal is not so far. The capital market has been affected and trapped by various mysterious conditions due to different economic and non-economic factors. Most of the investors are not also aware of the financial position of the companies in terms in their financial indicators and could not get current status and long term progression in which they are investing their funds through secondary market, NEPSE only. In reality, the Nepalese share market is suffering form various causes, likes as low trading volume of share due to lack of adequate and professional brokers, early stage of growth, limited movement of share prices, limited information available to the investors etc. Therefore most of the investors are confused when they thinking want to invest in stock. Share price is the function of the various factors. The share price fluctuates time-to-time and stock exchange react to the environmental changes. However, the stock exchange has no effect for some environmental changes. The downfall of the share market is mainly due to unfair market competitions and practices that went undetected for a long time

in stock market of Nepal. In present situation, the main problems faced by the Nepalese capital market can be listed below:

- Several legal formalities to be undertaken while marketing of securities likewise the frequent changes in government economic policies are also main problem of slow management of stock market.
- The political instability in the country is affecting the share market. Due to it, the investors are not being ready to invest in share and also hesitating to invest in any sector.
- Due to lack of banking knowledge, the man who are associated with banking transaction they are only centralized in urban sectors. Similarly, due to lack of expanding securities transaction facilities in the other parts of the country, there is not wide participation in the securities market.
- Minimum no of professional brokers, the development of capital market is affected.
- Due to lack of stability in share price, the investors are hesitating to invest in the shares.
- Lack of development of securities market infrastructures, such as appropriate accounting and auditing standard, credit rating system, security deposit system etc.
- Lack of coordination among main regulatory bodies like as NRB, SEBO, NEPSE, insurance board etc.
- Due to lower level of income, there is low amount of saving. Although, there is tendency to invest in unproductive sectors such as land and building, gold, silver etc. form the low amount of saving.
- Lack of corporate governance in Nepalese capital market.

Stock price volatility of various companies listed in NEPSE is also one of the burning issues in the context of Nepalese share market. It is said that instability exists in Nepalese economy, low level of share's volume traded, and small size and centralized of capital market, market penetration of handful of businessman, limited number of market makers and intermediaries are the contributing variable which led Nepalese

stock market to be inefficiency. In this scenario, this study try to analyze the problems and causes that led to market to inefficiency. In this context, some corrective measures are required to be initiated so that market certainty is to be insured and the interest of the investors can be protected. The investors are also tended to rely on the explanatory information and do not show interest on the statistical data and technical analysis. Since, the sufficient information of financial position and performance of the listed companies has not been disseminated to the general public, the health and dynamism of stock market suffers due to the lack of transparency. Because transparency is the one of the main element of the corporate governance. Corporate governance is a set of rules and incentives by which management of a company is directed and controlled so as to maximize profits and the value of company.

Since few members of buyers and sellers have greater influence in the determination of share price through their representative brokers, it is not guaranteed that the price is determined fairly and competitively. The professional and adequate broker's role is one of the main sources for making aware to the shareholders in securities trading. But in Nepal registered brokers are not professional, adequate, and qualified to provide various services to the transaction of the share market in the countries. Besides these, it is also found that the most of the decisions of the investors are taken mainly based on whim, rumor and institutions. Therefore, the investment strategy only based on technical analysis is more reliable and profitable than native buy and hold policy. But in practical, investors never invest in securities by doing technical analysis in Nepalese capital market.

Investing in stock is highly risky as being ownership capital. It represents only a final claim while in liquidation. Stock price is determined by a number of factors. Some factors are qualitative whose effect can be qualified whereas other factors are qualitative whose effect on share price cannot be qualified. This study mainly intends to determine the factors affecting the price of shares.

After the establishment of the NEPSE, the number of listed companies with NEPSE reached to 337. The shares of these companies play a vital role in the overall index of NEPSE. Efficient market hypothesis is also one of the most important aspects and focuses on historical information to determine the market price of shares. Efficient market is that a type of market in share pricing which is based on technical analysis.

At last this study tried to study the determining factors affecting in shares prices in Nepalese capital market. More specifically, this study is expected to answer the following issues:

- How and which variables play significant role in stock price movement?
- What are the major Determination of share price in Nepalese capital market?
- Is the trend of share price, no. of listed companies and no. of transacted companies in increasing order?
- Do instability of government, strikes, demonstration, and other events happen inside the country reduce the share price?
- Can valuable information be obtained form studying charts of past price movement to determine the price of shares?
- Is there lack of favorable business environment that influences in growth of capital market?

1.4 Objective of the Study

The major objective of this study is to examine and analyze the factors affecting in the determination of share price in Nepalese capital market and stock market sensitivity of listed companies.

The specific objectives are given below:

- a. to analyze the mobility or fluctuation of market share prices through analyzing the factors affecting the share price of the Nepalese stock market.
- b. to examine the relationship of MPS with EPS and DPS.
- c. to analyze the stock market sensitivity of the listed companies in the NEPSE.
- d. to study and analyze the stock price trend, number of listed companies and number have transacted company in NEPSE.

1.5 Significance of the study

This study is important for the following group and individual:

- a. This study helps to provide literature for further researchers.

- b. The research is very useful for the university students who are interested to know the stock price trend, volume of stock traded, rate of listing companies and investor's awareness toward the share market.
- c. The research is also very useful for the financial managers and market analysis to know mobility of their shares prices with respect to change in financial position of the company.
- d. The research is useful for the government of Nepal, to conduct and formulate the new policies and programs.
- e. This study also helps to the stock investment consultants and market makers.

1.6 Limitation of the Study

This study has limited scope, as only some samples of the listed companies will be taken for study. Similarly the study areas are also mainly focused on determining factors of share price in Nepalese capital market. Thus the study areas will be very specific. This study is dependent on both the primary and secondary data published from the related companies. So, accurate and reliable data may not be obtained. The following limitations during the course of research are:

- a. The study is limited only in the capital market of Nepal.
- b. The study is also made on common stock (shares).
- c. The constraints of financial resources.
- d. The study only covers the nine-year data of the selected companies.
- e. The study mainly focused at eight sampled companies, such as one trading company, one manufacturing company, two insurance companies, two finance companies and two commercial banks.
- f. For the evaluation of qualitative factors, individual investors, stockbrokers and listed companies are selected.

1.7 Organization of the Study

This study has been divided into five chapter- introductions, review of literature research methodology, data presentation and analysis and conclusion and recommendations.

Figure 1.1: Organization of the Study

Introduction

First chapter, This chapter deals with the introduction part of the study. It includes background, statement of the problem, objective and significance of the study and limitation of the study.

Review of Literature

Second chapter, this chapter deals with the review of available literature available in the field of the study being conducted through different books, journals, unpublished dissertation which includes the theories of the concerned topic and other empirical studies conducted inside or outside the county.

Research Methodology

Third chapter, this chapter explains the research design population and sample, methodology employed to conduct the study and tools and techniques used in analysis of the data as well.

Data Presentation and Analysis

Fourth chapter, this chapter presents the analysis and presentation of the data collected using a number of statistical tools and technique as per need of research, overall findings of

Summary, Conclusion and Recommendation

Fifth chapter, at last, this chapter includes the summary and conclusion of the research findings. It provides suggestions as well as recommendations based on the research findings.

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

Chapter IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the results of the study. This chapter, data analysis and interpretation are major part of the study. In this part, the analytical exploration and manipulation of data has been attempted with in the frame of the research methodology and then analyzed data are presented with appropriate form like tables, graphs and diagrams. In this chapter, relevant and available data of eight listed companies, which had been taken as sample from the categorized sectors by NEPSE and an attempt has been made to the study.

4.2 Presentation and Analysis of Secondary Data

This part of the study provides analysis and interpretation of secondary data provided by the NEPSE, SEBO and the required companies. Price and volume traded in the NEPSE index has been analyzed. Similarly, the signaling factors like as major events happening in the world and political instability in the country also affect the NEPSE. Indeed. Therefore, the first section of this part analyzes the trend analysis of stock price and the number of volume traded in NEPSE. Then the other section of this study analyzes the market sensitivity with the help of beta coefficient, correlation coefficient. For doing presentation and analysis of secondary data different statistical and financial tools are used.

4.2.1 Trend Analysis of NEPSE Index

The trend analysis has been attempt in this section based on past 10 years NEPSE index as published in Annual Report of SEBO/N 2010/11.

Table 4.1 : Trend Analysis of NEPSE Index

FY	Years (t)	NEPSE Index (y)	Deviation from year x = (T-A)	XY	X ²	Trend value Y _c
2001/02	1	185.61	-4.5	(835.24)	12.25	199.51
2002/03	2	176.31	-3.5	(617.28)	6.25	208.34
2003/04	3	163.35	-2.5	(408.37)	2.25	217.17
2004/05	4	216.92	-1.5	(325.38)	0.25	225.00
2005/06	5	360.70	-0.5	174.22	0.25	234.83
2006/07	6	348.43	0.5	341.31	2.25	243.66
2007/08	7	227.54	1.5	512.15	6.25	252.49
2008/09	8	204.86	2.5	777.14	12.25	261.32
2009/10	9	222.04	3.5	1290.02	20.25	270.14
2010/11	10	286.67	4.5	728.41	82.5	278.98
		2392.43	0			

Source: SEBO/N, Annual report of 2010/11.

$$Y_c = a + bx$$

$$\sum x = 0$$

$$a = \frac{\sum y}{n} = \frac{2392.43}{10} = 239.243$$

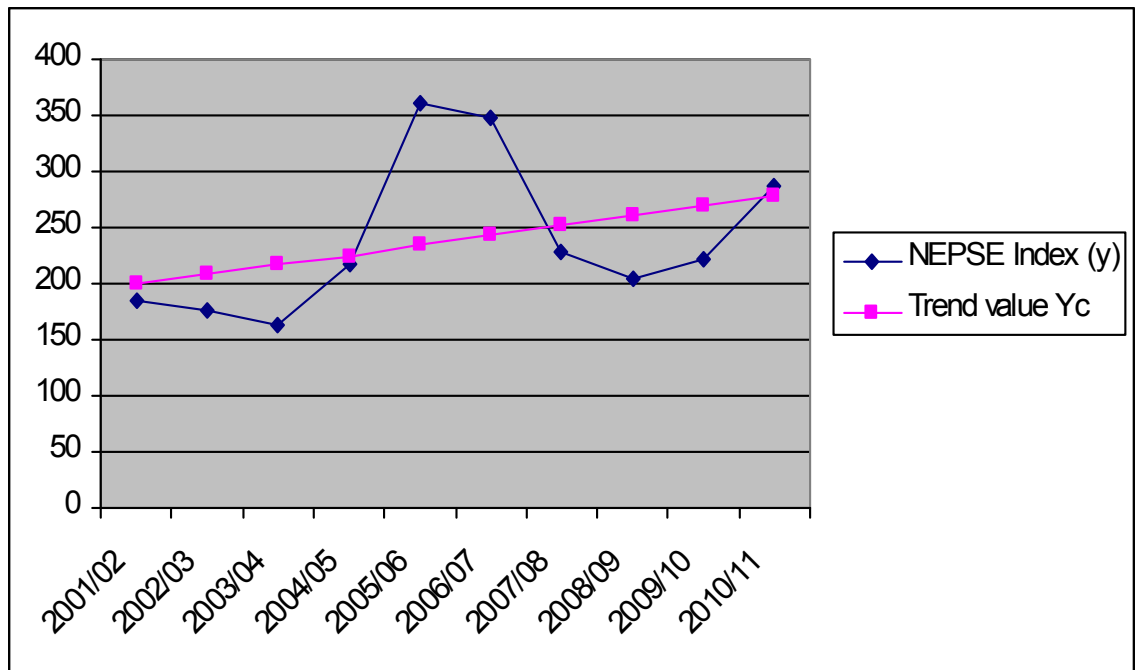
$$b = \frac{\sum xy}{\sum x^2} = \frac{728.41}{82.50} = 8.83$$

From the above table it is observed that the trend line of the NEPSE index is in fluctuating order. From the fiscal year 2001/02 to 2010/11, we can analyze the actual NEPSE Index is decreased by -4.5 in 2001/02 to 2002/03. But the trend value is increasing order i.e. 199.51. In the fiscal year 2002/03, 2003/04, 2004/05, 2005/06, 2006/07, 2007/08, 2008/09, 2009/10 and 2010/11 the NEPSE Index is 176.31, 163.35, 216.92, 360.70, 348.43, 227.54, 204.86, 222.04 and 286.67 respectively. But the calculated trend value is 208.34, 217.17, 226.00, 234.83, 243.66, 252.49, 261.32, 270.15 and 278.98 respectively.

At last, it is concluded that the NEPSE index is lower than trend value in these fiscal year because demand and supply of share price of the listed companies.

Trend line of the NEPSE Index during Ten Years

Figure 4.1 : Trend line of NEPSE Index



From the above table it is observed that the trend analysis shows that NEPSE is in fluctuating trend. However the NEPSE index is in below the trend line from the FY 2001/02 to 2004/05. After that it is increasing trend from the FY 2005/06 to 2006/07 as compare to the trend line. Similarly, the NEPSE index is in below from the trend line from the fiscal year 2008/09 to 2010/11. The maximum calculated trend value is 278.98 in FY 2010/11 and minimum value is 199.51 in FY 2001/02.

4.3 Relationship of MPS with Earning Price Per share (EPS) and Dividend Per share (DPS)

This study is assumed that the MPS might be affected by changing of EPS and DPS in the Nepalese capital market. So, the market price of a company will be higher than other company if the company declares and distribute the dividend to their stockholders at the right time. Similarly, if net worth and EPS of the company increases, the market price per share of that company also will be increased. In this way, EPS and DPS are the main determining factors for market price of the share. Therefore, to know the degree of relationship of MPS with EPS and DPS, here MPS is taken as dependent variable and other remaining factors like EPS and DPS are taken as the independent variables. The effects of EPS and DPS to the MPS are tested in all company taken as sampled. The simple correlation and coefficient of

determination are calculated for knowing the relationship of MPS with EPS and DPS. To determine the magnitude of the effect of the independent variable to the dependent variables, simple regression analyses are made and then magnitude is identified.

4.3.1 Regression and Correlation Analysis of Everest Bank Ltd.

Table 4.2 : Synopsis of Performance Indicators of Everest Bank Ltd.

Years	MPS (x ₁)	DPS(x ₂)	EPS(x ₃)
2002/03	127	0	(9.21)
2003/04	184	0	20.86
2004/05	107	15	21.03
2005/06	980	20	34.39
2006/07	750	0	31.56
2007/08	430	20	32.91
2008/09	445	20	29.90
2009/10	680	20	45.58
2010/11	870	20	37.54
Sum	4873	115	244.56
Mean	541.44	12.78	27.1733
SD	296.22	9.72	15.65
CV	0.5471	0.7610	0.5754

Table 4.3: Relationship of MPS with EPS and DPS

Variables	R	r ²
rx ₁ x ₂	0.5183	0.2686
rx ₁ x ₃	0.7358	0.5414

Source: Annex-I

The table 4.2 shows the relationship of MPS with DPS and EPS over the view of last nine year data.

r = Correlation coefficient

rx₁x₂ = Correlation coefficient of MPS and DPS

rx₁x₃ = Correlation coefficient of MPS and EPS

r² = Coefficient of determination

S.D. = Standard Deviation

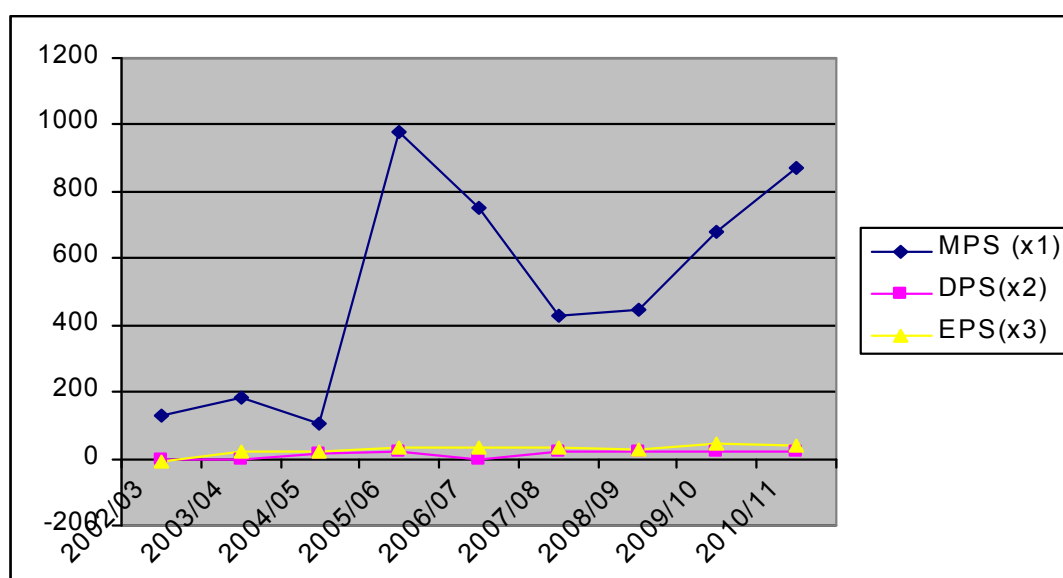
C.V. = Coefficient of Variation

Average = Mean (i.e. Arithmetic mean)

The coefficient of variation CV indicates that the fluctuation occurs in the variables during the period of observations. So, the higher CV indicates the higher volatile and lower CV indicates the lower volatile. Therefore, the CV of MPS is 54.71%. It means MPS is less volatile. But the CV of EPS and DPS are 57.54% and 76.10% respectively. Here the CV of DPS is higher than other variables like MPS and EPS. So, DPS of this Everest Bank is maximum volatile than independent variable like EPS. The simple correlation coefficient shows the relationship between one dependent variable and other two independent variable. The above table shows, MPS is positively correlated with DPS and EPS. The meaning of that if the changed in DPS and EPS, the MPS also move in same direction. But the magnitude of correlation, of MPS with DPS and EPS are 26.86% and 54.14% respectively. The coefficient of determination shows that 26.86% of the change in MPS is elaborated by DPS and 51.14% of change in MPS is explained by EPS. Even the MPS is positively correlated insignificant. At last it is concluded that the MPS is more positively correlated with EPS than DPS.

The Linear Relationship of MPS with DPS and EPS can be presented in Following Figure:

Figure 4.2 : Relationship of MPS with DPS and EPS of Everest bank



The best line of fit is derived from the simple regression analysis based on MPS being dependent variable.

MPS on DPS

$$\text{MPS} = 1077.8 + 89.06 \text{ DPS}$$

The regression constant coefficient 'a' is -1077.8 , it implies that when DPS is zero, MPS becomes -1077.8 . The coefficient of DPS is 89.06 it implies that when DPS increases by Re. 1, MPS increases by Rs. 89.06 and vice versa.

MPS on EPS

$$\text{MPS} = 162.92 + 13.93 \text{ EPS}$$

The regression constant coefficient 'a' is 162.92 it implies that when EPS is zero then MPS becomes 162.92 . The constant coefficient for EPS is $\text{Rs.}13.93$, it implies that when EPS increases by Re.1, MPS also increases by $\text{Rs.}13.93$ and vice-versa.

MPS on DPS and EPS

$$\text{MPS} = 109.1740 - 1.9397 \text{ DPS} + 16.82 \text{ EPS}$$

The above presented multiple regression equation describes that the constant coefficient is 109.1740 , it shows and suggests that the , if DPS and EPS are zero then MS would be only 109.1740 . The value of constant coefficient 109.1740 has no any economic interpretation since it lies far from the observed data.

The coefficient of independent variables like DPS, EPS etc, show that there is marginal relationship between these variables and MPS.

The coefficient of DPS is -1.9397 , it implies that when one percent change in DPS then MPS decreases by 1.9397% while EPS remaining constant.

Similarly, the coefficient of EPS is 16.82 , it implies that when one percent change in EPS then MPS also increases by 16.82% taking DPS as a constant.

4.3.2 Correlation and Regression Analysis of Nepal Investment Bank Ltd.

Table 4.4: Performance Indicators of Nepal Investment Bank Ltd.

Years	MPS (x₁)	DPS(x₂)	EPS(x₃)
2002/03	719	100	67.59
2003/04	600	50	69.33
2004/05	822	30	33.76
2005/06	1401	50	53.68
2006/07	1150	0	33.18
2007/08	760	30	33.60

2008/09	795	20	39.56
2009/10	940	15	51.7
2010/11	800	12.50	39.31
Sum	7987	307.5	421.71
Mean	887.40	34.17	46.86
SD	245.75	27.20	14.36
CV	27.70	79.60	30.64

Table 4.5: Relationship of MPS with DPS and EPS

Variables	r	r ²
$r_{X_1X_2}$	-0.2305	0.0532
$r_{X_1X_3}$	-0.209L	0.0437

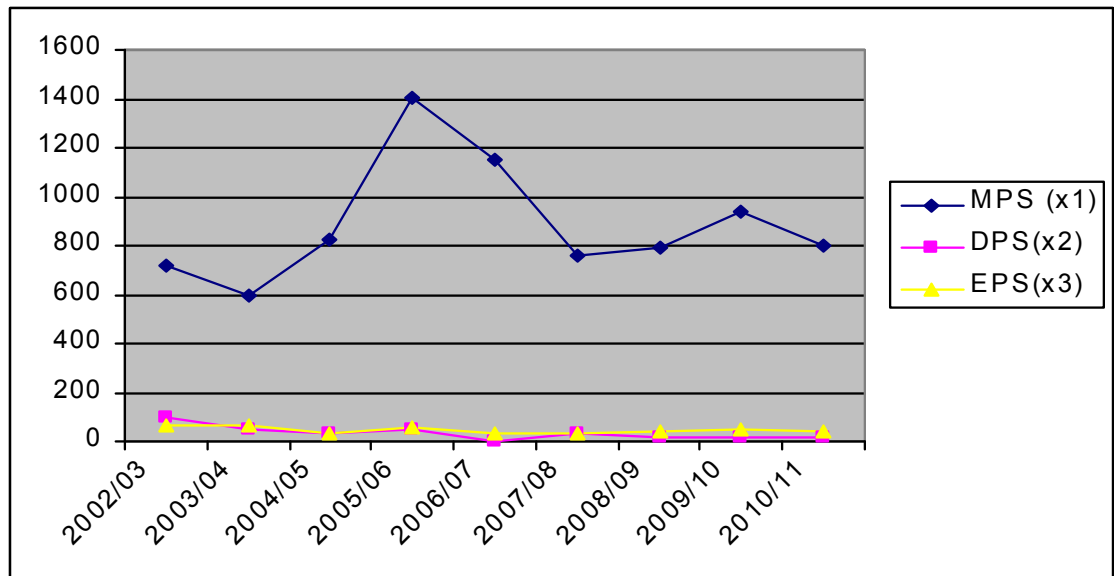
Source: annex-II

MPS, DPS and EPS are taken as the major performance indicators of Nepal Investment Bank Ltd. The above table shows that there is fluctuation in MPS during the observed period. The MPS of Investment Bank is only Rs.719 in the year 1996/97 and it is decreased Rs.600 in the year 12997/98. The highest MPS of Nepal investment Bank is Rs.1401, it was recorded in the fiscal year 1997/00. Banks is moved up and down, and reaches up to Rs.800 in the fiscal year 2004/05. The coefficient of variation indicates the realities in the variables during the period of observations,. so, higher CV indicates the higher volatile and lower CV indicates the lower volatile. Therefore, CV of MS is 27.7%, which has lower CV than other remaining variables. It means MPS is less volatile. But he CV of DPS and EPS re 796% and 30.64 respectively. In this way, CV of DPS is higher than other variables like MPS and EPS. Then DPS of Nepal Investment Bank Ltd is maximum volatile. The simple correlation coefficient shows that the relationship between one dependent variable and other two independent variable. The above tale shows that MPS of Nepal Investment Bank is negatively correlated with its DPS and EPS. The meaning of that, if the value of DPS and EPS changed then value of MPs also changes. The magnitude of correlation of MPS with DPS and EPS 23.05% and 20.91% respectively. The coefficient of determination shows that 5.32% of the change in MPS is described by DPS and 4.37% of the change in MPS is described by DPS and 4.37% of the change in MPS is described by EPS. It seems and concluded that the effect of independent

variables to dependent variables has insignificant figure even then MPS is negatively correlated with DPS and EPS.

The linear relationship of MPS with DPS and EPS can be presented in following figure.

Figure 4.3: Relationship of MPS with DPS and EPS of Nepal Investment Bank Ltd.



The above line of fit is derived from the simple regression analysis based on MPS being dependent variable.

MPS on DPS

$$\text{MPS} = 952.5388 - 1.9052 \text{ DPS}$$

The constant of regression equation is 952.5388, it implies that when DPS is equal to zero then MPS remains 952.5388. The coefficient of DPS is -1.9052, it implies that when DPS increases by Re. 1, then MPS decreases by Rs. 1.9052 and vice-versa.

MPS on EPS

$$\text{MPS} = 1055.1445 - 3.579 \text{ EPS}$$

The constant of regression equation is 1055.1445, it implies that when EPS is equal to zero then MPS – remains 1055.1445. The coefficient of EPS is -3.5790, it implied that when EPS decreases by Re. 1, then MPS decreases by Rs. 3.5790 and vice-versa

MPS on DPS and EPS

$$\text{MPS} = 1000.5019 - 1.3967 \text{ DPS} - 1.3944 \text{ EPS}$$

The above presented multiple regression equation describes that the constant coefficient 'a₁' is 1000.5019, it shows that if DPS and EPS are zero then MPS becomes 1000.5019. The value of constant coefficient has not economic interpretation since it lies far from the observed data.

The coefficient of independent variables like DPS, EPS etc. shows that there is marginal relationship between these variables and dependent variable like as MPS.

The coefficient of DPS is -1.3967, it implies that when one percent change in DPS then the MPS decreases by 4.8258% while EPS taking as a constant.

Similarly, the coefficient of EPS is -1.3944, is implied that when one percent change in EPS then MPS also decreases by 0.3209% taking DPS as a constant.

4.3.3. Correlation and Regression Analysis of Katmandu Finance Ltd.

Table 4.6: Synopsis of Performance Indicators of Kathmandu Finance Ltd.

Years	MPS (x ₁)	DPS(x ₂)	EPS(x ₃)
2002/03	93	9	12.40
2003/04	95	12	17.00
2004/05	98	16	21.30
2005/06	295	20	31.25
2006/07	321	23	37.55
2007/08	305	12	37.05
2008/09	235	50	33.85
2009/10	205	0	2.77
2010/11	138	10	17.97
Sum	1785	152	211.14
Mean	198.3333	16.89	23.46
SD	95.2877	14.08	12.1387
CV	48.04	83.36	51.74

Table 4.7: Relationship of MPS with DPS and EPS

Variables	r	r ²
rx ₁ x ₂	0.3233	0.1045
rx ₁ x ₃	0.87227	0.6768

(Source: Annex-III)

MPS, DPS and EPS are taken as the major performance indicators of Kathmandu finance ltd. The coefficient of variation, CV indicates that the volatility of the

performance indicators during the period of time. The higher CV indicates the lower volatility. So, CV of MPS, DPS and EPS are 48.04%, 83.36% and 51.74% respectively. But, the CV of MPS is lower than other two indicators DPS and EPS. Therefore MPS is less volatile. Similarly, CV of DPS is 83.36% it means DPS is more volatile than two indicators MPS and EPS of Kathmandu finance Ltd. The simple correlation coefficient shows that the relationship between one dependent variable and other two independent variables. From the above table it seems that MPS is positively correlated with DPS and EPS. The meaning of that is if the changes occur in DPS and EPS, the MPS also changes in the same direction. The magnitude of correlation of MPS with DPS and EPS are 32.33% and 82.27%. It means the magnitude of correlation of MPS with DPS is less than EPS. So, MPS is significantly correlated with EPS due to its higher magnitude of correlation. The coefficient of determination shows that 10.45% change in MPS is described by DPS and 67.68% change in MPS is described by EPS.

The best line of fit is derived from the simple regression analysis based on MPS being the dependent variable.

MPS on DPS

$$\text{MPS} = 235.2778 - 2.1875 \text{ DPS}$$

The regression constant coefficient 'a₁' is 235.2778, it implies that when DPS is zero then MPS becomes 235.2778. The constant coefficient of DPS is -2.1875, it means when DPS increases by Re. 1, then MPS decreases by 2.1875 and vice-versa.

MPS on EPS

$$\text{MPS} = 22.3646 + 7.5008 \text{ EPS}$$

The constant of regression equation is 22.3646, it implied that when EPS is zero then MPS becomes 22.3646. The regression constant coefficient of EPS is 7.5008, it implied that when EPS of Kathmandu finance increases by Re.1 then MPS also increases by 7.5008 and vice-versa.

MPS on DPS and EPS

$$\text{MPS} = -12.4009 - 4.8614 \text{ DPS} + 12.4851 \text{ EPS}$$

The above presented multiple regression equation describes that the constant coefficient 'a₁' is -12.4009, it shows that if DPS and EPS are zero then MPS becomes -12.4009. The value of constant coefficient -12.4009 has no economic interpretation since it lies far from the range of observed data.

The coefficient of independent variables like DPS and EPS shows that there is marginal relationship between these variables and MPS.

The coefficient of DPS is -4.8614 , it implies that when one percent change in DPS then MPS also decreases by 4.8614 while EPS remaining constant.

Similarly, the coefficient of EPS is 12.4851 , it implies that when one percent change in EPS then MPS-increases by 12.4851 while DPS keeping constant.

4.3.4 Correlation and Regression Analysis of NIDC Capital Market Ltd

Table 4.8: Synopsis of Performance indicators of NIDC Capital Market Ltd

Years	MPS (x_1)	DPS(x_2)	EPS(x_3)
2002/03	70	0	2.40
2003/04	82	0	14.55
2004/05	100	15	29.30
2005/06	415	15	20.95
2006/07	600	15	25.95
2007/08	175	0	2.52
2008/09	125	0	(9.93)
2009/10	107	0	35.07
2010/11	145	0	14.02
Sum	1819	45	134.83
Mean	202.1	5	14.98
SD	181.9797	7.5	14.5764
CV	90.04	150	97.3057

Table 4.9: Relationship of MPS with DPS and EPS

Variables	r	r^2
$r_{x_1x_2}$	0.6988	0.4883
$r_{x_1x_3}$	0.2964	0.0878

(Source: annex-IV)

Over the last 9 years data, the table shows the relationship of MPS with DPS and EPS. MPS, DPS and EPS are taken as the major performance indicators of NIDC capital market Ltd. The coefficient of variation indicates the fluctuation of indicators (Variables) during the period of time. The higher CV indicates the higher volatility and lower CV indicates the lower volatility and lower CV indicates the lower

volatility. So, CV of MPA, DPS and EPS are 90.64%, 150% and 97.3057% respectively. But the CV of MPS is lower than other two indicators DPS and EPS. Therefore, MPS is less volatile. Similarly, CV of DPS is 150%, which is the higher CV than MPS and EPS. Therefore, DPS of NIDC capital market Ltd. is more volatile. The simple correlation coefficient shows that the relationship between one dependent variable and other two independent variables. From the above table. It seems that MPS is positively correlated with DPS and EPS. The meaning of that if the change occurs in DPS and EPS, the MPS also changes in the same direction. The magnitude of correlation of MPS with DPS and EPS are 69.88% and 29.64% respectively. It means the magnitude of correlation of MPS with DPS is higher than EPS. So MPS is significantly correlated with DPS due to its higher magnitude of correlation. The coefficient of determination shows that 48.83% change in MPS is described by DPS and 8.78% described by EPS but remaining percentage change in MPS is described by other variables.

The best line of fit is derived from the simple regression analysis based on MPS being dependent variable

MPS on DPS

$$\text{MPS} = 117.31 + 16.96 \text{ DPS}$$

The regression constant coefficient 'a' is 117.31, it implies that when DPS is zero then MPS becomes 117.31. The constant coefficient of DPS is 16.96, it implies that when DPS increases by Re.1, then MPS also increases by Rs. 16.96 and vice-versa.

MPS on EPS

The regression constant coefficient 'a' is 146.675, it implies that when EPS is zero then MPS becomes 146.675. The constant coefficient of EPS is 3.7004, it implies that when EPS increases by Re. 1, then MPS also increases by 3.7004, and vice versa.

MPS on DPS and EPS

$$\text{MPS} = 130.7222 + 18.3832 \text{ DPS} - 1.3702 \text{ EPS}$$

The above presented multiple regression equation describes that the constant coefficient 'a₁' is 130.7222. It shows and suggests that if DPS and EPS are zero then MPS becomes 130.7222. The value of constant coefficient 130.7222 has economic interpretation since it lies in the range of observed data.

The coefficient of DPS and EPS shows that there is marginal relationship between these variables and MPS.

The coefficient of DPS is 18.3832, it implies that one percent change in DPS then MPS also increases by 18.3032 while EPS taking as a constant.

The coefficient of EPS is - 1.3702, it implies that 1 percent change in EPS then MPS decreases by 98.94% while DPS taking as a constant.

4.3.5. Correlation and Regression Analysis of Premier Insurance Company (Nepal) Ltd.

Table 4.10: Synopsis of Performance indicators of Premier Insurance Company Ltd.

Year	MPS (x_1)	DPS (x_2)	EPS (x_3)
2002/03	105	5	6.97
2003/04	122	10	18.07
2004/05	125	10	19.17
2005/06	250	10	19.70
2006/07	220	13	27.37
2007/08	170	10	28.73
2008/09	192	0	19.90
2009/10	210	0	25.13
2010/11	210	0	46.68
Sum	1604	58	211.72
Mean	1782	6.4	23.52
S.D.	50.6576	5.2469	10.7879
C.V.	28.4274	81.9828	45.8669

Table 4.11: Relationship of MPS with DPS and EPS

Variables	r	r^2
rx_1x_2	(0.1326)	0.0176
rx_1x_3	0.5331	0.2842

Over the last in year data, the table shows the relationship of MPs with DPS and EPS. MPS, DPS and EPS are taken as major performance indicators of

premier insurance company (Nepal) Ltd. The coefficient of variation indicates that the fluctuation of indicators (variables) during the period of time. Theoretically, the higher CV indicates the higher volatility and lower CV indicates the lower volatility. So, CV of MPS, DPS and EPS are 28.4274 %\$, 81.9828% and 45.8669% respectively. But the CV of MPS is lower than other two indicators DPS and EPS. Therefore MPS of premier insurance is less volatile. Similarly, CV of DPS is the highest than other; it means DPS of premier insurance company (Ltd.) is more volatile. Last one CV of EPS is 45.8669%, which is moderate volatile comparison with DPS. The simple correlation coefficient shows that the relationship between one dependent variable and other two independent variables. From the above table, it seems that MPS is negatively correlated with DPS and positively correlated with EPS. The meaning of that if the change occurs in DPS then MPS also changes in opposite direction. The magnitude of correlation of MPS with DPS and EPS are 13.26 and 53.31% o respectively. It means the magnitude of correlation of MPS with EPS is higher than DPS. So MPS is significantly correlated with EPS. The coefficient of determination shows that 1.76% change in MPS is described by DPS and 28.42% change in MPS is described by EPS, but remaining percentage change in MPS is described by other variables.

The best line of fit is derived from the simple regression analysis based on MPS being dependent variable.

MPS on DPS

$$\text{MPS} = 186.47 - 1.28 \text{ DPS}$$

The regression constant coefficient 'a' is 186.47, it implies that when DPS is zero then MPS becomes 186.47. The constant coefficient of DPS is -1.28, it means, when DPS increases by Re. 1 then MPS decreases by Rs. 1.28 and vice-versa.

MPS on EPS

$$\text{MPS} = 1189.3382 + 2.5031 \text{ EPS}$$

The regression constant coefficient 'a' is 119.3382, it implies that when EPS is zero, then MPS becomes 119.3382. The constant coefficient of EPS is 2.5031, it implies

that when EPS increases by Re. 1, then MPS also increases by Rs. 2.5031 and vice-versa.

MPS on DPS and EPS

$$\text{MPS} = 109.5347 + 0.2374 \text{ DPS} + 2.8548 \text{EPS}$$

The above presented multiple regression equation describes that constant coefficient 'a' is 109.5347. It shows and suggests that if DPS and EPS are zero then MPS becomes 109.5347. The value of constant coefficient 109.5347 has economic interpretation since it lies in the range of observed data.

The coefficient of DPS and EPS shows that there is marginal relationship between these variables and MPS.

The coefficient of DPS is 0.2074, it means if one percent change in DPS then MPS also increases by 0.2374% while EPS taking as constant.

The coefficient of EPS is 2.6548, it means if one percent change in EPS then MPS also increases by 2.8548% while DPS keeping as a constant.

4.3.6. Correlation and Regression Analysis of NECO Insurance Ltd.

Table 4.12: Synopsis of Performance Indicators of NECO Insurance Ltd.

Year	MPS (x₁)	DPS (x₂)	EPS (x₃)
2002/03	0	0	1.40
2003/04	115	0	9.865
2004/05	140	10	10.69
2005/06	270	10	19.61
2006/07	181	10	23.28
2007/08	182	10	19.14
2008/09	130	0	12.12
2009/10	112	0	8.20
2010/11	95	0	3.01
Sum	1225	40	107.31
Mean	136.1	4.4	11.92
S.D.	73.6062	5.2707	7.50
C.V.	54.0824	119.7886	62.9195

Table 4.13: Relationship of MPS with DPS and EPS

Variables	r	r ²
$r_{X_1X_2}$	0.7364	0.5425
$r_{X_1X_3}$	0.8596	0.7389

MPS, DPS and EPS are taken as the major performance indicators of NECO Insurance Ltd. The coefficient of variation indicates the fluctuation of indicators (variables) during the period of time. The higher CV indicates the higher volatility and lower CV indicates the lower volatility. So, CV of MPS, DPS and EPS are 54.0824%, 119.7886% and 62.9195% respectively. But the CV of MPS is lower than other two indicators DPS and EPS. Therefore MPS is less volatile. Similarly, CV of DPS is 119.7886%, which is the highest CV than other variables. Therefore DPS of NECO insurance Ltd. is more volatile. The simple correlation coefficient shows that relationship between one dependent variable and other two independent variables. From the above table, it seems that MPS is positively correlated with DPS and EPS. The meanings of that if the change occurs in DPS and EPS, then MPS also change in the same direction. The magnitude of correlation of MPS with DPS and EPS is 73.64% and 85.96% respectively. It means the magnitude of correlation of MPS with EPS is higher than DPS. So MPS is significantly correlated with EPS. The coefficient of determination shows that 54.23% change in MPS is described by DPS and 73.89% change in MPS is described by EPS but the remaining percentage change in MPS is described by other variables.

The best line of fit is derived from simple regression analysis based on MPS being dependent variable.

MPS on DPS

$$\text{MPS} = 90.4 + 10.285 \text{ DPS}$$

The regression constant coefficient 'a' is 90.4, it implies that when DPS is zero then MPS becomes 90.40. The constant coefficient of DPS is 10.285, it implies that when DPS increases by Re. 1, then MPS also increases by Rs. 10.285 and vice-versa.

MPS on DPS and EPS

$$\text{MPS} = 85.3719 + 9.4665 \text{ DPS} + 0.7256 \text{ EPS}$$

The above regression equation is the multiple regressions, which describes that the constant coefficient 'a₁' is 85.3719. It shows and suggests that if DPS and EPS are

zero then MPS- becomes 85.3719. The value of constant coefficient 85.37198 has no any economic interpretation since it doesn't lie in the range of observed data.

The constant coefficient of DPS and EPS show that there is marginal relationship between these variables and MPS.

The coefficient of DPS is 9.4665, it implies that one percent change in DPS then MPS increases by 9.4665% while EPS taking as a constant.

The coefficient of EPS is 0.7268, it implies that one percent change in EPS, and then MPS increases by 0.7268% by taking DPS as constant.

4.3.7. Correlation and Regression Analysis of Nepal Lube Oil Ltd.

Table 4.14: Synopsis of Performance Indicators of Nepal Lube Oil Ltd.

Year	MPS (x_1)	DPS (x_2)	EPS (x_3)
2002/03	380	10	19.76
2003/04	315	15	31.84
2004/05	300	15	47.70
2005/06	420	15	23.60
2006/07	584	10	(10.84)
2007/08	480	5	30.63
2008/09	400	15	20.89
2009/10	350	0	20.89
2010/11	350	15	20.89
Sum	63579	100	205.36
Mean	39767	11.1	22.82
S.D.	88.9044	5.4645	15.4738
C.V.	22.3563	49.2297	67.8081

Table 4.15: Relationship of MPS with DPS and EPS

Variables	r	r^2
rx_1x_2	(0.2449)	0.0599
rx_1x_3	(0.7772)	0.6040

MPS, DPS and EPS are taken as the major performance indicators of Nepal Lube Oil Ltd. The fluctuation occurs in this indicates is described by coefficient of variation. The coefficient variation indicates the fluctuation of indicators (variables) during the period of time. The higher CV indicates the higher volatility and lower CV indicates

the lower volatility. So, CV of MPS, DPS and EPS are 22.3563%, 49.2297%, and 67.8081% respectively. But the CV of MPS is lower than CV of other two indicators DPS and EPS. Therefore MPS of Nepal Lube Oil Ltd. is less volatile. Similarly, CV of EPS is the highest than other. It means EPS of Lube Oil Ltd. is higher and CV of DPS is relatively volatile due to its less CV than MPS and more than MPS. The simple correlation coefficient shows that, the relationship between one dependent variable and other two independent variables. From the above table, it seems that MPS is negatively correlated with DPS and EPS. The meaning of that if the change occurs in the DPS and EPS, the MPS also changes in the opposite direction. The magnitude of correlation of MPS with DPS and EPS are -24.49% and -77.72% respectively. It means that the magnitude of correlation of MPS with DPS and EPS are in negative. So MPS is insignificantly correlated with DPS and EPS. The coefficient of determination shows that 5.99% change in MPS is described by DPS and 60.40% change in MPS is described by EPS. It seems that the effect of DPS to MPS has no significant figure. Even effect of EPS to MPS has significant figure.

The best line of fit is derived from simple regression analysis based on MPS being remain dependent variable.

MPS on DPS

$$\text{MPS} = 441.93 - 3.9837 \text{ DPS}$$

The regression constant coefficient 'a' is 441.93, it implies that when DPS is zero, then MPS becomes 441.93. The constant coefficient of DPS is -3.9837 , it implies that when DPS increases by Re. 1, MPS decreases by Rs.3.9837 and vice-versa.

MPS on EPS

$$\text{MPS} = 499.5572 - 4.4654 \text{ EPS}$$

The regression constant coefficient 'a' is 499.5572, it implies that when EPS is zero, MPS becomes 499.5572. The constant coefficient of EPS is -4.4654 , it implies that when EPS increases by Re. 1, MPS decreases by Rs. 4.4654 and vice-versa.

MPS on DPS and EPS

$$\text{MPS} = 514.1354 - 1.5328 \text{ DPS} - 4.3579 \text{ EPS}$$

The above multiple regression equation describes that the constant coefficient 'a' is 514.1354. It shows and suggests that if DPS and EPS are zero, then MPS becomes

514.1384. The value of constant coefficient 514.1354 has economic interpretation since it lies in the range of observed data.

The coefficient of DPS and EPS shows that there is marginal relationship between these variables and MPS.

The coefficient of EPS is -04.3579 , it implies that one percent change in EPS, MPS decreases by 4.3579 by taking DPS as a constant.

4.3.8. Correlation and Regression Analysis of Salt Trading Corporation Ltd.

Table 4.16: Synopsis of Performance indicators of Salt Trading Corporation Ltd.

Year	MPS (x_1)	DPS (x_2)	EPS (x_3)
2002/03	394	20	30.75
2003/04	325	20	31.60
2004/05	405	20	21.31
2005/06	400	25	(61.47)
2006/07	330	25	42.58
2007/08	300	30	107.60
2008/09	300	20	202.80
2009/10	315	20	294.70
2010/11	315	20	201.03
Sum	3084	200	870.9
Mean	342.67	22.2	96.77
S.D.	43.9488	3.6325	113.8434
C.V.	12.8254	16.3626	117.6132

Table 4.17: Relationship of MPS with DPS and EPS

Variables	r	r^2
rx_1x_2	(0.1592)	0.02535
rx_1x_3	(0.7164)	0.5132

MPS, DPS and EPS are taken as the major performance indicators of Salt-Trading in Corporation Ltd. The above table shows, there is huge fluctuation occurred in MPS. The MPS is only Rs. 394 in 1998/99 and it is decreased to Rs. 315 in 1999/00. The highest MPS of Salt-Trading Corporation is Rs. 405 in 2000/01 during nine years period. Thereafter, the MPS of Salt-Trading Corporation is being decreasing gradually

and reached upto Rs.315 in 2006/07. The above table also shows that there is no any changed in MPS during the fiscal year 2005/06 and 2006/07. The coefficient of variation indicates that the volatility in the variables during the period of observations time. So, the higher CV indicates the higher volatility and lower CV indicates the lower volatility. Therefore, CV of MPS is 12.8254%, which is lower than other two variables. It means MPS is less volatile. But, the CV of DPS and EPS are 16.3626% and 117.6432% respectively. In this way, CV of EPS is higher than other variables like MPS and DPS, and then EPS of Salt Trading Corporation is maximum volatile. The simple correlation coefficient shows that the relationship between one dependent variable and other two independent variable. The above table shows that MPS is negatively correlated with DPS and EPS. The meaning of that if the value is changed in DPS and EPS, the value of MPS decreases. The magnitude of correlation of MPS with DPS and EPS are 15.92% and 71.64% respectively. The coefficient determination shows that 2.5535% of the change in MPS is described by DPS, 51.32% of the change in MPS is described by EPS. It seems and concludes that the effect of independent variables like DPS, EPS to dependent variables has insignificant figure even the MPS is negatively correlated with DPS and EPS.

The best line of fit is derived simple regression analysis based on MPS being remain dependent variable.

MPS on DPS

$$\text{MPS} = 385.4733 - 1.9263 \text{ DPS}$$

The regression constant coefficient 'a' is 385.4733, it implies that when DPS is zero then MPS becomes 385.4733. The constant coefficient of DPS is -1.9263, it implies that when DPS increases by Re. 1, then MPS also decreases by Rs. 1.9263 and vice-versa.

MPS on EPS

$$\text{MPS} = 369.4329 - 0.2766 \text{ EPS}$$

The regression constant coefficient 'a' is 369.4323, it implies that when EPS is zero then MPS becomes 369.323. The constant coefficient of EPS is -0.2766, it implies that when EPS increases by Res. 1, then MPS decreases by Rs. 2766 and vice-versa.

MPS on DPS and EPS

$$\text{MPS} = 480.9591 - 4.8258 \text{ DPS} - 0.3209 \text{ EPS}$$

The above presented multiple regression equation describes that the constant coefficient 'a₁' is 480.9591, it shows and suggests that if, DPS and EPS are zero then MPS will be 480.9591. The value of constant coefficient 480.9591 has no economic interpretation since it lies far from the observed data.

The coefficient of independent variables like DPS, EPS etc. shows that there is marginal relationship between these variables and MPS.

The coefficient of DPS is -4.8258, it implies that when one percent change in DPS then the MPS decreases by 4.8258% while EPS remaining constant.

Similarly, the coefficient of EPS is -0.3209, it implies that when one percent change in EPS then MPS also decreases by 0.3209% taking DPS as a constant.

4.4. Analysis of Stock Market Sensitivity

Beta coefficient has been taken to analyze the sensitivity of the stock market. Beta coefficient is considered as a measure of systematic risk. So, beta coefficient is also called as an index of systematic risk and used to rank the assets. Beta of the market return equal to one (1). If beta is greater than 1, then the asset is more volatile than the market and called aggressive beta. If the beta is less than 1, then the price fluctuation of assets is less volatile than the market and called a defensive beta.

4.4.1. Beta Coefficient of Sampled Companies

From different types of organizations here are taken only eight companies as a sample. Beta coefficient of the sampled companies is calculated on the basis of MPS and DPS, EPS which is shown in annex (See Annex V).

Table 4.18: Beta Coefficient of the Sampled Companies on the Basis of MPS and DPS

Name of the sample company	Beta coefficient (β)	Ranking
Everest Bank Ltd.	0.30	7 th
Nepal Investment Bank Ltd.	0.19	5 th
Kathmandu Finance Ltd.	0.25	6 th
NIDC Capital Markets Ltd.	0.3324	8 th
Premier Insurance Company Ltd.	0.1165	3 rd
NECO Insurance Ltd.	0.1637	4 th
Nepal Lube Oil	0.0344	2 nd
Salt Trading Corporation Ltd.	0.0242	1 st

(Source: Annexes – V, VI, VIII, X, XII)

Beta coefficient is taken as measure of systematic risk, which measures the sensitivity of the return of the company to the return of the market. From the above table it is observed that the beta coefficient between MPS and DPS of all the sampled companies is less than one, it means $\beta < 1$. If the beta coefficient is less than one, it is considered that risk adjustment factor will be less than risk adjustment factor for the market. But, here beta coefficient of all sampled companies is less than one, so the companies are ranked by taking nearest value to the one. In this way, the beta coefficient of Salt Trading Corporation Ltd. is more less than other companies. It means, the risk adjustment factor of the Salt Trading Corporation Ltd. is more less than risk adjustment factor for the market. So price fluctuation of assets of Salt Trading Corporation Ltd. is less volatile than the market. In other words, Beta of Salt Trading Corporation is called defensive beta. Similarly, the beta coefficient of the NIDC capital market ltd. is higher than other companies comparatively. It means the risk adjustment factor of the NIDC capital market is higher than risk adjustment factor for the market. So price fluctuation of assets of NIDC capital market is higher volatile than the market. The beta coefficient of premier insurance, NECO insurance, Nepal Investment Bank Ltd., Kathmandu Finance Ltd., Everest Bank Ltd. and Nepal Lube Oil are 0.1165, 0.1637, 0.19, 0.25, 0.30 and 0.0344 respectively.

Table 4.19: Beta Coefficient of the Sampled Companies on the Basis of MPS and EPS

Name of the sample company	Beta coefficient (β)	Ranking
Everest Bank Ltd.	0.035	8 th
Nepal Investment Bank Ltd.	0.2348	5 th
Kathmandu Finance Ltd.	0.2648	6 th
NIDC Capital Markets Ltd.	0.3128	7 th
Premier Insurance Company Ltd.	0.0964	3 rd
NECO Insurance Ltd.	0.1507	4 th
Nepal Lube Oil	0.0555	2 nd
Salt Trading Corporation Ltd.	(0.0169)	1 st

(Source: Annexes-VII, IX, XI, XIII)

From the above table it is observed that the beta coefficient between MPS and EPS of all the sample company is less than one, it means $B < 1$. If the beta coefficient is less than one, it is considered that risk adjustment factor will be less than risk adjustment factor for the market. But, here beta coefficient of all the sampled companies is less than one, so taking nearest value to the one rank company. In this way, the beta coefficient of the Salt Trading Corporation Ltd. is more less than one comparison between other companies, i.e. (0.0169). It means risk adjustment factor of Salt-Trading Corporation Ltd. is less than risk adjustment factor for the market. So, price fluctuation of assets of Salt-Trading Corporation Ltd. is called defensive beta. Similarly, the beta coefficient of Everest Bank Ltd. is 0.35, which is the highest than other companies comparatively. It means the risk adjustment factor of the Everest Bank Ltd. is higher than risk adjustment factor for the market comparison between other companies. So price fluctuation of assets of Everest Bank Ltd. on the basis of EPS is more volatile than the market. The beta coefficient of Nepal Investment Bank Ltd., Kathmandu Finance Ltd., NIDC Capital Market, NECO Insurance, Premier Insurance Ltd. and Nepal Lube Oil are 0.2348, 0.2648, 0.3128, 0.1507, 0.0964 and 0.0555 respectively and ranked them on the basis of beta coefficient.

4.5. Empirical Analysis

An empirical investigation was conducted to evaluate the qualitative factors affecting on the determination of the market price of common stocks from the experience of the real world. The major tools used for this study is an opinion questionnaires which was distributed to more than 125 respondents, out of which only 90 responses were received from them. The respondents selected for this study were individual investors, stock brokers and listed companies. But there are large numbers of stakeholders in the capital market of Nepal. The total major 12 variables that could play the vital role to fluctuate or determine the market price of stock of companies in NEPSE were identified. The views of the respondents were collected from Kathmandu valley only. Questions were provided with two or more alternatives. Information collected form the respondents were tabulated into the separate format and they were expressed in

terms percentage of total number and then have been analyzed into descriptive ways. The numbers of respondents by different groups are shown in following table:

Table 4.20: Responses by Groups

S.N.	Group of respondents	Sample size	Percentage
1	Individual investors (shareholders)	50	55.55
2	Stock brokers	15	16.67
3	Listed companies in NEPSE	25	27.78
Total		90	100.00

The results obtained from the opinion survey have been analyzed separately according to their respective groups.

4.5.1. Higher the EPS Higher the Share Price

To know the view of the respondents about higher the EPS higher the share price a question was asked, "Is there higher the EPS higher the share price?" The responses of the different respondent groups are as follows:

Table 4.21 : Higher the EPS Higher the Share Price

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	35	38.89	4	4.44	11	12.22	50	55.55
Stock brokers	9	10	4	4.44	2	2.22	15	16.67
Listed companies	19	21.11	6	6.67	0	0	25	27.78
Total	63	70.00	14	15.55	13	14.44	90	100.00

(Source: Opinion survey)

The above table shows that 63 percent of respondent have agreed with higher the EPS higher the share price. However 15.55 percent of the respondents showed their disagreement to this view and 14.44 percent of the respondents who were unknown about it. Among those respondents who showed their agreement to this view, 38.89percent were individual investors, 10 percent were stockbrokers and 21.11 percent were listed companies. So, it is concluded that higher the EPS of the company higher will be the market price of share in the capital market.

4.5.2. Higher the Cash Dividend Higher the Share Price

To know the view of the respondents about higher the cash dividend higher the share price a question was asked, "Are you agree with statement that higher the cash dividend higher the share price?" The different responses received from the respondents are tabulated as follows:

Table 4.22 : Higher the Cash Dividend Higher the Share Price

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	25	27.78	5	5.55	20	22.22	50	55.55
Stock brokers	8	8.89	5	5.55	2	2.22	15	16.67
Listed companies	13	14.44	8	8.89	4	4.44	25	27.78
Total	46	51.11	18	19.99	26	28.89	90	100.00

(Source: Opinion survey)

From the above table it is observed that higher the cash dividend higher will be the share price. It is observed that out of total 110 samples collected, 54.47 percent of the respondents felt that higher the cash dividend higher the share price whereas 19.09 percent of respondents were not agree and 25.46 percent of respondents were not known with the statement that higher the cash dividend higher the share price. So, it is concluded that cash dividend is also the determining factors of the share price. In this way, increase in cash dividend increase in the market price of share and vice-versa as opinioned by the 54.47 percent respondent groups.

4.5.3. Relationship between Growth Rate and Share Price

To know the view of the respondents about relationship between growth rate and share price a question was asked, "Is there positive relationship between growth rate and share price?" The responses of the different respondent groups are as follows:

Table 4.23 : Relationship between Growth Rate and Share Price

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	22	24.44	11	12.22	17	18.88	50	55.55
Stock brokers	12	13.33	3	3.33	0	0	15	16.67
Listed companies	18	20	7	7.77	0	0	25	27.78
Total	52	57.77	21	23.32	17	18.88	90	100.00

(Source: Opinion survey)

From the above table, it is found that 52 percent respondents accept that the growth rate of the company increases the share price of the company. However, 23.32 percent respondents didn't accept and 18.88 percent respondents have given the response of unknown. Among those respondents who showed their acceptance to this view, 24.44 percent were individual investors, 13.33 percent were stockbrokers and 20 percent were listed companies. So it is concluded that there is positive relationship between growth rate and share price of the company

4.5.4. Relationship between Interest Rate and Share Price

To know the view of the respondents about the relationship between interest rate and share price a question was asked, "Is there positive relationship between interest rate and share price?" The responses of the different respondent groups are as follows:

Table 4.24: Relationship between Interest Rate and Share Price

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	32	35.55	11	12.22	7	7.77	50	55.55
Stock brokers	4	4.44	11	12.22	0	0	15	16.67
Listed companies	18	20	5	5.55	2	2.22	25	27.78
Total	54	59.99	27	29.99	9	9.99	90	100.00

(Source: Opinion survey)

From the above table it is observed that 59.99 percent respondents accepted that there is positive relationship between interest rate and share price. However, 29.99 percent respondents did not agree to this view and 9.99 percent respondents have given their responses of 'Don't know'. Among those responses that did show their acceptance to this view, 35.55 percent were individual investors, 4.44 percent were stockbrokers and 20 percent were listed companies. So, it is concluded that increase in interest rate increase in share price and vice-versa.

4.5.5. Strikes, Political Instability Reduces the Share Price

To know the view of the respondents about strikes, political instability and instability of government reduces the share prices a question was asked, "Do you agree that strikes, political instability and instability of government reduces the share price?" The responses of the different respondent groups are as follows:

Table 4.25: Strikes, Political Instability Reduces the Share Price

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	35	38.89	8	8.88	7	7.79	50	55.55
Stock brokers	12	13.33	3	3.33	0	0	15	16.67
Listed companies	25	27.78	0	0	0	0	25	27.78
Total	72	80	11	12.21	7	7.79	90	100

(Source: Opinion survey)

From the above table it is observed that 80 percent respondents did agree that strikes, political instability direct affects in the capital market and ultimately it reduce the share price. However, 12.21 percent respondents did not agree to this view and 7.79 percent respondents also have given responses of don't know. Among these responses that did show their agreement to this view, 38.89 percent were individual investors, 13.33 percent were stockbrokers and 27.78 percent were listed companies. So, it is concluded that share price of the company is directly influenced by the strikes, political instability and instability of government in the capital market.

4.5.6. Lower Tax Rate Reduces the Share Price

To know the view of the respondents about the lower tax rate reduces the share price a question was asked "Is lower tax rate reducing the share price? The responses of the different respondents groups are as follows:

Table 4.26: Lower Tax Rate Reduces the Share Price

Respondent groups	Yes		No		Doesn't affect		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	12	13.33	20	22.22	6	6.67	12	13.33	50	55.55
Stock brokers	2	2.22	11	12.22	3	3.33	0	0	15	16.67
Listed companies	10	11.11	6	6.67	4	4.44	5	5.56	25	27.78
Total	24	26.66	37	41.11	13	14.44	17	18.89	90	100

(Source: Opinion survey)

From the above table it is observed that 41.11 percent respondents did not accept that lower tax rate reduces the share price. However, 26.66 percent respondents did show their acceptance to this view, 14.44 percent respondents have given responses of 'Don't affect' and 18.89 percent respondents also have given responses of 'Don't know' about this view, 13.33 percent were individual investors, 2.22 percent were stock brokers and 11.11 percent were listed companies. So, by studying the view of the respondents it is concluded that, lower tax rate doesn't reduce the share price.

4.5.7. Better the National Economic Condition better the Share Price

To know the view of the respondents about relationship between national economic condition and share price a question was asked, "Do you agree with this statement that better the national economic condition better the share price in capital market?" The responses of the different respondent groups are tabulated as follows:

Table 4.27: Better the National Economic Condition better the Share Price

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	39	43.33	3	3.33	8	8.89	50	55.55
Stock brokers	13	14.44	2	2.22	0	0	15	16.67
Listed companies	15	16.67	8	8.89	2	2.22	25	27.78
Total	67	74.44	13	14.44	10	11.11	90	100

(Source: Opinion survey)

From the above table it is observed that 74.44 percent respondents did show their agreement that better national economic condition better the share price in capital market. It means better national economic condition shows the potentiality of increasing in market share price of the listed companies. However, 14.44 percent respondents did not agree and 11.11 percent respondents have given the responses of 'Don't know' about it. So, by studying the view of the responses it is concluded that market price of share is determined by the national economic condition.

4.5.8. Impact of Market Demand and Supply to Share Price Determination

To know the view of the respondents about the impact of demand and supply to share price determination a question was asked, "Is share price affected by market demand and supply?" The responses of the different respondent groups are tabulated as follows:

Table 4.28: Impact of Market Demand and Supply to Share Price Determination

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	31	34.44	5	5.56	15	16.17	50	55.55
Stock brokers	13	14.44	2	2.22	0	0	15	16.66
Listed companies	21	23.33	4	4.44	0	0	25	27.78
Total	65	72.21	11	12.22	15	16.67	90	100.00

(Source: Opinion survey)

From the above table it is observed that 72.21 percent respondents did show their acceptance that market price of share is affected and determined by market demand and supply. However, 12.22 percent respondents did not show their acceptance and 16.67 percent respondents have given/expressed their responses of don't know about it. So, by studying the view of the responses it is concluded that share price is determined by the market demand and supply. In this way, higher the demand higher will be share price and vice-versa. Among those responses that did show their acceptance to this view, 34.34 percent were individual investors, 14.44 percent were stockbrokers and 23.33 percent were listed companies.

4.5.9. Appropriateness and Effectiveness of the Present Regulatory System of the Nepalese Capital Market

To know the view of the respondents about effectiveness of the present regulatory system of the Nepalese capital market a question was asked, "Present regulatory system of the capital market is appropriate and effective. Do you agree with this statement? The responses of the different respondents groups are tabulated as follows:

Table 4.29: Appropriateness and Effectiveness of the Present Regulatory System of the Nepalese Capital Market

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	10	11.11	35	38.89	5	5.56	50	55.55
Stock brokers	1	1.11	14	15.56	0	0	15	16.66
Listed companies	9	10	16	17.78	0	0	25	27.78
Total	20	23.33	65	72.23	5	5.56	90	100.00

(Source: Opinion survey)

From the above table it is observed that 72.23 percent respondents didn't agree that present regulatory system of the capital market is appropriate and effective. However, 23.33 percent respondents agreed to this view and 5.56 percent respondents have expressed their responses of 'Don't know' about it. Among those responses that didn't agree to this view, 38.89 percent were individual investors, 15.56 percent were

stockbrokers and 17.78 percent were also listed companies. So, by studying view of the responses it is concluded that present regulatory system of the capital market is not appropriate and effective for the expansion and development of the capital market. So it is necessary to improve the present regulatory system in the context of the economic liberalization and globalization.

4.5.10. Open Out-Cry Trading System Discourage the Stock Brokers

To know the view of the respondents about open-out cry trading system discourage the stockbrokers a question was asked, "Does an open-out-cry trading system discourage the stock brokers in capital market? The responses of the respondent groups are tabulated as follows:

Table 4.30: Open Out-Cry Trading System Discourage the Stock Brokers

Respondent groups	Yes, agree		No, not agree		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	15	16.67	30	33.33	5	5.55	50	55.55
Stock brokers	8	8.89	7	7.78	0	0	15	16.66
Listed companies	15	16.67	10	11.11	0	0	25	27.78
Total	38	42.23	47	52.24	5	5.55	90	100.00

(Source: Opinion survey)

From the above table it is observed that 52.24 percent respondents did not accept that an open-out-cry trading system discourages the stockbrokers. However, 42.23 percent respondents did accept to this view and 5.55 percent respondents have given the responses of the 'Not known'. Among those responses that did not accept to this view, 33.33 percent respondents were individual investors, 7.78 percent were stockbrokers and 11.11 percent were listed companies. So, by studying view of the responses it is concluded that the open-out-cry trading system in NEPSE doesn't discourage the stockbrokers. So there is no need to change the open-out-cry system.

4.5.11. Communication and Information Technology Affects the Share Price

To know the view of the respondents about the communication and information technology affects the market price of share a question was asked as, "Is share price

affected by communication and information technology?" The responses of the different respondent groups are tabulated as below:

Table 4.31: Communication and Information Technology Affects the Share Price

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	41	45.56	2	2.22	7	7.78	50	55.55
Stock brokers	15	16.67	0	0	0	0	15	16.66
Listed companies	21	23.33	4	4.44	0	0	25	27.78
Total	77	85.56	6	6.66	7	7.78	90	100.00

(Source: Opinion survey)

From the above table it is observed that 85.56 percent respondents did accept that communication and information technology affects the share price. However, 6.66 percent respondents did not accept to this view and 7.78 percent respondents have given the response of the not known about it. Among those responses that did accept to this view, 45.56 percent were individual investors, 23.33 percent were stockbrokers and 23.33 percent were the listed companies. So, by studying view of the responses, it is concluded that communication and information technology help to determine the market price of share in the capital market.

4.5.12. Transparency in the Performance of the Listed Companies

To know the view of the respondents about transparency in the performance of the listed companies a question was asked, as "Is there transparency in the performance of the listed companies?" The responses of the different respondent groups are tabulated as follows:

Table 4.32: Transparency in the Performance of the Listed Companies

Respondent groups	Yes		No		Don't know		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Individual investors	7	7.78	38	42.22	5	5.56	50	55.55
Stock brokers	9	10	4	4.44	2	2.22	15	16.66
Listed companies	19	21.11	6	6.67	0	0	25	27.78
Total	35	38.89	48	53.33	7	7.78	90	100.00

(Source: Opinion survey)

From the above table it is observed that 53.33 percent respondents has given their responses that there is not transparency in the performance of the listed companies. However, 38.89 percent respondent gave their responses that there is transparency in the performance of the listed companies, 42.22 percent were individual investors, 4.44 percent were stock brokers and 6.67 percent were listed companies. So, by studying view of the responses it is concluded that there is necessary to make the performance of the listed companies transparent.

4.6. Major Findings of the Study

The major findings of the study summarized as follows:

4.6.1 Findings based on Trend Analysis of NEPSE Index

- From the trend analysis of the NEPSE Index, it is found that NEPSE index is in fluctuating trend. This indicates that NEPSE index is not going to increase consistently. But now a day the NEPSE index is in increasing trend due to the political and economic stability.

4.6.2 Findings based on correlation, regression analysis and CV

- MPS is of EBL positively correlated with DPS and EPS. The MPS is less volatile rather than DPS on EPS. But the DPS is more volatile and constant trend. But MPS and EPS are in increasing trend.

The MPS of the EBL is the dependent or predicted variable whereas the DPS and EPS are the independent or predictor variables. From the analysis of the above functional regression equation MPS or DPS, it is found that DPS is the determining factor of the MPS in the capital market. If change occurs in the DPS negatively or positively MPS would be changed simultaneously. In case of the MPS on EPS, it is found that EPS is the main determining factor of the MPS. If the change occurs in the EPS, MPS also increased. Similarly, in case of the multiple regression analysis MPS on DPS and EPS, it is found that if one percent change in DPS then MPS decreased by 1.9397 percent while EPS remaining constant and when once percent change in EPS then MPS increased by 16.82 percent taking DPS as a constant.

- The MPS of the Nepal Investment Bank Ltd. is negatively correlated with DPS and EPS. The MPS is less volatile rather than DPS and EPS. But the DPS is more volatile and decreasing trend. MPS and EPS are in fluctuating order.

From the analysis of the above simple regression equation MPS on DPS, it is found that if the DPS increases by Re. 1, then MPS decreased by Rs. 1.9052 and vice-versa. In case of MPS on EPS, it is found that as MPS on DPS. Similarly, in case of the multiple regression equation it is found that there is marginal relationship between MPS, EPS and DPS. Further, it is found that when 1 percent changes in DPS then MPS decreased by 4.8258 percent while EPS keeping as a constant and when 1 percent changes in EPS then MPS also decreased by 0.3209 percent taking DPS as a constant variable.

- The MPS of the Kathmandu Finance Ltd is positively correlated with DPS and EPS. The MPS is less volatile and increasing trend also. The EPS is also in increasing trend.

From the analysis of the above simple regression equation MPS on DPS, it is found that when DPS increases by Re. 1, then MPS is decreased by 2.1875. In case of the equation MPS on EPS, it is found that the MPS is increased by 7.5008 when EPS is increased by Re. 1.

Similarly, in case of the multiple regression equation it is found that there is marginal relationship between MPS, DPS and EPS. Further, it is found that 1 percent change in DPS then MPS also decreased by 4.8614percent while EPS keeping as constant and when 1 percent change in EPS, then MPS increased by 122.851 percent while DPS keeping as a constant.

- The MPS of the NIDC Capital Market is positively correlated with DPS and EPS. The MPS is less volatile than other indicators and in fluctuating trend. But the DPS is more volatile and in constant and zero trend. The EPS is in also fluctuating order.

From the analysis of the above simple regression equation MPS on DPS, it is found that when DPS increased by Re. 1 then MPS also increases by 16.96 percent and some finding is observed in case of the MPS on EPS. Similarly, in case of the multiple regression equation MPS on DPS and EPS, it is found that there is also marginal relationship between MPS, DPS and MPS, EPS. Further,

it is found that 1 percent change in DPS then MPS also increases while EPS keeping as a constant and 1 percent change in EPS then MPS also decreases by 1.3702 percent while DPS keeping as a constant. The DPS of the NIDC capital market is maximum volatile as compare to other indicators like MPS and EPS.

- The MPS of the Premier Insurance Company (Nepal) Ltd. is positively correlated with DPS. The MPS is less volatile and averagely increasing trend. The DPS is more volatile and increasing and constant trend. The EPS is in increasing trend also.

From the analysis of the above simple regression equation MPS on DPS, it is found that when DPS increases by Re. 1 then MPS decreases by Rs. 1.28 and in case of the MPS on EPS when EPS increases by Re. 1 then MPS also increases by Rs. 2.5031. Similarly, in case of the multiple regression equation MPS on DPS and EPS, it is found that there is also marginal relationship between MPS, DPS and MPS, EPS. Further it is found that 1 percent change in DPS then MPS increases by 0.2374 percent while EPS keeping as a constant and 1 percent change in EPS then MPS also increases by 2.8548 percent while DPS keeping as a constant.

- The MPS of the Neco Insurance Ltd. is positively correlated with DPS and EPS. The MPS is less volatile and averagely increasing trend. The DPS is more volatile and constant and zero trend. The EPS is increasing trend.

From the analysis of the above simple regression equation MPS on DPS, it is found that when DPS increases by Re.1 then MPS increases by Rs. 10.285 and same finding observed in case of the MPS on EPS. So increases occur in DPS and EPS then MPS also increases. Similarly, in case of the multiple regression equation MPS on DPS and EPS it is found that there is marginal relationship between MPS, DPS and MPS, EPS. Further it is found that 1 percent change in DPS then MPS increases by keeping EPS as a constant and 1 percent change in EPS then also MPS increases by keeping as a constant.

- The MPS of the Nepal Lube Oil Ltd. is negatively correlated with DPS and EPS. The MPS is less volatile rather than other indicators and averagely increasing trend. The EPS is more volatile and decreasing trend. The DPS is in increasing and constant trend.

From the analysis of the above simple regression equation, it is found that when DPS and EPS increases by Re. 1 then MPS decreases by Rs. 3.98 and 4.4654. Similarly, in case of the multiple regression equation MPS on DPS and EPS it is found that there is also marginal relationship between MPS, DPS and MPS, EPS. Further, it is found that 1% change in DPS then MPS decreased by keeping EPS as a constant and 1% change in EPS then MPS also decreased by keeping as a constant.

- The MPS of the Salt Trading Corporation Ltd. is positively correlated with DPS and EPS. The MPS is less volatile. The DPS is in constant trend but the EPS is more volatile and increasing trend.

From the analysis of the above simple regression equation, it is found that when DPS and EPS increases by Re. 1 then MPS decreases by Rs.1.9263 and 0.2766 respectively. Similarly, in case of the multiple regression equation MPS on DPS and EPS it is found that there is marginal relationship between MPS, DPS and MPS, EPS. Further, it is found that 1% change in DPS then MPS decreased by 4.8258% keeping EPS as a constant and 1% change in EPS then MPS also decreased by 0.3209% keeping DPS as a constant.

4.6.3 Findings Based on Beta-Coefficient Analysis

Beta coefficient has taken to analyze the sensitivity of the stock market. From the above analysis, it is found that beta coefficient between MPS and DPS of the entire sample. Company is less than one i.e. $B < 1$. The beta coefficient, which is less than one, that indicates these all companies are less sensitive to the market and the common stocks of these all companies are defensive to the market. On the basis of the beta coefficient, these companies are ranked from 8th to 1st position. Among these companies NIDC Capital Market Ltd. is more sensitive to the market and ranked in 8th position but Salt Trading Corporation Ltd. is more less sensitive to the market as compare to other and ranked in 1st position in the list of less sensitive companies.

From the above analysis it is found that beta coefficient between MPS and EPS of all the sample company is also less than one i.e. $\beta < 1$. The beta coefficient which is less than one that indicates that these all companies are less sensitive to the market and the common stocks of these all companies defensive to the market. On the basis of the

beta coefficient, these companies are ranked from more sensitive i.e. 8th position to less sensitive i.e. 1st position. Among these companies Everest Bank Ltd. is more sensitive to the market and ranked in the 8th position but Salt-Trading Corporation Ltd. has negative beta, it means this company is not sensitive to the market and ranked in 1st position of the list of the less sensitive companies.

4.6.4 Findings Based on the Primary Data Analysis

From the opinion survey following findings are observed:

- Dividend per share, Earning per share and growth rate are the major indicators to measure the performance of the listed companies. These indicators play significant role to determine the share price in capital market. So, these indicators affect MPS.
- Present numbers of the stockbrokers existing in Nepalese capital market are not adequate to serve the large number of investors.
- There is positive relationship between interest rate and market price of the share. So, increase in interest rate ultimately increases the share prices.
- The MPS of the listed companies is directly influenced by the strikes, political instability and instability of government. Which are the external determining factors of the share price in the capital market.
- The MPS is not affected by the lower tax rate or lower tax rate doesn't reduce the share price.
- Most of the listed companies are serious towards shareholders interest.
- The market price of share is also affected by the economic condition of the nation. So, where there is better the national economy better will be the share.
- The MPS of the listed companies is determined by market demand and supply.
- The present regulatory system of the Nepalese capital is not appropriate and effective. So, there is necessary to improve and restructured the present regulatory system in the context of the economic liberalization and globalization.
- There is no need to change the open-out-cry system because that open-out-cry trading system has not discouraged the stock brokers in the floor of NEPSE.

- The performance of the listed companies is not transparent. Investors are hesitating to invest their money in securities due to the lack of transparency in the performance of the listed companies. So, there is needed to make the performance of the listed companies transparent. Furthermore, transparency is the one of the major element of the corporate governance.
- The MPS of the listed companies is also affected by the communication and information technology. So, these are major determining factors help to determine the market price of share in the capital market.

Chapter V

SUMMARY, CONCLUSION AND RECOMMENTATIONS

5.1. Summary

Capital market is known as the meant for long-term securities issued by the government or corporation. There are various instruments or securities used in the stock market like as shares of stock, bonds or debentures, etc. Efficient capital market helps to mobilize the financial resources and provides efficient channel to productive investment. So, development and expansion of capital market is essential for the rapid growth of the country. But, in the context of Nepal the concept of capital market is neither very old nor very complex. It is still in the beginning stages and different efforts have been made for the development of capital market since 1936 to till now. But also, Nepalese capital market got a proper structure only in the year 1993 when the Securities Board established as a regulatory body and stock trading commenced through the member brokers adopting open-out-cry auction system. When the NEPSE opened its trading floor on 13th January 1994, after that NEPSE has listed more than 337 public companies till now. Capital market proved to be one of the important segments of the national economy since it facilitates and provides better institutional arrangements for the borrowing and lending of long-tern funds. So, capital market is the general barometer that measures the proper collection and channelization of savings for investments in productive and income generating assets. The allocative efficiency in the use funds is the basis for measuring the performance of capital market. Market efficiency is reflected by the efficient market hypothesis. In the real world of stock market, only the semi-strong and weak form of market efficiency exist. All the currently available information is captured in the semi-strong form of market but in the weak form of market, the stock price movement shows no definite pattern. The stock price efficiency takes an important place in the stock market. If there is imperfect competition in the stock markets, a wise investors attempt to utilize this opportunity to achieve a better return. But this perception has no rational significance in the world of stock market where shares are efficiently priced. In the efficiency

market, share price should move randomly upward and downward with the disclosure of new information. The market value of share is determined by the demand and supplies factors and reflects the negotiation between investors and seller for the transaction. The market value of share is also affected by various factors like expected earnings and dividends, interest rate, communication and information technology, economic condition of the nation, speculations, awareness of the investors, government rules and regulation regarding the stock market and other signaling effects like major events happened inside the country, strikes, political instability etc. In the context of Nepalese capital market, government is not able to create the basic infrastructure, sound policies and laws and their effective implementation. Result of that there is not transparency in the performances of the listed companies. The stock investors have not got proper education and information to speculate the share price. So, the government should given high priority to develop the capital market in Nepal.

5.2 Conclusions

The present study is based on both primary and secondary sources of data. Total eight listed companies are taken as sample from 337 total listed companies such as two commercial banks, two finance companies, two insurance companies, one manufacturing and one trading organization. To meet the purpose of this, the quantitative variables are indicated and analyzed by correlation and regression analysis of secondary data of the eight sampled companies. To evaluate the qualitative factors that affect on the MPS, the study focused to collect the opinions from the three respondent groups through research questionnaires.

From the secondary data analysis, it is seen that NEPSE index is in fluctuating trend. It means that NEPSE is not going to increase consistently. No. of listed companies in NEPSE also is in increasing trend. Similarly, no. of transacting companies is going to increase in NEPSE. There is no consistent performance in the relationship of MPS with DPS and EPS among the eight sampled companies. It means some company have positive correlation coefficient between the MPS and DPS, EPS whereas some have negative correlation. It is also seen that MPS of all the companies is less volatile and DPS is maximum volatile. In some cases, DPS and EPS increased by 1 percent then MPS also increased but this situation does not exist in all cases of the sampled

companies. The beta coefficient of the all sampled companies is less than one i.e. $\beta < 1$. It means all companies are not sensitive to the market.

The identification and analysis of affecting variables to the MPS has been attempted from the three respondents groups i.e. individual investors, stock brokers and listed companies. In their opinion, dividend, earnings and growth rate of the organization affect MPS significantly in the capital market. Whereas present number of the stock brokers existing in capital market are not adequate to serve the large number of investors and increase in interest rate ultimately increases the share price. The factors related to the environmental forces instability of the government, strike, communication, information technology have significant affect on the MPS of the listed companies. The most of the listed companies are serious towards shareholder's interest. It is also concluded that lower tax rate doesn't reduce the share price. The performance of the listed companies is not transparent so, there is necessary to make the performance of the listed companies transparent. The present regulatory system of the Nepalese capital market is not appropriate and effective. Similarly, the open-out-cry trading system has not discouraged the stock brokers in the floor of NEPSE.

At last, it is summarized and concluded that due to the lack of the adequate knowledge of individual investors and their unwillingness to use the service of the stock brokers and lack of assessing information regarding to share price of the market in accurate manner, the real market price of share can't be reflected in almost cases in Nepalese stock market. Based on the secondary data analysis, it is concluded that the determining factors of the MPS are not only DPS, and EPS but there are other several factors which determines the MPS like BPS, retention ratio, etc. To generalize the responses of the different respondent groups, the market price of share is affected by DPS, EPS, demand and supply, instability of government, strikes, economic condition of the nation, growth rate of the organization, communication and information technology. On the other hand the MPS is not affected by low tax rate and open-cut-cry system has not discouraged the stock brokers in their service. From the above analysis, it is also concluded that the NEPSE index, No. of listed companies and no. of transacted companies in Nepalese capital market are in increasing trend. This trend shows that there is possibility of growing the Nepalese capital market in future prospective due to the present favourable condition of the Nepalese business environment.

5.3 Recommendations

The capital market has grown in the country as an important base for the collection, mobilization and utilization of needed funds in the listed public companies in Nepal. Still now, the numbers of listed companies in the NEPSE are not enough in comparison of other developing countries. To increase the number of listed companies in the NEPSE and improve the behaviour of the individual investors towards the investment in the securities.

The following recommendations are made on the basis of findings and conclusion.

- In the context of Nepalese stock market, there is necessary to make a better information disclosure system. Listed companies should submit their financial transactions reports timely. There should transparency in the performance of the listed companies. Listed companies should disclose the information timely and frequently on the basis of actual performance by means of communication and information technology to the stockbrokers. Listed companies should also organize their Annual General Meeting (AGM) and audit within specified time. But, in the opinions of the respondents it is found that listed companies are serious towards shareholder's interest.
- Investors are also responsible for facing losses from capital market especially when they behave irrationally without applying careful and prudential judgment in their investment decision. Investors at present are not vigilant and very much consciousness enough to invest in securities. So, investors should be aware to their investment decision and that will be helpful to determine the MPS through demand and supply forces. Before taking investment decision in stock market, investors should always be aware of the daily share price, volume of stock traded, rules and regulations of the stock market and related listed companies. In other hand, most of the investors hesitate to get the adequate information from the listed companies and accept the decision whatever the management of the companies decided. In this way, it is suggested that the investors should try to analyze the market situation on the basis of the risk and return analysis.
- Stockbrokers are the financial intermediaries between the investors and listed companies. They have a significant role, responsibility and duties to create and operate the capital market opportunities. But professional ethnics of the brokers

are questioned in different public gathering and investor's forum. There are no clear-cut laws or professional code of conduct to curb the unfair trading practices of the brokers. So, SEBO/N should formulate the guidelines for professional code of conduct of stock brokering companies in order to make stock brokering business more credible and transparent along with specifying clearly the duties and responsibilities of the stockbrokers towards their clients, other financial intermediaries and regulatory bodies. For contributing the development of capital market it is suggested that, the stockbrokers should provide their kindly, friendly, rational and adequate advices to their investors and increase their knowledge and professionalism. The existing present number of the stockbrokers is not adequate to serve the large number of investors. So, there should increase the number of stockbrokers to some extent.

- The representation of investors in Securities Board is necessary to represent common investor's interest. Moreover, there should be investor's representation in NEPSE Board.
- Timely and accurate flow of information as provisioned in law needs to be followed strictly followed to inform the investors about what is happening in the company. The practices of providing false statement in prospectus should be discouraged.
- SEBO/N should establish enforceable action committee to compensate the investors suffering from losses caused by investment done on the basis of frauds detected in prospectus.
- NEPSE has to open stock exchange in out-sided the Kathmandu valley to provide the opportunity to all investors and facilitate and promote public transactions. In other words there should expand securities exchange facilities in other places of the country considering its feasibility for the savers residing there.
- The MPS is affected by the economic condition of the nation. So, the government should give priority to develop the economic infrastructure.
- The MPS is also affected by the communication and information technology. So the government should give priority and increase the investment in the

development, expansion and promotion of communication and information technology.

- The MPS is reduced by strikes, political instability and other events happening inside the country. So, there should be political stability and eliminated the strikes culture.
- There should make the securities trading process and financial statement of the issuer companies more credible and transparent.
- False financial statement of listed companies should be properly identified by concern authority.
- There should develop clear regulatory benchmarking of SEBO and NEPSE.
- There should provide training and education on different aspects of the stock market and make institutional arrangement for regular study and research.

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ANNEXES

Annex-I

Correlation Coefficient and Regression Equation of Everest Bank Ltd. (MPS on DPS and EPS)

Years	MPS (x ₁)	DPS (x ₂)	EPS (x ₃)	x ₁ x ₂	X ₁ ²	x ₂ ²	x ₁ x ₃	x ₂ x ₃	x ₃ ²
2002/03	127	0	(9.21)	0	16129	0	-1169.67	0	84.8241
2003/04	184	0	20.86	0	33856	0	3838.24	0	435.1396
2004/05	107	15	21.03	1605	11449	225	2250.21	315.45	442.2609
2005/06	980	20	34.39	19600	960400	400	33702.2	687.8	1182.672
2006/07	750	0	31.56	0	562500	0	23670	0	996.0336
2007/08	430	20	32.91	8600	184900	400	14151.3	658.2	1083.068
2008/09	445	20	29.90	8900	198025	400	13305.5	598	894.01
2009/10	680	20	45.58	13600	462400	400	30994.4	911.6	2077.536
2010/11	870	20	37.54	17400	756900	400	32659.8	750.8	1409.252
Mean	541.44	12.78	27.1733						
SD	296.22	9.72	15.65						
CV	0.5471	0.7610	0.5754						
Sum	4873	115	244.56	69705	3186559	2225	153401.98	3921.85	8604.79

We have,

$$r = \frac{n\sum x_1 x_2 - (\sum x_1)(\sum x_2)}{\sqrt{n\sum x_1^2 - (\sum x_1)^2} \sqrt{n\sum x_2^2 - (\sum x_2)^2}}$$

$$= \frac{9 \times 69705 - (4873)(115)}{\sqrt{9 \times 3186559 - (4873)^2} \sqrt{9 \times 2225 - (115)^2}}$$

$$r = 0.5183 \quad r = (0.5183)^2$$

$$r^2 = 0.2686$$

Similarly, we have

$$r = \frac{n\sum x_1 x_3 - (\sum x_1)(\sum x_3)}{\sqrt{n\sum x_1^2 - (\sum x_1)^2} \sqrt{n\sum x_3^2 - (\sum x_3)^2}}$$

$$= \frac{9 \times 153401.98 - (4873)(244.56)}{\sqrt{9 \times 3186559 - (4873)^2} \sqrt{9 \times 8604.79 - (244.56)^2}}$$

$$= 0.7358$$

$$r = r^2 = (0.7358)^2 \quad r^2 = 0.5414$$

Simple Regression Analysis of Everest Bank Ltd.

MPS on DPS

$$x_1 = a + bx_2 \dots\dots\dots(1)$$

$$\sum x_1 = na + b\sum x_2 \dots\dots\dots(2)$$

$$\sum x_1x_2 = a\sum x_2 + b\sum x_2^2 \dots\dots\dots(3)$$

Similarly, we have

Regression equation MPS on DPS

$$4873 = 9a + 244.56 b$$

$$74205 = 244.56a + 3340759$$

by solving these two equations we get the value of a and b

Again, Regression equation MPS on EPS

by putting the value of all variables in regression equation then we get

$$4873 = 9a + 244.56b$$

$$159710.98 = 244.56a + 8604 + 79b$$

by solving these equations we get the value of a and b

$$a = 162.92, b = 13.93$$

$$\therefore \text{MPS} = 162.92 + 13.93 \text{ EPS}$$

Multiple Regression equation MPS on DPS and EPS

By putting the value of the all variables in multiple regression equation

$$4873 = 9a_1 + 115b_1 + 244.56 b_2 \dots\dots\dots(1)$$

$$74205 = 115a_1 + 2225b_1 + 3921.85b_2 \dots\dots\dots(2)$$

$$159710.98 = 244.56a_1 + 3921.85 b_2 + 8604.79b_2 \dots\dots(3)$$

by solving these equations we get the value of a1, b1 and b2

$$a_1 = 109.1740, b_1 = -1.9397, b_2 = 16.82$$

then we get the following multiple regression equation

$$\text{MPS} = 109.1740 - 1.9397 \text{ DPS} + 16.82 \text{ EPS}$$

Annex-II

Correlation coefficient and regression equation of Investment Bank Ltd.

Years	MPS (x ₁)	DPS (x ₂)	EPS (x ₃)	X ₁ x ₂	x ₂ x ₃	x ₁ x ₃	x ₁ ²	x ₂ ²	x ₃ ²
2002/03	719	100	67.59	71900	6759	48597.21	516961	10000	4568.408
2003/04	600	50	69.33	30000	3466.5	41598	360000	2500	4806.649
2004/05	822	30	33.76	24660	1012.8	27750.72	675684	900	1139.738
2005/06	1401	50	53.68	70050	2684	75205.68	1962801	2500	2881.542
2006/07	1150	0	33.18	0	0	38157	1322500	0	1100.912
2007/08	760	30	33.60	22800	1008	25536	577600	900	1128.96
2008/09	795	20	39.56	15900	791.2	31450.2	632025	400	1564.994
2009/10	940	15	51.7	14100	775.5	48598	883600	225	2672.89
2010/11	800	12.50	39.31	10000	491.375	31448	640000	156.25	1545.276
Sum	7987	307.5	421.71	259410	16988.37	6308340.8	7571171	17581.25	21409.37

By putting the value of all variables in the following formula then we get

$$r = \frac{n\sum x_1 x_2 - (\sum x_1)(\sum x_2)}{\sqrt{n\sum x_1^2 - (\sum x_1)^2} \sqrt{n\sum x_2^2 - (\sum x_2)^2}}$$

$$r = \frac{9 \times 259410 - (7987)(307.5)}{\sqrt{9 \times 7571171 - (7987)^2} \sqrt{9 \times 17581.25 - (307.5)^2}}$$

r = -0.2305

∴ r = r² = (-0.2305)² r² = 0.0532

Similarly, correlation coefficient MPS on EPS

r = 9 x 368340

$$= \frac{9 \times 368340.81 - (7987)(421.71)}{\sqrt{9 \times 7571171 - (7987)^2} \sqrt{9 \times 21409.3691 - (421.71)^2}}$$

= - 0.2091

∴ r² = (r)² = (-0.2091)² = 0.0437

Similarly, we have regression equation MPS on DPS

By putting the value of all variables in the simple regression equation then we get

7987=9a +307.5b(1)

259410 = 307.5a + 17581.25b(2)

by solving these two equations we get the value of a and b

a = 952. 5388

b = -1.9052

Then the regression equation is MPS = 952.5388 - 1.9052 DPS

Again, regression equation MPS on EPS

$$7987 = 9a + 421.71b \dots\dots\dots(1)$$

$$368340.81 = 421.71a + 21409.3691b \dots\dots\dots(2)$$

by solving these equations we get a = 1055.14 b = -3.5790

Then the regression equation on MPS on EPS is, MPS = 1055.14 –3.5790 EPS

Similarly, multiple regression equation MPS on DPS and EPS

$$7987=9a1+307.5b1+421.71b2 \dots\dots\dots(1)$$

$$259410 = 307.5a1 + 17581.25b1+16988.375b2 \dots\dots\dots(2)$$

$$368340.81 = 421.71a1+16988.375b1 + 21409.3691b2 \dots\dots\dots(3)$$

By solving these three equations we get a1 = 1000.5019 , b1 = -1.3967,

b2 = -1.3944

By putting the value of these constant we get the required equations

$$MPS = 1000.5019 – 1.3967 DPS – 1.3944 EPS$$

Annex-III

Correlation coefficient and regression analysis of Kathmandu Finance Limited

Years	MPS (x1)	DPS (x2)	EPS (x3)	x ₁ x ₂	x ₂ x ₃	X ₁ X ₃	x ₁ ²	x ₂ ²	x ₃ ²
2002/03	93	9	12.40	837	111.6	1153.2	8649	81	153.76
2003/04	95	12	17.00	1140	204	1615	9025	144	289
2004/05	98	16	21.30	1568	340.8	2087.4	9604	256	453.69
2005/06	295	20	31.25	5900	625	9218.75	87025	400	976.5625
2006/07	321	23	37.55	7383	863.65	12053.55	103041	529	1410.003
2007/08	305	12	37.05	3660	444.6	11300.25	93025	144	1372.703
2008/09	235	50	33.85	11750	1692.5	7954.75	55225	2500	1145.823
2009/10	205	0	2.77	0	0	567.85	42025	0	7.6729
2010/11	138	10	17.97	1380	179.7	2479.86	19044	100	322.9209
Sum	1785	152	211.14	33618	4461.85	48430.61	426663	4154	5827.18

By putting the value of all variables in the following formula then we get

$$r = \frac{n\sum x_1 x_2 - (\sum x_1)(\sum x_2)}{\sqrt{n\sum x_1^2 - (\sum x_1)^2} \sqrt{n\sum x_2^2 - (\sum x_2)^2}}$$

$$r = \frac{9 \times 33618 - (1785)(152)}{\sqrt{9 \times 426663 - (1785)^2} \sqrt{9 \times 4154 - (152)^2}}$$

$$r = 0.3233$$

$$\therefore r^2 = (r)^2 = (0.3233)^2 \quad r^2 = 0.1045$$

Similarly, correlation coefficient MPS on EPS

$$= \frac{9 \times 48430.61 - (1785)(211.14)}{\sqrt{9 \times 426663 - (1785)^2} \sqrt{9 \times 5827.1829 - (411.14)^2}}$$

$$= 0.8227$$

$$\therefore r^2 = (r)^2 = (0.8227)^2 = 0.6768$$

Similarly, we have regression equation MPS on DPS

By putting the value of all variables in the simple regression equation then we get

$$1785 = 9a + 152b \dots\dots\dots(1)$$

$$33618 = 152a + 4154b \dots\dots\dots(2)$$

by solving these two equations we get the value of a and b

$$a = 235.278$$

$$b = -2.1875$$

Then the regression equation is $MPS = 235.278 - 2.1875 DPS$

Again, regression equation MPS on EPS

$$1785 = 9a + 211.14b \dots\dots\dots(1)$$

$$48430.61 = 211.14a + 5827.1829b \dots\dots\dots(2)$$

by solving these equations we get $a = 22.365$ $b = 7.5008$

Then required equation is $MPS = 22.365 + 7.5008 EPS$

Similarly, multiple regression equation MPS on DPS and EPS

$$1785 = 9a_1 + 152b_1 + 211.14b_2 \dots\dots\dots(1)$$

$$33618 = 152a_1 + 4154b_1 + 4461.85b_2 \dots\dots\dots(2)$$

$$48430.61 = 211.14a_1 + 4461.85b_1 + 5827.18b_2 \dots\dots\dots(3)$$

By solving these three equations we get $a_1 = -12.4009$, $b_1 = -4.8614$,

$$b_2 = 12.4851$$

By putting the value of these constant we get the required equations

$$MPS = -12.4009 - 4.8614 DPS + 12.4851 EPS$$

Annex-IV

Correlation and regression of NIDC Capital Market

Years	MPS (x ₁)	DPS (x ₂)	EPS (x ₃)	x ₁ x ₂	x ₂ x ₃	x ₁ x ₃	x ₁ ²	x ₂ ²	x ₃ ²
2002/03	70	0	2.40	0	0	168	4900	0	5.76
2003/04	82	0	14.55	0	0	1193.1	6724	0	211.7025
2004/05	100	15	29.30	1500	439.5	2930	10000	225	858.49
2005/06	415	15	20.95	6225	314.25	8694.25	172225	225	438.9025
2006/07	600	15	25.95	9000	389.25	15570	360000	225	673.4025
2007/08	175	0	2.52	0	0	441	30625	0	6.3504
2008/09	125	0	(9.93)	0	0	-1241.25	15625	0	98.6049
2009/10	107	0	35.07	0	0	3752.49	11449	0	1229.905
2010/11	145	0	14.02	0	0	2032.9	21025	0	196.5604
Sum	1819	45	134.83	16725	33540.49	1143	632573	675	3719.678

By putting the value of all variables in the following formula then we get

$$r = \frac{n\sum x_1 x_2 - (\sum x_1)(\sum x_2)}{\sqrt{n\sum x_1^2 - (\sum x_1)^2} \sqrt{n\sum x_2^2 - (\sum x_2)^2}}$$

$$r = \frac{9 \times 16725 - (1819)(45)}{\sqrt{9 \times 632573 - (1819)^2} \sqrt{9 \times 675 - (45)^2}}$$

r = 0.6988

∴ r² = (r)² = (0.6988)² r² = 0.4883

Similarly, correlation coefficient MPS on EPS

$$= \frac{9 \times 33540.49 - (1819)(134.83)}{\sqrt{9 \times 632573 - (1819)^2} \sqrt{9 \times 3719.3781 - (134.83)^2}}$$

= 0.2964

∴ r² = (r)² = (0.2964)² = 0.878

Similarly, we have regression equation MPS on DPS

By putting the value of all variables in the simple regression equation then we get

1819 = 9a + 45b(1)

16725 = 45a + 675b(2)

by solving these two equations we get the value of a and b

a = 117.31

b = 16.96

Then the regression equation is $MPS = 117.31 + 16.96 \text{ DPS}$

Again, regression equation MPS on EPS

$$1819 = 9a + 134.83b \dots\dots\dots(1)$$

$$33540.49 = 134.83a + 37196781b \dots\dots\dots(2)$$

by solving these equations we get $a = 146.675$ $b = 3.7004$

Then required equation is $MPS = 146.675 + 3.7004 \text{ EPS}$

Similarly, multiple regression equation MPS on DPS and EPS

$$1819 = 9a_1 + 45b_1 + 134.83b_2 \dots\dots\dots(1)$$

$$16725 = 45a_1 + 675b_1 + 1143b_2 \dots\dots\dots(2)$$

$$33540.49 = 134.83a_1 + 1143b_1 + 3719.67b_2 \dots\dots\dots(3)$$

By solving these three equations we get $a_1 = 130.72$, $b_1 = 18.38$,

$$b_2 = -1.3702$$

By putting the value of these constant we get the required equations

$$MPS = 130.72 + 18.38 \text{ DPS} - 1.3702 \text{ EPS}$$

Annex-V: Beta Coefficient of Sample Companies

Calculation of Market Risk and Return on the basis on NEPSE Index

Years	NEPSE Index (NI)	Rm $= \frac{N_{i+1} - N_i}{NI}$	(Rm - \bar{R}_m)	(Rm - \bar{R}_m) ²
2002/03	176.31	-0.0501	-0.7105	0.5048
2003/04	163.35	-0.0735	-0.7339	0.5386
2004/05	216.92	0.3279	-0.3325	0.1106
2005/06	360.7	0.6628	0.0024	0.000006
2006/07	348.43	-0.034	-0.6944	0.4822
2007/08	227.54	-0.347	-0.10074	1.0149
2008/09	204.86	-0.0997	-0.7601	0.5778
2009/10	222.04	0.0839	-0.5765	0.3324
2010/11	286.67	0.2911	-0.3693	0.1364
Total		0.6604		3.6977

$$\text{Market return } (\bar{R}_m) = \frac{\sum R_m}{n} = \frac{0.6604}{10} = 0.06604$$

$$\text{Market Risk } (\sigma_m) = \sqrt{\frac{(R_m - \bar{R}_m)^2}{n-1}} = \frac{\sqrt{3.6977}}{10-1}$$

$$\therefore \sigma_m = 0.6410$$

Market Variance (σ_m^2) = $(\sigma_m)^2$ 0.1409

$$\text{Coefficient of market variation (cv)} = \frac{\sigma_m}{\bar{R}_m} = \frac{0.64109}{0.06604}$$

\therefore CV = 6.2219

Annex VI: Everest Bank Ltd (Using MPS on DPS)

Years	MPS	DPS	Rm	Rj = $\frac{DPS}{P_0}$	(Rj - \bar{R}_j)	(Rm - \bar{R}_m)	(Rj - j) × (Rm - \bar{R}_m)
2002/03	127	0	-0.0501	-	-	-	-
2003/04	184	0	-0.0735	0.4488	0.0569	-0.1469	-0.0084
2004/05	407	15	0.3279	1.2935	0.9016	0.2545	0.2295
2005/06	980	20	0.6228	1.457	1.0651	0.5494	0.5852
2006/07	750	0	-0.0340	-0.2347	-0.6266	-0.1074	0.0673
2007/08	430	20	-0.347	-0.4	0.0081	-0.4204	-0.0034
2008/09	445	20	-0.0997	0.0814	-0.3105	-0.1731	0.0537
2009/10	680	20	0.0839	0.573	0.1811	0.0105	0.0019
2010/11	870	20	0.2911	0.3088	-0.0831	0.2177	-0.01809
Total	4873	115	0.6604	3.5278			0.9561

We have

$$\bar{R}_m = 0.0734, \sigma_m = 0.6410, \sigma_m^2 = 0.4109$$

$$\bar{R}_j = 0.3919$$

$$\text{Cov}(R_j, R_m) = \frac{(R_j - \bar{R}_j)(R_m - \bar{R}_m)}{n-1} = \frac{0.9561}{9-1} = 0.1195$$

$$\text{Beta Coefficient } (\beta) = \frac{\text{Cov}(R_j, R_m)}{\sigma_m^2} = \frac{0.1195}{0.4109} = 0.30$$

Annex VII: Everest Bank Ltd. (Using MPS on EPS)

Years	MPS	EPS	Rm	Rj= $\frac{E+PS}{P_0}$	(Rj- \bar{R}_j)	(Rm- \bar{R}_m)	(Rj- \bar{R}_j)x (Rm- \bar{R}_m)
2002/03	127	-9.21	-0.0501				
2003/04	184	20.86	-0.0735	0.6131	-0.1469	0.1781	-0.262
2004/05	407	21.03	0.3279	1.3263	0.2545	0.8913	0.2268
2005/06	980	34.39	0.6228	1.4924	0.5494	1.0574	0.5809
2006/07	750	31.56	0.034	-0.2025	-0.1074	-0.6375	0.0685
2007/08	430	32.31	0.3470	-0.3836	-0.4204	-0.8186	0.3441
2008/09	445	29.9	0.0997	0.1044	-0.1731	-0.3306	0.0572
2009/10	680	45.58	0.0839	0.6305	0.0105	0.1955	0.021
2010/11	870	37.54	0.2911	0.3346	0.2177	0.1004	-0.0219
Total	4873		0.6604	3.9152			1.2839

$$\bar{R}_j = 0.4350, \bar{R}_m = 0.0734, \sigma_m = 0.6410, \sigma^2_m = 0.4109$$

$$\text{Cov}(R_j, R_m) = \frac{\sum(R_j - \bar{R}_j)(R_m - \bar{R}_m)}{n - 1}$$

$$= \frac{1.2852}{8} = 0.1428$$

$$\text{Beta coefficient } (\beta) = \frac{\text{Cov}(R_j, R_m)}{\sigma^2_m} = \frac{0.1428}{0.4109} = 0.35$$

Annex-VIII

Nepal Investment Bank (using MPS and DPS)

Years	MPS	EPS	Rm	Rj= $\frac{(P_1 - P_0) + D_1}{P_0}$	(Rj- \bar{R}_j)	(Rm- \bar{R}_m)	(Rj- \bar{R}_j)x (Rm- \bar{R}_m)
2002/03	719	100	-0.0501	-	-	-	-
2003/04	600	50	-0.0735	-0.0959	-0.1469	0.0142	-0.0021
2004/05	822	30	0.3279	0.42	0.2545	0.3383	0.081
2005/06	1401	50	0.6228	0.7652	0.5494	0.6835	0.3755
2006/07	1150	0	0.0340	-0.1792	-0.1074	-0.2609	0.028
2007/08	760	30	0.347	0.313	-0.4204	-0.3947	0.1659
2008/09	795	20	0.0997	0.0724	-0.1731	-0.0093	0.002
2009/10	940	15	0.0839	0.2013	0.0105	0.1196	0.0013
2010/11	800	12.5	0.2911	-0.1356	0.2177	-0.2173	-0.0473
Total			0.6604	0.7352			0.6194

$$\bar{R}_j = 0.0817, \bar{R}_m = 0.0734, \sigma_m = 0.6410, \sigma^2_m = 0.4109$$

$$\text{Cov}(R_j, R_m) = \frac{\sum(R_j - \bar{R}_j)(R_m - \bar{R}_m)}{n - 1}$$

$$= \frac{0.6194}{9 - 1} = 0.0774$$

$$\text{Beta coefficient } (\beta) = \frac{\text{Cov}(R_j, R_m)}{\sigma^2_m} = \frac{0.0774}{0.4109} = 0.19$$

Annex-IX

Nepal Investment Bank (using MPS and EPS)

Years	MPS	EPS	Rm	Rj= $\frac{(P_1 - P_0) + E_1}{P_0}$	(Rj- \bar{R}_j)	(Rm- \bar{R}_m)	(Rj- \bar{R}_j)x (Rm- \bar{R}_m)
2002/03	719	67.59	-0.0501	-	-	-	-
2003/04	600	69.33	-0.0735	-0.0691	-0.169	-0.1469	0.0248
2004/05	822	33.76	0.3279	0.4263	0.3264	0.2545	0.0831
2005/06	1401	53.68	0.6228	0.7697	0.6698	0.5494	0.368
2006/07	1150	33.18	0.0340	-0.155	-0.2554	-0.1074	0.0274
2007/08	760	33.60	0.347	-0.3099	-0.498	-0.4204	0.2094
2008/09	795	39.56	0.0997	0.0981	-0.0018	-0.1731	0.0003
2009/10	940	51.70	0.0839	0.2474	0.1475	0.0105	0.0015
2010/11	800	39.31	0.2911	0.1071	-0.207	0.2177	0.0451
Total			0.6604	0.8999			0.7719

$$\bar{R}_j = 0.0999, \bar{R}_m = 0.0734, \sigma_m = 0.6410, \sigma^2_m = 0.4109$$

$$\text{Cov}(R_j, R_m) = \frac{\sum(R_j - \bar{R}_j)(R_m - \bar{R}_m)}{n - 1}$$

$$= \frac{0.7719}{9 - 1} = 0.0965$$

$$\text{Beta coefficient } (\beta) = \frac{\text{Cov}(R_j, R_m)}{\sigma^2_m} = \frac{0.0965}{0.4109} = 0.2348$$

Annex-X

Kathmandu Finance Limited (using MPS and DPS)

Years	MPS	DPS	Rm	$R_j = \frac{(P_1 - P_0) + EI}{P_0}$	$(R_j - \bar{R}_j)$	$(R_m - \bar{R}_m)$	$(R_j - \bar{R}_j) \times (R_m - \bar{R}_m)$
2002/03	719	9	-0.0501	-	-	-	-
2003/04	600	12	-0.0735	0.1505	-0.0992	-0.1469	0.0146
2004/05	822	16	0.3279	0.2	-0.0497	0.2545	-0.0126
2005/06	1401	20	0.6228	2.2143	1.9646	0.5494	1.0794
2006/07	1150	23	0.0340	0.1661	-0.0836	-0.1074	-0.009
2007/08	760	12	0.347	-0.0125	-0.2622	-0.4204	-0.1102
2008/09	795	50	0.0997	-0.0656	-0.3153	-0.1731	-0.0546
2009/10	940	0	0.0839	-0.1277	-0.3774	0.0105	-0.004
2010/11	800	10	0.2911	-0.278	-0.5277	0.2177	-0.1149
Total			0.6604	2.2471			0.8197

$$\bar{R}_j = 0.2497, \bar{R}_m = 0.0734, \sigma_m = 0.6410, \sigma^2_m = 0.4109$$

$$\text{Cov}(R_j, R_m) = \frac{\sum (R_j - \bar{R}_j)(R_m - \bar{R}_m)}{n - 1}$$

$$= \frac{0.8197}{9 - 1} = 0.1025$$

$$\text{Beta coefficient } (\beta) = \frac{\text{Cov}(R_j, R_m)}{\sigma^2_m} = \frac{0.1025}{0.4109} = 0.25$$

Annex-XI

Kathmandu Finance Limited (using MPS and EPS)

Years	MPS	DPS	Rm	$R_j = \frac{(P_1 - P_0) + EI}{P_0}$	$(R_m - \bar{R}_j)$	$(R_j - \bar{R}_m)$	$(R_j - \bar{R}_m) \times (R_m - \bar{R}_m)$
2002/03	93	12.40	-0.0501	-	-	-	-
2003/04	95	17.00	-0.0735	0.2043	-0.0842	-0.1469	0.0124
2004/05	98	21.30	0.3279	0.2558	-0.327	0.2545	-0.008
2005/06	395	31.25	0.6228	2.3291	2.0406	0.5494	101211
2006/07	321	37.55	0.0340	0.2154	0.07731	0.1074	-0.00779
2007/08	305	37.05	0.3470	0.0656	-0.2229	0.4204	-0.0937
2008/09	235	33.85	0.0997	-0.1185	-0.407	0.1731	0.701
2009/10	205	2.77	0.0839	-0.1159	-0.4044	0.0105	-0.0042
2010/11	138	17.97	0.2911	-0.2392	-0.5277	0.2177	-0.1147
Total			0.6604	2.5966			0.8703

$$\bar{R}_m = 0.0734, \bar{R}_j = 0.2885, \sigma_m = 0.6410, \sigma^2_m = 0.4109$$

$$\text{Cov}(R_j, R_m) = \frac{\sum (R_j - \bar{R}_j)(R_m - \bar{R}_m)}{n - 1}$$

$$= \frac{0.8703}{9 - 1} = 0.1088$$

$$\text{Beta coefficient } (\beta) = \frac{\text{Cov}(R_j, R_m)}{\sigma^2_m} = \frac{0.1088}{0.4109} = 0.2648$$

Annex-XII

NIDC Capital Market Ltd. (using MPS and DPS)

Years	MPS	DPS	Rm	$R_j = \frac{(P_1 - P_0) + D_1}{P_0}$	$(R_j - \bar{R}_j)$	$(R_m - \bar{R}_m)$	$(R_j - \bar{R}_j) \times (R_m - \bar{R}_m)$
2002/03	70	0	-0.0501	-	-	-	-
2003/04	82	0	-0.0735	0.1714	-0.01469	-0.1469	0.0331
2004/05	100	15	0.3279	0.4024	0.2545	0.2545	0.001
2005/06	415	15	0.6228	3.3	0.5494	0.5494	1.5977
2006/07	600	0	0.0340	0.4819	0.1074	0.1074	0.009
2007/08	175	0	0.3470	-0.7083	0.4204	0.4204	-0.4646
2008/09	125	0	0.0997	-0.2857	0.1731	0.1731	-0.1182
2009/10	107	0	0.0839	-0.1440	0.0105	0.0105	-0.0057
2010/11	145	0	0.2911	0.3551	0.2177	0.2177	-0.0091
Total			0.6604	3.5728			1.0927

$$m = 0.0734, j = 0.3969, \sigma_m = 0.6410, \sigma^2_m = 0.4109$$

$$\text{Cov}(R_j, R_m) = \frac{\sum (R_j - \bar{R}_j)(R_m - \bar{R}_m)}{n - 1}$$

$$= \frac{1.0927}{9 - 1} = 0.1366$$

$$\text{Beta coefficient } (\beta) = \frac{\text{Cov}(R_j, R_m)}{\sigma^2_m} = \frac{0.1366}{0.4109} = 0.3324.$$

Annex-XIII

NIDC Capital Market Ltd. (using MPS and EPS)

Years	MPS	DPS	Rm	$R_j = \frac{(A - P\phi + D)}{P_0}$	$(R_j - \bar{R}_j)$	$(R_m - \bar{R}_m)$	$(R_j - \bar{R}_j) \times (R_m - \bar{R}_m)$
2002/03	70	2.40	-0.0501	-	-	-	-
2003/04	82	14.55	-0.0735	0.3793	-0.1469	-0.1469	-0.1661
2004/05	100	29.30	0.3279	0.5768	0.2545	0.2545	0.0224
2005/06	415	20.95	0.6228	3.3595	0.5494	0.5494	1.5771
2006/07	600	25.95	0.0340	0.5083	0.1074	0.1074	0.0021
2007/08	175	2.52	0.3470	-0.7041	0.4204	0.4204	-0.5015
2008/09	125	-9.93	0.0997	-0.3425	0.1731	0.1731	-0.1439
2009/10	107	35.07	0.0839	0.1366	0.0105	0.0105	-0.0037
2010/11	145	14.02	0.2911	0.4862	0.2177	0.2177	0.0006
Total			0.6604	4.4001			1.0284

$$\bar{R}_m = 0.0734, \bar{R}_j = 0.4889, \sigma_m = 0.6410, \sigma^2_m = 0.4109$$

$$\text{Cov}(R_j, R_m) = \frac{\sum (R_j - \bar{R}_j)(R_m - \bar{R}_m)}{n - 1}$$

$$= \frac{1.0284}{9 - 1} = 0.12886$$

$$\text{Beta coefficient } (\beta) = \frac{\text{Cov}(R_j, R_m)}{\sigma^2_m} = \frac{0.1286}{0.4109} = 0.3128.$$

ANNEX-XIV

Questionnaires

Please place () mark on the correct box and express your ideas and views where necessary.

1. Is there higher the EPS higher the share price?
 - a. Yes
 - b. No
 - c. Don't know about it
2. Higher the cash dividend higher will be the share price. Are you agree?
 - a. Yes
 - b. No
 - c. Don't know
3. Is there positive relationship between growth rate and share price ?
 - a. Yes
 - b. No.
 - c Don't know
4. Is there positive relationship between interest rate and share price?
 - a. Yes
 - b. No.
 - c Don't know
5. Do you agree that strikes, political instability of government reduce the share price?
 - a. Yes,
 - b. No
 - c. Don't know
6. Does lower tax rate reduce the share price ?
 - a. Yes it reduces
 - b. No, it does not reduce
 - c. Don't affect
 - d. Don't Know

7. Better the national economy there will be better the share price? Do you agree in this statement?

- a. Yes, strongly agree
- b. No, strongly disagree
- c. Don't know

8. Is share price affected by demand and supply?

- a. Yes
- b. No
- c. Don't know

9. Is the present regulatory system of capital market appropriate and effective ?

- a. Yes it is effective
- b. No, it is not effective
- c. Don't know

10. Does an open out cry trading system discourage the stock brokers in capital market ?

- a. Yes, does it discourage
- b. No, doesn't discourage
- c. Not know

11. Is there share price affected by communication and information technology?

- a. Yes, it is affected
- b. No, it is not affected
- c. Not known about it

12. Is there transparency in the performances of the listed companies ?

- a. yes is it
- b. No, isn't it
- c. Don't know