

# CHAPTER-ONE

## INTRODUCTION

### 1.1 General Background

Stock market is the place where shares of the listed companies are traded or transferred from one hand to another at a fair price through the organized system.

Capital market is an important intermediary through which effecting budgeting of the deficit units for productive investment are made available. Capital market can be decomposed into securities market and non -securities. Stock market is a major component of securities market. (Mahat, 1979 )

Stock market is the medium through which corporate sector funds to finance productive project by issuing shares in the market. Similarly stock market provides the best investment opportunities to the investor. Thus, the effective collection of small amounts of saving and transferring funds into the competitive and efficient uses requires a well functioning capital market to facilitate the process. (Mahat, 1981)

The stock market also imparts liquidity to the security holders. This offers an opportunity for investor to invest in the long term venture, while market also enables them to convert their securities into the liquid cash before the maturity of the projects. Furthermore they can invest their current income thereby achieve their time preference of consumption. The liquid stock market also promotes the primary issuance of the share market, for which they can back the funds easily.

In the absence of developed securities market in Nepal, the government has sole issuing authority of development bonds and national saving certificates. Therefore the securities generally floated in market were mainly the government securities. Nepal Rastra Bank as the central bank is responsible to mobilize recourses, on behalf of t745he government to

finance development activities and manage the public debt under the public debt act. Accordingly Nepal Rastrya Bank has been managing the issue of short- term Treasury bill to time. Ninth one day Treasury bill of Rs.7m were issued for the first time during June/July 1962. The government floated six percent development bond of Rs.13.1m with a maturity of the five years for the first time on February 12, 1964. In 1965, three compensation bonus with maturity periods of 10 years issued for the actuation of private forest. Non-interest bearing prize bonds of Rs.661 thousands were also issued to individual's in1969. Nepal Rastrya Bank makes arrangement for the issue, register, purchase and sale transfer of ownership and redemption of government bonds and debenture. Therefore, government securities are fully traded under the management and supervision of Nepal Rastrya Bank. (Security Board, Nepal, 2003 )

Security market exit in order to bring together buyers and sellers of securities, meaning that they are mechanism created to facilitate the exchange of financial assets. There are many ways in which security market can be distinguished. One way primary and secondary markets. Here the key distinction is whether or not the securities are being offered for sale by the issuer. Interestingly, the primary market itself can be subdivided into seasoned and unseasoned new issues. A seasoned new issue refers to the offering of an additional amount of already existing security, whereas an unseasoned new issue involves the initial offering of a security to the public. Unseasoned new issues are often referred to as initial public offering, or ipo's.

Another way of distinguishing between security markets considers the life span of financial assets. Money market typically involve financial assets that have life span of one year or less, where as capital markets typically involve financial assets that have life span of grater than one year.

The efficient market theory makes statements about what information is reflected in security prices. The efficient markets theory can be broken down into the following hypotheses.

1. The weakly efficient market hypotheses states that security prices reflect all historical information
2. The semi-strong efficient market hypotheses stipulate that all public information has its effect on market prices.
3. The strongly efficient market hypotheses require that security prices reflect all information. If the markets are strongly efficient even those who possess inside information would not have investment information of any value.

(Sharpe, Williams, F. Gordon, J. Alexander and Jeffery V. Bailey)

Industrial development of securities market in Nepal started from the year 1976 when securities exchange center was established under the company act with the joint capital contribution of Nepal Rastra Bank and Nepal industrial development corporation. The securities exchange centre ltd was meant to facilitate and promote capital market, and to broker, underwrite, manage public issue, create market for government bonds and other financial services. All this was, before it was converted into Nepal Stock Exchange in 1993 to further streamline capital market. Currently Nepal Stock Exchange has the responsibility of imparting free marketability and liquidity to government and corporate securities by facilitating transactions in its trading floor through market intermediaries such as broker, market maker. Etc. (NEPSE" Trading Report" )

In the last fiscal year, total listed companies in Nepal Stock Exchange Ltd were 125, which have increased to 135 at the end of the fiscal year 2005/06. The price index of the listed securities in Nepal Stock Exchange

Limited ( NEPSE Index ) closed at 386.83 points in the fiscal year 2005/06. It is 100.16 points higher than that of last fiscal year's index.

Security Board of Nepal (SEBON) drafted the securities Board of Nepal Regulation, Stock Exchange Regulation, Broker/ Dealer Regulation and the securities Registration Regulation for the implantation of the new securities act, 2006

Currently, in the context when the country is heading towards peace and stability, SEBON is focusing on improving corporate governance, improving policy procedure to make securities markets more attractive to private and closely- held corporate housed, enhancing professionalism of securities business person and developing a clear regulation for merchant banking business. The other prioritize work of the SEBON include increasing market access to the investor by upgrading market services, promoting debt market by developing a clear regulation for debenture trustee, introducing necessary provisions for the transferability if rights and developing required regulation for the mutual funds.

The behavior of stock prices series has been always a subject matter of controversial debate to the extreme extent among the academic of financial and economic circles. The behavior of past prices variation in the general market for securities will or will not meaningful information forecasting the future behavior of price variation. Moreover there are various factors that affect the market price of the stock. Signaling effects, low income of the investor and high price of the stock. There is a close relationship between the price and volume of the stock i.e. high price low volume and vice- versa.

Though price of the stock is determined by the demand and supply in the secondary market, the main focus of the study is to test whether the successive prices changes of the securities are dependent or independent (whether there is significant difference between NEPSE index before and after the various event or not)

## 1.2 Statement of the Problem

Stock market in Nepal, till the recent past had all the characteristics of an underdeveloped economy. It was characterized by the absence of professional promoters, underwriting agencies, market intermediaries, organized market, regulatory bodies and rules and regulations. However, after the restoration of democracy in 1990 and 2006, a trend towards an organized stock market can be marked with numerous developments in the Nepalese securities market removing its earlier deficiencies.

Due to the lack the lack of proper government policy, home- war in the country, the prices of securities especially common stock has been rapidly declining. Stock market is perhaps poorly understood among the Nepalese investor. Its development remains almost impossible unless the people accept it as a way of their life. For this, first of all they have to know what stock market is, and how it functions. But such questionnaires are almost unanswered. Yet, the price information system in NEPSE is not understood by most of them. If it is not understood, it can not attract the interest of the investor. As a result, it is natural for the investor to seek investment opportunities in the fields other than securities. The Nepalese stock market is characterized by a low trading volume, absence of professional brokers, early stage of growth, limited movement of share price and limited to investors. Due to this reality, in Nepal, a large amounts of funds is poured into non- productive sectors line house constructions, jewelry collections etc

There has been also more suitable problem involving misuse of insider information and growing tendency of frauds in securities transaction. Thus market disorder, price manipulation and fraudulent share market activities all taken together have resulted the present bearish market in the country. However the stock market in Nepal is in infancy stage. These problems can be solved only when the real determinant of the stock prices diagnosed and identified. Thus the present study is carried

out to analysis the stock price fluctuations in Nepalese securities market and recommend for the improvement in the development of Nepalese stock market.

The main issues or problems in Nepalese stock market can be listed as follows.

- ) Centralized stock exchange located in Katmandu valley.
- ) lack of motivational factor such as tax benefit, special concession etc to the investors
- ) Low trading volume of the stock.
- ) Lack of proper information to the investors.
- ) High fluctuations in stock prices
- ) Slow privatization process.
- ) lack of proper management in corporate level
- ) Unavoidable circumstances like Nepal Banda, Nakabandhi, etc in the country declared by various parties like different Maoist organization, political parties, minor interest group etc
- ) Government instability and its poor policy.

### **1.3 Objective of the Study**

The main objectives of the study to analyze and examine the fluctuations of the stock prices in the security market. However, the specific objectives of the study are listed below.

- I. To analyze the stock price trend and volume of stock traded on the Nepal stock exchange
- II. To analyze the investors views regarding to the investments in Nepalese stock market.
- III. To examine the signaling factors impact on stock price with the help of NEPSE index.

## **1.4 Significance of the Study**

Stock price in the secondary market is the main issues of the study. The prices of the study are largely influenced by the various market related factors. Therefore, here the studies are made upon the various related factors that are the major causes of the fluctuations of the stock prices

The significance of the study can be pointed as follows:

The study helps to the people who are curious to know about the price trend of the stock, volume of the stock traded, listed of the new companies in the secondary market (NEPSE) and the impact of signaling factors on NEPSE index etc.

- I. The study is helpful to the issues managers, stock brokers, securities dealers and the market makers in Nepal.
- II. With respect to change in financial positions of the firms the study is helpful to know about the movements so share prices of the corporate firms.

## **1.5 Limitations of the Study**

The studies on the fluctuation of stock market prices in Nepalese securities market have been conducted on the following limitations and constraints.

The secondary data is taken only the periods of fifteen years.

- I. The research is based upon the data provided by the NEPSE and those data are not verified by the experts.
- II. Only the common stock or ordinary shares are taken for the purpose of the study.
- III. Stock price trend is seen only with the help of NEPSE index.

- IV. The study is based only on the stock market in Nepal.
- V. Budget limitation.
- VI. This is not further study it means this study is only for the partial fulfillment of requirements of degree of masters of studies (M.B.S).

## **1.6 Organization of the Study**

The study is divided into five chapters. They are as follows:

Chapter 1: Introduction

Chapter 2: Literature Review

Chapter 3: Research Methodology

Chapter 4: Presentation and Analysis of data

Chapter 5: Summary, Conclusion and Recommendations

Introduction chapter consists with the general background of the study. Focus of the study and organization of the study

The secondary chapter, literature Review, contains the conceptual framework and past research literature on the behavior of the stock market prices

The third chapter, Research methodology deals with the carry out of the empirical test. The study consist of research design, sources of data, data gathering procedures, population and sample, research variables and data gathering procedures.

The fourth chapter, Presentation and analysis of data deal with presentation, analysis and interpretations of data.

The last chapter covers with the summary, conclusions and recommendations for the further research.

Bibliography and appendix will be attached at the end of the study.



## **CHAPTER-TWO**

### **REVIEW OF LITERATURE**

In this chapter some of the basic literatures on the stock price fluctuation are review. It includes literatures regarding theories on the topic and review of the empirical evidences of previous studies done with in and out side the country.

The literature review chapter includes:

- 2.1 Conceptual Review
- 2.2 Review of Legal Provision of HMG/N
- 2.3 Review of Articles and Journal
- 2.4 Review of Thesis

#### **2.1 Conceptual Review**

The stock markets growth and regulation is not so old in Nepalese security market. Currently most of the Investment sectors are Influencing from the world wide globalization and liberalization. The incident in one corner of the world brings the change in the whole world. For example we can take the terriers attack on the world trade centre of America on September 11, 2001 America's attack to Iraq etc. Which are affected in the world wide Investment sector.

##### **2.1.1 Common Stock**

Common stock is the basic form of ownership in a company. People who hold common stock have a claim on the assets of a firm after those of preformed stockholder and bond holders ([www.greekshares.com](http://www.greekshares.com)).

Common stockholders of a corporation are its residual owners. Their claim to income and assets comes after creditors and preferred stockholders have been paid in full. As a result, a stockholder's return on investments is less certain than the return to a lender or to a preferred stockholder. On the other hand, the return to a common stockholder is not bounded on the upside as are returns to the others. A share of common stock can be authorized either with or without par value. The par value of stock is merely a stated figure in the corporate charter and is of little economic significance. A company should not issue stock at a price less than par value, because a stockholder who bought stock for less than par value would be liable for the difference between the price they paid and the par value (Francis and van Horne: 1997, p. 85).

The founder of a corporation obtains a corporate character from the state, has shares of common stock printed and sells the shares to as many different people as they wish in order to raise the capital to start the new business. Thus, common stock is always the first security issued by every new corporation (Francis 1983: p. 37).

Common stockholders have a residual claim on the earnings and assets of their corporation. This means that the law requires a corporation first to pay employees' wages, suppliers' bills, and loan holders' interest. Then, after all other bills are paid, the common stockholders share in whatever earnings or losses are left. Also, if the corporation comes to its demise in bankruptcy, the law says that all bills must be paid before common stockholders are free to divide up whatever assets remain, if any, from the bankrupt operation.

Common stockholders enjoy certain advantages from their investment. First, they enjoy limited liability; that is, if the corporation goes bankrupt

and does not have enough assets to pay all of its bills, the common stock owners cannot be forced to participate in the payment of unpaid bills. Second, stockholders enjoy unlimited participation in the firm's profit if earning becomes highly lucrative. Third, shares of common stock are marketable securities designed to be bought and sold with care. Finally, only common stockowners are entitled to vote at the stockholders meeting of the corporation. Thus stockholder have a voice in management.

### **A) Common stock values**

**(I) Par value:** Francis 1483, Pare value is the face value of a share of stock. It was originally used to guarantee that the corporation receives a fair price for the value of the firm represented by a share of stock. Another reason for the creation of par values was to keep stockholders with friends in the corporation from getting share at low price while other buyers of identical shares have to pay more. Selling share at reduced prices to friends in a form of price discrimination against may potential investor (P. 40).

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

**(ii) Book value:** Francis1983, Book value per share can be calculated by adding the common stock's total value (or par value plus paid-in surplus plus retained-Earring accounts) in the net worth section of the balance sheet and then dividing by the number of share of common

stock outstanding. Book value gives a picture of the assets of the corporation, but it has no real relation to stock price. Companies sometimes find their common stock selling for price far different from book value (P. 40).

**(iii) Market value:** Cheney and Mosses 1995, Market value in the secondary market is determined by the demand and supply factors and reflects the consensus opinion of investors and traders concerning the "value" of the stock. The market value is influenced by many factors including Economic and industry conditions, expected earnings, dividends and market and Company risk consideration (p. 417-418).

#### **B) Classification of the common stock on the basis of their features**

**(i) "Blue chip stock":** Stocks of very large, well-established corporations have been dominant positions strong balance sheets and sizes are called blue-chip stocks.

**(ii) Growth stocks:** Stocks whose price grows with the growth of corporations Earnings and dividend with a comparatively higher growth than the Average price appreciation.

**(iii) Income stock:** Stocks having stable cash dividend record are often called as income stocks.

**(iv) Cyclical and Defensive stocks:** Stocks, which are influenced by Economic and Industrial cycles are called cyclical stocks whereas stocks which are less susceptible to Economic cycles, are called defensive stocks.

**(v) Speculative stocks:** Stocks, which are viewed by investors with some speculative motives, are called speculative stocks.

**(vi) Small stocks:** Stocks depending upon the capitalization norms are generally known as small or even blue chip stocks.

**(vii) Treasury stocks:** If a corporation decides to buy back its own stock, the acquired stocks are called treasury stocks. (Cheney and mosses: 1995, p. 419-422)

### **C) Characteristics of common stocks**

**(i) "Voting right or control":** Common stock is voting stock. The power to vote for the board of directors and for against major issue (such as mergers or an expansions in to new product lines) belongs to the common shareholders because they are the owners of the corporation.

**(ii) Preemptive rights:** The preemptive right allows stockholders to subscribe to any new issue of stock so that they can maintain their previous fraction of the total number of shares sold (usually called the "outstanding shares"). Some states automatically make the preemptive right a part of every corporate character in others its inclusion as part of the character is optional to grant the preemptive right is to recognize that stockholders are part owners of corporations and as such should have an interest in Earning and assets and a voice in management proportionate to the fraction of voting shares they own.

Francis 1983, The preemptive right, if exercised prevents the dilution of ownership control inherent in additional stock shares. Thus, the preemptive right, if exercised, guarantees the investor's undiluted maintenance of voting control, share in earning and share in assets (P.39).

**(iii) Right to income and distribution of other share:** Cheney and Mosses, 1995, As a matter of fact, shareholders have no right to receive income distribution from the computation. As practice prevails, BOD declares cash dividends if enough financial resources are available. The dividend can be cash dividends, stock dividends, property dividends, etc. (P. 415).

### **2.1.2 Behavior of stock Price Fluctuation**

There are three approaches to explain the behavior's of stock market prices. They are technical analysis, fundamental analysis and efficient market theory. Technical and fundamental analyses are related to the conventional approach where efficient market hypothesis is best on contrary approach. However all theories explain with the behavior of stock market price.

#### **A) Technical analysis theory**

Technical theory involves study of the past volume and price data of the stock to predict future price fluctuation. This approach studies various graphs and charts of the past share price and deduce from the analysis about the future price fluctuation, seeking to interpret past pattern on the assumption that history trends to repeat itself (Kean, 1983).

Main Assumption of the technical theories are: (Levy, 1966)

- i) Price is determined by the interaction of demand and supply.
- ii) Demand and supplies are governed by various factors both rational and irrational.

- iii) Series of price trends that persist for appreciable length of time.
- iv) The changes in trend caused by shifts in demand and supply are detectible in the analysis of past price and volume data, and
- v) The pattern trend to repeat itself.

Sharpe and Alexander 1990, Technical analysis describes past pattern or trend which they believe to repeat in the future and recommended for the timely holding and disposing mechanism which is profitable or that recommended for short term speculation based in its forecast of profitable patterns "The technicians usually attempts on predict short-term price movements and thus makes recommendations concerning the timely of purchase and sales of either specific stocks or group of stocks" (P. 144)

**(ii) Fundamental analysis**

Sharpe, Alexander and Bailey 1998, In the fundamental approach, the security analysis prospective Investor's is primarily interested in analyzing factors such as economics influences, industry factors and pertinent company Information such as product demand, earning dividends and management in order to calculate an intrinsic value for the firm's securities. He reaches an Investment decision by comparing this value with the current market price of the security. The fundamentalist tends to look forward. He is concerned with such as matters as future earning and dividends. It is sometimes said that fundamental analysis is designed to answer the questions "what?" (P. 844) Fundamental analysis theory claims that at any point of time an individuals stock has an intrinsic value, which is equal to the present value of the cash flows from the security discounted at appropriate risk

adjusted discount rate. The value of common stock is simply the present value of all the future income which the owners of the share will receive (Francis .1991 P. 398). And the actual price should reflect intrinsic value. But in practice, first it is not known in advance what a stocks income will be in each future period, and second it is not clear what the appropriate discount state should be for a particular stock. So, fundamentalist attempt to reach the best estimate of intrinsic value of share by studying company's sales, profit, dividend management competency, and numerous other economics and industrial factors, which determine its future income and prospect of the business opportunities (Francis: 1991, p.425).

On the basis of such a study fundamentalist project a company's future profit earning capacity with a reasonable accuracy what the price of a company's share ought to be. This estimated price is termed as intrinsic value. The intrinsic value of stock is generally away from its present market value. Thus there is difference or gap between them. Fundamentalist reaches and investment decision by comparing this value with current market value, it is believed that price will rise. In this situation, fundamentalist will acquire shares as this difference present them with an opportunity to make a profit. Alternatively, if the intrinsic value is the lowest then the market value, the share is over priced and is an indication to the fundamentalist to sell. Following this role, they believe, above average returned can be attained, given that marked is in efficient in pricing the shares (Dahal: 2002, P.27).

About this approach Yasaway N.J. write in his book "Equity Investment Strategy" by nature the fundamentalist is conservative in approach and is generally on willing to take a quick loss he would refer adopt a buy



and hold policy. Therefore fundamental analysis allows that analyst to forecast holding-period yield and risky ness of achieving that yield, but these figures alone do not necessary prompt a buy or sale action.

**Technical analysis or fundamental analysis:**

Sharpe, Alexander and Bailey 1998, the two theories explained above have assumed that the pricing of the shares in the market is not efficient. Therefore, while making investment decision, technical analysis theory suggests for the right time of purchasing and selling where as fundamental analysis theory recommends for the selection of appropriate stocks. It is sometimes said that fundamental analysis is designed to answer the questions what? And technical analysis to answer the question 'when' (P.844).

Technical analysis and fundamental analysis are an in efficient theory based on conventional approach where technical analysis theory based on the right time of purchasing and selling where fundamental analysis theory is based on the selection of the appropriate stocks.

Security prices are not controlled by one buyer or seller, there are many independent buyers and sellers. Most security trader is not powerful enough to affect prices significantly. The few investment institutions that are large enough to do so are restrained by law from manipulating prices (Although they do sometimes temporarily affect prices by their actions).

There are many independent source of opinion about the security prices. Fundamental analyst and technical analyst have expectations and use techniques that are very different from one another. Thus often

some called expert will predict price rises for security that other so called expert consider overvalued.

Economist and fundamental analyst who test various tools of technical analyst are essentially testing security price to see if they equal intrinsic values. The problem is that it is impossible to tell exactly what is the intrinsic value of common stock is, because different fundamental analyst develop different estimates of the intrinsic value of a stock. Thus, there is no generally accepted observable value to compare to the stock's market price. As a result, technical analysis is subjected to indirect tests.

The indirect test used to assess technical analysis are based on the notion that stock price should fluctuate randomly. That is the stock market mechanism described above proposes that the intrinsic of stock changes whenever news about it becomes known. If the stock market is in continuous equilibrium then the stock's market price equal its intrinsic value, and they should fluctuate together. Technical analyst, however, claim that stock prices do not fluctuate in this way. the chartist search for and claim they find, patterns of price fluctuations patterns that repeat themselves and that can be used in forecasting stated differently, technical analysis is based on a belief in trends and patterns in stock price such that price fluctuate in efficiently away from them randomly fluctuating intrinsic values. Looking at stock market prices to see whether they fluctuate in discernible patterns is not only a test of the worth of technical analysis, but can also be a test of the hypothesis that price fluctuate randomly in continuous equilibrium.

If stock price did not fluctuate efficiently with their intrinsic values, fundamental analysis would be an unprofitable activity. That is the hay,

should an investor bother to estimate a stock's intrinsic value of the stock's market price fluctuates inefficiently away from its values (Francis: 1997, p.463-464).

**(iii) Efficiently market hypothesis:** The term efficiently may be defined in various ways a locative efficiently, operational efficiency and informational efficiency.

A market is allocation ally efficient when rates of return adjusted for risk are equated at the margin for all investment. A market is operationally efficient when investment funds can be transferred at minimum cost. Capital market efficiency exists when prices reflect all available information. Efficient market implies that all relevant information regarding a given stock is reflected in its current market price (Weston & Copeland: 1992, P. 94).

The efficient market hypothesis states that any given time security prices full reflects all available information. The implication of the efficient market hypothesis are true profound. Most individuals that buy all sell securities ( stocks in particular), Do so under the assumption that the securities they are buying are worth then the price that they are paying, while, securities that they are selling are worth less then selling price. But if market are efficient and current prices fully reflect all information, then buying and selling securities in an attempt to outperform the market will effectively be a game of chance rather then skill ([www.investorhome.com](http://www.investorhome.com)).

The efficient market hypothesis endued in the 1960's from the Ph.D. Dissertation of Eugene Fama. Fama persuasively made the argument that in an active market that includes many well informed and

intelligent investors, securities will be appropriately priced and reflect all available information. If a market is efficient, no information or analysis can be expected to result in out performance of an appropriate benchmark.

According to Fama "an efficient" market is defined as a market where there are large number of rational profit maximize actively competing with each trying to predict future market values of individuals securities and where important current information is almost freely available to all participant. In an efficient market, competition among the many intelligent participant leads to situation where at any point in time, actual prices of individuals securities already reflect the effect of information based both an events that have already occurred and event which as of now, the market expect to take in place in future. In other words, in an efficient market at any points in time the actual price of security will be a good estimate of its intrinsic value" ([www.investorhome.com](http://www.investorhome.com)).

According to Robert C. Higgins, *Analysis for financial management* (3<sup>rd</sup> edition 1992) "market efficient is a description of how price in competitive market responds to new information. The arrival of new information to a competitive market can be linked to the arrival of Lamb chop to school of flesh-eating piranha, where investor are-plausibly enough - the piranha. The instant the Lamb chop hits the water there is turmoil as the fish devour the meat. Very soon the meat is gone, leaving only the worthless bone behind and the water returns to normal. Similarly, when new information reaches a competitive market there is much turmoil as investors buy and sell securities in response to the news, causing price to change. Once price adjust all that is left of the

information is the worthless bone. No amount of gnawing on the bone will yield any more meat and no further study of old information will yield and more valuable intelligent (www. Investorhome.com).

When test of the efficient market hypothesis are carried out, securities market are tested for varying degrees of efficiency. First, the weakly efficient market hypothesis is examined. The weakly efficient market hypothesis says that historical stock price and volume data for securities contain no information that can be used to earn or trading profit above what could be attained with a naive buy and hold investment strategy. This suggests that technical analysis is worthless. The stock market data support the hypothesis.

Also examined by the semi-strong efficient market hypothesis, which says that markets are efficient enough for prices to reflect all publicly available information. Consequently only a few insiders, trading on short run price changes, can earn a profit larger than what could be earned by using a naive buy & hold strategy securities market in the u.s. are probably semi-strong efficient.

Finally, the "strong efficient" market hypothesis is examined; it claims that no one can consistently earn a profit larger than what could be earned with a naive buy - and - hold strategy. The reasons is that no one has monopolies profit making are found that violate this hypothesis (Francis: 1983, P.164-465).

Above three hypotheses are not mutually exclusive or the three hypotheses about pricing efficiency overlap. They differ only in the degree of market of efficiency.

Generally efficient market theory believes that the stock market price in the market is always comparative. It means stock price is neither overvalued nor under-valued. That is a stock price is correctly valued.

**(iv) Theory of weakly efficient market or random walk hypothesis (RWH) :** The weak form of efficient market hypothesis (EMH) states that current prices fully reflect in information contained in the historical price movements. According to Kean (1983). "The market is efficient in the weak sense if share price fully reflect the information implied by all prior price movements. Price movements in effects are totally independent of previous movements implying the absence of any price patterns with prophetic significance". So, the past prices have no meaningful information to predict future course of price fluctuations, which can be used to earn above average return, the movement of future prices are independent from previous prices or the series of price changes are random phenomenon. Actually, the weak form of EMH is referred to as random walk theory of share price behaviors". Weak form efficient market hypothesis is popularly known as the random walk theory. (Fisher and pardon: 1995). Random walk theory implies the future path of price level of security is no more predictable than the path of series of cumulated random numbers. The series of price margin has no memory that is the past can't be used to predict the future in any meaning full way. It means that current size and direction of price changes is independent and unbiased out come of previous price changes. The random walk models in intrinsic form an two main hypothesis state that (i) successive price change is independent and (ii) The price change confirm some probability distribution (Fama: 1965). Statistically independence means the probability of distribution for the price change during the time period (t) is independent from the

sequence of price changes during previous time periods more precisely in algebraic term.

$$\Pr(X_t = x | X_{t-1}, X_{t-2}) = \Pr(X_t = x)$$

"Where the term on the left-side of equation is the conditional probability that price change during the time will take the value of  $x$ , conditional on the knowledge, the previous price change too the value  $x_{t-1}, x_{t-2}$  etc. But the term on the right of the equality is the unconditional probability that the price change during  $t$  will take the value  $x$ . The expression means the distributions of an independent random variable are identical" (Gupta: 1983).

Out of two hypotheses of random walk theory, independence of successive price changes is strong and most important one to make theory valid. The second one is price change conform to some probability distribution but its shape or form of distribution need not be specified i.e. any distribution is consistent with theory as long as it correctly characterized the process generating the price change (Fama: 1965). However the parameter of the distribution should be stationary but not so strongly imposed if independence hypothesis is hold true. However, still the form of distribution of price change is important from investment decision, academic and research point of view.

Proponent of random walk recognizes that in general, perfect independence assumption doesn't exist in real world. So, they argue that for practical purpose small degree of dependence doesn't isolate random walk hypothesis as long as it cannot be used to forecast future to earn more than average market return. Random walk model is valid as long as knowledge of the past behavior of the series of price changes

can't be used to increase expected gains (Fama: 1965). That is, for practical purpose, independence hypothesis is accepted as long as the degree of dependence considered in the series of price changes is not sufficient to forecast the future from the historical price movement in a way it makes higher profit than they would be under the naive buy - and - hold policy.

Actually, market mechanism established the existence of random walk theory that successive price change to be independent. The stock market poses steady in flow of information that influence the set of anticipation of the individuals. There are some information that have whole market wide impact such as change in monetary and fiscal policy on security prices and information have an effect such as change in government tax policy or specific industry. There is information such as announcement of earning and divided that affect price of the particular security. the change in the set anticipation resulted from the either of the above information is unique to each individuals and may be caused by psychological and other factors, which motivate than to bid on prices of the securities in market. There are another groups of participant who estimate the intrinsic value of the individuals securities from the received information. As Fama (1965) advocates, "the existence of intrinsic value for individual securities is not consistent with random walk hypothesis.

The intrinsic value of given securities depends on earning prospects of the company which is turn are related to economic, political, industrial and company's specific factors. At many point of time, there exist implicit on intrinsic value of each share but in the world of uncertainty the intrinsic value are not known exactly. Therefore, there can be



disagreement among the participants about the estimated intrinsic value of the share and actual price differs from its intrinsic values. Over the time, the intrinsic value itself changes, as new information appears that affects the prospects of company. New information may be about de-regulation in the quota system on the efficiency licensing, a change in management success in research and development and tariff imposed in the raw materials etc. It studies inflow of various type of information. (i.e. pessimistic, optimistic, and so on) arise independently across the time and it participant do not show participant tendency about the intrinsic value the subsequent prices in stocks will be independent. However, in the real world these conditions always do not hold true. True may be dependencies in the re-action of participant towards the estimates of new intrinsic value or statistical tendency. For exchange certain individuals or intuition's action on new anticipation of value may induce many other people. This reinforcing behavior leads to deviate the anticipation value for below and above from the true values which resulted on hindered dependencies in subsequent price changes. In these situations we can assume that there exist many sophisticated traders of two types.

) Traders having much better capacity to predict the appearance of new information and estimation of its effects on intrinsic values than others generally named superior intrinsic values analysis.

) Kean1983, Traders having much better skill at doing statistical analysis of price behaviors named technical analysis. The sophisticated traders can recognize the situation where the price of stock is beginning to run up or down from its intrinsic value because of inappropriately under or over discounting of information and its adjustment in the

securities prices. This situation provides them incentive for speculation in the market because the price expected to more eventually to its intrinsic value. Thus the existence of profit maximization strategy of these sophistication trader's lead to neutralize the dependence in the price changes and the price change follow to independence of successive price change.

Of course in the uncertain world, sophisticated traders cannot always estimate intrinsic value exactly and their efforts towards erasing the dependencies may not be sufficient. In this case sophisticated chartists can reinforce the neutralizing mechanism, because as long as there are important dependencies they can easily discern the 'trade' and 'patterns' and initiate value maximization strategy over the time the infusion of the new information in the market max move dependently which will tend to create dependence in the successive price change of the security. For example, optimistic information tends to follow more often by optimistic information and pessimistic news tend to be more often followed by pessimistic news than good news. In this case also the sophisticated traders eventually learn that it is profitable for them to estimate price change of current new information and subsequence dependence of the same information. And through their active speculation dependence in price series and establish independence assumption of the random walk theory of stock market price behavior.

## 2.2 Review of Legal Provision of HMG/N

### HMGIN policies and programmers:

HMG/N after adopting liberalized economic policy has been initiating different programs for the organized development security market. In this context, during the eight five years plan (1992-1997) some infrastructures regarding the securities market regulation were prepared. In the ninth five years plan period

(1997-2002) efforts were made to develop an organized and credible market. While implementing the programs of the ninth five years plan, HMG\N through the budget speech of 2000\01, announced the programs to amend securities exchange act, initiate necessary steps to bring wider participation in the stock exchange and make its operation more transparent. Similarly, the budget speech has also included the program to take legal action against those listed companies, not publishing and submitting their audited financial statement last two years. Accordingly, 25 companies were de-listed for not publishing their financial statement and not paying annual listing fees to the stock exchange. However, other programs like amendment of securities exchange act, standardizing stock exchange etc. Which were perceived to be more important for the securities market development, could not move ahead concretely.

In the fiscal year 2001/02, HMG\N came with the 10<sup>th</sup> five year plan (2002-2007), which among others also includes various programs for security market development. The objective of security market development program is to increase public ownership in the development projects operated by private sectors and promote industries

by supplying financial resources through securities as well as increase employment opportunities and fulfill the capital requirement to the development projects operated by HMG/N, government enterprises and municipalities issuing debentures in the securities market there by reducing foreign loan. To meet these objectives, it has taken the policy of modernizing stock exchange act, strengthen the regulatory system of the securities market, widening the participation of the stock exchange and it making dynamic, transparent, credible and investor friendly and developing the securities market as an important sources as long-term financial growth by increasing its depth and breadth. It has in corporate the programs of making public issue effective enhancing regulatory capability of SEBO, making the securities trading process standard and credible, creating a state of transferring ownership immediately after transaction, diversifying securities market instruments, attracting institutional investors, protecting investor interest, expanding the security market services nationwide and improving the compliance and integrity of the market.( [www.sebonp.com](http://www.sebonp.com) )

### **Regulation of Nepalese security market:**

Security market in Nepal, till the recent past, has all the characteristic of an under development economy. It was characterized by the absence of professional promoters, under writing agencies, market intermediaries, organized market, regulatory bodies and rules and regulations. However, after the re-storing if democracy in 1990 a trend towards an organized stock market can be marked with numerous developments in the Nepalese securities market, removing its earlier deficiencies.

A detail legislative code has been adopted by the government to protect the investor interest. The securities exchange regulation, 1993 provides

for those reforms in stock exchange trading method and practices. The regulation has added further functions, power and duties of the securities board of Nepal.( SEBO) The regulation has authorized the SEBO for internal housekeeping matter, made provision regarding licensing stock exchange and their subsequent operation, specified requirements for the registration and listing of securities along with authority for the registration of market, dealers and issue managers. The regulation, different provisions regarding allowance and benefit as well as duties, powers and functions of chairman of SEBO, funding, accounting and auditing are also specified by the regulation.

The companies Act, 1997 marks an important stage in the development of corporate enterprises in Nepal. The provision made under this act especially relevant to the securities market and provisions regarding the issuance and publications of the prospects, which is necessary for public issue of securities. As per this provisions the details of the content of prospects are prescribed and the prospectus is to be approved by the companies register's office (CRO). Under this act, different provision have been made for me establishment of a company (Either public or private) and its liquidations conduction of annual general meeting (AGM), incorporation of memorandum and articles of association, issue of share and debentures, preparation of annual account and their audit and the annual report.

Securities exchange act, 1983 (second amendment) provides for reforms in securities market regulation practices. It can be taken as the very important legislation of the securities market. The act has been formulated to systematize and regularize the stock exchange in order to maintain the economics interest of the people. It also contributes to the

economics development of the country, to protect the interest of the investor and to increase the participant in the industrial sectors for this purpose, this act provides legal frame work for the securities regulatory system by establishing SEBO as an apex regulatory body. As per this act, SEBO provides license for the operation of stock exchange, registers securities and grant issue approval, supervises and monitor stock exchange and market intermediaries. This act also SEBO to issue directives and make by-laws and guidelines and also allow the stock exchange to frame by-laws. Similarly, some provisions have been made regarding inside information and other fore hidden activities. However, they are not covered broadly.

In order to manage sales and promotion of securities and make the sales and issue manager accountable for their services, SEBO has issue the securities management guidelines, 1998. This guideline has been made as per the provision of section 35 of the securities exchange act, 1983 (Second Amendment). The guidelines further specifies various provisions regarding disclosed application for registration of securities, agreement between issue manager issuing companies, execution procedures of the sales management and code of conduct to be specified etc. Similarly, share allotment guidelines, 1994 issue by SEBO make the share allotment procedures fair the transparent. The directives were intended to create broader ownership according to the mass participation policy.

Thus, from the foregoing brief discussion, it is clear that the securities exchange regulation,1983 (Second amendment) and securities exchange regulation,1993 set up a general framework for regulating securities market, which has facilitated and encouraged the development of securities market of Nepal.

## 2.3 Articles and Journal Review

A capital market is a "complex of institutions and mechanism through which the saving of the people are mobilized and placed at the disposal of spending units like central government, state, local bodies, statutory corporation etc and business enterprises and individuals to meet their regular and planned development expenditure including that for expansion, diversification and modernization of their existing enterprises or for setting up new ones. Such entities issue financial instruments like securities shares, debentures, bonds, etc, evidencing titles or claim to capital and other resource owned by them, to the person who places their saving at their disposal. (Sharma: 1996, P. 55)

The share price is determined by the floor by the interaction of market forces i.e. demand and supply. The price is determined by the point of equilibrium between supply and demand, the shifting of these balance result in incessant adjusting of price in search of the ever-changing new equilibrium than market price moves upward and downward independently.

There are many reasons that cause the stock price fluctuation, major of them are economics, non economics and market factors.

One the basis of determination of stock prices is dividends. Dividends are strongly influenced by the earning power of the enterprises. There is very close correlated between correlated earning and dividends. Earning power, in turn, is strongly influence by changing economic trends, which are closely related to interest rates. In this way the most fundamental factor in stock price fluctuations lies in changes in corporate earning,

which together with interest rate and business cycle trends. Contribute to making up the economic factors influencing stock price.

The next major influencing factors are non-economics factors, including changes in political conditions, such as war or administrative changes, changes in the weather and other natural conditions and changes in cultural condition, such as technological advances and the like.

Market factors, or internal factors of the market consisting of the tone of the market and supply-demand relation, may be cited as the third category that influences the stock prices. The tone of the market is a phenomenon of excessive expectations which takes the form of over-estimating the intrinsic value of the stock when stock price is high because of business prosperity while underestimating its value at the time of market decline.

The relationship of supply - demand are reflected directly in the volume of transaction, but there is also considerable effect from the actions of institutional investors, margin transactions etc. Although margin transaction increase purchase when stock price is going up, once the price begins to fall they become selling factor and accelerate price decline. The practice of margin finance has not been introduced, so far, in Nepal.

The stock price fluctuations are influenced by the mixture of a wide variety of factors, centering upon the relational factors of dividends and corporate earning power. Since the stock exchange opened in Nepal on January 1994, the price level rose sharply upward. The market index reached up to 265. However, the initial show up could not sustain as the stock price were supposed to be much beyond the backing of the fundamental of the company.



The buying and selling of securities take place in the floor of Nepal stock exchange limited. The transaction is carried out only through licensed brokers and market makers. However, brokers can't transact shares in their own account market maker are not allowed to do transaction on behalf of other investors. In the floor, trading each carried out on "Open outcry system". Each broker representative should be present in the floor and participant through written bids and affairs. The trading report is published after the floor is closed.

Sharma 1996, Securities market in Nepal is witnessed a sharp growth during the past couples of years. The volume of trading has increased. The size of the market has been widened. The number of investing population has grown up in a aggregate. The tendency of raising capital from general public is rising. Most impotently the market consciousness has been developed so that investor has begun to think about risk, return and available or timely corporate information regarding the investment. The market seems loosing confidence in investor. There is poor liquidity of the stocks prevails in market. Professionalism is still lacking in the service of investor and investment management. A system of preponderance of speculative trading is guessed to be prevailed, where the primary motive is to device benefit from short-term fluctuations. It appears that a very small fraction of transactions represents purchase/sales by genuine investors. The rest are driven mainly by speculative motive. The corporative sectors still reluctant on disseminating information timely. The kinds of securities trading in the market are confined only to ordinary and preference shares. These are various major problems observed in the market now -a-days. (P. 63-66)

Capital plays a vital role in the economic development of a country. Being a capital deficient country, Nepal has to make every endeavor to mobilize available capital efficiently securities market provide mobility of the scattered saving. Retail investor with limited capital fund could also participant in the industrial development process of the country through their investment in the securities. However, both individual and institutions are putting most of their saving into bank deposit and bullion market because of the present state of the securities markets. Thus, long - term saving that should be invested in the security markets are going into short term. Investment presently, stock exchange facility is a available in Kathmandu valley. Hence, there is scope of expanding this facility in other region of the country. Privatization of public enterprises such as Nepal Airlines and other public enterprises using share sale mode of privatization as announced by HMG/N in the budget speech of fy 2003/04 could provide a huge investment opportunities in the security market.

Development of Securities market depends crucially in the quality of the financial information. HMG/N has established Accounting standard Board and Auditing standard Board for improving accounting and auditing standard. This Board has developed some accounting and auditing standard to be implemented in the country. It is Expected that implementation of these standard would improve quality of financial information. Improved financial information would help to make informed investment decisions in the securities market leading to efficient securities makes in the country.

Adhikari 2003, The Tenth Five Year plan (2002-2007) has objective such as developing and Expanding securities market as an important source of long- term funds, increasing the depth and breadth of the market

modernization of the stock Exchange etc. regarding the capital market development. Corporate and Financial Government project which presently is in the inception phase of its implementation has the objective of strengthen intuitional capability of SEBO and CRO, modernizing NEPSE and establishing central depository system of securities successful implementation of these plans and projects would bring intuitional investors in to the market, encourage the creation of new saving vehicles and lead individuals to invest more in corporate debt and equity. (P. 78-79).

The current downtrend in the share market is not easy to receiver unless strong regularly measures are not enforced. The honey moon days of share market players exist no more but there are still market players who have honey moon days as they have built unlimited financial fortunes by sharp practices that went undated during the period of share market boom. Among all the regulation of share market to control on the unfair trade practice would be one of the strong measures to receive the share market in future.

In order to curb the fraudulent practice and discourage the discrimination of misleading information in the current share market in Nepal. The regulating authorities must govern the activities in the share market. There should be immediate check on the unfair share trading practice Wash sales could be discouraged by immediate action. Nepal stock exchange can form a watch dog team to investigate on the real existence of share transaction. The present practice of share trading by mutual consent is a kind of wash sales that should be discouraged as it creates distortion in the price determined by the market forces. Such action helps in avoiding fictitious name created by several different share

brokers in share transactions and also to check on the creating and illusion of rising price.

Moreover, the challenge for the regulating authority is control on the hidden establishment of share market corners and pool by some market price manipulators. Surprise inspections and secret vigilance by a professional team (without making known who are its member or advisor) can check on the functions of the office such price manipulator interested to corner of share market in the hope of trapping or squeezing short seller. It founds dishonest in share market dealing, action should be taken against such price manipulator by imposing heavy penalties and punishment depending upon the nature of the offence.

At the same time, the concerned authority has to discourage the practice of churning by the brokers since it help brokers to transactions to the clients. Moreover, it is the right time for the concerned authorities to develop transparent guidelines to have strict vigilance and control on mis-use of insider information. Insider should be debarred from leaking price sensitive information by imposing heavy penalties and punishment for breach of legal provision.

Investor and share holders should be self-conscious to protect the rights by demanding timely information from companies. Shareholders can form their committee to work together with management to serve their purpose. This will help in developing understanding between shareholders and company management to tackle the problem by mutual and workshop should be managed by the self-initiation and active involvement of shareholders to draw the attention of the company management and concerned authorized to explore practical way and

means of restoring shareholder's right and also safeguarding their interest.

The existing shareholders organization has to be redefining and revitalized its role in protecting shareholders right.

According to Rising Nepal, Jan 20, 2003, As the capital market of Nepal is still in infant stage the regulatory system and regularize the securities trading still has deficiencies. These leaves scope for anyone to take unfair benefit from the market at the cost of ordinary investor are found to be irrational and concerned with short term gains. In this scenario, we can't expect perfect behaviors from the entire market participant. The major problem seem in the system are duality and ambiguities in the regulation inadequate legal provision to control the market Lack of clear demarcation of duties of the regulators poor corporate culture, lack of professionalism of the market participant poor compliance and lack of clear legal provisions for taking action to address the non-compliance cases.

Share market place plays a fundamental role in channeling economy of an individuals and corporate region. On that account it is a prolific zone of a country's financial system. In other words, share market is an important component of financial sector that provides and facilities an ordinary exchange of long-term economics allegations. The concept of provincial market has also emerged in the stock exchange. If we can't move with the universal expansion we should at least consider the regional components. Establishing credit rating agency (CRA) and central depository system (CDS) of securities is another challenge. The ADB has clearly stated in its report that CRA and CDS are essential for the successful operation of the capital market.

## 2.4 Review of Thesis

There are many dissertations written by various researchers in past years. Among same dissertation are reviews here for analysis of literature.

**Mr. Bacchu Ram Dahal (2002)** conducts a research on "Stock market behaviors of listed joint stock companies in Nepal'. The study aims to find out the behaviors of stocks market in Nepal on the basis of primary as well as secondary data.

### Objectives of the study

- ) To study and analysis stock prices trend and volume of stock traded on the secondary market.
- ) To study and analysis companies and maintenance of listed companies in Nepal stock exchange ltd.
- ) To study and analysis the investors views regarding the decision on stock investment.
- ) To study and examine the signaling factors impact on stock price with the help of NEPSE index.

### Major finding of the study

- ) Most of the investments were asked for their preference of investment sector. Major portion of them said that they were attached with banking sector for investment.
- ) On analyzing primary data it was found that the stock market in Nepal is in developing stage as investors are not well aware about the stock market.

- J Investment process and its other factors like NEPSE index, price trend and investment facilitators are not doing their in systematic way.
- J The investors were not satisfied with their investment as they were asked whither they were satisfied or not to their investment.
- J It was found that the investor's motive for owning shares of company is to receive the dividends from the shares.
- J The investors were found interested to be elected in company's management,
- J It was found that investors in the stock market take the investment decisions on the basis of market price of share.
- J On analyzing the price trend of two years NEDSE index in different months with help of monthly trend showed that the price trend of different month of the year 200 was in increasing trend, while that of year 2001 is in decrease trend. So, from this trend analysis we can say there is trend between two successive years.
- J On analyzing pared t-test for signaling factors with reference to seven events it was found that signaling effect had played major role in fluctuating of the stock price. (Dahal: 2002, P.68-69)

He concludes that signaling factors, plays major role for fluctuating NEPSE index. The study was verified by taking major seven events. Royal massacre, cease-fire, September-11 attack. State of emergency, etc.

**Mr. Gurudatta Poudel (2003)**, conducted or research on "The movement of stock price analysis of joint ventures commercial bank's eight joint ventures commercial banks are taken as simple as this study.

### **Objectives of the study**

- ) To examine the movement of stock market price in relation to Nepal joint ventures commercial Bank are either dependent or independent to historical prices of stocks.
- ) To evaluate return and risk proportion of Investment on stock of joint venture commercial Bands.
- ) To categorized the nature of stock tendency in relation to price stability.
- ) To study group wise overall behaviors of NEPSE Index.
- ) To recommend for the improvements of stock market in Nepal.

### **Major finding of the study :**

- ) Trade of relationship exist between the risk and returned i.e. higher the risk, higher and return vice-versa.
- ) There isn't an extreme relationship exist between MPPS with EPS and DPS.
- ) P.E ratio explains the investor's attitude of paying.
- ) A risk aversion investor prefers secured and safe return by bearing of additional risk to maximize his \ her return.
- ) The stocks of all sampled companies are under priced. Since their expected rate of return is higher than the respective required rate of returns: Since, the stock are under priced therefore it is better to buy and hold the stock.

He also concluded that the NEPSE is highly influenced by the government policies, programs and the mode of its implementation.



Regarding this, it is observed that conversion of SEC into NEPSE and the establishment of SEBON in 1993, which reflect government policy to reform the capital market and foreign investment under the extended structural adjustment (ESAP), introducing of modern open-out-cry system, liberalization policy have inspire and motivated the investors to do investment in securities. As a result, share prices significantly increased to peak in the initial periods. (Poudel: 2003, P.123-128)

**Mr. Dilip Raj Baral (2003)**, conducted a research on ' stock price movement in Nepalese securities market'. The main objectives and findings of his studies are as follows:

- ) To study and analyze stock price and volume.
- ) To study and analyze the value of listed companies and maintenance of already listed companies in NEPSE.
- ) To study and examine the signaling factors impact on stock price with the help of NEPSE index.

**Finding of the Study:**

- ) Most of the respondents were asked about the major influencing factors of stock price movement, they said that company's dividend affect the stock price.
- ) Founding to the respondent bullish trends of stock price movement is suitable for Nepalese security market.
- ) Most of the investor was asked for their performance of investment sector major portion of them said that they were attaching with income.
- ) According to the major problems of respondents, international environment direct moves the price of stock market.

- ) According to the major portions of respondents of Nepalese stock market it was found that HMG'S policy is not clear and perfect in Nepalese stock price market.
- ) According to the field survey in the Nepalese stock market, it was found that investors are not aware about investment.
- ) Taking the interview with the expert of Nepalese stock market, most of them follow the technical as well as fundamental analysis method of stock price movement.
- ) Investment process and its other factors like NEPSE index price trend and investment facilitators are not doing their work in systematic way.
- ) On analyzing primary data it was found the stock market in Nepal is in developing stage as investors are not well aware about this.
- ) Studying the sector wise monthly trend analysis for one year (Poush 2058 to Mangsir 2059), It was found that unsystematic activities of Nepalese stock price market. No experts can certainly forecast about the stock price.
- ) On analyzing pared t-test for signaling factor with reference to major three events it was found that signaling effects had played major role in fluctuation at stock price.
- ) On analyzing the multiple bar diagram to find out the stock price leading companies in stock market. It was found that manufacturing and process companies and insurance companies are price leading in the study period. (Poush 2058 to Mangsir 2059) (Baral, 2003, P.117-119). Mr. Baral also concluded that the Nepalese stock market is in the growth stage.

## 2.5 Research Gap

During the researcher's review of literature period, the researcher found that the study on stock prices, stock price fluctuation and stock market behavior were only conducted which were mostly based on secondary data and very less study were based on primary data.

The study on "Fluctuation of Nepalese Stock Prices" presents closing price of actively traded companies in the NEPSE along with the annual NEPSE index since the inception of NEPSE till 2007/08, monthly NEPSE, Daily NEPSE too. This study is trying to compare between the total NEPSE index and volume of share traded from 1996/97 to 2006/07 and their correlation even trying to measure the correlation between closing price.

The main important aspect is the collection of primary data which were collected through direct interview with financial experts of NEPSE, Questionnaire with the investor and other. The result submitted from this provide valuable suggestions.

## **CHAPTER-THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

Human nature is always curious to learn, understand and investigate the phenomenon raising the question like why, how, what, when etc. The knowledge has something to do with knowing, knowing may be through acquaintance or through the description of the characteristics of certain thing. The thing with which we can be acquainted are the things of which are directly aware. Direct awareness may come through perception and sensation.

Research is essentially a systematic inquiry seeking facts through objectives verifiable method in order to discover the relationship among them and to deduce from them broad principles or laws. It is really a method of critical redefining problems formulating hypothesis or suggested solution. The term 'Research' refers to critical careful and exhaustive. Investigation having as its aim the revision of accepted conclusions in the light of newly discovered facts.

#### **3.2 Research Design**

A research design is a plan for the collection and analysis of data. It presents a series of guide post to enable the researches to progress in the right direction in order to achieve the goal.

Research design includes secondary data as well as per the study needed. The research design was followed with exploratory and analytical approach.

### 3.3 Population and Sample

For secondary data presentation and analysis all the companies listed in the stock Exchange are considered as total population out of them, the companies that are in existence and doing share transactions in NEPESE as considered as the sample of the study for analyzing the Fluctuation of NEPSE Index as annually, monthly, weekly. The companies are categorized in to eight groups as done by the stock exchange.

To analyze the movement of closing prices 11 Commercial Bank are selected an the basis of 'list of top ten companies 2005', which were ford actively trading in the NEPSE for primary data collection financial experts of NEPSE and different financial institution Investors were taken as respond.

### 3.4 Methods of Data Collection

Both primary and secondary data sources of data collection were viewed for the study.

#### a) Primary Data Collection

The primary data has taken as the most important part of this study, which was collected through questionnaires over Investor, financial expert and non financial experts and other related personnel that are really to know about the fluctuation of Nepalese stock price.

**Table No 3.1**

#### **Responded Profile**

S. No	Respondents	Involved No	Accepted No.
1	Financial Experts	20	16
2	Investors	20	20
3	Non- Financial Experts	10	7
4	Other	40	26
Total		90	69

## b) Secondary Data Collection

Secondary data has collected through the annual reports of NEPSE, SEBON, available books, journals, thesis, magazines and Internet search etc.

### 3.5 Method of Analysis

The primary and secondary data were collected, tabulated, processed and analyzed using different method. Different statistical tools such as bar chart, pie chart and coefficient of variation, time-series analysis correlation and test of hypothesis were used for the purpose of the study.

#### 3.5.1 Method of Calculating Index

Market index has great importance in the word of security analysis and stock price fluctuation. Index in device designed to measure change in group of related variables over the period of time. Regarding this study, Index has taken a measuring tool whether the performance of stock marker in remarkable a not. This clearly focuses on the price of stock that is increasing or decreasing in the market due to the various changing variables. The higher index indicates increases in stock price that implies the better performance and vice-versa.

The computation formulae for price index are as follows.

$$\begin{aligned} \text{Each days index} &= \frac{\text{Eac h day total market value}}{\text{Buse days total market value}} | 100 \\ P_{01} &= \frac{p_1 | Q_1}{p_0 | Q_0} | 100 \end{aligned}$$

Where,

$$P_{01} = \text{NEPSE price index}$$

- P<sub>1</sub> = Today's stock price
- Q<sub>1</sub> = Listed share (i.e. not share)
- Q<sub>0</sub> = Base Listed share outstanding

### 3.5.2 Statistical Procedure

Simple percentages were used as an arithmetical tool to interpret data. Paired t-test was used as statistical to test null hypothesis. For the test of hypothesis, 10 NEPSE Index before and after. Five major events were considered. Other statistical procedures used to analyze the data are as follows:

#### a) Karl Pearson's Coefficient of Correlation

It is statistical tool for measuring the intensity as magnitude of linear relationship between the two variables series Karl Pearson's measures, known as personian correlation coefficient between two variables (series X and Y usually denoted by r (x, y) ) a simply 'r' can be obtained as:

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

Where,

$\sum xy$  = number of between of observation in series x & y.

$\sum x$  = Sum of observation in series x.

$\sum y$  = Sum of observation in series y.

$\sum x^2$  = Sum of square observation in series x.

$\sum y^2$  = Sum of square observation in series y.

$\sum xy$  = Sum of product of observation in series x and y.

The value of 'correlation coefficient' 'r' lies between - 1 to i.e. -1<sup>TM</sup> r <sup>TM</sup>1.

If  $r = 1$ , there is perfect positive relationship.

If  $r = 0$ , there is no co-relation at all.

Book value per share and closing price of commercial banks, similarly annual NEPSE index and volume of stock traded are used for variable to calculate the correlation.

### **b) Probable error (P.E.) of correlation coefficient**

Probable error of the correlation coefficient denoted by P.E. is the measure of testing the reliability of the coupled value of the correlation coefficient, 'r'. The probable error ( P.E.) is defined by:

$$\text{P.E (r)} = 0.6745 \times \frac{1Zr^2}{\sqrt{n}}$$

Where,

r = Correlation Coefficient

n = number of pairs of observation

If  $r < \text{P.E}$ , the value of 'r' is not significant no matter how height r value. is there is no evidence of correlation between the variables. If  $r > 6 \text{ P.E}$ , the value of r is significant i.e. correlation is significant.

### **c) Regression Analysis**

Regression analysis means the estimation of prediction of the unknown value of one variable from the known value of the other variable. It is mathematically measures of the average relationship between two or more variables in terms of the original unit of the data. In regression analysis there are two types of variables. The variable whose value is influenced or is not be predicted is called dependent variable and the variable which influences they values or is used for prediction, is called independent variable.



**Line of regression of x and y:**

The line of regression of x and y is the line, which gives the best estimate of x for any give amount of y. The regression equation is expressed as:

$$Y = a + bx$$

We shall get the normal equations for the estimating 'a' and 'b' as:

$$y = na + b \quad x \quad \dots\dots\dots (i)$$

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

Where,

- x = Value of independent variable
- a = Y intercept
- Y = Value of dependent variable
- b = Slope of trend line/coefficient of regression.

**d) Test of hypothesis**

Hypothesis means presumption or quantitative statement of the population parameters, which may be true or false. In order to make proper decision about the quantitative statement of the populations, testing of hypothesis technique is used.

The statistical hypothesis may be dividend into two types is hull hypothesis and alternative hypothesis:

- a) Null Hypothesis (N<sub>0</sub>1)
- b) Alternative Hypothesis (N<sub>1</sub>1)

Under this study the hypothesis is formulated and tested while applying correlation and signaling effect.

**a) Creation of Hypothesis under correlation coefficient.**

i) Null hypothesis  $H_0$ :  $\rho = 0$  i.e.

Book value per share and closing prices are uncorrelated

Alternative Hypothesis:

$H_1$ :  $\rho \neq 0$ , i.e. Book value

Per share and closing price are correlated (two tailed test)

Test statistics:

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

Where,

$r$  = Correlation coefficient

$n$  = No. of Observations

ii) Null hypothesis  $H_0$ :  $\rho = 0$ , i.e. NEPSE NADEX and volume stock traded are uncorrelated.

Alternative hypothesis:  $H_1$ :  $\rho \neq 0$  i.e. NEPSE Index and volume of stock traded are co-related (two tailed test)

Test Statistic:

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

Where,

$r$  = Correlation coefficient

$n$  = No of observations.

## CHAPTER-FOUR

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Introduction

Data presentation and analysis is the one of the important part of the research work. In this section the study rises to find out time proof from the mathematical calculation for the theoretical statement. Once, the study is Complete Successful to prove the statement. It would, of course, be the concentrate and substantial.

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

As stated earlier in the methodology section this consist of both primary as well as secondary data have been collected particularly from the monthly and annul trading report of Nepal Stock Exchange. Similarly, data collected from primary sources (Interview and questionnaire method) have been analyzed under the heading opinions survey that helps to general information on Investment behaviors of Investors. Now ever, primary data collection doesn't fully satisfy the need of research work on this topic. As a consequence, the study has utterly relied is the secondary sources of data. Data collected from the secondary source are also tested with sophisticated statistical tools. Data presented and analysis reveals performance of securities.

The main purpose of this chapter is to examine the price trend of different joint stock company with the help of NEPSE index. This study

also aims to analyze the number of stock traded during eight years period of different joint stock companies. Price is the major element in stock market analysis. For analyzing stock price fluctuation, the price trend of different years has been used so that one can conclude its nature in different aspects. Similarly the number of stock traded is also accounted for seeing the patterns of volume traded in stock market. In other hand the rate of listing new companies in Nepal security exchange (NEPSE) is another important factor to see the growth of listed companies in the development of Nepalese stock market.

## **4.2 Presentation and Analysis of Secondary Data**

This section provides interpretation and analysis of secondary data. Thus this section is exclusively devoted for the analysis of common stock of different companies through price trend, signaling factors impact on NEPSE index provided by Nepal stock exchange centers, volume of stock traded. Rate of listing of new companies in secondary market and maintenance of them in NEPSE is considered. For doing such presentation statistical tool such as regression analysis, bar diagram, pie chart, t-statistics are used.

### **4.2.1 Statistical Analysis**

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

## 4.2.2 NEPSE Index

Annual NEPSE index trend is one of the most important tools to measure the fluctuations of Nepalese stock prices. For this purpose, NEPSE index a 14 years (i.e. from 1993\94 to 2006\07) was taken. The summarize index as a whole of the year.

**Table No. 4.1**

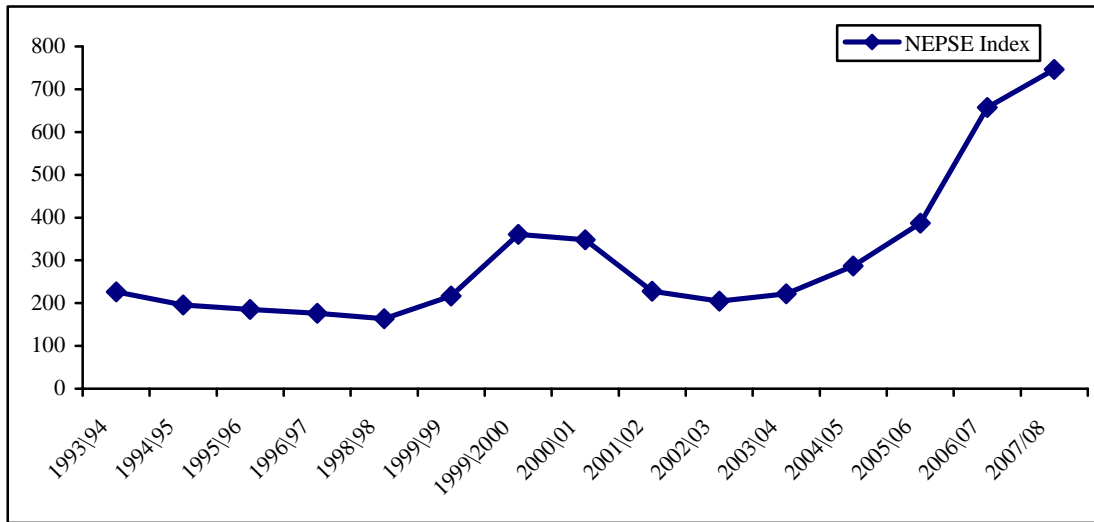
**NEPSE Index**

<b>Years</b>	<b>NEPSE Index</b>	<b>% Change in index</b>
1993/94	226.03	-
1994/95	195.48	-13.52
1995/96	185.61	-5.05
1996/97	176.31	-5.01
1998/98	163.35	-7.35
1999/99	216.92	-32.79
1999/2000	360.70	-66.28
2000/01	348.43	-3.4
2001/02	227.54	-34.7
2002/03	204.86	-9.97
2003/04	222.04	8.39
2004/05	286.67	29.1
2005/06	386.83	25.9
2006/07	657.47	70
2007/08	746.49	89.12

*Source Trading Report NEPSE, 2006/07*

**Figure No. 4.1**

**Line Chart of NEPSE Index**



*Source : Table No 4.1*

The NEPSE index was highest in the year 2006\07 with 657.47 and it was lowest in the year 1997\98 by 163.35 points.

### **4.2.3 Monthly Trend Analysis**

One of the suitable techniques for analyzing price trend is monthly trend analysis. For this purpose NEPSE index of two years are taken during the different month of year. Tabular as well as graphical measures are considered for presenting and analyzing the data in table are as follows:

**Table No. 4.2**

**Monthly NEPSE index during the fiscal years 2003**

<b>Months</b>	<b>NEPSE</b>
January	200.8
February	213.31
March	204.66
April	214.8
May	207.45
June	207.65
July	204.86
August	207.92
September	208
October	207.6
November	206.21
December	201.94

*Sources: NEPSE Annual Report, 2003*

Above table shows the NEPSE is index of years 2003. It is cleared that the NEPSE index on April was the highest i.e. 214.8 and on January i.e. 2008 NEPSE index trend was found slightly increasing and then decreasing. During 2003, there were not so much vast fluctuations in NEPSE index. It means no any further improvement in capital market was there.

**Table No. 4.3**

**Monthly NEPSE index during the fiscal year 2004**

<b>Month</b>	<b>NEPSE index</b>
January	206.02
February	210.69
March	207.85
April	202.10
May	204.80
June	244.34
July	224.59
August	235.53
September	235.31
October	232.90
November	236.60
December	237.72

*Source: NEPSE, Annual Report, 2004)*

This above table gives the information about the NEPSE index of the year 2004. From this table we can see that NEPSE was slightly increase but after February it was decreasing till April and it was continue through the years. NEPSE index was highest in December (i.e. 237.72) and lowest in the month of April i.e. (202.10). According to the monthly NEPSE during the year 2004, it was found that slightly index fluctuation was prevailing at that time.



**Table No. 4.4**

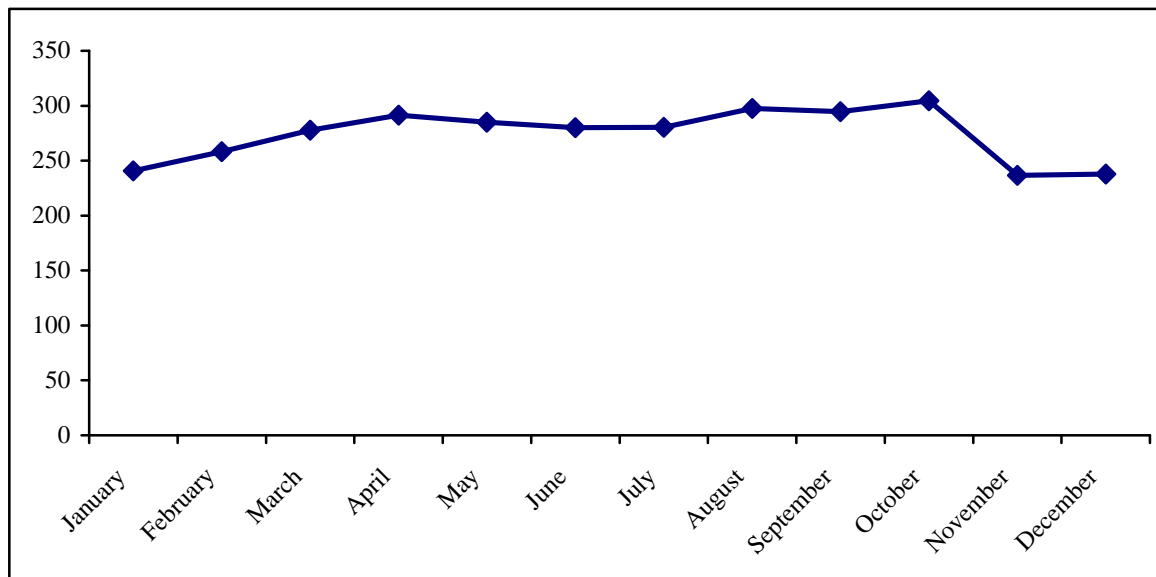
**Monthly NEPSE index during the fiscal year 2005**

Months	NEPSE index
January	240.67
February	258.08
March	277.75
April	291.37
May	285.05
June	280.06
July	280.49
August	297.60
September	294.69
October	304.55
November	236.60
December	237.72

*Source: NEPSE Annual Report, 2005*

**Figure No. 4.2**

**Monthly NEPSE index during the fiscal year 2005**



*Source : Table No 4.4*

This chart gives clews information as at the monthly index 4 year 2005. We saw that the NEPSE index was increasing up to the month of April but after April it was decreasing till June, then increasing slowly. The NEPSE index is maximum in November 12 (302.83) where as minimum in the mounts of January i.e. (240:67). The NEPSE index 2005 shows that there 62.18 fonts gap between maximum and minimum index. It concludes there is high fluctuation in during year 2005.

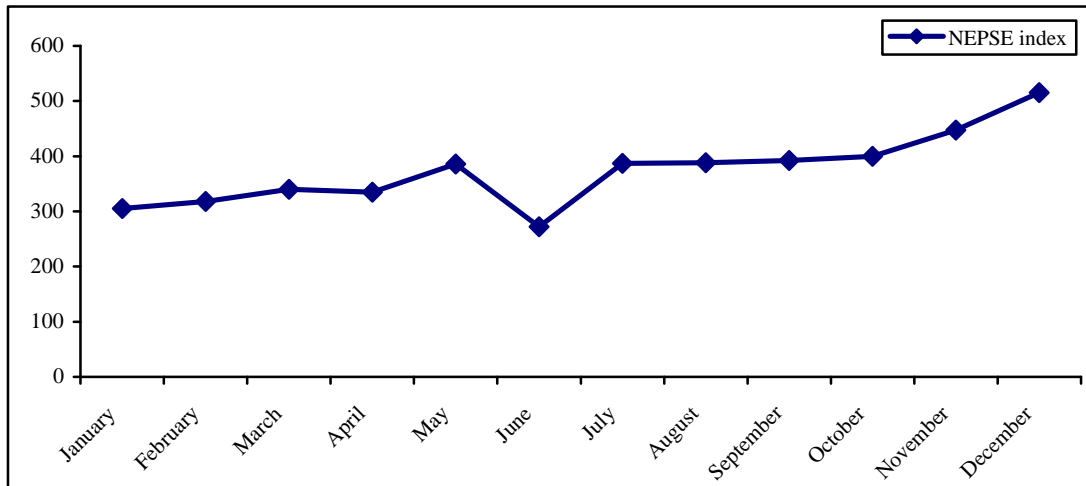
**Table No. 4.5**  
**Monthly NEPSE index during the fiscal year 2006**

Month	NEPSE Index
January	305.5
February	317.79
March	339.79
April	334.77
May	385.89
Jun	272.01
July	386.83
August	387.94
September	392.02
October	399.65
November	447.43
December	515.39

*Source: NEPSE, Amount report, 2006*

Figure No. 4.3

Monthly NEPSE index during the fiscal year 2006



Source : Table No 4.5

This chart gives clear information about the monthly NEPSE index during 2006. At the beginning, the NEPSE index was increasing but in April it was slightly decreased in addition that in June, NEPSE index was dramatically decrease my 113.88 points. According to monthly NEPSE index 2006, the highest index was found in December i.e. (5.15.19) and lowers index found in June (i.e. 272.01). The monthly NEPSE index 2006 shamed that there was about 175.42 point gap between the highest and lower index. It means that it was found vast fluctuations during 2006.

**Table No. 4.6**

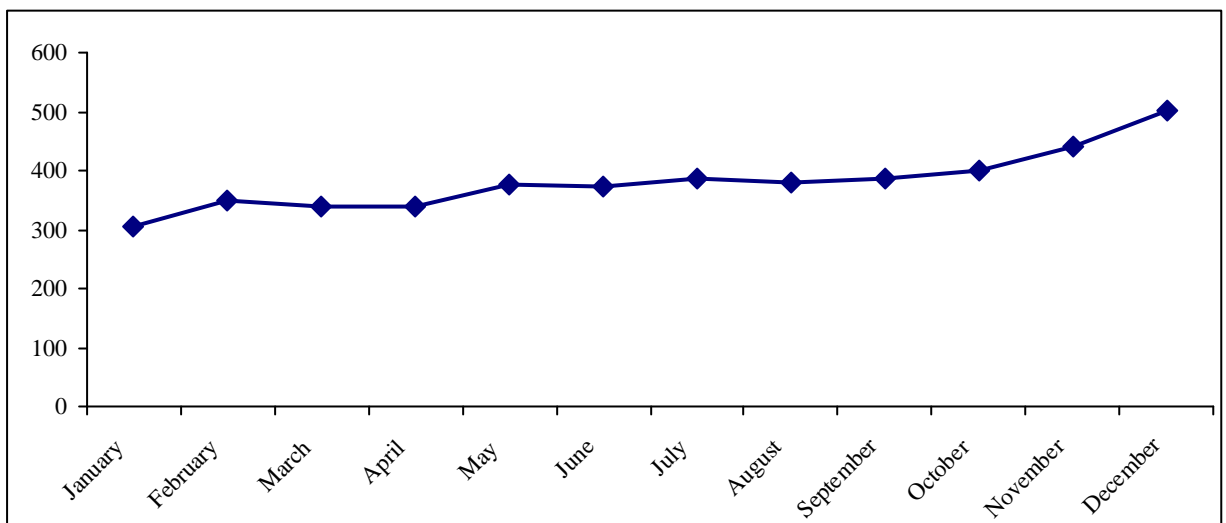
**Monthly NEPSE index during the fiscal years 2007**

Month	NEPSE index
January	306.28
February	349.28
March	338.47
April	337.37
May	375.41
June	374.21
July	385.1
August	378.59
September	386.51
October	399.87
November	439.64
December	500.82

*Source : NEPSE Annual report of 2007*

**Figure No. 4.4**

**Monthly NEPSE index during the fiscal years 2007**



*Source : Table No 4.6*

This is chart NEPSE monthly index during year 2007. From this chart we can conclude that NEPSE is in increasing order except the month April and August that it is increased. The highest NEPSE index is December (500.80) where of lowest NEPSE index is in January i.e. (306.28). The gap between the NEPSE index between highest and lowest is 194.54. It also concludes that there is also high fluctuation in the year 2007.

**Table No 4.7**

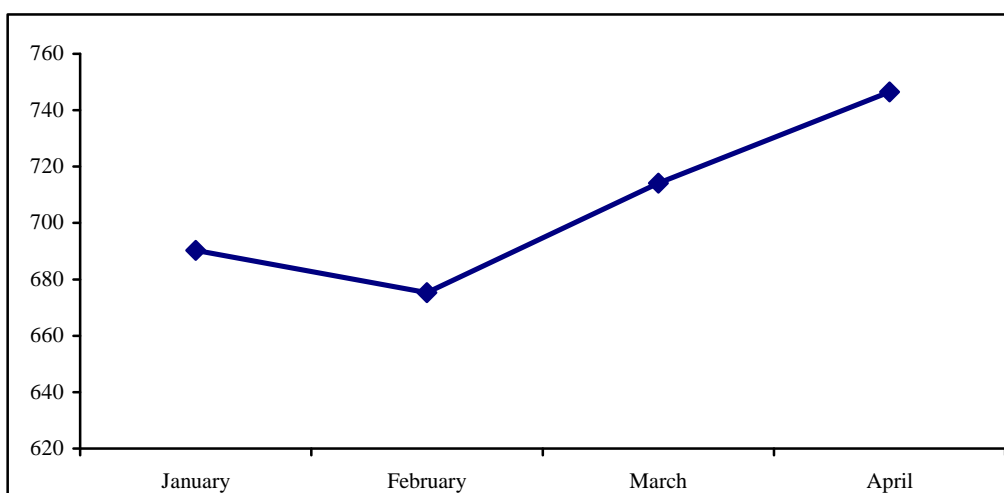
**Monthly NEPSE index during the fiscal years 2008**

Month	NEPSE index
January	690.28
February	675.25
March	714.16
April	746.49

Source : [www.nepse.com](http://www.nepse.com)

**Figure No. 4.5**

**Monthly NEPSE index during the fiscal years 2008**



Source : Table No 4.7

From the above picture, the NEPSE index during the year 2008 up to April shows that the NEPSE index is increasing trend. It is slightly decreasing in the month February.

#### 4.2.4 Annual trend Analysis

One of the suitable techniques for analyzing price trend is annual trend analysis. For this purpose NEPSE index of eleven years are taken during the different years from 1996/97 to 2006/07. Tabular as well as graphical measures are considered for presenting and analyzing in the table as follows:

**Table No. 4.8**

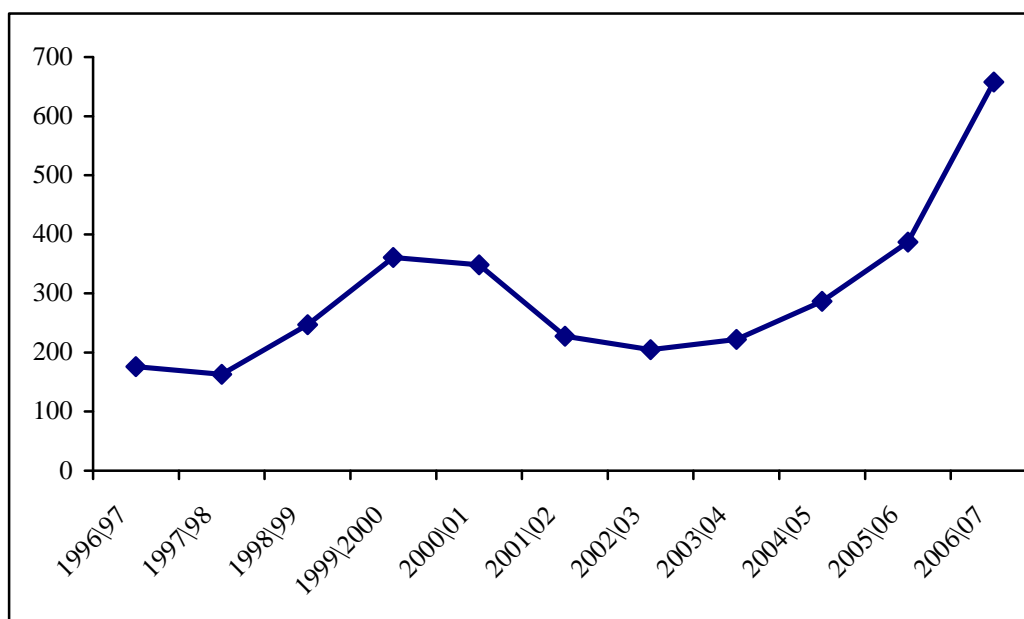
**Annual trend analysis from the fiscal years 1996/97 to 2006/07**

<b>Years</b>	<b>NEPSE</b>
1996/97	176.31
1997/98	163.35
1998/99	246.92
1999/20	360.70
2000/01	348.43
2001/02	227.54
2002/03	204.86
2003/04	222.04
2004/05	286.67
2005/06	386.83
2006/07	657.47

*Source: NEPSE trading report*

**Figure No. 4.6**

**Annual trend analysis from the fiscal years 1996/97 to 2006/07**



Source : Table No 4.8

The above table shows that price trend during the different fiscal years cure not constant. Taking base years as 1996/97 it shows the fluctuation of price trend.

**Table No 4.9**

**Mean, S.D. & C.V. of monthly NEPSE index during 2001 to 2007**

	2001	2002	2003	2004	2005	2006	2007
Mean	327.97	220.56	207.10	220.45	285.02	373.75	380.96
S.D	63.63	12.00	3.85	13.87	18.16	62.13	64.23
C.V.	0.19	0.05	0.02	0.06	0.06	0.17	0.15

Mean, S.D & C.V. were calculated using computerized Spread sheet Program

The given table gives clear information about the fluctuations in monthly NEPSE index during six different years (i.e. from 2001 to 2007). According to the coefficient of variation analysis, the C.V. in the year 2001 is the highest among all those years and C.V. in the year 2006 is also comparatively higher. In 2003, C.V. is found the least among all.

Hence, the C.V. of monthly NEPSE index of six years states that that highest fluctuation in Nepalese stock prices was found in 2001 and then after 2006.

**Table No 4.10**

Sector wise Monthly Movements in NEPSE Index during the fiscal year 2007

Months	Commercial Banks	Finance Com.	Insurance Com.	Manu-factoring	Trading	Hotels	Dev. Banks	Others
Jan	615.29	380.59	540.43	322.59	149.3	183.63	530.69	644.81
Feb	565.69	433.63	583.25	322.48	149.79	201.29	536.85	662.95
Mar	529.39	438.37	626.78	346.04	148.71	148.71	475.53	660.83
Apr	525.64	424.92	148.71	329.42	146.05	235	435.22	662.33
May	567.51	445.82	443.06	329.42	149.71	235.79	443.38	712.78
Jun	634.01	555.66	545.35	338.49	155.21	241.02	491.94	789.98
Jul	710.57	469.65	596.88	347.63	155.37	244.91	536.69	818.12
Aug.	421.91	263.33	394.84	316.82	148.11	179.62	311.18	418.93
Sep.	433.78	271.62	396.10	314.69	150.72	180.96	317.27	416.20
Oct.	450.47	274.54	394.58	313.68	149.66	179.03	320.95	431.14
Nov	517.39	282.48	406.04	314.69	149.71	181.08	453.03	535.61
Dec.	584.68	292.72	427.79	317.29	149.71	185.45	493.21	655.71

(Source : NEPSE Annual Report, 2007)

#### 4.2.5 Number of Listed Companies in Stock Exchange

The table no. 4.8 shows the number of listed companies in Nepal stock exchange (NEPSE) LTD. From the fiscal year, 1996/97 to 2006/07. The



table closely shows that the no. of listed company is increasing in every fiscal year except 2004/02 because of non-discloses of necessary information correctly and timely.

**Table No. 4.11**

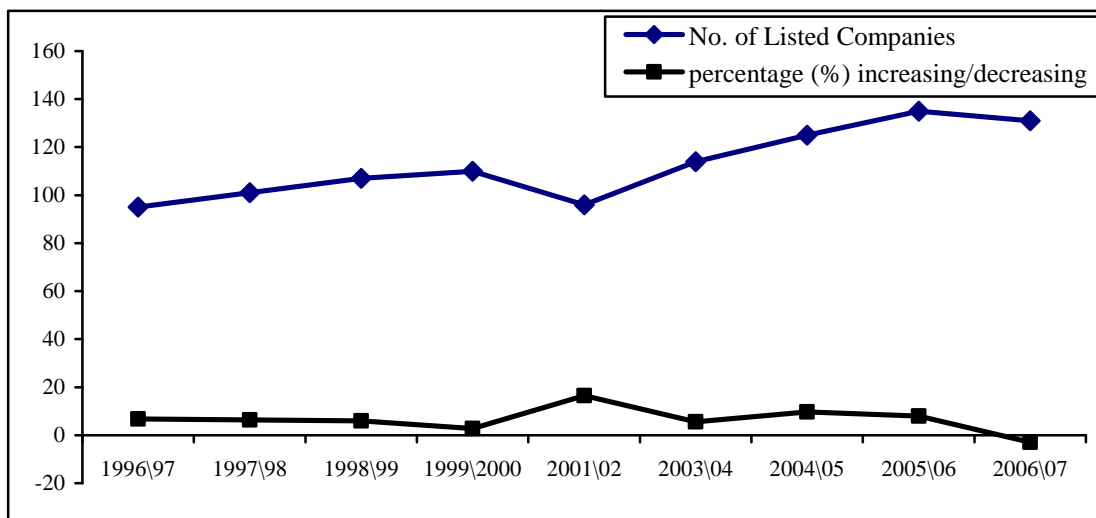
**The number of listed companies in stock exchange**

Fiscal years	No. of listed companies	Percentage (%) increasing/decreasing
1996/97	95	6.74
1997/98	101	6.31
1998/99	107	5.94
1999/2000	110	2.8
2001/02	96	16.52
2003/04	114	5.56
2004/05	125	9.65
2005/06	135	8.00
2006/07	131	-2.96

Source: Annual report SEBON by 2006/07 and [http: www. nepalstock .com](http://www.nepalstock.com).

**Figure No. 4.7**

**The number of listed companies in stock exch**



Source : Table No 4.11.

#### 4.2.6 Number of Transacted Companies and Volume of Stock Traded

Even though the number of listed companies are not in a satisfactory increasing trend. Table no. 4.9 shows that the volume of stock traded is in a decreasing trend in the second year and for the third year it is an increase in some extent. Similarly, the volume on transacting companies is in a negligible increasing trend.

**Table No. 4.12**

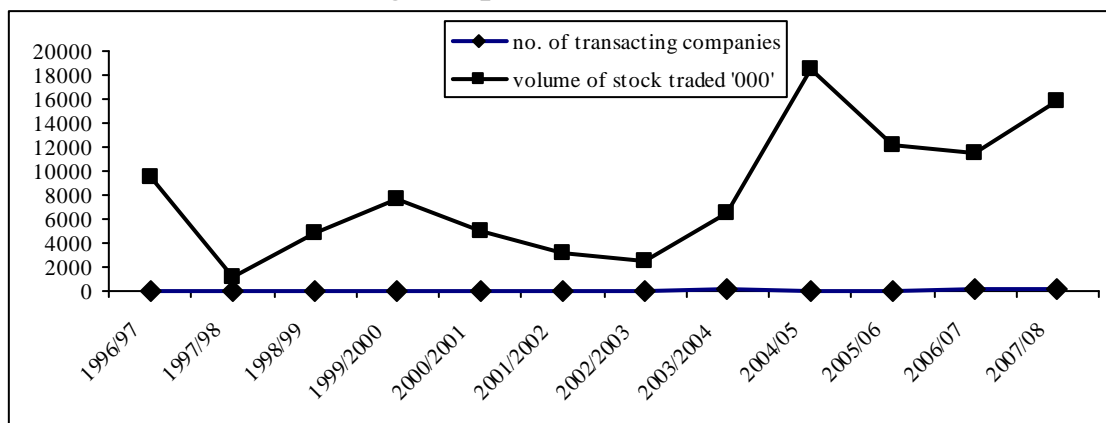
**Number of Transacted Companies and Volume**

Fiscal years	No. of transacting companies	Volume of stock traded '000'
1996/97	67	9443
1997/98	68	1195
1998/99	69	4854
1999/20	69	7674
2000/01	67	4989
2001/02	69	3141
2002/03	80	2427.89
2003/04	92	6468.18
2004/05	46	18433.85
2005/06	83	12227.93
2006/07	95	11423.55
2007/08	131	15878.60

Source: NEPSE Annual report of different fiscal years.

**Figure No. 4.8**

**No of transacting companies & volume of stock traded**



Source : Table No 4.12

#### 4.2.7 Paid up Value and Market Capitalization

The total paid-up value of the listed securities by the end of fiscal year reached Rs. 20008.55 million. The paid-up value in the last fiscal year was Rs 16771.85m.

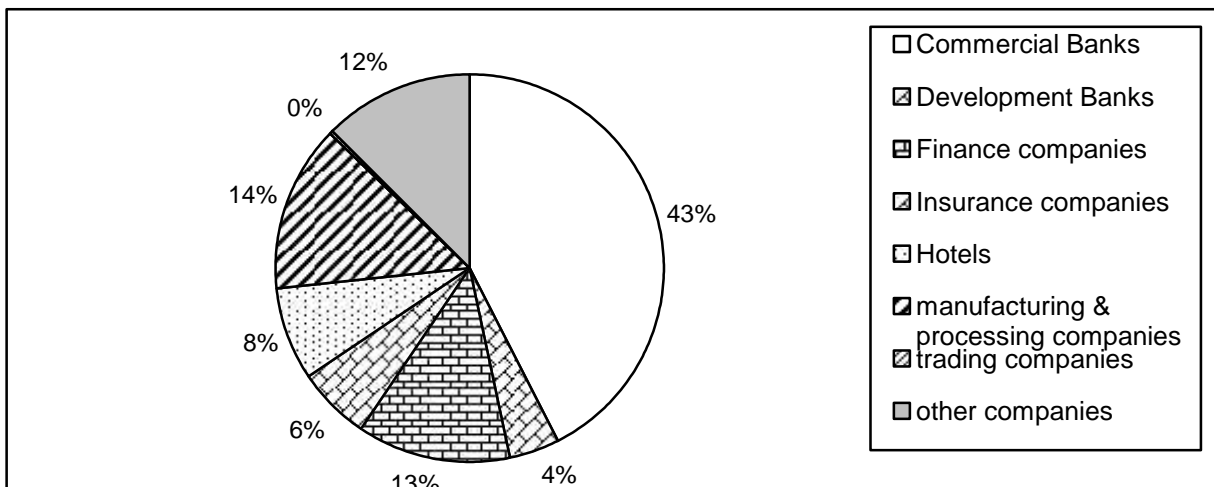
**Table No. 4.13**

**Paid-up value of listed companies (2007/08)**

S.N	Sectors	paid of value Rs in million	Percent
1.	Commercial Banks	8522.73	42.6
2.	Development Banks	816.91	4.08
3.	Finance companies	2564.81	12.82
4.	Insurance companies	1256.7	6.28
5.	Hotels	1552.88	7.76
6.	manufacturing & processing companies	2756.96	13.78
7.	trading companies	76.64	0.38
8.	other companies	2489.92	12.3
<b>Total</b>		<b>20037.55</b>	<b>100%</b>

**Figure No. 4.9**

**Show the table from pie-chart**



Source : Table No 4.13

Above table clearly shows that the paid value of listed securities in the end of fiscal year Rs. 20 billion as compared to the paid value of Rs.16.7 billion in previous years. The commercial Banks have highest paid-value and where as trading company have the lowest paid-up value. It showed that performance of commercial Bank is better than others.

#### 4.2.8 Market Capitalization of Listed Companies

**Table No. 4.14**

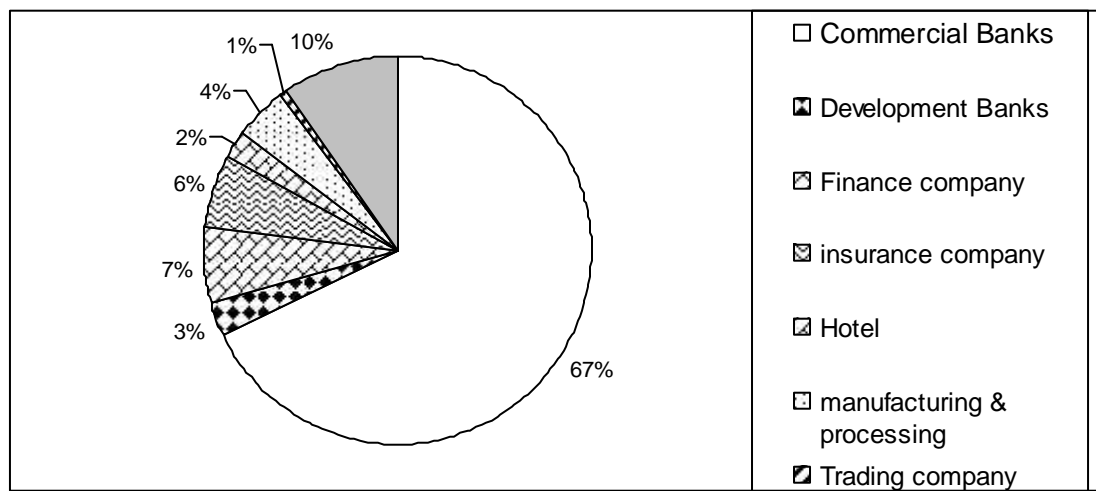
**Market capitalization of listed companies 2006/07**

S.N	Sectors	Market capitalization	Percentage
1.	Commercial Banks	90305.87	67
2.	Development Banks	3811.69	3
3.	Finance company	8698.53	7
4.	Insurance company	7909.32	6
5.	Hotel	3047.05	2
6.	manufacturing & processing	5858.27	4
7.	Trading company	748.58	1
8.	other company	13018.00	10
<b>Total</b>		<b>133397.31</b>	<b>100</b>

Source: trading report NEPSE (2006/07)

**Figure No. 4.10**

**Market capitalization of listed companies 2006/07**



Source : Table No 4.14

By the end of the fiscal years, the market capitalization of the listed securities reached Rs 133397.31 million. In the lowest fiscal years, the capitalization has Rs. 748.58 million. The highest market capitalization recorded during the fiscal years was Rs. 90305.87million and the lowest was Rs 61630.9 million.

**Table No. 4.15**

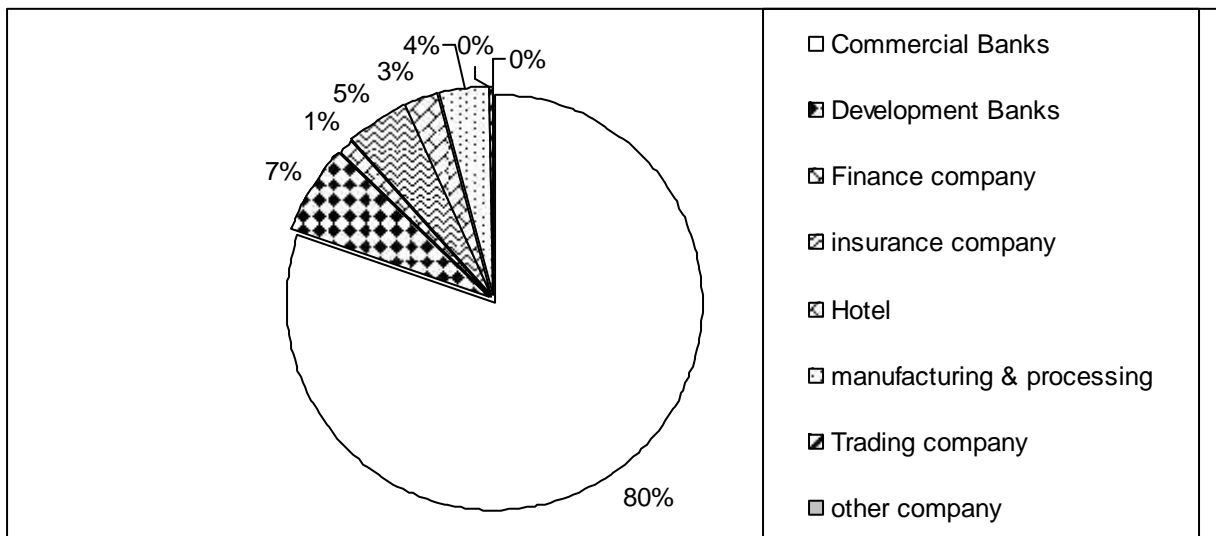
**Market capitalization of listed companies 2007/08**

S.N	Sectors	Market capitalization	Percentage
1.	Commercial Banks	159986.59	80
2.	Development Banks	13854.67	7
3.	Finance company	2344.20	1
4.	Insurance company	9885.07	5
5.	Hotel	5312.84	2.9
6.	manufacturing & processing	7371.78	4
7.	Trading company	659.94	0.087
8.	other company	26.40	0.013
<b>Total</b>		<b>199441.49</b>	<b>100</b>

Source: trading report NEPSE (2007/08 )

**Figure No. 4.11**

**Market capitalization of listed companies 2006/07**



Source : Table No 4.15

From the above picture we can conclude that, total market capitalization during the year 2008 is !The Formula Not In Table. The total market capitalization of the commercial banks is leading in the NEPSE and nominal market capitalization of the other company.

#### 4.2.9 Closing Market Price of Selected Companies

##### a) Closing market price of selected

##### Commercial Bank

The closing market price of the selected banks i.e. Everest bank Limited and Bank of Kathmandu Ltd.

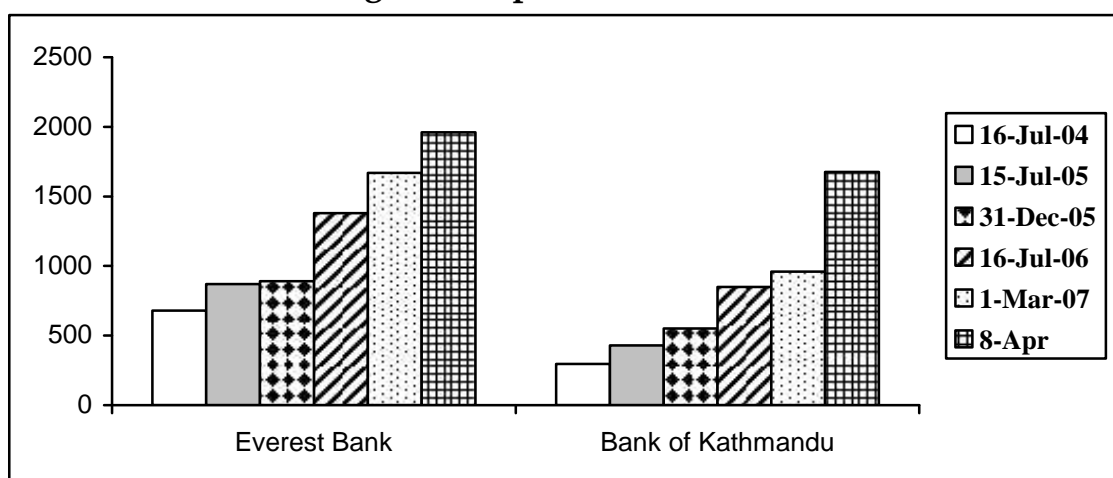
**Table No. 4.16**

**Closing market price of selected Banks**

Date	Everest Bank	Bank of Kathmandu
16 July-04	680	295
15 July-05	870	430
31 Dec-05	890	550
16 July-06	1379	850
1 mar-07	1670	960
March-08	1960	1675

**Figure No. 4.12**

**Closing market price of selected Banks**



Source : Table No 4.16

## b) Closing market price selected finance companies

The closing market price of the selected finance companies i.e. National Finance Company Limited and Katmandu Finance Company Limited are presented in the tabular and graphical form as follows:

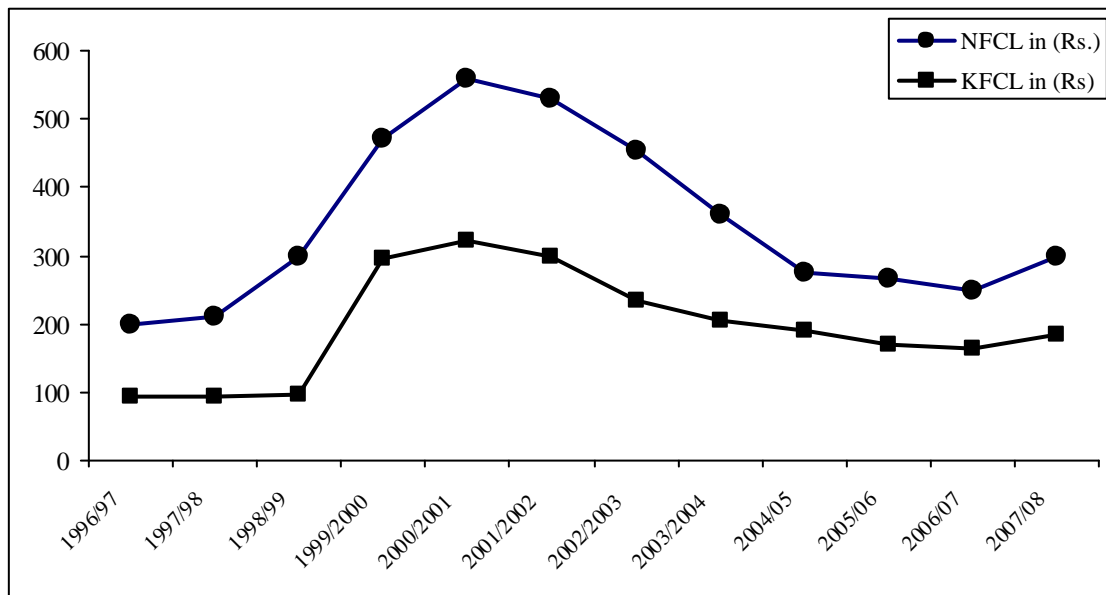
**Table No. 4.17**

### **Closing market price selected Finance Companies**

<b>Fiscal year</b>	<b>NFCL in (Rs.)</b>	<b>KFCL in (Rs)</b>
1996/97	200	93
1997/98	210	95
1998/99	300	98
1999/2000	470	295
2000/01	560	321
2001/02	530	300
2002/03	455	235
2003/04	360	205
2004/05	275	190
2005/06	266	170
2006/07	250	165
2007/08	300	185
<b>Total</b>	<b>4176</b>	<b>2352</b>

*Source: trading report NEPSE (2007/08)*

**Figure No. 4.13**  
**Closing market price selected finance companies**



*Source : Table No 4.17*

From the above diagram it can be concluded that the market prices of both finance companies were in increasing order from the fiscal year 1996/97 to 2006/07. Thereafter the market prices of both companies were in decreasing order till the fiscal year 2003/04.

**c. Closing market price selected Insurance companies**

The closing market price of the selected Insurance companies i.e. Everest Insurance Company Limited and Sagarmatha Insurance Company Limited are presented in the tabular and graphical form as follows:



Table 4.18

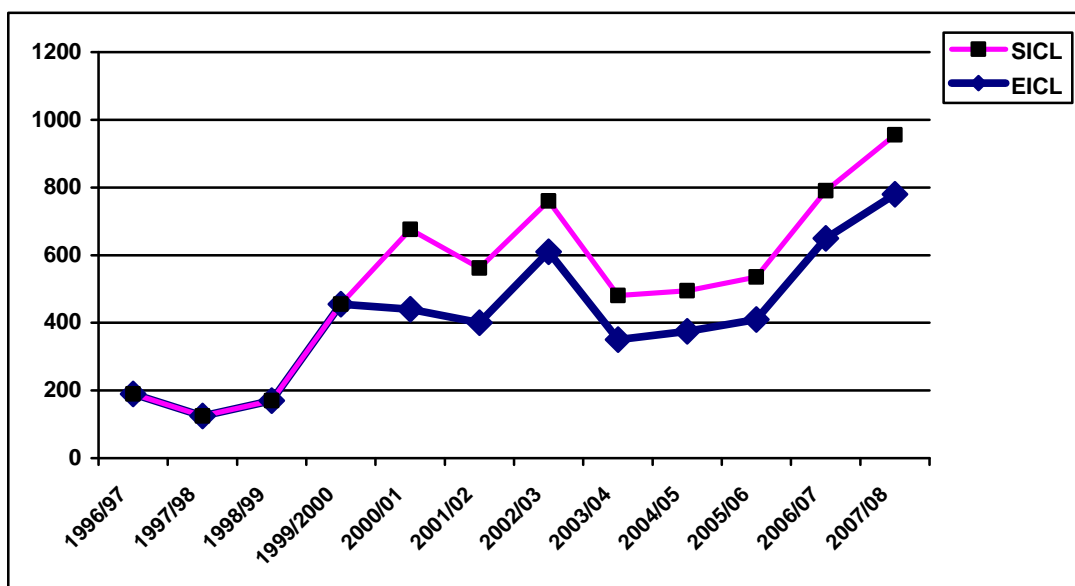
Closing Market Price of selected Insurance Companies

Fiscal Year	EICL in (Rs.)	SICL In (Rs.)
1996/97	190	–
1997/98	125	–
1998/99	170	–
1999/2000	455	-
2000/01	440	236
2001/02	400	162
2002/03	610	150
2003/04	350	131
2004/05	375	120
2005/06	410	125
2006/07	650	140
2007/08	780	175

Source : NEPSE, Annual Reports

Table No 4.14

Market Price of Selected Insurance Companies



Source : Table No 4.18

From the above diagram it can be concluded that the market price of Everest Insurance Company was in fluctuating trend but the market price of Sagarmatha Insurance Company was in decreasing order.

#### 4.2.10 Correlation coefficient between book value per share and closing price on 2065

**Table No. 4.19**  
Correlation coefficient between book value per share and closing price on 2065

Name of company	Book value per share Rs.	Closing price
Nabil Bank Limited	381.36	3320
Nepal Investment Bank Ltd	239.66	1245
Standard character Bank Ltd	468.21	4500
Himalayan Bank Ltd.	228.71	4450
Nepal SBI Bank Ltd.	153.43	805
Everest Bank Ltd.	485.85	4800
Bank of Kathmandu	487.14	4055
Nepal Industrial & Co. Bank	127.74	651
Laxmi Bank Limited	111.33	550

Correlation of coefficient	0.9674
Coefficient of determination ( $r^2$ )	0.9358
S.E	0.0203
O.E	0.0821
6 P.E	0.0821

*(Correlation Coefficient was calculated using spread sheet program)*

The given table shows the correlation coefficient between the Book value per share and closing price per share, coefficient of determination, standard error, and probable error. According to the table the correlation

coefficient between the book value per share and market price per share (closing price) was found positive even nearer to +1 in addition to that correlation coefficient (r) is greater than 6 P.E., which reveals that the value of r is significant. in other words, there is significant relationship between book value per share and closing price.

**Table No. 4.20**  
**Correlation coefficient between NEPSE index and volume of stock traded**  
**fiscal year 1996/97 to 2007/08**

<b>Fiscal year</b>	<b>NEPSE Index</b>	<b>Volume of stock traded (in '000')</b>
1996/97	196.31	9443
1997/98	163.35	1195
1998/99	216.92	7854
1999/2000	360.7	7674
2000/2001	348.43	4989
2001/2002	227.54	3141
2002/2003	204.86	2427.89
2003/2004	222.04	6468.18
2004/05	286.67	18433.55
2005/06	386.83	12221.93
2006/07	430.33	14365.32
2007/08	746.49	15878.60

Correlation of coefficient	0.4523
Coefficient of determination (r <sup>2</sup> )	0.2046
S.E	0.2515
O.E	0.1697
6 P.E	1.0180

*(Correlation coefficient and S.E. was calculated using spread sheet program)*

The given table shows the correlation coefficient between the NEPSE index and volume of stock traded, coefficient of determination, standard error, and probable error. According to the table the correlation coefficient between the NEPSE index and volume of stock traded was found positive but less than + 0.5 in addition to that correlation coefficient (r) is less than 6 P.E., which reveals that the value of r is not at all significant.

#### 4.2.11 Coefficient of Variation

Standard deviation is only an absolute measure of dispersion, depending upon the units of measurement. The relative measure of dispersion based on standard deviation is called the coefficient of standard deviation. It is a pure independent of the units of measurement and thus is suitable for comparing the variability, homogeneity or uniformity of two or more distribution.

Here, the researcher is trying to compare the variability of the closing prices of different periods as shown below:

**Table No. 4.21**

#### **Variability of closing prices during (16 July 04 to April, 08)**

	16-Jul-04	15-Jul-05	31-Aug-05	16-Jul-06	1-Mar-07	1-Apr-08
Mean	599.63	761.54	842.63	1145.36	1374.18	706.55
Variance	249428.25	427595.07	566606.65	1115751.4 5	1672153.56	396594.08
Standard deviation	476.18	623.47	717.70	1007.13	1232.93	629.76
Coefficient of variation	0.79	0.81	0.85	0.87	0.89	0.89

(Mean, S.D., Variance, C.V. were calculated using computerized spread sheet program)

The above given table gives clear information about the variability of closing stock prices of during 16-July-04 to 1-Apr-08. According to the table, standard deviation along with the coefficient of variation found different time periods. The variation was found increasing as the time passes. On the closing of 16-July-04, coefficient of variation was 0.79 but on 1-Apr-08, it increases to 0.89. It means the variability was in increasing trend.

#### 4.2.12 Test of Hypothesis

##### a) Testing the significance of correlation coefficient

It is necessary to test the significance of correlation coefficient used prior. In this study, testing of significance of correlation coefficient between book value per share and closing price (market price) of stock as well as NEPSE index and volume of stock traded. Since the number of observation was less than 30, the t-test is applied for the significance test. The following table shows the t-test of calculated value of tabulated at 5% level of significance during the study period.

**Table No. 4.22**

##### **Test of hypothesis of correlation coefficient between book value per share**

and closing price of stock NEPSE index and volume of stock traded

<b>Testing of significance between</b>	<b>Calculated value</b>	<b>Tabulated value <math>t_{0.05, 8}</math></b>	<b>Result (Accept <math>H_0/H_1</math>)</b>
Book value per share and closing price	10.8043	2.306	$H_1$
NEPSE index and volume of stock traded	1.4344	2.306	$H_0$

The above given table gives clear information about the hypothesis result of correlation coefficient between the book value per share and closing price of stock (market price) along with the NEPSE index and volume of stock traded. According to the t-test based on 5% degree of freedom, in other words correlation test, book value per share and closing price of stock were correlated but NEPSE index and volume of stock traded were uncorrelated.

### **b) Testing of signaling effect**

Nepalese stock market is not found static and perfect in nature. Due to the changes in the political environment, rumors, there may be vast changes in the stock prices. Sometimes, national and international signaling effects may influence the stock prices.

For searching the signaling effect, the researcher use pure statistical tools, i.e. paired t-test. Impact of signaling effect on the NEPSE index can be analyzed within the help of NEPSE index and paired t-test formula.

The following table shows the t-test of calculated value and tabulated at 5% level of significance during the study period.

**Table No. 4.23**

#### **Test of hypothesis on signaling effect**

Event	Calculated value	Tabulated Value $t_{0.05,8}$	Result (Accept $H_0/H_1$ )
Peace accord sign on November 2006	2.7713	2.306	$H_1$

Obviously, there should be positive effect of favorable political environment on every economic sectors of the country. Likewise, the signaling effect of peace accord sign on November would become the positive effect on the stock prices too. The dramatic increase in the NEPSE index on December is comparable with the NEPSE index of October noticeably the signaling cause.

Agreements one after another between the seven party alliances and the Maoists, added fuel to the market during November. It was continued to increase from October also because announcement by the commercial banks and finance companies to distribute bonus shares at very high rates. This phenomenon was attributed to the new confidence of receiving better return in the future from investments in the market. The regular market speculators were trying to cash in on the political agreement by spreading rumors of a better economy in the future.

**c) Testing the mean value of daily NEPSE index with its annual NEPSE index**

In order to test whether the mean value of daily NEPSE index is equal to its annual NEPSE index, Z test is applied where number of observations is 228. The mean value of daily NEPSE index since 17-July 05 to 16-July 06 and annual NEPSE index 2005/06 was taken as population mean to test whether they are equal or not.

**Table No. 4.24**

**Test of hypothesis on difference between mean of daily NEPSE and annual NEPSE index**

Test of difference mean of daily NEPSE with annual NEPSE	Calculated Value	Tabulated Value	Result (Accept H <sub>0</sub> /H <sub>1</sub> )
2005/06	20.31	1.96	H <sub>1</sub>
2006/07	29.00	1.96	H <sub>1</sub>

Due to the cosmic deviation in the NEPSE index during 2006/07 as well as little deviation on 2005/06 too, annual index was not found equal to the average daily index during the those periods. Hence, it is clear that during 2006/07 as well as 2005/06 there were immense fluctuations in stock prices (i.e. NEPSE index) in addition to that annual NEPSE index does not determine the average index of the whole year.

### **4.3 Presentation and Analysis of Primary Data**

ANNEX-1 reveals important information as to outlook of investment decision of investors. In the course of availing first hand data to justify the study on the topic primarily, interviews and questionnaire methods have been made applicable.

#### **4.3.1 Interview with Experts**

While taking interview with senior officials 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 stock market is dominated by retailing investors come



forward to cat in bullish trend. They emphasized that stability cannot be fully achieved unless rational and institutional investors come forward to participate in the secondary market. However, they agreed the fact that lately the investors have become more sensitive and professional at least in comparison to investors in 1993 and 1994, when market was at the nascent stage. At the time of interview, the question has been asked about which method of analysis do you adopt ? Most of the exports replied that they used technical as well as fundamental analysis method of stock price behavior.

While conducting the informal 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 brokers 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 swings in the Nepal Stock Exchange Market index caused uproar among investors.

In this way, it was seen in the Nepalese Stock Exchange, investors and officials were at loggerheads' over the cases of stock market slack, blaming each other or the volatility of stock prices. Though, they have different theories to offer over the price fluctuations, the effort to improve the domestic stock market should be done from all quarters.

#### **4.3.2 Questionnaire Analysis**

Another measure applied to garner information relevant to the topic is questionnaire method. A number of questions were put up by means of so copies of questionnaire. Categorically, the questions raised through this means were of three types namely, Yes/No Questions, Multiple

Choice Questions and Open-End Questions. Eighty percent of the questionnaires were collected during study period. The questionnaire so collected is thus related to find out the opinion of investors on investment action for trading shares through secondary market. Their responses have been analyzed as follows:

**a) Sector of Investment Analysis**

Regarding the sector of investment the investors are asked whether the investors are interested in which sector they are interested to invest, 50% of the investors are interested with banking sector, 20% of them are interested with manufacturing and processing, 16% wanted to invest in trading sector and remaining 14% wanted to invest in other area. From the table 10 it is clear that most of the investors i.e. 50% of them are attracted by banking/finance sectors. The data collected in this respect is tabulated in table 24;

**Table No. 4.25**  
Sector-wise Preference for Investment

S.N.	Research Variable	No. of Investment	% of Investors
1.	Bank/Finance	25	50%
2.	Manufacturing	10	20%
3.	Trading	8	16%
4.	Others	7	14%
<b>Total</b>		<b>50</b>	<b>100%</b>

*Source: Field Survey*

**b) Investors' Awareness Analysis**

When questioned to be investors whether they are aware or not in the Nepalese stock market most of them i.e. 64% said that they are not, only 16% replied that they are aware about this. Remaining 14% don't know

about this and 6% shows no response at all. Regarding the awareost of the investors said that they were not familiar with stock markets, brokers, trading mechanism. The following table 25 tells the fact:

**Table No. 4.26**

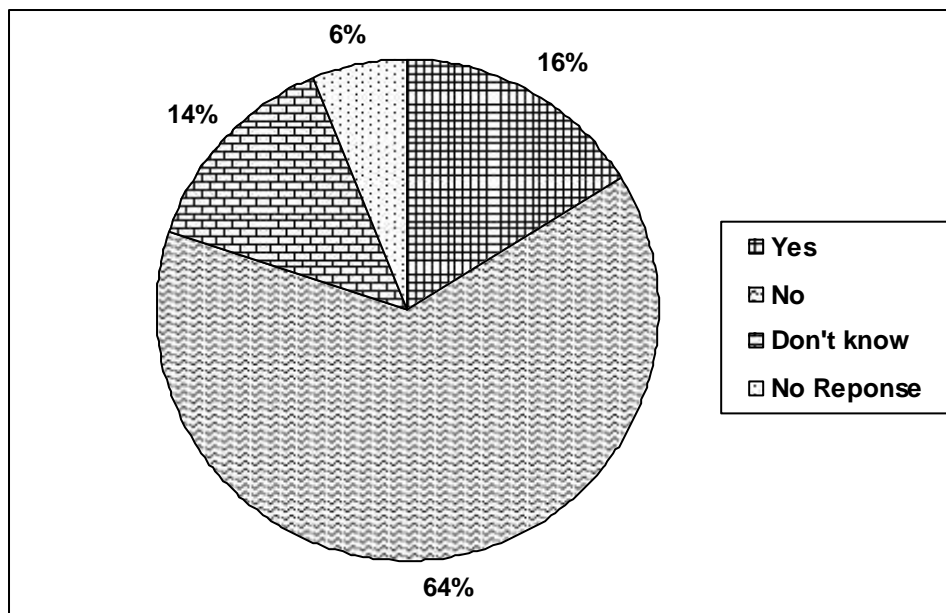
**Investors' Awareness on the Stock Market**

S.N.	Research Variable	No. of Investment	% of Investors
1.	Yes	8	16%
2.	No	32	64%
3.	Don't Know	7	14%
4.	No Response	3	6%
<b>Total</b>		<b>50</b>	<b>100%</b>

*Source: Field Survey*

**Figure No 4. 15**

**Investors' Awareness on the Stock Market**



*Source : Table No 4.26*

Problem and remaining 12% said that they don't know about that. The following table 29 shows the fact explained above as follows:

**Table No. 4.27**

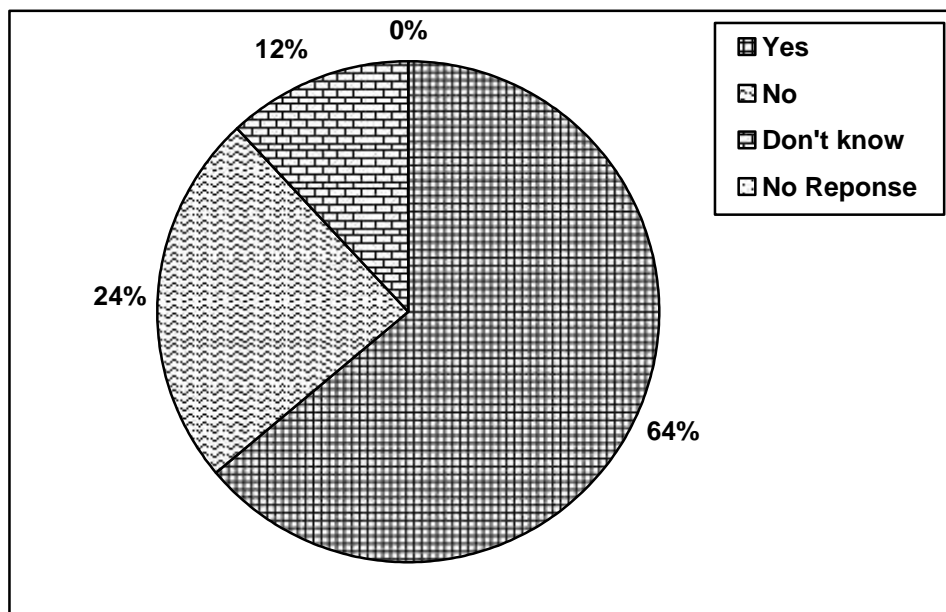
**Views of Difficulties Faced by Investors**

S.N.	Research Variable	No. of Investment	% of Investors
1.	Yes	32	64%
2.	No	12	24%
3.	Don't Know	6	12%
4.	No Response	-	-
<b>Total</b>		<b>50</b>	<b>100%</b>

Source: Field Survey

**Figure No. 16**

**Views of Difficulties Faced by Investors**



Source : Table No 4.27

**c) Government Policy Analysis**

Regarding the HMG'S policy of government is not clear and perfect in Nepalese stock market. Different respondent replied their answer

through questionnaires, among them 80% of the respondent replied that government policy of stock market is not clear and perfect, 41% of the respondent replied that government policy of stock market is clear and perfect but 6% of the respondent replied that they are unknown the policy of government in the stock market.

Following table shows the clear pictures about this.

**Table No. 4.28**  
**Government Policy Analysis on the stock market**

S.N.	Research Variable	No. of Investment	% of Investors
1.	Yes	40	80%
2.	No	7	14%
3.	Don't Know	3	6%
<b>Total</b>		<b>50</b>	<b>100%</b>

*Source: Field Survey*

#### **d) Participation in Company's Management Analysis**

Investors were asked for their interest on investment motives if they were interested to be elected in company's management, 56% of them replied in positive way, 20% of them replied that they didn't want to be elected, 12% gave no idea and remaining 12% showed no response. The following table tells the fact mentioned as follows:

**Table No. 4.29**  
**Participation on company's Management**

S.N	Research Variable	No of investor	% of investor
1.	Yes	28	56%
2.	No	10	20%
3.	Don't Know	6	12%
4	No Response	6	12%
<b>Total</b>		<b>50</b>	<b>100%</b>

*Source: Field Survey*

### e) Environmental Analysis

About the environmental factor that the Nepalese stock market or not, different individuals investor's, intuitional investor, broker, NEPSE staffs and others gave their own idea about this, among them, 16% respondent replied that the political environment effect the Nepalese stock market, 16% replied that the economic environment effect the Nepalese stock market, 8% replied that socio-cultural environment effect the Nepalase stock market, 10% replied that technological environment effect the Nepalese stock market, 14% replied that international environment effect the Nepalese stock market and 36% replied that all environmental factors effect the Nepalese stock market. Following table shows the clear vision about this:

**Table No. 4.30**

#### **Opinion of environmental effect**

<b>S.N</b>	<b>Research Variable</b>	<b>No. Of Investor</b>	<b>% of Investor</b>
1.	Political Environment	8	16
2.	Economic Environment	8	16
3.	Socio-cultural Environment	4	8
4.	Technological Environment	5	10
5.	International Environment	7	14
6.	Above all	18	36
<b>Total</b>		<b>50</b>	<b>100</b>

*Source: Field Survey*

#### f) Causes of holding the shares

Different parties were asked for their interest on investment motives if they were interested with dividend, social status and marketing and above all, 24% of the investor said as social status, 40% of the investor said as a income, 20% of the investor said as marketing and 16% of the investor as above all. Following table represent the detailed information as about this:

**Table No. 4.31**

#### **Causes of Holding the Shares of Company**

<b>S.N.</b>	<b>Research Variable</b>	<b>No. of Investment</b>	<b>% of Investors</b>
1.	Social Status	12	24%
2.	Income	20	40%
3.	Marketing	10	20%
4	Above all	8	16%
<b>Total</b>		<b>50</b>	<b>100%</b>

*Source: Field Survey*

#### g) Investor's Open-End Analysis

Only two open-end questions are asked to the investors under the study to take their opinion on the important aspect of Secondary market. Thus, in relation to the narrative question number 12 and 13 on ANNEX, only 65% questions were duly filled out of 100 questionnaires papers. The cores of issues of the responses are discussed as below:

So far as investor's experience on investment problem is concerned, it was found quite astonished. Some key experiences, which are considered

to be worth, are cited here. Some investor express their views that due to non-transparent operation and delay in disseminating the information regarding company's financial status and shares they were in dilemma whether to purchase or sell the shares. Similarly, other blamed that brokers in the secondary market did not provide proper advices to the clients. As a result, they have to bear losses while trading the stocks. The brokers purchase the share for their clients on an "Execution only basis" and do not take the responsibility for their quality of advices they offer. Therefore, according to them, Brokers performs the function in the capital market not for investor's sake but only for repeating their commissions form investors. While some other stated that due to lack of computer aided technology for analyzing the security and very few numbers of security analyst or firms involved in forecasting market trends and future price of shares, they fell difficulty to take right investment decision on right time. Likewise, it was acknowledge that some of the investor were reluctant to make further investment in the Secondary market since they had bitter experience for making transfer of ownership of shares in the register of shareholders was time consuming. According to them, completion of transfer process almost took about 3 to 4 months; show they felt their interest was not protected. That's why all of the respondent who faced this type of problem laid emphasis to think twice whether or not to investment in shares through secondary market.

In this way, a fraction of investors seemed to be apprehensive to sell the shares of that company which bought from primary market. It is so because; Securities Exchange Act 1983 has laid down the provision of compulsory listing of securities before trading on the stock exchange. The shares they possessed are not listed at in the Nepal Stock Exchange (NEPSE). Thus, their perplexity sounds like appropriate.



The views expressed over the solution of trading problems as well as improvement of the confidence of investors to invest in secondary market were more or less similar to one another. All of them laid priority in the access to information so as to know the financial strength of company as well market trend of securities.

Frequently fluctuation of stock market price, 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. Among other things, some suggested to enshrine special provisions in the act to protect the right of security holders. So for the Acts, making the provision only from the side of company management has enacted i.e.; Company Act and Stock Exchange Act. Instead, the companies are violating the provisions laid down in the Acts from time to time.

Moreover, some prominent suggestions, the investors prescribed to include the confidences of investing in the secondary market are as follows:

- ) The stock exchange should carry out periodic research and analysis and make public the findings, which they believed would help them to make better investment decision.
- ) The Securities Board, an apex body for monitoring and regulating the Nepalese Stock Market Regulatory regimes up to international standards.

- ) Current manual method of securities trading should be substituted by computer-based technology, which enhances the pace of trading activities.
- ) Investors should be provided with investment guidelines.
- ) The role of market players in the stock market should be made effective in promoting the capital market on the country.

#### **4.4 Major Finding of the Study**

The researcher has used both primary as well as secondary data for the analysis of the study. After analyzing the detailed study, the major findings of the study are as follows:

- ) The average annual index is in increasing trend.
- ) Bull market appeared in 1997/98, 1998/99 and since 2003/04 till 2006/07.
- ) Highly bear market appeared in 2000/01 to 2002/03.
- ) Highest monthly NEPSE index fluctuation was occurred in 2001 (i.e. C.V.=0.19) and lowest monthly NEPSE index fluctuation in 2003 (i.e. C.V.=0.02).
- ) Secondary movements in the stock prices are usually occurring.
- ) There was found high fluctuation in daily NEPSE index since 17 July 2003 to 16th July 2006 (i.e. C.V.=0.20).
- ) Commercial banks, development banks and companies listed as 'others' are found price leading companies.

- J The number of listed companies was considerably in increasing trend but in 2001/02 it was dramatically decreased by 16.52%.
- J Time series analysis reflects that the Annual NEPSE index was in increasing trend.
- J Correlation coefficient between different sectors of Monthly NEPSE index during 2006 was found positive except the correlation coefficient between Hotels and Insurance as well as Hotels and Manufacturing companies.
- J Correlation coefficient between commercial banks and Overall NEPSE index is approximately equal to +1, which reflects that the commercial banks may lead overall NEPSE. • Highest monthly NEPSE index fluctuation was occurred in 2001 (i.e. C.V.0.19) and lowest monthly NEPSE index fluctuation in 2003 (i.e. C.V.=0.02).
- J Secondary movements in the stock prices are usually occurring.
- J There was found high fluctuation in daily NEPSE index since 17 July 2003 to 16th July 2006 (i.e. C.V.0.20).
- J Highest fluctuation was seen of development banks (i.e. C.V. and least fluctuation was seen of Hotels (i.e. C.V.=0.01) among the different sectors of NEPSE on sector wise monthly NEPSE index 2006.
- J Commercial banks, development banks and companies listed as 'others' are found price leading companies.
- J The number of listed companies was considerably in increasing trend but in 2001/02 it was dramatically decreased by 16.52%.
- J Time series analysis reflects that the Annual NEPSE index was in increasing trend.

- ) Correlation coefficient between commercial banks and Overall NEPSE index is approximately equal to +1, which reflects that the commercial banks may lead overall NEPSE.
- ) There was positive relationship between book value per share and closing price on 2063.
- ) The correlation coefficient between NEPSE index and volume of stock traded was not significant.
- ) There was found quite high deviations in the closing price of the selected companies during the study period. In addition to that the deviation was even in increasing trend.
- ) There was positive effect of peace accord sign on November to the NEPSE index. It was found increase in the NEPSE index dramatically on December than of October 2006.
- ) The highest number of respondents replied that the company profit is the major influencing factor of Nepalese stock prices.
- ) Most of the investors viewed that they hold the shares to maintain social status.
- ) The largest number of investors found to invest on development banks among all sectors.
- ) Most of the viewers replied that secondary price movement (Lip & down for few months) generally appear in Nepalese market.
- ) According to the respondents view, market rumor plays vital role on making decision to invest in secondary market.
- ) Respondents view regarding the trading difficulties of NEPSE stated that most of them accepted as really there was trading difficulties in
- ) NEPSE.

## **CHAPTER-FIVE**

### **SUMMARY, RECOMMEDATION AND CONCLUSION**

The last chapter of this thesis presents the summary, conclusion and recommendations. Summary refers the synopsis of the whole study; conclusion drawn from the analysis and recommendation suggests the improving the causes of Nepalese stock price movement. Generally, the study is related with the overall NEPSE index.

#### **5.1 Summary**

Securities market refers to the buying and selling price of the stock, bond share and debt. Capital market is the backbone of the economy, and Nepal is not an exception. Under the capital market. Stock market behavior has played the vital role to pull and push the proper economic balance of the country. So, by promoting the stock market in sizeable economic sector gives raises the economic development by mobilizing swing into productive sector by making suitable investment environment. Different elements like price trend of NEPSE index, volume of the stock traded, rate of return, paid up value and market capitalization, closing market price of sampled companies, correlation coefficient analysis, regression analysis and signaling factors have been analyzed.

The study on stock price fluctuation of Nepalese stock prices was not done so perfectly time and again by the concerned authority. Since, to fulfill the requirements of the Master of Business Study using very less tools some of the researchers were found having research on stock price

behavior which was limited only for research and recommendation purpose. The actual impact was not approached to the right place at the proper manner.

The study on Stock price fluctuation is little bit tried to identify the probable causes of Nepalese Stock prices fluctuations studying on the basis of secondary data taken from annual NEPSE index, annual report of SEBON, different books, dissertations, along with the primary data from financial and non-financial experts, investors and lecturers. The data used for presenting and analyzing consists of annual NEPSE index since its inception to 2006/07, monthly NEPSE index of 6 years (2001 to 2007), daily NEPSE index from 17 July 2003 to 16th July 2007, sector wise monthly NEPSE index of 2006, number of listed companies and their changes since the inception of NEPSE to 2006/07, closing price of actively traded 11 commercial banks from July 2004 to 1st March 2007 in addition to the book value per share and closing price of Fiscal year 2064/65.

In addition to secondary data primary data was taken for consideration as an important part of the study in which different respondents relating to the financial experts, non-financial experts, investors and lecturers. The information collected from the primary data collection became the highly strength part of this study in which the viewers suggestion or ideas about the prevailing price movements trend could be identified and vital suggestion and views were presented with sophisticated tools.

Different Statistical tools like line charts, bar charts, pie charts, coefficient of variation, correlation, time series analysis along with the test of hypothesis in different natures as testing correlation between book value per share and closing price, NEPSE index and volume of stock traded, signaling effect are used in this study.

During the course of primary data collection, all together 83 respondents including financial and non-financial experts, investors and lecturers gave their responses on the different aspects of share price fluctuations and NEPSE environment. The data were edited and analyzed using pie chart in addition to that homogeneity test of respondents view on the influencing factors of Nepalese stock prices done in this study.

The mainly causes of price, fluctuations in the capital market due to the investors gut feeling, market rumors, favorable environment in the political situation in the country help to move upward the stock prices in addition to that the quarterly reflecting the company's report and prior announcement of the bonus share and dividend help to move the stock price upward. The most prevailing impact in the capital market is rumor due to which investors were found blindly invest in the stock without analyzing the actual position of its value. One of the most important aspects of this study is that there is vast different between the stock's book value and closing price in the market

According to the analysis of the data, the NEPSE index since 2006 is moving upward direction with little possibly secondary movement trend time and again. Highly deviations in the NEPSE index occurred in the Nepalese capital market due to the changes in the market price of the stock. According the deviations analysis of NEPSE index as well as closing price of the stock, both deviations were considerably high which was mainly due to the price fluctuations rather than the any cause.

Peace accord sign on November 2006 had significant impact on the security price. After that security prices in capital market had been increasing dramatically.

Actually, the correlation between the NEPSE indexes with all different sectors was found positive except between the Hotels and Insurance and Hotels and Manufacturing. The correlation between the NEPSE index and commercial banks was nearly  $\pm 1$ , which reflects that over all NEPSE index was represented or lead by commercial banks could be assumed.

The view of the respondents on Nepalese stock price movements showed that secondary price movement (up & down for few months) generally appear in the Nepalese capital market. The main factors affecting share prices as perceived by the respondents are: rumors, company's profit, bonus share and right share. According to the investors view, mostly they were likely to make buy decision due to the market noise.

Speculative behaviors of investors, weak performance of market intermediaries, government policy regarding investment in the capital market, market operation system, lack of availability of company proper information were deficiency of the Nepalese stock market.

## **5.2 Recommendation**

Stock market has vital role on the development of the country's economy. NEPSE floor has played a major role for creating investment prosperity in the country. Having positive standpoint of the Nepalese capital market, the following things would be there for the betterment and vast growth of the capital market.

### **Perfect Information**

Investors are the basic variable and backbone of the capital market. Sufficient information relating to the current capital market position,



company's internal position, and market situation should be given to them timely. They should be provided with investment guidelines from news as well as media.

### **Awareness of Market Rumors**

The capital market should try to remove the indigestible rumors that usually arise in the media and news. Investors should make aware about the fraud news regarding future movements of stock prices.

### **Proper Rules and Regulations**

Government should formulate proper and perfect rules and regulations, articles of association and code of conduct to develop the capital market. For this purpose national and international financial experts should hire to develop this system. It was noticeable that majority of investors are found attached with the banking sectors. So taking action against lower trading industries should do the diversification of investment in other sector. The companies that are not performing their activities should be removed from the list of Nepal security exchange limited so that the unproductive sectors will be liable to give productive results by running efficient way and manner.

### **Promotion to Foreign Investors**

Foreign investors (individual as well as institutional) should be encouraged and promote to invest in the Nepalese stock market.

### **Hiring financial Experts**

The price fluctuation trend is not predictable by general investors, so technician facilities should be provided by 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.

The stock exchange should carry out periodic research and avail the findings to the public that would help the investors to make better investment decision. It is also recommended to the

### **Investors Awareness**

The public investors should not invest their savings in shares haphazardly. They should at least analyze the future possibilities or get suggestions from expert about the financial position and level of risk prior to take an investment decision.

### **Development of Stock Market**

Stock market is to be developed according to the dynamic environment and to meet the international standard. The ability to trade security easily may facilitate investment and have positive effect on the country's economy.

## **5.3 Conclusion**

Secondary market has played vital role on economic development of the country opening-trading floor for investors due to which savings would be utilized for productive sectors.

Studying fluctuation of stock prices, the researcher has found that the stock price trend is in improving smoothly since 2006. The highest NEPSE index fluctuation was occurred in 2001 during the study period. Secondary movements generally appeared in the Nepalese capital

market. Among the II listed commercial banks, development banks price fluctuation was the highest.

The favorable political environment in the country, prior announce of the dividend or bonus shares of the company, company's financial strength, help to push up the market price of the company. The correlation between book value per share and closing stock is found positive with significant after testing of hypothesis. But the correlation between NEPSE index and volume is stock traded is not found significant. Likewise, the average daily NEPSE index during 2004/05 and 2005/06 were not equal to annual NEPSE index of the respective years which declares that annual NEPSE index does not determine the whole average NEPSE index of the year. In the course of fluctuating NEPSE index, signaling effect plays vital role which was tested by paired t-test that conclude that the NEPSE index of Dec 2006 was significantly higher than the NEPSE index of Oct 2006.

The correlation coefficient between the commercial banks and overall NEPSE index was approximately equal to +1. Favorable political environment in the country had positive effect on the stock price movements.

Respondents view regarding the stock price fluctation stated that company's profit, company's performance, company's management, foreign company's investment, demand and supply mechanism, market rumor, company's dividend were respectively influencing factors of Nepalese stock price movements. According to respondents view, Market rumor has played a vital role on making decision to invest in secondary market.

The financial experts view regarding the movements of the Nepalese stock prices was much valuable for this study. Presentation and analysis of the views of financial and non-financial experts, investors, have added extra fruitful knowledge for the study.

Finally, this study would be the great achievement on pleasing the objective of the research.

Hence in conclusion, trading in the Nepali stock market is based mainly on inside information, rumors and guts but not on research. The lack of institutional players in the capital market today in Nepal is due to the lack of research-based information. The growth in NEPSE is not solely due to political development, the banks are announcing bonus and right shares to increase their paid up capital. Most banks reported better performance in the first quarter of the current fiscal year as compared to the corresponding quarter of the previous year. The investment by the foreign reputed company in the national company helps to push up the market price of the stock assuming by the investors about the future prospect of the company in better condition. Stock market transactions are only limited inside the valley.

## APPENDIX 1

1. In which of the following sector do you want to invest in the shares?
  - a) Banking ( )
  - b) Manufacturing & Processing ( )
  - c) Trading ( )
  - d) Others (.....)
2. Do you think investors in the Nepalese stock market are aware?
  - a) Yes ( )
  - b) No ( )
  - c) Don't know ( )
3. What is the major influencing factor for the stock price?
  - a) Company's Profit ( )
  - b) Company's Performance ( )
  - c) Company's Board of Director ( )
  - d) Company's Dividend ( )
  - e) Signaling factor ( )
  - f) Above all ( )
4. On which basis do you make decision to invest in shares in the secondary market?
  - a) Family Advice ( )
  - b) Rumors ( )
  - c) Own Analysis ( )
  - d) Market Price ( )
5. Are you satisfied with the profit earned from your own investment decision?
  - a) Yes ( )
  - b) No ( )
  - c) Don't know ( )
6. Are the government's policies clear and perfect in Nepalese stock market?
  - a) Yes ( )
  - b) No ( )
  - c) Don't know ( )
7. Do you want to get elected to the company management?
  - A) Yes ( )
  - b) No ( )
  - c) Don't know ( )
8. Does the environment affect to the Nepalese stock market?
  - A) Yes ( )
  - b) No ( )
  - c) Don't know ( )

9. In which of the following trend of stock price behavior is suitable for Nepalese security market?
- a) Bullish Trend ( )                      b) Bearish Trend ( )
- c) Optimum Trend ( )                      d) None of the Above ( )
10. Do you think are there any difficulties in trading shares in Nepalese stock market
- a) Yes ( )                      b) No ( )                      c) Don't know ( )
11. For what purpose do you want to own shares of a company?
- a) dividend ( )                      b) Social Status ( )
- c) Marketability ( )                      d) Above all ( )
12. If yes how these difficulties can be solves?
- a) .....
- b) .....
- c) .....
- d) .....
13. In your opinion, what are the major to be taken for developing Nepalese Secondary Market?
- a) .....
- b) .....
- c) .....
- d) .....

Name :

Address :

## APPENDIX 2

### Time Series! Trend Values

Fiscal Year (x)	NEPSE Index (y)	X = (x - 1999/2000)	X <sup>2</sup>	Xy	Trend Values (y <sub>c</sub> )
1993/94	226.03	-6	36	-1356.18	106.39
1994/95	195.48	-5	25	-977.40	134.59
1995/96	185.61	-4	16	-742.44	162.79
1996/97	176.31	-3	9	-528.93	190.29
1997/98	163.35	-2	4	-326.70	219.19
1998/99	216.92	-1	1	-216.92	247.39
1999/2000	360.70	0	0	0.00	275.50
2000/01	348.43	1	1	348.43	303.79
2001/02	227.54	2	4	455.08	331.99
2002/03	204.86	3	9	614.58	360.19
2003/04	222.04	4	16	888.16	388.39
2004/05	286.67	5	25	1433.35	416.59
2005/06	386.83	6	36	2320.98	444.79
2006/07	657.47	7	49	4602.29	472.99
	y = 3858.24	7	x <sup>2</sup> = 231	xy = 6514.3	

Let the straight-line trend is:

$$Y = a + bt$$

Where,

Y = NEPSE index

$$a = \frac{y}{n} = \frac{3858.24}{14} = 275.59$$

$$b = \frac{xy}{x^2} = \frac{5826.06}{231} = 28.20$$

t = Diff. in Time from mean time

Now, Calculation of the trend values  $Y_c = a + bt$

$$1993/94: Y = 275.59 + 28.20 \times (-6) = 106.39$$

$$1994/95: Y = 275.59 + 28.20 \times (-5) = 134.59$$

$$1995/96: Y = 275.59 + 28.20 \times (-4) = 162.79$$

$$1996/97: Y = 275.59 + 28.20 \times (-3) = 190.29$$

$$1997/98: Y = 275.59 + 28.20 \times (-2) = 219.19$$

$$1998/99: Y = 275.59 + 28.20 \times (-1) = 247.39$$

$$1999/00: Y = 275.59 + 28.20 \times (0) = 275.59$$

$$2000/01: Y = 275.59 + 28.20 \times (1) = 303.79$$

$$2001/02: Y = 275.59 + 28.20 \times (2) = 331.99$$

$$2002/03: Y = 275.59 + 28.20 \times (3) = 360.19$$

$$2003/04: Y = 275.59 + 28.20 \times (4) = 388.39$$

$$2004/05: Y = 275.59 + 28.20 \times (5) = 416.59$$

$$2005/06: Y = 275.59 + 28.20 \times (6) = 444.79$$

$$2006/07: Y = 275.59 + 28.20 \times (7) = 472.99$$



## APPENDIX 3

### Test of Hypothesis

#### \* Testing the correlation coefficient between Book Value Per Share and Closing Price.

Sample size:  $n = 10$  and  $r = 0.9674$

Null hypothesis.  $H_0: \rho = 0$ , i.e. Book value per share and closing prices are uncorrelated.

Alternative hypothesis.  $H_1: \rho \neq 0$ , i.e. Book value per share and closing prices are uncorrelated. (two tailed test).

$$\text{Test statistic, } t = \frac{r}{\sqrt{1 - r^2}} \sqrt{n - 2} = \frac{0.9674}{\sqrt{1 - (0.9674)^2}} \sqrt{10 - 2} = 10.8043$$

Degree of freedom =  $n - 2 = 10 - 2 = 8$

Level of significance:  $\alpha = 5\%$

**Critical value:** The tabulated value of  $t$  at 5% level of significance for two tailed test and for 8 d.f. is 2.306.

Decision: Since calculated value of  $t$  is greater than tabulated value of  $t$ , the alternative hypothesis  $H_1$  is accepted. That is, the book value per share and closing price are correlated.

#### \* Testing the correlation coefficient between NEPSE index and Volume of Stock Traded.

Sample size :  $n = 10$  and  $r = 0.4523$ ,

Null Hypothesis.  $H_0: \rho = 0$ , i.e.. NEPSE index and Volume of Stock Traded are uncorrelated.

Alternative Hypothesis.  $H_1: \rho \neq 0$ , i.e NEPSE index and Volume of Stock Traded are correlated (two tailed test).

$$\text{Test statistic, } t = \frac{r}{\sqrt{1-Zr^2}} \sqrt{nZ^2} = \frac{0.4523}{\sqrt{1-Z(0.4523)^2}} \sqrt{10Z^2} = 1.4344$$

Degree of freedom = = n -2 = 10 -2 = 8

Level of Significance ( $\Gamma$ ) = 5%

**Critical Value:** The tabulated value of t at 5% level of significance of two tailed test and for 8 d.f. is 2.306.

**Decision:** Since calculated value of t is less than tabulated value of t, the null hypothesis  $H_0$  is accepted. That is, the NEPSE index volume of stock traded are uncorrelated.

### Testing the signaling Effect

Sector	NEPSE index		d=y-x	d- $\bar{d}$	$(dZ\bar{d})^2$
	Oct.(x)	Dec.(y)			
Commercial Banks	450.47	584.68	134.21	56.43	3184.3449
Finance Companies	274.54	292.72	18.18	-59.60	3552.1600
Insurance Companies	394.58	427.79	33.21	-44.57	1986.4849
Manufacturing	313.68	317.29	3.61	-74.17	5501.1889
Trading	149.66	149.71	0.05	-77.73	6041.9529
Hotels	179.03	185.45	6.42	-71.36	5092.3496
Development Banks	320.95	493.21	172.26	94.48	8926.4704
Others	431.14	655.71	224.57	146.79	21547.3041
Overall	401.07	508.58	107.51	29.73	883.8729
			d=700.02		$(dZ\bar{d} X56716.0286$

Null hypothesis  $H_0 : \bar{X}_{Oct} = \bar{X}_{Dec}$  i.e. there is no significant difference between the NEPSE index of October and December.

Alternative Hypothesis:  $H_1: \bar{X}_{Oct} \neq \bar{X}_{Dec}$  (Two tailed test) i.e. there is a significant difference between the NEPSE index of October and December.

Now,

$$\bar{d} = \frac{d}{n} = \frac{700.02}{9} = 77.78$$

$$\text{And, } S_d = \sqrt{\frac{1}{n-1} \sum (d_i - \bar{d})^2} = \sqrt{\frac{1}{9-1} (56716.0286)} = 84.1992$$

$$\text{Test Statistic: } t = \frac{\bar{d}}{s} = \frac{77.78}{84.1992}$$

**Critical Value:** The tabulated value of at 5% level of significance for two tailed test and for 8 d.f. is 2.306.

**Decision:** since the calculated value of  $t$  is greater than tabulated value  $t$ , the alternative hypotheses  $H_1$  is accepted. That is, there is significant change in NEPSE index the peace accord sign on November.

### Testing the significance difference between the Mean Value of Daily NEPSE index with its Annual NEPSE index (2004/05)

**Null hypothesis**  $H_0: \bar{X} = 286.67$  i.e. annual NEPSE index of 2004/05 is equal to the average value of daily NEPSE index during 2004/05.

**Alternative Hypothesis**  $H_1$ :  $\mu \neq 286.67$  i.e. annual NEPSE index of 2005/06 is not equal to the average value of daily NEPSE index during 2004/05.

Test Statistic:

$$z = \frac{\bar{x} - \mu}{\frac{s}{\sqrt{n}}} = \frac{255.8 - 286.67}{\frac{23.394}{\sqrt{237}}} = -20.31$$

$$|z| = 20.31$$

**Critical value:** the critical value of z at 5% level of significance for two tailed test is 1.96 i.e.  $|z| = 1.96$ .

**Decision:** since the calculated value of z is greater than tabulated value  $z_{\alpha}$ , the alternative hypothesis  $H_1$  is accepted. That is, the average daily NEPSE index during 2004/05 is not equal to 286.67.

### Testing the significance difference between the Mean value of Daily NEPSE Index with its annual NEPSE index (2005/06)

Null hypothesis.  $H_0$ :  $\mu = 386.83$  i.e. annual NEPSE index of 2005/06 is equal to the average value of daily NEPSE index during 2005/06.

Alternative Hypothesis.  $H_1$ :  $\mu \neq 386.83$  i.e. annual NEPSE index of 2005/06 is not equal to the average value of daily NEPSE index during 2005/06.

Test Statistic:

**Critical value:** The critical value of z at 5% level of significance for two tailed test is 1.96 i.e.  $|z| = 1.96$ .

**Decision:** since the calculated value of  $z$  is greater than tabulated value  $z_{\alpha}$ , the alternative hypothesis  $H_1$  is accepted. That is, the average daily NEPSE index during 2005/06 is not equal to 386.83.

### Testing the homogeneity of respondents view on influencing factors of Nepalese stock prices movement

Null hypothesis:  $H_0$ : There is homogeneity of respondents view on influencing factors of Nepalese stock prices movement.

Alternative Hypothesis  $H_1$ : There is not homogeneity of respondents view on influencing factors of Nepalese stock prices movement.

$$\text{Test Statistic} \quad \chi^2 = \frac{(O - E)^2}{E} = 69.56$$

Influencing Factors	Observed Frequency (O)	(O-E)	(O-E) <sup>2</sup>	$\frac{(O - E)^2}{E}$
Company's profit	48	27.5	756.25	36.89
Company's dividend	10	-10.5	110.25	5.38
Company's performance	35	14.5	210.25	10.26
Company's management	25	4.5	20.25	0.99
signaling effect	12	-8.5	72.25	3.52
Market rumor	10	-10.5	110.25	5.38
Foreign Company's investment	13	-7.5	56.25	2.74
Demand and supply mechanism	11	-9.5	90.25	4.40
				$\frac{(O - E)^2}{E} = 69.56$

Where,

O= observe frequency

$$E= \text{Expected frequency} = \frac{O}{n} = \frac{164}{8} = 20.5$$

$$\text{Degree of freedom} = n-1 = 8-1 = 7$$

$$\text{Level of Significance, } \alpha = 5\% = 0.05$$

**Critical value:** The tabulated value of  $\chi^2$  at 5% level of significance for 7 d.f. is 14.07.

**Decision:** Since the calculated value of  $\chi^2$  is greater than tabulated value of  $\chi^2$ , the alternative hypothesis H1 is accepted. Therefore, we conclude that there is not homogeneity in respondents view in influencing factors of Nepalese stock prices movement.