## CHAPTER-I

## INTRODUCTION

### 1.1 General Background

Nepal is one of the least developed countries in the world. For the development of country capital market plays the vital role in facilitating and providing better institutional arrangement for borrowing and leading of long-term funds. It is regarded as general barometer that measures the proper collection and mobilization of saving of productive and income generating sector. The allocative efficiency in the use of funds is the basis for measuring the performance of capital market.

Security market is recognized as an effective way of raising capital for commercial enterprise and at the same time providing investment opportunity for individuals and institutions. The activities of buying and selling securities in security market are extremely important for the efficient allocation of capital within economy. The security market is a requisite for the sound development of an economy because it not only provides stable long-term capital for companies and as effective saving vehicle for the pubic but also functions as an efficient tool for resource allocation. Mass participation in countries industrialization process is possible only through the efficient mechanism of security market as it promotes efficient collection of small and scattered saving from various investment and provides return to them in the form of dividend (Adhikari, 2005 : pp 41).

The development of an efficient market requires the development of institutions, instruments and operating procedures that aids in widening and deepening of the market and allocation of short-term resources with minimum transaction cost and delays.

Capital market facilitates the allocation of funds between the savers and borrowers. This allocation will be optimum if the capital market has efficient pricing mechanism. If the capital market is efficient, the current share price of the companies fully reflect the available information and there will be no question of share price being over or under priced. Capital market is concerned with long-term finance. The funds collected in this market one raised and traded by long-term financial instruments such as equities and bonds.

The basic functions of stock market are to provide and allocate funds to the firms with profitable investment opportunities and to offer as avenue of liquidity for individual to invest current income and thereby achieve their preferred time pattern of consumption because investment involves uncertainty. Capital market also provides a means for transferring risk among the parties to these transactions. In Nepalese economy demand and supply of funds for the investment in productive sector is low due to absence of mechanism of transferring risk which in turn, may be attributed to the absence of well developed stock market.

### 1.1.1 Constitutient of Capital Market in Nepal

Capital market is that market mechanism where financial assets having a time to maturity of more then one year one traded. Organized stock exchange, over the counter market, and fourth market are the major capital markets. The history of security market began with the flotation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. in 1937 in Nepal. In the context of Nepal, it is an institutional arrangements within which a numbers of instructional bodies like : Securities Board Nepal (SEBON), Nepal Stock Exchange (NEPSE), Registar of Company (ROC), Shareholder Association Nepal (SAN) and listed companies are in existence. In Nepal, twenty seven brokers, ten market intermediaries and one organized stock exchange center are currently in operation (Bhattarai, 2005 : pp 56).

## SECURITIES BOARD NEPAL (SEBON)

Securities Board Nepal was established on $7^{\text {th }}$ June, 1993, under the provision of the securities exchange at 1983. It was established with the objective of promoting and protesting the interest of investors by regulating the securities market. It also assumes the responsibility of development of securities market in the country. Beside the regulatory role, securities board has identified the policy development, legal and regwatory reforms, standardizing disclosures, bringing enforcement to insure compliance and promoting board based market as a priority area to reform. The private sector has also been participating equally in establishing a sound system of security exchange. In government sector, Ministry of Finance, registar of companies (Ministry of Industry, Commerce and Supply), Nepal Rastra Bank, Nepal Stock Exchange, Federation of Nepalese Chamber of Commerce and Industries (FNCCI), Institute of Charter Accountants of Nepal (ICAN)
and Association of Charter Accountants have been playing vital role in promoting the capital market.

The government securities market is yet to be integrated with corporate bond market that could provide benchmarking interest rate and lead to the development of full fledged debt market in the country. There are only two mutual funds with total amount of capital mobilization of Rs. 613.09 million by the end of fiscal year 2004/05. There is no increasing issue of securities from corporate section other than banks and financial institution. Thus, the insufficient supply of securities and diversification in the securities instrument and issuing companies has been limiting the scope for institutional investment in the market (SEBON, 2005/06).

## NEPAL STOCK EXCHANGE (NEPSE)

Nepal Stock Exchange was established on 1993 under the security exchange Aut 1983. NEPSE was known as securities exchange centre earlier. It is only one organized stock exchange where stocks are traded through registered brokers under the set of rules and regulation. NEPSE is non profit making organization. The basic objective of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transaction in its trading floor through market intermediaries. Such as brokers, market makers etc. NEPSE opened it trading floor on $13^{\text {th }}$ January 1994 through licensed member. Nepal Government, Nepal Rastra Bank, Nepal Industrial Development Corporation and Licensed Members are the share holders of NEPSE (NEPSE, Annual Trading Report, 2002/03).

NEPSE is adapting an 'open out-cry' system for securities trading of the listed companies through registered brokers. It is in the sense that the transactions of securities are conducted on the open auction principle on the trading floor. The buying brokers with highest bid will post the prince and his code number on the buying column, while selling broker with lowest offer will post the price and code number on the selling column on the quotation board. The market maker quote their bid and offer price match, contracts between the buying and selling brokers or between the brokers and market markers are conducted on the floor (NEPSE, Annual Trading Report, 2004/05). Till 16 July 2005 NEPSE has 125 listed companies. There are classified into eight groups. 14 companies
falls in Commercial Banks, 7 Development Banks, 44 Finance Companies, 14 Insurance Companies, 4 Hotels, 19 Manufacturing and Processing and Trading Companies and 5 others. Among those 125 listed companies, only 48 are ranked in 'A Grade' by NEPSE in 2005 for the convenience to investors. Most of the companies of 'A Grade' are commercial books insurance and finance companies. Uni Liver Limited is only one company in 'A Grade' from manufacturing and processing companies groups (Annual Report, SEBON, 2004/05).

### 1.2 Focus of the Study

In Nepalese context, average investors lack huge capital to lunch a project themselves. But raising the scattered funds from large number of investors through the issue of shares, such project can be lunched casing, since there are large number of middle class families. The small investors can invest by purchasing stocks of such project in primary market or in secondary market. NEPSE is organized stock exchange for trading stock is secondary market. To acquire funds and grab investment opportunities general public and investors must have good knowledge of capital market and its pricing mechanism. Price of stock is determined by the interaction of buyers and setters. Various factors should be considered during the determination of stock price. Some factors may be quantitative and their effect on stock price can be quantified and some factors may be qualitative and the effect of such factors can not be quantified. So, this study is mainly focuses on the sensitivity or volatility of the stock price towards various factors. In other words this study intends to determine the factors affections the price of stock specially in the case of companies listed in NEPSE. This study also focuses on the capital market development in Nepal and the investment opportunities for small investors to reduce foreign dependency on development process.

### 1.3 Statement of Problems

Nepalese stock market is very small in comparison with others efficient developed stock market. There are few numbers of brokers, limited number of listed companies and very few transactions in Nepalese stock market.

Major dominant sector in stock market is banking sector. These securities are traded in large volume whose price is higher. Market stock price is the function of various factors. These factors affect the market price of security. Thus market fluctuates and it is not for short period but for over a century. Actually, the problem of Nepalese stock market has not been dig no sized and identified. The policy makers are unable to make the appropriate policy for the development of stock market. Most of the government effort for the development of stock market since 1976 have poorly contributed only in the early nineties, the government policies to reform the capital market under the extended structural adjustment program (ESAP) have left some positive impact for the development of stock market. However, this effort also has not become sustainable because of the lack of proper implementation of the policy.

In Nepalese context, a few research has been conducted to study the stock police behaviour of listed companies. But these studies are lacking to explore the all qualitative and quantitative factors which are the major determents of stock price. Due to symmetrical information the study result might change accordingly and it is not suitable to generalize the result due to high stock price volatility. Therefore this study is directed to resolve the following issues is the context of Nepal :

1. Does dividend policy of a firm affect the stock price volatility of companies listed in NEPSE?
2. Is there a correlation between Book value and stock price of companies listed in NEPSE?
3. What is the relationship between Earning and stock price of a company listed in NEPSE?
4. Do the political changes and instability affect the stock price in NEPSE ?
5. Whether the investor's perception on stock price volatility matters in Nepalese stock market?

### 1.4 Objective of the Study

The major objective of this study is to measure the relationship between financial factors (like: dividend, earning, book value) and stock price of companies listed in NEPSE. Specifically, the study objectives can be broken down into following parts.

1. To find out the effect of dividend on stock price of listed companies.
2. To examine the effect of earning on stock price of listed companies.
3. To re-examine the relationship between book value and stock price.
4. To survey the views of Bankers, Investors and Academician to the stock price.

### 1.5 Significance of the Study

The major objective of organization is stock value maximization, where as in Nepal, more than 20 companies listed in NEPSE have lower market price than par value. More then 50 percent of the listed companies in NEPSE failed to achieve the objective of value maximization which is paralyzing the economy on the country. Therefore, organizational failure results to less utilization of national resources. Only 48 companies among 125 listed companies are rated as 'A-Grade'. So, small investors are not motivated to invest in capital market. On the other hand, Nepal is highly dependent on foreign loan and grant for investments in productive sectors. Furthermore, the current and potential investors do not have fair and accurate information about the financial strengths and weaknesses of the companies, they are going to invest. The investors can not interpret the financial position of the company on the basis of available data and information to take correct decision.

So, this research will help the current inventors about reconstructing their investment portfolio. Where as potential investors can take help from the findings of this study to make beneficial investment decision. This research will be substantial for investors, planners, researchers, students and policy makers to meet their personal and organizational objectives.

### 1.6 Limitation of the Study

There are some limitations in this study which are pointed out below :

1. This study has tried to explore the factors affecting stock price of listed companies. For this venture secondary data are collected from the annual general meeting report of the tested sample companies and the trading reports of NEPSE and SEBON.
2. There are some differences in the published data from various sources. This study has covered 10 sampled companies and only six years data have been used to determine the relationship of stock price.
3. The topic 'stock price behaviour of listed companies' is much more dynamic and it stakes huge resources including human and financial to cover the whole aspects of this research.
4. This research is concentrated at listed companies only so, the conclusion derived there of can not be generalized on the total capital market. For the purpose of the study, only common stock has taken into account.
5. This research is done for partial fulfillment for M.B.S. So, it is not comprehensive study.

### 1.7 Organization of the Study

This study has been organized into five sectors. The first section introduces the study and the second section reviews the literature and global findings on stock price behaviour. The third section describes the methodology utilized for this study. The empirical analysis, presentation and results have been considered is section four. Followed by summary, conclusion and recommendation is section five.

## CHAPTER-II

## REVIEW OF LITERATURE

### 2.1 Introduction

This chapter provides glimpse and highlights on the literature that is available in the topic specially, it covers those studies conducted outside the country by academicians and scholars and some of the available studies inside the country are also reviewed.

The first section includes the theories of stock price Behaviour including fundamental analysis, technical analysis and efficient market theories. The second section of this chapter includes the studies of related literature carried out previously in the foreign as will as Nepalese context.

### 2.2 Conceptual Framework

In present context, the investment sector is getting flourished in recent years as other economic sectors. Today most of the developing countries are boosting their economic development though the contribution of this investment sector. Business cycle theorist felt that tracing the evolution of several economic variables over time would clarify and predict the progress of economy through boom period.

There are two theories of stock price behaviour i.e. classical theory and efficient market theory. Classical or convectional theory includes fundamental analysis theory and technical analysis theory. Under efficient market theories, there are there forms of efficient market hypothesis. Classical approach assumes market as an inefficient where as the efficient market theory argues that the market is efficient. Prior to the development of the efficient market theory, investors were generally divided into two groups fundamentalists and technicians (Reily F.K. investment, 1986).

### 2.2.1 Fundamental Analysis

Fundamental analysis theory claims that at any point of time an individual stock has intrinsic value, which is equal to the present value of the future cash flow from the securities discounted at appropriate risk, with adjusted discount rate. The value of the common stock is simply the present value of all future income which the owner of share will receive (Francis J.C. investment analysis 1999 : pp 398).

In simplest form, fundamental analysis begins with the assertion that the true value of any financial assets equals the present value of all cash the owner of the asset aspects to forecast the timing and size of these cash flows and then converts the cash flows to their equivalent present value using as appropriate discount rate (Alexander G.J. Sharpe W.F. and Bailey J.V. 2000 pp 12).

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

Fundamental analysis approach have following limitations :

- The approach though sound and based on basic financial figure does suffer from the drawn back and to make this approach work effectively, one must be aware of them.
- The fundamental approach is based on rational scientific analysis of data, but the market is rarely rational.
- The information and analysis may itself be incorrect.
- Many companies with the help of creative and innovative accounting and accounting cosmetics disguise the real earnings.
- The fundamentalist's estimate of intrinsic value may be incorrect. This is not only possible but also probable that he often forecast growth, profit and other factors without grasping all the facts.
- The fundamentalists may not fully understand the economy or the industry as there are several external factors.

Therefore fundamental analysis is a never-ending process because values changes over the time. Ideally, revision in analysis should occur whenever new information affecting the future benefits to security holders becomes available.

### 2.2.2 Technical Analysis

Technical analysis involves the study of stock market prices in an attempt to predict future price movements. Past prices are examined to identify recurring trends or patterns in price movements. Then more recent stock price are analyzed to identify emerging funds or patterns that are similar to past ones. This analysis is done in the belief that these trends or patterns repeat themselves. By identifying an emerging trends or pattern, the analyst hopes to predict accurately future price movements for a particular stock (Alexdander G.J. Sharp W.F. and Baiky J.V., 1999 pp 12).

Technical analysis is based on widely accepted premise that security prices are determined by the supply and demand of securities. The tools of technical analysis are therefore designed to measure certain aspects of supply and demand (Francis J.C. 1191 pp 522).

Technical analysis can be defined as the use of published market data for the analysis of both the aggregate stock market and individuals stocks. It is sometimes called internal analysis. Technical analysis is based on the assumption that the past information of prices and trading of stock provides some pictures of the future price of stock (Jones C.P. 1968 pp 386).

Typically, technical analysis records historical, financial data on chapter, study this chapter is search of patterns that they find meaningful and endeavour to use the patterns to predict future prices. Some charts are used to predict movements of market index and still others are used to predict the action of both individual assets and market (Francis optic pp 522).

The basic assumptions of technical analysis are as follows :

1. Market values are determined by interactions of supply and demand.
2. Supply and demand is governed by numerous factors both rational and irrational.
3. Security prices tend to move in trends that persist for an appreciable length of time despite minor fluctuation in the market.
4. Changes in trends are caused by the shift in supply and demand.
5. Shift in supply and demand no matter why they occur, can be detected sooner or later in charts of market transactions (Fnan LTS, Edwards R.D. and John Mr. 1959 p. 86).

Thus, technical analysis believe in the changes in the pattern of trend of security price takes place on account of changes in demand and supply of the securities and that crucial insights into these patterns can be obtained by keeping track of price chants. The technical analyst can tell whether the price of stock will on upswing or on downswing in future. Technical analysis involves the examination of past market data such as price and volume of trading, which lead to an estimate of future price trends and therefore, an investment decision. Whereas fundamentals analysts use economic data that are usually separate from the stock or bond market. Technical analyst believes that using data from the market itself is a good idea because "the market is its own predictor". Technical analysis bases trading decision on examination of prior price and volume data to determine past market trends from which they predict future behaviour for the market as a whole and for individual security.

### 2.2.3 Efficient Market Theory

An efficient market is one where shares are correctly priced and where it is not possible to out perform the market consistently except by luck (Pike R and Neal B., 1996 pp 41). In an efficient capital market, current market prices fully reflect available information (Fame E.F. 1196, p 133). Therefore, if market is efficient, it uses all the available information for setting the price.

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

There are several concepts of market efficiency and there are many degree of efficiency, depending on the market, markets in general are efficient when:

1. Price adjusts rapidly to new information.
2. There is a continuous market in which each successive trade is made at a price close to the previous price (the faster that the price responds to new information and the smaller the difference in price changes the more efficient is the market).
3. The market absorbs large amount of securities without disturbing the price (Block S.B. and Hirt G.A. 1998, p. 420).

In an efficient market, a security's price would correctly reflect the important variables for that security and would represent an unbiased estimate of its investment values. The efficient market hypothesis suggests that investors can not expect to out perform the market consistently on a risk adjusted basis over an extended period of time. This hypothesis based on the premise that security prices reflect all avertable information concerning a firm and that security prices change rapidly in response to new information. Market efficiency also empties that as new information becomes available, the markets quickly analyze it and any necessary price adjustment occurs rapidly.

The requirements for a securities market to be efficient are as follows:

- A large number of national profit maximizing investors exist who actively participate in the market by analyzing, valuing and trading stocks.
- Information is free of cost and widely available to market participants approximately at same time.
- Information is generated in a random fashion such that announcement are basically independent to one another (Jones C.P. 1988 p. 425).

In an efficient market all prices are correcting stated and there are no bargains in the stock market. Efficiency in the sense that is the ability of capital market to function so that price of securities reacts rapidly to information. Such efficiency will produce prices that are appropriate in terms of current knowledge and investors will be less likely to make unwise investment. A corollary is that investors will also be likely to discover great bargains and there by earn extraordinary high rates of return.

If a market is efficient then there is a very important implication for market participations. All investment is the markets are zero NPV investments. The reason is the prices are neither too high nor too low, and then the difference between the market value of an investment and its cost is zero. Hence, the NPU becomes zero. As a result in an efficient market, investors get exactly what they pay to when they buy securities and firms receive exactly what their stocks and bonds are worth and cell them (Stephen A.R., Radolph W.W. and Bradford D.J. 2003 pp 405).

The security price has been observed to move randomly and unpredictably. This randomness of security price may be interrupted to imply that the security price quickly adjust to such information. Therefore, the capital market efficiency can also be defined as the ability of securities to reflect and incorporate all relevant information of its prices. So, there is no question of the stock price being under or over valued.

There are three forms of efficient market hypothesis based on type of information used in making market decision. They are :
i. Weakly form efficiency
ii. Semi strong form efficiency
iii. Strong form efficiency

The difference between these forms related to what extent information is reflected in the stock price. Under the wear from, stock price are assumed to reflect any information that may be contained in the past history of the stock price itself (Ibid. pp 572).

This hypothesis holds that no invertors can earn excess return by developing trading true based in historical price or return information. Weak from efficiency suggests that at a minimum, the current price of stock reflects its own price. In other words, studying past price in an attempt to identify misplaced securities is fertile if market is weak from efficient. Although this from of efficiency might seem rather mild, it implies that searching for patterns in historical prices that will be useful in identifying mispriced stocks will not work (Stephen A.K. Radolph W.W. and Bradfond D.J. 2003 pp 407).

Under semi strong form, all publicity available information is pre assumed to reflect in securities prices. This includes information, in the stock price series as well as in the
firm's accounting reports. The report of competing firm announced information relating to the state of economy and any other publicly available information relevant to the valuation of the firm (Haugen op-cit p. 575). This form of efficiency is controversial is that it implies that a security analysts who try to identify mispriced using it for example, financial statement information is wasting time because that information is already reflected in the current price (Ross op-city, pp. 407).

The strong form takes the notion of market efficiency to the estimate extreme. This form includes private or inside information as well as that which is publicly available. Under this form, those who acquire inside information act on it, buying or selling the stock. There action affect the price of stock and the price quickly adjusts to reflect the inside information (Haugen op. cit, pp 575). One obvious way to check the validity of the strongly efficient market hypothesis is to examine the profitability of traders in securities made by insiders to see if the insider's access to valuable information allows them to earn statistically significant trading profits (Francis J.C. 1991, p. 558). Thus, the strong form of the efficient market correctly prices securities adjusting quickly to new information either public or private.

### 2.3 Stock Price

Stock price is the amount of money that one has to pay to purchase/receive a stock of company. If 'A' busy 10 share of bank of Kathmandu from 'B', s/he pays Rs. 2000 for these 10 shares, than the price of share is Rs. 200 (i.e. 2000/10). Thus stock price is the amount paid by a buyer to buy one stock or the amount received by the seller by selling a stock. The stock price is determined in stock market, by market forces, i.e., demand (buyer's force) and supply (seller force). The demand and supply are based on the environmental forces and individual's future expectations/assumptions. The stock (market) price is different from its par value and book value.

### 2.3.1 Par Value

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 specific par value. Legally a corporation may be precluded from making payments to common stockholders if doing to
would reduce the balance sheet value of stockholders equity below the amount represented by the par valve of outstanding stock. For this reason the par value is typically low relative to the price for which the stock is initially sold. Some corporations issue no par stock (in the case, a stated value must be recorded in place of the par value). (Share, Alexander and Bailey, 2000 : pg 461). The initial offering price of share may vary from its pay value stock are issued on premium or discount.

### 2.3.2 Book Value

With the passage of time, a corporation will generate income, much of which is paid out to creditors (as interested) and to stockholders (as dividend). Any remainder is added to the amount shows as cumulative retained earnings on the corporation's books. The sum of the cumulative retained earnings and other entries (Such as "common stock" and "capital contributed in excess of par value") under stockholder's equity is the book value of the equity.

> | Cumulative retained earnings |
| :--- |
| + Capital contributed in excess of par |
| + Common stock |
| $=$ Book value of equity |

The book value per share is obtained by dividing the book value of the equity by the number of shares outstanding. (Sharp, Alexander and Bailey, 2000: pg 462).

### 2.3.3 Market Price of Share

Common stock can be authorized either with or without par value. Par value is the recorded figure in the corporate charter. Generally, par values of most stocks are set at fairly low figures with compare to their market values, and the market value pr share is the current price at which the stock is traded. Market value per share of common stock is the function of the current and expected future dividend of the current and expected future dividend on the company and the perceived risk of the stock on the part of investors (Van Hone and Machowicz, 2000:pg 546).

The market price of share gives the value of shares, and the value of the organization. The market price of shares is that price in which shares are traded or the amount, which is paid by the buyer to the seller to purchase a stock of a company. The market price of shares varies from one company to another. Since the common stockholders are the owner of the organization and have least priority to claim in liquidation, the share price is highly volatile and very sensitive to the environmental factors.

### 2.4 Reviews from Foreign Previous Studies

A study by Gupta (1989) on Stock Market Efficiency and price behaviour proves that the randomly generated price change look like stock price changes and they appear to exhibit cycles and other patterns.

Another study by cowles (1960) A Revision of previous conclusions regarding stock price behaviour reports that stock price moves with predictable trends. He has given a controversy to the random walk modes as a valid share price behaviour model in USA. This finding remamed a challenge against the random walk hypothesis more than two decades actually the errors occurred because, where each unit of time series even where the original series is an average of points within the unit the effect of such averaging will be to introduce positive first order correlation position first order correlation in the first differences of such a saries even where the original series a random series. In the study of serial correlation in price series it is important do bar in mind that the use of the average can introduce correlation not present in the original series.

Alexander (1961) tested the filter rule technique on the closing price of two indices, the Dow Jeans Industrials from 1897-1959 and standard and poor's Industrials from 19291959 and reported that in general, filters of all different sizes and all different periods yield substantial profits, significantly greater than that of simple buy and hold policy. Finally he concluded that the independence assumption is not validated as a description of reality by his data. But later in 1964 he corrected the shortcomings on his previous study were the failure to realize that dividend were costs rather than benefit. Alexander found that his filter rules produced very large rate of return, particularly for small filters. However when transaction costs are considered the abnormal return disappear for all filter rules.

Another study on the behaviour of stock market prices by Fame (1965) as alysed the movement of stock market price changes of all the stocks that make up the Dow Jones Industrial index for the period and 1952-1962 and investigated the daily proportional price changes of those so industrial stocks and auto correlation were estimated for a variety of lags ranges from 1 to 10 days. In this study, he found that the auto correlation coefficient for daily average being 0.03 near to 0 . Out of thirty, eleven auto correlation coefficient was significantly different from zero and lagged price changes show some degree of dependence. He further analyzed the data by run by total number of runs by sign and distribution of run by length. He found slight tendency for this to occur, but again the result were sufficient to accept the random walk hypothesis.

By Dryen (1970) on statistical study of U.K. share price concluded that the share price movements were non random. How in his later study he used serial. Correlation and runs analysis to examine the daily closing price of 14 individual stock of U.K. market and supported the independency hypothesis of successive price change. Similarly, Kemp and Remp (1971) study was also against the random walk theory. They derived the conclusion, that share price movements were conspicuously non-random over the period considered.

Thus, on the basis of reviews done above of the previous research works it may be concluded that the stock market price show a random movement and the security price appear to be serially independent. So, the investors can not develop any profitable trading strategy using the information of past series.

### 2.5 Reviews from Nepalese Previous Thesis Study

Numerous study has been conducted pertaining to the stock market on stock price behaviour. In Nepalese context, there are few studies on the stock market price. Some of them have been reviewed in brief.

Pradhan (1992) conducted his study on stock market behaviour in Nepalese by collecting the data of 17 enterprises from 1956 to 1990. The objectives of his study were to assess the stock market behaviour in Nepal to examine the relationship of market equity, market value to book value, price earning and divided with liquidity, profitability, leverage,
assets turnover and interest coverage. The major findings of his study were : the higher the earning of the stock, larger the ratio of dividend per share to market price per-share, stocks with larger ratio, positive relationship existed between dividend payout and turnover ratio. Positive relationship between dividend pay out and liquidity positive relationship between coverage and DPS and MPPS are positively correlated.

Aryal (1995) had studied General Behaviour of Stock Market Price with the objectives to discuss the movements of stock market price and to develop the empirical probability distribution of successive price change of an individual common stock market as a whole. This study was based on secondary information obtained from Nepal Stock Exchange. This study covers almost 8 months period and the sample was 21 listed stocks. He applied serial correlation and run test as statistical tools to analyse the data. The dependent nature of price series produces by general market fluctuation. Statistically implied that today's change is positively depending upon yesterday's price changes. This implied that there is a sufficient lack of financial and market analysts who are sophisticated and superior in analyzing the general market fluctuations, predicting the occurrence of future potential and economic events that their eventual effects on price series.

Shrestha (1999) conducted a research on stock price behaviour in Nepal with the objectives to examine the efficiency of stock market of Nepal and to examine the serial correlation successive daily price changes of the individual stocks to determine whether the sequence of price changes are consistent with the change of the series of random number expected under the independent Bernoulli process, to determine the efficiency of stock market though the theoretical model of Efficient Market Hypothesis in the stock market. The findings of the study were that when the log days increase the mean value of serial correlation of coefficient is lower that indicates that the past price changes may have low price to predict the future price changes in the long run. There exist to profitable trading rules to make greater profit that they would make under the naive buy and hold strategy in their speculation through the information of past price changes and Nepalese Stock Market is not efficient in pricing shares.

Poudel (2001) undertook his study on the share price movements of joint venture commercial banks in Nepal by using financial and statistical tools like standard deviation, correlation, beta, $t$-test etc. The major objectives of the study were to examine the price
movement of NEPSE and to judge whether the market share of different banking indicators like : book value per share and major financial ratios to explain the share price movements, to analyze the scenario why the shares of selected banks emerged as blue chips to the potential investors and to make a conclusion on the basis of financial ratios analysis. The findings of his study were that market price moves randomly, in the value per share does not accommodate all the available historical information. The beta coefficient which measures the riskier of individual securities in relative term it suggests that the stocks of joint ventures commercial banks are less risky as compared to other average stocks traded in the stock market.

Mainali (2003) undertook his study on the share price behaviour of listed commercial banks with major objectives as to analyze the share price behaviour of commercial banks listed with NEPSE and to examine the risk involved in the common stock investment of the sample commercial banks. His findings were that the past and present price changes can screen out some valuable information in forecasting future price changes and there exits a significant difference in the actual and expected number of runs for the series daily closing price changes of the sampled commercial banks and today's price change is dependent upon the information of yesterday's price changes.

Another study by Poudel (2003) on stock price movement of joint venture commercial banks with the major objectives to examine the movement of stock price in relation to Nepal joint venture commercial banks are either dependent on independent to historical price of the stock, to evaluate the risk and return proposition of investment on stock. The major findings of the study revealed that Nepalese stock market is not efficient but it builds hard to categories into the forms of Efficient Market Hypothesis and stock sampled banks were under priced thus one suggested to buy and hold the stock of joint venture commercial banks.

Another research entitled A Study of Stock Market Behaviour in Nepal by Gautams (2004) concludes that political instability and other laws related issues are the prominent factors for the under development of the security market in Nepal. She further concludes that stock broker and stock market are not being much active to create investment environment in stock market. Most of the investors are influenced through media only. Information defiance in the capital market may be one of the reason for the determination
of share price by excessive speculation. The available information is of low quality and people have very little knowledge of the trading procedure and price formation mechanism in NEPSE. Lack of effective laws and implication of the existing laws are the contributing factors for the less development of the capital market. She further argued that some of the major problems experienced by the stock market are the poor regulatory controls and supervision by SEBON and NEPSE.

Various studies have been taken in the field of share price behaviour. The significance of this study is to find out whether the successive daily price changes of all listed commercial banks are independent or not. The risk and return of commercial banks are examined to know the individual return pattern and risk involved.

## CHAPTER-III

## RESEARCH METHODOLOGY

### 3.1 Introduction

Any systematic research requires a proper and scientific methodology to achieve the set objectives. In order to achieve the objectives the following research methodology has been applied. This chapter deals with the research methods by the help of which the data collected and analyzed to achieve the results.

### 3.2 Research Design

A research design is the arrangement of conditions for collection and analysis data is a manner that aims to combine relevant to the research purpose with economy in procedure. Research design is the conceptual structure within which the research is conducted. The research adapted for this purpose of the study is descriptive research design. To determine the effect of book value, dividend and earning on stock price descriptive research design has been adapted along with correlation and regression analysis. And to identify the qualitative factors affecting stock price, descriptive research design has been adopted with non-parametric test using likert-type skill.

### 3.3 Research Hypothesis

Generally two complementary hypothesis are setup at one time. If one of the hypothesis is accepted then another is rejected-and-vice versa. There are two types of hypothesis. First one is null hypothesis which is also called hypothesis of no difference and next is alternative hypothesis, the hypothesis of difference.

The first hypothesis is based on the significance for correlation coefficient between market price of stock and earning (t-test).

## Null hypothesis

$\mathrm{H}_{0}=\rho=0$, there is no relation between earning and stock price, in other word earning does not affect stock price.

## Alternative hypothesis

$\mathrm{H}_{1}: \rho \neq 0$ there is relationship between earning and market price of stock or earning affects the market price of stock.

The second hypothesis is based on the significance for correlation coefficient between dividend and market price of stock, (t-test).

## Null hypothesis

$\mathrm{H}_{0}: \rho=0$, i.e. there is no difference between dividend and stock price in other word dividend doesn't affect stock price.

## Alternative hypothesis

$H_{1}: \rho \neq 0$, i.e., there is difference between dividend and stock price or dividend affects the stock price.

The third hypothesis is based on the significance for correlation coefficient between book value and stock price.

## Null hypothesis

$H_{0}: \rho=0$, i.e. there is no significance difference between book value and stock price or stock price does not depends upon book value.

## Alternative hypothesis

$H_{1}: \rho \neq 0$, i.e., there is significant difference between book value and stock price or stock price depends upon book value.

The fourth hypothesis is based on to test the significance of the effect of qualitative factors, collected from primary sources using z -test.

## Null hypothesis

$\mathrm{H}_{0}: \mu=\mu 0$, that is, population mean holds the specified value $\mu 0$. In other words, there is no significance difference between sample mean ( $\bar{x}$ ) and population mean $(\mu)$.

Alternative hypothesis
$\mathrm{H}_{1}: \mu \neq \mu 0$, i.e. there is significant difference between sample mean and population mean. In other words, sample mean $(\bar{x})$ differs from population mean $(\mu)$.

### 3.4 Population and Sample

This study intends to identity the factors that affect the stock price in NEPSE. So, the populations of this study are all listed companies in NEPSE up to July 2005, i.e. 125 listed companies. In this study ten sample organizations have been considered for analysis. Among these 125 listed companies on the basis of quota as well as convenience sampling form eight different group as shown in table 3.1.

Table 3.1
Population sample of listed companies

| S.N. | Group of Listed Companies | Total no. | Sample no. |
| :---: | :--- | :---: | :---: |
| 1. | Commercial Bank | 14 | 2 |
| 2. | Finance | 44 | 2 |
| 3. | Insurance | 14 | 1 |
| 4. | Manufacturing and Processing | 29 | 2 |
| 5. | Trading | 8 | 1 |
| 6. | Hotel | 4 | 1 |
| 7. | Development | 7 | 1 |
| 8. | Others | 5 | 0 |

There are only ten companies considered for research and these companies have moderate performance. The reasons of these companies indicate the approximate performance of listed companies in NEPSE. The sample organizations are :

Commercial Bank

1. Bank of Kathmandu Ltd.
2. Himalayan Bank Ltd.

## Finance

3. Mahalaxmi Finance Ltd.
4. National Finance Ltd.

Insurance
5. Everest Insurance Company Ltd.

Manufacturing and Processing
6. Uniliver Ltd.
7. Nepal Lube Oil Ltd.

Trading
8. Bishal Bazzar Corporation Ltd.

Hotel
9. Solti Hotel Ltd.

Development Bank
10. Development Credit Bank Ltd.

The secondary data of sample organization are analyzed to determine the relationship of earning dividend and book value with market price of stock in NEPSE. To identify the qualitative factors affecting the stock price in NEPSE, primary information are collected through questionnaire.

### 3.5 Study Period

This study includes six year data tentatively from 2001/02 to 2006/07.

### 3.6 Nature and Sources of Data

This study is based on secondary as wall as primary data. The quantitative data have been extracted from secondary sources. Company's annual financial statements have served the data required to capture the stock price of the firm. Company's balance sheet, income statement, financial ratio providing, information like dividend, earning, book value and market price etc. have been excessively employed as a secondary source of data. Similarly other concerned organization's journals, unpublished thesis, reports, news paper, internet websites have been used as secondary source of data collection.

The qualitative information required for the study has been collected from primary sources. The nature of primary data consists of two parts. First part serves to insight the nature of the characteristics of respondents and the firms being studied. The second part of data set extracts the necessary information from chief financial offices. Primary data have collected from the respondents through questionnaire. The respondents of primary data are investor bankers and academicians. However the primary data have their own significance to the study. The more and excessive use of secondary data has been exercised to fulfill the objective of the study.

### 3.7 Data Collection Techniques

The research study consists of both primary and secondary data. Secondary data have been collected from various reports, books, unpublished thesis, journal, magazine, internet website, AGM report of listed companies, NEPSE, SEBON etc. Trading report of SEBON is the major source of secondary data. These secondary data were collected through visiting to the Campus Library, T.U. Central Library and Library of Security Exchange Board Nepal. On the other hand primary data were collected through scheduled questionnaire from various investors, bankers and academicians.

### 3.8 Data Analysis Tools

The primary data secondary data collected from various sources leads to the logical conclusion-only if the appropriate tools and techniques are adapted to analyse the data following statistical and financial tools have been used which are explained here.

### 3.8.1 Statistical Tools

Statistical tools are the measures or the instruments to analyse the collected data from different sources. In statistics, there are numerous statistical tools of various natures to analyze the data. In this study following statistical tools have been used to analyse the data.

### 3.8.1.1 Average (Mean)

An average is a single valued related from a group of values to represent them in someway, a value, which is supposed to stand for whole group of which it is part, as typical of all the values in the group (Gupta, $1990:$ pg 9-7). There are various types of averages; Arithmetic mean (AM, simple and weighted), median, mode, geometric mean, harmonic mean, are the major types of averages. The most and widely used measure representing the entire data by one valued is the AM. The value of AM is obtained by adding together all the items and dividing this total by the number of items.

Mathematically,

$$
\begin{equation*}
\bar{x}=\frac{\sum x}{n} . \tag{3.1}
\end{equation*}
$$

Arithmetic Mean (AM) is given by, Gupta, 1992: pg 238).
Where,
$x=$ Arithmetic Mean.
$\sum x=$ Sum of all the valued of the variable x .
$\mathrm{n}=$ Number of observations.

### 3.8.1.2 Standard Deviation

The standard deviation ( $\sigma$ ) measures the absolute dispersion. The greater the standard deviation, greater will be the magnitude of the deviation of the values from their mean. A small standard deviation means a high degree of uniformity of the observations as well as homogeneity pf a series and vice versa.

$$
\begin{equation*}
\text { Mathematically } \sigma=\sqrt{\frac{1}{n} \sum(x-\bar{x})^{2}} . \tag{3.2}
\end{equation*}
$$

### 3.8.1.3 Coefficient of Variation

The standard deviation is absolute measures of dispersion; where as the coefficient of variation (CV) is a relative measure. To compare the variability between two or more series, CV is more appropriate statistical tool.

$$
\begin{equation*}
\text { Mathematically, } C V=\frac{\sigma}{x} \times 100 \tag{3.3}
\end{equation*}
$$

### 3.8.1.4 Correlation Coefficient

Correlation may be defined as the degree of linear relationship existing between two or more variables. Two variables are said to be correlated is accompanied by the change of another variable. If the increase (decrease) in the value of one variable on an average is associated with the increase (decrease) in the value of another variable, positive relationship is said to be existed. The relationship will be negative if increased (decreased) in the variable of one variable is associated with the decreased (increased) in the value of another variable. But the correlation coefficient always remains with in the limit of +1 to -1 . By Karl Pearson, the simple correlation coefficient (between two variables say $x$ and $y$ ) is given by :

$$
\begin{equation*}
r x y=\frac{r \sum x y-\sum x \sum y}{\sqrt{\left[n \sum x^{2}-\left(\sum x\right)^{2}\right]} \sqrt{\left[n \sum y^{2}-\left(\sum y\right)^{2}\right]}} \tag{Sthapit2004:pg.373-377}
\end{equation*}
$$

Where,
rxy is the correlation coefficient between two variables $x$ and $y$.

- $r$ lies between -1 and +1 , i.e. $-1 \leq r \leq+1$
- Where $\mathrm{r}=+1$, there is perfect positive correlation
- Where $r=-1$, there is perfect negative correlation
- Where $r=0$, there is no relation.
- Where r lies between 75 to $1(-0.75$ to -1$)$, there is very high (significant) degree of positive or negative correlation.
- Where r lies between 0.50 to $0.75(-0.50$ to -0.75$)$, there is high degree of positive or negative correlation.
- When $r$ lies between 0.25 to $0.50(-0.25$ to -0.50$)$, there is low degree of positive or negative correlation.
- When r lies between 0 to 0.25 ( 0 to -0.25 ), there is very low degree (insignificant) of positive or negative correlation.


### 3.8.1.5 Regression Analysis

Correlation coefficient measures the degree of relationship between two variables where as the regression analysis is used to estimate the likely value of one variable from the now value of other variable. In regression analysis we establish. In regression analysis we establish a kind of average irreversible functional relationship between two variables. In other words, regression analysis is a mathematical measure of the average relationship between two or more variable in term original unit of data (Sthapit, 2004 : pp 391).

The equation of regression line where the dependent variable y is determined by the independent variable x , is given by :
$Y=a+b x$

Where,
A = Intercept
$\mathrm{b}=$ Slope of regression line (i.e. it measure the change in the value of $y$ as a result of per unit change in value of $x$ or regression coefficient of $y$ on $x$ )

### 3.8.1.6 Coefficient of Determination

The coefficient of determination gives the percentage variation in the dependent variable that is accounted by independent variables. In other words, the coefficient of determination gives the ratio of expected variance to the total variance. The coefficient of determination is given by the square of the correlation coefficient, i.e. $r^{2}$. So the coefficient of determination

$$
r^{2}=\frac{\text { Expected Variance }}{\text { Total Variance }}
$$

### 3.8.1.7 Test of Hypothesis

Hypothesis means the presumption or quantitative statement of the population parameter which is to be tested and may be true or false. In statistics, hypothesis means a statistical statement about the value of one or more parameters of population. After setting the hypothesis, it is necessary to test the reliability of such statistical statements. For this purpose an experiment is conducted by using sample information and the hypothesis is rejected if the results obtained are improbable under this hypothesis. If the results are not improbable, the hypothesis is accepted. This procedure of drawing such conclusion based on sample information is known as testing of hypothesis (Sthapit 2004, pp 226).

The main goal of testing hypothesis is to test the characteristics of hypothesized population parameter based on sample information whether the difference between the population parameter and sample statistics is significant or not.

### 3.8.1.8 t-statistics

t -statistics is applied for the test of small sample. If the sample size is less than 30 that is called small sample and $t$-test is used.

The following formula is used to test an observed sample correlation coefficient.

$$
t=\frac{r}{\sqrt{1-r^{2}}} \times \sqrt{n-2} \propto t n-2
$$

Where,
$r=$ Simple Correlation Coefficient
$\mathrm{n}=$ Number of observation

### 3.8.1.9 z-statistics

To test the significance of the effect of qualitative factors collected from primary sources, z -test is carried out. z test is used since sample size is more than $30(\mathrm{~N}>30)$. The test of significance of single mean for large sample under Ho is :
$z=\frac{\bar{x}-\mu}{\frac{6}{\sqrt{n}}}$
Where,
S.E. $(\mathrm{x})=\frac{6}{\sqrt{n}}$

$$
\bar{x}=\text { Sample mean }
$$

$\mu=$ Population mean

In this study, the population mean $(\mu)$ is assumed as zero, assuming that such qualitative factors doesn't affect market price of stock.

### 3.8.2 Financial Tools

Except the statistical tools some financial tools have also used in this research work. The major financial tools used in this study are :

### 3.8.2.1 Earning Per Share (EPS)

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

Mathematically,

$$
\begin{equation*}
\text { EPS }=\frac{\text { Total Earning of a Company }}{\text { No. of Shares outstnding }} . \tag{3.8}
\end{equation*}
$$

### 3.8.2.2 Dividend Per Share (DPS)

The DPS is the amount paid as dividend to the holder of one share of the stock.

Mathematically,
DPS $=\frac{\text { Total Dividend paid }}{\text { No.of Sharesoutstnding }}$.

### 3.8.2.3 Market Price Per Share (MPS)

The MPS is the amount in which a share of the stock is traded in the market.

Mathematically,
MPS $=\frac{\text { Total Market capitalization }}{\text { No.of Shares outs } \tan \text { ding }}$.

### 3.8.2.4 Book Value Per Share (BPS)

The book value per share represents the real net worth per share. It is simple the ratio of net worth (Share capital plus retained earning, i.e. ownership capital) and the number of existing shares.

Mathematically,

$$
\begin{equation*}
B P S=\frac{\text { Networth }}{\text { No.of Sharesouts } \tan \text { ding }} . . \tag{3.11}
\end{equation*}
$$

### 3.9 Method of Data Presentation

The collected data are presented in simple and easily understandable tables. To make those data clear and more informative such data have been presented in figures like bar diagram, trend line and pie-chart whichever is relevant to explain the data more effectively, based on the nature of data. After presenting such data is the tables and figures, are analyzed using various statistical, mathematical and financial tools and techniques.

## CHAPTER-IV

## DATA PRESENTATION AND ANALYSIS

### 4.1 Introduction

In this chapter collected data and information are presented in systematic formats and analyzed using different appropriate tools and techniques. The relationship of the variable is presented in graphs and figures. The analysis of data consists organizing, tabulating and performing statistical analysis.

### 4.1.1 Analysis of Individual Company

The summary of the financial data of the sampled listed companies of this study are presented with six years data (from fiscal year 2002/2001 to 2005/2006 i.e. 2057/58 to 2062/63, if available) including market price of share (MPS; high, low and closing values), dividend per share (DPS cash, Stock and total dividend), Earning per share (EPS), Book value per share (BPS or Net work per share), and Market capitalization in Annex-I.

### 4.2 Relationship of DPS, EPS and BPS with MPS

To analyze the relationship of EPS, DPS and BPS with MPS, it is assumed that the market price of share is influenced with the changes in EPS, DPS and BPS. So MPS is the dependent variable; where as BPS, DPS and EPS are independent variables. In this section, relationship of EPS, DPS and BPS with MPS is determined separately to each of the sample listed companies. The correlation analysis is performed to determine the relationship of EPS, DPS and BPS with MPS. To determine the effects of DPS, EPS and BPS on MPS, simple correlations as well as their coefficient of determination are calculated. For the test of hypothesis of simple correlation coefficient's calculated $t$-value are compared with the tabulate t -value at $95 \%$ level of significance. To determine the magnitude of the effect of the independent variables to the dependent variable, simple regression analysis is made and the magnitude is identified after determining the
regression equations. In addition to that, standard errors of estimate are analyzed during the correlation and regression analysis.

### 4.2.1 Correlation and Regression Analysis of BOK

Table 4.1 summarizes the financial performance of BOK over last 6 years period and table 4.2 shows the relationship (correlation) of EPS, DPS and BPS to MPS along with the significance of such relationship.

Table 4.1
Summary of the Financial Performance of BOK

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :--- | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 850 | 0 | 140.02 | 27.97 |
| $2002 / 03$ | 254 | 10 | 112.21 | 2 |
| $2003 / 04$ | 295 | 5 | 124.93 | 17.22 |
| $2004 / 05$ | 430 | 10 | 140.37 | 27.40 |
| $2005 / 06$ | 850 | 5 | 155.47 | 39.31 |
| $2006 / 07$ | 990 | 10 | 160.21 | 35.13 |
| Mean | 611.50 | 8.33 | 138.87 | 24.84 |
| SD | 321.85 | 5.15 | 18.11 | 13.50 |
| CV | 52.63 | 61.99 | 13.04 | 54.35 |

Source : Annex-I and SPSS Software.

Table 4.2
Relationship of DPS, BPS and EPS with MPS of BOK

| Variables | r | $\mathrm{r}^{2}$ | t -cal | t -table | Remarks |
| :--- | :--- | :--- | :--- | :--- | :--- |
| rab | 0.867 | 0.751 | 3.4750 | 2.776 | Significant |
| rac | -0.112 | 0.012 | -0.2254 | 2.776 | Insignificant |
| rad | 0.870 | 0.758 | 3.5371 | 2.776 | Significant |

Source : Annex-II

Where,
t -table value is at $95 \%$ level of Significance ( $\mathrm{n}-2=6-2=4$ degree of freedom)
rab = correlation coefficnent of 'a' and 'b'
$\mathrm{r}^{2}=$ coefficient of (simple) determination
SD = Standard Deviation
CV = Coefficient of Variation
Mean $=$ Arithmetic Mean

The linear relationship of DPS, BPS, EPS of BOK is presented in figure 4.1.
Figure 4.1
Relationship of MPS with DPS, BPS and EPS of BOK


Source : Table 4.1

For BOK, it is found from the above tables and figure 4.1 that the MPS, BPS and EPS are increasing trend from few years and are moderate volatile with $52.63 \%$ coefficient of variation (CV) of MPS, 13.04\% CV of BPS and $54.35 \%$ CV of EPS. In comparison to these, DPS is highly volatile with $61.99 \% \mathrm{CV}$ in last six years period.

The simple correlation analysis shows the MPS of BOK is significantly positively correlated with DPS and EPS at $95 \%$ level of significance. It indicates that when DPS and EPS Increase, the MPS also increases and vice versa. On the other hand, MPS is significantly negatively correlated with DPS at $95 \%$ level of significance. It indicates that when EPS increases, the MPS decreases and vice versa. The coefficient of determination
shows that $75.10 \%$ of the changes in MPS is explained by DPS, $75.80 \%$ of the changes in MPS is explained by the EPS where as only $1.20 \%$ of the changes in MPS is explained by BPS. The degrees of correlation are significant at $95 \%$ confidence level with DPS and EPS, but insignificant with EPS.

From the simple regression analysis, the regression equations are found (MPS being dependent variable) as: (Annex-II)

## MPS on DPS

MPS $=169.69+27.20$ DPS
The regression constant 169.69 implies that when DPS is zero, MPS is Rs.169.69. The constant for DPS 27.20 implies that when DPS increases by Re.1, MPS also increases by Rs. 27.20 and vice versa. The simple correlation coefficient is 0.867 with 194.51 standard error of estimate.

## MPS on BPS

MPS=690.17-0.672 BPS

The regression constant 690.17 implies that when BPS is zero, MPS is Rs.690.17. The constant for BPS - 0.672, implies that when BPS increases by Rs.100, MPS decreases by Rs. 67.20 and vice versa. The simple correlation coefficient is -0.112 with 359.70 standard error of estimate.

## MPS on EPS

## MPS $=112.36+19.40$ EPS

The regression constant 112.36 implies that when EPS is zero, MPS is Rs.112.36. The constant for EPS 19.40 implies that when EPS increases by Re.1, MPS also increases by Rs.19.40 and vice versa. The correlation coefficient is 0.870 with 178.21 standard error of estimate.

### 4.2.2 Correlation and Regression Analysis of HBL

Table 4.3 summarizes the financial performance of HBL over last 6 years periods and Table 4.4 shows the relationship (correlation) of EPS, DPS and BPS to MPS along with the significance of such relationships.

Table 4.3
Summary of the Financial Performance of HBL

| Year | MPS (a) | DPS (b) | BPS (b) | EPS(d) |
| :--- | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 1500 | 27.50 | 240.20 | 93.56 |
| $2002 / 03$ | 1000 | 25 | 220.03 | 60.26 |
| $2003 / 04$ | 840 | 1.32 | 247.82 | 49.54 |
| $2004 / 05$ | 920 | 220 | 246.93 | 49.05 |
| $2005 / 06$ | 1100 | 231.50 | 239.59 | 47.91 |
| $2006 / 07$ | 1300 | 275.5 | 245.7 | 45.05 |
| Mean | 1110 | 130.14 | 240.05 | 57.56 |
| SD | 248.76 | 124.62 | 10.40 | 18.38 |
| CV | 22.41 | 95.77 | 4.33 | 31.94 |

Source: Annex-1 and SPSS Software

The Leaner relationship of DPS, EPS, BPS and MPS of HBL is presented in figure 4.2.
Figure 4.2
Relationship of MPS with DPS, BPS and EPS of HBL


Source: Table 4.3

It is revealed from the above table and figure 4.2, HBL has not consistent performance over its last six years period. DPS is very highly volatile with $95.77 \%$ CV. BPS is very less volatile with $4.33 \% \mathrm{CV}$. On the other hand MPS and EPS are little more volatile than BPS, with $22.41 \%$ CV of MPS and $31.94 \%$ CV of EPS.

Table 4.4
Relationship of BPS, EPS and DPS with MPS of HBL

| Variables | r | $\mathrm{r}^{2}$ | t -cal | t -table | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| rab | 0.049 | 0,002 | 0.0981 | 2,776 | Insignificant |
| rac | -0.527 | 0.277 | -1.2396 | 2.776 | Insignificant |
| rad | 0.887 | 0.786 | 3.8348 | 2.776 | Significant |

Source: Annex - II

From table 4.4, the simple correlation analysis revealed that the MPS is positively correlated with DPS and EPS, which indicates that when DPS and EPS increase, MPS also increases and vice versa. On the other hand MPS is negatively correlated with EPS, which indicates that when EPS increases, MPS decreases and vice versa. The coefficient of determination shows that $0.2 \%$ of the changes in MPS is explained by DPS, $27.70 \%$ of the changes in MPS is explained by BPS and $78.60 \%$ of the changes in MPS is explained by EPS. The degrees of correlation of DPS and BPS are insignificant with MPS at 95\% confidence level, but significant with EPS.

From the simple regression analysis the regression equations are found as: (Annex-II)

## MPS on DPS

MPS $=1164.91+0.199$ DPS

The regression constant 1164.91 implies that when DPS is zero, MPS is Rs.1164.91. The constant for DPS 0.199 implies that when DPS increases by Rs.100, MPS also increases by Rs. 19.90 and vice versa. The simple correlation coefficient is 0.049 with 385.12 standard error of estimate.

## MPS on BPS

MPS $=4505.96-14.130$ BPS
The regression constant 4505.96 implies that when BPS is zero, MPS is Rs.4505.96. The constant for BPS - 14.13, implies that when BPS increases by Re.1, MPS decreases by Rs.14.13 and vice versa. The simple correlation coefficient is -0.527 with 327.76 standard error of estimate

## MPS on EPS

MPS $=185.49+15.51$ EPS

The regression constant 185.49 implies that when EPS is zero, MPS is Rs.185.49. The constant for EPS 15.51 implies that when EPS is increases by Re. 1, MPS also increases by Rs.15.51 and vice versa. The simple correlation coefficient is 0.887 with 178.31 standard error of estimate.

### 4.2.3 Correlation and Regression Analysis of MFL

Table 4.5 summarizes the financial performance of MFL over last 6 years period and Table 4.6 shows the relationship of EPS, DPS and BPS to MPS along with the significance of such relationships.

Table 4.5
Summary of the financial performance of MFL

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :--- | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 210 | 30 | 141.08 | 43.84 |
| $2002 / 03$ | 245 | 25 | 152.44 | 37.13 |
| $2003 / 04$ | 270 | 20 | 131.82 | 24.60 |
| $2004 / 05$ | 264 | 10 | 140.44 | 30.44 |
| $2005 / 06$ | 260 | 62 | 148.89 | 26.83 |
| $2006 / 07$ | 250 | 60 | 152.40 | 30.31 |
| Mean | 249.83 | 34.5 | 144.51 | 32.19 |
| SD | 21.54 | 21.56 | 8.17 | 7.11 |
| CV | 8.62 | 62.54 | 5.65 | 22.10 |

Source: Annex-I and SPSS software

The linear relationship of DPS, EPS, BPS and MPS of MPL is presented in figure 4.3.
Figure 4.3
Relationship of MPS, DPS, BPS and EPS of MFL


Source: Table 4.5

It is seen, from the above table and figure 4.3 that MPS, BPS and EPS have less volatility. BPS is less volatile with $5.65 \%$ CV, MPS and EPS are little more volatile than BPS with $8.62 \% \mathrm{CV}$ and $22.10 \% \mathrm{CV}$ respectively. DPS is high volatile than other variable with 62.54\% CV.

Table 4.6
Relationship of DPS, BPS and EPS with MPS of MFL

| Variables | r | $\mathrm{r}^{2}$ | t -cal | t -table | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| rab | 0.068 | 0.005 | 0.1363 | 2.776 | Insignificant |
| rac | 0.708 | 0.501 | 2.0045 | 2.776 | Insignificant |
| rad | -0.436 | 0.190 | -0.9686 | 2.776 | Insignificant |

Source: Annex - II

Table 4.6 shows that, the simple correlation coefficient of DPS and BPS with MPS of MFL are positively correlated. Which suggests that on increase in DPS and BPS, MPS also increases and vice versa. But the EPS of MFL is negatively correlated with MPS, it means when EPS increases, MPS decreases and vice versa. The coefficient of
determination shows that $0.5 \%, 50.1 \%$ and $19.0 \%$ changes in MPS are explained by DPS BPS and EPS respectively. The degrees of correlation coefficients of all variables are not significant at $95 \%$ confidence level even though BPS is relatively more positively correlated with MPS than others.

From the simple regression analysis, the regression equations are found as: (Annex-11)

## MPS on DPS

MPS $=231.21+0.157$ DPS

The regression constant 231.21 implies than when DPS is zero, MPS is Rs.231.21. The constant for DPS 0.157 implies that when DPS is increase by Rs.100, MPS also increase by Rs. 15.70 and vice versa. The simple correlation coefficient is 0.068 with 45.48 standard error of estimate.

## MPS on EPS

MPS $=9.32+1.79$ BPS

The regression constant -9.32 implies that when BPS is zero MPS is Rs. 9.32 (but in Practice MPS never becomes negative even zero). The constant for BPS 1.79, implies that when BPS is increases by Re.1, MPS also increases by Rs.1.79 and vice versa. The simple correlation coefficient is 0.708 with 32.19 standard error of estimate.

## MPS on EPS

PS=317.03-2.52 EPS

The regression constant 317.03 implies that when EPS is zero, MPS is Rs.317.03. The constant for EPS-2.52 implies that when EPS increases by Re.1, MPS decreases by Rs.2.52 and vice versa. The simple correlation coefficient is -0.436 with 41.021 standard error of estimate.

### 4.2.4 Correlation and Regression Analysis of NFL

Table 4.7 summarize the financial performance of NFL over last six years period and Table 4.8 shows the relationship (correlation) of EPS, DPS and BPS to MPS along with significance of such relationships.

Table 4.7
Summary of the Financial Performance of NFL

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :---: | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 560 | 30 | 277.43 | 67.23 |
| $2002 / 03$ | 455 | 20 | 291.80 | 55.70 |
| $2003 / 04$ | 360 | 20 | 307.47 | 35.73 |
| $2004 / 05$ | 295 | 52.60 | 260.06 | 43.34 |
| $2005 / 06$ | 263 | 26.30 | 271.94 | 69.12 |
| $2006-07$ | 255 | 25.50 | 290.3 | 71.12 |
| Mean | 364.67 | 29.07 | 283.17 | 57.04 |
| SD | 121.29 | 12.16 | 16.77 | 14.78 |
| CV | 33.26 | 41.83 | 5.93 | 25.90 |

Source : Annex I-SPSS software and

The linear relationship of BPS, DPS and EPS with MPS of NFL is presented in figure 4.4.
Figure 4.4
Relationship of MPS with BPS, DPS and EPS of NFL


Source : Table 4.7

It is revealed from the above table and figure 4.4, MPS, DPS, BPS and EPS all the variables of NFL have moderate volatility. BPS lest volatile with $5.93 \% \mathrm{CV}$ and DPS is most volatile with $41.83 \%$ CV. MPS and EPS lies between, with $33.26 \%$ and $25.90 \%$ CV of MPS and EPS respectively.

Table 4.8
Relationship of DPS, BPS and EPS with MPS of NFL

| Variables | R | $\mathrm{r}^{2}$ | $\mathrm{t}-\mathrm{cal}$ | t -Table | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| rab | -0.315 | 0.10 | -0.6641 | 2.776 | Insignificant |
| rac | -0.015 | 0.00 | -0.0300 | 2.776 | Insignificant |
| rad | 0.344 | 0.119 | 0.7330 | 2.766 | Insignificant |

Source: Annex - II

Table 4.8 shows that, the simple correlation coefficient of MPS with EPS is positive, which suggests that on increasing EPS, MPS also increases and vice versa. Where as MPS is negatively correlated with DPS and BPS, Suggests that on increasing DPS and BPS, MPS decreases and vice versa. The simple coefficient of determination suggests that $10 \%$ of the changes in MPS is explained by DPS and $11.9 \%$ of the changes In MPS is explained by EPS. MPS is insignificant with all the in dependent variables at $95 \%$ level of significance.

From the simple regression analysis, the regression equations are found as: (Annex - II)

## MPS on DPS

MPS=481.28-2.650 DPS

The regression constant 481.28 implies that when DPS are zero, MPS is Rs.481.28. The constant for DPS -2.650 implies that when DPS increase by Re.1, MPS decreases by Rs.2.650 and vice versa. The simple correlation coefficient is -0.315 with 120.89 standard error of estimate.

## MPS on DPS

MPS=421.51- 0.076 BPS

The regression constant 421.51 implies that when BPS is zero, MPS is Rs.421.51. The constant for BPS -0.076 implies that when BPS increases by Rs.100, MPS decreases by Rs.7.60 and vice versa. The simple correlation coefficient is -0.015 with 127.38 standard error of estimate.

## MPS on EPS

MPS $=240.05+2.873$ EPS

The regression constant 240.05 implies that when EPS is zero, MPS is Rs.240.05. The constant for EPS 2.873 implies that when EPS increases by Re.1, MPS also increases by Rs.2.873 and vice versa. The simple correlation coefficient is 0.344 with 129.60 standard error of estimate.

### 4.2.5 Correlation and Regression Analysis of EIL

Table 4.9 summarizes the financial performance of EIL Over last six years Period and Table 4.10 show the relationship (correlation) of DPS, BPS and EPS with MPS along with the significance of such relationships.

Table 4.9
Summary of the financial Performance of EIL

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :---: | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 440 | 20 | 213.10 | 61.03 |
| $2002 / 03$ | 610 | 10 | 208.05 | 53.00 |
| $2003 / 04$ | 350 | 325 | 200 | 92.60 |
| $2004 / 05$ | 325 | 0 | 200 | 37.23 |
| $2005 / 06$ | 295 | 147.5 | 150 | 16.87 |
| $2006 / 07$ | 275 | 137.5 | 150 | 23.27 |
| Mean | 382.5 | 106.67 | 186.86 | 50.67 |
| SD | 125.41 | 25.32 | 28.98 | 27.59 |
| CV | 32.79 | 117.48 | 15.51 | 54.46 |

Source : Annex-I and SPSS software

The linear relationship of DPS, BPS, EPS and MPS of EIL is presented in figure 4.5.
Figure 4.5
Relationship of MPS with DPS, BPS, and EPS of EIL


Source : Table 4.9

It is revealed from the above table and figure 4.5 that the MPS, BPS and EPS of EIL have relatively consistent Performance over its last six years period where as DPS has highly fluctuating Performance. MPS and BPS are much more consistent with $32.79 \%$ and $15.51 \%$ CV respectively. EPS has slightly more fluctuating performance with $54.46 \%$ CV, and DPS is highly fluctuating performance with $117.48 \% \mathrm{CV}$.

Table 4.10
Relationship of BPS, EPS and DPS with MPS of EIL

| Variables | r | $\mathrm{r}^{2}$ | t -cal | t -Table | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| rab | -0.666 | 0.443 | 1.5456 | 3.182 | Insignificant |
| rac | 0.470 | 0.221 | 1.065 | 2.776 | Insignificant |
| rad | 0.083 | 0.007 | 0.1666 | 2.776 | Insignificant |

Source: Annex - II

From above table 4.10, the simple correlation analysis revealed that the MPS is highly positively correlated with BPS but it is slightly positively correlated with EPS where as it is negatively correlated with DPS. The positive correlation of independent variables with dependent variables suggests that on increasing the value of the independent variables,
the dependent variables (MPS) also increases and vice versa. On the other hand the negative correlation of the independent variables with MPS suggests that on increasing the DPS, the MPS decreases and vice versa. The simple coefficient of determination suggests that $44.30 \%, 22.10 \%$ and $0.7 \%$ of the change in MPS are explained by the changes in DPS, BPS and EPS respectively. DPS, BPS and EPS are not significantly correlated with MPS at $95 \%$ confidence level of EIL.

From the regression analysis, the regression equations are found as: (Annex-II)

## MPS on DPS

MPS=491.57-0.589 DPS

The regression constant 491.57 implies that when DPS is zero, MPS is Rs.491.57. The constant for DPS - 0.589 implies that when DPS increases by Rs.100, MPS decreases by Rs. 58.90 and vice versa. The simple con-elation coefficient -0.666 with 103.56 standard error of estimate.

## MPS on BPS

MPS $=-12.05+2.228$ BPS

The regression constant -12.05 suggests that when BPS is zero, MPS is Rs. -12.05 (but in reality the MPS never becomes negative, even zero). The constant for BPS 2.228 suggests that when BPS increases by Re.1, MPS also increases by Rs. 2.228 and vice versa. The correlation coefficient is 0.470 with 114.18 standard error of estimate.

## MPS on EPS

MPS=391.44+0.39 EPS
The regression constant 391.44 suggests that when BPS is zero, MPS is Rs.391.44. The constant for EPS 0.39 suggests that when EPS increases by Rs.100, MPS also increases by Rs. 39 and vice versa. The simple correlation coefficient is 0.083 with 128.91 standard error of estimate.

### 4.2.6 Correlation and Regression Analysis of ULL

Table 4.11 summarizes the financial performance of ULL over last six years period and table 4.12 shows the relationship (correlation) of DPS, BPS and EPS to MPS along with the significance of such relationships.

Table 4.11
Summary of the Financial Performance of ULL

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :---: | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 2200 | 55 | 431.13 | 73.90 |
| $2002 / 03$ | 1130 | 40 | 378.11 | 46.30 |
| $2003 / 04$ | 1400 | 90 | 389.30 | 101.19 |
| $2004 / 05$ | 1631 | 100 | 430.12 | 152.82 |
| $2005 / 06$ | 2500 | 400 | 235.61 | 205.50 |
| $2006 / 07$ | 2600 | 300 | 370.3 | 250.50 |
| Mean | 1910.17 | 164.17 | 372.43 | 138.37 |
| SD | 609.04 | 149.01 | 71.85 | 79.13 |
| CV | 31.88 | 90.77 | 19.29 | 57.18 |

Source : Annex-I and SPSS Software

Figure 4.6
Relationship of MPS with DPS, BPS and EPS of ULL


Source Table 4.11

It is revealed from the above table and figure 4.6, that ULL has not high fluctuation over its last six years period except DPS. MPS, BPS and EPS have closer degree of volatility with $31.88 \%$ of CV, $19.29 \%$ CV and $57.18 \%$ CV of MPS, BPS and EPS respectively. Relatively BPS has less volatility than others. The DPS has very high degree of volatility with $90.77 \%$ CV.

Table 4.12
Relationship of DPS, BPS and EPS with MPS of ULL

| Variables | r | $\mathrm{r}^{2}$ | t -cal | t -table | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| rab | 0.535 | 0.286 | 1,2663 | 25.776 | Insignificant |
| rac | -0.409 | 0.168 | -0.8968 | 2.776 | Insignificant |
| rad | 0.627 | 0.393 | 1.6095 | 2.776 | Insignificant |

Source: Annex -II

The table 4.12 shows that, the simple correlation analysis of ULL. The variable MPS is highly positively correlated with DPS and ESP where as it is negatively correlated with BPS. Positively correlated suggests that on increasing Independent variables (DPS and EPS), MPS also increases and vice versa where as negatively correlated suggests that on increasing BPS (i.e. independent variables), MPS decreases and vice versa. The simple coefficient of determination suggests that $28.60 \% 16.80 \%$ and $39.30 \%$ of the changes in MPS are explained by the changes in DPS, BPS and EPS respectively. MPS is not significantly positively correlated with DPS and EPS but negatively correlated with DPS at $95 \%$ confidence level.

From the simple regression analysis, the regression equations are found as: (Annex -II)

## MPS on DPS

MPS $=1598.83+2.13$ DPS

The regression constant 1598.83 implies that when DPS is zero, MPS is Rs.1598.83. The constant for DPS 2.13 implies that when DPS increases by Re.1, MPS also increases by Rs. 2.13 and vice versa. The simple correlation coefficient is 0.535 with 520.22 standard error of estimate.

## MPS on BPS

MPS $=3031.75-3.11 \mathrm{BPS}$

The regression constant 3031.75 implies that when BPS is zero" MPS is Rs.3031.75. The constant for BPS -3.11 implies that when BPS increases by Re.1, MPS decreases by Rs.3.11 and vice versa. The simple correlation coefficient is -0.409 with 561.60 standard error of estimate.

## MPS on EPS

$\mathrm{MPS}=1146.85+6.02 \mathrm{EPS}$

The regression constant 1146.85 implies that when EPS is zero, MPS is Rs.1146.85. The constant for EPS 6.02 implies that when EPS increases by Re.1, MPS also increases by 6.02 and vice versa. The simple correlation coefficient is 0.627 with 479.62 standard error of estimate.

### 4.2.7 Correlation and Regression Analysis of NLOL

Table 4.13 summarizes the financial performance of NLOL over last five years period and table 4.14 shows the relationship (correlation) of DPS, EPS and BPS to MPS along with the significance of such relationships.

Table 4.13
Summary of financial performance of NLOL

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :---: | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 584 | - | 200.00 | -10.89 |
| $2002 / 03$ | 400 | 15 | 190.22 | 30.63 |
| $2003 / 04$ | 350 | - | 195.59 | 20.89 |
| $2004 / 05$ | - | - | - | - |
| $2005 / 06$ | 350 | 15 | 71.38 | 20.89 |
| $2006 / 07$ | 350 | 15 | 200 | 30.63 |
| Mean | 406.8 | 15 | 171.44 | 18.43 |
| SD | 101.40 | 0 | 56.08 | 17.1 |
| CV | 24.93 | 0 | 32.71 | 92.78 |

Source; Annex -I and SPSS software

The linear relationship of DPS, BPS, EPS and MPS for NLOL is presented in figure 4.7.
Figure 4.7
Relationship of MPS with DPS, BPS and EPS of NLOL


Source : Table 4.13

From the above table and figure 4.7 presents computed CV of NLOL, it is found that DPS has consistent performance with $0 \% \mathrm{CV}$. Where as, MPS and BPS are slightly more volatile with $24.93 \%$ and $32.71 \% \mathrm{CV}$. But the EPS is highly volatile with $92.78 \% \mathrm{CV}$.

Table 4.14
Relationship of EPS, DPS and BPS with MPS of NLOL

| Variables | r | $\mathrm{r}^{2}$ | $\mathrm{t}-\mathrm{cal}$ | t -table | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| rab | Na | Na | Na | Na | Na |
| rac | 0.433 | 0.187 | 0.8318 | 3.182 | Insignificant |
| rad | -0.861 | 0.741 | r .9303 | 3.182 | Insignificant |

Source : Annex-II

Here, $\mathrm{Na}=$ Not applicable
(Note : the DPS of NLOL is only three years, so the relationship of DPS with MPS is not suitable here.)

From above table 4.14, the simple correlation coefficients of NLOL, it is shown that MPS is positively correlated with BPS. It indicates that when DPS increases, the MPS also increases and vice versa, on the other hand MPS is negatively correlated with EPS. It indicates that when EPS increases the MPS decreases and vice versa. The coefficient of determination indicates that $18.70 \%$ of the changes in MPS is explained by the changes in BPS and $74.10 \%$ of the changes in MPS is explained by the changes in EPS. The degrees of correlation of BPS and EPS are not significant with MPS of NLOL at 95\% confidence level.

From the simple regression analysis, the regression equations are found as: (Annex-II)

## MPS on BPS

MPS $=295.25+0.723$ BPS

The regression constant 295.25 implies that when BPS is zero, MPS is Rs.295.25. The constant for BPS 0.723 implies that when BPS increases by Rs.100, MPS also increases by 72.30 and vice versa. The simple correlation coefficient is 0.433 with 100.23 standard error of estimate

## MPS on EPS

MPS $=509.03-5.10$ EPS

The regression constant 509.03 implies that when EPS is zero, MPS is Rs.509.03. The constant for EPS -5.10 implies that when BPS increases by Re.1, MPS decreases by Rs.5.10 and vice versa. The simple correlation coefficient is -0.861 with 56.60 standard error of estimate.

### 4.2.8 Correlation and Regression Analysis of BBC

Table 4.15 summarizes the financial performance of BBC over last xix years period and table 4.16 show that relationship (correlation) of EPS, DPS and BPS to MPS along with the significance of such relationships.

Table 4.15
Summary of the Financial Performance of BBC

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :---: | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 584 | - | 200.00 | -10.89 |
| $2002 / 03$ | 400 | 15 | 190.22 | 30.63 |
| $2003 / 04$ | 350 | - | 195.59 | 20.89 |
| $2004 / 05$ | - | - | - | - |
| $2005 / 06$ | 350 | 15 | 71.38 | 20.89 |
| $206 / 07$ | 2400 | 100 | 150.40 | 82.41 |
| Mean | 1872.5 | 77.5 | 162.72 | 75.54 |
| SD | 454.18 | 18.1 | 27.40 | 7.55 |
| CV | 24.26 | 23.35 | 16.84 | 9.99 |

Source : Annex-I and SPSS software

The linear relationship of DPS, BPS, EPS and MPS for BBC is presented in figure 4.8.

Figure 4.8
Relationship of MPS with DPS, BPS and EPS of BBC


Source : Table 4.15

From the above table and figure 4.8 percents that the volatility is increasing trends with 9.99 \% of EPS, $16.84 \%$ of BPS, $23.35 \%$ of DPS and $24.26 \%$ of MPS.

MPS on DPS
MPS=1232.07+8.01 DPS

The regression constant 1232.07 implies that when DPS is zero, MPS is Rs.1232.07. The constant for DPS 8.01 implies that when DPS increase by Re. 1, MPS also increases by Rs.8.01 and vice versa. The simple correlation coefficient is 0.422 with 378.87 standard error of estimate.

## MPS on BPS

MPS=3131.57-8.17 BPS

The regression constant 3131.57 implies that when EPS is zero, MPS is Rs.3131.57. The constant for EPS -8.17 implies that when EPS Increases by Re.1, MPS decreases by Rs.8.17 and vice versa. The simple correlation coefficient is -0.588 with 338.04 standard error of estimate.

## MPS on EPS

MPS $=1734.71-0.538$ EPS

The regression constant 1734.71 implies that when EPS is zero MPS is Rs.1734.71. The constant for EPS 0.538 implies that when EPS increases by Rs.100, MPS also increases by 53.80 and vice versa. The simple correlation coefficient is 0.017 with 417.79 standard error of estimate.

### 4.2.9 Correlation and Regression Analysis of SHL

Table 4.17 summarizes the financial performance of SHL over last 6 years period and table 4.18 shows the relationship (correlation) of DPS, EPS and EPS to MPS along with the significance of such relationships.

Table 4.16
Summary of the Financial Performance of SHL

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :---: | :---: | :---: | :---: | :---: |
| $2001 / 02$ | 130 | 1 | 69.68 | 3.32 |
| $2002 / 03$ | 75 | - | 41.23 | -5.35 |
| $2003 / 04$ | 65 | - | 36.88 | -4.35 |
| $2004 / 05$ | 50 | - | 31.47 | -5.11 |
| $2005 / 06$ | 57 | - | 31.47 | -10.61 |
| $2006 / 07$ | 63 | - | 31.47 | -10.61 |
| Mean | 73.33 | 1 | 40.37 | -5.54 |
| SD | 28.99 | - | 14.90 | 5.13 |
| CV | 39.53 | - | 36.90 | -92.61 |

Source : Annex-I and SPSS software

The linear relationship of DPS, BPS, EPS and MPS for SHL is presented in figure 4.9.
Figure 4.9
Relationship of MPS with, DPS, BPS and EPS of SHL


Source : Table 4.17

It is revealed from the above table and figure 4.9, that the SHL has not consistent performance over its last six years period. MPS, BPS and EPS all variables are in decreasing trends. Dividend is not paying from last 4 year. BPS and DPS are less volatile than other with $39.53 \%$ and $36.90 \%$ CV respectively. EPS is very highly volatile with $92.61 \% \mathrm{CV}$.

Table 4.17
Relationship of BPS, EPS and DPS with MPS of SHL

| Variables | r | $\mathrm{r}^{2}$ | t -cal | t -table | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| rab | Na | Na | Na | Na | Na |
| rac | 0.972 | 0.946 | 8.3656 | 2.776 | Significant |
| rad | 0.938 | 0.880 | 5.4155 | 2.776 | Significant |

Source: Annex -II

Na refers for not Applicable

From table 4.18, it shows that the correlation between MPS and DPS are not calculated. MPS is highly positively correlated with BPS and EPS, which suggests that on increasing BPS and EPS, MPS also increases and vice versa. The coefficient of determination indicates, that $94.60 \%$ of the changes in MPS are explained by the changes in BPS and $88 \%$ of the changes in MPS are explained by the changes in EPS. The degree of correlation of MPS with BPS and EPS are significant at $95 \%$ confidence level.

From the simple regression analysis, the regression equations are found as: (Annex - II)

## MPS on BPS

MPS $=22.42+2.39 \mathrm{BPS}$

The regression constant -22.42 implies that when BPS is zero, MPS is Rs.-22.42 (But in practice MPS never becomes negative, even zero). The constant for BPS 2.39 implies that when BPS increases by Re.1, MPS also increases by Rs. 2.39 and vice versa. The simple correlation coefficient is 0.972 with 11.27 standard Error of estimate.

## MPS on EPS

MPS $=104.78+6.223 \mathrm{EPS}$

The regression constant 104.78 suggests that when EPS is zero, MPS is Rs.104.78. The constant for BPS 6.22 suggest that when EPS increases by Re. 1, MPS also increases by Rs. 6.223 and vice versa. The simple correlation coefficient is 0.938 with 16.78 standard error of estimate.

### 4.2.10 Correlation and Regression Analysis of DCB

Table 4.19 summarizes the financial performance of DCB over its last 5 years period and table 4.20 shows the relationship (correlation) of EPS, BPS and DPS to V1PS along with the significance of such relationships.

Table 4.18
Summary of the Financial Performance of DCB

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :--- | :---: | :---: | :---: | :---: |
| $2002 / 03$ | 145 | - | 105.93 | 5.85 |
| $2003 / 04$ | 167 | 10 | 105.27 | 10.41 |
| $2004 / 05$ | 305 | 10 | 112.72 | 19.22 |
| $2005 / 06$ | 390 | 12 | 120.48 | 22.27 |
| $2006 / 07$ | 405 | 12 | 125.4 | 24.15 |
| Mean | 260.67 | 11 | 111.65 | 13.67 |
| SD | 121.23 | 1.15 | 9.74 | 9.70 |
| CV | 46.51 | 10.50 | 8.73 | 70.94 |

Source: Annex-I and SPSS Software

The linear relationship of DPS, BPS EPS and MPS for DCB is presented in figure 4.10

Figure 4.10
Relationship of MPS with DPS, BPS and EPS of DCB


Source: Table 4.20

It is revealed from the above table and figure 4.10, that all the variables of DCB are slightly increasing trend. DPS and BPS are more consistent performance than others with $10.50 \%$ and $8.73 \%$ CV respectively. MPS is more volatile than DPS and BPS with $46.51 \%$ CV. EPS is highly volatile with $70.94 \%$ CV.

Table 4.19
Relationship of BPS, DPS and EPS with MPS of DCB

| Variable | r | $\mathrm{r}^{2}$ | t -cal | t -table | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| rab | 0.790 | 0.624 | 1.2883 | 12.706 | Insignificant |
| rac | 0.953 | 0.909 | 5.4718 | 3.182 | Significant |
| rad | 0.923 | 0.852 | 4.1556 | 3.182 | Significant |

Source: Annex - II
(Dividend payment of DCB is only 3 yrs i.e. Relationship of MPS and DPS are calculate only last 3 yrs)

The simple correlation revealed that from table 4.20, the MPS is highly positively correlated with DPS, BPS and EPS, which suggests that on increasing DPS, BPS and EPS, MPS also increases and vice versa. BPS is higher correlated than others. The coefficient of determination suggests that $62.40 \%, 90.90 \%$ and $85.20 \%$ of the changes in MPS are explained by the changes in DPS, BPS and EPS respectively. The degree of correlation of MPS with DPS is not significant but the degree of correlation of MPS with BPS and EPS are significant at $95 \%$ confidence level.

From the simple regression analysis the regression equations are found as: (Annex - II)

## MPS on DPS

MPS $=-534.00+77.00 \mathrm{DPS}$

The regression constant -534.00 implies that when DPS is zero, MPS is Rs.-534.00 (but in practice MPS never becomes negative even zero). The constant for DPS 77.00 implies that when DPS increases by Re.1, MPS also increases by Rs. 77.00 and vice versa. The simple correlation is 0.790 with 97.58 standard error of estimate.

## MPS on BPS

MPS $=-1220.24+13.33$ BPS

The regression constant -1220.24 implies that when BPS is zero, MPS is Rs. 1220.24 (but in practice MPS never becomes negative even zero). The constant for BPS 13.33 implies that when BPS is increases by Re.1, MPS also increases by Rs. 13.33 and vice versa. The simple correlation coefficient is 0.953 with 38.32 standard error of estimate.

## MPS on EPS

MPS=103.95 + 11.04 EPS

The regression constant 103.95 suggests that when EPS is zero, MPS is Rs.103.95. The constant for EPS 11.04 suggests that when EPS is increases by Re.1, MPS also increases by Rs. 11.04 and vice versa. The simple correlation coefficient is 0.923 with 48.91 standard error of estimate.

### 4.3 Comparative Analysis of Correlation Coefficients of Sampled Companies

In the section 4.2, the correlation of MPS, for all the sampled companies with DPS, BPS and EPS is calculated separately. Now in this section, thus calculated correlation coefficient are compared among the sampled 10 companies to draw a conclusion of the relationship of the independent variables (DPS, BPS and EPS) to the dependent variable (MPS). In table 4.21, all the computed correlation coefficients of MPS with DPS, BPS and EPS from table 4.2 to 4.20 are presented for each of the listed companies to compare such correlation coefficients of these 10 sampled listed companies.

Table 4.20
Comparison of Correlation Coefficients of Sampled Companies

| Sampled Companies | Correlation coefficient of MPS with |  |  |
| :--- | :---: | :---: | :---: |
|  | DPS | BPS | EPS |
| BOK | 0.867 | -0.112 | 0.870 |
| HBL | 0.049 | -0.527 | 0.887 |
| MFL | 0.068 | 0.708 | -0.436 |
| NCL | -0.315 | -0.015 | 0.344 |
| EIL | -0.666 | 0.470 | 0.083 |
| ULL | 0.535 | -0.409 | 0.627 |
| NILOL | - | 0.433 | -0.861 |
| BBC | 0.422 | -0.588 | 0.017 |
| SHL | - | 0.972 | 0.938 |
| DCB | 0.790 | 0.953 | 0.923 |

Source: Table 4.2 to 4.20

The graphical correlation coefficient of DPS, BPS and EPS with MPS are shown in figure 4.11.

Figure 4.11
Comparative Correlation Coefficient of Sample Companies


From the above table 4.21, it is seen that the correlation coefficient of MPS and DPS is negative for 2 sampled companies among 10 companies considering NLOL and SHL have not sufficient data for correlation, 6 companies has positive correlation coefficient and other 2 has negative correlation coefficient. It reveals the most of the listed company's Market price in NEPSE has positive relationship with dividend. So, we can consider DPS as one of the factors that affect the MPS in NEPSE, even though the relationship of MPS with DPS is not consistent. Similarly, the correlation coefficient of MPS and BPS shows that, the correlation coefficient for 5 out of 10 sampled companies are negative. It is concluded that there is no consistent relationship of BPS to the MPS in NEPSE. So, BPS is not strong factors, which affect the MPS in NEPSE from these correlation analyses of the sampled companies separately. On the same way, the correlation coefficients of MPS and EPS show that, the correlation coefficient for 2 out of 10 companies is negative. It suggests that, the most of company's market price listed in NEPSE has positive relationship with earnings. So, EPS is another factor, which affect the MPS in NEPSE.

From the above table and figure it is ^en that MPS is highly positively correlated with DPS for BOK where is it is negatively correlated with DPS for NEL and EIL. Similarly, the MPS is highly positively correlated with BPS for SHL and DCB, where as it is moderately negatively correlated with BPS for HBL and BBC. On the same way, the MPS is highly positively correlated with EPS for SHL and DCB where as, it is highly negatively correlated with EPS for NLOL.

### 4.4 Analysis of Primary Data

To explore the qualitative factors affecting the market Price of shares in NEPSE, primary information were collected from the respondents of the questionnaire (stock investors, stock brokers, teachers and students of financial management, senior officers of listed companies and senior personnel of NEPSE and SEBO/N). 18 factors affecting the market price of shares were identified in the questionnaire and the primary information was collected from 36 respondents. The answers of the respondents are marked from +2 to -2 on the basis of the degree of agreement to disagreement of the respondents. ( -2 for strongly disagree, -1 for disagree, 0 for undecided, +1 for agree and +2 for strongly disagree); using five degree likert-type scale. The summaries of the respondent's response
for each of the identified factors are presented in this section separately. All the necessary calculation for these sections are presented in Annex-III and IV with the help of MS. Excel software.

### 4.4.1 Higher the Earnings (EPS), Higher the Share price

The responses of the respondents for the affect of EPS to the market price of share were found as shown in table 4.22.

Table 4.21
Higher the Earnings (EPS), Higher the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 5 | 13.89 |
| 2. | Agree (A) | 26 | 72.22 |
| 3. | Undecided (U) | 3 | 8.33 |
| 4. | Disagree (D) | 2 | 5.56 |
| 5. | Strongly Disagree (SD) | 0 | 0.00 |
| Total |  |  |  |

Source : Annex-III

From the primary responses it is found that 86.11 of the respondents were agree that the increased earnings increases the share price in the market. Only $5.56 \%$ were disagree and $8.33 \%$ were undecided with that statement. So the increase in EPS significantly increases the market price of share and vice versa at $95 \%$ level of significance (Annex-IV).

### 4.4.2 Higher the Cash Dividend, Higher the Share Price

The respondent's response for the affect of cash dividend to the market price of share was found as shown in table 4.23.

Table 4.22
Higher the Cash Dividend, Higher the Share Price

| S.N. | Response | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 6 | 16.67 |
| 2. | Agree (A) | 23 | 63.89 |
| 3. | Undecided (U) | 3 | 8.33 |
| 4. | Disagree (D) | 3 | 8.33 |
| 5. | Strongly Disagree (SD) | 1 | 2.78 |
| Total |  |  |  |

Source: Annex-III

From the primary responses it is found that $80.56 \%$ of the respondents were agree that the increased cash dividend increases the share price in the market. Only $11.11 \%$ were disagree and $8.33 \%$ were undecided to the statement. So the increase in cash dividend significantly increases the market price of share and vice versa at $95 \%$ level of significance (Annex IV).

### 4.4.3 Lower the Growth Rate (g), Higher the Share Price

The respondent's responses for the affect of the company's growth rate to the market Price of share were found as shown in table 4.24.

Table 4.23
Lower the Growth Rate (g), Higher the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (S A) | 0 | 0.00 |
| 2. | Agree (A) | 3 | 8.33 |
| 3. | Undecided (U) | 8 | 22.23 |
| 4. | Disagree (D) | 22 | 61.11 |
| 5. | Strongly Disagree (SD) | 3 | 8.33 |
| Total |  | 36 | 100 |

Sources: Annex - III

From the Primary responses it is found that $69.44 \%$ of the respondents were not agree that the decreased growth rate of the company increase the share price in the market. Only $8.33 \%$ were agree and 22.23 were undecided to the statement. So the increase in company's growth rate significantly increases the market price of share and vice versa at 95\% level of significance (Annex IV).

### 4.4.4 Stock Dividend Increases the Share Price

The responses of the respondent's for the affect of the stock dividend to the market price of share was found as shown in table 4.25.

Table 4.24
Stock Dividend Increases the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 2 | 5.55 |
| 2 | Agree (A) | 17 | 47.22 |
| 3. | Undecided (U) | 6 | 16.67 |
| 4. | Disagree (D) | 10 | 27.78 |
| 5. | Strongly Disagree (SD) | 1 | 2.78 |
| Total |  |  |  |

Sources: Annex -II

From the primary responses it is found that $52.77 \%$ of the respondents were agree to the statement "Stock dividend increases the share Price" where as $30.56 \%$ were found disagree and $16.67 \%$ were found undecided to the statement. So the stock dividend doesn't significantly affect the market price of share at $95 \%$ level of significance (Annex IV).

### 4.4.5 Higher Cost of Equity (ke) Reduces the Share Price

The responses of the respondent's for the affect of cost of equity to the market price of share was found as shown in Table 4.26.

Table 4.25
Higher Cost of Equity (ke) reduces the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 2 | 5.56 |
| 2. | Agree (A) | 16 | 44.44 |
| 3. | Undecided (U) | 7 | 19.44 |
| 4. | Disagree (D) | 10 | 27.78 |
| 5. | Strongly Disagree (SD) | 1 | 2.78 |
| Total |  |  |  |

Source: Annex III

From the primary responses it is found that $50 \%$ of the respondents were agree to the statement "higher cost of equity reduces share Price" where as $30.56 \%$ were found disagree and $19.44 \%$ were found undecided to the statement. So the cost of equity doesn't significantly affect the market price of share at $95 \%$ level of significance (Annex IV).

### 4.4.6 Change in Policy by National Bank Affects the Share Price

The respondent's responses for the affect of policy change by National Bank to the market price of share were found as shown in table 4.27.

Table 4.26
Policy Change by National Bank Affects the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 4 | 11.11 |
| 2. | Agree (A) | 19 | 52.78 |
| 3. | Undecided (U) | 7 | 19.44 |
| 4. | Disagree (D) | 10 | 11.11 |
| 5. | Strongly Disagree (SD) | 7 | 5.56 |
| Total |  |  |  |

Source: Annex III

From the primary responses it is found $63.89 \%$ to the respondents were agree to the statement "Change in Policy by National Bank affects the share Price" where as $16.67 \%$
were found disagree and $19.44 \%$ were found undecided to the statement. So the change in policy by National Bank significantly affects the share price at $95 \%$ level of significance (Annex IV).

### 4.4.7 Instability of Government Reduces the Share Price

The response of the respondent's for the affect of instability of government to the market Price of share was found as shown in tale 4.28 .

Table 4.27
Instability of Government Reduces the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 4 | 11.11 |
| 2. | Agree (A) | 24 | 66.67 |
| 3. | Undecided (U) | 5 | 13.86 |
| 4. | Disagree (D) | 3 | 8.83 |
| 5. | Strongly Disagree (SD) | 0 | 0 |
| Total |  |  |  |

Source: Annex III

From the responses it is found that $77.78 \%$ of the respondents were agree to the statement "instability of government reduces the share price" where as $8.33 \%$ were found disagree and $13.89 \%$ were found undecided to the statement. So the government's instability significantly affects negatively to the market price of share at $95 \%$ significance level (Annex IV).

### 4.4.8 Strikes, Demonstrations Reduces the Share Price

The responses of the respondent's for the affect of strikes/demonstration to the market price of share were found as shown in table 4.29.

Table 4.28
Strikes, Demonstrations Reduces the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 3 | 8.33 |
| 2. | Agree (A) | 26 | 72.23 |
| 3. | Undecided (U) | 3 | 8.33 |
| 4. | Disagree (D) | 3 | 8.33 |
| 5. | Strongly Disagree (SD) | 1 | 2.78 |
| Total |  |  |  |

Source: Annex - III

From the primary responses it is found that $80.56 \%$ of the respondents were agree to the statement "strikes, demonstrations reduces the share prices" where as $11.11 \%$ were found disagree and $8.33 \%$ were found undecided to the statement. So strikes, demonstration significantly affect the share price negatively at $95 \%$ significance level (Annex IV).

### 4.4.9 Peace Process Affect Positively to the Share Price

The respondent's response for the affect of peace process to the market price of share was found as shown in table 4.30.

Table 4.29
Peace Process Affect Positively to the Share Price

| S.N | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 5 | 13.89 |
| 2. | Agree (A) | 25 | 69.44 |
| 3. | Undecided (U) | 3 | 8.33 |
| 4. | Disagree (D) | 2 | 5.56 |
| 5. | Strongly Disagree (SD) | 1 | 2.78 |
| Total |  |  |  |

Source: Annex-III

From the primary responses it is found that 83.33 of the respondents were agree to the statement "peace process affect positively to the share price "where as $8.34 \%$ were found disagree and $8.33 \%$ were found undecided to the statement. So the peace process significantly affects the market price of share positively at $95 \%$ level of significance (Annex IV).

### 4.4.10 Better the National Economy Better the Share Price

The respondent's responses for the affects of national economy to the market price of share were found as shown in table 4.31.

Table 4.30
Better the National Economy Better the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 4 | 11.11 |
| 2. | Agree (A) | 23 | 63.89 |
| 3. | Undecided (U) | 5 | 13.89 |
| 4. | Disagree (D) | 3 | 8.33 |
| 5. | Strongly Disagree (SD) | 1 | 2.78 |
| Total |  |  |  |

Source: Annex-III

From the primary responses it is found that $75 \%$ of the respondents were agree to the statement "better the national economy, better the share price" where as $11.11 \%$ were found disagree and $13,89 \%$ were found undecided to the statement. So the national economy significantly affects the market price of share positively at $95 \%$ level of significance (Annex IV).

### 4.4.11 Better the Global Economy, Better the Share Price

The respondent's responses for the affect of global economy to the market price of share were found as shown in table 4.32.

Table 4.31
Batter the Global Economy, Better the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 2 | 5.56 |
| 2. | Agree (A) | 12 | 33.33 |
| 3. | Undecided (U) | 14 | 38.89 |
| 4. | Disagree (D) | 7 | 19.44 |
| 5. | Strongly Disagree (SD) | 1 | 2.78 |
| $\quad$ Total |  |  |  |

Source: Annex III

From the primary responses it is found that $38.89 \%$ of the respondents were agree to the statement "better the global economy better the share price" where as $22.22 \%$ were found disagree and $38.89 \%$ were found undecided. So the global economy doesn't significantly affects share price at $95 \%$ level of significance (Annex IV).

### 4.4.12 Higher the Market Liquidity, Lower the Share Price

The respondent's responses for the affect of market liquidity to the market price of share were found as shown in table 4.33.

Table 4.32
Higher the Market Liquidity, Lower the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 2 | 5.56 |
| 2. | Agree (A) | 9 | 25.00 |
| 3. | Undecided (U) | 10 | 27.78 |
| 4. | Disagree (D) | 12 | 33.33 |
| 5. | Strongly Disagree (SD) | 3 | 8.33 |
|  | Total | 36 | 100.00 |

[^0]From primary responses it is found that $36.56 \%$ of the respondents were agree to the statement "higher the market liquidity lower the share price" where as $41.66 \%$ were found disagree and $27.78 \%$ were found undecided to the statement. So the market liquidity doesn't significantly affects share price at $98 \%$ level of significance (Annex IV).

### 4.4.13 Higher the Risk of a Company, Higher the Share Price

The respondent's responses for the affect of company's risk to the market price of share were found as shown in table 4.34.

Table 4.33
Higher the Risk of a Company, Higher the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 1 | 2.78 |
| 2. | Agree (A) | 7 | 5.56 |
| 3. | Undecided (U) | 7 | 19.44 |
| 4. | Disagree (D) | 77 | 61.11 |
| 5. | Strongly Disagree (SD) | 4 | 11.11 |
|  | Total | 36 | 100.00 |

Source: Annex -III

From the primary responses it is found that $8.34 \%$ of the respondents were agree to the statement "higher the risk of a company higher the share price "where as $72.22 \%$ were found disagree and $19.44 \%$ were fond undecided to the statement. So the company's risk significantly affects the market price of share negatively at $95 \%$ level of significance (Annex -IV).

### 4.4.14 Share Price Increases with Change in Management

The respondent's responses for the affect of change in management to the market price of share were found as shown in table 4.35.

Table 4.34
Share Price Increase with Change in Management

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 0 | 0.00 |
| 2. | Agree (A) | 6 | 16.67 |
| 3. | Undecided (U) | 19 | 52.77 |
| 4. | Disagree (D) | 10 | 27.78 |
| 5. | Strongly Disagree (SD) | 1 | 2.78 |
| Total |  |  |  |

Source: Annex-III

From the primary responses it is found that only $16.67 \%$ of the respondents were agree to the statement "share price increases with change in management "where as $30.56 \%$ were found disagree and $52.77 \%$ were found undecided to the statement. So the management change doesn't significantly affects the market price of share at $95 \%$ level of significance (annex IV).

### 4.4.15 Lower the EPS, Higher the Share Price

The respondent's for the affect of EPS to the market price of share were found as shown in table 4.36.

Table 4.35
Lower the BPS, Higher the Share Price

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 0 | 0.00 |
| 2. | Agree (A) | 3 | 8.33 |
| 3. | Undecided (U) | 6 | 16.67 |
| 4. | Disagree (D) | 23 | 63.89 |
| 5. | Strongly Disagree (SD) | 4 | 11.11 |
| Total |  |  |  |

Source: Annex III

From the primary responses it is found that only $8.33 \%$ of the respondent's were agree to the statement "lower the BPS, higher the share price" where as $75 \%$ were found disagree and $16.67 \%$ were found undecided to the statement. So the BPS significantly affects the market price of share negatively at $95 \%$ level of significance (Annex IV).

Except these 15 sample questions regarding the factors affecting the share price in NEPSE, other 3 sample questions were asked to the respondents of the questionnaire concerning to the capital market in Nepal.

### 4.4.16 Capital Market is not well Developed Due to Poor Regulatory Mechanism

The respondent's responses for the regulatory mechanism in Nepalese capital market were found as shown in table 4.37.

Table 4.36
Capital Market is not Well Developed Due to Poor Regulatory Mechanism

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 5 | 13.89 |
| 2. | Agree (A) | 19 | 52.78 |
| 3. | Undecided (U) | 5 | 13.89 |
| 4. | Disagree (D) | 5 | 13.89 |
| 5. | Strongly Disagree (SD) | 2 | 5.55 |
| Total |  |  |  |

Source: Annex - III

From the Primary responses it is found that $66.67 \%$ of the respondents were agree to the statement "Capital market is not well developed due to poor regulatory mechanism" where as $19.44 \%$ were found disagree and $136.59 \%$ were found undecided to the statement. So the capital market is not well developed due to poor regulatory mechanism significant at $95 \%$ level of significance (Annex IV).

### 4.4.17 Public Listed Companies are not Serious Towards Shareholder's Interest

The respondent's responses for listed companies toward shareholder's interest were found as shown in table 4.38.

Table 4.37
Listed Companies are not serious towards Shareholder's Interest

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 6 | 16.67 |
| 2. | Agree (A) | 18 | 50.00 |
| 3. | Undecided (U) | 4 | 11.11 |
| 4. | Disagree (D) | 6 | 16.67 |
| 5. | Strongly Disagree (SD) | 2 | 5.55 |
| Total |  |  |  |

Source: Annex - III

From the primary responses it is found that $66,67 \%$ of the respondents were agree to the statement " public listed companies are not serious towards shareholder's interest" where as $22.22 \%$ were found disagree and $11.11 \%$ were found undecided to the statement. So the listed companies are not serious towards shareholder's interest significant at $95 \%$ level of significance (Annex- IV).

### 4.4.18 NEPSE and SEBO/N are Able to Protect Share Holder's Interest

The respondent's response for NEPSE and SEBO/N's performance to protect shareholder's interest were found as shown in table 4.39.

Table 4.38
NEPSE and SEBO/N are Able to Protect Shareholder's Interest

| S.N. | Responses | No. | Percentage |
| :---: | :--- | :---: | :---: |
| 1. | Strongly Agree (SA) | 2 | 5.56 |
| 2. | Agree (A) | 6 | 16.67 |
| 3. | Undecided (U) | 4 | 11.11 |
| 4. | Disagree (D) | 19 | 52.77 |
| 5. | Strongly Disagree (SD) | 5 | 13.89 |
| Total |  |  |  |

[^1]From the primary responses it is found that $22.23 \%$ of the respondents were agree to the statement "NEPSE and SEBO/N are able to protect shareholder's interest" where as $66.66 \%$ were found disagree and 11.11 were found undecided to the statement. So the NEPSE and SEBO/N are not able to protect shareholder's interest significant at $95 \%$ level of significance (Annex IV).

### 4.5 Empirical Findings of the Study

In its study, from the secondary data, the relationship of dividend, book value and the earnings with the share price was determined on the other hand, from the primary data collected from the respondents of the questionnaire identified the factors affecting the share price in NEPSE. Here, in this section the empirical findings of the secondary and primary data analysis are described separately.

### 4.5.1 Empirical Findings from the Secondary Data Analysis

From the analysis of the secondary data of the sampled companies; following major findings are drawn out.

- The market price of share (MPS) is positively correlated with DPS and EPS for BOK, and these relationships are significant at $95 \%$ level of significance but the MPS is negatively correlated with BPS and the relationship is not significant at 95\% level of significance. MPS, BPS and EPS are moderate volatile, while DPS is highly volatile than others.
- MPS of HBL is positively correlated with DPS and EPS but it is negatively correlated with BPS. The relationship of MPS with DPS and BPS are insignificant, where as it is significant with EPS at $95 \%$ level of significance. MPS, BPS and EPS are less volatile, while DPS is very high volatile.
- For MFL, MPS is positively correlated with DPS and BPS but it is negatively correlated with EPS. None of the relationships are significantly con-elated at 95\% level of significance. The performance of MFL is less volatile.
- The MPS is positively correlated with EPS but it is negatively correlated with DPS and BPS for NFL. But none of the relationships are significantly correlated at 95\% level of significance. NFL has consistent performance.
- For EIL, MPS is negatively correlated with DPS where as it is positively correlated with EPS and EPS but none of the relationships are significant at $95 \%$ level of significance. The MPS, BPS and EPS of EIL are less volatile whereas DPS is very high volatile.
- For ULL, MPS is positively correlated with DPS and EPS where as it is negatively correlated with DPS but none of the relationship are significant at $95 \%$ level of significance. MPS, BPS and EPS have consistent performance but DPS is very high volatile.
- The MPS of NLOL is positively correlated with BPS but this relationship is not significant at $95 \%$ level of significance. The MPS is negatively correlated with EPS and the relationship is also not significant at $95 \%$ level of significance. All the variables are less volatile of NLOL.
- For BBC, MPS is positively correlated with DPS and EPS where as it is negatively correlated with BPS but none the relationships are not significant at 95\% level of significance. BBC has good performance and variables are very low volatile for last six years period.
- The MPS of SHL is positively correlated with BPS and EPS, and these relationships are also significantly positively correlated at $95 \%$ level of significance. The SHL has moderate performance.
- The MPS of DCB is positively correlated with DPS, BPS and EPS. The relationships of MPS with BPS and EPS are significantly positively correlated where as it is insignificant with DPS at $95 \%$ level of significance. MPS, DPS and BPS of DCB have consistent performance but EPS is high volatile.
- From comparative analysis of correlation, MPS is positively correlated with DPS for 6 sampled companies and is negatively correlated for 2 sampled companies. The relationships of 2 companies have not shown because of sufficient data. Similarly, it is positively correlated with BPS for 5 companies and is negativelycorrelated for5 sample companies. The MPS is also positively correlated with EPS for 8 sampled companies and is negatively correlated for 2 sampled companies.


### 4.5.2 Empirical Findings from the Primary Data

From primary data, fallowing major finding are drawn out :

- Market price of share is significantly affected by the companies performance such as earnings, cash dividend payment, book value, risk associated with the company, growth rate at $95 \%$ level of significance.
- The MPS is also affected by the environmental factors such as instability of government, strikes/demonstrations, peace process, national economy and policy of national bank at $95 \%$ level of significance.
- The market price of share is not significantly affected by the factors like; cost of equity, market liquidity, stock dividend, global economy and change in management at $95 \%$ level of significance.
- Similarly, capital market is significantly not well developed due to poor regulatory mechanism in Nepal at $95 \%$ level of significance.
- Listed companies in NEPSE are not serious towered shareholders interest at $95 \%$ level of significance.
- SEBO/N and NEPSE are not significantly able to protect shareholders interest at $95 \%$ level of significance.


## CHAPTER-V

## SUMMARY, CONCLUSION AND RECOMMENDATION

### 5.1 Introduction

In this chapter, summary conclusions and recommendations of the study are presented. After summarizing and concluding it an attempt has been made to forward recommendation and suggestion for improvement.

### 5.2 Summary

Capital market plays a vital role in the economy facilitating and providing better institutional arrangements for borrowing and lending of long-term funds. Capital market is recognized as an effective way of rising capital and it also help the country's industrialization process. Similarly, capital market also help to channel public saving to industrial and business enterprises. It must function well for the sustainable economic development. Capital market forms a significant part of infrastructure essential for dynamic functioning of the economy and in promotes industrial and economic development of a country.

Nepal is one of the least developed countries in the world where majority of the people are living below poverty. Average citizens and investors have no idea about the capital market, share; market price, pricing mechanism and factors affecting the market price of shares. They are willing to invest, but are not able to do so due to lack of knowledge. So a huge amount of capital is being remained idle, we can use that idle capital in development activities and industries by means of issuing shares from capital market.

The history of development of capital market in Nepal is no longer than other capital market in the world it is still in its primary stage and developing process. NEPSE is the only one organized stock exchange in Nepal. NEPSE operates the trading system of securities market and gives license to the stockbrokers. Another operator organization of the capital market is SEBO/N. The main function of $\mathrm{SEBO} / \mathrm{N}$ is monitoring and regularizing capital market and it also makes code of conducts and policies for smooth
operation of capital market. In spite of the establishment of these organizations Government efforts for development of capital market is not sufficient. Government has not given priority for the development of capital market. It is not able to create basic infrastructures, sound policies and laws and their effective implementation.

There is not transparency in the performance of the listed companies and the capital market. Most of the listed companies are not able to meet the organizational objectives i.e. value maximization or share price maximization. The listed companies listed in NEPSE, commercial banking sector, finance sector and insurance sector are performing well. But the performance of manufacturing, trading and hotel sectors is very weak. The manufacturing sector is the backbone of the capital markets in the well-established organized stock exchanges of the world and the foundation of the economic development of the nation. And it is suffering in Nepal. Commercial banking sector has dominated the overall performance of NEPSE.

The study is focused on those factors, which affects the share price in NEPSE. The major objectives of the research are :

- To determine the effects of earnings and book value on the stock price in NEPSE.
- To determine the effects of dividend on the stock price in NEPSE.
- To identify qualitative as well as quantitative factors affecting the stock price in NEPSE.

To meet the desired objectives, the researcher identified the correlation of the quantitative factors DPS, BPS and EPS with MPS by correlation and regression analysis of secondary data and also tests the significance of such relationship at $95 \%$ level of significance. To identify- the qualitative factors affecting the market price of shares, the researcher used primary data collected from the research questionnaire.

From the secondary data analysis it is known that there is not consistent performance in the relationship of MPS with BPS, DPS and EPS for the 10 sampled companies. For some of the companies, the correlation coefficients of MPS with independent variables (viz. DPS, BPS and EPS) are significantly positive whereas some other has significantly negative correlation at $95 \%$ level of significance. Out of 10 sampled companies, the
correlation coefficient of MPS with DPS for 6 companies has positive and other 2 has negative excluding NLOL and SHL. Similarly, the correlation of MPS with BPS for 5 companies has positive and other 5 has negative and also the correlation of MPS with EPS for 8 companies has positive and remain 2 has negative. MPS is significantly positively correlated with DPS for BOK, with EPS for HBL, with BPS and EPS for SHL and with BPS and EPS for DCB at $95 \%$ level of significance, whereas other are not. So these three factors (DPS, BPS and EPS) are not only the factors affecting the market price. Even though, DPS, BPS and EPS affects the MPS positively; there are other various factors in the internal as well as external environment of the organization, which significantly affect the MPS. Theoretically when earnings, dividend and book value of share increases, the market price of share also increases and vice versa.

From the primary data analysis, factors affecting the market price of share in NEPSE are identified. Such internal factors affecting the market price of share are earnings, cash dividend, book value, growth rate and risk associated with the company. Similarly, there are other environmental factors affecting the market price of share. Such environmental factors are government instability, strikes/bandha, peace process, national economy and change in policy by national bank. MPS is not significantly affected by the factors like; cost of equity, market liquidity, stock dividend, global economy and change in management. These factors have simple effect in stock pricing. Listed companies are not serious towards the shareholders interest and the regulatory bodies are not able to implement the rules and regulations effectively to protect the investors' interest.

### 5.3 Conclusions

Based on the above summary and findings of this research, the researcher came in to fallowing conclusions :

- Nepalese investors have not adequate education about the capital market. They do not have good knowledge and information to analyze the scenario and to forecast share price. Perhaps due to this reason, stock price in NEPSE show rather irrational behaviour. Creation of investing opportunities in NEPSE is very poor due to the traditional stock trading system and lack of stockbrokers' professionalism.
- In NEPSE, DPS, BPS and EPS individually do not have consistent relationship with the market price of share, among the listed companies. The pricing behaviour varies from one company to another. But EPS, DPS and BPS jointly have significant effect in market price of shares. There may be other major factors affecting share price significantly.
- According to the respondents of the survey, companies' performance such as earnings, dividend, book value, risk of the company and environmental factors such as instability of government, strikes, peace process, national economy and policy-change by national bank are the major factors affecting the share price in NEPSE. Cost of equity, market liquidity, stock dividend, global economy and change in management do not significantly affect the share price in NEPSE.
- There is lack of proper laws and policies regarding the capital market. Shareholders are feeling unsecured to invest in security market due to poor regulatory mechanism to protect shareholders interests. The implementation of existing laws is very weak.
- Listed companies do not provide sufficient information (financial as well as nonfinancial) to their shareholders and they are not able to act according to the shareholders' desire.


### 5.4 Recommendations

Based on the findings and the conclusion of research, the following recommendations and suggestions have been forwarded.

## To Investors

Most of the Nepalese investors are not well known about capital market due to the lack of education and information to analyze companies' performance and forecast price. So they are recommended to foster their frontier of knowledge to protect them from loosing. They hesitate to demand adequate information from the listed companies and though cheated, accept whatever the management of the companies decides.

They are suggested to raise their voices and complain about such misconducts to SEBO/N and Ministry of Finance.

## To Brokers

The stockbrokers have a great role and responsibility to develop capital market opportunities. For the development of capital market they are suggested to provide rational and adequate advices to their clients/investors and upgrade their professionalism. They have to change themselves according to the dynamic environment of the capital market.

## To Listed Companies

Listed companies are suggested to disclose timely and frequently information (financial as well as non-financial) without manipulation to shareholders by organizing frequent interaction programs with shareholders. They should conduct their AGM and audit regularly with in prescribed time period. They are suggested to implement accounting and auditing standards set by Accounting Standard Board and Nepal Auditing Board to enhance investors.

## To SEBO/N and NEPSE

As an apex body of capital market, SEBO/N and NEPSE are suggested to monitor and supervise listed companies performances and to develop reward-punishment system. They are suggested to disclose available information to investors and brokers timely and transparently. NEPSE is suggested for privatization, decentralization, modernization and also change the current trading system into online or internet based trading system. The license to the brokers should be given and renewed based on selling specified eligibility criteria (code of conduct, experience etc.) and brokers should be professionalized. Proper rules and regulations regarding the listed companies should be formed and duly implemented.

## To Government

The researcher suggests to the government to formulate and duly implement effective laws and policies regarding capital market with compulsory participation of shareholder in various policy-making boards and organizational committees and to promote
shareholders' organization with high priority. Since the shareholders and investors have less knowledge of capital market, educational packages to the potential investors and shareholder should be provided and an investors' protestation should be established. The monitoring and supervision of listed companies' financial as well as non-financial performance should be strengthened. Government is further suggested to initiate development projects by raising funds from capital market.

## Future Dissertations

This study has tried to explore the factors affecting the share price in NEPSE but has not covered effect of all such individual factors' in details detail effect on share price. So further researchers are suggested to concentrate the effect of any one or more factors' effect on share price in NEPSE.


[^0]:    Source: Annex III.

[^1]:    Source: Annex-III

