

**STOCK PRICE BEHAVIOUR IN NEPALESE  
CAPITAL MARKET**

**(A Study of Selected Nepalese Listed Companies)**

*A Thesis Submitted to*  
**Office of the Dean  
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**In the Partial Fulfillment of the Requirement for the Degree of  
Master in Business Studies (MBS)**

*Submitted By*

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**2010**

## **RECOMMENDATION**

This is to certify that the thesis

Submitted by

**Ravi Acharya**

**Entitled**

**STOCK PRICE BEHAVIOUR IN NEPALESE CAPITAL MARKET**

**(A study of selected Nepalese Listed Companies)**

Has been prepared by this department in the prescribed format of the Faculty of Management. This thesis is forward for examination.

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### **STOCK PRICE BEHAVIOUR IN NEPALESE CAPITAL MARKET**

(A study of selected Nepalese Listed Companies)

And found the thesis to be the original work of the student written according to the prescribed format. We recommend the thesis to be accepted as partial fulfilment for

Master's Degree in Business Studies (M.B.S.)

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## DECLARATION

I hereby declare that the work reported in this thesis entitled **Stock Price behaviour in Nepalese Capital Market** (A study of selected Nepalese Listed Companies) Submitted to the Central Department of Management, Tribhuvan university, is my original work. It is done in the form of partial fulfillment of the requirements for the Master of Business Studies (MBS) under the supervision and guidance of respected Lecture Achyut Gyawali

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## ACRONYMS

AGM	Annual General Meeting
AM	Arithmetic Mean
BVPS	Book Value Per Share
CAPM	Capital Assets Pricing Model
COV	Covariance
CV	Co-efficient of Variation
DPS	Dividend Per Share
EPS	Earning Per Share
FY	Fiscal Year
Lec.	Lecture
MPS	Market Per Share
MVPS	Market Value Per Share
NEPSE	Nepal Stock Exchange
NIDC	Nepal Industrial Development Corporation
OTC	Over the Counter
r	Correlation Co-efficient
Rs	Rupees
S.D.	Standard Deviation
SEBO/N	Stock Exchange Board of Nepal
SEC	Stock Exchange Centre
T.U.	Tribhuvan University

# CHAPTER I

## INTRODUCTION

### 1.1 Background

The development of an economic of any country requires the productivity activity, which is turn, is the result of investment venture in productive enterprises which needs huge amount of fund and environment to establish these enterprises. The existing enterprises and companies need the both short-term and long-term capital investment for their existence, smooth growth, operation and development within the economy to be the productive enterprises. Therefore, the required short-term and long-term capital for the productive enterprises can be procured mainly from security markets and security markets are mechanisms created to facilitate the exchange of financial assets. Therefore, the market exists in order to bring together the buyers and sellers of securities. There are two types of securities market. Firstly, securities markets are primary market and secondary market on the basis of securities-traded and secondly, money and capital market on the basis of life-span of securities. Both capital and money markets are financial market. So, financial market is a mechanism by which saving in our sector of the national economy invests to another sector of the economy where there is lack of capital for investing. Therefore, for effectively mobilization of financial resources, financial market plays an intermediately role to bridge funds from surplus units to deficit units. Securities market implies that the mobilization of the funds through issuance of the securities by corporate sector and government.

Capital market investment plays major role in the development of the country. In the past, investment was not in a disciplined sector. With the development of the modern financial equipment advancement and human activities developed investment sector in a disciplined manner. Many corporate bodies are raising their capital by issuing different and convertibles features. The corporate capital initially issued by the help of underwriting. The underwriters are the prime facilitator for the process of investment.

“The stock market is the place where shares of listed companies are traded or transfer from o-e hand to another at a fair price through the organized brokerage system. Principally stock market refers to the secondary markets for securities whereas,

primary markets refers to the market for the new issues. In secondary market, to make transactions the brokers perform primary role. In exchange they receive commission. Therefore, they are the backbone of the stock market growth and its smooth functioning. The major functions of the stock market is to provide ready and continuous market for purchase and sale of securities at competitive price, thereby, imparting future market abilities and liquidity to them. Thus it is the medium through which scattered saving and scare resources are transferred into productive areas that ultimately helped to economic development and industrialization of the nation.”(Aryal, 1995:2)

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: 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 favour 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.

A stock exchange is a place to regulate and perform the activities of stock (equity) market. It is considered as a “barometer” of the economy, because of its immediate and visible reaction on the news and transactions of economic importance. Capital market and monetary policy are closely interrelated as they are determined jointly by the supply of money, interest rates and liquidity position. One cannot ignore the monetary side effects in survey of capital market behavior and forecasting. The linkage between the macroeconomic targets and financial and material growth in the different sectors of stock exchange is indispensable for a balanced economic growth.

In Nepal the listing of shares in stock exchange center (SEC) and their trading in the stock market is the recent phenomenon. The Nepalese stock market is characterized by a low trading volume, absence of professional brokers, early stage of growth, limited movement of share prices, and limited information available to investors.[Pradhan 1993]

## **1.2 Focus of the Study**

In Nepalese stock or security markets the market price of share moves upwards and downwards daily. 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 signalling 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.

Security prices play vital role in channelling the flow of capital into various industries. The behavior of price of securities has been a controversial subject matter among the academics of financial and economic circles. To some extent, in fairly competitive and well advanced economy, the prices of securities in very satisfactory in capital market. the market prices of the securities are competitive and determined by market forces. There ought not to be any different between present value and market value of shares. In other words, securities prices are set by the demand and

supply of securities. Market makers try to quote an equilibrium prices that equates the supply with the demand.

Investors invests their money with the hope of getting good return in their investable fund but due to many reasons they lose their hard earning. While investment made without analyzing the stock. Many times investors blindly invest their funds by just reading the prospectus availed by the issuing companies and many times they purchase share any analysis. So the study is focused to stock to stock prices behavior of financial companies trading at NEPSE.

This study is mainly focused to know the effect of prices trend, volume of stock traded, market behavior and impact of signaling factors on NEPSE index.

### **1.3 Statement of the Problem**

Today stock market has become global phenomenon however; the stock market in Nepal is still in infancy stage. The history and securities market began with the flotation of shares by Biratnagar jute mills ltd and Nepal bank ltd.

Stock market behavior is the backbone of investment sector of the country. So by promoting the stock market in sizeable economic sector gives raise the economic developments by mobilizing swing into productive sector by making suitable investment for investment environment different element like price trend, NEPSE index, volume of stock traded, rate of listing and signaling factor should be analyzed.

Usually the price of common stock in primary market is par value but in secondary market may be any price. The long securities processing cycle has restricted to the development of securities market. The investors have to wait for long time for the securities in hand. The long time has restricted them to take many opportunities. Low prices and low trading volume of companies have directly related to market value of firm. Due to lack of sound dividend policy, most of the companies have not been able to maximizing the value of a firm in secondary market. Lack of sufficient information dissemination to investor and lack of transparency has another problem that exists in Nepalese stock market. It mainly affects position of the company market information system and corporate governance of the company.

Talking about the capital market in Nepal there is no way to justify that it is perfect. Being an imperfect market the floor price of the listed company's shares cannot represent their true value. The options remained are undervalued or overvalued stocks. There might exit situations where stocks are too overvalued or undervalued.

There are various visible problems in the capital market. It is not possible to address all the problems. Considering this and the focus of the study in mind, this study has attempted to seek the answers of the following issue.

- a. What is the impact of price trend?
- b. What is the impact of volume of stock traded?
- c. What is the behavior of NEPSE index?
- d. What is the share price behavior of listed companies?

These are the burning issue regarding stock price determination of secondary market in Nepal.

#### **1.4 Objectives of the Study**

The main objective of the study is to find out and analyze the stock price behaviour of listed companies in NEPSE. The other objectives of the study are as follows.

- a. To study and analyze stock price trend and volume of stock traded on the secondary market.
- b. To find out the relationship of BVPS and MVPS of listed companies.
- c. To examine the share price behavior of the listed companies
- d. To present some recommendation basis of the findings of the study

#### **1.5 Limitation of the Study**

This study has limited scope, as only some samples of the listed companies has been taken for study. Similarly the study areas are also mainly focused on determining factors of share price behavior in Nepalese capital market. Thus the study areas is 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. For the evaluation of qualitative factors, individual investors, stockbrokers and listed companies are selected.

## **1.5 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.

**Chapter I:** 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.

**Chapter II:** This second 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.

**Chapter III:** This chapter is the most important part of the study. It 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.

**Chapter IV:** Fourth chapter is devoted to the data presentation, analysis interpretation and scoring the empirical finding out of the study. This chapter attempts to analyze and evaluate data with the help of analytical tools and interprets the results obtained and this chapter is the main body of the text hence assumes higher places significance.

**Chapter V:** Fifth chapter of the study, which provides summary and conclusion, suggestions and recommendations. Besides these bibliography and appendices are also presented at the end of thesis work.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

Review of literature 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 studying the "Stock Price behavior in Nepalese Capital Market (A Study of selected Nepalese Listed Companies) " various available books in investment analysis and management, capital structure management and other financial sectors has given idea about the study. Here are the different categories of review of literature:

#### **2.1 Conceptual Framework**

##### **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 way 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: 85)

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: 501).

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 regard 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: 501).

### **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: 501).
- 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: 506).

- 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: P. 30). 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 lend 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: P. 30). 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" (Gitman, 1988:P.31) Therefore a money market brings together the supplier and demeaned 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 secures 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, and 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: 16). These securities market can also be classified into two parts.
- i) **Primary market:** The new secures 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 order 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.

- ii) **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." (Frightman, Louis, Ggapenski and Ehrhardt, 199: 327)

## **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 in the stock exchange are traded in 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 listings of securities are 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 securities 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 buyer price. (Bhattarai, 2005: 24).

**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 symbolic 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 institutions. 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 instruments for trading and investment in the secondary market. Therefore, stocks prices in turns 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 in the following paragraphs.

#### **Earning Per Share (EPS)**

Accounting earnings that represent the different 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: 622).

#### **Retained Earnings**

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

#### **Dividend Per Share (DPS)**

The percentage of earning 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: 305)

Krishhman opines that of two stocks with identical earnings record and prospect, but the and 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: 681).

Nothing is more important than dividends to stockholders. They buy shares of firm with the hope of sharing profits earned by firms. The sold motive of stockholder is to receive return on their investment; nothing pleases them more than knowing the firm's earning and more profits mean more dividends coming in. (Pradhan, 1996: 375-376).

### **Market price per share (MPS)**

The market price of any asset, indeed, depends on the future earning power of the asset r the value of an asset depends on the future cash flows that the asset in expected to generate. (Pahariu, 1996: 20)

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 brokersage 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: 681).

The price of firm's stock reflects expectation about its future earnings and dividends (Western and Copeland, 1992: 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, 299).

### **2.1.5 Stock Exchange**

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

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

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

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

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

### **Main function of stock exchange: price discovery**

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

Price discovery is the process of arriving at fair prices for securities. Fair price indicates the compromise between fair offer price (highest price any well informed buyer is willing to pay). Different markets do this in different way and different ways of organizing a market affect how closely the market approaches the ideal of fair prices. However, a very important fact that should not be forgotten is the concept of ideal market or market efficiency, which also the necessary pre-condition for approaching to the fair price. In an ideal market value of securities equal its price of securities and prices reflects all available information about the market.

In the securities market there is a great importance of demand and supply for price fixation. The price of a given stock is determined exclusively by the interacting forces of supply and demand converging on such stock at a given time, that the price and volumes of its past transactions are meaningful indications of the probable relationship of the future and demand pressure it is likely to encounter in the market and that such relationship is the most important element in determining the probable direction the price movements (Ackerman, 1980:85)

The stock exchange produces, through its continuous process of evaluation, prices of securities, as close as possible to investment value based on present and future income yielding prospects of various enterprises, capitalized at 'national rate of interest' the

rate which will prevail if and when all the liquid saving are employed into productive purchases.(Gupta, 1982:148)

### **2.1.6 Price Determination**

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

Dividend is the most important factors on the determination of stock price. Dividends are strongly influenced by the earnings power of the firm. There is a very close correlation between corporate earning & dividends. Earning power, in turn, is strongly influenced by interest rates. In this way, the most fundamental factor in stock price fluctuation lies in changes in corporate earnings, which together with interest rates and business cycle trends, contribute to making up the economic factors influencing stock price.

The next influencing factors are non- economic factors, including changes in political conditions, such as administrative changes, change in the weather and other natural conditions, and changes in cultural conditions, such as technological advance and the like. Similarly the other influencing factors are market factors, or internal factors of the market, considering of the tone of the market and supply- demand relations, may be cited as the third category, that influences the stock prices. Besides these factors the stock prices are influenced by the corporate performance of the company, company's policy regarding the capitalization of earnings as well as government rules & signaling effect of the market.

### **2.1.7 Theory of Price Behavior**

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

- ) Inefficient market theory.
- ) Efficient market theory.

### **Inefficient market theory**

Conventional approach has considered that market is inefficient, which includes technical analysis theory.” prior to the development of the efficient market theory, investors were generally divided into two groups, fundamentals and technicians.”(Reilly,1986: 347)the two groups are analyzed as follows:

### **Technical analysis**

Technical analysis is based on the widely accepted premise that security prices are determined by the supply of and demand for securities. The tools of technical analysis are therefore designed to measure supply and demand. typically, technical analysts record historical financial data on charts, study these charts in an effort to find meaningful patterns to predict future prices. Some charting techniques are used to predict the movements of a signal security: some are used to predict the movements of a market index: and some are used to predict both the action of individual securities and the market action. The basic assumptions underlying technical analysis are listed below:

- ) Market value is determined solely by the interaction of supply and demand.
- ) Supply and demand is governed by numerous factors, both rational and irrational.
- ) Aside from the effects of minor fluctuations in the market, stock prices tend to move in trends that persist for appreciable lengths of time.
- ) Changes in trends are caused by 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 action.
- ) Some chart patterns tend to recur, and these recurring patterns can be used to forecast price movements.

Technical theory involves study of the past volume and price data of the securities to predict future price fluctuations. Technical analysis theory of share price behavior is based on past market information. On the assumption that history tends to repeat itself, it is believed that knowledge of past patterns of share prices will help to predict

future prices under similar circumstances. It involves the study of past market behavior with reference to various financial and economic variables are to forecast the future. The changes occur in financial and economic variables are to be adjusted in the light of the present situation. Technical analysts or chartist, as they are commonly called, believe that they can discern patterns in price or volume movements, and that by observing and studying the past behavior patterns of given stocks, they can use this accumulated historical information to predict the future price movements in the security. Technical analysis comprises many different subjective approaches, but all have one thing in common that is, belief that these past movements are very useful in predicting future movements. Technical analyst believes. In the theory behind chart formations and patterns. They read charts much like ancient astrologers read the stars, looking for "head and shoulders" formations. These, they believe, reflect the patterns of buying and selling, accumulation and distribution, or market psychology. Stock prices always move in trends because of an imbalance between supply and demand. When the supply of a stock is greater than the demand, the trend will be down as there are more sellers than buyers: when demand exceeds supply, the trend will be up as buyers "bid up" the price: and if the forces of supply and demand are nearly equal, the market will move sideways in what is called a "trading range" eventually, new information will enter the market and the market will begin to trend again either up or down, depending on whether the new information is taken as positive or negative. Trend which are very brief are called minor trends: those lasting a few weeks are known as intermediate trends: and trends lasting for a period of months are major trends. By analyzing trend lines we can determine what trend is in force. It helps us to act safe in market both in bullish and bearish market.

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

### **Dow Theory**

The Dow theory is one of the oldest and most famous technical tools and was originated by Charles Dow, who founded the Dow-Jones company and was the editor of the Wall Street Journal around 1900. The Dow theory is used to predict reversal and

trends in the market as a whole or for individual securities. According to Charles Dow, the market is always considered as having three movements, all going at the same time. The first is the narrow movement from day to day. The second is the short-swing, running from two weeks to a month or more: the third is the main movement covering at least four years in duration.

1. **Primary trends:** they are commonly called bear or bull markets. Delineating primary trends is the primary goal of the Dow theorists.
2. **Secondary movements:** secondary movements are sometimes called corrections which last only a few months.
3. **Tertiary movements:** these are simply the daily fluctuations. The Dow Theory asserts that daily fluctuations are essentially meaningless random wiggles. Nonetheless, the chartists should plot the asset's price or the market average each day in order to trace out the primary and secondary trends (Francis, 1986:524).

## **Fundamental analysis**

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

Fundamentalists forecast stock price on the basis of economic, industry and company statistic. The principal decision variables ultimately take form of earnings and value with as risk- return framework based upon earning power and the economic environment. "Fundamental analysts believe into companies, earnings, their management, economic outlook, firms, competitor's market conditions and many other factors."(ibid)

The objective of fundamental security analysis is to appraise the intrinsic value of a security. The intrinsic value is the true economic work of financial assists." the fundamentalists maintain that any points of time every stock has an intrinsic value, which should in principle be equal to the present value of the future stream of income from that stock discounted at an appropriate risk related rate of interest" (Bhalla,

1983:283).therefore the actual price of security 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. In other words: a new piece of news is released, securities market prices will adjust towards the new values.

“The value of common stock is simply the present value of all the future income which the owner of the share will receive “(Francis, 1986:398).And the actual price should reflect intrinsic value of the stock i.e. good anticipation of cash flows and capitalization rate corresponding to future time period. But in practice, first it is not known in advance what the appropriate discount rate should be for a particular stock. Therefore fundamentalists estimate their intrinsic value by studying in detail of all matters that is relevant to company. There are various models developed by fundamentalists to reflect the price of the securities. Some of them are as follows:

### **Capital assets pricing model (CAPM))**

The basic foundation of the theory was laid down in the microeconomics studies of mean variance choice by Mrkowitz (1959)and Tobin(1958). The critical extension to equilibrium in the capital market, and the development of the CAPM, was accomplished by Sharpe(1964)and Linter (1965)(Stephen, 1978:886).Link the portfolio models of markowitz and Tobin, the Sharpe- Lintner asset pricing model assumes a market of risk- averse consumers who can make portfolio decisions on the basis of the means and standard deviations of one period portfolio returns, implicitly assuming that these standard deviations exist(Fama, 1971:30).the CAPM substantiated the idea that increase with their risk, by showing that the determining influence on risk premium is the covariance between the asset and the market portfolio, rather the own or intrinsic risk of the asset.(Stephen, 1978:886) CAPM is concerned with two key questions:

- \* What is the relationship between risk and return for an efficient portfolio?
- \* What is the relationship between risk and return for an individual security?
- \* The CAPM is based on the following assumptions:
- \* Individuals are risk averse
- \* Individuals seek to maximize the expected utility of their portfolios over a single period planning horizon.

- \* Individuals have homogeneous expectations they have identical subjective estimates if the means, variances and co- variances among returns, expected returns and standard deviations.
- \* Individuals can borrow and lend freely at a risk free rate of interest.
- \* The market is perfect: there are no taxes, there are no transaction costs, securities are completely divisible: the market is competitive.
- \* The quantity of risky securities in the market is given.

### **Gorden's model**

As per the Gorden's model about relationship of dividend policy and stock price, investors are not indifferent between the current dividends and retention of earnings. AS increase in dividend payout ratio leads to increase in the stock prices for the reason that the investors consider the dividend yield is less risky than the expected capital gain. Similarly investor require rate of return increases as the amount of dividend decreases. This means that there exists a positive relationship between the amount of dividend and the stock prices. The model is based on the following assumptions:

- \* The firm is an all-equity firm.
- \* No external financing is available.
- \* Internal rate of return ( $r$ ), appropriate discount rate ( $k$ ) are constant.
- ) The firm and its stream of earning are perpetual.
- ) The corporate tax does not exist.
- ) The retention ratio once decided upon is constant. Thus the growth rate is constant forever.
- ) The discount rat is greater than the growth rate.

As per the model, the relationship between the stock price and dividend varies on the following stages.

- a) **Growth firm( $r > k$ ):** In case of growth firm the share price tends to decline in correspondence with increase in dividend payout ratio or decrease in payout ratio or decrease in retention ratio. It means high dividend leads to increase in share prices. Therefore dividends and stock price are negatively correlated in such firm.

- b) **Normal firm( $r=k$ ):** The price of share remains constant regardless of change in dividend. It means dividend and stock price are free from each other in normal firm.
- c) **Declining firm( $r<k$ ):** The share price tends to rise in correspondence<sup>4</sup> with rise in dividend payout ratio. It means dividend and stock prices are positively correlated with each other in a declining firm.

### **J.E. Walter's model**

As per the study of J.E. Walter on the relationship of dividend and stock price, dividend policy of a firm affects its stock price. The relationship between firm's internal rate of return and cost of capital are the determining factors to retain profits or distribution of dividend. The stock price will be increased with the increase with the increase in the retention ratio of the firm when the internal rate of return is greater than the cost of capital. Thus, as per Walter zero dividend policy will maximize the market value of share for growth firms. The followings are the assumption of Walter model:

- \* Retained earnings constitute the exclusive sources of financing. The firm does resort to debt or equity financing.
- \* The firm internal rate of return and its cost of capital are constant.
- \* Value of earning per share and dividend per share are remain constant.
- \* The firm has perpetual life.
- \* The firm distributes its entire earnings or retains it for immediate reinvestment.

The relationship between stock price and dividend varies on the following stages:

- a) **Growth firm( $r>k$ ):** if the firm's internal rate of return exceeds the cost of capital such firms are known as growth firms. The relationship between dividend and stock price is negative on such firms. It means that more dividend leads to decrease in stock price and zero dividend will maximize the market value of shares for such growth firms.
- b) **Normal firm( $r=k$ ):** if the firms internal rate of return and cost of capital are equal, such firms are called normal firms and there is no role of dividend on such firm's stock price. Dividend payout ratio does not affect the value of share whether the firm retains the profit or distributes dividend.

- c) **Declining firm( $r < k$ ):** if the firm's internal rate of return is less than cost of capital, such firms are known as declining firms. The relationship between dividend and stock price is positive that is increase in dividend per share leads to increase in stock price of such firms.

Thus, Walter concluded that when the firm is in growth stage then dividend is negatively correlated with price of share. Similarly, in normal firm there is no relationship between dividend and stock price. In the same way, there is positive relationship between dividend and price of stock in declining stage of firm.

### **Efficient market theory:**

In a competitive market, the equilibrium price of any goods or services at a particular movement in time is such that the available supply is equated to the aggregate demand. This price represents a consensus of the members trading in the market about the true worth of the good or service, based on all publicly available information. As soon as a new piece of relevant information becomes available. It is analyzed and interpreted by the market. The result is a possible change in the existing equilibrium price. The new equilibrium price will hold until yet another bit of information is available for analysis and interpretation. "the role of information is two-fold:(a) to aid in establishing a set of security prices, such that there exist an optimal allocation of resources among firms and an optimal allocation of securities among investors, and (b) to aid the individual investor who faces a given set of prices, in the selection of an optimal portfolio of securities."(Sharma, 2002:27).

The word "efficiency" as applied to securities market has unfortunately been used to represent a variety of logically distinct concepts. In particular it means : a) exchange efficiency (b) production efficiency and (c) information efficiency. In this study, it is concerned only with informational efficiency. "in an efficient market security prices 'fully reflect' available information " (Fama, 1976:133). Regardless of the form of information, it is the key to the determination of stock prices: therefore, it is the central issue of the efficient market concept.

An efficient market can exist if the following events occur:

1. A large number of rational, profit maximizing investors exist who actively participate in the market by analyzing, valuing and trading stocks. These investors are price takers: that is, one participant alone can not affect the price of a security.
2. Information is free of cost and widely available to market participants at approximately the same time.
3. Information is generated in a random fashion such that announcements are basically independent of one another.
4. Investors react quickly and accurately to the new information, causing stock prices to adjust accordingly.(Charles, 1943:425)

In such a market, the current prices of a security obviously “Fully Reflect” all available information. Similarly, “in a perfect and competitive economy compared of rational individual with homogeneous beliefs about future prices, by any meaningful definition present security prices must fully reflect all available information about future prices.”(Rubinstien, 1975:812)

In an efficient market, market participants, acting in their own self- interest, use available information to attempt to secure more desirable (higher return, ceteris paribus) portfolio position. In doing so they collectively ensure that price movements in response to new information are instantaneous and unbiased and will ‘fully reflect’ all relevant information. Competition among participants to secure useful information will drive security prices form one equilibrium level to another so that the change in price in response to new information will be independent of the prior change in price. Price change will be random walk in response to the information.

“In an idle efficient market, everyone knows all possible- to- know information simultaneously, interprets it similarly, and behaves rationally.”(Bhalla, 1974:2). In such a world, the only price change that would is due to the 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 investors adjust the information rapidly.”( Reilly, 1986:166) “the degree of market efficiency has important implications for the economy that security prices provide accurate signals that can be used to allocate capital resources correctly. mis- priced security result in incorrect allocation of capital.”(Cheney, 1997:746).

In such a market, all prices are correctly stated and there are no “bargains” in the stock market. “Efficiency in this context means the ability of the capital markets to function so that prices of securities react rapidly to new information. Such efficiency will produce prices that are appropriate in terms of current knowledge, and investors will be less likely to discover great bargains and thereby earn extraordinary high rates of returns.”(Bhalla, 1974:3).

The conclusion is that – “in an efficient market there are neither free lunches nor expensive dinners. It is not possible to systematically gain or lose abnormal profits from trading on the basis of available information. “ (Weston and Copland, 1996:9394). No one can consistently do better than the average. “efficient market theorists believe that some do better than average because of luck. In fact they suggest that the ‘traders’-those who buy and sell their stocks frequently- do less well than the stock market averages by an amount equal to the commissions they pay (Rubinstien, 1975:815)

One set of market efficiency examines the informational efficiency of security prices. Existing model of efficient markets imply that all relevant information regarding given stock is reflected in its current market price. This notion of market efficiency can be divided into three categories based on type of information used in making market decisions. They are explained as follows:

- a) **Weak Form Market Efficiency:** “weak form market efficiency hypothesizes that today’s security prices fully reflect all information contained in historical security prices. This implies that no investor can earn excess return information” (Weston and Copland, 1996:94)
- b) **Semi- strong form market efficiency:** it says that security prices fully reflect all publicly available information. Thus, no investors could earn excess return using publicly available resources such as corporate annual reports, NEPSE price information or published investment advisory reports. It contains all publicly available data such as earnings, dividends, stock split announcements, new products development, financing difficulties and accounting changes. A market that quickly incorporates all such information into prices is said to be semi- strong efficient.” If the semi-strong hypothesis is true, then only a few

than what could be earned by using a naïve buy- and –hold strategy.”(Francis, 1986:608)

- c) **Strong form market efficiency:** “The most stringent form of market efficiency is the strong form, which asserts that prices fully reflect all information, public and non public.” ( Jones, 1943: 429) in such kind of market, no group or investors should be able to earn, over a reasonable period of time, excess rates of return by using publicly available information in a superior manner. “an extreme version of the strong form holds that all non public information, including information that may be restricted to certain groups such as corporate insiders and specialists on the exchanges. Is immediately reflected in prices. In effect this version refers to monopolistic access to information by certain market participants.”(ibid).

## **2.2. Review of Related Studies**

### **2.2.1. 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, Prof. R.S. Pradhan (Pradhan, 1993) addressed “Stock Market Behavior in Small Capital Market”. In an attempt to assess the stock market behavior 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 piled 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.

Prof. Dr. Manohar K. Shrestha (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.

N 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.

### **2.2.2 Review of Different Master's Thesis**

We can easily find numerous studies conducted for the partial fulfillment of master's Degree. But we can't review all the studies. So some of them, which studies are relevant to this study, are reviewed in the following way.

Ms. Sangita Gautam 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 underdevelopment 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.

In 1999, Mr. Surya Chandra Shrestha conducted a study entitled "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 this finding.

- \* 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.

\* NPESE is not efficient in pricing shares.

In 2003, Apar Neupane 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 significant effected by interest rate, retention ratio, stock dividend, cost of equity, tax rate, value of US\$ and gold price, global economy, market liquidity, season, day the week, size and change in management where as 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.

In 1997, Mr. B.P. Bhatta 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.

"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. (Paudel, 2001). The major objectives of this study re 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 riskness 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.

### **2.2.3 Research Gap**

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 question 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 no of the authors have studied systematically about the "Stock Price behavior in Nepalese Capital Market." Therefore, I am also interested in this topic and tried to full-fill the gap of the previous studies. Hence, this study may be the first of its kind.

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Background**

This chapter refers to the overall research method from theoretical aspect to the collection and analysis of data. These researchers have been conducted by using appropriate statistical tools. The detail research methods are described in the following headings.

#### **3.2 Research Design**

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

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 has been taken from the listed companies in NEPSE.

### 3.5 Sample

The judgment purposive sampling technique is taken for this study and two from commercial bank, two from financial companies, 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 183 listed companies in NEPSE and 50 investor, 15 stock brokers and 25 listed companies are selected for evaluating the qualitative factors.

**Table 3.1: Listed Companies at the End of the FY 2008/09**

S.N.	Sectors	Number of Listed Company	Percent
1	Commercial Bank	23	12.57
2	Development Bank	35	19.13
3	Finance company	62	33.88
4	Insurance company	17	9.29
5	Hotel	4	2.19
6	Manufacturing and processing comparing	29	15.85
7	Trading company	8	4.37
8	Others	5	2.19
Total		183	100

Source: SEBO/N: Annual Report of 2008/09

From the above table following sampled company has been taken for analyzing the secondary data:

#### 1. Commercial Bank

- a. Nepal Investment Bank Ltd.

- b. Everest Bank Ltd
2. Financial Company
    - a. Kathmandu Finance Ltd.
    - b. NIDC capital Markets Limited (NCML)
  3. Insurance Company
    - a. Premier Insurance Company Ltd.
    - b. Neco Insurance Ltd.
  4. Manufacturing and Processing Company
    - a. Nepal Lube Oil Ltd.
  5. Trading Company
    - a. Salt-trading Corporation Ltd.

### **3.6 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.

### **3.7 Data Collection Techniques**

Data collection 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.

### **3.8 Data Analysis Tools**

To obtain the above mentioned objectives, the primary and secondary data were 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. Then 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:

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

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:

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

### 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,

$$r = \frac{COV_{xy}}{\Xi_x \Xi_y} \text{ or,}$$
$$r = \frac{n\phi x_1 x_2 - Z(\phi x_1)Z(\phi x_2)}{\sqrt{n\phi x_1^2 - Z(\phi x_1)^2} \sqrt{n\phi x_2^2 - Z(\phi x_2)^2}}$$

Where

r = correlation coefficient between variable x and y .

COV<sub>xy</sub> = Covariance between variable x and y .

Ξ<sub>x</sub> Ξ<sub>y</sub> = Standard deviation of variable x and y .

## Covariance

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

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

## Simple Regression Equation

Regression Analysis is also the techniques of studying how the variations in one series are related to variations in other series. Regression analysis shows that how the variables are related. Thus, regression is the estimation of unknown values or prediction of one variable from known values of other variables. So regression analysis is a mathematical measure of the average relationship 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

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

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

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

## 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:

$$x_1 = a_1 + b_1 x_2 + b_2 x_3 \dots\dots\dots(i)$$

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

$$x_1 x_2 = a_1 x_2 + b_1 x_2^2 + b_2 x_2 x_3 \dots\dots\dots(iii)$$

$$x_1 x_3 = a_1 x_3 + b_1 x_2 x_3 + b_2 x_3^2 \dots\dots\dots(iv)$$

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 ( $\beta$ )

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  $\beta$

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

Where,

$\beta$  = Beta coefficient

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

$\sigma_m^2$  = 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,

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

**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,

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

**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,

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

**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,

$$R = \frac{P_t Z P_{tZ} \Gamma D_t}{P_{tZ}}$$

Where

R = Return on Investment

P<sub>t</sub> = 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:

$\bar{R}$  = Expected return on stock

R = Sum of return on stock

N = Number of years

### **3.8.3 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 and informative to understand.

## **CHAPTER IV**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.1 Introduction**

This chapter, data analysis and interpretation is 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 2008/09.

**Table 4.1 : Trend Analysis of NEPSE Index**

FY	Years (t)	NEPSE Index (y)	Deviation from year x = (T-A)	XY	X <sup>2</sup>	Trend value Y <sub>c</sub>
1998/99	1	185.61	-4.5	(835.24)	12.25	199.51
1999/00	2	176.31	-3.5	(617.28)	6.25	208.34
2000/01	3	163.35	-2.5	(408.37)	2.25	217.17
2002/03	4	216.92	-1.5	(325.38)	0.25	225.00
2003/04	5	360.70	-0.5	174.22	0.25	234.83
2004/05	6	348.43	0.5	341.31	2.25	243.66
2005/06	7	227.54	1.5	512.15	6.25	252.49
2006/07	8	204.86	2.5	777.14	12.25	261.32
2007/08	9	222.04	3.5	1290.02	20.25	270.14
2008/09	10	286.67	4.5	728.41	82.5	278.98
		2392.43	0			

Source: SEBO/N, Annual report of 2008/09.

$$Y_c = a + bx$$

$$x = 0$$

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

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

From the above table it is observed that the trend line of the NEPSE index is in fluctuating order. From the fiscal year 1998/99 to 2008/09. We can analyze the actual NEPSE Index is decreased by -4.5 in 1998/99 to 1999/00. But the trend value is increasing order i.e. 199.51. In the fiscal year 2000/01, 2001/02, 2002/03, 2003/04, 2004/05, 2005/06, 2006/07, 2007/08 and 2008/09 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.

## 4.2.2 Trend Analysis of Number of Listed Companies in NEPSE

Another technique for the analysis of share price of the listed companies in NEPSE is the trend analysis of the growth rate of the listed companies. So, the analysis of the growth rate of the listed companies, number of the listed companies and growth rate in percentage is taken and which is presented by the table and graph as below:

**Table 4.2 : Growth Rate of Number of Listed Companies in NEPSE for Ten Years**

Years	No. of Listed Companies	Growth rate (%)
1998/99	89	-
1999/00	95	6.7416
2000/01	101	6.3158
2001/02	107	5.9406
2002/03	110	2.8037
2003/04	115	4.5455
2004/05	96	(16.5217)
2005/06	108	12.5
2006/07	114	5.5556
2007/08	125	9.6491

Source: Annual Report of SEBO/N.

From the above table we can see that the number of the listed companies is in the form of increasing order from the year 1998/99 to the fiscal year 2003/04. Then after that the trend of increasing is unfortunately declined to 96 in the fiscal year 2004/05. Again, after that decreasing point, the number of listed companies in NEPSE is in increasing order from the fiscal year 2005/06 and leached to 125 at the end of fiscal year 2007/08. Slimily, the growth rate in 2004/05 is in negative form, which may be the symbol of financial crisis faced by the Nepal. The growth rate of listed companies in NEPSE is highest in year 2005/06 which is 12.50% and the lowest growth rate is – 16.5217 in year 2004/05. Similarly, the number of listed companies is highest in the fiscal year 2007/08 i.e. 125 and the lowest in the year 2004/05 i.e. 96. The trend of the growth rate can be presented in the following figure.

### 4.2.3 Trend Analysis of the Number of Transacted Companies in NEPSE

Number of transaction companies in NEPSE is another tool for better analyzing the determination of the share price in capital market. For this objectives, number of transacting companies during the ten years period and growth rate in percentage in taken. For this objective, tabular and graphical measures are presented below:

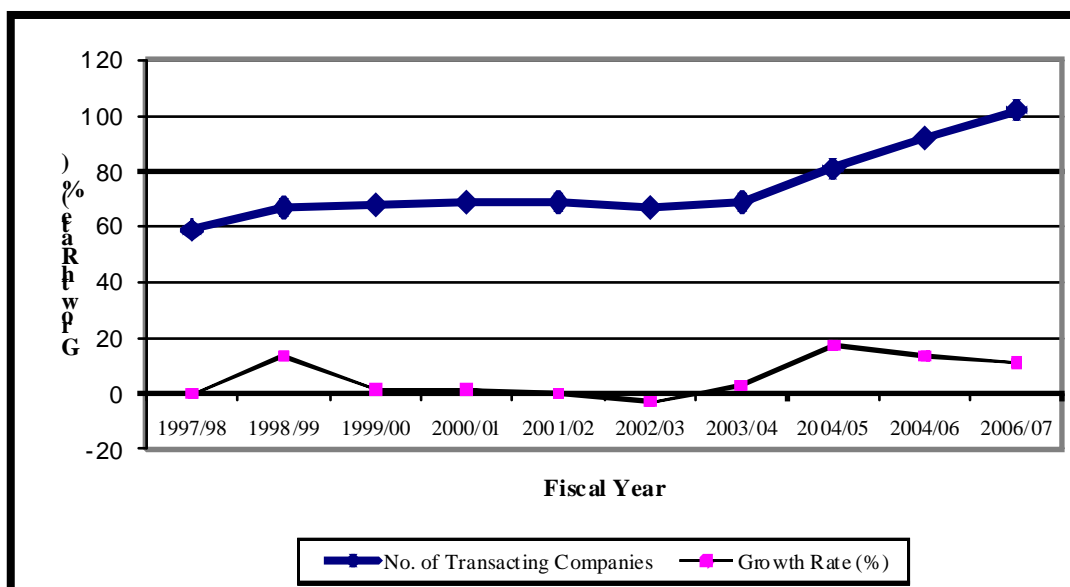
**Table 4.3: Growth Rate of Number of Transacting Companies in NEPSE for Ten Years**

Years	No. of Transacting Companies	Growth Rate (%)
1998/99	59	-
1999/00	67	13.56
2000/01	68	1.49
2001/02	69	1.47
2002/03	69	0.00
2003/04	67	(2.89)
2004/05	69	2.98
2005/06	81	17.39
2006/07	92	13.58
2007/08	102	10.87

From the above table it shows that the number of transacting companies is in increasing order from the fiscal year 1998/99. The number of transacting companies is also equal in the fiscal year 2001/02 and 2002/03. It means there is no any change occurs during the fiscal year 2001/02 to 2002/03 in the number of transacting companies. Similarly, after the fiscal year 2002/03, the number of transacting companies is also described to 67 in the fiscal year 2003/04. It may be due to the less financial or inefficient financial performance of the companies. Again, after the fiscal year 2003/04, the number of transacted companies has started to increase and at last, during the fiscal year 2007/08 reached to 102. From the above table, it is also seen that the growth rate of transacting companies is higher in the fiscal year 2005/06 i.e. 17.39% and lower in the fiscal year 2003/04 with negative value of 2.89%. But the

number of transacting companies is higher in the fiscal year 2007/08 i.e. 102 and lower in the fiscal year 1998/99.

**Figure 4.3: Trend Line of Growth Rate of Transacting Companies**



From the above presented figure, it is seen that the percentage of the transacting companies is equal in the fiscal year 1997/98 and 2001/02. It is also concluded that the growth rate of the transacting companies is decreased with negative rate in the fiscal year 2002/03. After that decreased point growth of the transacted companies started to increase up to fiscal year 2004/05. i.e. 17.39 %. Again, it started to decrease and reached to 10.87% during the fiscal year 2008/09. At last it is concluded that the number of transacting companies in NEPSE is in the fluctuating order.

### **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 analysis are made and then magnitude is identified.

### 4.3.1 Regression and Correlation Analysis of Everest Bank Ltd.

**Table 4.4 : Synopsis of Performance Indicators of Everest Bank Ltd.**

Years	MPS ( $x_1$ )	DPS( $x_2$ )	EPS( $x_3$ )
1999/00	127	0	(9.21)
2000/01	184	0	20.86
2001/02	107	15	21.03
2002/03	980	20	34.39
2003/04	750	0	31.56
2004/05	430	20	32.91
2005/06	445	20	29.90
2006/07	680	20	45.58
2007/08	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 4.5: Relationship of MPS with EPS and DPS**

Variables	R	$r^2$
$rx_1x_2$	0.5183	0.2686
$rx_1x_3$	0.7358	0.5414

Source: Annex-I

The table 4.3.2 shows the relationship of MPS with DPS and EPS over the view of last nine hear data.

$r$  = Correlation coefficient

$rx_1x_2$  = Correlation coefficient of MPS and DPS

$r_{x_1x_2}$  = Correlation coefficient of MPS and EPS

$r^2$  = Coefficient of determination

S.D. = Standard Deviation

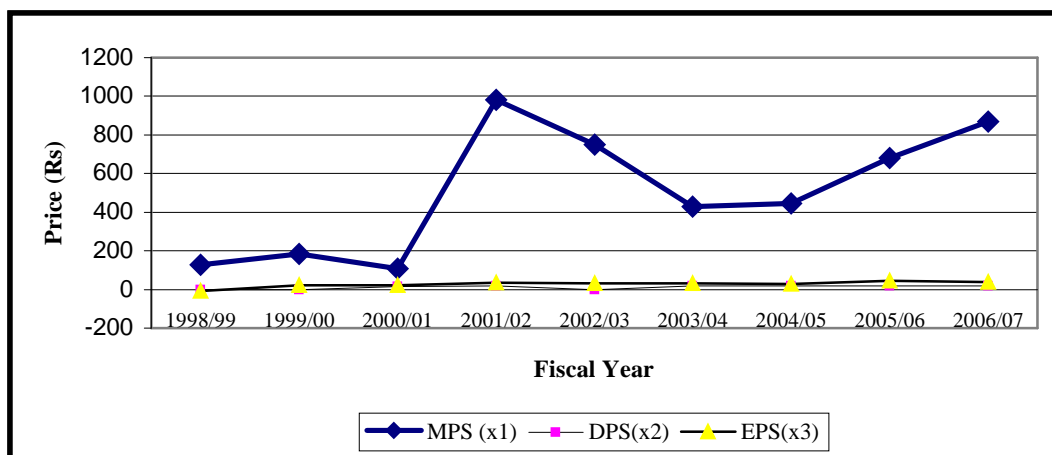
C.V. = Coefficient of Variation

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 4.4 : 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  $13.93$ , it implies that when EPS increases by Re.1, MPS also increases by 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 4.6: Performance Indicators of Nepal Investment Bank Ltd.**

Years	MPS ( $x_1$ )	DPS( $x_2$ )	EPS( $x_3$ )
1999/00	719	100	67.59
2000/01	600	50	69.33
2001/02	822	30	33.76
2002/03	1401	50	53.68
2003/04	1150	0	33.18
2004/05	760	30	33.60
2005/06	795	20	39.56
2006/07	940	15	51.7
2007/08	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 4.7: Relationship of MPS with DPS and EPS**

Variables	r	r <sup>2</sup>
$rx_1x_2$	-0.2305	0.0532
$rx_1x_3$	-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 1999/00 and it is decreased Rs. 600 in the year 200/01. The highest MPS of Nepal investment Bank is Rs. 1401, it was recorded in the fiscal year 2002/03. Banks is moved up and down, and reaches up to Rs. 800 in the fiscal year 2007/08. 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 the CV of DPS and EPS are 79.6% 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 EPS 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.

#### **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 'a<sub>1</sub>' 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 4.8: Synopsis of Performance Indicators of Kathmandu Finance Ltd.**

Years	MPS ( $x_1$ )	DPS( $x_2$ )	EPS( $x_3$ )
1999/00	93	9	12.40
2000/01	95	12	17.00
2001/02	98	16	21.30
2002/03	295	20	31.25
2003/04	321	23	37.55
2004/05	305	12	37.05
2005/06	235	50	33.85
2006/07	205	0	2.77
2007/08	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 4.9: Relationship of MPS with DPS and EPS**

Variables	r	$r^2$
$rx_1x_2$	0.3233	0.1045
$rx_1x_3$	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 variable. From the above table it seems that MPS is positively correlated with DPS and EPS. The meaning of that the if the changes occurs in DPS and EPS, the MPS also changes in same direction. The magnitude of correlation of MPS with DPS and EPS are 32.33% and 82.27%. It means 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 I MPS is described by EPS.

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

### **MPS on DPS**

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

The regression constant coefficient 'a<sub>1</sub>' 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 'a<sub>1</sub>' 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 4.10: Synopsis of Performance indicators of NIDC Capital Market Ltd**

Years	MPS ( $x_1$ )	DPS( $x_2$ )	EPS( $x_3$ )
1999/00	70	0	2.40
2000/01	82	0	14.55
2001/02	100	15	29.30
2002/03	415	15	20.95
2003/04	600	15	25.95
2004/05	175	0	2.52
2005/06	125	0	(9.93)
2006/07	107	0	35.07
2007/08	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 4.11: Relationship of MPS with DPS and EPS**

Variables	R	$r^2$
$rx_1x_2$	0.6988	0.4883
$rx_1x_3$	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**

$$\text{MPS} = 117.31 + 1696 \text{ DPS}$$

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 'a<sub>1</sub>' 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 4.12: Synopsis of Performance indicators of Premier Insurance Company Ltd.**

Year	MPS ( $x_1$ )	DPS ( $x_2$ )	EPS ( $x_3$ )
1999/00	105	5	6.97
2000/01	122	10	18.07
2001/02	125	10	19.17
2002/03	250	10	19.70
2003/04	220	13	27.37
2004/05	170	10	28.73
2005/06	192	0	19.90
2006/07	210	0	25.13
2007/08	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 4.13: 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 4.14: Synopsis of Performance Indicators of NECO Insurance Ltd.**

Year	MPS ( $x_1$ )	DPS ( $x_2$ )	EPS ( $x_3$ )
1999/00	0	0	1.40
2000/01	115	0	9.865
2001/02	140	10	10.69
2002/03	270	10	19.61
2003/04	181	10	23.28
2004/05	182	10	19.14
2005/06	130	0	12.12
2006/07	112	0	8.20
2007/08	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 4.15: Relationship of MPS with DPS and EPS**

Variables	R	$r^2$
$rx_1x_2$	0.7364	0.5425
$rx_1x_3$	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 'a<sub>1</sub>' 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 4.16: Synopsis of Performance Indicators of Nepal Lube Oil Ltd.**

Year	MPS ( $x_1$ )	DPS ( $x_2$ )	EPS ( $x_3$ )
1999/00	380	10	19.76
2000/01	315	15	31.84
2001/02	300	15	47.70
2002/03	420	15	23.60
2003/04	584	10	(10.84)
2004/05	480	5	30.63
2005/06	400	15	20.89
2006/07	350	0	20.89
2007/08	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 4.17: 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 EPS. 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 on MPS has no significant figure. Even effect of EPS on 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 4.18: Synopsis of Performance indicators of Salt Trading Corporation Ltd.**

Year	MPS ( $x_1$ )	DPS ( $x_2$ )	EPS ( $x_3$ )
1999/00	394	20	30.75
2000/01	325	20	31.60
2001/02	405	20	21.31
2002/03	400	25	(61.47)
2003/04	330	25	42.58
2004/05	300	30	107.60
2005/06	300	20	202.80
2006/07	315	20	294.70
2007/08	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 4.19: 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 2008/09. The above table also shows that there is no any

changed in MPS during the fiscal year 2005/06 and 2008/09. 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 MP 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 'a<sub>1</sub>' 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 4.20: Beta Coefficient of the Sampled Companies on the Basis of MPS and DPS**

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

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 4.21: Beta Coefficient of the Sampled Companies on the Basis of MPS and EPS**

Name of the sample company	Beta coefficient ( $\beta$ )	Ranking
Everest Bank Ltd.	0.35	8 <sup>th</sup>
Nepal Investment Bank Ltd.	0.2348	5 <sup>th</sup>
Kathmandu Finance Ltd.	0.2648	6 <sup>th</sup>
NIDC Capital Markets Ltd.	0.3128	7 <sup>th</sup>
Premier Insurance Company Ltd.	0.0964	3 <sup>rd</sup>
NECO Insurance Ltd.	0.1507	4 <sup>th</sup>
Nepal Lube Oil	0.0555	2 <sup>nd</sup>
Salt Trading Corporation Ltd.	(0.0169)	1 <sup>st</sup>

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 companies. 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 more 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 4.22: 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 4.23 : 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 4.24 : 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 4.25 : 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 4.26 : 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 4.27 : 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 reduces the share price. However, 12.21 percent respondents did not agree to this view and 7.79

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 4.28: 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 4.29: 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 4.30: 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 4.31: 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 4.32: 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 4.33 : 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 4.34: 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**

On the basis of presenting and analyzing the secondary data, the following important findings are observed:

### **1. Findings based on Trend Analysis of NEPSE Index, Number of Listed Companies and Number of Transacting Companies**

- 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.

### **2. Findings based on correlation, regression analysis and CV**

- (a) 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 on 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.

(b) 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.

(c) 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.

- (d) 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.

- (e) 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.

- (f) 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.

- (g) 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.

- (h) 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.

### **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 8<sup>th</sup> to 1<sup>st</sup> position. Among these companies NIDC Capital Market Ltd. is more sensitive to the market and ranked in 8<sup>th</sup> position but Salt Trading Corporation Ltd. is more less sensitive to the market as compare to other and ranked in 1<sup>st</sup> 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 the 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. 8<sup>th</sup> position to less sensitive i.e. 1<sup>st</sup> position. Among these companies Everest Bank Ltd. is more sensitive to the market and ranked in the 8<sup>th</sup> position but Salt-Trading Corporation Ltd. has negative beta, it means this company is not sensitive to the market and ranked in 1<sup>st</sup> position of the list of the less sensitive companies.

### **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 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.
- 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 need to make the performance of the listed companies transparent. Furthermore, transparency is the one of the major element of the corporate governance.

## CHAPTER V

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 Summary

Capital market is that market 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 13<sup>th</sup> January 1994, after that NEPSE has listed more than 183 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-term 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.

The present is based on both primary and secondary sources of data. Total eight listed companies are taken as sample from 125 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.

## **5.2 Conclusion**

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 Recommendation

The Nepalese 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. 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.

- 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.
- 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.
- 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 MPOS 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.
- 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.
- False financial statement of listed companies should be properly identified by concern authority.

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