CHAPTER I
INTRODUCTION

1.1 Background of the Study

"Financial market is the place where the financial instrument, shares, bonds, debentures etc are traded. It consists of series of channels through which savings of the community are made available to users of those funds. It provides a forum in which suppliers and demanders of funds can transact business funds directly"*(Gitman; 1988: 30-31)*. Financial market constitutes money market and Capital market. Money market is created by a suppliers and demanders of short-term funds with maturities of less than a year. Capital market is credited by a suppliers and demanders of long-term funds with maturities of more than one year. The capital markets consist of the primary market, where new issue are distributed to investors and the secondary market, where existing securities are trade. Moreover the secondary market is the financial market for trading of securities that have already been issued in an initial private or public offering. Alternatively, secondary market can refer to market for any kind of used goods. The market that exists in a new security just after the new issue, is often referred to as the aftermarket. Once a newly issued stock in listed on a stock exchange, investors and spectaculars can easily trade on the exchange as market markets provide bids and offers in new stock *(Wikipedia, the free encyclopedia)*.

"The term 'Security Market' refers to the buyer and seller of security as also structure of comprising all those agencies & institutions which help in the sale and re-sale of companies' securities" (*Bhusan; 1991: 352)*.

The size of the stock market is estimated at about $ 51 trillions. The world derivatives market has been estimated at about $ 48 trillions face or nominal value, 30 times the size of the U.S. economy and 12 times the size of entire world economy.

Moreover, Investors are the backbone of the economic development of the country. So, the investors' should be encouraged to make investment in security market by creating congenial investment environment. As we have, security market is a place where investors buy and sell financial instruments. So, investors can buy or sell securities immediately at a price that various little from the previous selling price securities market helps to allocate its financial resources more effectively.

Stock market behaviour or stock market efficiency in the international area or in developed and big capital market is very significant but their relevance is yet to be seen in the context of smaller and under developed capital market like Nepal. The stock market volatility and investors' behaviour is thus one of the important area of the study in finance.

In our Nepalese capital market is ailing from unstructured and short-range vision of market players. But every dark cloud has silver lining. This threat could be a big opportunity to reshape the country's capital market. We have learnt a costly lesson. As is often said, one has to pay for one's education. Nevertheless, we must appreciate efforts made by all players and regulators till date to bring the stock market up to this level. However, regulators should be taking prompt and proper decisions to cash on the silver lining of this dark cloud in the country's capital market. Then and only then will it be the positive move toward building a new Nepal.

"The stock market is a place where shares of listed companies are traded to transfer from one hand to another at a fair price through the organized brokerage system. Principally stock market refers to the secondary markets for securities where as, primary markets refers to the market for new issues. In the secondary market, to make transactions the brokers perform primary role. In exchange they receive commission. The major function of the stock market is to provide ready by and continues market for purchase and sells of securities at competitive price, these by, imparting future market activities and liquidity to

them. Thus, it is a medium through which scattered saving and scares resources are transferred into productive areas that ultimately helped to economic development and industrialization of the nation" *(Aryal; 1995: 11).*

Thus, stock market is a major component of the securities market. Stock market is a medium through which corporate sector mobilizes funds to funds to finance productive projects by issuing shares in the market. So that, stock market provides the best investment opportunity to the investor. "In future, many profitable projects require a long-term venture capital to finance. Most investors tempt to provide risk and are reluctant to tie their saving into the long-term commitment liquid stock market the investment less risky and more attractive. It encourages savers to invest in the long-term projects because they can sell securities quickly and easily. If they want get back their saving before the project matures in the same time, companies receive easy access to capital through new issuance of share" *(Shrestha; 1996: 16-17).*

Nepal has its own history about stock market. The history of securities market begins with the flotation of share of Biratnagar Jute Mill Ltd. and Nepal Bank Ltd. in 1937 A.D. Introduction of the company Act in 1964, the first issue of government bond in 1964 and the establishment of Securities Exchange Center (SEC) in 1976 were other significant developments relating to capital market. Before conversion into a stock exchange it was the only capital market institution under taking the job of brokering, underwriting managing public issues, market making for government bonds and other financial service.

Government of Nepal, under a program initiated to reform capital markets converted Securities Exchange Centre (SEC) into Nepal stock Exchange (NEPSE) in 1993.

Nepal Stock Exchange (NEPSE) is operating under Security Exchange Act. 1983. Securities Board of Nepal (SEBO/N) is the monitoring body to NEPSE. The basic objectives of NEPSE are to impact free marketability and liquidity to the government and corporate securities. It facilitates transaction in its trading

floor through markets intermediaries i.e. brokers, market makers etc. NEPSE opened its trading floor on 13th January 1994 through licensed member.

Public limited companies in Nepal, the number of listed companies is also increasing with Nepal stock exchange for having the trading of stocks for the interested investors. The number of the listed companies have seen remarkably increased and number of years have already been elapsed since the establishment of Nepal stock exchange. However, it is said that Nepal stock exchange is operating in its nascent stage attributed by low stock turnovered land participating companies, low level of transactions, low level of market capitalization and the volatile price solution. While viewing closely to the NEPSE index of the country it can be observed that the price of the shares within short span of time varies significantly.

In briefly securities market can be classified as under follows:

i. Primary Market

ii. Secondary Market

i. Primary Market

It is a financial market where shares and bonds are issued. Through there are many financial instruments, mainly three types of shares - ordinary, right, bonus and two types of bonds corporate and government are issued in the Nepali primary market.

Table: 1.1

Primary Issue approved by SEBON for FY 2007/08

S.N.	Types of Securities	F.Y. 2007/08	
		No. of Issue	Rs. in Million
1	Debentures	1	1500.00
2	Ordinary shares	8	402.40
3	Right shares	25	3993.75
	Total	34	5896.15

Primary market constitutes investment bankers, which are also called underwriters. They purchase new issues from security issuers of arrange for their resale to the investing public. The underwriters are responsible for finding investors for the initial public offering of securities sold in the primary market.

ii. Secondary Market

"After security have been purchased from the primary market, they can be traded in the secondary market. The secondary market compares the organized security exchange and a specialist facilities the transaction. The major of all capital market transactions occur in the secondary markets. The proceeds from sale of securities in the secondary markets do not go to the organizational issuer instead to the initial owner (sellers) of the securities" (NEPSE 2001).

Table: 1.2

Major Indicators of NEPSE

Particulars	Mar/April 2007	Feb/Mar 2008	Mar/April 2008
NEPSE Index	494.59	714.76	746.69
Traded Amt. (Rs. in million)	510.23	1876.38	1081.25
Market Capitalization Rs. in million	133398.82	230817.17	241127.8
Trade companies	84	102	109
Market Days	16	20	16
No. of listed companies	131	146	146

a. Trade of Stock

Trading is carried out on the floor of an exchange. In Nepalese contest, the trading of listed corporate securities is done through Nepal stock exchange (NEPSE) ltd. Which is non-profit organization, operating under the securities exchange Act, 1983, operating under the securities exchange Act, 1983. The basic objective of NEPSE is to impart free marketability and liquidity to the

corporate securities by facilitating transactions in its trading floor through market intermediaries such as brokers.

The members of NEPSE are permitted to act as intermediaries in buying and selling of government bonds and listed corporate securities. At present, these are 23 member brokers operating on the trading floor as per the securities exchange act, 1983, rules and bye laws of the exchange.

b. Primary Market Dealer and Secondary Market Dealer

Primary market dealer operates as a manager and under writer regarding the issue. While, the secondary market dealer operates as a profitable manager. A corporate firm has to fulfill certain criteria to list its securities in the NEPSE for stock trading. At present 149 different companies have listed in the first six months of FY 2009/10. At the end of the review period 21 companies were listed under commercial bank group. Similarly, there were 29 companies in the development bank group. 17 companies in the insurance group, 61 companies in the finance group, 18 companies in the manufacturing and processing group, 4 companies in the hotel group, 4 in the trading group, 3 companies in the hydro power group and 2 in other group.

The listing fee and annual fee and company, which can be tabulated as follows:

Table: 1.3

Annual Listing Fee for Listed Companies

Paid-up Capital	Listing fee (Rs.)	Annual Fee (Rs.)
Up to Rs. 10 millions	0.20% or Minimum Rs. 15000.00	Rs. 15000.00
Above Rs. 10 millions Up to Rs. 50 millions	0.15 percent or minimum Rs. 45000.00	Rs. 25000.00
Above Rs.50 millions	0.10% or minimum Rs. 75000.00	Rs. 35000.00
Above Rs.100 million	0.075% or million Rs. 100000.00	Rs. 50000.00

Source: NEPSE annual Report

NEPSE has adopted an electronic computerized system called "NEPSE Automated Trading System", a fully screen based automated trading system, which adopts the principal of an order driven market replacing "open-out cry system" for the trading purpose. In this system, the best buy order is matched with the best sell order. An order may match partially with another order producing multiple trades. For order matching the best buy order is the one with the highest price and the best sell order is the one with the lowest price. All buy orders available in the market at any point of time, a seller would obviously like to sell at the highest possible buy price that is offered. Hence, the best buy order is the order with the highest price and the best sell order is the order with the lowest price. NEPSE has fixed stock trading days and hour during which the numbers are allowed to enter the floor to make the transactions as tabulated below:

Table: 1.4

Stock Trading Days and Hours

Types of Trading	Days	Trading Hours
Regular Trading	Monday to Thursday	12:00 P.M. to 3:00 P.M.
Odd Trading	Friday	12:00 P.M. to 1:00 P.M.

NEPSE has fixed the board lot of 10^{th} Shares. If the face value is Rs. 100 and 100 shares of Rs. 10 per. The transaction on regular trading course should be of the least one board lot. The transactions of less than 10 shares are permitted only on odd lot trading hours.

The opening price of any should not be more or less by 5% of the previous trading day's closing price. Once the transaction is done within this range, the price can be negotiated within a limit of 2 percent in each consecutive transaction there of.

For selling the selling the transaction, NEPSE has adopted a T + 3 system, which mean that settlement of transactions should be done within 3 working days following the day of transaction. Any kind of payments to the seller of the

securities should be made via cheque (whatever the amount be) by the broker. Settlement will be carried out on the basis of paper versus payment. Brokerage on equity transactions would change ranges from 1 percent to 0.7 percent depending on the traded amount and the relationship between the buyer/seller and broker.

The stock market of developing countries is heading towards marking. In our country, stock market is a recent phenomenon. Its uncertainty and volatility remains constant. Thus, now such types of problems confronting in Nepalese stock market are the barriers in the development of stock market. Then after, investors are discouraged to invest in Nepalese stock market. Definitely investors are rational, that's why they discard to invest in such uncertain and unpredictable environment for investment.

The above mentioned study of the stock market volatility and investors behaviour gives the way out how such inconsistently in investment for stock market is problem to be solved.

1.2 Statement of the Problems

In general, the stock market is part and parcel of corporate development. Organization established under company act consisting of billions of rupees of smaller ownership and debt certificates of the small denomination. The stock price and liquidity in the stock market increased sharply immediately after the introduction of open - out - cry system and then after NEPSE Automated Trading System (NATS) of trading and conversion of the SEC in to the NEPSE. This attracted the general public to invest their saving in the stock which cause the price rise and the more liquidity in the secondary market left positive and immediate impact on the capital mobilization in the economy. However this upward movement and the liquidity in the secondary market did not remain for long. Among highly over-valued stocks, price of some stocks reached to peak level while price of some stock which were in profit could not increase.

Nepalese stock market is not so long and many practices of the capital market are still lacking. Numbers of investments are still to be introduced in the primary as well as secondary market. The present capital market is totally equity based and the interested investors have no more alternatives other than few bonds, few preferred stocks and major of common stock. Interested investors have many alternative to invest that is common stock and its price is more sensitive towards different factors than other alternatives. Therefore it is more volatility of the stock market. Until and unless our stock market leads towards efficiency, smooth share can't be achieved as well as flow of investment and business activities cannot be increase. Attention of the rational investor can be made only.

In the above background, the research is based on the questions like:

- What factors affect the equity based stock price in Nepalese stock market?
- How do investors behave at different stages of stock market situations?
- Are investors aware of stock market & do they calculate their return?
- Whether the successive price changes are correlated to major financial indicators?

1.3 Objectives of the Study

The general objective of this study is to analyse the stock market volatility and investors behaviour. In order to meet the general objectives of this study, the following specific objectives have been proposed:

i. To identify the trend & volume of stock market volatility.
ii. To identify and analyze the investors' behaviours regarding the decision on stock investment according to different listed companies in NEPSE.
iii. To examine sensitivity relationship of MPS with various financial indicators like EPS, DPS and NWPS.

1.4 Significance of the Study

The study will have academic as well as practical importance. The present study stock price by studying the stock market with information. The findings and conclusion of the study will have practical importance to overcome artificial price fluctuation in share trading.

- The study is assumed to be helpful to the stock movements.
- The study provides literature to future researchers in this area.
- The study is assumed to be helpful to the financial managers of corporate firms to know about the movement of their share price with respect to change in financial position of the firms.
- The findings and conclusions would be useful for all parties involved in Nepalese share market.

1.5 Limitations of the Study

Present study might be a milestone in exploratory study in searching the behaviour of Nepalese share market. The findings of the study are very useful for both academicians as well as researchers. However, the present study suffers from limitations.

- The study is mainly based on secondary pooled data. So, the reliability of the conclusion of the study depends up on the accuracy of secondary pooled data.
- Cross sectional data are the major limitations to find the causal linkage between stock market volatility and its possible causes.
- The gathered and collected data are not tied to verify.
- The reality of the study fully depends on secondary sources of data and questionnaires filled by respondents and another limitation of this study is to reach into the specific aspects of the issues.

1.6 Organization of the study

The study comprises five related chapters:

Chapter I ; Introduction : The first chapter would covert background of the study, statement of the problem, research objectives and significance of the study.

Chapter II ; Review of literature : The second chapter focuses on review of literature. It contains the theoretical framework and past research literature and stock market behaviour different factors and stock market.

Chapter III ; Research Methodology : The third chapter focuses with research methodology to be adopted for the study consisting research design, sources of data, data gathering procedure, population and sample, research variables and data processing procedure.

Chapter IV ; Data Analysis and Presentation : The fourth chapter deals with the presentation, analysis and interpretation of data. It consists analysis of questionnaires and analysis of open-end opinions and major findings of the research.

Chapter V ; Summary, Conclusions and Recommendations : The last chapter covers the summary, conclusions and recommendations. In this chapter, the results and findings obtained from earlier chapters are presented and recommends some suggestions.

CHAPTER II
LITERATURE REVIEW

The main objective of this chapter is to review some of the basic literatures on share price behaviour and volatility as well as review of the empirical evidences of previous studies. This chapter is divided into two sections. The first section deals with definition, theoretical framework and market efficiency theories and the second one, review of previous studies.

2.1 Conceptual Framework

Stock is one of the major instruments of securities. Stock gives the purchaser with ownership rights of the corporation. Mainly, there are two types of stocks:

i) Common Stock: Common stock is that kind of stock which provides the purchaser with ownership rights and a claim on a share of the income and asset of a corporation.

ii) Preferred Stock: Preferred stock is technically equity but pays a fixed income like a bond. In the event of bankruptcy, preferred stock has priority over common stock

2.1.1 Securities Stock Exchange

"It is the key institution in capital markets. Many people refer to these exchanges as "Stock markets", but this label is somewhat misleading. Securities stock exchange is the market where second hand securities are bought and sold for investment purposes. It provides facilities for trading in listed securities. In recent year, the role of stock exchange is being increasing recognized by the authorities" *(Mahat; 1981: 54)*. Stock exchange is not and has at no time been the private concern of a few individual nor have their activities been limited to the cyclical booms and slumps, which attracted so much popular attention. The stock exchange as the market for securities gives every body access investment. The function of the stock exchange is to provide

equal opportunities for as many buyers and sellers on securities as possible. From a general economic point of view the stock exchange constitute the cover of the capital market. It has put its finger on the pulse of the economy and gives it diagnose to the public in the form of quotation.

Investment is the lifeblood of economic development. It is evident that stock exchange will continue to fulfill their vital function in the national economy. So long as private enter prices exists, we know that the stock exchange is the place where stock and share are bought a sold.

The securities exchanges are 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 markets provides the liquidity necessary to attract investors' 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.

The stock exchange is intricately interwoven in the fabric of the nation's economic life. The task of mobilizing and distribution of savings could be attempted in the old days by a much less specialized institution than the stock exchange. But as business and industry expanded and the economy assumed a more complex nature the needed for a permanent finance arouse. Investors wanted liquidity the facility of covert their investment into cash at any given time. The answer was a market for investments and thus was how the stock exchange cases into being. This institution plays a notable role in the economic life of the country acting a free market for securities, where price are determined by the forces of supply and demand. The function of stock exchange is not only to provide a market for securities but also in the raising of fund for government and industry. Thus a free a active market in stock and share has become a prerequisite for the mobilization and distribution of a nation's saving as to support modern business.

2.1.2 Stock Price Movement

"There are numerous reasons that causes the share price fluctuation which are economic, non-economic and other factors. The price of securities is typically very sensitive, responsive to all events, both real and imagined that cast light in to the murky future" *(Cootner; 1964:1)*. But, it is difficult to find out completely accepted price formation theory. However, there are some approaches to explain share price fluctuation. These are as follows:

2.1.2.a Technical Analysis Theory

Technical analysis theory includes study of past price and volume data of stocks to forecast price movements. It is based on the widely accepted premise that security prices are determined by the supply and demand for securities. The tools of technical analysis are therefore designed to measure supply and demand. Typically, technical analyst record historical financial data on charts, by study those charts in an effort to find meaningful patterns to predict future prices. Some charting technique is used to predict the movements of a market index and some are used to predict both the action of individual securities and the market action.

Technical analysis describes past patterns or trend, which they believe to repeat in future and recommended for the timely holding and disposing mechanism which is profitable or that recommended for short term speculation base in its forecast and profitable patterns. "The technicians usually attempts on predict short term price movements and thus makes recommendations concerning the timely of purchase & sales of either specific stocks or groups of stocks *(Clark; 1990: 521)*

"Technical analysts maintain that the price of a share at any time (Present Price) is the balance struck by buyers and sellers at a point in time price movements take place on accounts of changes in buying and selling pressures. This occurs in account of diverse internal and external factors (Profits, political

environment, predictions and the likes). Prices stabilize when equilibrium between buyers and sellers in achieved. They believe that a record of price movements over a period of time in the past. As the whole theory is based on the assumptions of history repeats itself. That human nature does not of past movements will repeat themselves in the future" *(Raghu; 1991: 172).*

"The most important part of this technical analysis is based on charts and graph. These are bar, point and figures charts, moving average and other trend lines, relative strength measures, odd lot data and various other measurement." *(John, Tutle & Heaton; 1977: 12)*

The technician believes the forces of supply and demand are reflected in patterns of price and volume of trading. By examination of these patterns, technician predicts whether prices are moving higher or lower, and even by how much. Therefore, the patterns or a trend in prices is the basis of technical analysis. Various charts are prepared to determine trends and to determine whether prices are likely to rise or fall. Technicians tend to look backward. "The technicians usually attempts to predict short-term price movements and thus makes recommendations concerning the timing to purchases and sales of either specific stock or groups of stock (such as industries) or stocks in general. It is sometimes said that fundamental analysis is designed to answer the question 'what'? And technical analysis to answer the question 'When?' " *(Alexander and Bailey; 2001: 844).*

2.1.2.b Fundamental Analysis

Fundamental analysis forecast stock market on the basis of economic, industry, and company statistics. The principal decision variables ultimately take the form of earning and dividends. The fundamentalist makes a judgment of the stock's with risk return framework based upon earnings power and the economic situation of the country. Some of the way to go through with the fundamental analysis may be following:

a) Top Down Versus Bottom-Up Forecasting

Under top down analysis approach the analysis is down by making forecast for the economy, industries, and companies. The industries forecast are based on the forecast for the economy and a company's forecast are based on the forecast for the economy and a company's forecast are based on the forecasts for both its industries and the economy like wise while doing bottom up forecasting estimation of the prospects for the companies is down and then only estimation of the prospects for the companies is down and then only estimation of the prospects for the industries in carried out and ultimately the economy's prospects is conducted. The assumptions under this approaches is often employed.

b) Econometric Model

It is a statistical of model that provides a means of forecasting the level of certain variables known as endogenous variables. In order to make this forecast the model relies on assumptions that have seen made in regard to the levels of certain other variables supplied by the model users known as exogenous variables.

c) Probabilistic Forecasting

Probabilistic forecasting often focuses on economy wide forecasts, as uncertainty at this level is of the greatest importance in determining the risk and expected return of well-diversified portfolio. A few alternative economic sceneries may be forecasts along with their respective probability of occurrence. Then accompanying projections are maid of the prospects for industries, companies and stock prices. Such exercise provides an idea of the likely sensitivities of different stocks to surprises concerning the economic and hence it sometimes referred to as what if analysis.

d) Financial Statement Analysis

A company's financial statement can be regarded as the output of a model of a firm. Many analysts do study financial statement to predict the future. Financial statement analysis can be help an analyst to understand a company's current situation where it may be going, what factors affect it and how these factors affect it. To fully understand a company and comparing this with other financial statements are required to analyze carefully to determine the value of the firm. Once, learning ration of the company is determined s/he of the share can be accessed. The price of the share can be estimated by examining the ratio of earning, after tax to the book value of equity.

2.1.2.c Random Walk-Efficient Market Theory

"Random walk efficient market theory consists of the study of random walk or efficient market hypothesis. In 1900 a French mathematician, Louis Bachelier wrote a scientific paper suggesting that day to day security price fluctuation were random. His idea is known as the Random Walk Theory" *(Coother; 1962: 24)*. These tests to see if stock price fluctuate randomly used to be called test of the "random walk theory" of stock prices. "The random walk efficient theory is a completely at variance with the technical and fundamental analysis *(Upadhya; 2001: 17)*. A number of empirical researcher have been done on varied set of data for different time periods to test the random walk efficient market model for describing share price behaviour.

a) The Random Walk Hypothesis (RWH)

"The work from of efficient market hypothesis stipulates that historical price and volume data for securities contain no information which can be used to earn a trading profit above what could be attained with a naive buy-an-hold investment strategy" *(Francis; 1986: 543)*. "The random walk hypothesis states that current price fully reflect the information contained in the Historical price movement" *(Kean; 1983: 10)*. "The previous prices or the series of price

changes are random phenomenon. The past history of stock market movement and the history of stock trading volume do not contain any information that will allow the hold strategy in managing a portfolio" *(Black 1971: 18)*. "The fundamental beliefs at the back of RWH are that successive force changes of an individual stock are independent our time and that its actual price fluctuates freely over time about its intrinsic value" *(Fama; 1965: 36)*. But random walk theorist denies the existence of any kind of "trends" or "patterns", Hence, past prices contain no useful information to predict future price behaviour. "Random walk theory implies that the future path of the price level of a security is no more predictable than the path of a series of cumulated random numbers. The series of price changes has no memory, that is, the past cannot be predicting the future in any meaningful way. It means that current size and direction of price changes is independent and unbiased outcome of previous price changes" *(Fama; 1964: 34)*.

b) The Efficient Market Hypothesis (EMH)

A perfectly efficient market is a market in which all investors have access to all relevant information and in which news that affects stock market is immediately available through the market. "An efficient financial market exists when security prices reflect all available public information about the economic, about financial markets, and all about the specific company involved" *(Vanhorne; 1998: 51). "*An efficient capital market is one in which it is impossible to earn an abnormal return by trading on the basis of publicly available information" *(Brown; 1978: 17)*. "Efficient market theory contends that in free and perfect competitive market, stock price always reflects all the available information and adjust instantaneously every influx of new information" *(Shrestha; 1999: 39)*.

According to Fama, in an efficient market share prices instantaneously and fully reflect all relevant available information, which is known as the efficient market hypothesis. The market efficiently of any stock is based on how fast the

available new information reflects on the security price adjustment. The favorable information results in an upward revision and unfavorable information push downward revision of security price. However, the assumptions to the efficient market being perfect capital market are (i) information freely and instantaneously available to all (ii) homogeneous product, (iii) no taxes (iv) costless transactions (v) perfect competition amongst investors.

"If new information becomes known about a particular company, how quickly do market participants find out about the information and buy or sell the securities of the company on the basis of the information? How quickly do the prices of securities adjust to reflect the new information? If price respond to all relevant new information in a rapid fashion, we can say the market throughout the market, and if investors take time in analysis the information and reacting and possibly overreacting to it, prices may deviate from values based on a careful analysis of all available relevant information. Such market could be characterized as being relatively inefficient" *(Haugen; 1997: 645).*

In a major review of the theoretical an empirical work done in capital market, Fama (1970) proposed three information subsets by which the efficient market model could be appraised and tested. These three are weakly efficient, semi strongly efficient. The weak form efficient market hypothesis (WEMH) assumes that all past information is reflected in security prices. In this market past information has already been discounted in price, so excess profit cannot be derived from the investment strategy based on past information. If current prices of the stocks reflect all the publicly available information i.e. past prices and volume data and all the published accounting information, the market is semi strongly efficient. In that market, even fundamental analysis of the published accounting information has no value, because participates would have discounted it accurately and instant annually when they are disclosed. And the Strong Form Efficient Market Hypothesis (SEMH) assumes that all information affecting stock prices, both public and private is reflected in

security prices thus, in such condition even those who have access to private information cannot consistently earn excess return. The measure of efficiently evolved from the notion of perfect competition, which assumes free and instantly available information, rational investors with no taxes or transaction cost.

2.1.2.d Capital Market Concepts

Capital markets are created by a number of institutions and arrangements that allow the suppliers and demanders of long-term funds to make transactions. Included among these are transactions in the debt and equity issues of businesses and the debt issues of local, state, and federal governments. Capital markets are of key importance to the long-run growth and prosperity of business and government organizations since they provide the funds needed to acquire fixed assets and implement programs aimed at ensuring the organizations' continued existence.

Some organizations and individuals have more than they currently need, and are, thus, often described as lenders. Others need money more than they have and are thus called borrowers. It would be reasonable to suppose that surplus units and deficit units would be aware of each other's existence and thus the surplus unit would be willing to allow the deficit to use their surplus to their mutual advantages.

An exchange may be called direct external finance to distinguish it from two other categories of finance: Indirect external finance and internal finance. The indirect external finance involves a third unit, usually called financial intermediary that accept money from surplus units and release to deficit units. The other type of finance is that where the financing is carried out within the same economic unit.

"Capital market refers to the between lenders and borrowers of funds arranging of funds-transfer process to seek each other's benefit. These lenders and

borrowers coming together in capital market play effective financial intermediary role to actives both primary and secondary market though the use of various long term capital market instruments like common stock, bonds, preferred stock, convertible issues and many more like that. The participants in the capital market are small business large business and government. Funds flowing in to the capital market are available by lenders for terms longer than those flowing in the money market" *(Philips; 1979: 4).*

"Capital market consists of the various suppliers and users of long-term finance. It is differential from money market, which embraces short-term finance. The capital market service is as a link between suppliers and users of finance. It is a mechanism for the mobilization of public savings and channeling them unproductive investment. In this way, an important component of the capital market is the securities market. It has a wide term embracing the buyers and seller of securities and all those agencies and institutions that assist the sale and resale on corporate securities" *(Gupta; 1978: 325).*

2.1.2.e Capital Asset Pricing Model (CAPM)

The CAPM was developed 12 yrs later by William Sharpe, John Linter and Jan Mossin. CAPM is sometimes used to estimate the required rate of return for any company with publicily traded stock. It based on the premise that the only important risk of a firm is systematic (beta) risk. It is not concerned with unsystematic risk, which is specific to an individual firm. Modern portfolio theory of Marko Witz suggests that the investment decision should be based on the total risk and the price of assets should also be determined on the basis of the total risk.

The equilibrium rate of return of individual assets such as individual stocks and bond is given by the CAPM. The prices of portfolios can be determined with the CAPM too. CAPM clears up the investors like If investors could borrow and lend at the risk free rate of interest how would the portfolio opportunity set

be shaped and how could securities be valued in the market. The major implication of the model is that the expected return of an asset will be related to a measure of risk for that asset known as beta: the exact manner in which expected return and beta are related is specified by the CAPM. This model provides the intellectual basis for a number of the current practices in the investment industry. Although many of these practices are based on various extensions and modifications of the CAPM, a sound understanding of original version is necessary in order to understand them. CAPM is the better measure of risk which we are seeking.

Diversifiable Risk and Undiversifiable Risk

As assets total risk consists of both diversifiable and undiversifable risk. Diversifiable risk is also known as unsystematic risk or unique risk. Diversifiable risk occurs through the events like, labour strikes, management errors, inventions, availability of raw materials, advertising companies etc. Undiversifable risk is also knows as systematic risk or market risk. Undiversifiable risk occurs due to the changes in the macro - economic factors like, interest rate, inflation, investors, expectations, gross domestic product etc.

CAPM provides a framework for measuring the systematic risk of an individual security. The relationship is known as the security market line (SML) equation and the measure of systematic risk in the CAPM is called beta (β).

The Security Market Line (SML)

Security market line is showing the relations between the systematic risk index (beta) and the required rate of return. The graphical representation of CAPM is called the security market line (SML). The equation for SML is as follows:

$$E(Rj) = Rf + [E(Rm) - Rf)]\ \beta j$$

Where,

E(Rj) = The required rate of return on asset j.

Rf = The risk free rate of return.

E(Rm) = The expected return on market portfolio

B_j = The beta on asset j.

$[E(Rm)-R_f]$ = The market risk premium.

The graph below depicts the SML

Chart: 2.1

Security Market Line

Source: Pradhan; 2004: 120

The slope of the SML or CAPM is equal to [E(Rm) - Rf] which is the market risk premum and the SML intercepts the yaxis at the risk - ree rate.

In a capital market equilibrium, the required return on assets must equal its expected return. Thus, the SML equation can also be used to determine an assets required return given its beta.

The Beta (B_i)

The beta for a stock is defined as follows:

$$\beta i = \frac{\pm im}{\pm m^2}$$

Where,

σjm = The covariance between the returns on asset j and the market portfolio.

σm^2 = The variance of the market portfolio.

Note that, by definition, the beta of the market portfolio equals to 1 and the beta of the risk - free asset equals to 0. If beta is large than1, then the asset is more volatile than the market and is called an aggressive beta. If the beta is less than 1, then assets in called a defensive beta and its price fluctuation is less volatile than the market.

As asset's systematic risk, therefore, depends upon its covariance with the market portfolio. The market portfolio is the most diversified portfolio possible as it consists of every asset in the economy held according to its market portfolio weight.

Assumptions and CAPM

The CAPM is simple and elegant consider the many assumptions that underline the model.

- Zero transaction costs: The CAPM assumes trading is costless so investments are priced to all fall on the capital market line. If not, some investments would have below and above the line with transaction cost discouraging obvious swaps. But we know that many investments (such as acquiring a small business) in value significant transaction costs. Perhaps that capital market line is really a band whose width reflects trading costs.
- Zero taxes: The CAPM assumes investment trading is tax-free and returns are unaffected by taxes. Yet we know this to se false: (i) many

investment transactions are subject to capital gains taxes, thus adding transaction costs; (ii) taxes reduce expected returns for many investors. Thus affecting their pricing of investments; (iii) different returns are taxed differently, thus including investors to choose portfolios tax-favored assets: (iv) different investors are talked differently, thus reading to different pricing of the same assets.

- Homogeneous investors expectation: The CAPM assumes invests have the same beliefs about expected returns and risks of available investments. But we know that there is massive trading of stocks and binds by investors with different expectations. We also know that investors have different risk preference. Again, it may be that the capital market line is a fuzzy, amalgamation of many different investors' capital market lines.
- Available risk-free assets: The CAPM assumes the existence of zero risk securities, of various maturities and sufficient quantities to allow for portfolio risk adjustments. But we know even treasury bills have various risk. Reinvestment risk-investors may have investment horizons beyond the T-bill maturity date; Inflation risk fixed returns may be devalued by future inflation; currency risk - The purchasing power of fixed returns may diminish compared to that of other currencies.
- Borrowing at risk-free rates: The CAPM assumes investors can borrow many at risk - free rates to increase the proportion of risky assets in their portfolio, we know this is not true for smaller, non-institutional investors. In fact, we would predict that the capital market line should become kind downward for riskier portfolios (B>1) to reflect the higher cost of risk-free borrowing compared to risk free lending.
- Beta as full measure of risk: The CAPM assumes that risk is measured by the volatility (standard deviation) of an asset's systematic risk, relative to the volatility (standard deviation) of the market as a whole. But we know that investors face other risks: inflation risk - returns may be devalued by future inflation, and liquidity risk investors in need of

funds or wishing to change their portfolio's risk profile may be unable to reading sell at current market prices. Moreover, standard deviation does not measure risk when returns are not evenly distributed around the mean (non bell curve). This uneven distribution describes our stock markets where wining companies, like Dell and Wal-mart, have positive returns (35,000% over ten yrs) that greatly exceed losing companies negative returns.

2.2 Review of Previous Studies

2.2.1 Review of Journals and Articles

Sharma, (2001), has published an article, "*Nepal's Only Secondary Market in Shambles*", where he has explained that investors are investing in shares on the basis of price earning ratio or dividend, hardly comparing current assets with current liabilities or looking at the debt equity ratio. Unless investors begin analyzing the intricate financial details of corporate institutions before making decision, the market cannot develop smoothly. As other than banks and financial institutions were making profit and failing to meet investor's expectations, demand for shares of commercial banks outpaced supply and their prices boomed. As the commercial banks were doing good, the slums in the secondary market made it more apparent that investment in the past was done on whim.

Bhattarai, (2005), published an article "*Speculative Boom*", writes that the bullish trend was without reason as after distribution of dividend, share price should go down. So, investors were investing due to rumours rather than due to change in fundamentals. Change in political environment might have improved investors' confidence.

Verma & Rana, (2006), in their article "*NEPSE: Look Before You Leap!*" viewed that prices of stocks are determined with the simple interaction of the demand and supply sides. Buyers and sellers come to a mutual agreement on a

trading price after both sides analyse their stakes and profits. Usually, theoretical value is determined by several factors like company management, competitive strengths, profitability and overall economic environment. Even technical factors like demand and supply have an impact on the stock price. But basically, the share market works like any other market, whereby there has to be a demand for stocks and supply to meet that demand, and the prices are set on the basis of their spread. In reality, the stock price is almost always different from the determined value of the share. If the stock market price is higher than the book value, a share is said to command a premium to its book value. If the stock price is lower than the book value, then it is said to be available at a discount to book value.

Pokharel, (2007), in his article "*A Deadly Phrase of the Stock Market*" wrote that theoretically companies earning should affect the market price. But, in practice, speculation, rumours, public's sentiments, attitudes and expectations change stock price. In his view, few speculators bought the undervalued and sold the overvalued shares to the innocent public who were buying news and selling rumours. So, Stock market of Nepal runs after a few speculators, news makers not after the theories and market indicators such as Price/Earning ratio, Risk/Reward profiles.

Pokharel & Bhurtel, (2009), published an article entitled "*In the Overvalued Zone*". They observed NEPSE Index from Jan 25-Feb. 24, 2009 and concluded that market was in overvalued zone backed by gaps between companies' profitability strength and market price. Increase in the profitability of financial institutions without the development of the real sector was like making house without pillars. They viewed possibility for the bearish trend to resume in Nepali Stock Market because most of the srips were trading on overpriced zone.

Poudel, (2009), in his article "*Bases of Share Investment: A Comparative Analysis*" wrote that gross profit analysis, return per share, return on assets, PE

ratio, dividend and bonus shares, net worth, future strategies of the company, situation of corporate governance, risk factor in company's trading, safety of share investment, liquidity of shares etc. were the main factors which should be considered when investing on shares (are the bases of share investment). He concluded by his comparative study that Nepal's stock market was not based on analysis & truth. But, in long term, investing by analyzing & evaluating could safeguard investment & could give higher returns.

2.2.2 Review of Thesis

Aryal, (1995), has conducted a study on "*The General Behaviour of Stock Market Price*". The prime objective of the study was to find the laws of price fluctuation in the stock Market. However, the specific objectives of the study were as follows.

* To discuss theoretically the movements of stock market prices as predicated by the random walk model.
* To develop the empirical probability distribution of successive price changes of an individual common stock and a stock market as a whole.
* To examine whether the successive price changes of stocks market are independent to each other or not.

He used serial correlation analysis and run taste on daily closing prices of 21 stocks during 13 Jan. 1994 to 13 Sept. 1994. As the study period is too short and organized market was just started, he found the general behaviour of twenty-one-security prices on Nepal stock exchange (NSE) is remarkably independence as predicated by random walk model of security (speculative) price behaviour. Thus, the model of such kind has been refuted at least for Nepalese context as a first approximation even on a rough way for early days of stock market operation. Here this rejection of hypotheses makes dear that this knowledge of past now becomes useful in prediction the future movements of stock market prices, than investors, on the floor of exchange for securities can make higher expected profits in the future based solely on those historical

price series under certain systematic trading scheme (i.e. market average return) of the general market for securities. Therefore, variance of weak from tests of efficient market hypothesis has an important implication bearing interpreting behaviour of security price variations in the past and in performing future researching this field. If broadly speaking the implications with respect to conclusions derived by the study are of two natures: statistical and economic.

Statistical, the characteristic feature of stock market movement with respect to distribution of price change implies that the general shape is platykurtic character has been demonstrated previously, due to higher values of standard deviations for individual price changes. Higher standard deviations are results of frequent large price fluctuation. According to this device of measuring risk, individual stock and aggregate market can be interpreted as highly risky opportunity for investment. The economic reason for higher values of standard deviation implies that the inherent instability of market, change in economic environment.

Government actions, companies developments that causes abrupt price changes, ultimately the value of standard deviations for individual price changes has been higher consequently platykuric character of distribution observed i.e. too few relative frequencies and contained near to mean of the price changes in the central sell and all the relative frequencies are concentrated with in higher limits of standard deviations from the mean of the price changes.

Khatiwada, (1996) studied on "*Securities Investment in Nepal*" with objectives to achieve:

* To assess the new issue market performance.
* To present comparative analysis of money market, in the face of new issue market.
* To analyze the stock market performance.

* To measure the stock market in terms of size, liquidity & concentration.
* To suggest the remedial measures for the importance of security markets.

According to the objectives, the study period is too short. It is not possible to give real picture about security market. At he time of researh, he used only simple average; percentage has been practiced for logistic presentation of the market performance. In research design, he explains that as a title of this study cannot be the descriptive analysis of stock market, this study has no being on the exploratory, pseudo experimental, survey of experimental approach to the research. It deals with the secondary markets on the basis of available information. In order to justify the data gathering as to fixed deposit, interest rate & dividend pay off, graphic methods have also been embarrassed. But it failed to describe from the behaviour side & based on explanatory & descriptive analysis of the recent information & data. Only shown in the graphic presentation of data & concerned with legal controversy, the objective of the research has no been completed. There is essential of diagnostic analysis of market mechanism because it helps to give true picture about studies, specificity about objective is another problem. The broad objectives are not able to properly analyzed.

Shrestha, (1999), has conducted research on "*Stock Price Behaviour in Nepal*". This study aims to examine the efficiency of the stock market in Nepal.

The specific objectives of this study were:

* To examine the serial correlation of the successive daily price changes of the individual stocks.
* To determine whether the sequence of price changes is consistent with changes of the series of random number expected under the independent Bernoulli process.
* To determine the efficiency of the stock market through the theoretical model of efficient market hypothesis in the Nepalese stock market.

* To provide feedback policy input towards institutional development of efficient market.

In his study, the serial correlation coefficients of the daily price changes for 1 and 2 lag days, and runs of the services to daily price changes lead to conclude that the successive price changes are not independent random variable for the 30 sample stocks listed in the Nepal Stock Exchange Ltd. (NEPSE). Therefore, the random walk theory is not a suitable description for the stock market price behaviour in Nepal.

The dependence in the series of price changes observed imply that the price changes in the future market will not be independent from the price changes of the previous days. It implies that the information of the past price changes is helpful in predicting future price changes in a way that the specialization through technical analysis can make higher expected profit than they would be under naive buy-and -hold policy (i.e. average market return). Therefore, opportunities are available to sophisticated (both institutional and individual) investors to earn higher return in the market. The existence and participation of the sophisticated investors have not been realized from the findings of this study. It is realized that mostly the naive investors have dominated in the market that can cause prices to diverge significantly from intrinsic values because the very existences of the sophisticated traders cause to erase the opportunities of persistence in prices which establish independence of successive price changes.

Upadhya, (2001), conducted a study on "*Share Price Behaviour in Nepal*". His objectives of the study were :

* To analyze whether share prices over the short periods, such as a day, or a week or a month, display random phenomenon or not.

* Whether the successive price changes are correlated or uncorrelated to one another.

He applied serial correlation, runs test, weighted mean, median, chi-square test and spearman's rank correlation and concluded. Findings such as: the random walk hypothesis does not seem to fit the equity shares of Nepalese stock market, the information of past price changes have low power to predict the future price changes for longer week, the price change are not random or the price changes in the future will not be independent from the price changes of past. The randomness of some remaining equity shares is weak enough to prohibit excess profits.

Kandel, (2002), studied "*A Study of Liquidity, Corporate Performance and Share Price Behaviour in Nepal*", with the following objectives:

* To analyze the risk associated with equity investment.
* To analyze the stock market performance.
* To measure the stock market in terms of liquidity and size.
* To analyze the factors that affect share price.

He applied standard deviation, coefficient of correlation, equation and findings of Markowitz with time frame of data from 1995 to 2000 of selected listed companies to find out the share price behaviour. His findings were on the basis of standard deviation (a) observed market price is more consistent than the expected prices (b) market price is more stable and less variable than that of with expected market price (c) Equity investment has lower risk in 1995-1997 however in 1997/98 the equity investment has average risk and others found the same. Similarly in 1998/2000 the equity investment has higher risk and other were remaining the same. The findings from the coefficient of correlation throughout the review period were (a) the value of coefficient of correlation is considered significance (b) market price of share of depends more on DPS than on EPS or the investors are influenced more by (DPS (c) The coefficient of determinates of both EPS and DPS have decreasing trends, this is the sign of risk associated with equity investment was increasing. Similarly the findings

from regression equation were, in 1995 to 7997 the market price was affected more by variable dividend per share compared to earning per share that means earning per share is very week and the effect of which is negligible in compared to dividend per share, in review period 1997/1998 dividend per share was still stronger than earning per share, during the review period in 1999/2000 dividend per share was stronger than earning per share. In 1999/2000 the influence of DPS over market price of securities was highest during the review period.

On the basis of expected return on a portfolio and the portfolio variance (Co. Variance between govt. bond between share, govt. between NRB bond, shares and NRB) of sample companies (commercial banks) has been calculated individually by using markowitz model then he found (a) portfolio variance is very minimal, (b) the co-response among securities in not sensitive, (c) changing of interest is in favour of investors, as the interest rate goes up, the market price of existing fixed income securities falls, and vice versa, they affect the price of equity either. But the effect is too weak in the case of Nepalese market as Markowitz model. It evident that the securities market of Nepal was in nascent state.

Then the last findings was from CAPM model by calculating Beta were (a) the responds of investment's return to market forces found weak since most of the banks having low beta (b) the investment have relatively low systematic risk, also goes under the name of non diversifiable risk.

Ban, (2004), conducted a study on "*A Study on Valuation of Stock in Stock Market*". His main objectives are:

* To highlight trends & significant development of stock in Nepalese security market.

* To analyze the risk & return of securities (specially banking, financing & insurance sectors) & compare with market & return.

* To examine the relationship between markets capitalization with other determinant variables such as EPS, DPS, P/E Ratio, Devidend Yield, Earning Yield & Return on Equity.

* To recommend the improvement of stock value in stock market in Nepal or to provide recommendations on the basis of findings.

He used correlation coefficient & other financial ratios for his analysis. His major findings in case of banking sector are: EPS has significant +ve relationship with market capitalization; Dividend per Share & Dividend Yield has significant impact in market capitalization; Earning Yield & Return on Equity have been found -ve significant impact in market capitalization. Findings in case of finance and insurance sectors are: EPS has been found significant relationship with market capitalization; DPS has +ve impact; Dividend Yield, Earning Yield, Return on Equity have found significant -ve relationship with market capitalization.

Dawadi, (2007), conducted a study on "*Share Price Behaviour in Nepal*". His main objectives of the study are :

* To test the random walk or weak form efficient market hypothesis.

* Whether the successive price changes are dependent or independent of each other.

* To conduct opinion survey of financial executives regarding various aspects of share price behaviour.

He applied serial correlation, runs test, weighted mean, median, chi-square test etc. for analysis purpose. His major findings are : Persistence has generally supported no lending support to the random walk hypothesis, Past price changes have low power to predict the future price changes for longer period, Nepalese stock market may not be termed as weakly efficient in pricing shares and so on.

Research Gap

Different scholars have studied stock market volatility and investors behaviours at the secondary market through different point of views and they have concluded typically and differently using different approaches towards the control of the study. All of those researchers have many useful findings and their own limitations.

Now a days, Nepalese share market has entered to the new horizon. It's size and market capitalization are growing day by day. New by-laws are being established to control stock market price. But it is clearly realized that share prices are fluctuating abnormally. If earning, dividend and net worth are taken as the main determinants of price fluctuation, then why the share prices are increased without the increment on such factors. Therefore, there is still lack of appropriate researches to find out the causes of volatility of share price in Nepalese market.

This research has tried to explore the possible determinant factors, which affect the share price fluctuation. Secondary data as well as primary data are taken and various research methods are applied and analyzed to fulfill the objectives. Hence, this study is fruitful to the government, Nepal Stock Exchange Ltd., forthcoming researchers, academicians as well as policy makers.

CHAPTER III
RESEARCH METHODOLOGY

This chapter describes the method and process applied in the entire aspect of the study. Research methodology refers to the various sequential steps to be adopted by the researcher in studying a problem with certain object in view. Its focus is made on the application of the technique and procedure to analyses the relevant variables to see the basic relationship between relevant topics. To achieve the basic objectives of the study, the following methodology has been adopted with includes research design, population and sample, type and nature of data, data collection procedure, data processing procedure, techniques of analysis and so on.

3.1 Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In this study, historical as well as descriptive research design is adopted. to analyses the sensitivity of earning, net worth, dividend on stock price, historical research design is adopted along with correlation and regression analysis. The descriptive research design is followed to the parametric and non-parametric test of the data. Almost, the secondary types of the data are used in the study.

3.2 Population and Sample Studies

At the end of November 2008, 142 companies listed in the NEPSE. These 142 companies and all concerned people to this sector, academicians and practitioners are taken as population. Since the study is concerned with the share price volatility in Nepalese capital market. The census of the population is neither feasible more desirable for the study of this nature, a sample from the population has therefore been selected for the purpose of this study.

Primary data is gathered through in the process of survey design. In survey design, all the Nepalese people who keep information or playing in the capital market are taken as the population of the study and conveniently approached few experts of focus group study are the sample.

Secondary data are the taken from the share price of Nepalese share market, therefore, all the listed companies are taken as the population and few conveniently selected listed companies are the sample of the study.

3.3 Nature and Sources of Data

This study is based on historical information provided by the company. The study is based on secondary data as well as primary data. Secondary data are used to analyzes the factors, which affect the sensitivity of stock price, primary data are collected from the respondents through research questionnaire.

The following secondary sources of information are used to extract the required information:

* Annual reports of the company
* Financial statements
* Books, Journals, Newspaper Bulletins
* Previous dissertation papers, studies
* Securities Board, Nepal
* Periodical publication from central Bureau of Statistics.
* Nepal stock Exchange
* Nepal Rastra Bank
* Related website

3.4 Data Collection Procedure

The data collected from secondary sources as well as primary sources. To collect the secondary data, during the study opinion survey has also been taken with annual reports of the listed company, Journals, magazines, books, previous dissertation papers, website, NEPSE, SEBON, NRB etc.

In secondary data, the researcher visited campus library of TU central library, Shanker Dev Campus library, library of Nepal Commerce Campus, Public Youth Campus library, SEBON, library and Nepal Rastra Bank's library. For the collection of the primary data, the questionnaire approach was adopted. The questionnaire was asked 12 companies, 3 Share Brokers, 6 financial experts, 4 businessmen, 5 teachers of finance/Investments and 20 investors or share holders of listed companies.

To get reliable information, discussions were also conducted.

3.5 Tools and Techniques

To collect the various sources lads to the logical confusion of primary and secondary data. By the nature of data, they have been interested in meaningful table, which have been shown in table. Using financial as well as statistical tools, the data have been analyzed and interpreted. Financial tools and statistical tools are the main tools to be used in the calculation of the data.

3.5.1 Financial tools

1. Market Price Share/Stock (MPS)

MPS is one of the major data of this study. There are three price series are available i.e. high, low and closing price of each year. Since the calculation of real average price is constrained by lack of adequate information regarding volume and price of each transaction through the year, the closing price has been used as market price of stock.

$$\text{MPS} = \frac{Total\ Market\ Capitalization}{No.\ of\ \ Shares\ Outs\tan ding}$$

2. Earning Per Share (EPS)

EPS is the share of a stock on the earning of the organization.

$$\text{EPS} = \frac{Total\ Earning\ of\ organization}{No.\ of\ shares\ Outs\tan ding}$$

3. Net Worth Per Share (Book Value per Share/NWPS)

The NWPS represent the real net worth per share. It is simply the ratio of net worth (Share capital plus retained earning /general reserve) divided by the number of shares outstanding.

$$\text{NWPS} = \frac{Net\ Worth}{No.\ of\ Shares}$$

4. Dividend per Share (DPS)

Cash dividend and stock dividend (bonus share) declared by each company have taken into account for the purpose of this study.

Formula

$$\text{DPS} = \frac{Total\ amount\ of\ dividend\ paid\ to\ ordinary\ shareholders}{No.\ of\ ordinary\ shares\ Outs\tan ding}$$

3.5.2 Statistical Tools

Statistics is the science which deals with classification and tabulation of numerical facts as the basis of explanation description and comparison of phenomenon. Statistical tools can be used to analysis the data available to the research. In this study, this statistical tools are used in research to analyze the data.

1. Arithmetic Mean

It is the number which is obtained by adding the various numbers of all the items of a series and dividing the total by the number of items. It is a useful tool in statistical analysis.

Formula,

$$\overline{X} = \frac{\Sigma X}{N}$$

Where,

$\overline{X}$ = Arithmetic Mean

ΣX = Sum of Elements

N = Number of Observation

2. Standard Deviation

It measures the absolute dispersion, the greater the standard deviation for the greater will be the magnitude of devation of the devation means a high degree of uniformity of the observation as well as homogeneity of a series and a large standard deviation means just the opposite.

Formula ,

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\Sigma X^2}{N}}$$

Where,

$X = x - \overline{X}$

N = No. of observation

3. Coefficient of Variation

It is the relative measure of dispersion. Coefficient of variation is the percentage variation. It means standard deviation being considered as the total variation from the mean.

Formula,

$$\text{Coefficient of Variation (C.V)} = \frac{\pm}{\overline{X}} \times 100$$

4. Correlation Coefficient

"Correlation analysis is the statistical tool that we can used to describe the degree to which one variable is linearly related to another" *(Levin & David; 1994: 613).* It is a useful for measuring the intensity of the magnitude of linear relationship between two variables. If the values of the variables are directly proportional then the correlation is said to be positive. On the other hand, If the values of the variables are inversely proportional, then the correlation is said to be negative, but the correlation coefficient always remains with in the limit of +1 to -1. The correlation coefficients (r) between two variants x and y can be obtained by using following formula.

$$r = \frac{N\Sigma XY - \Sigma X\Sigma Y}{\sqrt{N\Sigma X^2 - (\Sigma X)^2}\sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

Where,

r = The correlation coefficient between two variables X and Y.

Proprieties :

a. It lies between -1 and +1.
b. If r = +1, then there is perfect positive correlation.
c. If r = -1, then there is perfect negative correlation.
d. If r = 0, then there is no correlation.
e. If r = 0.7 to 0.99 (or -0.7 to -0.99) then there is high degree of positive (or Negative) correlation.

5. Coefficient of Determination

The purpose of coefficient of determination which gives the percentage variation in the dependent variable that is accounted for by the independent variable. The coefficient of determination gives the ratio of the explained variance to the total variance. The coefficient of determination is given by the square of the correlation coefficient, r^2.

Coefficient of Determination (r^2) = $\frac{Explained\ Variance}{Total\ Variance}$

6. Simple Regression Analysis

Regression is the Statistical Method for investing relationship between the variables by the establishment of an approximate functional relationship between them. It helps to predict or estimate the value of one variable when the value of other variables are known.

Simple Regression Equation :

$Y = a + b\ X$

Where, Y = dependent variable

X = independent variable

a = regression constant

b = regression coefficient

7. Test of Hypothesis

For the test of hypothesis, t-test has been used in this study with the help of simple correlation coefficient and the hypothesis is stated as following.

Null hypothesis: There is no significant relationship between the variables.

Alternative hypothesis : There is significant relationship between the variables.

T-statistics is applied for the test of small sample, i.e. n is less than 30. The following formula is used to test on observed correlation co-efficient.

$$t = r_{YX} \sqrt{\frac{n-2}{1-r^2_{YX}}}$$

With n-2 degree of freedom.

Where,

r_{yx} = Simple correlation co-efficient between X and Y.

n = number of observations.

The calculated value of t is then compared with its table value and if the calculated value is less than the table value, we accept the null hypothesis at the given level of significance and may infer that there is no relationship of statistical significance between the two variables. If the calculated value of t is greater than the table value, we accept the alternative hypothesis and may infer that there is significance relationship between the variables.

8. One Sample Runs Test

It is a test used to judge the randomness of a sample on the basic of the order in which the observations are taken. There are many applications in which it is difficult to decide whether the sample used a random one or not. This is particularly true when we have little or no control over the selection of the data. For instance, if we want to predict a retail store's sales volume for a given month, we have no choice but to use past sales data and perhaps prevailing conditions is general. None of this information constitutes a random sample in the strict sense. To allow us to test amples for the randomness of their order, statisticians have developed the theory of runs. A run is a succession of identical letters [or other kinds of symbols] which is followed and preceded by different letters or no letters at all. To illustrate, we take the following arrangement of healthy, H, and diseased, D, mango tress that were planted many years ago along a certain road;

HH	*DD*	*HHHHH*	*DDD*	*HHHH*	*DDDDD*	*HHHHHHHHH*
1*st*	1*st*	3*rd*	4*th*	5*th*	6*th*	7*th*

Using underlines to combine the letters which constitute the runs, we find that first there is a run of two H's, then a run of two D's, then a run of five H's, then a run of three D's, then a run of four H's, then a run of five D's and finally a run of nine H's. In this way there are 7 runs in all or r=7. If there are too few runs,

we might suspect a definite grouping or a trend; if there are too many runs, we might suspect some sort of repeated alternating patterns. In the given case there seems some grouping i.e. the diseased trees seems to come in groups. Through one sample runs test which is based on the idea that too few or too many runs that the items were not chosen randomly, we can say whether the apparently seem grouping is significant or whether it can be attributed to chance. We shall use the following symbols for a test of runs;

n_1= number of occurrence of type 1 (say H in the given case)

n_2= number of occurrences of type 2 (say D in the given case)

r= number of runs

The sampling distribution of 'r' statistic, the number of runs is to be used and this distribution has its mean

$$\mu_r = \frac{2n_1n_2}{n_1 - n_2} + 1$$

And the standard deviation $s_r = 2n_1n_2 \frac{2n_1n_2 - n_1 - n_2}{(n_1 + n_2)^2 (n_1 + n_2 - 1)}$

Upper limit= $\mu_r + z\, s_r$ and

Lower limit= $\mu_r - z\, s_{r,}$ where z= area under normal curve for the given level of significance.

If the observed number of runs (r) lies between the upper and lower limit, the null hypothesis is accepted. If it lies outside the acceptance region, alternative hypothesis is accepted.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

This is the main body of the study. The main propose of this study deals with data presentation, analysis and interpretation. By using the financial as well as statistical tools, the data have been analysed, tables and diagrams are used to make the result more simple and clear whenever necessary. The first part of the chapter includes the presentation and analysis of the secondary data and the second part includes the analysis of the primary data relating to the investors behaviour.

4.1 Analysis of Individual Companies

To analyze the fluctuation of the stock price in Nepalese share market eight listed companies from different sectors are taken as sample. Moreover relationship of EPS, DPS and NWPS with MPS is analyzed separately to each of the samples listed companies. MPS is dependent variable; where as EPS, DPS and NWPS are independent variables. The sampled companies are Standard Chartered Bank Ltd, Nepal investment Bank, Citizen Investment Trust, Nepal Industrial Development corporation, Unilever Nepal Ltd, Himalayan General Insurance company, Bishal Bazar Company Ltd and Soaltee Hotel Ltd. Data were collected at the seven years starting from 2001/2002 to 2007/2008.

4.1.1 Standard Chartered Bank Limited (SCB)

Recapitulate of the MPS, EPS, DPS and NWPS with mean, S.D, and C.V of SCB over seven year's period are presented in table 4.1. The relationship of EPS, DPS and NWPS to along with the significance of such relationship shows table 4.2.

Table: 4.1

Mean, Standard Deviation and Coefficient of Variation of SCB

Year	MPS	EPS	DPS	NWPS
2001/02	1162	105.86	1073	282.26
2002/03	1985	115.62	100	298.88
2003/04	2144	126.88	100	327.50
2004/05	1550	141.13	10	363.86
2005/06	1640	149.55	285	403.15
2006/07	1745	143.55	110	399.25
2007/08	2345	143.55	120	422.37
Mean	1795.86	132.31	256.86	356.75
S.D.	367.94	15.28	341.70	50.81
C.V.	20.49	11.55	133.03	14.24

Source: Annual Reports of NEPSE, Annual Reports of SCB & Annexure 1

4.1.1.1 Correlation Analysis of SCB

Table: 4.2

Relationship of MPS with EPS, DPS and NWPS

Variables	r	r^2	t-cal	t-table	Remarks
r_{xy}	0.3166	0.1002	0.7463	2.571	Insignificant
r_{xz}	-0.6965	0.4851	-2.1705	2.571	Insignificant
r_{xa}	0.3896	0.1518	0.9459	2.571	Insignificant

Source : Annexure 1

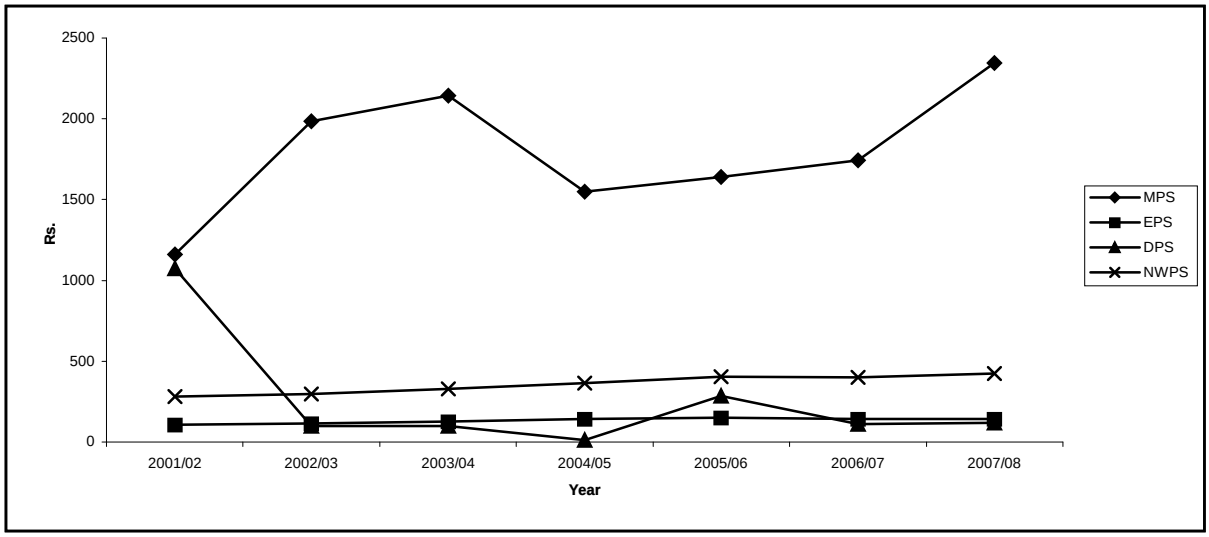
It is revealed from the above tables that the NWPS and EPS are in increasing trend and are very less volatile with 14.24% C.V of NWPS and 11.55% C.V of EPS. In comparison to these DPS is highly volatile with 133.03% and MPS little bit volatile with 20.49% C.V. in last seven years period. The correlation analysis shown that the MPS of SCB is negatively correlated with the DPS. In other hand, MPS is positively correlated with EPS and NWPS. T-calculation

shows that the correlation coefficients of EPS, DPS, and NWPS with MPS are insignificant at 95% confidence level for all variables. Therefore, we can say that there is no relationship between these variables.

The graphical relationship of MPS, EPS, DPS and NWPS of SCB is presented in chart 4.1 the following figure shows the trend of stock price fluctuation.

Chart: 4.1

Relationship of MPS with EPS, DPS and NWPS of SCB



4.1.2 Nepal Investment Bank Limited (NIB)

Recapitulate the MPS, EPS, DPS and NWPS with mean, S.D. and CV of NIB over seven year's period in table 4.3. The relationship of EPS, DPS and NWPS to MPS along with the significance of such relationship shows the table 4.4

Table: 4.3

Mean, Standard Deviation and Coefficient of Variation of NIB

Year	MPS	EPS	DPS	NWPS
2001/02	822	33.76	30	273.37
2002/03	1401	53.68	1097	303.10
2003/04	2144	33.18	-	275.96
2004/05	760	33.59	239	307.95
2005/06	795	39.56	208	216.24
2006/07	940	51.7	131	246.89
2007/08	800	39.31	12.58	199.83
Mean	1094.57	40.68	245.37	260.48
S.D.	475.37	8	358.68	38.35
C.V.	43.43	19.66	146.18	14.72

Source: Annual Reports of NEPSE, Annual Reports of NIB & Annexure 1

4.1.2.1 Correlation Analysis of NIB

Table: 4.4

Relationship of MPS with EPS, DPS and NWPS

Variables	r	r^2	t-cal	t-table	Remarks
r_{xy}	-0.0223	0.0005	-0.0498	2.571	Insignificant
r_{xz}	0.3155	0.0184	0.3058	2.571	Insignificant
r_{xa}	0.3380	0.1142	0.8029	2.571	Insignificant

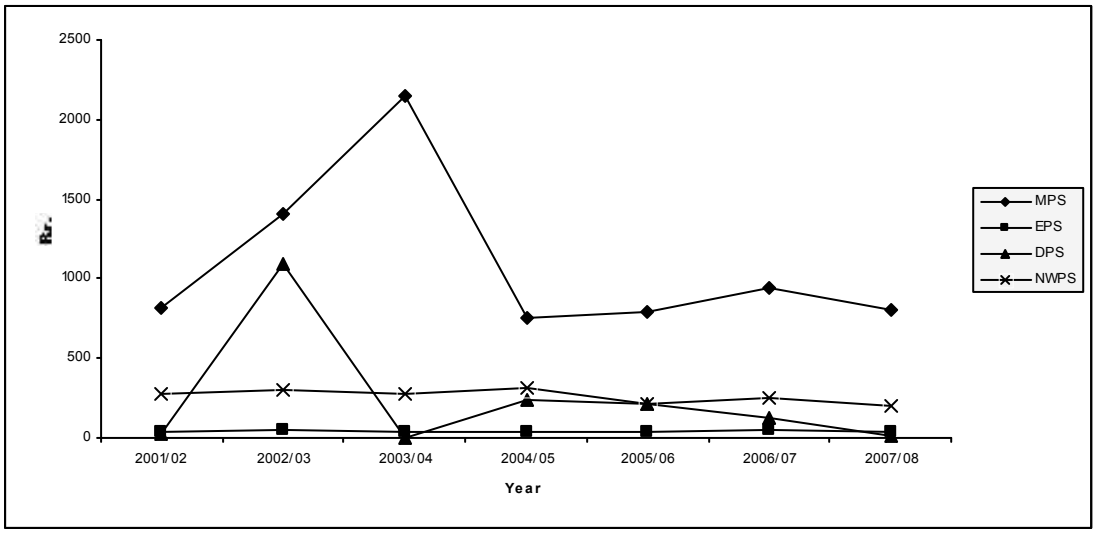
Source: Annexure 1

It is known from the above tables that over its last seven years period. DPS is highly volatile with 146.18% C.V. In comparison to EPS and MPS, NWPS is less volatile with 14.72% C.V. The correlation analysis revealed that the MPS is positively correlated with DPS and NWPS where as it is negatively correlated with EPS. T-calculation shows that EPS, DPS and NWPS are not significantly correlated with MPS at 95% confidence level. There is no relationship between these variables.

The graphical relationship of MPS, EPS, DPS and NWPS of NIB is presented in chart 4.2 the following figure shows the trend of stock price fluctuation.

Chart: 4.2

Relationship of MPS with EPS, DPS and NWPS of NIB



4.1.3 Citizen Investment Trust (CIT)

Recapitulate the MPS, EPS, DPS and NWPS with mean, S.D and C.V of CIT over seven year's period in table 4.5. The relationship of EPS, DPS and NWPS to MPS along with the significance of such relationship shows the table 4.6

Table: 4.5

Mean, Standard Deviation and coefficient of Variation of CIT

Year	MPS	EPS	DPS	NWPS
2001/02	60	10.72	6.67	89.17
2002/03	116	18.37	10	105.65
2003/04	180	18.09	11.12	122.33
2004/05	165	20.09	12.63	135.57
2005/06	170	25.09	14	152.83
2006/07	165	48.93	15	174.07
2007/08	200	43.93	15.79	187.07
Mean	150.86	26.46	12.17	138.10
S.D.	43.92	13.29	2.95	32.97
C.V.	29.11	50.22	24.20	23.88

Source : Annual Reports of NEPSE, Annual Reports of CIT & Annexure 1

4.1.3.1 Correlation Analysis of CIT

Table: 4.6

Relationship of MPS with EPS, DPS and NWPS

Variables	r	r^2	t-cal	t-table	Remarks
r_{xy}	0.6189	0.3831	1.7621	2.571	Insignificant
r_{xz}	0.8881	0.7888	4.3208	2.571	Significant
r_{xa}	0.8167	0.6670	3.1644	2.571	Significant

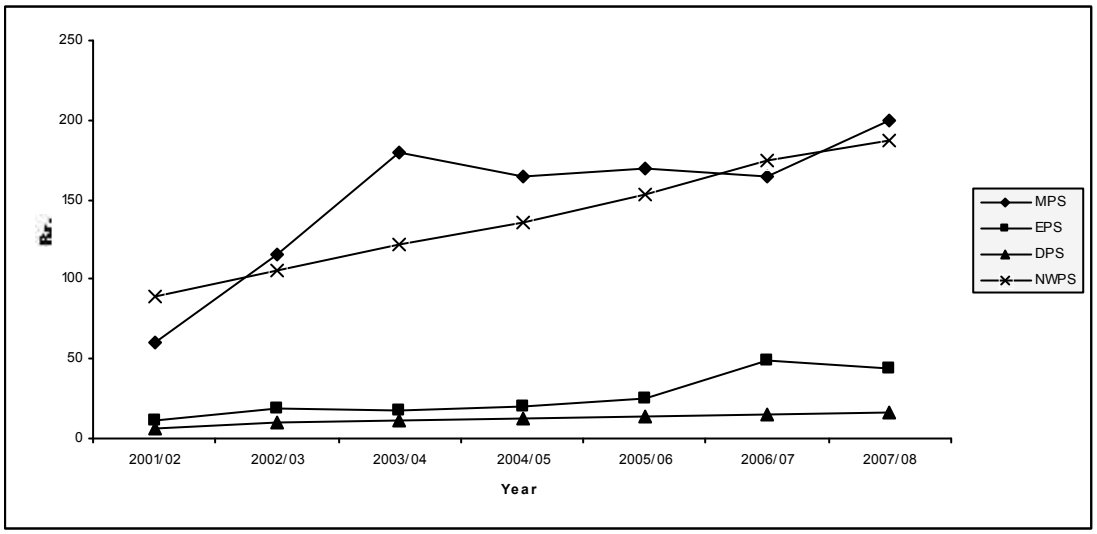
Source: Annexure 1

It is found from the above table that the MPS, EPS, DPS and NWPS of CIT have relatively consistent performance over seven year's period whereas EPS has relatively fluctuating performance with 50.22% C.V. NWPS has fluctuating performance with 23.88% C.V. The correlation analysis revealed that the MPS is highly positively correlated with DPS but it is positively correlated with EPS and NWPS. The positively correlation of independent variables with the dependent variables suggests that on increasing the value of the independent variables the dependent variable (MPS) also increase and vice versa. MPS is significantly positively correlated with DPS and NWPS whereas EPS is not at 95% level of significance.

The graphical relationship of MPS, EPS, DPS and NWPS of CIT is presented in chart 4.3. The following figure shows the trend of stock price fluctuation.

Chart: 4.3

Relationship of MPS with EPS, DPS and NWPS of CIT



4.1.4 Nepal Industrial Development Corporation Capital Market Limited (NIDC)

Recapitulate the MPS, EPS, DPS and NWPS with mean, S.D and C.V. of NIDC over seven year's period in table 4.7. The relationship of EPS, DPS and NWPS to MPS along the significance of such relationship shows the table 4.8.

Table: 4.7

Mean, Standard Deviation and Coefficient of Variation of NIDC

Year	MPS	EPS	DPS	NWPS
2001/02	100	40.95	15	129.50
2002/03	415	45.73	15	135.46
2003/04	600	55	15	145.44
2004/05	175	3.76	-	114.26
2005/06	125	-9.93	-	104.66
2006/07	107	32.51	-	124.14
2007/08	145	14.02	-	154.87
Mean	238.14	26.01	6.43	129.76
S.D.	178.87	22.12	7.42	16.08
C.V.	75.11	85.06	115.47	12.39

Source: Annual Reports of NEPSE, Annual Reports of NIDC & Annexure 1

4.1.4.1 Correlation Analysis of NIDC

Table: 4.8

Relationship of MPS with EPS, DPS and NWPS

Variables	r	r^2	t-cal	t-table	Remarks
r_{xy}	0.6372	0.4061	1.8489	2.571	Insignificant
r_{xz}	0.6465	0.4179	1.8947	2.571	Insignificant
r_{xa}	0.4437	0.1968	1.1070	2.571	Insignificant

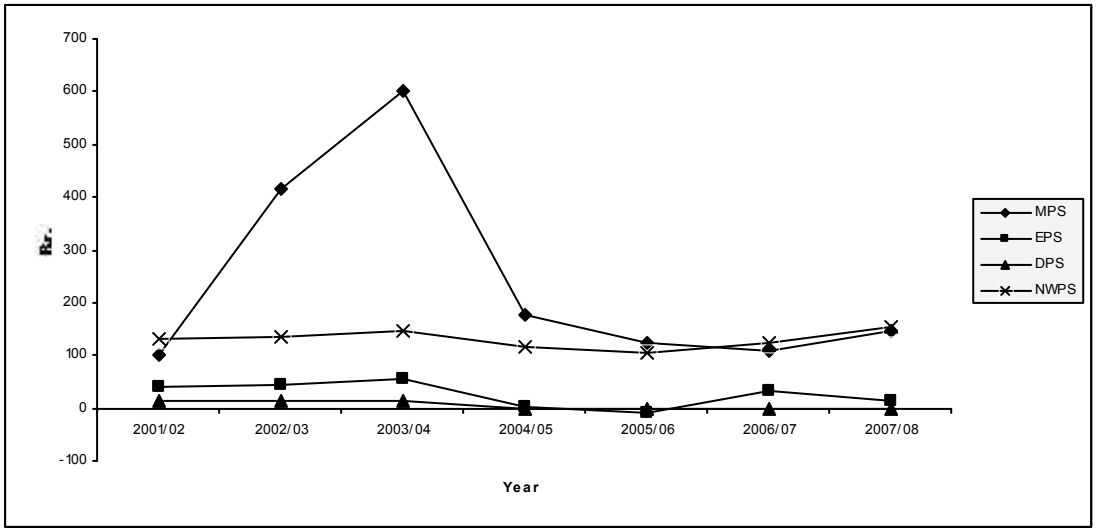
Source: Annexure 1

Above tables show the computed C.V. of NIDC it is found that EPS has relatively consistent performance among four variables with 85.06% C.V. whereas DPS is highly volatile with 115.47% C.V. MPS has consistent performance with 75.11%. The correlation analysis of these variables shows that MPS is positively correlated with all three independent variables, but t-calculation shows that these correlation coefficients are not significant at 95% level of significance.

The graphical relationship of MPS, EPS, DPS, NWPS of NIDC is presented in chart 4.4. The following shows the trend of stock price volatility.

Chart: 4.4

Relationship of MPS with EPS, DPS and NWPS of NIDC



4.1.5 Unilever Nepal Limited (UNL)

Recapitulate the MPS, EPS, DPS and NWPS with mean, S.D and C.V of UNL over the period seven year's in table 4.9. The relationship of EPS, DPS and NWPS to MPS along with the significance of such relationship shown the table 4.10.

Table: 4.9

Mean, Standard Deviation and Coefficient of Variation of UNL

Year	MPS	EPS	DPS	NWPS
2001/02	1501	129.28	40	271.97
2002/03	2230	130.96	50	355.93
2003/04	2200	73.90	55	371.84
2004/05	1350	46.58	40	378.11
2005/06	1130	101.19	90	389.3
2006/07	1400	153	100	430.12
2007/08	1631	205.5	400	235.61
Mean	1634.57	120.06	110.71	347.55
S.D.	393.28	48.51	120.13	63.69
C.V.	24.06	40.41	108.51	18.33

Source: Annual Reports of NEPSE, UNL & Annexure 1

4.1.5.1 Correlation Analysis of UNL

Table: 4.10

Relationship of MPS WITH EPS, DPS and NWPS of UNL

Variables	r	r^2	t-cal	t-table	Remarks
r_{ab}	0.0117	0.0001	0.0261	2.571	Insignificant
r_{ac}	-0.0791	0.0063	-0.1774	2.571	Insignificant
r_{ad}	-0.1136	0.0129	-0.2556	2.571	Insignificant

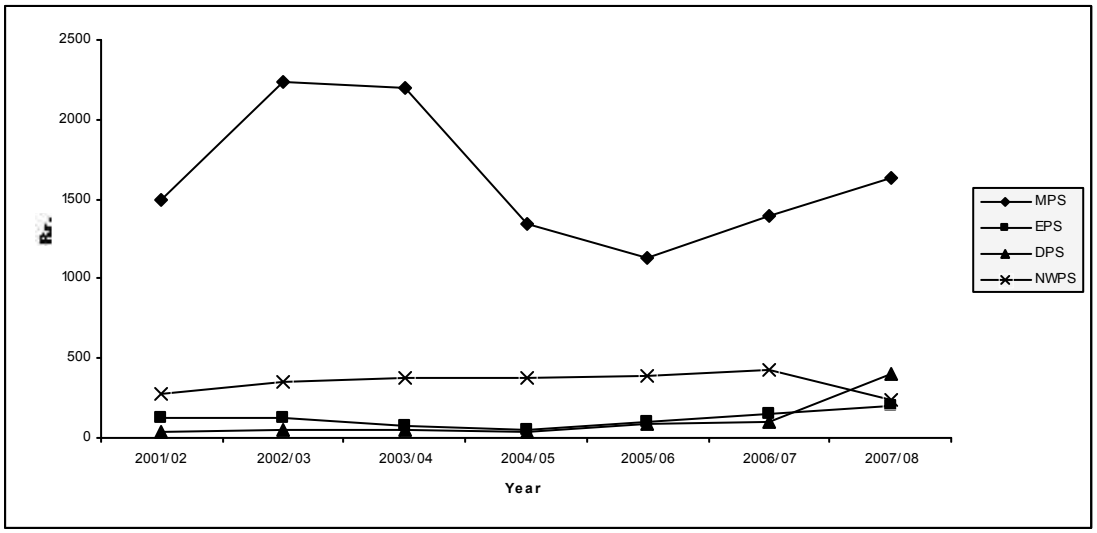
Source: Annexure 1

The above table shows computed C.V of UNL it is seen that MPS, EPS, DPS and NWPS all the variables have moderate volatility. NWPS is least volatile with 18.33% C.V. The correlation analysis revealed that MPS is positively correlated with EPS, MPS is negatively correlated with DPS and NWPS, which suggests that on increasing EPS, MPS also increase and vice versa but t-calculation shows that these correlation coefficient are not significant at 95% level of significance. There is no relationship between these variables.

The graphical relationship of MPS, EPS, DPS and NWPS of UNL is presented in chart 4.5, which shows the trend of stock price fluctuation.

Chart: 4.5

Relationship of MPS with EPS, DPS and NWPS of UNL



4.1.6 Himalayan General Insurance Company Limited (HGIC)

Recapitulate the MPS, EPS, DPS and NWPS with mean, S.D. and C.V of HGIC over seven years period in table 4.11. The relationship of EPS, DPS and NWPS to MPS along with the significance of such relationship shows the table 4.12.

Table: 4.11

Mean, Standard Deviation and Coefficient of Variation of HGIC

Year	MPS	EPS	DPS	NWPS
2001/02	116	15.43	10	119.21
2002/03	275	26.62	15	130.86
2003/04	285	30.30	15	146.14
2004/05	225	25.50	15	156.64
2005/06	190	38.40	-	195.05
2006/07	175	39.86	-	234.91
2007/08	205	36.70	-	200
Mean	210.14	30.40	7.86	168.97
S.D.	54.20	8.07	7.00	38.90
C.V.	25.79	26.54	89.07	23.02

Source: Annual Reports of NEPSE, HGIC & Annexure 1

4.1.6.1 Correlation Analysis of HGIC

Table: 4.12

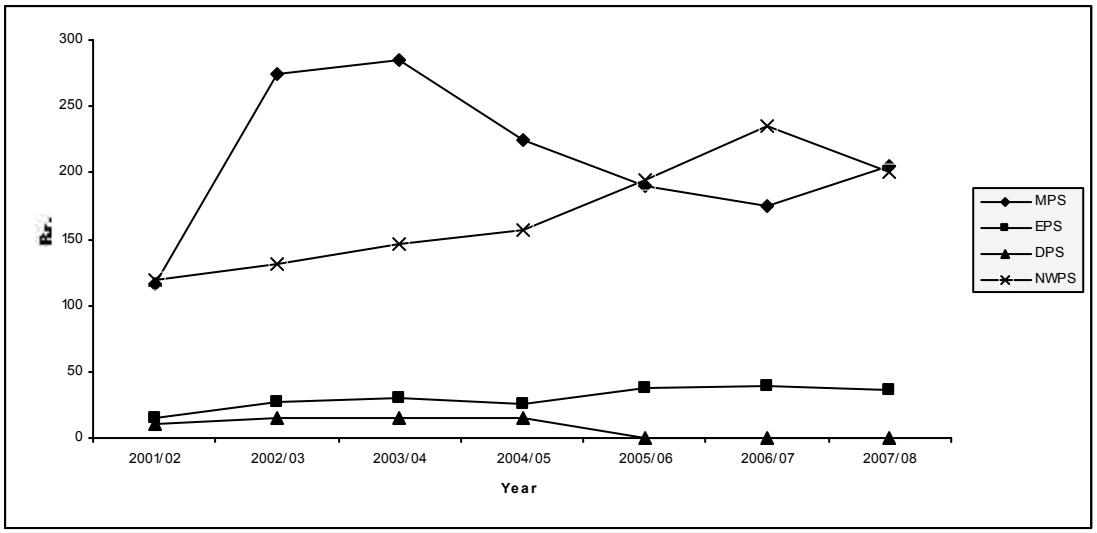
Relationship of MPS WITH EPS, DPS and NWPS

Variable	r	r^2	t-cal	t-table	Remarks
r_{xy}	0.1824	0.0332	0.4145	2.571	Insignificant
r_{xa}	0.5187	0.2690	1.3566	2.571	Insignificant
r_{xa}	-0.1817	0.0330	-0.4132	2.571	Insignificant

Source: Annexure 1

From the above tables and figure that DPS are highly volatile with 89.07% CV. EPS, MPS and NWPS are less volatile with 26.54%, 25.79% and 23.02% C.V. The correlation analysis Revealed that the MPS is positively correlated with the independent variables EPS and DPS which indicates that on increasing EPS and DPS; MPS also increases and vice versa. DPS is more positively correlated to MPS than EPS. MPS is negatively correlated with NWPS. The correlation coefficient of EPS, DPS and NWPS with MPS are not significant at 95% level of significance. There is no relationship between these variables. The graphical relationship of MPS, EPS, DPS and NWPS of HGIC is presented in chart 4.6

Chart: 4.6
Relationship of MPS with EPS, DPS and NWPS OF HGIC



4.1.7 Bishal Bazar Company Limited (BBC)

Recapitulate the MPS, EPS, DPS and NWPS with mean, S.D. and C.V. of BBC over seven year's period in table 4.13. The relationship of EPS, DPS and NWPS to MPS along with the significance of such relationship shows the table 4.14.

Table: 4.13

Mean, Standard Deviation and Coefficient of Variation of BBC

Year	MPS	EPS	DPS	NWPS
2001/02	1800	43.55	40	161.5
2002/03	1800	51.06	50	172.56
2003/04	1700	63.30	50	185.82
2004/05	1550	71.46	65	150.50
2005/06	1405	83.21	75	142.29
2006/07	1400	74.37	85	139.87
2007/08	1930	92.38	90	142.26
Mean	1655	68.48	65.0	156.4
S.D.	192.08	15.96	17.73	16.3
C.V.	11.61	23.31	27.27	10.42

Source: Annual Reports of NEPSE, BBC & Annexure 1

4.1.7.1 Correlation Analysis of BBC

Table: 4.14

Relationship of MPS with EPS, DPS and NWPS

Variable	r	r^2	t-cal	t-table	Remarks
r_{xy}	-0.2469	0.0610	-0.5697	2.571	Insignificant
r_{xz}	-0.3021	0.0912	-0.7085	2.571	Insignificant
r_{xa}	0.4052	0.1642	0.9911	2.571	Insignificant

Source: Annexure 1

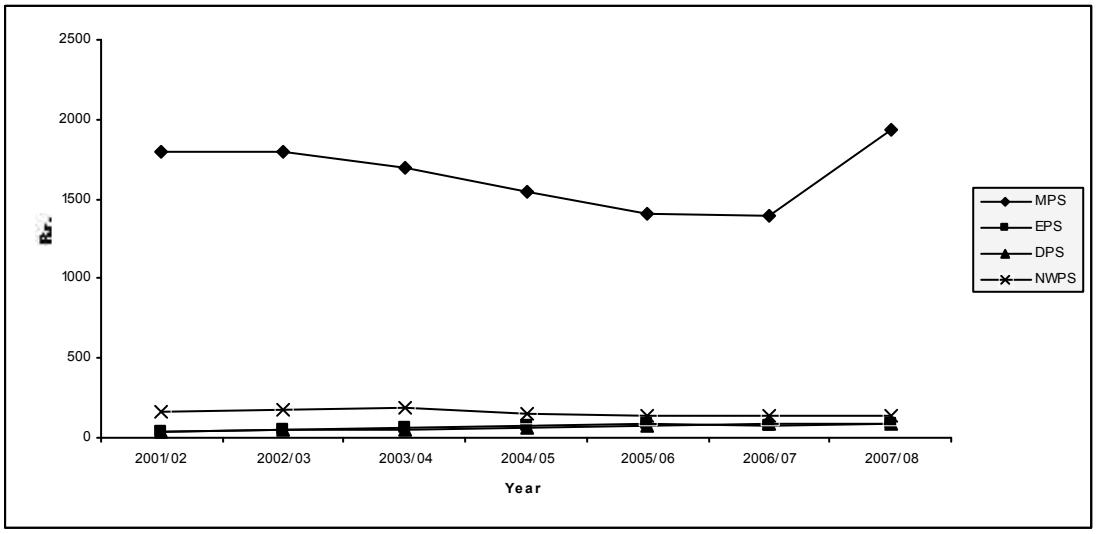
Above table shows that DPS and EPS are relatively more volatile with 27.27% and 23.31% C.V. respectively. In comparison to EPS and DPS, MPS and NWPS have much more consistence performance with 11.6% and 10.42% C.V. respectively. MPS is positively correlated with NWPS and negatively

correlated with EPS and DPS. T-calculation DPS and NWPS with MPS are not significant at 95% level of significance. There is no relationship between these variables.

The graphical relationship of MPS, EPS, DPS and NWPS of BBC is presented in chart 4.7.

Chart: 4.7

Relationship of MPS with EPS, DPS and NWPS of BBC



4.1.8 Soaltee Hotel Limited (SHL)

Recapitulate the MPS, EPS, DPS and NWPS with mean, S.D. and C.V. of BBC over seven year's period in table 4.15. The relationship of EPS, DPS and NWPS to MPS along with the significance of such relationship shows the table 4.16.

Table: 4.15

Mean, Standard Deviation and Coefficient of Variation of SHL

Year	MPS	EPS	DPS	NWPS
2001/02	92	8.81	5	59.68
2002/03	155	7.06	4	62.73
2003/04	130	3.31	34	65.04
2004/05	100	-6.85	-	41.22
2005/06	75	-4.35	-	36.88
2006/07	65	-5.11	-	31.47
2007/08	50	-10.61	-	31.47
Mean	95.29	-1.11	6.14	46.93
S.D.	34.19	6.91	11.54	13.90
C.V.	35.88	-625.08	187.93	29.61

Source: Annual Reports of NEPSE, SHL & Annexure 1

4.1.8.1 Correlation Analysis of SHL

Table: 4.16

Relationship of MPS with EPS, DPS and NWPS of SHL

Variable	r	r^2	t-cal	t-table	Remarks
r_{xy}	0.7247	0.5251	2.3514	2.571	Insignificant
r_{xz}	0.5077	0.2577	1.3177	2.571	Insignificant
r_{xa}	0.8646	0.7475	3.8470	2.571	Significant

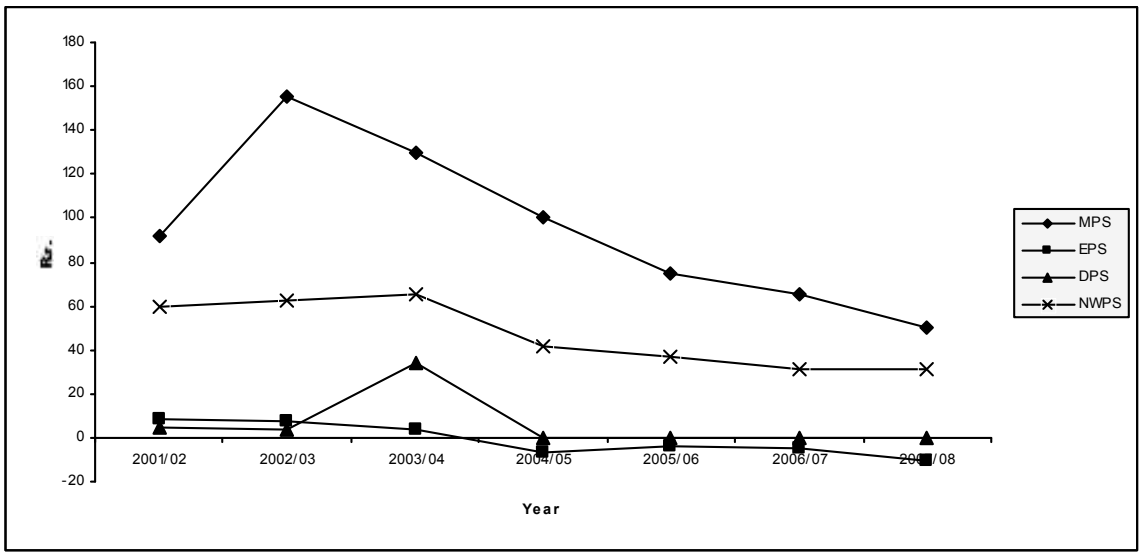
Source: Annexure 1

In the above table, computed C.V. of SHL shows that NWPS and MPS have relatively consistent performance among four variables with 29.61% and 35.88% C.V and whereas, EPS is more highly volatile with -625.08% C.V. and DPS is highly volatile with 187.92% C.V. The correlation analysis shows that MPS is positively correlated with all three independent variables, which indicate that on increasing EPS, DPS and NWPS, MPS also increases and vice versa. T-calculation shows that the correlation coefficient of EPS, DPS and NWPS with MPS are not significant at 95% level of significance. There is no relationship between these variables.

The graphical relationship of MPS, EPS, DPS and NWPS of SHL is presented as follows:

Chart: 4.8

Relationship of MPS with EPS, DPS and NWPS of SHL



4.2 Comparative analysis of Correlation coefficients of Sampled Companies

The correlation of MPS, for all the sampled listed companies, with EPS, DPS and NWPS is calculated separately. In this section, thus calculated correlation coefficients are compared among the sampled 8 companies to draw a conclusion of the relationship of the independent variables (EPS, DPS and

NWPS) to dependent variable (MPS). All the computed simple correlation coefficient of MPS with EPS, DPS and NWPS from table 4.1 to 4.16 are presented for each of the listed companies to compare such correlation coefficients of these 8 sampled listed companies in the table 4.17.

Table: 4.17

Correlation coefficients of MPS with EPS, DPS and NWPS of Sampled Companies

Sampled Companies	MPS with EPS	MPS with DPS	MPS with NWPS
SCB	0.3166	-0.6965	0.3896
NIB	-0.0223	0.3155	0.3380
CIT	0.6189	0.8881	0.8167
NIDC	0.6372	0.6465	0.4437
UNL	0.0117	-0.0791	-0.1136
HGIC	0.1823	0.5187	-0.1817
BBC	-0.2469	-0.3021	0.4052
SHL	0.7247	0.5077	0.8646

Source: Annexure 1

From the above table (4.17), it is revealed that the correlation coefficient of MPS and EPS is negative for two sampled listed companies among 8 companies. It is known that the most of the listed companies market price in NEPSE has positive relationship with earnings. Other correlation coefficient of MPS and DPS shows that the correlation coefficients for 3 out of 8 sampled listed companies are negative. It is revealed that there is no consistent relationship of DPS to the MPS in NEPSE. Similarly, the correlation coefficient of MPS and NWPS shows that the correlation coefficients for 2 out of 8 sampled listed companies are negative. It is known that the NWPS can be considered as one of the determinants of MPS. Since, it has positive correlation with NWPS in NEPSE for relatively more companies. Thus some of the companies have negative correlations.

From table 4.17, it is seen that MPS is highly positively correlated with EPS for SHL where as it is highly negatively correlated with EPS for BBC. The MPS is highly positively correlated with DPS for CIT whereas it is highly negatively correlated with DPS for SCB. On the other way, MPS is highly positively correlated with NWPS for SHL and negatively correlated HGIC.

4.3 Simple Regression Analysis

The regression equation found as Annexure 1, MPS being dependent variable and EPS, DPS and NWPS are independent variables. We have to analysis the stock market prices using MPS with EPS, DPS and NWPS by the regression equation, where as

$Y = a + bx$

4.3.1 Regression Analysis of Sampled Companies

Table: 4.18

Regression Analysis of EPS on MPS

Sample Companies	Regression Equations
SCB	MPS = 787.49 + 7.62 EPS
NIB	MPS = 1148.44 - 1.32 EPS
CIT	MPS = 96.73 + 2.05 EPS
NIDC	MPS = 104.14 + 5.15 EPS
UNL	MPS = 1623.22 + 0.09 EPS
HGIC	MPS = 172.92 + 1.22 EPS
BBC	MPS = 1858.43 - 2.97 EPS
SHL	MPS = 99.25 + 3.58 EPS

Source : Annexure 1

The table 4.18 depicts the output of simple regression analysis of EPS on MPS of 8 sampled companies. In case of SCB, the regression constant implies that when EPS is 0, MPS is 787.49. The constant for EPS 7.62 implies that when EPS increases by Re. 1, MPS increases by Rs. 7.62 and vice versa.

In case of NIB, the regression constant implies that when EPS is 0, MPS is 1148.44. The constant for EPS -1.32 implies that when EPS increases by Re. 1, MPS decreases by Rs. 1.32 and vice versa.

In case of CIT, the regression constant implies that when EPS is 0, MPS is 96.73. The constant for EPS 2.05 implies that when EPS increases by Re. 1, MPS increases by Rs. 2.05 and vice versa.

In case of NIDC, the regression constant implies that when EPS is 0, MPS is 104.14. The constant for EPS 5.15 implies that when EPS increases by Re. 1, MPS increases by Rs. 5.15 and vice versa.

In case of UNL, the regression constant implies that when EPS is 0, MPS is 1623.22. The constant for EPS 0.09 implies that when EPS increases by Rs. 100, MPS increases by 9 paisa and vice versa.

In case of HGIC, the regression constant implies that when EPS is 0, MPS is 172.92. The constant for EPS 1.22 implies that when EPS increases by Re. 1, MPS increases by Rs. 1.22 and vice versa.

In case of BBC, the regression constant implies that when EPS is 0, MPS is 1858.43. The constant for EPS -2.97 implies that when EPS increase by Re. 1, MPS decreases by Rs. 2.97 and vice versa.

In case of SHL, the regression constant implies that when EPS is 0, MPS is 99.25. The constant for EPS 3.58 implies that when EPS increase by Re. 1, MPS increases by Rs. 3.58 and vice versa.

Table: 4.19

Regression Analysis of DPS on MPS

Sample Companies	Regression Equations
SCB	MPS = 1188.49 - 0.75 DPS
NIB	MPS = 1050.50 + 0.18 DPS
CIT	MPS = -10.33 + 13.24 DPS
NIDC	MPS = 138 + 15.58 DPS
UNL	MPS = 1663.23 - 0.26 DPS
HGIC	MPS = 178.58 + 4.02 DPS
BBC	MPS = 1867.73 - 3.27 DPS
SHL	MPS = 86.05 + 8.5 DPS

Source : Annexure 1

The table 4.19 shows the output of simple regression analysis of DPS on MPS of 8 sampled companies. In case of SCB, the regression constant implies that when DPS is 0, MPS is 1988.49. The constant for DPS -0.75 implies that when DPS increases by Re. 1, MPS decreases by 75 paisa and vice versa.

In case of NIB, the regression constant implies that when DPS is 0, MPS is 1050.50. The constant for DPS 0.18 implies that when DPS increases by Re. 1, MPS increases by 18 paisa and vice versa.

In case of CIT, the regression constant implies that when DPS is 0, MPS is -10.33. The constant for DPS 13.24 implies that when DPS increases by Re. 1, MPS increases by Rs. 13.24 and vice versa.

In case of NIDC, the regression constant implies that when DPS is 0, MPS is 138. The constant for DPS 15.58 implies that when DPS increases by Re. 1, MPS decreases by Rs. 15.58 and vice versa.

In case of UNL, the regression constant implies that when DPS is 0, MPS is 1663.23. The constant for DPS -0.26 implies that when DPS increases by Re. 1, MPS decreases by 26 paisa and vice versa.

In case of HGIC, the regression constant implies that when DPS is 0, MPS is 178.58. The constant for DPS 4.02 implies that when DPS increases by Re. 1, MPS increases by Rs. 4.02 and vice versa.

In case of BBC, the regression constant implies that when DPS is 0, MPS is 1867.73. The constant for DPS -3.27 implies that when DPS increases by Re. 1, MPS decreases by Rs. 3.27 and vice versa.

In case of SHL, the regression constant implies that when DPS is 0, MPS is 86.05. The constant for DPS 1.5 implies that when DPS increases by Re. 1, MPS decreases by Rs. 1.5 and vice versa.

Table: 4.20

Regression Analysis of NWPS on MPS

Sample Companies	Regression Equations
SCB	MPS = 789.30 + 2.82 NWPS
NIB	MPS = 3.45 + 4.19 NWPS
CIT	MPS = 0.65 + 1.09 NWPS
NIDC	MPS = - 402.13 + 4.93 NWPS
UNL	MPS = 1878.27 - 0.70 NWPS
HGIC	MPS = 252.92 - 0.23 NWPS
BBC	MPS = 908.20 + 4.77 NWPS
SHL	MPS = -4.54 + 2.13 NWPS

Source : Annexure 1

The table 4.20 shows the output of simple regression analysis of NWPS on MPS of 8 sampled companies. In case of SCB, the regression constant implies

that when NWPS is 0, MPS is 789.30. The constant for NWPS 2.82 implies that when NWPS increases by Re. 1, MPS increases by Rs.2.82 and vice versa.

In case of NIB, the regression constant implies that when NWPS is 0, MPS is 3.45. The constant for NWPS 4.19 implies that when NWPS increases by Re. 1, MPS increases by Rs.4.19 and vice versa.

In case of CIT, the regression constant implies that when NWPS is 0, MPS is 0.65. The constant for NWPS 1.09 implies that when NWPS increases by Re. 1, MPS increases by Rs.1.09 and vice versa.

In case of NIDC, the regression constant implies that when NWPS is 0, MPS is -402.13. The constant for NWPS 4.93 implies that when NWPS increases by Re. 1, MPS increases by Rs.4.93 and vice versa.

In case of UNL, the regression constant implies that when NWPS is 0, MPS is 1878.27. The constant for NWPS -0.70 implies that when NWPS increases by Re. 1, MPS decreases by 70 paisa and vice versa.

In case of HGIC, the regression constant implies that when NWPS is 0, MPS is 252.92. The constant for NWPS -0.23 implies that when NWPS increases by Re. 1, MPS decreases by 23 paisa and vice versa.

In case of BBC, the regression constant implies that when NWPS is 0, MPS is 908.20. The constant for NWPS 4.77 implies that when NWPS increases by Re. 1, MPS increases by Rs.4.77 and vice versa.

In case of SHL, the regression constant implies that when NWPS is 0, MPS is -4.54. The constant for NWPS 2.13 implies that when NWPS increases by Re. 1, MPS increases by Rs.2.13 and vice versa.

4.4 Run test Analysis

Null hypothesis, H_0 : There is not significant difference between price behaviours and random

Alternative hypothesis H_1 : There is significant difference between price behaviours and random

Test Parameters	SCB	NIB	NIDC	CIT	HGI	UL	SH	BBC
Median	2426	995	177.04	182	186	1827	55.29	1927
No. of run (r)	4	5	6	2	8	2	5	4
N_1 (b)	14	14	10	12	15	12	14	11
N_2 (a)	10	10	14	12	9	12	10	13
μ_r	12.66	12.66	12.66	13	12.25	13	12.66	12.91
S_r	5.41	5.41	5.41	5.73	5.01	5.73	5.41	5.65
Upper Limit	26.62	26.62	26.62	27.8	25.18	27.8	26.62	27.5
Lower Limit	-1.29	-1.29	-1.29	-1.8	-0.68	-1.8	-1.29	-1.67
Result	r lies between upper and lower limit	r lies between upper and lower limit	r lies between upper and lower limit	r lies between upper and lower limit	r lies between upper and lower limit	r lies between upper and lower limit	r lies between upper and lower limit	r lies between upper and lower limit
Decision	H^0 is accepted	H^0 is accepted	H^0 is accepted	H^0 is accepted	H^0 is accepted	H^0 is accepted	H^0 is accepted	H^0 is accepted

Source: Annexure 2

From the above run test analysis, it is clear that share price from 16th July 2006 to 16th July 2008 have randomly changed. There is no indication of any

correlation between the share prices. Therefore, from the secondary data, we can conclude that share prices are fluctuated without the constant.

4.5 Presentation and Analysis of Primary Data

In the course of availing first hand data to justify the study on the topic primarily, interviews and questionnaire methods have been made applicable.

4.5.1 Experts' Interviews

While taking interview with a senior official of NEPSE within the periphery of investors awareness about investment decision, it was learnt that the reason behind frequently swing in the market price of shares is due to lack of institutional investors who can properly analyze and study the market trends before making their investment decision. More over, Nepalese stock market is dominated by retailing investors come forward to act in bullish trend. They emphasized that stability can't be fully achieved unless rational investors come forward to participate in the secondary market. At the time of interview, the question has been asked about which method of analysis you adopt. Most of the experts replied that they used technical as well as fundamental analysis method of stock price behaviour.

While conducting the information discussion with many investors in the stock market, claimed that though they made investment decision after analyzing shares, they got less than the expected return from investment. They accused broken and NEPSE officials of joining hands for price manipulation. They also shared the experience of sharp wealth devaluation in the past days. It was learnt that unprecedented swing in Nepal stock exchange market index caused uproar among investors.

In this way, it was seen in the Nepal Stock Exchange, the investors can do volatile of stock price. But investors blame to stock brokers for fluctuation of stock. Through, they have different theories to offer over the price fluctuations,

the effort to improve the domestic stock market should be done from all quarters.

4.5.2 Causes of Volatility of Stock Market in NEPSE

Regarding the suggestions, the following are the major causes of volatility of stock market in NEPSE.

Table: 4.21

Causes of Volatility of Stock Market in NEPSE

S.N.	Research Variable	No. of Response	Mean (X)	Std. Dev (σ)
1.	Earning	50	3.74	1.0724
2.	Demand and supply	50	3.24	1.3024
3.	Nepal Rastra Bank's guidelines	50	4.74	0.1924
4.	Time of AGM	50	3.20	1.4
5.	Price trend	50	3.64	1.1904
6.	Information	50	3.56	1.0864
7.	Net worth	50	3.50	1.01
8.	Political stability	50	3.30	1.13
9.	Bonus share	50	3.28	1.0016

Source: Field Survey, 2009 (Annexure 4)

Arranging all the research variables according to their mean value, we get

1.	Nepal Rastra Bank's Guidelines	4.74
2.	Earning	3.74
3.	Price Trend	3.64
4.	Information	3.56
5.	Net Worth	3.50
6.	Political Stability	3.30
7.	Bonus Share	3.28
8.	Demand and Supply	3.24
9.	Time of AGM	3.20

From the table 4.21, the major cause of volatility of stock market in Nepalese Capital Market is Nepal Rastra Bank's Guidelines. According to the latest directive of NRB, all commercial bank must raise their capital up to 2 billion within 2069. In other way, all the investors are keen to invest thinking that they must issue bonus shares to meet their said capital and obviously it will raise the market price abnormally. Besides this, high earning and high net worth also affects the share price to be fluctuated. Above primary survey also indicates that there are small group of investors who believes on price trend also. They only invest on those companies whose share prices are increasing. The information leakage from the companies about their financial performance to the investors and brokers which leads to high investment in such companies thinking that they will return high benefit. Thus, stock market price fluctuation, lower quality of professional services and delay in procedures for making transfer of ownership of shares have caused a great loss to the confidence of investors. Similarly, the settlements of traded shares were not carried out within the given duration.

Moreover, demand and supply, time of AGM, political stability, declaration of bonus shares, strike and demonstrations rumors and whims, board of directors,

management change, information, market liquidity are the impact of market price volatility in Nepal Share Market.

4.6 Major Findings of the Study

To analysis of major findings from the secondary and the primary data are presented:

4.6.1 Findings of the Secondary Data

1. The MPS is positively correlated with EPS and NWPS but it is negatively correlated with DPS for SCB. None of the relationships are significant at 95 percent level of significance.
2. The MPS is negatively correlated with EPS but it is positively correlated with DPS and NWPS for NIB. None of these relationships are significant at 95% level of significant.
3. The MPS is positively correlated to all the independent variables (EPS, DPS and NWPS) for CIT but only EPS is insignificant at 95% level of significance.
4. The MPS is positively correlated to all the independent variables (EPS, DPS and NWPS) and none of the relationships are significant at 95% level of significance for NIDC.
5. The MPS is positively correlated to EPS and negatively correlated with DPS and NWPS. None of the relationships are significant at 95% level of significance of UNL.
6. The MPS is positively correlated with EPS, DPS and negatively correlated with NWPS for HGIC but the relationships are not significant at 95 percent level of significance.
7. The MPS is negatively correlated to EPS, DPS and positively correlated with NWPS for BBC but none of the relationships are significant at 95 percent level of significance.

8. MPS is positively correlated to all the all variables (EPS, DPS and NWPS) but one of the relationships is significant at 95 percent level of significance of SHL.
9. The correlation coefficients of MPS with EPS are negative for 2 sampled listed companies among 8 companies. It reveals that, the most of the listed company's market price in NEPSE has positive relationship with earnings and the relationship of MPS with EPS is not consistent.
10. The correlation coefficients of MPS with DPS are negative for 3 sampled listed companies among 8 companies. It revels that, the most of the listed company's market price in NEPSE has positive relationship with dividend and the relationships of MPS with DPS are not consistent.
11. The correlation coefficients of MPS with NWPS are negative for 2 sampled listed companies among 8 companies. It reveals that most of the listed company's market price in NEPSE has positive relationship with net worth and the relationships of MPS with NWPS are not consistent.
12. Regression analysis of EPS on MPS indicates that all the regression constants are positive that is when EPS is 0, in all cases MPS would be +ve. Similarly, regression coefficients are positive except in NIB and BBC which indicates that when EPS increases, MPS also increases by multiple of that coefficient except in NIB and BBC where MPS decreases when EPS increases.
13. Regression analysis of DPS on MPS shows that regression constants are +ve except in case of CIT, that means when DPS is zero, MPS would be +ve and -ve constant of CIT indicates that when DPS is zero, MPS of CIT would be -10.33. Similarly, regression coefficients are positive except in SCB and BBC which indicates that when DPS increases, MPS also increases by multiple of that coefficient except in SCB and BBC where MPS decreases when DPS increases.
14. Regression analysis of NWPS on MPS shows that regression constants are +ve except in case of NIDC & SHL, that means when NWPS is zero,

MPS would be +ve and -ve constant of NIDC & SHL indicates that when NWPS is zero, MPS of NIDC would be -402.13 & of SHL would be -4.54. Similarly, regression coefficients are positive except in UNL and HGIC which indicates that when NWPS increases, MPS also increases by multiple of that coefficient except in UNL and HGIC where MPS decreases when NWPS increases.

15. Run Test reveals that all the changes in market price behaviors are random. There is no relationship between the market prices.

4.6.2 Findings of the Primary Data

1. Major 5 causes of the factors of volatility of stock price in NEPSE are Nepal Rastra Bank's guidelines, earning, price trend, information and net worth.
2. Price trend from 16 July 2006 to 16 July 2008 shows that time of AGM also affects the share price fluctuation.
3. There are small group of investors who believes on price trend.
4. Guideline of Nepal Rastra Bank about margin lending also affects the share price.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Present chapter attempt to summarize the major findings of the earlier analyses and results. Nepalese share market is in the emerging stage. It is therefore, possible for little individual success to manipulate share price and even more and more profits from the stock market. To remove these deficiencies the government has established securities board Nepal (SEBO/N) as an apex regulatory body to facilitate the orderly development of dynamic and competitive stock market and maintains its credibility, fairness, efficiency, transparency and responsive. Issues regarding to summaries, conclusion and recommendation have been discussed in this section.

5.1 Summary

Lack of developed share market was found as one of the major causes in price fluctuation in Nepalese capital market. Similarly few numbers of competitors in share market were also identified as the second major reason of abnormal price fluctuation.

The objective of the study is to find out the relationship of market price of stock (MPS) with various financial indicators like EPS, DPS and NWPS. To find out the above stated objective financial as well as statistical tools have been used. The relationship of EPS, DPS and NWPS with MPS has been checked by correlation and run test analysis of secondary data. Similarly, regression analysis has been done to predict the dependent variable MPS by the help of independent variables EPS, DPS and NWPS and to know the strength of relationship between variables. The researcher also used primary data collected from the research questionnaire to find out the factors affecting the share price volatility. From the secondary data analysis, it is known that there is not consistent performance in the relationship of MPS with EPS, DPS and NWPS for 8 sampled listed companies. The correlation coefficient of MPS

with independent variable (EPS, DPS and NWPS) is significantly positive whereas some other has significantly negative correlation at 95% level of significance. Even though, most of the correlation coefficients of MPS with independent variables are found positive. Among the 8 selected companies, the most positive relationship of MPS with EPS is 0.7247 of SHL and least relationship of MPS with EPS is -0.2469 of BBC. Similarly, in case of DPS, the highest relationship is 0.8881 of CIT and lowest relationship is -0.6965 of SCB. In case of NWPS, the highest relationship is 0.8646 of SHL and lowest relationship is -0.1817 of HGIC. So, these three factors are not only the factors affecting the market price of stock, EPS, DPS and NWPS affect the MPS positively; there are other various factors in the internal as well as external environment of the organization, which significantly affect the MPS. Theoretically, when earning, dividend and net worth of stock increase, the market price of share also increase and vice versa.

Volatility of the stock price in NEPSE are identified from the primary data analysis. Such internal factors affecting the share price are earnings, dividend paid, net worth and risk associated with the company. Environment factors affecting the share price are: Nepal Rastra Bank's guidelines, price trend, information, demand and supply, political stability etc., for the sensitivity of the stock price in NEPSE. NEPSE is in nascent stage and it has not significant effect of tax rate, stock dividend, global economy, market liquidity where as these factors have simple effects in stock pricing. So, there is existence of low order serial dependence, which may be enough a certain extent to increase investor's expected profit.

5.2 Conclusion

In conclusion, present research is a very important break through in analyses of stock price behaviour in Nepalese Capital Market. The researcher came into the following conclusions.

- In NEPSE, EPS, DPS and NWPS individuals do not have consistent relationship with the market price of share, among the listed companies. The pricing behaviour varies from one company to another. But EPS, DPS and NWPS jointly have significant effect in market price of share. So there may be other major affecting the share price significantly.
- The stock market is not properly analyzed for smooth operation of secondary market. It shows gap between theory and practice of investment, in Nepalese stock market. The study of market behavior is very useful subject matter if properly analyzed for the development of stock market.
- All 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.
- Share price of stock do not reflect the real value of stock in almost all cases.
- Nepalese investors are more conscious towards the dividend and price appreciation of the share they are investing but most of the investors are only using buy and hold strategy a only few of them are trading their share in secondary market. This shows that there lacks professionalism in Nepalese investors.
- There is not easy to predict the MPS of shares of companies by the help of EPS, DPS & NWPS as there is not consistency among regression constants and regression coefficients.

- Nepal Rastra Bank's guidelines are also affecting the share price of financial institutions; NRB guidelines about paid-up capital and margin-lending are greatly affecting the share prices.
- Most of the investors are complaining that the market makers, brokers and Nepal stock exchange limited staff's are making coalition for fraudulent activities towards investors. So, NEPSE should clear this type of charge for the development of stock market.

5.3 Recommendations

Based on the above discussed findings and conclusions, present research recommends few major issues to the concerned authority, academicians and practitioners. It is necessary to make a better information disclosure system in Nepalese capital market. Thus, major recommendations of this study are as follows:

- The study of stock market behaviour should be done in periodic manner so that proper results can be drawn for betterment of stock market from the side of NEPSE.
- Signaling factors should be analyzed so that future movements of price can be predicted from the side of analyst and from the side of investors.
- Investors should be provided with investment guidelines from new, media and article.
- NEPSE can expand its services to the regional levels rather than just concentrating solely in the valley.
- Nepal Stock Exchange should increase their broker license to ease the transaction without any problems.
- The government should make not only policies for capital market development but also implement policies appropriately.

- It is recommended that efficient management can reduce diversifiable risk. So the company needs to develop and modify its internal management.
- Awareness programme should be launched to awre the investors to invest logically and reasonably.
- Highly volatile market is more risky. Provisions should be directed toward making market low risky for the betterment of the capital market. Market should be theory based rather than random behaviours.
- Concerned regulatory body should aware of capital market when introducing new laws and directives.

BIBLIOGRAPHY

Alexander, G.J. & Bailey, J.V. (2001) : *Investments*; New Delhi: Prentice Hall of India Pvt. Ltd.

Aryal, Mukti (1995) : *The General Behaviour of the Stock Market Price* ; An Unpublished Master Level Thesis, Kathmandu : Central Department of Management, T.U.

Ban, Bal Krishna (2004) : *A Study on Valuation of Stock in Stock Market*; Unpublished Master's Degree Dissertation; Kathmandu : Shanker Dev Campus, T.U.

Bhattarai, Rabindra (2005) : *Speculative Boom*; New Business Age, Kathmandu: New Business Age Pvt. Ltd. 4(11) : 46.

Bhusan, Y.K. (1991) : *Finance Management;* New Delhi : Sultan & Chand Company.

Brown, Stewart L. (1978) : *Earning Changes Stock Prices and Market Efficiency;* Journal of Finance, Boston : D.C. Health & Co., XXXIII. (1) : 17.

Coother, Paul H. (1962) : *Stock Price Random Versus Systematic Changes,* Industrial Management Review, Massachusetts : M.I.T. Press, Cambridge, 3(2) : 24.

Cootner, Paul H. (1964) : *The Random Character of Stock Market Prices*; New York : M.I.T. Press.

Dawadi, Suban (2007) : *Share Price Behaviour in Nepal*; Unpublished Master's Degree Dissertation, Kathmandu : Shanker Dev Campus, T.U.

Fama, Eugene (1965) : *Stock Market Price Behaviour*; Journal of Business, Chicago : University of Chicago Press, XXXVIII (1) : 36.

Fisher, Black (1971) : *Implication of Random Walk Hypothesis for Portfolio Management;* Financial Analysis Journal, New York : Dryden Press 27(2) : 18-25.

Francis, Jack Clark (1986) : *Investment Analysis and Management;* New York: McGraw - Hill Publication.

Francis, Jack Clark (1990) : *Investment Analysis and Management*; New York: Mc Graw - Hill Publication.

Gitman, Lawrance J. (1988) : *Principles of Management Finance*; New York : Haper Collins College Publisher.

Gupta, C.B. (1978) : *Business Organization and Management*; New Delhi, Anmol Publication.

Haugen, Robert A. (1997) : *Modern Investment Theory*; Fourth Edition, New Jersey : Prentice Hall.

John, Tutle & Heaton (1977) : *Essentials of Modern Investments*; New York: Ronal Press.

Kandel Sharma, Pawan (2002) : *A Study of Liquidity, Corporate Performance and Share Price Behaviour in Nepal*; An Unpublished Master's Degree Dissertation, Central Department of Management, T.U.

Kean, Simon M. (1983) : *Stock Market Efficiency : Theory Evidence and Implication;* New Delhi : Heritage Publishers.

Kothari, C.R. (1990) : *Research Methodology: Methods & Techniques*; New Delhi: Wishwa Prakashan.

Levin, Richard I. & Rubin, David S. (1994) : *Statistics for Management*; New Delhi : Prentice Hall of India Pvt. Ltd.

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

Palat, Raghu (1991) : *Shares for Investment and Wealth: A Guide to Investing Wisely*; New Delhi: India Book Distributor.

Philips, M.J. (1979) : *Financial Structure and Development*; New York : Free Press.

Pokharel, Matrika Babu & Bhurtel, Pratistha (2009) : *In the Overvalued Zone*; New Business Age, Kathmandu : New Business Age Pvt. Ltd., 8(6) : 64-65.

Pokharel, Nabaraj (2007) : *A Deadly Phrase of the Stock Market*; New Business Age, Kathmandu : New Business Age Pvt. Ltd., 6(10): 57.

Poudel, Numnath (2009) : *Bases of Share Investment: A Comparative Analysis*; Mirmire, Kathmandu : Nepal Rastra Bank, 37(282) : 101-108.

Pradhan, Radhe Shyam (2004) : *Financial Management*; Kathmandu : Buddha Academic Publisher & Distributor.

Sharma, B. (2001) : *Nepal's Only Secondary Market in Shambles*; Business Age, Kathmandu : Repsona Publications (P) Ltd, 2(4) : 45.

Shrestha, M.K. (1996) : *Why is Share Market Inactive ? Problems and Measures;* Nepalese Management Journal, Kathmandu, Department of Management, Public Youth Campus, 6(1): 39.

Shrestha, Surya Chandra (1999) : *Stock Price Behaviour in Nepal*; An Unpublished Master Level Thesis, Kathmandu : Central Department of Management, T.U.

Upadhya, Bishnu Dev (2001) : *Stock Price Behaviour in Nepal; MBA Dissertation,* Kathmandu, Central Department of Management, T.U.

Upadhyay, Basu Dev (2001) : *Share Price Behaviour in Nepal;* Unpublished M.B.A. Dissertation, Kathmandu : Central Department of Management, T.U.

Van Horne, James C. (1998) : *Financial Management and Policy*; New Delhi : Prentice - Hall of India Pvt. Ltd.

Verma, Anurag & Rana, Caeser (2006) : *NEPSE: Look Before You Leap!*; The Boss, Kathmandu : Speciality Media Pvt. Ltd., 6(2) : 47.

Others

Annual Reports of Standard Chartered Bank, Fiscal Year 2001/02 to 2007/08

Annual Reports of Nepal Investment Bank, Fiscal Year 2001/02 to 2007/08

Annual Reports of Citizen Investment Trust, Fiscal Year 2001/02 to 2007/08

Annual Reports of Nepal Industrial Development Corporation, Fiscal Year 2001/02 to 2007/08

Annual Reports of Unilever Nepal Limited, Fiscal Year 2001/02 to 2007/08

Annual Reports of Himalayan General Insurance Company, Fiscal Year 2001/02 to 2007/08

Annual Reports of Bishal Bazar Company, Fiscal Year 2001/02 to 2007/08

Annual Reports of Soaltee Hotel Limited, Fiscal Year 2001/02 to 2007/08

NEPSE : Official Price Record Files (2001-2008)

NEPSE News : Market Statistics and Review (Various Issues)

Web Sites

wikipedia.the free encyclopedia (Date of visit : 2009-12-15)

http://www.nepalstock.com (Date of visit : 2009-12-2)

http://www.nrb.org.np. (Date of visit : 2009-12-10)

http://www.sebon.com.np (Date of visit : 2009-12-9)

http://www.nepalnews.com (Date of visit : 2009-12-18)

Soaltee Hotel Ltd.

Calculation of Mean, Standard Deviation & Coefficient of Variation of MPS, EPS, DPS & NW

Year	MPS(X)	EPS(Y)	DPS(Z)	NWPS(A)	x(X-)	
2001/02	92	8.81	5	59.68	-3.29	
2002/03	155	7.06	4	62.73	59.71	
2003/04	130	3.31	34	65.04	34.71	
2004/05	100	-6.85		41.22	4.71	
2005/06	75	-4.35		36.88	-20.29	
2006/07	65	-5.11		31.47	-30.29	
2007/08	50	-10.61		31.47	-45.29	
Total	667	-7.74	43	328.49	-0.03	

Mean: = = 95.29

= -1.11

= 6.14

= 46.93

Year	x^2	y^2	z^2	a^2	xy	
2001/02	10.82	98.41	1.30	162.56	-32.6368	
2002/03	3565.28	66.75	4.58	249.64	487.8307	12
2003/04	1204.78	19.54	776.18	327.97	153.4182	9(
2004/05	22.18	32.95	37.70	32.60	-27.0354	-2
2005/06	411.68	10.50	37.70	101.00	65.7396	12
2006/07	917.48	16.00	37.70	239.01	121.16	18
2007/08	2051.18	90.25	37.70	239.01	430.255	27
Total	8183.43	334.39	932.86	1351.80	1198.73	1

Standard Deviation, =

x	=	34.19
y	=	6.91
z	=	11.54
a	=	13.90

Coefficient of Variation (C.V.) : =

C.V.x	=	35.88
C.V.y	=	-625.08
C.V.z	=	187.93
C.V.a	=	29.61

Correlation Coefficient, r =

Correlation Coefficient between MPS & EPS	r_{xy}	=	0.7247
Correlation Coefficient between MPS & DPS	r_{xz}	=	0.5077
Correlation Coefficient between MPS & NWPS	r_{xa}	=	0.8646

Coefficient of Determination, r^2 :

r_{xy}^2	=	0.5251
r_{xz}^2	=	0.2577
r_{xa}^2	=	0.7475

T-Calculation, t : = r_{xy}

t_{xy}	=	2.3514
t_{xz}	=	1.3177
t_{xa}	=	3.8470

Regression Analysis : Y = a + bX

Y- =

Simple Regression Equation of EPS on MPS :

	95.29	=	3.5849	1.11
or,		=	99.250	3.5849

Simple Regression Equation of DPS on MPS :

	95.29	=	1.5037	-6.14
or,		=	86.049	1.5037

Simple Regression Equation of NWPS on MPS :

	95.29	=	2.1272	-46.93
or,		=	-4.538	2.1272

Annexure - 2

Run Test

Monthly market prices from 16 July 2006 to 15 July 2008

Period	SCB	NIB	NIDC	CIT	HGI	UL	SH	BBC
16 July 06 - 15 Aug 06	1851	1005	169	118	170	1350	68	1400
16 Aug 06 - 15 Sep 06	1765	962	177	133	170	1350	68	1470
16 Sep 06 - 15 Oct 06	1780	985	177	125	187	1350	68	1470
16 Oct 06 - 15 Nov 06	1780	1148	178	126	181	1468	68	1470
16 Nov 06 - 15 Dec 06	1731	1140	190	124	183	1450	68	1470
16 Dec 06 - 15 Jan 07	1730	1000	173	125	181	1500	48	1470
16 Jan 07 - 15 Feb 07	1865	1200	165	122	189	1500	46	1470
16 Feb 07 - 15 Mar 07	1950	1251	165	124	180	1550	46	1544
16 Mar 07 - 15 Apr 07	2120	1340	184	135	180	1630	50	1800
16 Apr 07 - 15 May 07	2090	865	185	142	180	1630	50	1800
16 May 07 - 15 June07	2105	780	199	145	180	1630	50	1942
16 June 07 - 15 July 07	2345	800	200	145	205	1630	50	1925
16 July 07 - 15 Aug 07	2440	850	145	205	205	1932	50	2000
16 Aug 07 - 15 Sep 07	2405	790	145	200	210	2200	50	2152
16 Sep 07 - 15 Oct 07	2355	795	150	200	210	2200	50	2150
16 Oct 07 - 15 Nov 07	2451	829	152	215	215	2200	50	2150
16 Nov 07 - 15 Dec 07	2575	788	187	215	200	1850	51	2150
16 Dec 07 - 15 Jan 08	2685	800	181	210	180	1900	52	2301
16 Jan 08 - 15 Feb 08	2902	930	182	205	171	1900	56	2400
16 Feb 08 - 15 Mar 08	3101	976	180	279	171	2240	60	2280
16 Mar 08 - 15 Apr 08	3145	951	180	292	179	2250	59	2271
16 Apr 08 - 15 May 08	3700	1261	180	278	179	2250	57	2384
16 May 08 - 15 June 08	3600	1175	197	262	180	2401	55	2400
16 June 08 - 15 July 08	3775	1260	208	266	189	2500	57	2400
Median	**2426**	**995**	**177**	**182**	**186**	**1827**	**55**	**1927**

Source: NEPSE Annual Reports

Calculation of run taking N1(b) as below the median value and N2(a) as above the median Value :

SCB : (bbbbbbbbbbbb a bb aaaaaaaaa), so run(r) =4, n_1 =14 and n_2 =10

NIB : (a bb aaaaaa bbbbbbbbbbbb aaa), so run(r)=5, n_1 =14 and n_2 =10

NIDC: (bbb aa bbb aaaa bbbb aaaaaaaa), so run(r)=6, n_1 =10 and n_2 =14

CIT : (bbbbbbbbbbbb aaaaaaaaaaaa), so run(r)=2, n_1 =12 and n_2 =12

HGI : (bb a bbb a bbbb aaaaaa bbbbbb a), so run(r)=8, n_1 =15 and n_2 =9

UL : (bbbbbbbbbbbb aaaaaaaaaaaa), so run(r)=2, n_1 =12 and n_2 =12

SH : (aaaaa bbbbbbbbbbbbb aaaa b a), so run(r)=5, n_1 =14 and n_2 =10

BBC: (bbbbbbbbbb a b aaaaaaaaaaaa), so run(r)=4, n_1 =11 and n_2 =13

Distribution Mean (μ_r) = $\frac{2n_1n_2}{n_1+n_2}+1$

Standard Deviation (s_r) = $2n_1n_2\ \frac{2n_1n_2-n_1-n_2}{(n_1+n_2)^2\ (n_1+n_2-1)}$

z (area under normal curve for the given level of significance)

Upper limit= $\mu_r + z\ s_r$ and

Lower limit= $\mu_r - z\ s_r$

Source: Kothari; 1990: 350

Annexure - 3

Proforma of Strucural Questionnaire : Opinion Suvey of Volatility of Share Price and Investor's Behaviour in Nepal

Name (Optional) .....

Position .....

Institution .....

How far do you agree/disagree with the following statements (Please tick mark at appropriate option as your view)

I. Earning of company is the main cause that has significant contribution for volatility of share price in Nepalese stock market:

1. Totally Disagree ( )
2. Disagree ( )
3. Slightly Disagree ( )
4. Agree ( )
5. Totally Agree ( )

II. Demand and Supply of shares is the main cause that has significant contribution for volatility of share price in Nepalese stock market:

1. Totally Disagree ( )
2. Disagree ( )
3. Slightly Disagree ( )
4. Agree ( )
5. Totally Agree ( )

III. Nepal Rastra Bank's Guideline is the main cause that has significant contribution for volatility of share price in Nepalese stock market:

1. Totally Disagree ( )
2. Disagree ( )
3. Slightly Disagree ( )

4. Agree ( )
5. Totally Agree ( )

IV. Time of Annual General Meeting (AGM) is the main cause that has significant contribution for volatility of share price in Nepalese stock market:

1. Totally Disagree ( )
2. Disagree ( )
3. Slightly Disagree ( )
4. Agree ( )
5. Totally Agree ( )

V. Price Trend of Nepal Stock Exchange is the main cause that has significant contribution for volatility of share price in Nepalese stock market:

1. Totally Disagree ( )
2. Disagree ( )
3. Slightly Disagree ( )
4. Agree ( )
5. Totally Agree ( )

VI. Information regarding the company is the main cause that has significant contribution for volatility of share price in Nepalese stock market:

1. Totally Disagree ( )
2. Disagree ( )
3. Slightly Disagree ( )
4. Agree ( )
5. Totally Agree ( )

VII. New worth of the company is the main cause that has significant contribution for volatility of share price in Nepalese stock market:

1. Totally Disagree ( )
2. Disagree ( )
3. Slightly Disagree ( )
4. Agree ( )
5. Totally Agree ( )

VIII. Political stability in the country is the main cause that has significant contribution for volatility of share price in Nepalese stock market:

1. Totally Disagree ( )
2. Disagree ( )
3. Slightly Disagree ( )
4. Agree ( )
5. Totally Agree ( )

IX. Bonus share for the shareholder is the main cause that has significant contribution for volatility of share price in Nepalese stock market:

1. Totally Disagree ( )
2. Disagree ( )
3. Slightly Disagree ( )
4. Agree ( )
5. Totally Agree ( )

Thank you.

Annexure - 4

List of Cases collected from respondents

Case / Respondents	Earning	Demand & Supply	Nepal Rastra Bank's Guidelines	Time of AGM	Price Trend	Infor-mation	Net Worth	Political Stability	Bonus Share
1.	5	1	5	1	4	3	5	4	2
2.	5	2	4	2	2	2	2	2	2
3.	3	3	5	3	3	3	3	3	3
4.	4	4	5	4	4	4	4	4	4
5.	2	2	5	2	2	2	2	2	2
6.	3	3	5	3	3	3	3	3	3
7.	5	5	5	5	5	5	5	5	5
8.	3	3	4	3	3	3	3	3	3
9.	4	5	5	5	5	5	5	5	2
10.	5	4	5	4	5	3	4	4	3
11.	4	4	5	4	4	4	4	4	4
12.	3	3	4	3	3	3	3	3	3
13.	5	5	5	5	5	5	5	5	5
14.	4	4	4	4	4	4	4	4	4
15.	2	2	5	2	2	2	2	2	2
16.	3	3	5	3	3	3	3	3	3
17.	4	1	5	1	5	4	5	2	2
18.	4	4	5	4	4	4	4	4	4
19.	4	4	5	4	4	4	4	4	4
20.	2	2	5	2	2	3	2	2	2
21.	3	3	5	3	3	3	3	3	3
22.	2	2	4	2	2	2	2	2	2
23.	5	2	4	3	5	5	4	2	4
24.	5	5	5	5	5	5	5	5	5
25.	4	4	5	4	4	4	4	4	4
26.	5	1	5	1	5	5	4	2	4
27.	2	2	5	2	2	2	2	2	2
28.	3	3	5	3	3	3	3	3	3
29.	4	4	5	4	4	4	4	4	4
30.	2	2	4	2	2	2	2	2	2
31.	5	3	4	3	3	3	3	3	3
32.	5	5	5	5	5	5	5	5	5
33.	3	3	4	3	3	3	3	3	3
34.	5	4	4	3	5	5	4	2	4
35.	5	4	5	2	4	5	3	5	4
36.	4	4	5	4	4	4	4	4	4
37.	3	3	5	3	3	3	3	3	3

38.	5	5	4	5	5	5	5	5	5
39.	4	4	5	4	4	4	4	4	4
40.	2	2	5	2	2	2	2	2	2
41.	3	3	5	3	3	3	3	3	3
42.	4	4	5	1	5	3	4	2	2
43.	4	4	4	4	4	4	4	4	4
44.	4	4	5	4	4	4	4	4	4
45.	2	2	5	2	2	2	2	2	2
46.	3	3	4	3	3	3	3	3	3
47.	4	2	5	2	2	2	2	2	2
48.	4	2	5	5	5	5	3	3	3
49.	5	5	5	5	5	5	5	5	5
50.	4	4	5	4	4	4	4	4	4
Total No.	50	50	50	50	50	50	50	50	50
Mean	3.74	3.24	4.74	3.20	3.64	3.56	3.50	3.30	3.20
Sandard Deviation	1.0724	1.3024	0.1924	1.4	1.1904	1.0864	1.01	1.13	1.00