CHAPTER - I

INTRODUCTION

1.1 General Background

The Nepalese financial system comprised financial markets, financial institutions and unorganized sectors. Currently the Nepalese economy is passing through tremendous crisis. Due to security condition, economic activities are concentrated in urban areas which have created inefficiencies in the financial sector.

Liquidity with financial sector is high due to lack of investment opportunities but contradictory profit figures of financial institutions indicates sound financial activities which is quite unbelievable. Most of the innovative development projects are terminated in the initial planning phase. Tourism, production and commercial activities have gone down, only the remittance have been providing some fuel to the economy.

Investing is the proactive use of money to make more money, Investing is different from saving. Saving is passive activity, even though it uses the same principle of compounding. Saving is more focused on safety of principle and less concerned with return. Focusing in investing is on return and can run the spectrum from conservative to very aggressive in terms of risk. It is measured by the result of expected gain against the anticipated risk. The investment in stocks has the following characteristics:

1. Ownership

Being a part of owner of a company having certain rights like voting rights on important matters, participating in the profits. Virtually no savings instruments give ownership.

2. Upside Potential

Participate in the growth of the company. If profits increase, investor may receive bigger dividend cheque. The stock price may continue to rise for a long period. Many of the early employees of Microsoft are millionaires because their stock has gone up dramatically.

3. Risk

Along with the potential for extraordinary gain is the potential for loss. It can be the loss of more money investing in stocks. However, the safest savings instruments carry unseen risks.

Regarding the common stock pricing, many factors go into setting the prices for stocks when the market opens. Some may be external like economic or political news, while others may involve news about the company itself. In the end, a stock's price is what a seller will accept and a buyer will pay.

For the first time a company issues stocks for sale to public which is known as the initial public offering (IPO). The company is said to be 'going public' when this happens. The offering is highly regulated and often surrounded by a lot of media attention.

Investment is defined simply to be the sacrifice of current consumption for future consumption whose objective is to increase future wealth. The sacrifice of current consumption takes place at present with certainty and the investor expects desired level of wealth at the end of his investment horizon. The general principle is that the investment can be retired when cash is needed.

The decision to make investment now is a most crucial decision as the future level of wealth is not certain. Time and risk are the two conflicting attributes involved

in the investment decision. Broadly investment alternatives fall into two categories: real assets and financial assets. Real assets are tangible whereas financial assets involve contracts written on pieces of papers such as common stocks, bonds and debentures. Financial assets are bought and sold in organized security markets.

Organized security markets exist to facilitate the exchange of financial assets. Specialized markets may also exist to deal in specific type of securities such as bond markets, stock markets and government bond markets. Nepal Stock Exchange Limited (NEPSE) is the only organized stock market in Nepal.

1.1.1 Security Board of Nepal (SEBON)

Securities Board of Nepal (SEBON) was established by the Government of Nepal on June 7, 1993 as an apex regulator of Securities Markets in Nepal. It has been regulating the market under the Securities Exchange Act, 2006. The functions, duties and powers of SEBON as per the Act are as follows.

1. To offer advice to Government on matters connected with the development of the capital market.
2. To register the securities of corporate bodies established with the authority to make a public issue of its securities.
3. To regulate and systematize the issue, transfer, sale and exchange of registered securities.
4. To give permission to operate a stock exchange to any corporate body desirous of doing so, subject to this Act or the rules and by-rules framed under this Act.
5. To supervise and monitor the functions and activities of stock exchange.
6. To inspect whether or not any stock exchange is executing its functions and activities in accordance with this Act or the rules and by-rules framed under

this Act, and to suspend or cancel the license of any stock exchange which is not found to be doing so.

7. To issue licenses to conduct the business of dealing in securities, subject to this Act, or the rules and the by-rules framed under this Act, to companies or institutions desirous of conducting the business of dealing in securities.

8. To supervise and monitor the functions and activities of securities-dealers.

9. To grant permission to operate collective investment schemes and investment fund programs, and to supervise and monitor them.

10. To approve the by-rules concerning transactions in securities framed by stock exchanges and institutions engaged in the business of dealing in securities, and, for the purpose of making necessary provisions concerning the development of the capital market and protecting the interests of investors investing in securities, issue orders to have necessary alterations made in such by-rules of stock exchange and institutions engaged in the business of dealing in securities.

11. To systematize the task of clearing accounts related to transactions in securities.

12. To supervise whether or not security dealers are behaving in the manner prescribed in this Act, or the rules and the by-rules framed under this Act, while conducting business of dealing in securities, and suspend the license to conduct the business of dealing in securities in case any securities dealer is not found to be behaving accordingly.

13. To make or ensure necessary arrangements to regulate the volume of securities transacted and the procedure of conducting such transactions in order to ensure the promotion, development and clean operation of stock exchanges.

14. To make necessary arrangements to prevent insider trading or any other offenses relating to transactions in securities in order to protect the interest of investors in securities.

15. To review or make arrangement for reviewing the financial statements submitted by the corporate bodies issuing securities and security dealers, and issue directives deemed necessary in that connection to the concerned corporate body.

16. To systematize and make transparent the act of acquiring the ownership of a company or gaining control over its management by purchasing its shares in a single lot or in different lots.

17. To establish coordination and exchange cooperation with the appropriate agencies in order to supervise and regulate matters concerning securities or companies.

18. To discharge or make arrangements for discharging such other functions as are necessary for the development of securities and the capital market (Source: www.sebonp.com).

1.1.2   Capital Market & Nepal Stock Exchange

Capital market is the mechanism designed to facilitate the exchange of financial assets by orders of buyers and sellers of securities together. Capital Market consists of financial and security market. It is the market where financial assets having a time to maturity more than one year are traded. Organized stock exchange, over the counter markets, third market and fourth market are major capital markets. Organized security markets exist to facilitate the exchange of financial assets. Specialized markets may also exist to deal in specific type of securities such as bond markets, stock markets and government bond markets.

Over the years, total transaction of stock markets world wide has grown up tremendously. Nepal has its own history about stock market. The story of the security markets in Nepal begins with the flotation of shares by Biratnagar Jute Mills Ltd & Nepal Bank Ltd in 1937. NEPSE is the only organized stock market

facilitating the trading of corporate securities, mainly common stocks where stock is traded through registered brokers under set of rules and regulations.

It opened its floor for the trading of corporate securities on the 13th of January 1994. NEPSE is a non profit making organization operation under security exchange act 1983. 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 the only Stock Exchange in Nepal introduced fully automated screen based trading since 24th August, 2007.

The NEPSE trading system is called 'NEPSE Automated Trading System '(NATS) which is a fully automated screen based trading system, which adopts the principle of an order driven market.

Members of NEPSE are permitted to act as intermediaries in buying and selling of government bonds and listed corporate securities. At present, there are 33 member brokers and 1 dealer, who operate on the trading floor as per the Securities Exchange Act, 1983, rules and by-laws. Besides this, NEPSE has also granted membership to issue and sales manager securities trader (Dealer). Issue and sales manager works as manager to the issue and underwriter for public issue of securities whereas securities trader (Dealer) works as individual portfolio manager. At present there are 11 sales and issue manager and 2 dealers (Secondary market). The tenure of the membership is one year. The license should be renewed within 3 months after the closure of the fiscal year. If not, it can be done within another three months by paying 25% penalty.

Nepal Government, Nepal Rastra Bank, Nepal Industrial Development Corporation and the licensed members are the shareholders of NEPSE. It has helped to collect fund required for mega projects from small investors by means of

stock investments. It has crucial role for making investment environment for the large number of middle class families and collect the scattered lifeblood for industrial development.

In this modern era, since the value maximization is regarded as superior objectives, NEPSE plays a crucial role by providing a floor for sticks trading. NEPSE has helped the listed companies to increase their share price, which are organizational as well as individual objectives.

1.2 Focus of the Study

Generally when a stock moves out of the initial offering stage and into the open market, there are a number of factors that go into setting the price. Everyday the market opens, it's clean slate. Investors must meet no set prices. Stocks that the day before were flying high may not get off the ground today (Source: www.stocks.about.com).

A share of stock is worth what someone else is willing to pay for it. That is the heart of investment. Which is the right price ? often time will tell it. Successful investors decide what a fair price for a particular stock and that's where they buy, political, economic and industrial news influence whether there are more buyers or sellers for a particular stock in the market at any one time.

A company's stock price reflects what investors think about the stock, not necessarily what the company is "worth." For example, companies that are growing quickly often trade at a higher price than the company might currently be "worth." Stock prices are also affected by all forms of company and market news. Publicly traded companies are required to report quarterly on their financial status and earnings. Market forces and general investor opinions can also affect share price.

NEPSE is an organized stock exchange for trading stocks (Shares) in secondary market. Although small investors can invest their money by purchasing shares of companies in primary market during initial public offering or in the secondary market, they (general public or investors) lack effective knowledge of capital market and its mechanism. The price of the stock is determined by interaction of buyers and sellers (demand and supply) in NEPSE.

Investing in stock is highly risky as being ownership capital. It represents only a final claim while in liquidation. Stock price is determined by a number of factors. Some factors are quantitative whose effect can be quantified whereas other factors are qualitative whose effect on share price can't be quantified. This study focuses to the sensitivity of stock price on NEPSE towards various factors. In other words, this study intends to determine the factors affecting the price (i.e. market value) of the stock. This study also focuses on the capital market development in Nepal and the investment opportunities for small investors to reduce the foreign dependency on development process.

1.2.1 Stock Pricing and Investment

Stock Pricing and investment are tightly connected. In fact, stock valuation is only a part of the investment process which is thought of in a broader way. Investors provide funds to entrepreneurs who build companies which in turn produce goods and services demanded by the society. As compensation, investors get rewarded by the share on the company's profit.

Reilly and Brown (2003) basically describe investment process as current commitment of dollars for a certain period of time to gain a future reward to compensate them for the i) time the funds were given to the company, (ii) the risk that was accompanied by the uncertainty of future repayments and in addition (iii) also the inflation that lowered the value of invested money during the given period.

1.2.2 Market Efficiency

The concept of market efficiency was firstly summarized by *Fama (1970)* and ever since it has been subject to discussion. In spite of the fact that no finite answer has been found the whole concept has immense impact on investment and valuation in general. The investment process is based on how one perceives the efficiency. One group of investors considers the market as partially inefficient and so the fundamental approach is used by them. On the other hand the concept of modern portfolio theory rests on the principle that markets are efficient.

1.3 Statement of the Problem

Stock price is the function of the several factors. The stock price fluctuates time to time and stock exchange reacts to the environmental changes. However for some environmental changes, the stock exchanges have no effect. This study tries to identify the system of valuating stocks and its determinants. More specifically, this study is expected to answer the following research questions.

1. What is the system of pricingstock of different company?
2. What are the major determinants of the capital market in Nepal?
3. How earning and book value affect to the stock price of the company in NEPSE?
4. What is the effect of the dividend to the stock price of the company in NEPSE?
5. Is there lack of favorable business environment that influences in growth of Capital Market in Nepal? Instability of government, strikes, demonstrations, civil war reduces the share price?

1.4 Objectives of the Study

Investors are often interested in purchasing a company's share but are not sure where to begin. Investors and other concerned require proper knowledge of share price, tools and techniques of valuations, its determinants and factors affecting it.

A few studies have been made regarding securities listed in NEPSE. However most of the studies made up to present capital market are related to financial performance evaluation but sufficient research has yet not been done to provide core perspective on system of share valuation. Thus the present study will be very much important to the investors, planners, researchers, student and policy makers to get a deep insight into the concerned field of the study. So this study is proposed to meet the following major objectives.

1. To study and analyze pricing behaviour of common stock in NEPSE.
2. To examine the effect of EPS, DPS & NWPS on MPS.
3. To suggest & recommend on the basis of findings.

1.5 Significance of the Study

Time and risk are two conflicting attributes involved in the investment decision. Investment is simply to be the sacrifice of current consumptions for future consumption whose objective is to increase future wealth. The sacrifice of current consumption takes place at present with certainty and the investor expects desired level of wealth at the end of investment horizon. The general principle is that the investment can be retired when cash is needed.

The decision to investment now is a most crucial decision as the future level of wealth is not certain. The goal of the commercial enterprises is to maximize the shareholders wealth. The wealth of shareholders is measured by the value of share. Value of share depends on the timing of return, cash flow and risk. Since share price represents the owner's wealth in the firm, share price maximization is consistent with owners wealth maximization.

Most of the studies have made till now on Capital Market, especially, related to financial performance evaluation , capital structure analysis, investment portfolio of financial institutions dividend policy, risk and return etc. This study aims to

carry out the opinion, feelings and thought of stock brokers registered in NEPSE regarding major pricing procedures of market price of common stock in Nepal.

A very few studies have been made on share valuation system in Nepal. So this study will be able to carry out the major determinants which influenced to set the value of securities particularly developing countries. It will address the role of important determinants to fluctuate the price of stock intrinsically. The findings of the study will be more helpful to the investors, planners, researchers, students and policy makers to meet their personal and organizational objectives. It is aimed to make the valuable recommendation for the national economy through the mobilization of idle capital in productive sectors.

1.6 Limitations of the Study

This study tries to explore share valuation system in Nepal with analyzing secondary data. The following will be the limitations during the course of research.

1. Simple research techniques were used in the data presentation and analysis.
2. Limited variables were selected.
3. The study is based on secondary data provided by the company's executives, NEPSE and Stock Brokers. Thus, the limitation may exist on the data provided by executives.
4. Time and financial constraints are also the major limitation of the study.
5. Research techniques are applied for only few numbers of selected companies among the listed companies.
6. The authenticity and accuracy of the gathered data could be considered as doubtful because the study does not compel the resources of data to provide authentic data.

1.7 Organization of the Study

As per the format of the Tribhuvan University, the study has been organized mainly in five chapters;

Chapter - I: Introduction

The first chapter presents the background of the study, a brief review of Security Board of Nepal and Nepal Stock Exchange, statement of the problem, objectives of the study, significance of the study and limitations of the study.

Chapter – II: Review of Literature

Under this section, the conceptual framework related to common stock, share, stock exchange, security market and stock valuation have been reviewed. In addition, articles and journals and previous thesis have been reviewed.

Chapter - III: Research Methodology

Under this section, the research design to be adopted, sources and nature of data, data collection technique and data analysis tools have been described.

Chapter – IV: Data Presentation and Analysis

The fourth chapter deals with the presentation and analysis of data obtained from the secondary sources by using financial and statistical tools.

At the end, the major findings drawn on the basis of analysis have been presented.

Chapter – V: Summary, Conclusion and Recommendations

The study ends with this chapter. In this section, the whole study has been summarized, and the conclusions have been drawn. Further, the valuable recommendations have been presented for the enhancement of the brokering services.

CHAPTER - II
REVIEW OF LITERATURE

2.1 Conceptual Framework

Textual support and pilot studies are the two important literatures related to the research topic to achieve main objectives of the research work. The basic concern of the study is to focus on stock valuation system in Nepal. So in this chapter, an attempt is made to review some of the literature concerning the stock pricing in Nepal and abroad as well as the market price behavior. The price behavior of the stock and its trading activity has got the tremendous concentration in security investment. So a better understanding of these determinants may increase investor's confidence in the stock market and thereby enhance the effectiveness of corporate resource allocation. Hence more and more concerns over pricing behavior are arising and most of the concerned books bear some paragraphs on this issue.

2.1.1 Common Stock

Stock is the capital of a company raised through the selling shares in. "Stock is the total value of the money, equipment, buildings etc of a business, company; Capital" (Oxford Dictionary).

A stock (also known as equity or a share) is a portion of the ownership of a corporation. A share in a corporation gives the owner of the stock a stake in the company and its profits. In industrial societies wealth used in production is owned in the aggregate mostly by corporations rather than by individuals because of the huge investments required. This trend began in 17th-century in England when merchants formed Joint-Stock Companies, pooling capital to be used jointly in

trading and manufacturing. Participants then received dividends, shares of the common profit proportionate to their original investments.

A share of common stock can be bounded on the upside, as are returns to the others. A share of common stock authorized either with or without par value. The par value of stock is merely a stated figure in the corporate charter and is of little economic significance. A company should not issue stock at a price less than par value because stockholders who bought stock for less than Par value would be liable for the difference between below the par price they paid and the par value.

Common stockowners enjoy certain advantages from their investment. First they enjoy limited liability that is if the corporation goes bankrupt and does not have enough assets to pay all of its bills, the common stockowners cannot be forced to participate in the payment of unpaid bills. Second stockholders enjoy unlimited participation in the firm's profits if earnings become highly lucrative. Third share of common stock are marketable securities designed to be bought and sold with ease. Finally only common stockowners are entitled to vote at the stockholders meetings of the company. Thus stock holders have a voice in management.

2.1.2 Share
In simple word, a share or stock is a document issued by a company, which entitles its holder to be one of the owners of the company. A share is issued by a company or can be purchased from the stock market.

By owning a share you can earn a portion and selling shares you get capital gain. So, your return is the dividend plus the capital gain. However, you also run a risk of making a capital loss if you have sold the share at a price below your buying price.

A company's stock price reflects what investors think about the stock, not necessarily what the company is "worth." For example, companies that are growing quickly often trade at a higher price than the company might currently be "worth." Stock prices are also affected by all forms of company and market news. Publicly traded companies are required to report quarterly on their financial status and earnings. Market forces and general investor opinions can also affect share price.

2.1.3 Common Stock Values

a) Par Value

Par value is the face value of a share of stock. It was originally used to guarantee that the company receives a fair price for the value of the firm represented by a share of stock. Another reason for the creation of par values was to keep stockholders with friends in the company from getting shares at a low price while other buyers of identical shares have to pay more. Selling shares at reduced prices to friends is a form of price discrimination against many potential investors.

The face value of the stock established at the time the stock is initially issued, is the par value. Without a stock split or other action by the board of directors, the par value of the stock does not change (Cheney and Mosses, 1995: 417). The par value of new issue is usually Rs. 100 as directed by company act 1993.

b) Net Worth / Book Value

Book value per share is calculated by dividing the total common equity on the balance sheet by the numbers of common stocks outstanding. This figure represents the assets value per share after deducting liabilities and preferred stock. Typically, common stock in profitable company will be valued based on earning power and will set at price significantly greater than book value.

A company will generate income, much of which is paid put to creditors (as interest) and to shareholders (as dividend). Any reminder is added to the amount shown as cumulative retained earnings on the corporation's books. The sum of cumulative retained earnings and others entries (such as common stock and capital contributed in excess of the par value) under shareholder's equity is the book value of the equity. The book value per share is obtained by dividing the book value of the equity by number of shares outstanding (Sharpe, Alexander and Bailey, 2001: 12-13). The accounting value of a share of common stock equal to the common equity of the firm (common stock plus retained earnings) divided by number of shares outstanding (Weston and Brigham, 1987: 674).

c) Market Price / Value

Market value in the secondary markets is determined by supply and demand factors and reflects the consensus opinion of investors and traders concerning the 'value' of the stock. Market value is influenced by many factors including economic and industry conditions, expected earning and dividends and market and company risk consideration. Market price of firm's stock reflects expectation about its future earnings and dividends. Book value is generally considered to the relatively unimportant in determination of the value of company, since it represents only the historical investments made in the company investments that may have little relation to current values of prices (Weston and Thomas, 1992:113).

The market price of stock gives the value of the organization. The market price of stock is that price in which stock traded or the amount. This is paid by the buyer to the seller to purchase a stock of a company. The market price of stock varies from one company to another. Since the common shareholders 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 such as internal and

external. The environment within the organization is called internal environment and is somehow in control of the organization. So the organization tries to maintain the favorable environment to maximize the share price in the stock market. On the other hand external environmental factors are not within the control of the organization but such forces highly affect the market prices of shares.

2.1.4 Stock Exchange

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

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

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

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

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

Main function of Stock Exchange: Price Discovery

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

Price discovery is the process of arriving at fair prices for securities. Fair price indicates the compromise between fair offer price (Lowest price at which any well informed trader willing to sell) and fair bid price (highest price any well informed buyer is willing to pay). Different markets do this in different way and different ways of organizing a market affect how closely the market approaches the ideal of fair prices. However, a very important fact that should not be forgotten is the

concept of idea market efficiency, which is also the necessary pre-condition for approaching to the fair price. In an ideal market value of securities equal its price of securities and prices reflects all available information about the market.

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

The stock exchange produces through its continuous process of evaluation, prices of securities as close as possible to investment value based on present and future income yielding prospects of various enterprises, capitalized at notional rate of interest rate which will prevail if and when all the liquid savings are employed into productive purposes (Gupta , 1982:148).

2.1.5 Price Determination
The share price is determined in the floor by the interaction of market forces i.e. demand and supply. The price is determined by point of equilibrium between supply and demand, the shifting of this balance results in incessant adjusting of price in search of the ever changing new equilibrium. Then market price moves upward and downward.

There is much other reason that causes the stock price fluctuation. Major of them are economic, non-economic and market factors. Dividend is the most important factors on the determination of stock price. Dividends are strongly influenced by the earnings power of the firm. There is very close correlation between corporate

earnings and dividends. Earning power, in turn, is strongly influenced by interest rates.

In this way, the most fundamental factor in stock price fluctuation lies in changes in corporate earnings, which together with interest rates and business cycle trends, contribute to make up the economic factors influencing stock price.

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

2.1.6 Capital Market

In Capital market long term borrowing takes place. The Primary instruments of the capital market are equity share, bond and debt. Therefore it includes both the new issue market and the old market. Capital market is concerned with long term finance. Widely it consists of the series of channels through which the saving of the community are made available for industrial and commercial enterprises and authorities.

It is concerned with that private saving, individual as well as corporate, that are turned into investment through new capital issue and also new public loan floated by government and semi government bodies. In capital market demands for fund comes from agriculture, industry, trade and government while the supply of funds

comes from individual or corporate savings, institutional investors and surplus of government.

The history of capital market is not so old for Nepalese context. The capital market was developed by the establishment of Security Exchange Center on 2033 B.S. So the number of listed companies and their trading were very negligible until the government of Nepal has made economic reforms along with broad financial policy in the process of economic liberalization.

The privatization of public entities has been started and various banking and finance companies as well as other companies in the private sector are being established with local and foreign investments. As they were established as public companies, these companies have to issue some of their shares to the general public. So the development of the security market in Nepal takes place only after the establishment of these banking and finance companies.

2.1.7 Security Market

Security Market interchangeably known as the integral part of capital market which is in fact base for the economy of the country. The most effective use of idle and surplus resources can be brought into practice only by means of market mechanism. Security market, a structural network of savers and users of fund, is such a market mechanism which mobilized the fund of savers to the users and thus this financial boosts the industrialization and trading activities which will bring the positive result to the economy as a whole.

There are two important functions of securities market, namely the raising of funds in form of shares and debentures and trading in the securities already issued by companies, While the finest aspect is obviously much more important from the point of view of economic growth, the second aspects is also considerably important.

In fact, if facilities for transferring of existing securities are abundant, the raising of new capital is considered assisted as the buyer of a new issue of security become confident that whenever he wants to get cash he can find a buyer of the security without much difficulty. This aspect is called the liquidity of the stock market. Thus the liquidity of the stock market affects the raising of new capital from the market.

Security market sets a price for the securities it trades and makes it easy for people to trade them. Securities market gives facilities to sale and re sale of transferable securities. The security market can be defined as a mechanism for bringing together buyer and sellers of financial assets to facilitate trading. Securities market is classified into two: the market in which new securities are sold is called the primary market and the market in which existing securities are resold is called the secondary market.

Secondary markets are created by brokers, dealers and market makers. Brokers bring buyer and seller together with themselves for buying or selling. Dealers set price at which they themselves are ready to buy and sell (bid and ask price respectively). Broker and dealer come together in organized market or in stock exchange (Gitman, 1992: 457).

2.1.8 Stock Valuation

The concept of value is at the heart of financial management. The value of any tradable item is whatever the bidder is prepared to pay. With a well-established asset market, valuation is relatively simple.

So long as the market can be accepted as being reasonably efficient, then the market price can be trusted as a fair assessment of value. Several analytical techniques are available to assist the financial manager for valuing common stock.

The investor expects regular earnings in the form dividends and capital gains from the upward movement of the stock price. Therefore, the valuation model should account for all these factors. Some of the basic valuation models used to determine the intrinsic value of the stocks are: Net Asset Value (NAV); the Dividend Discount Model (DDM); and Price-Earnings (P/E) model.

2.2 Review of Research Articles & Journals

There are very few independent studies in Finance in Nepalese perspective. On the core concept of Capital Market and determinants of stock price in stock market, very negligible studies have been made. Such research studies are made on shareholders democracy and dividend policy etc. Even though these studies have been made many years ago, these can provide intellectual ground as there are no researches made on the specific topic.

Bijaya K.C. (1998) made a study on "*Pricing Shares on a Nascent Market'* This study of early equity pricing in Nepal therefore addresses the initial difficulties of establishing a viable exchange. It investigates equity pricing in the absence of a trading history, identifies favored equity characteristics and provides tentative evidence on the market valuation of liquidity before discussing policy inferences. Stimulated by their ability to facilitate privatization and to attract portfolio inflows, recent literature on less-developed country (LDC) stock exchanges has focused on relatively well-established "emerging markets." Wide international variations in the ratio of market capitalization to GDP, however, confirm that an important role for equity markets in economic development is not assured.

Khagendra Ojha (2002) studied "*The financial performance and common stock price*". He concluded that Nepalese stock market is in infancy stage. Dominant of banking sector is prevalent in the market due to other industries including finance

and insurance companies. The performance of manufacturing companies is not encouraging.

He also concluded that people have a misconception that the issuance of the bonus share and right shares, which actually decreased price and this makes them to invest even at a too high price with expectation of getting the same to increase their overall wealth. Further, he concluded that stock price in Nepal is determined more by other factors rather than the financial performance of the concerned company.

Surya Bahadur G.C. and Suman Neupane (2006) conducted a research work on title "*Stock Market and Economic Development*". An attempt has been made in this paper to examine the existence of causality relationship between stock market and economic growth based on the time series data for the year 1988 to 2006 using Granger causality test. The study find the empirical evidence of long run integration and casuality of macro economic variables and stock market indicators even in a small capital market of Nepal. The causality has been observed only in real terms but not in nominal variables. In econometric sense, it interestingly, the causation is evident with a lack of 3 to 4 years. Also, the paper reveals the importance of stock market development for fostering economic development.

Stock Bubbles (2008) published in ekantipur, analyzed recent stock market. Making a relentless ascent and setting new records one after another, the stock market has crossed the 1,100-point mark due mainly to heavy speculative buying. Investors are parking money in shares to cash in on the share issuing spree that financial institutions have embarked on to raise their paid-up capital. New investors are swarming to the country's solitary market, the Nepal Stock Exchange (NEPSE).

The entry of new faces in the market is an exciting matter and a sign that the nascent market is grappling to become a reliable, strong and true platform for raising capital. Obviously, the economy can achieve a higher growth rate only when there is a well-functioning and matured stock market. But the big question is whether the present boom is sustainable to foster the timid development pace.

Will the good times last for investors? Predicting the future is a tricky business, and many analysts, economists and rational investors have failed to foresee the future of share prices. Nonetheless, forecasts are an integral part of share trading, and they are what keep stock markets worldwide alive.

In the case of NEPSE, it could be concluded that current share prices are overrated and the market has overheated; and the present whopping growth does not have adequate fundamentals to back it up, even though it could not be accurately predicted. Also, market theory postulates that unnaturally high stock prices mean that a crash is inevitable in the future. If that happens, investors will loose faith in the stock market and rapidly pull out their money, triggering a cyclic downfall.

It is interesting to note that global stock market experience shows that many investors do poorly in the market over time because they chase the latest fashion as Nepali investors are doing right now. They are induced to do so as there is often a systematic flow of disinformation by the big players who pocket the pickings and leave ordinary investors in the lurch.

What investors should understand is that they need to invest on the basis of detailed information and rationality and good forecasts. In addition, there is a role for the government, market operator and regulator if they are to protect the interests of investors and develop the stock exchange.

The supply of shares needs to be increased by wooing new companies, mainly from manufacturing, trading and services. On top of that, the regulatory function of the Securities Board of Nepal should be enhanced and NEPSE's capacity to create a more transparent trading environment improved. Moreover, the government must welcome institutional investors, including mutual fund operators and brokerage houses offering investment advice and consultancy services, to prevent the market from dancing to the tune of players.

2.3 Review of Previous Thesis

A number of relevant theories associated with the purposed study have been aimed to review various books, journals; reports and publication which are believed to facilitate to carry out the purposed study. This study also review previous related thesis submitted to TU.

The review of literatures will mainly be concentrated on the identification of variables which affect to determine the price of the securities and identify the core factors that play the major role to create the volatility of the share price. There are various thesis submitted to TU relating to stock market and Valuation.

Neupane (2004), made a research entitled '*Determinants of Stock Price in NEPSE*". The objectives of the study was to indicate the major determinants of stock price in Nepal by evaluating different factors such as EPS, DPS, BPS, MPS and tried to explore the factors that have significant influence on the Stock Price. He concluded his study by quoting:

1. 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.
2. In NEPSE, DPS, BPS & EPS individually do not have relationship with the market price of the share among the listed companies. The pricing behavior

varies from one company to another but EPS, BPS & DPS, jointly have significant effect in market price of the share. So, there may be other major factors affecting the share price significantly.

3. Commercial banking sector has dominated the overall performance of NEPSE. Manufacturing & Processing, Trading and Hotel sectors have weak performance.

4. There is deficiency of proper law 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 law is weak.

5. Listed Companies do not provide sufficient information to their shareholders and they are not able to act according to the shareholders interests. The performance of most of listed companies is not transparent.

6. Nepalese Citizens have a huge amount of scattered fund remained unproductive, which can be used in the industrial development through capital market to accelerate the economic growth of the nation.

Niraula (2006) made a research in title "*Analysis of Stock Market Trend and its Performance*" The main objectives of the study was to explore the effect of EPS, DPS and BPS on share price and to explain the stock market sensitivity and interrelationship between market return and return of the listed companies. He has tried to explore the factors that have significant influence on the stock price in NEPSE. He concluded his study as follows:

1. Intermediaries are a vital part for securities market. They are responsible for the trading of securities. Underwriters, brokers etc help in buying and selling of securities. The development of securities market depends on their efficiency. Hence these intermediaries should be adequately educated, trained and professionalized.

2. There is not enough foreign investment for the economic development of the country. Hence the government should allow foreign investors to invest in Nepalese capital market.

3. Many companies do not disclose their financial status on time. Also some companies may also be disclosing false information and financial statements. Hence NEPSE and the concerned bodies should ensure that all the companies disclose their true information and financial statements properly and timely.

4. The procedure related to offering public issues should be simplified and rationalized.

5. Public Investors should not invest their savings in shares of public companies hapazardly. They should at least analyze from experts about the financial position and the level of investment risk prior taking an investment decision.

6. Many people are unaware about the mechanics of the share market. Due to this reason the new investors are very hesitant to enter and invest in securities market. SEBON and the concerned bodies should conduct public awareness and investor's education program to increase the level of investor's awareness.

Upadhaya (2007) made a research entitled "*Determinants of Stock Price in Nepal Stock Exchange with special focus to Joint Venture Banks*" The major objectives of the study was to identify qualitative as well as quantitative factors affecting stock price, to determine the effect of earnings and Book Value and to make appropriate recommendations/ suggestions for the betterment of the stock market and so on.

To meet the desired objectives, the researcher identifies the effect of quantitative factors DPS, BPS and EPS with MPS by correlation and regression analysis of secondary data while to identify the qualitative factors affecting the share price,

the researcher used questionnaire approach. Major findings of the study were as follows.

1. Adequate knowledge and information regarding the capital market is lacking in Nepalese investors.
2. Most of the listed companies do not provide sufficient and timely information to NEPSE as well as shareholders.
3. Pricing behavior differs company to company.
4. The study concludes that the Nepalese stock market is in infant stage.

Sharma (2007) conducted a research entitled "A *study on Factors Affecting Share Price in Nepalese Share Market*". The main objective of the study was to identify the trend of price volatility of stock market, stock market sensitivity and interrelationship between market return and return of listed companies. The conclusion of her study is as follows:

1. Nepalese Investors have not adequate knowledge about Capital Market.
2. DPS, BPS & EPS individually do not have consistent relationship with the market price of share among the listed companies.
3. There is deficiency of proper law and policy regarding the capital market. Shareholders are feeling unsecured in invest in security market due to poor regulatory mechanism to protect shareholders interest.
4. Overall return has closed relationship with the market return which implies that return of individual company is affected by any changes in market return and vice versa.

Khatiwada (2009), in his thesis, "*Right Issue Practices in Nepal and its impact on Market price of Share*" has the following major objectives :

1. To identify if there is significant changes in the share price after the announcement of right offering.

2. To analyze the procedure and mechanism of right issue in the context of Nepal.

3. To find out the problems with right issue in Nepal.

4. To recommend some policies that will help to rectify the current problems in the right issue of securities.

The major findings of the study are;

1. Share price of five companies have decreased after the announcement of right issue where as share price of two companies have increased after the right issue.

2. Theoritically share price should increase after the right announcement and decrease after the allotment of share. But, the share prices of major companies don't follow the theory.

3. From the analysis of primary data, most of Nepalese investors are not aware about the phenomenon of right issue.

4. Company Act is not adequate to regulate the right transferable and shareholders have to face difficulties due to non transferable of shares.

5. Company Act should be amended to make the rights transferable and to make smooth transaction of right shares.

Acharya (2010), in his thesis, "*Issue of Rights Share and Its Effect on General Market Price in Nepalese Context*", has the main objective to find out the effect of right offering on market price. The other specific objectives are;

1. To examine the procedure and mechanism of rights issue in the context of Nepal.

2. To analyze the problems associated with rights issue in Nepal.

3. To recommend appropriate implications on the basis of findings.

The major findings of the study are;

1. The rights issue practice is mainly dominated by the banking and finance sectors. There are hardly few causes found of other sectors practicing the right issue.

2. There is significant difference in the share price before and after the ex-rights dates in most of the sample company but they don't follow the theory of right offering exactly.

3. The issuing of rights share has a long process. There is no time framework. The right announcement date, book closer date / ex-right date, right issue and closing dates are differing from one company to another. The announcement date and right issue date varies company to company. This makes the illusion to the investor and affects the market price of the related stock and it is hard to study the price behaviour of market price.

4. Shareholders of Nepalese companies lack the knowledge about the right share and its impact on their wealth position. Due to this free movement of share, movement of share price during rights on and ex-right is not confirmed.

5. Under subscription of rights share is common phenomena. And most of the finance company doesn't show significant change in the price before and after ex-right date.

2.4 Research Gap

There has been several studies and research done before in the topic stock market and factors affecting stock price. All of these thesis have many useful findings and have own limitations as well. Most of the studies are mainly focused on secondary data and that too are not updated. With the change in time, there have been many developments in stock market. Accordingly, the no of listed companies in NEPSE have been reached to 202. The samples taken for above studies are limited.

There is certain gap between this research work and previous research works in terms of time, objective, population and sample and topics itself. The population and sample will be differed as no of listed companies in NEPSE has been raised. The previous thesis titles are limited on stock price behavior, factors affecting share price, Risk and Return analysis of share of certain companies but no study has been made on stock valuation system on Nepal. The objective of this research work is focused on pricing behaviour of common stock in NEPSE based on secondary data.

CHAPTER - III
RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a way to systematically solve the research problem. The basic objective of the study is to analyze the pricing behaviour of common stock in NEPSE. To fulfill the objectives of the study, appropriate methodology has been followed. This chapter refers to the overall research method from the theoretical aspects to the collection and analysis of data.

This study covers quantitative methodology in a greater extent and also uses the descriptive part based on both technical aspects and logical aspect. In order to access the stock price and find out the relationship between different variables, different items of financial statement of the company have been tabulated and various statistics are calculated. Research methodology is an unavoidable guideline, which is given due importance throughout the study. This covers research design, population and tabulation and analytical tools used.

3.2 Research Design

Research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research questions and to control variance. As this definition suggests any research project would be unthinkable without a research design clearly conceived by the researcher.

It attempts to assess the share pricing approaches and practice in Nepal. For the purpose it consists of identifying different variables, analyzing their variables and characteristics and describing the situation and events occurring at the present. For our analysis purpose, the annual reports published by the Company, NEPSE and other publications related to the share market has been followed.

3.3 Data Collection Procedure

The study is based upon the secondary data as well as executives interviews, the data related to share market, determinants of share price. According to the need and objectives of the study, all the secondary data are compiled, processed and tabulated in time series. For the secondary data, annual reports of the samples companies, magazines, journals and related websites has been followed.

3.3.1   Population & Sample

As the study is focused on the stock valuation, all the companies listed in NEPSE are considered as the population. Different experts from investment market intermediaries, stock brokers, academicians, bankers, researchers, bureaucrats and investors are also the part of population of the study.

The name of sampled companies are as follows:

S. No.	Sectors	Name of the Sampled Company
1.	Commercial Bank	Himalayan Bank Ltd.
		Nepal Investment Bank Ltd.
2.	Finance Company	Peoples Finance Company Ltd.
		Lalitpur Finance Company Ltd
3.	Insurance Company	Sagarmatha Insurance Co. Ltd.
		Premier Insurance Co. Ltd.
4.	Hotels	Taragaon Regency Hotel
		Soaltee Hotel Ltd
5.	Manufacturing & Processing	Unilever Nepal Ltd.
		Bottlers Nepal Ltd.
	No of sampled companies	: 10

The companies selected for the study can be considered representative of Commercial Banks, Finance Companies, Insurance Companies, Hotels and Manufacturing & Processing Companies.

3.3.2 Sources of Data

This study is based on historical information provided by the company. The study is based on secondary data. Books, annual reports (AGM reports), magazines, journals, Annual Trading reports of NEPSE and websites of the listed companies and other related materials are the major sources of the secondary data to show the relationship between variables like earnings, book value, dividend and share price. As per the requirement of the study, concerned executives have been met and interviewed. This study consist of analyzing secondary data including different publications of NEPSE.

3.4. Tools and Techniques of the Study

For analyzing the data different items from the balance sheet and other statements are tabulated. After then their ratios, percentages, mean and coefficient of variations are calculated and presented in the tables. To study the relationship between two or more variables, correlation coefficients and coefficients of determination has been calculated. Following are the tools which will be used in this study.

3.4.1 Financial Tools

Some major financial tools and techniques are used for the analysis. For the purpose of the analysis the following ratios and analysis has been used.

A) Earnings per Share (EPS)

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

The portion of a company's profit allocated to each outstanding share of common stock. EPS serves as an indicator of a company's profitability.

Calculated as:

$$EPS = \frac{(Net\ Income - Dividend\ on\ Preferred\ Stock)}{Average\ Outstanding\ Shares}$$

In the EPS calculation, it is more accurate to use a weighted average number of shares outstanding over the reporting term, because the number of shares outstanding can be changed over time. However, data sources sometimes simplify the calculation by using the number of shares outstanding at the end of the period.

Diluted EPS expands on basic EPS by including the shares of convertibles or warrants outstanding in the outstanding shares number.

Earnings per share are generally considered to be the single most important variable in determining a share's price. It is also a major component of the price-to-earnings valuation ratio

B) Dividend per Share (DPS)

Dividend per share (DPS) is a simple and intuitive number. It is the amount of the dividend that shareholders have (or will) receive, over a year, for each share they own.

Mathematically,

$$DPS = \frac{Total\ Dividends\ Paid}{Number\ of\ Shares\ Issued}$$

This does not usually need to be calculated by investors as it is usually disclosed. Careless readers may sometimes found confusion on the final dividend with the total paid over the year.

C) Market Price per Share (MPS)

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

Mathematically,

$$MPS = \frac{Total\ Market\ Capitalization}{Number\ of\ Outstanding\ Shares}$$

D) Book Value per Share (BPS)

The Book value per share represents the real net worth per share. It is simply the ratio of net worth (Share capital plus retained earnings i.e. ownership capital) and the number of existing shares.

Mathematically,

$$BPS = \frac{Net\ Worth}{Number\ of\ Outstanding\ Shares}$$

E) Price Earnings Ratio (P/E Ratio)

The P/E ratio is the ratio between the market price of the shares of a firm and the firm's earnings per share. The formula for calculating the P/E ratio is:

$$P/E\ Ratio = \frac{Market\ Pri\ ce\ of\ Share}{Earnings\ per\ Share}$$

The price-earnings ratio indicates the growth prospects, risk characteristics, degree of liquidity, shareholder orientation and corporate image of a company.

3.4.2 Statistical Tools

For the purpose of study, following statistical tools has been applied.

A) Average (Mean)

An average is a single value (observation) related from a group of value (Observations) to represent them i.e. a value is supposed to stand for whole group. There are various types of averages. Arithmetic mean, simple and weighted, median, mode, geometric mean and harmonic mean are major types of averages. The most popular and widely used mean is arithmetic mean. The value of arithmetic mean can be calculated by adding together all the items and dividing this total by number of items.

Mathematically, Arithmetic Mean is given by,

$$\overline{X} = \frac{\sum X}{n}$$

Where,

$\overline{X}$ = Arithmetic Mean

X = Sum of all the values of the variables X

n = No of observations

B) Standard Deviation

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

Mathematically,

$$\dagger = \sqrt{\frac{\sum (X - \overline{X})^2}{n}}$$

Where,

$\dagger$ = Standard Deviation

$\overline{X}$ = Arithmetic Mean

n = No of observations

C) Coefficient of Variation

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

Mathematically,

$$CV = \frac{=}{X} \times 100$$

D) Coefficient of Correlation

When the relationship is of quantitative nature, the appropriate tool for discovering and measuring the relationship and expressing it in a brief formula is known as correlation. If the values of the variables are directly proportional then the correlation is said to be positive. On the other hand, if values of the variables are inversely proportional, the correlation is said to be negative but the correlation coefficient always remain within the limit of +1 to -1. Bt Karl Person has given the simple correlation coefficient between two variables as:

$$r_{xy} = \frac{Cov(x, y)}{x \cdot y}$$

$$r_{xy} = \frac{n\sum xy - \sum x . \sum y}{\sqrt{n\sum x^2 - (\sum x)^2} . \sqrt{n\sum y^2 - (\sum y)^2}}$$

Where,

r_{xy} = correlation coefficient between variables x & y.

Cov (x,y) = Covariance between two variables x & y.

σ_x = Standard Deviation of variable x.

σ_y = Standard Deviation of variable y.

Interpretation of Karl Persons Correlation Coefficient

'r' lies between +1 to -1.

When r = +1, there is perfect positive correlation.

When r = -1, there is perfect negative correlation.

When r = 0, there is no correlation.

When r lies between 0.7 to 0.999(or -0.7 to -0.999), there is high degree of positive or negative correlation.

When r lies between 0.5 and 0.699, there is moderate degree of correlation.
When r lies less than 0.5, there is low degree of correlation.

E) Coefficient of Determination

The coefficient of determination gives the percentage variations in the dependent variable that is accounted by the dependent 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

F) Test of Hypothesis

A quantitative statement about population parameter is called a hypothesis. In other words, it is an assumption that is made about the population parameter and then its validity is tested. It may or may not be found valid in verification. The act of verification involves testing of the validity of such assumptions which, when undertaken on the basis

of sample evidence. The main goal of testing of 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.

For the test of hypothesis t-test is made in this study.

t-statistics

t-statistics is applied for the test of small samples. If the sample size is less than that, it is called the small sample and then t-test is used. This kind of test is applicable under the following conditions.

- When the sample sizes are equal.
- When the same set of samples is treated twice on the same subject matter.
- When the sample observations are pairly dependent.

$$t = \frac{r\sqrt{(n-2)}}{\sqrt{1-r^2}}$$

Where,

r= Correlation Coefficient

n= no of observations

3.5 Method of Analysis

All the presented data have been analyzed using quantitative as well as qualitative techniques. To achieve the objectives of this study, various ratios and statistical tools mainly mean correlation coefficient & trend analysis have been used to serve the purpose.

CHAPTER - IV
DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter is the major part of the research work. In this chapter the analytical and manipulation of data has been attempted with the frame of the research methodology and analyzed data are presented in suitable form like table, graphs and diagrams. Once the study is completed, it would be successful to prove the statement as the concrete and substantial.

The basic objective of this chapter is to analyze and elucidate the collected data following the conversion of unprocessed data to an understandable presentation. Thus this chapter presents the analysis and interpretation of the data related to stock prices' NEPSE market index, volume of shares traded etc.

This study consists of secondary data. Secondary data which has been collected particularly from monthly and annual trading report of Nepal Stock Exchange. The study has utterly relied on the secondary source of data. Data collected from the secondary sources are also tested with sophisticated statistical tools. Data presentation and analysis reveals performance of the securities during the year 2004/05 to 2008/09.

The main purpose of this chapter is to examine the price trend of different stock company with the help of NEPSE index. This study also aims to analyze the number of stock traded during five years of period of different companies. Similarly the study also focuses on the study that the listing rate of different corporate bodies in Nepal Stock Exchange (NEPSE).

Price is the major element in the stock market analysis. For analyzing stock market behavior the price trend can be used. By seeing the NEPSE Index trend one can conclude its nature in different aspects. E.g. trend of price in different period.

The number of stock traded is also accounted for seeing pattern of volume traded in stock market. In other hand, the rate of listing new companies in NEPSE is another important factor to see the growth of companies in the development of Nepalese stock market. Analysis has been classified to generalize the facts of the nomination.

Finally the chapter contains, analyzes the investment attitudes of investors in the stock exchange, effect of signaling factor on NEPSE index.

4.2 Presentation and Analysis of Secondary Data

This section of the study provides interpretation and analysis of secondary data. Thus this section is exclusively devoted for the analysis of common stocks of different companies through price trends, signaling factors impact on NEPSE index with the help of NEPSE index provided by Nepal Stock Exchange Center, Volume of stock traded, rate of new companies in secondary market and maintenance of them in NEPSE is considered. For doing such presentation statistical tools such as regression analysis, bar diagram, pie chart, t-statistics are used.

4.2.1 Number of Companies Delisted from NEPSE

As per the stock exchange act 1983, there is provision of delisting the companies which are not able to disclose the documents regarding annual general meeting, audit report and unable to pay annual fees of listing in NEPSE up to two years can be deleted from NEPSE. Due to these provisions, NEPSE has delisted 45 companies from its list out of which 5 were delisted in the fiscal year 2007/08.

4.2.2 Statistical Analysis

Under this sub-unit statistical tools trend analysis including graphical analysis, bar diagram are done for analysis.

4.2.3 NEPSE Index

Market indexes are used to determine the relationship between historical price movements and economic variables and to determine the systematic risk for individual securities and portfolios.

The index is taken as a measuring tool whether the performance of stock market is good or not. This clearly focuses on the price of stock that is increasing or decreasing in the market. Because of the prices of stocks go up and down in a particular period compared to the previous period as disclosed by index. The highest index suggests the increase in market price of the stocks and implies the better performance of companies and vice versa. Thus the NEPSE index shows the behavior of stock prices in the capital market. The computation formula for price index is as follows:

Each day's index = each days total market value x 100/ Base days total market value

$$P_{01} = \frac{\sum P_1 x Q}{\sum P_0 X Q_0} x 100$$

Where,

P_{01}= NEPSE Price Index

P_1 = Today's stock price

Q_1 = Listed Shares (i.e. no of shares outstanding)

Q_0 = Base listed shares

Table 4.1

NEPSE Index

Year	NEPSE Index	% Change in Index
2004/05	286.67	-
2005/06	386.83	34.93
2006/07	683.85	76.82
2007/08	963.36	40.87
2008/09	749.10	-22.24
2009/10	477.73	-36.22

Source: Annual Trading report of NEPSE 2009/10

Above table shows the NEPSE Index for last six consecutive years.

Chart 4.1

NEPSE Index of Different Years
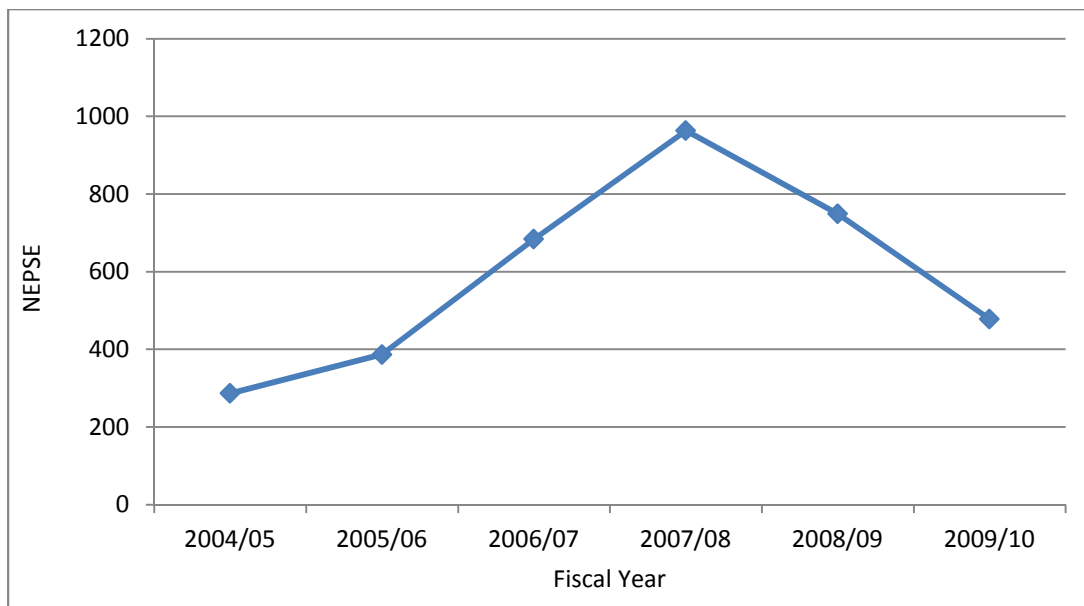
4.2.4 Trend Analysis

By the end of fiscal year 2009/10, the NEPSE index of the listed securities (price index) remained at 477.73 which is 271.37 points lower than that of last fiscal year index of 749.10 The highest index is during the fiscal year 2007/08.

Table 4.2

NEPSE INDEX (Closing) of Different Months of the Year 2009/10

Months	NEPSE Index
Aug	660.84
Sept	630.55
Oct	579.58
Nov	528.83
Dec	548.11
Jan	512.34
Feb	485.14
Mar	443.17
Apr	419.03
May	490.08
June	455.75
July	461.63

Source: NEPSE Annual Report 2009/10

Chart 4.2

NEPSE INDEX (Closing) of Different Months of the Year 2009/10
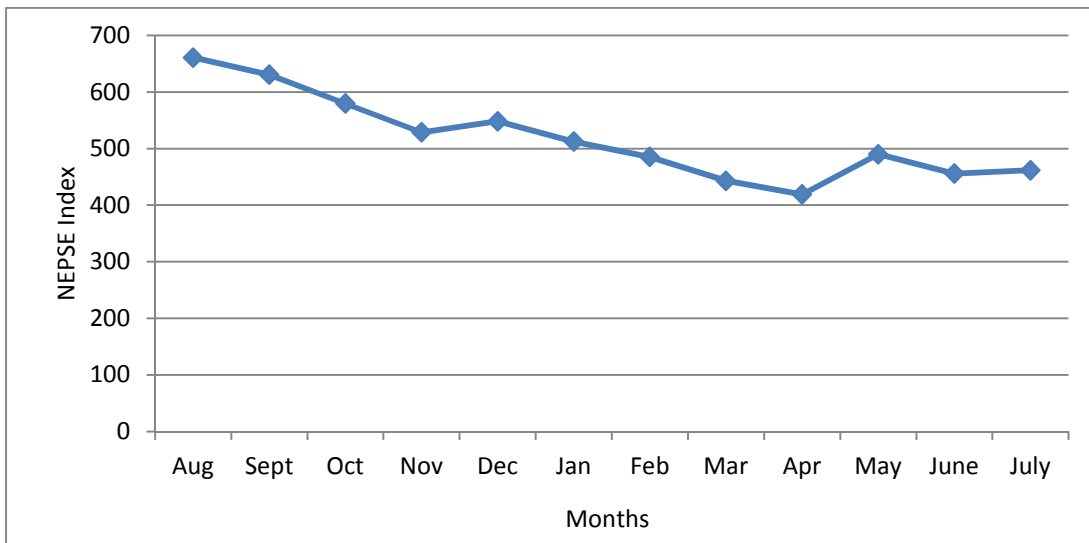
The above graph shows the NEPSE index from Aug 2009 to July 2010. The above chart clearly indicates the decreasing trend of index during first 4 months, small changes in Dec'09 and then after, some fluctuations. Trend in 2010 is not

attractive for the investor wanting to invest in shares.The highest index during the fiscal year 2009/10 was recorded at 660.84 point on August 2009 and the lowest index was 419.03 point on April 2010.

4.2.4.1 Annual Trend Analysis

The pricing trend in the stock exchange can be analyzed through annual trend analysis technique. For this purpose the NEPSE index for six consecutive years are taken starting from fiscal year 2004/05 to 2009/10. The datas required for this purpose are tabulated as well as presented graphically below.

Table 4.3

Annual Trend Analysis from Fiscal Year 2004/05 to 2009/10

Year	NEPSE Index
2004/05	286.67
2005/06	386.83
2006/07	683.85
2007/08	963.36
2008/09	749.10
2009/10	477.73

Source: Trading Report of NEPSE 2009/10

Chart 4.3

Annual Trend Analysis from Fiscal Year 2004/05 to 2009/10
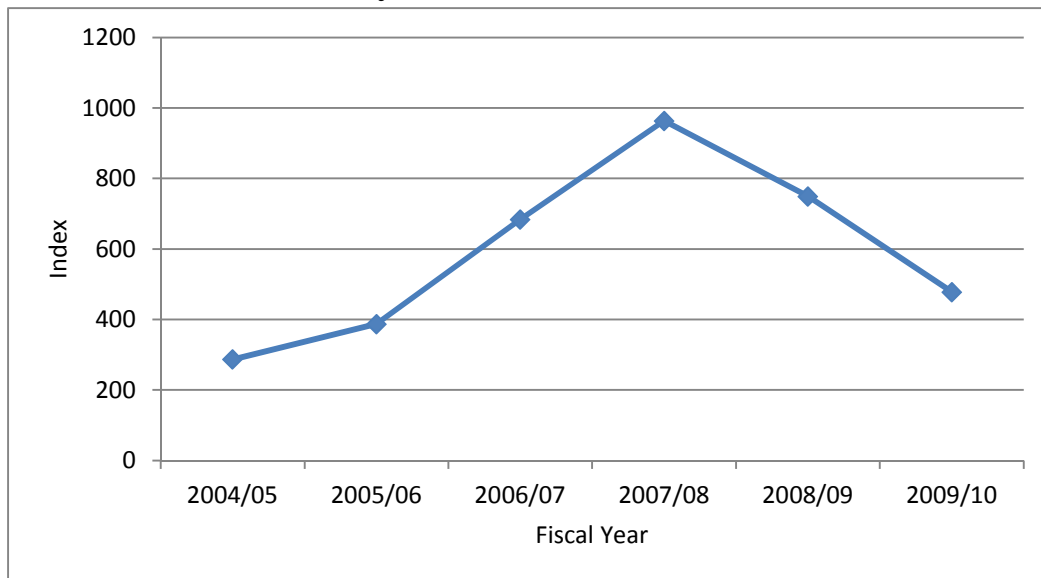
The above table and graph clearly indicates increasing trend till year 2007/08 and then after decreasing trend. There has been increase in the price index in most of the periods and a fall in the price is observed in the fiscal year 2008/09 & 2009/10.

4.2.5 No of Listed Companies in NEPSE

The table given below shows the number of listed companies in Nepal Stock Exchange from the year 2004/05 to 2009/10. It is clearly seen from the table that the number of companies being listed in the stock market is increasing every year though there are few companies which are being delisted due to non compliance with the NEPSE rules and regulation, poor performance, liquidation or other factors.

Table 4.4

Number of Listed Companies in NEPSE (Sector Wise)

Fiscal Year	Com Banks	Dev Banks	Insurance	Finance	Mfg. & Processing	Hotel	Trade	Others	Total
2004/05	14	7	14	44	29	4	8	5	125
2005/06	15	8	15	50	29	4	8	6	135
2006/07	15	16	16	53	21	4	5	5	135
2007/08	21	28	17	55	18	3	3	5	150
2008/09	23	33	17	62	18	4	4	6	167
2009/10	25	44	19	64	18	5	4	6	185

Source: NEPSE annual report of various fiscal years.

Chart 4.4

Number of Listed Companies in NEPSE (Sector Wise)
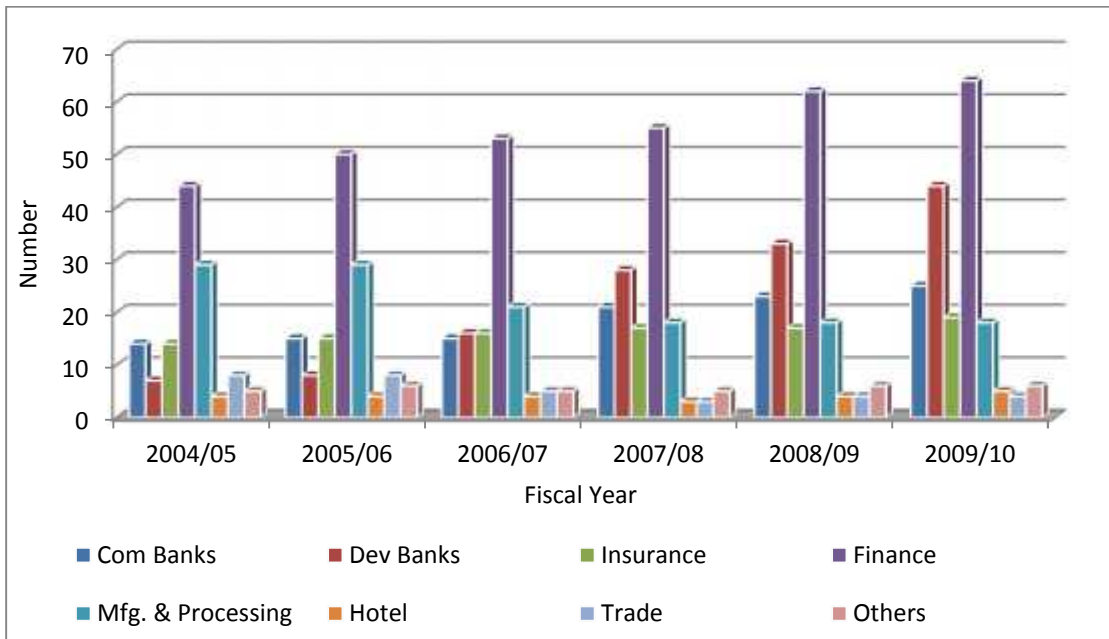
4.2.6 Sector wise Paid up Value and Market Capitalization

The table given below clearly shows the paid up value of the listed securities at the end of fiscal year 2009/10. The commercial banks are the highest stake holders in the list where as the trading companies have the lowest paid up value. This is clear indication to the fact that commercial banks are in better position and have better performance than other companies.

Table 4.5

Paid Up Value of Listed Companies (2009/10)

S.No.	Sector	Paid Up Value (In millions)	Percentage
1	Commercial Banks	32900.64	43.24
2	Development Banks	10027.14	13.17
3	Finance Companies	11466.39	15.07
4	Insurance Companies	2432.94	3.19
5	Hotels	1580.71	2.07
6	Manufacturing and Processing companies	2539.73	3.33
7	Trading	82.18	0.10
8	Others	15049.12	19.78
	Total	76078.85	100.00

Source: NEPSE Annual Report of Various Fiscal Years

Chart 4.5

Paid Up Value of Listed Companies (2009/10)
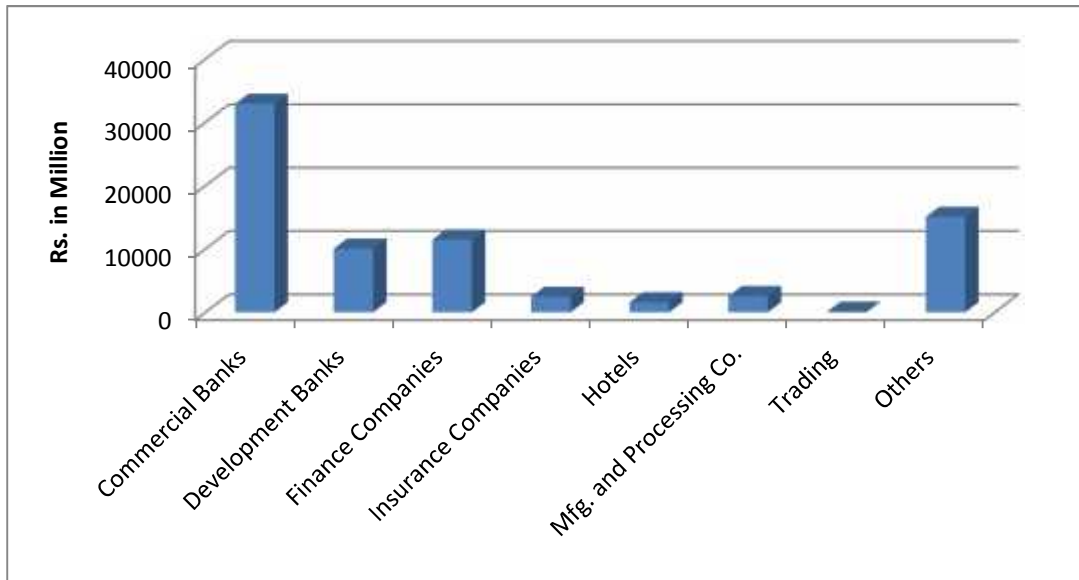
4.2.6.1 Market Capitalization of Listed Companies

The market capitalization of the listed securities at the end of the fiscal year 2009/10 is 357025.88 million. The commercial banks have the highest market capitalization with Rs. 206282.51 million where as the lowest market

capitalization is of trading companies with 1617.51 million. The table 4.6 clearly shows the total market capitalization of listed companies of different sectors.

Table 4.6

Market Capitalization of Listed Companies (2009/10)

S.N.	Sector	Market Capitalization (Rs. In millions)	Percentage
1	Commercial Banks.	206282.51	57.77
2	Development Banks	27488.86	7.70
3	Finance Companies	29869.58	8.36
4	Insurance Companies	9756.61	2.73
5	Hotels	5285.57	1.48
6	Manufacturing and Processing Companies	7706.08	2.15
7	Trading	1617.51	0.45
8	others	69019.16	19.33
	Total	357025.88	100

Source: Trading report NEPSE 2009/10

Chart 4.6

Market Capitalization of Listed Companies (2009/10)
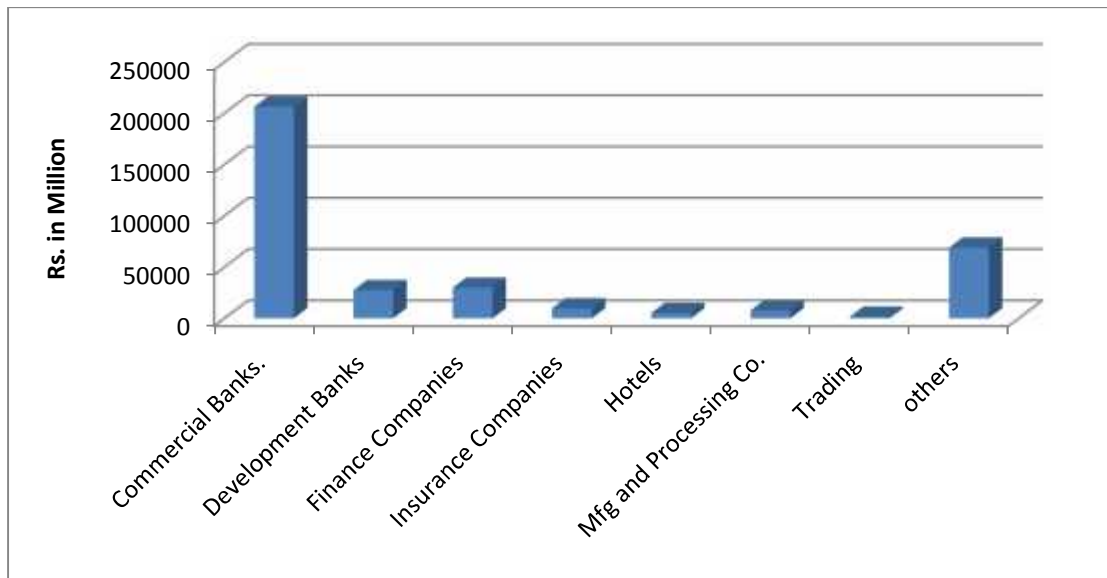
4.2.7 Relationship between EPS, DPS & NWPS to MPS of Sample Companies

To analyze the relationship of EPS, DPS and BPS (NWPS) to MPS, it is assumed that the market price of share is influenced with the change in EPS, DPS and NWPS. So, MPS is the dependent variable whereas BPS, DPS and NWPS are independent variables. In this section, relationship of EPS, DPS & NWPS with MPS is determined separately to each of sampled companies. The correlation analysis is performed to determine the relationship of EPS, DPS and BPS with MPS. To determine the effect of DPS, EPS and BPS on MPS, simple correlation as well as their coefficient of determination are calculated.

4.2.8 Correlation Analysis of Himalayan Bank Ltd. (HBL)

Table 4.7 given below shows the MPS, DPS and NWPS of HBL over five years. Table 4.8 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.7

Summary of Financial Performance of HBL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2004/05	920.00	47.91	31.58	239.59
2005/06	1100.00	59.24	35.00	228.72
2006/07	1740.00	60.66	40.00	264.74
2007/08	1980.00	62.74	45.00	247.95
2008/09	1760.00	61.90	43.56	256.52
Mean	1500.00	58.49	39.03	247.51
S.D.	461.52	6.06	5.67	14.08
C.V.	30.77	10.36	14.54	5.69

Source: NEPSE Annual Reports of Various Years

Table 4.8

Relationship of MPS with EPS, DPS and NWPS of HBL

Variables	r	r^2	t-cal	t-tab	Remarks
r_{ab}	0.82	0.672	2.482	2.776	Insignificant
r_{ac}	0.97	0.941	6.942	2.776	Significant
r_{ad}	0.72	0.518	1.796	2.776	Insignificant

Source: Table 4.7, Appendix 1 and Excel Software

Above table shows that the performance of HBL is much consistent as compared to other sample companies. If we see the four variables the DPS and NWPS are volatile with 14.54% and 5.69% C.V. respectively. The correlation analysis shows that MPS is positively correlated with EPS, DPS and NWPS which means that any increase in EPS, DPS and NWPS will also increase in the MPS and decrease in those variables will lead to decrease in MPS. 67.2% of the change in MPS is explained by EPS, 94.1% changes is explained by DPS and 51.8% change is explained by NWPS. The correlation coefficient of DPS with MPS is significant whereas correlation coefficient of EPS and NWPS with MPS are insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.7

Summary of Financial Performance of HBL
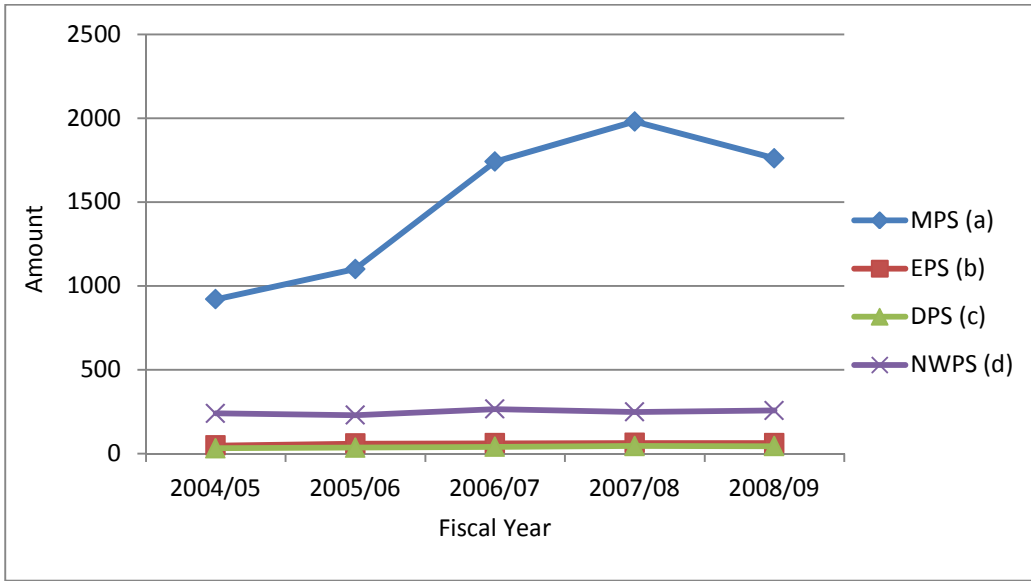
4.2.9 Correlation Analysis of Nepal Investment Bank Ltd (NIBL)

Table 4.9 given below shows the MPS, EPS, DPS and NWPS of NIBL over the period of five years. Table 4.10 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.9

Summary of Financial Performance of NIBL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS(d)
2004/05	800.00	39.50	12.50	200.80
2005/06	1260.00	59.35	54.46	239.67
2006/07	1729.00	62.57	30.00	234.37
2007/08	2450.00	57.87	40.83	223.17
2008/09	1388.00	38.00	20.00	182.93
Mean	1525.40	51.46	31.56	216.19
S.D.	614.79	11.74	16.65	23.84
C.V.	40.30	22.81	52.78	11.02

Source: NEPSE Annual Reports of Various Years

Table 4.10

Relationship of MPS with EPS, DPS and NWPS of NIBL

Variables	r	r^2	t-cal	t-tab	Remarks
r_{ab}	0.57	0.325	1.202	2.776	Insignificant
r_{ac}	0.43	0.185	0.824	2.776	Insignificant
r_{ad}	0.33	0.108	0.604	2.776	Insignificant

Source: Table 4.9, Appendix 1 and Excel Software

The table given above clearly shows that the performance of NIBL is consistent as compared to other sample companies. If we see the four variables the DPS and MPS are highly volatile with 52.78% and 40.30% of C.V. whereas EPS and NWPS have relatively consistent performance with 22.81% and 11.03% C.V. respectively. The correlation analysis shows that MPS is positively correlated with EPS, DPS and NWPS which means that any increase in EPS, DPS and NWPS also increase in the MPS and decrease in those variables will lead to decrease in MPS. 32.5% change in MPS is explained by EPS, 18.5% is explained by DPS and 10.8% change in MPS is explained by NWPS. The correlation coefficient of EPS, DPS & NWPS with MPS are insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.8

Summary of Financial Performance of NIBL
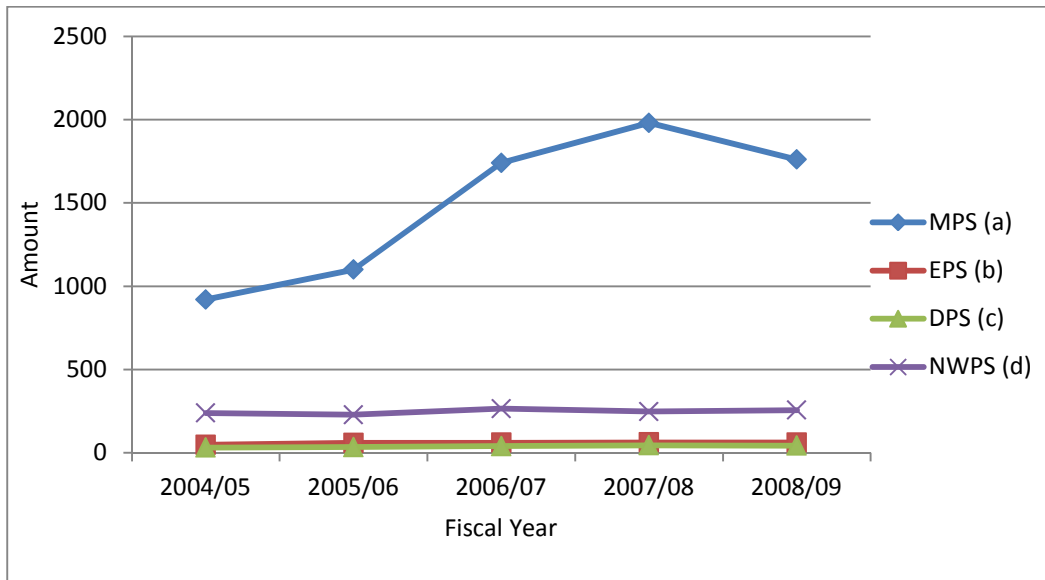
4.2.10 Correlation Analysis of Peoples Finance Company Ltd. (PFCL)

Table 4.11 given below shows the MPS, EPS, DPS and NWPS of PFCL over the period of five years. Table 4.12 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.11

Summary of Financial Performance of PFCL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2004/05	104.00	14.90	10.00	123.86
2005/06	100.00	17.62	10.00	128.80
2006/07	137.00	9.72	0.00	138.00
2007/08	125.00	13.14	0.00	130.01
2008/09	699.00	19.22	0.00	142.94
Mean	233.00	14.92	4.00	132.72
S.D.	260.94	3.74	5.48	7.64
C.V.	111.99	25.08	136.93	5.76

Source: NEPSE Annual Reports of Various Years

Table 4.12

Relationship of MPS with EPS, DPS and NWPS of PFCL

| Variables	r	r^2	t-cal	t-tab	Remarks
r_{ab}	0.598	0.358	1.292	2.776	Insignificant
r_{ac}	-0.458	0.210	-0.892	2.776	Insignificant
r_{ad}	0.779	0.607	2.152	2.776	Insignificant

Source: Table 4.11, Appendix-1 and Excel Software

The table given above clearly shows that the performance of PFCL is consistent as compared to other sample companies. If we see the four variables the MPS and DPS are highly volatile with 111.99% and 136.93% of C.V. whereas EPS and NWPS have relatively consistent performance with 25.08% and 5.76% C.V. respectively. The correlation analysis shows that MPS is positively correlated with EPS and NWPS which means that any increase in EPS and NWPS also increase in the MPS and decrease in those variables will lead to decrease in MPS and negatively correlated with DPS which means that when it increases, MPS decreases and vice versa. 35.76% change in MPS is explained by EPS, 20.97% is explained by DPS and 60.68% change in MPS is explained by NWPS. The correlation coefficient of EPS, DPS and NWPS with MPS are insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.9

Summary of Financial Performance of PFCL
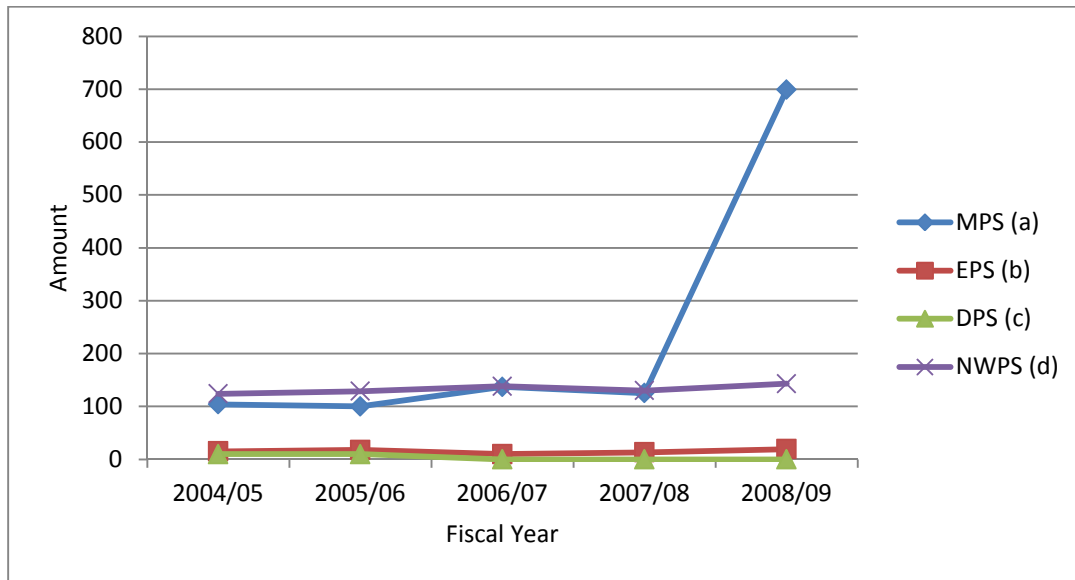
4.2.11 Correlation Analysis of Lalitpur Finance Company Ltd. (LFC)

Table 4.13 given below shows the MPS, EPS, DPS and NWPS of LFC over the period of five years. Table 4.14 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.13

Summary of Financial Performance of LFC

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2004/05	235	16.48	0	179.28
2005/06	250	33.54	50	128.8
2006/07	245	37.55	0	138
2007/08	330	52.68	52.63	130.01
2008/09	700	0	0	142.94
Mean	352	28.05	20.526	143.806
S.D.	198.20	20.30	28.12	20.67
C.V.	56.31	72.36	137.01	14.37

Source: NEPSE Annual Reports of Various Years

Table 4.14

Relationship of MPS with EPS, DPS and NWPS of LFC

Variables	r	r^2	t-cal	t-tab	Remarks
r_{ab}	-0.654	0.428	-1.497	2.776	Insignificant
r_{ac}	-0.281	0.079	-0.506	2.776	Insignificant
r_{ad}	-0.123	0.015	-0.215	2.776	Insignificant

Source: Table 4.13, Appendix 1 and Excel Software

The table given above clearly shows that the performance of LFC is not much consistent as compared to other sample companies. If we see the four variables the MPS, EPS and DPS are highly volatile with 56.31%, 72.36% and 137.01% of C.V. whereas NWPS has relatively consistent performance with 14.37% C.V. The correlation analysis shows that MPS is negatively correlated with EPS, DPS and NWPS which means that any increase in EPS, DPS and NWPS, decrease in the MPS and decrease in those variables will lead to increase in MPS. 42.77% change in MPS is explained by EPS, 7.8% is explained by DPS and 1.51% change in MPS is explained by NWPS. The correlation coefficient of EPS, DPS and NWPS with MPS are insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.10

Summary of Financial Performance of LFC
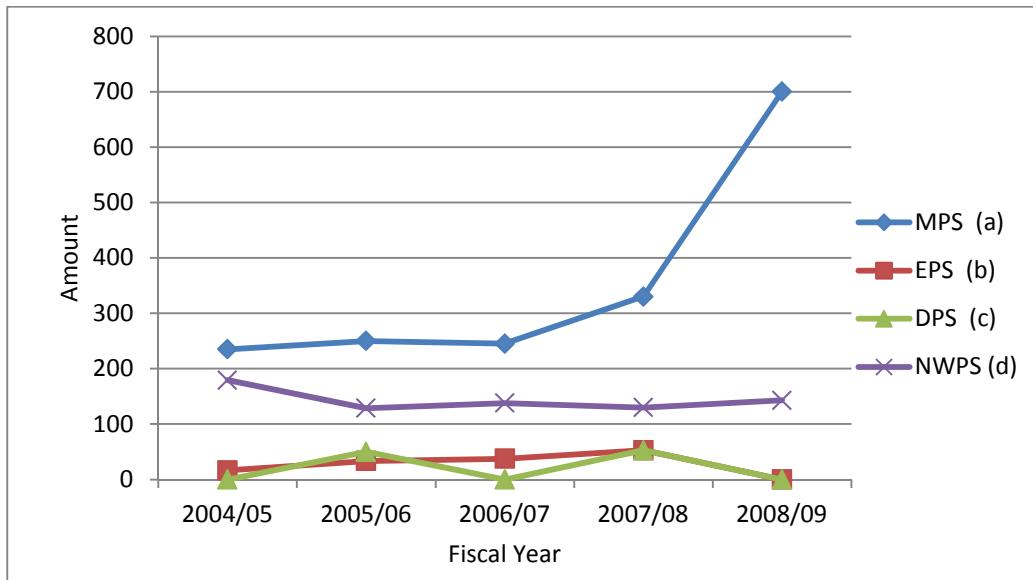
4.2.12 Correlation Analysis of Sagarmatha Insurance Company (SIC)

Table 4.15 given below shows the MPS, EPS, DPS and NWPS of SIC over the period of five years. Table 4.16 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.15

Summary of Financial Performance of SIC

(Sagarmatha Insurance Company)

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2004/05	140.00	10.50	7.50	201.15
2005/06	158.00	28.15	0.00	214.55
2006/07	131.00	30.23	0.00	238.94
2007/08	210.00	30.10	2.21	260.64
2008/09	227.00	14.72	0.00	221.42
Mean	173.20	22.74	1.94	227.34
S.D.	42.90	9.40	3.25	23.07
C.V.	24.77	41.35	167.41	10.15

Source: NEPSE Annual Reports of Various Years

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Table 4.16

Relationship of MPS with EPS, DPS and NWPS of SIC

Variables	r	r^2	t-cal	t-tab	Remarks
r_{ab}	-0.095	0.009	-0.164	2.776	Insignificant
r_{ac}	-0.301	0.090	-0.546	2.776	Insignificant
r_{ad}	0.374	0.140	0.698	2.776	Insignificant

Source: Table 4.15, Appendix 1 & Excel Software

The table given above clearly shows that the performance of SIC is not much consistent as compared to other sample companies. If we see the four variables the EPS and DPS are highly volatile with 41.35% and 167.41% of C.V. whereas MPS and NWPS have relatively consistent performance with 24.77% and10.15% C.V. respectively. The correlation analysis shows that MPS is positively correlated with NWPS which means that any increase in NWPS also increase in the MPS and decrease in those variables will lead to decrease in MPS and negatively correlated with EPS and DPS which means that when the variables increase, MPS decreases and vice versa. 0.89% change in MPS is explained by EPS, 9.13% is explained by DPS and 13.98% change in MPS is explained by NWPS. The correlation coefficient of EPS, DPS & NWPS with MPS is insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.11

Summary of Financial Performance of SIC

(Sagarmatha Insurance Company)
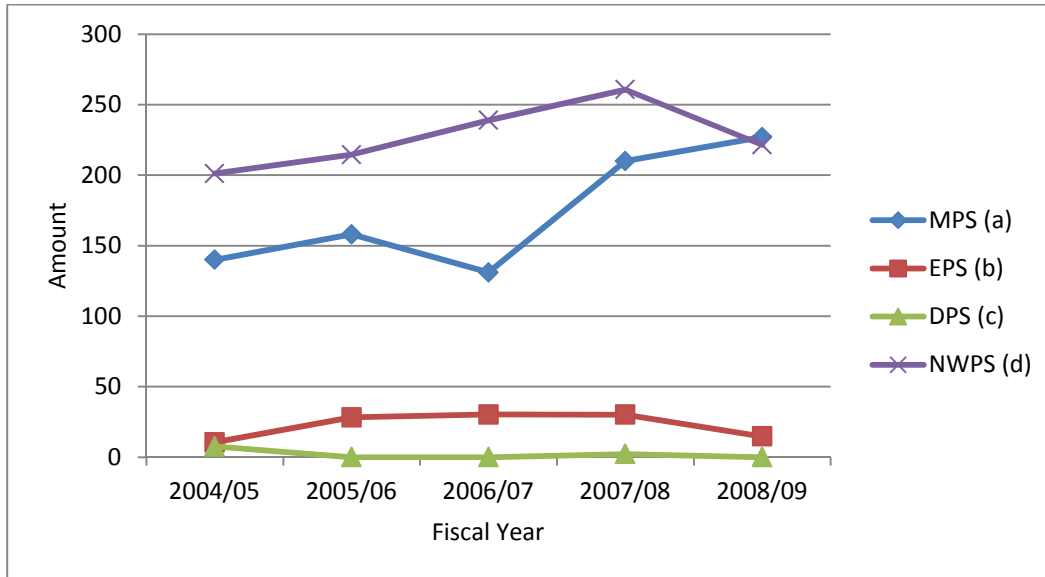
4.2.13 Correlation Analysis of Premier Insurance Company Ltd. (PICL)

Table 4.17 given below shows the MPS, EPS, DPS and NWPS of PICL over the period of five years. Table 4.18 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.17

Summary of Financial Performance of PICl (Premier Insurance Co. Ltd)

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2004/05	210.00	25.12	10.53	276.89
2005/06	210.00	46.68	0.00	320.93
2006/07	200.00	43.54	0.00	376.87
2007/08	260.00	18.43	5.79	167.89
2008/09	285.00	15.00	0.00	260.00
Mean	210.00	25.12	10.53	276.89
S.D.	37.35	14.53	4.77	77.52
C.V.	17.79	57.82	45.33	28.00

Source: NEPSE Annual Reports of Various Years

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Table 4.18

Relationship of MPS with EPS, DPS and NWPS of PICI

Variables	r	r^2	t-cal	t-tab	Remarks
r_{ab}	-0.834	0.696	-2.618	2.776	Insignificant
r_{ac}	0.014	0.000	0.025	2.776	Insignificant
r_{ad}	-0.702	0.493	-1.707	2.776	Insignificant

Source: Table 4.17, Appendix 1 and Excel Software

The table given above clearly shows that the performance of PICL is not consistent as compared to other sample companies. If we see the four variables the EPS and DPS are highly volatile with 57.82% and 45.33% of C.V. whereas MPS and NWPS have relatively consistent performance with 17.79% and 28.00% C.V. respectively. The correlation analysis shows that MPS is negatively correlated with EPS and NWPS which means that any increase in the variables decreases the MPS and decrease in those variables will lead to increase in MPS. The correlation analysis also shows that MPS is positively correlated with DPS which means that any increase in variable will also increase in MPS and vice versa. 69.55% change in MPS is explained by EPS, 1.44% is explained by DPS and 49.3% change in MPS is explained by NWPS. The correlation coefficient of EPS, DPS and NWPS with MPS are insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.12

Summary of Financial Performance of PICl (Premier Insurance Co. Ltd)
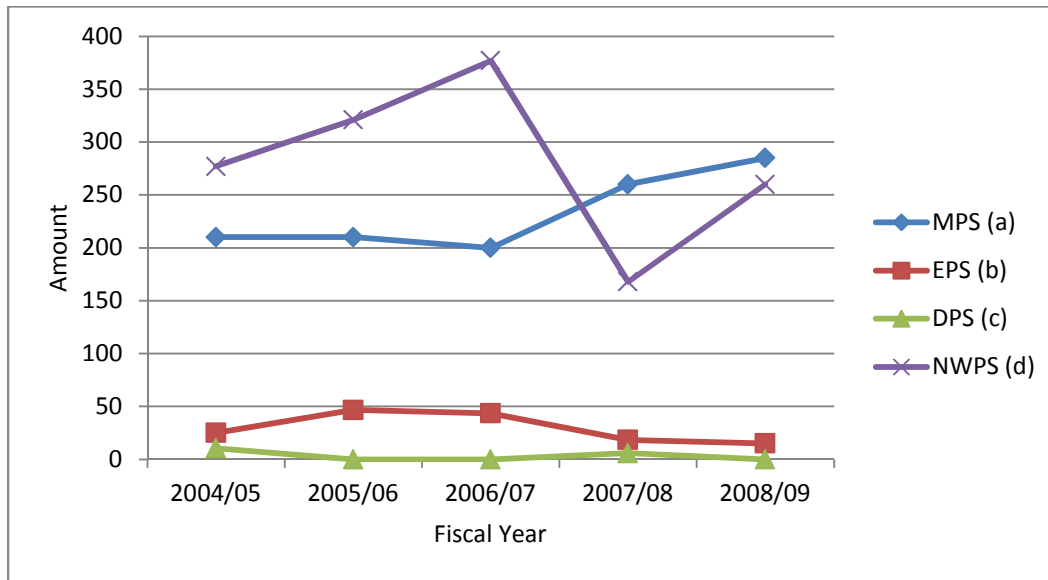
4.2.14 Correlation Analysis of Taragaon Regency Hotel (TRH)

Table 4.19 given below shows the MPS, EPS, DPS and NWPS of TRH over the period of five years. Table 4.20 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.19

Summary of Financial Performance of TRH

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2004/05	75.00	0.00	0.00	21.15
2005/06	65.00	-19.95	0.00	22.92
2006/07	40.00	-15.41	0.00	26.63
2007/08	53.00	-4.87	0.00	55.21
2008/09	68.00	-2.15	0.00	58.32
Mean	60.2	-8.476	0	36.846
S.D.	13.81	8.73	0.00	18.32
C.V.	22.94	-102.95	0.00	49.73

Source: NEPSE Annual Reports of Various Years

Table 4.20

Relationship of MPS with EPS, DPS and NWPS of TRH

Variables	r	r^2	t-cal	t-tab	Remarks
r_{ab}	0.485	0.235	0.961	2.776	Insignificant
r_{ac}	0.000	0.000	0.000	2.776	Insignificant
r_{ad}	-0.056	0.003	-0.097	2.776	insignificant

Source: Table 4.19, appendix 1 and excel software

The table given above clearly shows that the performance of TRH is not consistent as compared to other sample companies. If we see the four variables the EPS and NWPS are highly volatile with 102.95% and 49.73% of C.V. whereas MPS has relatively consistent performance with 22.94% C.V. and performance of DPS is zero. The correlation analysis shows that MPS is positively correlated with EPS which means that any increase in EPS also increase the MPS and decrease in those variables will lead to decrease in MPS and negatively correlated with NWPS which means that when it increases, MPS decreases and vice versa. 23.5% change in MPS is explained by EPS and 0.353% change in MPS is explained by NWPS. The correlation coefficient of EPS, DPS and NWPS with MPS are insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.13

Summary of Financial Performance of TRH
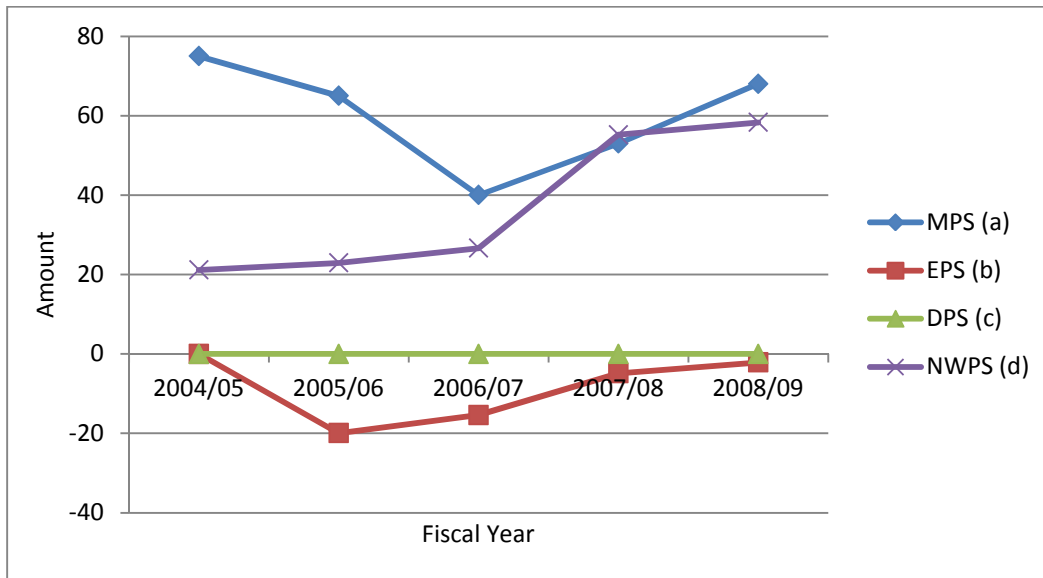
4.2.15 Correlation Analysis of Soaltee Hotel Ltd. (SHL)

Table 4.21 given below shows the MPS, EPS, DPS and NWPS of SHL over the period of five years. Table 4.22 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.21

Summary of Financial Performance of SHL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2004/05	75.00	0.00	0.00	197.00
2005/06	65.00	-7.25	0.00	150.25
2006/07	57.00	-23.31	0.00	185.27
2007/08	126.00	26.68	0.00	201.54
2008/09	236.00	15.32	0.00	211.00
Mean	111.8	2.288	0	189.012
S.D.	74.46	19.47	0.00	23.56
C.V.	66.60	850.95	0.00	12.47

Source: NEPSE Annual Reports of Various Years

Table 4.22

Relationship of MPS with EPS, DPS and NWPS of SHL

Variables	r	r^2	t-cal	t-tab	Remarks
r_{ab}	0.672	0.452	1.572	2.776	Insignificant
r_{ac}	0.000	0.000	0.000	2.776	Insignificant
r_{ad}	0.013	0.000	0.022	2.776	insignificant

Source: Table 4.21, Appendix 1 and Excel Software

The table given above clearly shows that the performance of SHL is consistent as compared to other sample companies. If we see the four variables the MPS and EPS are highly volatile with 66.60% and 850.95% of C.V. whereas NWPS has relatively consistent performance with 12.47% C.V. and performance of DPS is zero. The correlation analysis shows that MPS is positively correlated with EPS and NWPS which means that any increase in the variables also increase the MPS and decrease in those variables will lead to decrease in MPS and no correlated with DPS. 45.15% change in MPS is explained by EPS and 0.016% change in MPS is explained by NWPS. The correlation coefficient of EPS, DPS and NWPS with MPS are insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.14

Summary of Financial Performance of SHL
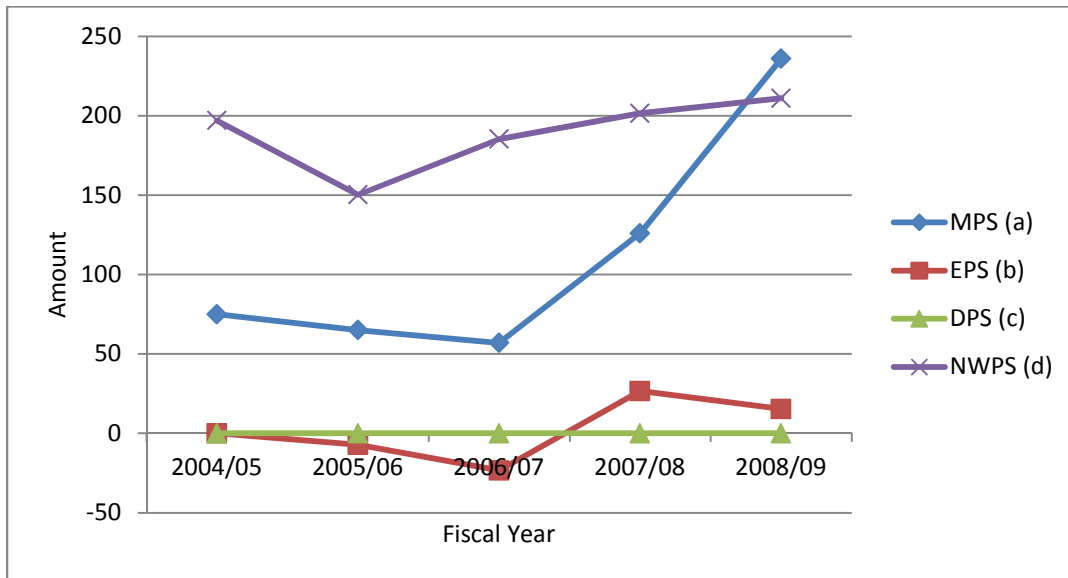
4.2.16 Correlation Analysis of Uniliver Nepal Ltd. (UNL)

Table 4.23 given below shows the MPS, EPS, DPS and NWPS of UNL over the period of five years. Table 4.24 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.23

Summary of Financial Performance of UNL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2004/05	1400.00	153.00	100.00	430.12
2005/06	1631.00	205.83	175.00	337.20
2006/07	2500.00	258.66	250.00	244.28
2007/08	3400.00	285.71	275.00	255.01
2008/09	3738.00	243.35	185.00	263.42
Mean	2533.8	229.31	197	306.006
S.D.	1037.07	51.51	68.79	78.42
C.V.	40.93	22.46	34.92	25.63

Source: NEPSE Annual Reports of Various Years

Table 4.24

Relationship of MPS with EPS, DPS and NWPS of UNL

Variables	r	r^2	t-cal	t-tab	Remarks
r_{ab}	0.193	0.037	0.341	2.776	Insignificant
r_{ac}	0.152	0.023	0.266	2.776	Insignificant
r_{ad}	-0.193	0.037	-0.340	2.776	Insignificant

Source: Table 4.23, Appendix 1 and Excel Software

The table given above clearly shows that the performance of UNL is consistent as compared to other sample companies. If we see the four variables the MPS is volatile with 40.93% whereas EPS, DPS and NWPS have relatively consistent performance with 22.46%, 34.92 and 25.63% C.V. respectively. The correlation analysis shows that MPS is positively correlated with EPS, DPS and NWPS which means that any increase in the variables also increase in the MPS and decrease in those variables will lead to decrease in MPS. 3.7% change in MPS is explained by EPS, 2.3% is explained by DPS and 3.71% change in MPS is explained by NWPS. The correlation coefficient of EPS, DPS and NWPS with MPS are insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.15

Summary of Financial Performance of UNL
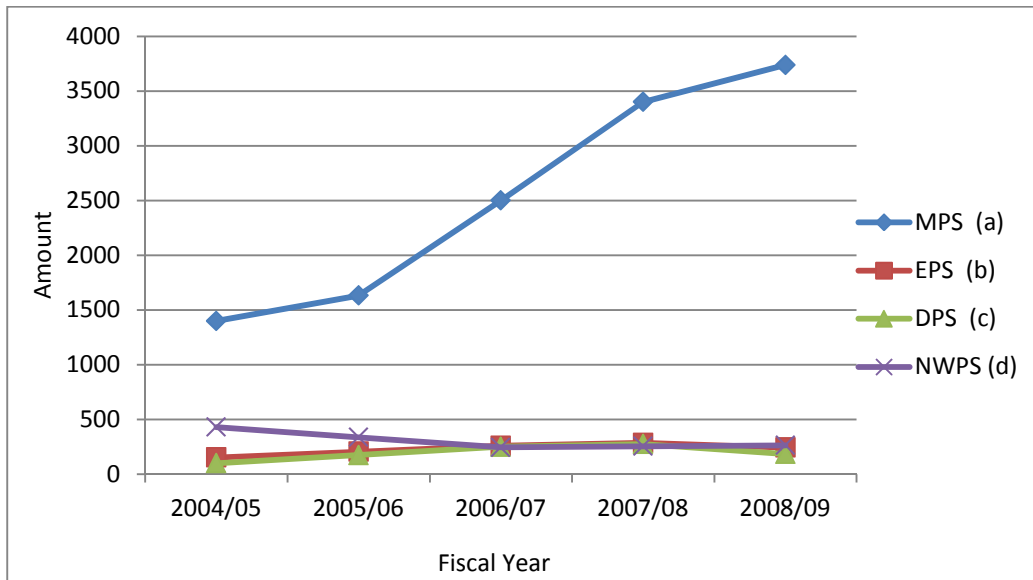
4.2.17 Correlation Analysis of Bottlers Nepal Ltd (BNL)

Table 4.25 given below shows the MPS, EPS, DPS and NWPS of BNL over the period of five years. Table 4.26 shows the relationship (correlation) of MPS with EPS, DPS and NWPS along with the significance of such relationships.

Table 4.25

Summary of Financial Performance of BNL

Year	MPS (a)	EPS (b)	DPS (c)	NWPS (d)
2004/05	554	19.4	0	187.38
2005/06	635	15.52	10	213.82
2006/07	500	10.06	0	218.46
2007/08	500	15.56	115	230.26
2008/09	723	9.62	5	233.52
Mean	582.4	14.032	26	216.688
S.D.	96.07	4.14	49.92	18.29
C.V.	16.50	29.51	192.02	8.44

Source: NEPSE Annual Reports of Various Years

Table 4.26

Relationship of MPS with EPS, DPS and NWPS of BNL

Variables	r	r2	t-cal	t-tab	Remarks
r_{ab}	-0.307	0.094	-0.558	2.776	Insignificant
r_{ac}	-0.429	0.184	-0.823	2.776	Insignificant
r_{ad}	0.253	0.064	0.453	2.776	Insignificant

Source: Table 4.25, Appendix 1 and Excel Software

The table given above clearly shows that the performance of BNL is not much consistent as compared to other sample companies. If we see the four variables the DPS is highly volatile with 192.02% of C.V. whereas MPS, EPS and NWPS have relatively consistent performance with 16.50%, 29.51% and 8.44 % of C.V. respectively. The correlation analysis shows that MPS is positively correlated with NWPS which means that any increase in NWPS also increase in the MPS and decrease in NWPS will lead to decrease in MPS and negatively correlated with EPS and DPS which means that when the variable increases, MPS decreases and vice versa. 9.406 % change in MPS is explained by EPS, 18.4 % is explained by DPS and 6.4 % change in MPS is explained by NWPS. The correlation coefficient of EPS, DPS and NWPS with MPS are insignificant at 95% level of significance.

The graphic presentation of the relationship between MPS, DPS EPS and NWPS is shown in the chart given below.

Chart 4.16

Summary of Financial Performance of BNL
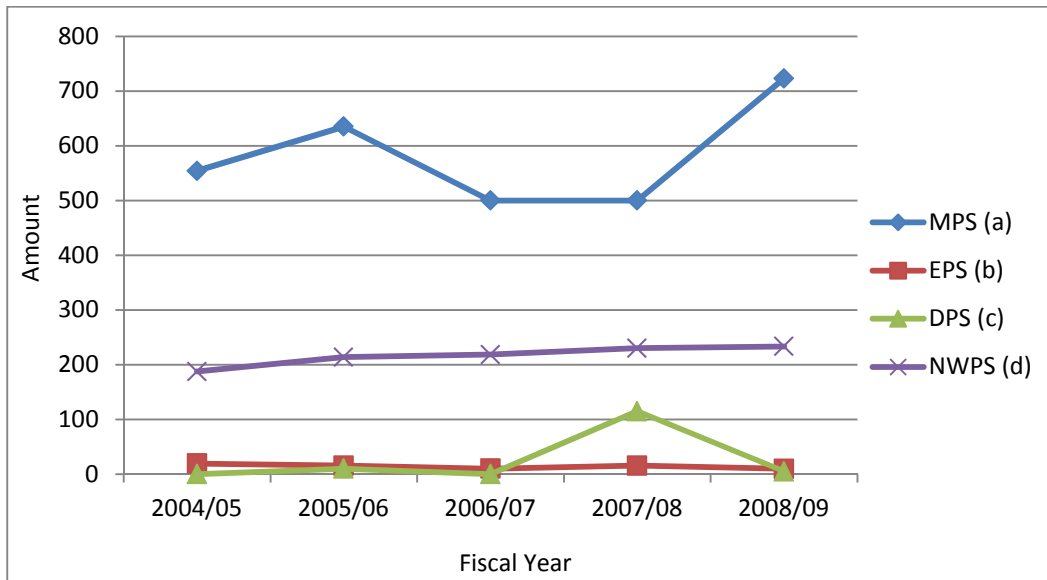
4.3 Major Findings of the Study

- The market prices of sample companies during fiscal year 2004/05 to 2008/09 has been presented and analyzed which shows the fluctuation on the prices. It is found that investors in the stock market take the investment decision on the basis of market prices of shares.

- Paid up value indicates the actual amount of the investment in assets whereas market capitalization indicates the present value of the investment.

- Studying the annual trend analysis of NEPSE Index, it is found that stock is increasing smoothly but from the year 2008/09 price trend is decreasing rapidly. Taking the decision as long period, forecast of experts may be correct because of system wise decreasing trend.

- On analyzing the price trend of NEPSE over the year 2009/2010 with the help of monthly trend it shows that the price trend of different months were in fluctuating and in downward trend.

- MPS is volatile in relation with EPS, DPS and NWPS. The t- test explains the significance of relationship of MPS with EPS, DPS and NWPS. It is revealed from analysis that banking sectors has good performance in last five years. MPS is positively correlated with EPS, DPS and NWPS of Commercial Banks.

CHAPTER - V
SUMMARY, CONCLUSION AND RECOMMENDATIONS

This is the final chapter that involves summary, conclusion and recommendations of the research work. Summary refers to the short form of the whole study. Conclusion is drawn from the analysis and recommendations suggest improving the stock price in the Nepalese stock market. The facts and findings from secondary data analysis are presented in this chapter. Besides summarizing and concluding research work, recommendations are made to concerned persons and organizations.

5.1 Summary

Securities market simply refers to the market where buying and selling of stocks, bonds and debentures take place. The capital market is the pillar of any country's economy and Nepal is no more an exception. Stock market, one of the major market under capital market has played a vital role in balancing the country's economy and as well as for its development. So the promotion of stock market in a sizeable economic sector can help to raise the economic development by mobilizing capital in to productive sectors by making suitable investment for suitable investment environment. Various factors like price trend of NEPSE Index, volume of stock traded, rate of listing, paid up value and market capitalization, closing market price of samples companies, correlation coefficient analysis and signaling factors have been analyzed.

The main objective of the present research work is to examine and study pricing behaviour of common stock with help of NEPSE index, volume of stock traded, rate of listing of new companies on stock exchange and maintenance of them, analyze the paid up value and market capitalization, impact of signaling factors on

NEPSE index, to find out the correlation coefficient between samples companies and analysis of market price of samples companies. These factors have been in a major focus for the study of pricing behaviour of common stock.

According to the nature and objectives of the study secondary data has been used to meet the objectives. Secondary data were collected from the annual report of NEPSE, daily news papers, websites of sample companies, library search, magazines, bulletin and other journals. From the analysis it was found that the price trend is not in predictable trend during the study period of various fiscal years.

Volume of stock traded was not in the same direction as the different years. Volumes of stock traded during the fiscal year 2003/04 were found to be fluctuating. Annual stock price trend from many years were in increasing trend in the stock market. The paid up value and the market capitalization of listed companies in the NEPSE were in increasing trend in the stock market. There is positive correlation coefficient in most of the sampled companies when tested with EPS, DPS and NWPS.

From the study, it was found that signaling factors plays major role in determining the NEPSE index. There was difference between NEPSE indexes before major signaling factors such as people's revolution of 2063, enactment of new securities act etc.

5.2 Conclusion

From the above research study we can conclude that present research is very important breakthrough in analysis of stock price dynamics in Nepalese market. It has investment secondary information and found high price volatility pattern in Nepalese Capital Market. Further it has also identified the responsible factors such

as price volatility, responsible agencies or institution in share price volatility, general environment responsible for price volatility in Nepalese Capital Market.

Various measures of stock market development indicate that the stock market in Nepal is underdeveloped and has failed to show impact on the overall national economy. Small market size has made it vulnerable to manipulation and price rigging. Investors tend to avoid stock market because they do not have options to invest in securities according to their risk-return preference. Similarly firms shun it because stock market is less reliable source of raising funds for them. Due to this financial system in Nepal, bank has remained basically dominated.

The market seems losing confidence of investors. There is poor liquidity for the stocks. A scarcity of floating stocks prevails in the market. Professionalism is still lacking in the service of investors and investment management. A system of preponderance of speculative trading is guessed to be prevails, where the primary motive is to derive benefit from short term service fluctuations. It appears that a very small fraction of transaction represents purchases sales by genuine investors. The rest are driven mainly by speculative motive. The corporate sector is still reluctant on disseminating information timely. The kinds of securities trading in the market are confined only to ordinary and preference shares. These are various major problems observed in the market now a days.

Nepal Stock Exchange limited is analyzing stock market behavior in very few areas regarding the stock market. So experts should be recruited and analyzed market behavior in efficient way so that all parties interested with stock market can get benefit from this. The data analysis shows that Nepal Stock Exchange is not providing facilities for investors such as general awareness about investment, investment procedure for general public and movement of stick trend in different periods and their cause are also not explained. Most of the investors are

complaining that the market brokers and NEPSE's staffs are making coalition for fraudulent activities towards investors. So Nepal Stock Exchange should clear this type of change for the development of stock market.

5.3 Recommendations

Based on the research work, the researcher has reached to the following recommendations:

To SEBON /NEPSE

Perfect markets require all information concerning future risks and returns of securities be readily available to all investors.Because of lack of technical knowledge, majority of investors are unable to analyze the available information. As such single buyer and a single seller can affect the price of securities. To increase awareness among the general public about the capital market, NEPSE / SEBON has to ensure that listed companies' relevant information are coming on timely basis through promotional campaigns, seminars, publications and programs in FM/TV etc. It is better to publish the working result of listed companies' quarterly basis. NEPSE can expand its service to regional and local level so that it gives equal opportunity to all the potential investors.

NEPSE should have to conduct research seminar and training and make the awareness about how to increase the company's market price and how to show their performance in listing of NEPSE by updating their reports periodically, informing actual financial position of the company, encouraging active participation of other sectors of the economy besides bank, finance companies and insurance through the enforcement of good corporate governance. Data of listed companies, their performance appraisal, their conduction of work, their productivity and commitment to NEPSE should be updated and analyzed in time

and again. If any company is found in doing works against NEPSE should immediately take action on it

To Investors

Lack of sufficient information is the main weakness of the investors. They should ask their right towards accurate and timely information as well as for protection. Similarly investors should be alert to exploit the opportunities through short term speculation. So they are suggested to raise their voice and complain about the misconduct of relevant company or NEPSE / SEBON.

The stock market lacks the existence of sophisticated investors. It is important to realize as aspiring investors that you cannot value a company by simply looking at its market capitalization, the total rupee value of the company shares on the market by calculating all the shares available multiplied by their current share price and think that you should invest in it. Nor should you value different companies by comparing their share prices because each company may have different market capitalization which would give a worthless indication of which one is better. The key factor is investor's perception about the company because demand and supply theory says that if people do not perceive something as worthwhile there will be no demand for it

To Security Brokers

Brokers are suggested not only to look at their interest but also be sincere and cooperate with investors. Since they have greater level of practical knowledge they should have provide rational and accurate advices to their clients/ investors and foster professionalism.

To Listed Companies

Listed Companies are recommended to avail the accurate and timely information to concerned authorities as well as to investors. They should conduct timely AGM

and fulfill the requirement of concerned authorities. They should not provide gimmicks to attract the potential investors.

To Government

Government should formulate as well as implement effective rules and regulations, code of conduct for the gradual development of capital market. For this national as well as international stock experts should be consulted. Similarly it should encourage independent rating agencies so that investors will have a confident picture of financial health and future prospects of organizations/ instruments. NEPSE should be given authority to take immediate action for wrong companies. Government should encourage the concerned bodies to organize programs, seminars time to time to create awareness among the investors. Meanwhile Independent analysis on the latest security offers in the capital market by professionals should be encouraged.

It is recommended to discourage the possibilities of insiders trading through improved corporate governance and initiate strict corrective measure for compliance. The regulatory body should be more active so that the inside trade should be minimized

To Future Researcher

Research is an ongoing process. Study of security is a vast field of study. Through this research, the researcher has tried to explore the pricing behaviour of common stock in NEPSE which I believe more specific. The future researcher can focus their study towards more specific factors. Similarly they can carry out research based on primary source.

BIBLIOGRAPHY

Books:

Birgham, E.F. & Gapnski, L. & Eharhaedl, M.L.C. (2001). *Financial Management Theory & Practice*. New Delhi: Harcourt Asia Pvt. Ltd.,

Cheney, J.M. & Moses, E.A. (1995). *Investments: Analysis, Selection & Management*. New York: West Publishing Company.

Fama, E.F. & Fisher, L. (1966). *Filter Rule & Stock Market Trading*. Journal of Business, Vol. 39.

Fama, E.F. (1970). *The Efficient Market Hypothesis*. U.S.A.: Wikimedia Foundation.

Francis, J.C. (1997). *Investment Analysis & Management*. New York: McGraw Hill.

Gitman, L.J. (2000). *Principle of Managerial Finance*. New Delhi: Pearson Education Asia Pvt. Ltd.

Gupta, O.P. (1982). *Stock Market Efficiency and Price Behaviour*. New Delhi: National Publishing House.

Hornby A.S. (2005). *Oxford Advanced Learners Dictionary*. New Delhi: Oxford University Press.

Jorden, F. & Fisher, F. (1995). *Security Analysis & Portfolio Management*. New Delhi: Prentice Hall of India.

Mahat, R.S. (1981). *Capital Market, Financial Flow & Industrial Finance in Nepal*. Kathmandu: Sajha Prakashan.

Panta, P.R. & Wolf Howardk. (2003), *Social Science Research and Thesis Writing*, Buddha Academic Publishers & distributors Ltd, Kathmandu

Pradhan, R.S. (1994). *Financial Management Practices*. New Delhi: Vikash Publishing House.

Reilly, P. & Brown, A. (2003). *Investment Management and Portfolio Management*. India: Horcourt College Publishers.

Sharma, P.K & Chaudhary, A.K. (2006). *Statistical Methods*. Kathmandu: Khanal Books Prakashan.

Sharpe, A. & Bailey, F. (2001). *Fundamentals of Investment*. New Delhi: MLNX Publishing House.

Vaidya, S. (1999). *Financial Market & Institutions*. Kathmandu: Taleju Prakashan.

Van Horne, J.C. (2000). *Financial Management and Practices*. New Delhi: Prentice Hall of India Pvt. Ltd.

Weston, J.F. & Brigham, E.F. (1987). *Essentials of Managerial Finance*. The Dryden Press, Orlando

Weston, J.F. & Copeland, T.E. (1987), *Financial Management & Policy*, The Dryden Press, Delhi

Weston, J.F. & Thomas, F. (1992). *Managerial Finance*. Chicago: The Dryden Press.

Winfields, G. (1985). *Investment Analysis and Management.* Columbia: University Press.

Official Publications:

Nepal Rastra Bank (Various Fiscal Years). *Economic Reports*.

Nepal Stock Exchange (NEPSE) (Various Fiscal Years). *Annual Report.*

Samples Companies (Various Fiscal Years). *Annual Reports*.

Security Exchange Board of Nepal (SEBON). (Various Fiscal Years). *Annual Reports.*

The Himalayan Times, English Daily Newspaper

The Kathmandu Post, English Daily Newspaper

Thesis:

Acharya, S. (2010). *Issue of Rights Share and Its Effect on General Market Price in Nepalese Context.* An Unpublished Master Level Thesis, Central Department of Management, T.U.

Khatiwada, N. (2009). *Right Issue Practices in Nepal and Its Impact on Market Price of Share*. An Unpublished Master Level Thesis, Central Department of Management, T.U.

Neupane, A. (2004). *Determinants of Stock Price in NEPSE*. An Unpublished Master Level Thesis, Central Department of Management, T.U.

Niraula, M. (2006). *Analysis of Stock Market Trend and its Performance*, An unpublished Master Level Thesis, Central Department of Management, T.U.

Sharma, S. (2007). *A Study on Factors Affecting Share Price in Nepalese Share Market*. An Unpublished Master Level Thesis, Central Department of Management, T.U.

Upadhyaya, M.K. (2007), *Determinants of Stock Price in Nepal Stock Exchange with special focus to Joint Venture Banks*. An Unpublished Master Level Thesis, Central Department of Management, T.U.

Websites:

www.himalayanbank.com

www.nepalsharemarket.com

www.nepalstock.com

www.nibl.com.np

www.sebonp.com

www.soalteehotel.com

www.stockabout.com

APPENDICES

Appendix-1
Correlation Analysis of Sample Companies

Correlation coefficient analysis between MPS and EPS of HBL

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	920.00	47.91	846400.00	2295.37	44077.20
2005/06	1100.00	59.24	1210000.00	3509.38	65164.00
2006/07	1740.00	60.66	3027600.00	3679.64	105548.40
2007/08	1980.00	62.74	3920400.00	3936.31	124225.20
2008/09	1760.00	61.90	3097600.00	3831.61	108944.00
Total	7500.00	292.45	12102000.00	17252.30	447958.80

$$r_{ab} = \frac{n\sum ab - \sum a.\sum b}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5x447958.80 - 7500x292.45}{\sqrt{5x12102000 - (7500)^2} \, x \sqrt{5x17252.30 - (292.45)^2}} = 0.82$$

Correlation coefficient analysis between MPS and DPS of HBL

Year	MPS(a)	DPS (c)	a^2	c^2	ac
2004/05	920.00	31.58	846400.00	997.30	29053.60
2005/06	1100.00	35.00	1210000.00	1225.00	38500.00
2006/07	1740.00	40.00	3027600.00	1600.00	69600.00
2007/08	1980.00	45.00	3920400.00	2025.00	89100.00
2008/09	1760.00	43.56	3097600.00	1897.47	76665.60
Total	7500.00	195.14	12102000.00	7744.77	302919.20

$$r_{ac} = \frac{n\sum ac - \sum a.\sum c}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5x302919.20 - 7500x195.14}{\sqrt{5x12102000 - (7500)^2} \, x \sqrt{5x7744.77 - (195.14)^2}} = 0.97$$

Correlation coefficient analysis between MPS and NWPS of HBL

Year	MPS(a)	NWPS (d)	a^2	d^2	ad
2004/05	920.00	239.59	846400.00	57403.37	220422.80
2005/06	1100.00	228.72	1210000.00	52312.84	251592.00
2006/07	1740.00	264.74	3027600.00	70087.27	460647.60
2007/08	1980.00	247.95	3920400.00	61479.20	490941.00
2008/09	1760.00	256.52	3097600.00	65802.51	451475.20
Total	7500.00	1237.52	12102000.00	307085.18	1875078.60

$$r_{ad} = \frac{n\sum ad - \sum a.\sum d}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5x1875078.60 - 7500x1237.52}{\sqrt{5x12102000 - (7500)^2} \, x \sqrt{5x307085.18 - (1237.52)^2}} = 0.72$$

Correlation coefficient analysis between MPS and EPS of NIBL

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	800.00	39.50	640000.00	1560.25	31600.00
2005/06	1260.00	59.35	1587600.00	3522.42	74781.00
2006/07	1729.00	62.57	2989441.00	3915.00	108183.53
2007/08	2450.00	57.87	6002500.00	3348.94	141781.50
2008/09	1388.00	38.00	1926544.00	1444.00	52744.00
Total	7627.00	257.29	13146085.00	13790.61	409090.03

$$r_{ab} = \frac{n\sum ab - \sum a.\sum b}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5x409090.03 - 7627x257.29}{\sqrt{5x13146085 - (7627)^2} \, x \sqrt{5x13790.61 - (257.29)^2}} = 0.57$$

Correlation coefficient analysis between MPS and DPS of NIBL

Year	MPS(a)	DPS (c)	a^2	c^2	ac
2004/05	800.00	12.50	640000.00	156.25	10000.00
2005/06	1260.00	54.46	1587600.00	2965.89	68619.60
2006/07	1729.00	30.00	2989441.00	900.00	51870.00
2007/08	2450.00	40.83	6002500.00	1667.09	100033.50
2008/09	1388.00	20.00	1926544.00	400.00	27760.00
Total	7627.00	157.79	13146085.00	6089.23	258283.10

$$r_{ac} = \frac{n\sum ac - \sum a.\sum c}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5x258283.10 - 7627x157.79}{\sqrt{5x13146085 - (7627)^2} \, x \sqrt{5x6089.23 - (157.79)^2}} = 0.43$$

Correlation coefficient analysis between MPS and NWPS of NIBL

Year	MPS(a)	NWPS(d)	a^2	d^2	ad
2004/05	800.00	200.80	640000.00	40320.64	160640.00
2005/06	1260.00	239.67	1587600.00	57441.71	301984.20
2006/07	1729.00	234.37	2989441.00	54929.29	405225.73
2007/08	2450.00	223.17	6002500.00	49804.85	546766.50
2008/09	1388.00	182.93	1926544.00	33463.38	253906.84
Total	7627.00	1080.94	13146085.00	235959.88	1668523.27

$$r_{ad} = \frac{n\sum ad - \sum a.\sum d}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5x1668523.27 - 7627x1080.94}{\sqrt{5x13146085 - (7627)^2} \, x \sqrt{5x235959.88 - (1080.94)^2}} = 0.33$$

Correlation coefficient analysis between MPS and EPS of PFCL

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	104.00	14.90	10816.00	222.01	1549.60
2005/06	100.00	17.62	10000.00	310.46	1762.00
2006/07	137.00	9.72	18769.00	94.48	1331.64
2007/08	125.00	13.14	15625.00	172.66	1642.50
2008/09	699.00	19.22	488601.00	369.41	13434.78
Total	1165.00	74.60	543811.00	1169.02	19720.52

$$r_{ab} = \frac{n\sum ab - \sum a.\sum b}{\sqrt{n\sum a^2 - (\sum a)^2}\, x\sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5x19720.52 - 11659x74.60}{\sqrt{5x543811 - (1165)^2}\, x\sqrt{5x1169.02 - (74.60)^2}} = 0.598$$

Correlation coefficient analysis between MPS and DPS of PFCL

Year	MPS(a)	DPS (c)	a^2	c^2	ac
2004/05	104.00	10.00	10816.00	100.00	1040.00
2005/06	100.00	10.00	10000.00	100.00	1000.00
2006/07	137.00	0.00	18769.00	0.00	0.00
2007/08	125.00	0.00	15625.00	0.00	0.00
2008/09	699.00	0.00	488601.00	0.00	0.00
Total	1165.00	20.00	543811.00	200.00	2040.00

$$r_{ac} = \frac{n\sum ac - \sum a.\sum c}{\sqrt{n\sum a^2 - (\sum a)^2}\, x\sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5x2040 - 1165x20}{\sqrt{5x543811 - (1165)^2}\, x\sqrt{5x200 - (20)^2}} = -0.458$$

Correlation coefficient analysis between MPS and NWPS of PFCL

Year	MPS(a)	NWPS(d)	a^2	d^2	ad
2004/05	104.00	123.86	10816.00	15341.30	12881.44
2005/06	100.00	128.80	10000.00	16589.44	12880.00
2006/07	137.00	138.00	18769.00	19044.00	18906.00
2007/08	125.00	130.01	15625.00	16902.60	16251.25
2008/09	699.00	142.94	488601.00	20431.84	99915.06
Total	1165.00	663.61	543811.00	88309.18	160833.75

$$r_{ad} = \frac{n\sum ad - \sum a.\sum d}{\sqrt{n\sum a^2 - (\sum a)^2}\, x\sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5x160833.75 - 1165x663.61}{\sqrt{5x543811 - (1165)^2}\, x\sqrt{5x88309.18 - (663.61)^2}} = 0.779$$

Correlation coefficient analysis between MPS and EPS of LFC

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	235.00	16.48	55225.00	271.59	3872.80
2005/06	250.00	33.54	62500.00	1124.93	8385.00
2006/07	245.00	37.55	60025.00	1410.00	9199.75
2007/08	330.00	52.68	108900.00	2775.18	17384.40
2008/09	700.00	0.00	490000.00	0.00	0.00
Total	1760.00	140.25	776650.00	5581.71	38841.95

$$r_{ab} = \frac{n\sum ab - \sum a.\sum b}{\sqrt{n\sum a^2 - (\sum a)^2}\, x\sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5x38841.95 - 1760x140.25}{\sqrt{5x776650 - (1760)^2}\, x\sqrt{5x5581 - (140.25)^2}} = -0.654$$

Correlation coefficient analysis between MPS and DPS of LFC

Year	MPS(a)	DPS (c)	a^2	c^2	ac
2004/05	235.00	0.00	55225.00	0.00	0.00
2005/06	250.00	50.00	62500.00	2500.00	12500.00
2006/07	245.00	0.00	60025.00	0.00	0.00
2007/08	330.00	52.63	108900.00	2769.92	17367.90
2008/09	700.00	0.00	490000.00	0.00	0.00
Total	1760.00	102.63	776650.00	5269.92	29867.90

$$r_{ac} = \frac{n\sum ac - \sum a.\sum c}{\sqrt{n\sum a^2 - (\sum a)^2}\,x\sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5x29867.90 - 1760x102.63}{\sqrt{5x776650 - (1760)^2}\,x\sqrt{5x5269.92 - (102.63)^2}} = \text{-0.281}$$

Correlation coefficient analysis between MPS and NWPS of LFC

Year	MPS(a)	NWPS(d)	a^2	d^2	ad
2004/05	235.00	179.28	55225.00	32141.32	42130.80
2005/06	250.00	128.80	62500.00	16589.44	32200.00
2006/07	245.00	138.00	60025.00	19044.00	33810.00
2007/08	330.00	130.01	108900.00	16902.60	42903.30
2008/09	700.00	142.94	490000.00	20431.84	100058.00
Total	1760.00	719.03	776650.00	105109.20	251102.10

$$r_{ad} = \frac{n\sum ad - \sum a.\sum d}{\sqrt{n\sum a^2 - (\sum a)^2}\,x\sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5x251102.1 - 1760x719.03}{\sqrt{5x776650 - (1760)^2}\,x\sqrt{5x105109.2 - (719.03)^2}} = \text{-0.123}$$

Correlation coefficient analysis between MPS and EPS of SIC

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	140.00	10.50	19600.00	110.25	1470.00
2005/06	158.00	28.15	24964.00	792.42	4447.70
2006/07	131.00	30.23	17161.00	913.85	3960.13
2007/08	210.00	30.10	44100.00	906.01	6321.00
2008/09	227.00	14.72	51529.00	216.68	3341.44
Total	866.00	113.70	157354.00	2939.21	19540.27

$$r_{ab} = \frac{n\sum ab - \sum a.\sum b}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5x19540.27 - 866x113.70}{\sqrt{5x157354 - (866)^2} \, x \sqrt{5x2939.21 - (113.70)^2}} = -0.0945$$

Correlation coefficient analysis between MPS and DPS of SIC

Year	MPS(a)	DPS(c)	a^2	c^2	ac
2004/05	140.00	7.50	19600.00	56.25	1050.00
2005/06	158.00	0.00	24964.00	0.00	0.00
2006/07	131.00	0.00	17161.00	0.00	0.00
2007/08	210.00	2.21	44100.00	4.88	464.10
2008/09	227.00	0.00	51529.00	0.00	0.00
Total	866.00	9.71	157354.00	61.13	1514.10

$$r_{ac} = \frac{n\sum ac - \sum a.\sum c}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5x1514.10 - 866x9.71}{\sqrt{5x157354 - (866)^2} \, x \sqrt{5x61.13 - (9.71)^2}} = -0.3005$$

Correlation coefficient analysis between MPS and NWPS of SIC

Year	MPS(a)	NWPS(d)	a^2	d^2	ad
2004/05	140.00	201.15	19600.00	40461.32	28161.00
2005/06	158.00	214.55	24964.00	46031.70	33898.90
2006/07	131.00	238.94	17161.00	57092.32	31301.14
2007/08	210.00	260.64	44100.00	67933.21	54734.40
2008/09	227.00	221.42	51529.00	49026.82	50262.34
Total	866.00	1136.70	157354.00	260545.37	198357.78

$$r_{ad} = \frac{n\sum ad - \sum a.\sum d}{\sqrt{n\sum a^2 - (\sum a)^2}\, x \sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5x198357.78 - 866x1136.7}{\sqrt{5x157354 - (866)^2}\, x\sqrt{5x260545.37 - (1136.7)^2}} = 0.374$$

Correlation coefficient analysis between MPS and EPS of PICL

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	210.00	25.12	44100.00	631.01	5275.20
2005/06	210.00	46.68	44100.00	2179.02	9802.80
2006/07	200.00	43.54	40000.00	1895.73	8708.00
2007/08	260.00	18.43	67600.00	339.66	4791.80
2008/09	285.00	15.00	81225.00	225.00	4275.00
Total	1165.00	148.77	277025.00	5270.43	32852.80

$$r_{ab} = \frac{n\sum ab - \sum a.\sum b}{\sqrt{n\sum a^2 - (\sum a)^2}\, x \sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5x32852.80 - 1165x148.77}{\sqrt{5x277025 - (1165)^2}\, x\sqrt{5x5270.43 - (148.77)^2}} = -0.834$$

Correlation coefficient analysis between MPS and DPS of PICL

Year	MPS(a)	DPS (c)	a^2	c^2	ac
2004/05	210.00	10.53	44100.00	110.88	2211.30
2005/06	210.00	0.00	44100.00	0.00	0.00
2006/07	200.00	0.00	40000.00	0.00	0.00
2007/08	260.00	5.79	67600.00	33.52	1505.40
2008/09	285.00	0.00	81225.00	0.00	0.00
Total	1165.00	16.32	277025.00	144.41	3716.70

$$r_{ac} = \frac{n\sum ac - \sum a.\sum c}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5 x 3716.7 - 1165 x 16.32}{\sqrt{5 x 277025 - (1165)^2} \, x \sqrt{5 x 144.41 - (16.32)^2}} = -0.120$$

Correlation coefficient analysis between MPS and NWPS of PICL

Year	MPS(a)	NWPS(d)	a^2	d^2	ad
2004/05	210.00	276.89	44100.00	76668.07	58146.90
2005/06	210.00	320.93	44100.00	102996.06	67395.30
2006/07	200.00	376.87	40000.00	142031.00	75374.00
2007/08	260.00	167.89	67600.00	28187.05	43651.40
2008/09	285.00	260.00	81225.00	67600.00	74100.00
Total	1165.00	1402.58	277025.00	417482.19	318667.60

$$r_{ad} = \frac{n\sum ad - \sum a.\sum d}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5 x 318667.6 - 1165 x 1402.58}{\sqrt{5 x 277025 - (1165)^2} \, x \sqrt{5 x 417482.19 - (1402.58)^2}} = -0.702$$

Correlation coefficient analysis between MPS and EPS of TRH

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	75	0	5625.00	0.00	0.00
2005/06	65	-19.95	4225.00	398.00	-1296.75
2006/07	40	-15.41	1600.00	237.47	-616.40
2007/08	53	-4.87	2809.00	23.72	-258.11
2008/09	68	-2.15	4624.00	4.62	-146.20
Total	301.00	-42.38	18883.00	663.81	-2317.46

$$r_{ab} = \frac{n\sum ab - \sum a . \sum b}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5x(-2317.46) - 301x(-42.38)}{\sqrt{5x18883 - (301)^2} \, x \sqrt{5x663.81 - (-42.38)^2}} = 0.485$$

Correlation coefficient analysis between MPS and DPS of TRH

Year	MPS(a)	DPS (c)	a^2	c^2	ac
2004/05	75	0	5625.00	0.00	0.00
2005/06	65	0	4225.00	0.00	0.00
2006/07	40	0	1600.00	0.00	0.00
2007/08	53	0	2809.00	0.00	0.00
2008/09	68	0	4624.00	0.00	0.00
Total	301.00	0.00	18883.00	0.00	0.00

$$r_{ac} = \frac{n\sum ac - \sum a . \sum c}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5x0 - 0}{\sqrt{5x18883 - (301)^2} \, x \sqrt{5x0}} = 0$$

Correlation coefficient analysis between MPS and NWPS of TRH

Year	MPS(a)	NWPS(d)	a^2	d^2	ad
2004/05	75	21.15	5625.00	447.32	1586.25
2005/06	65	22.92	4225.00	525.33	1489.80
2006/07	40	26.63	1600.00	709.16	1065.20
2007/08	53	55.21	2809.00	3048.14	2926.13
2008/09	68	58.32	4624.00	3401.22	3965.76
Total	301	184.23	18883	8131.1723	11033.14

$$r_{ad} = \frac{n\sum ad - \sum a . \sum d}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5x11033.14 - 301x184.23)}{\sqrt{5x18883 - (301)^2} \, x\sqrt{5x8131.17 - (184.23)^2}} = -0.056$$

Correlation coefficient analysis between MPS and EPS of SHL

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	75.00	0.00	5625.00	0.00	0.00
2005/06	65.00	-7.25	4225.00	52.56	-471.25
2006/07	57.00	-23.31	3249.00	543.36	-1328.67
2007/08	126.00	26.68	15876.00	711.82	3361.68
2008/09	236.00	15.32	55696.00	234.70	3615.52
Total	559.00	11.44	84671.00	1542.44	5177.28

$$r_{ab} = \frac{n\sum ab - \sum a . \sum b}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5x5177.28 - 559x11.44}{\sqrt{5x84671 - (559)^2} \, x\sqrt{5x1542.44 - (11.44)^2}} = 0.672$$

Correlation coefficient analysis between MPS and DPS of SHL

Year	MPS(a)	NWPS(c)	a^2	c^2	ac
2004/05	75.00	0.00	5625.00	0.00	0.00
2005/06	65.00	0.00	4225.00	0.00	0.00
2006/07	57.00	0.00	3249.00	0.00	0.00
2007/08	126.00	0.00	15876.00	0.00	0.00
2008/09	236.00	0.00	55696.00	0.00	0.00
Total	559.00	0.00	84671.00	0.00	0.00

$$r_{ac} = \frac{n\sum ac - \sum a.\sum c}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5x0 - 559x0}{\sqrt{5x84671 - (559)^2} \, x \sqrt{5x0}} = 0$$

Correlation coefficient analysis between MPS and NWPS of SHL

Year	MPS(a)	NWPS(d)	a^2	d^2	ad
2004/05	75.00	197.00	5625.00	38809.00	14775.00
2005/06	65.00	150.25	4225.00	22575.06	9766.25
2006/07	40.00	185.27	1600.00	34324.97	7410.80
2007/08	53.00	201.54	2809.00	40618.37	10681.62
2008/09	68.00	211.00	4624.00	44521.00	14348.00
Total	301.00	945.06	18883.00	180848.41	56981.67

$$r_{ad} = \frac{n\sum ad - \sum a.\sum d}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5x56981.67 - 301x945.06}{\sqrt{5x84671 - (559)^2} \, x \sqrt{5x180848 - (645.06)^2}} = 0.0126$$

Correlation coefficient analysis between MPS and EPS of UNL

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	1400.00	153.00	1960000.00	23409.00	214200.00
2005/06	1631.00	205.83	2660161.00	42365.99	335708.73
2006/07	2500.00	258.66	6250000.00	66905.00	646650.00
2007/08	3400.00	285.71	11560000.00	81630.20	971414.00
2008/09	3738.00	243.35	13972644.00	59219.22	909642.30
Total	12669.00	1146.55	36402805.00	273529.41	3077615.03

$$r_{ab} = \frac{n\sum ab - \sum a.\sum b}{\sqrt{n\sum a^2 - (\sum a)^2}\, x \sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5 x 3077615.03 - 12669 x 1146.55}{\sqrt{5 x 36402805 - (12669)^2}\, x \sqrt{5 x 273529 - (1146.55)^2}} = 0.193$$

Correlation coefficient analysis between MPS and DPS of UNL

Year	MPS(a)	NWPS(c)	a^2	c^2	ac
2004/05	1400.00	100.00	1960000.00	10000.00	140000.00
2005/06	1631.00	175.00	2660161.00	30625.00	285425.00
2006/07	2500.00	250.00	6250000.00	62500.00	625000.00
2007/08	3400.00	275.00	11560000.00	75625.00	935000.00
2008/09	3738.00	185.00	13972644.00	34225.00	691530.00
Total	12669.00	985.00	36402805.00	212975.00	2676955.00

$$r_{ac} = \frac{n\sum ac - \sum a.\sum c}{\sqrt{n\sum a^2 - (\sum a)^2}\, x \sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5 x 2676955 - 12669 x 985}{\sqrt{5 x 36402805 - (12669)^2}\, x \sqrt{5 x 212975 - (985)^2}} = 0.152$$

Correlation coefficient analysis between MPS and NWPS of UNL

Year	MPS(a)	NWPS(d)	a^2	d^2	ad
2004/05	1400.00	430.12	1960000.00	185003.21	602168.00
2005/06	1631.00	337.20	2660161.00	113703.84	549973.20
2006/07	2500.00	244.28	6250000.00	59672.72	610700.00
2007/08	3400.00	255.01	11560000.00	65030.10	867034.00
2008/09	3738.00	263.42	13972644.00	69390.10	984663.96
Total	12669.00	1530.03	36402805.00	492799.97	3614539.16

$$r_{ad} = \frac{n\sum ad - \sum a.\sum d}{\sqrt{n\sum a^2 - (\sum a)^2}\, x\sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5x3614539.16 - 12669x1530.03}{\sqrt{5x36402805 - (12669)^2}\, x\sqrt{5x492799 - (1530.03)^2}} = -0.1928$$

Correlation coefficient analysis between MPS and EPS of BNL

Year	MPS(a)	EPS(b)	a^2	b^2	ab
2004/05	554.00	19.40	306916.00	376.36	10747.60
2005/06	635.00	15.52	403225.00	240.87	9855.20
2006/07	500.00	10.06	250000.00	101.20	5030.00
2007/08	500.00	15.56	250000.00	242.11	7780.00
2008/09	723.00	9.62	522729.00	92.54	6955.26
Total	2912.00	70.16	1732870.00	1053.09	40368.06

$$r_{ab} = \frac{n\sum ab - \sum a.\sum b}{\sqrt{n\sum a^2 - (\sum a)^2}\, x\sqrt{n\sum b^2 - (\sum b)^2}}$$

$$r_{ab} = \frac{5x40368.06 - 2912x70.16}{\sqrt{5x1732870 - (2912)^2}\, x\sqrt{5x1053.09 - (70.16)^2}} = -0.3067$$

Correlation coefficient analysis between MPS and DPS of BNL

Year	MPS(a)	DPS (c)	a^2	c^2	ac
2004/05	554.00	0.00	306916.00	0.00	0.00
2005/06	635.00	10.00	403225.00	100.00	6350.00
2006/07	500.00	0.00	250000.00	0.00	0.00
2007/08	500.00	115.00	250000.00	13225.00	57500.00
2008/09	723.00	5.00	522729.00	25.00	3615.00
Total	2912.00	130.00	1732870.00	13350.00	67465.00

$$r_{ac} = \frac{n\sum ac - \sum a.\sum c}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum c^2 - (\sum c)^2}}$$

$$r_{ac} = \frac{5 x 67465 - 2912 x 130}{\sqrt{5 x 1732870 - (2912)^2} \, x \sqrt{5 x 13350 - (130)^2}} = -0.429$$

Correlation coefficient analysis between MPS and NWPS of BNL

Year	MPS(a)	NWPS(d)	a^2	d^2	ad
2004/05	554.00	187.38	306916.00	35111.26	103808.52
2005/06	635.00	213.82	403225.00	45718.99	135775.70
2006/07	500.00	218.46	250000.00	47724.77	109230.00
2007/08	500.00	230.26	250000.00	53019.67	115130.00
2008/09	723.00	233.52	522729.00	54531.59	168834.96
Total	2912.00	1083.44	1732870.00	236106.29	632779.18

$$r_{ad} = \frac{n\sum ad - \sum a.\sum d}{\sqrt{n\sum a^2 - (\sum a)^2} \, x \sqrt{n\sum d^2 - (\sum d)^2}}$$

$$r_{ad} = \frac{5 x 632779.18 - 2912 x 1083.44}{\sqrt{5 x 1732870 - (2912)^2} \, x \sqrt{5 x 236106 - (1083.44)^2}} = 0.253$$