BEHAVIOR OF STOCK MARKET OF LISTED COMPANIES IN NEPAL

A THESIS

Submitted by:

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T.U. Regd. No: 7-1-7-1404-2001

Submitted to:
Office of the Dean
Faculty of Management
Tribhuvan University

In Partial Fulfillment of the Requirements for the
Master of Business Studies (M.B.S.)

Minbhawan, Kathmandu
Nepal
June, 2011

VIVA-VOCE SHEET

We have conducted the viva-voce examination of thesis

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Entitled:

BEHAVIOR OF STOCK MARKET OF LISTED COMPANIES IN NEPAL

and found the thesis to be the original work of the student written according to the prescribed format of faculty of management Tribhuvan University. We recommend this thesis to be accepted as partial fulfillment of the requirements for Master of Business Studies (M.B.S).

Viva-Voce Committee

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RECOMMENDATION

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has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

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DECLARATION

I hereby declare that this thesis entitled **"Behavior of Stock Market of Listed Companies in Nepal"** have submitted to Faculty of Management, Tribhuvan University is my original work. It is done in the form of partial fulfillment for the Master of Business Studies (M.B.S) under the supervision and guidance of Lecturer Mr. Madan Kandel of Nepal Commerce Campus, Tribhuvan University.

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ACKNOWLEDGEMENTS

With my sincere obligation, I express my deep sense of gratitude to all those who have helped me by extending and sharing valuable time, efforts, views, and inspection In the course of completing this research work in the present form.

At the onset, I am obliged to Dr. Sushil Bhakta Mathema and Mr. Madan Kandel lecturer of Nepal Commerce Campus, Tribhuvan University for their scholarly guidance, gracious inspiration, constant supervision and affectionate behave during his supervision can hardly be exaggerated.

This study has been made to find out the status of behavior of stock market of listed companies in Nepal. In the course of preparing this thesis, I had an opportunity to exercise me knowledge with different experts in this field, which inspired me to study more in this area.

Furthermore, I would like to pour my words of gratification to my respect friends Dhrien Shrestha and Siva Pokarel for their worthy guidance that proved to be highly significant throughout the preparation of this thesis.

Lastly, I hope this study work will be fruitful to all interested and concerned people in the field of stock market. I look forward for comments, compliments from all well-wishers, and admit there is always room for improvement. Finally, needless to say, I am alone responsible for my any deficiencies that might have remained in this work.

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List of Abbreviations

SEC	Securities Exchange Centre
SEBON	Securities Board of Nepal
NEPSE	Nepal Stock Exchange Limited
EMH	Efficient Market Hypothesis
RMH	Random Walk Hypothesis
WEM	Weakly Efficient Market
DJIAI	Dow-Jones Industrial Average Index
NYSE	New York Stock Exchange
JYP	Japan Yen
GBP	UK Pound
USD	United State Dollar
FRF	France Franc
INR	Indian Rupees
DM	German Mark
EPS	Earning Per Share
DPS	Dividend per Share
MPS	Market Value per Share
MV	Market Value
BV	Book Value
D/P Ratio	Dividend Payout Ratio

P/E Ratio	Price Earnings Ratio
NRB	Nepal Rastra Bank
NIDC	Nepal Industrial Development Corporation
HBL	Himalayan Bank Limited
NIB	Nepal Investment Bank Limited
NABIL	Nabil Bank Limited
SCBNL	Standard Chartered Bank Nepal Limited
AFC	Annapurna Finance company
MFC	Mahalaxmi Finance Company
NFC	Nepal Finance company
ABBL	Annapurna Bikas Bank Limited
GDBNL	Gurkha Development Bank Limited
SBBL	Sanima Bikas Bank Limited
ACEDBL	Ace Development Bank Limited
F/Y	Fiscal Year
Co.	Company
T.U.	Tribhuvan University

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

Capital market is place where long-term securities having maturity period greater than one year are traded. The instruments used in capital market are debt, stock, bonds, and convertible issue. The long term debts are installment debts, commercial debts represented by acceptance bills, commercial debts and accommodation papers etc. saving and deposits schemes, which are not securities bearing, fall under the non securities segment of market. Capital markets are classified as primary market and secondary markets. Primary market is the market in which corporations raise new capital and in which newly issued securities are involved. If we were to sell new issue of common stock to raise capital, here would be a primary market transaction. The corporation selling the stock receives proceeds from the sale in the primary market transaction. Secondary market is those in which in previously issued securities are traded by far the most active secondary market and the most important one to the financial manager is the stock market. It is here that the price of firms stock are established and since the primary goal of financial management is to maximize the firm's stock price, a knowledge of the market, in which the price is established is essential for any one involve in managing the business.

The stock market also imparts liquidity to the securities holders. This offers an opportunity for investors to invest in the long term ventures, while market also enable them to convert their securities into liquidity cash before the maturity of the project. The liquidity stock market also promotes the primary issuance of share because investors participant in the issuance of share markets for they can get back the fund easily. Stock market liquidity may influence economic development. Many profitable projects require long-term venture capital finance. Most investor trends to avoid the risk are often reluctant to tie their saving into the long-term commitment. Liquid stock market makes the investment less risky and more attractive. It encourages several to invest in the long-term project, because they can sell the security quickly and easily if they want to get back their savings before the project matures.

The investors in Nepal have shown their growing interest in shares of the public limited companies, banks, financial institutions. At the same time, their interest to price volatility has been increasing day by day. Many public limited companies in Nepal are successful in floating the shares in securities market these days. The

rising investment consciousness is the direct outcome of the keen interest shown by the public. “whenever the public limited companies issue new shares the stock market gets with crowds of share application”.(Shrestha, 1992:56-57)

This history of securities market began with the floatation of shares by Biratnagar Jute Mills Ltd. And Nepal bank Ltd. in 1937 A. D. with the introduction of company act in 1964, firstly government bond was issued. But, there were no secondary market to provide liquidity for those bonds until the establishment of securities marketing centre in 1976 were other significant development resulting to capital markets. In 1983, securities exchange was enacted to develop the securities market. Under the act, the securities marketing center was converted into the securities exchange center (SCE) in1984. Securities exchange centre functions were confined to the trading of government stock. Except government stock, securities exchange centre also carried out primary and secondary market services for the corporate securities. The remarkable changes come only after the initiation to reform the market in 1993, when the securities exchange centre was converted into Nepal stock exchange (NEPSE) and new market mechanism was introduced providing membership to market intermediaries allowing participant in the transaction of securities.

1.2 Focus of the study

Capital market helps to mobilize the financial resources and efficiently channel to productive investment. Capital market consists of securities market and non-securities market. Securities market implies mobilization of the funds through issuance of securities share, bonds, and debentures, by corporate sector and bonds bills and debentures by government. The securities available in this market can be in the form of equity such as share and stocks, debts instruments such as corporate bond and government securities or equity equivalents such as convertible bond or debentures. These securities traded in the market are generally negotiable and hence can be traded in the secondary markets. Non- securities markets refers to the mobilization of the financial resources by the financial institutions in the form of deposits and loans.

Stock market acts as a part of the capital market and can provide major sources for the investment in the economic development. Stock is an institution of paramount importance in the economic life of the any country. In fact, private ownership of business and industry would be inconceivable in the absence of a

facility which enables such share ownership right to be bought, transferred, and converted into cash. The stock exchange provides liquidity to private investment in corporate enterprises.

Stock market is a secondary market, a trading market. This is a place where buyer and sellers of securities is bought together. The stock price efficiency occupies an important place in financial management. If there are certain imperfections in the stocks, wise investor attempts to utilize them to achieve a better return. The perception has no rational significance in a world where shares are efficiency priced. In an efficient market, share price should adjust randomly upward with respect to the new information. Stock market efficiency cannot be tasted directly. However, by postulating some security price behavior, one can have some idea about market efficiency. History indicates that much time and effort have been devoted in the field of financial research to investigation the movement of share prices. Thus, study has been focused on the behavior of Nepal Stock Exchange index.

1.3 Statement of the Problem

The Nepalese capital market has been passing through a transitional phase over the few decades. A breakthrough was achieved in the development of stock market in Nepal, when the security transaction centre was converted into Nepal stock exchange in 1994. Market maker and stock brokers were engaged to transact business through a trading floor provided by Nepal stock exchange under an atmosphere of competition.

Stock market provides investors good investment opportunity with fair return and instant liquidity with minimal risk or loss. It helps to mobilize financial resources for the investment in development projects and there by helps for economic development, in turn, further develop the stock market. The investment strategy based on the technical analysis is more profitable than buy and holds policy timing of selling and buying. Fundamental analysis theory holds the view that there exists intrinsic value of the stock, which helps to select the right stock at a time. Market is efficient in pricing the share. In that condition, investment decision becomes simple. However, investors are losing interest in the performance of share market mainly due to the behavior of fraudulent and scandalous activities. Investors are confused which stock is good or bad.

The study period is no longer and enough to other comprehensive test in short data series seems that the study was focus on the methodological study only. The study mainly has sought the answer to the following question:

1 How many companies listed in Nepal stock exchange?
2 What is the trend of annual turnover of the Nepal stock exchange?
3 What is the trend in market capitalization?
4 What is the behavior of NEPSE index?
5 Why financial index is more growth than manufacture and other sector?
6 Why NEPSE index is increased faster than previous?

1.4 Objective of the Study

The major objective of the study is to examine the efficiency of the behavior of NEPSE index. The specific objectives of the study are as follows:

- To identify the trend of annual turnover of Nepal stock exchange.
- To analyze the behavior of listed companies in NEPSE.
- To explore the behavior of NEPSE index.
- To evaluate investor's view while making investment decision.
- To analyze investing technique in stock market.

1.5 Significance of the Study

There are various factors that cause market fluctuation of stock price in the market, mainly two factors and non- economic factor s. the most fundamental factor in stock price fluctuation lays change in corporate earnings; interest rates and business cycle trends contribute to make up the economic factors. Political change, administrative changes, changes in weather and other natural conditions. The stock price is directly affected by the volumes of transaction, institution investor, transactions etc. although margin transaction increase purchase whose stock price is going up, once the price begins to fall, they become a selling factor and accelerate price decline.

The listing of share in stock exchange centre and their trading in the stock market is not too long. The stock market has been providing capital for investment in industrial productive sector, service sector, financial sector, and other.If the successive price changes of the share dependent on their past values, there exist 'trends' or 'patterns' in the price movement which are profitable to the securities analysis. "When successive price changes are independent, there can be no chart reading technique which makes the expected profits of the investors "greater than they would be under a naive buy and hold model." (Fama 1965)

1.6 Limitation of Study

The focus of study is to identify the behavior of stock market of listed companies in Nepal. The main limitations of the study are as follows.

1. The study covers five fiscal years from 16 July 2005 to 16 July 2010.
2. Primary and secondary data has been collected to prepare this study.
3. The study is based on eight sectors to study the behavior of NPSE.
4. The study is limited only to the stock market of Nepal.

1.7 Organization of Study

The present study is organized in such a way that the stated objectives can easily be fulfilled. The study report has presented the systematic presentation and findings of the study. The study report is designed in five chapters, which are as follows:

CHAPTER I- INTRODUCTION

This chapter deals with subject matter of the study consisting of background of the study, focus of the study, statement of the problem, significance of study, limitation of the study and hypothesis formation.

CHAPTER II- REVIEW OF LITERATURE

This chapter deals with review of the different literature of the study field. It includes theoretical review along with the review of major books. Journals, research works and thesis.

Chapter III- RESEARCH METHODOLOGY

This chapter deals with research methodology to be adopted for the study consisting research design, source of data, population sample etc.

CHAPTER IV- DATA PRESENTATION AND ANALYSIS

The fourth chapter deals with presentation analysis and interpretation of data. It consists testing of hypothesis, analysis of questionnaires, analysis of open-end opinions and major findings of the research.

CHAPTER V- SUMMARY CONCLUSION AND RECOMMENDATION

This is the final part of the study. The last chapter covers the summery, conclusion and recommendation of the study.

Besides this, bibliography and appendix have also been included at the end of the study.

CHAPTER-II

REVIEW OF LITERATURE

2.1 Theoretical Reviews

Numerous factors cause the share fluctuation in the market. There are economic and non-economic factors. The prices of securities are typically very sensitive, responsive to all the events both real and imaginary that cast light into murky future. (Cootner, 1964:85)

During the last three decades, a number of studies had been conducted to examine and to test the efficient market hypothesis in its weak and semi strong forms in developed stock market. Efficient market cannot be directly tested. Over the years, professionals and experts have been concerned with development and testing model of price behavior. It would be very hard to find a completely accepted price formation theory. Before describing the efficient market theory, it would be proper to explain the conventional approach that includes technical analysis theory.

2.1.1 Technical Analysis

Technical theory involves study of the past volume and price data of the stocks to predict future price fluctuations. This approach studies various graphs and charts of the past share prices and deduces from the analysis about future movement. “The chartist seeks to predict future movements by seeking interpret past pattern on the assumption that history trends to repeat itself.” (Kean, 1983:10) Technical analysis is the study of the internal stock exchange information as such. The word “technical” implies a study of the market itself and not of those external factors, which are reflecting in market. The technician usually attempts to

predict short term price movement and thus makes recommendations concerning the timing of purchasing and sell of either specific stock or groups of stocks (such as industrial) or stock in general. It is some time said that technical in designed to answer the question 'when'? (Sharp, Alexander and Bailey, 2003:223). The underlying philosophy of technical analysis is that the price of the stock depends on supply and demand in the market and has little relationship to intrinsic value, as fundamentalists believe it to be. Thus, technical analysis tools are designed to measure supply and demand of securities in the capital market.

The following assumptions:

1 Price was determining by the interaction of demand and supply.

2 Demand and supply had governed by various factors, both rational and irrational.

3 Series of prices contain trends that persist for appreciable length of time.

4 The changes in trends caused by shift in demand and supply are detachable in the analysis of past price and value.

5 The pattern trends to repeat itself.

"In statically terminology the stock market technician relies upon the dependence of successive price changes." (Levy, 1966:168). They assume that the historical behavior of a security price is rich in information concerning its future behavior.

2.1.2 Fundamental Analysis

In the fundamental analysis approach, the security analyst or prospective investor is primarily interested in analyzing factors such as economic influences, industry factor, and pertinent company information such as products such as product demand, earnings, dividend, and management in order to calculate an intrinsic value of the firm's security. It said sometimes that fundamental analysis was design to answer the question. (Sharp, Alexander, and Bailey 2003:239)

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Fundamental analysis theory claims that at any point of time an individual stock has an intrinsic value of the future cash flows from the security discounted at appropriate risk adjusted discount rate. The value of the common stock is simply the present value of the all future income which the owner of the share will receive the actual price should be reflected the intrinsic value of the stock i.e. good anticipation of cash flow and capitalization rates corresponding to future time period. But in practice, first it is not known in advance what

a stock income will be in each future period and second, it is not clear what the appropriate discount rate should be for a particular stock. So fundamentalist attempt to reach best estimate of the intrinsic value of share by studying company's sale, profit, dividends, management competency and numerous other economic and industrial factor which determine its future income and prospect of the business opportunities. Fundamental analysis delves into companies, earnings, their management, economic outlook, firm's competition, market conditions, and many other factors.

Fundamental security analysts estimate the intrinsic value of a security. Whenever the stocks values of the stock, the recommendation of sales or purchase is called for "after extensive analysis, the investor derives an estimate of the 'intrinsic ' value of the security, which is then compared to its market price, the security should be acquire and vice versa.

2.1.3 Efficient Market

Efficient market is concerned with the pricing mechanism of security market. It has two dimension of price adjustment: one is to the type of information reaching to and another is the speed and quality of adjustment of security to the information. As any random, infusion of information instantaneously and correctly adjusts in prices. There are no subsequent lags that's should be profitable. Pricing not only should be instantaneous but also should discount accuracy of information so that the prices fluctuate closely around its intrinsic value.

Market efficiency may be defining in the context of number of areas, for intense organizational efficiency, investment efficiency, allocation efficiency, informational efficiency and so on. The word "efficiency" as applied to securities market has been unfortunately used to represent a variety of logically distinct concept, in particular it mean a) exchange efficient b) production efficient and c) information efficiency. Efficiency market theory contends that in free and perfect competition market, stock price always reflects all the available information and adjust instantaneously every influx of new information. "In an efficient markets security prices "fully reflect" available information." (Fama, 1977:13)

Most financial economists agree that capital should be channel to the place where it will do the most good. One goal of government policy is to encourage the establishment of allocation all efficient markets in which the firms with the most promising investment opportunities have access to the needed funds. However, in order for markets to be allocation efficient, they need to be both internally and externally efficient. In externally efficient market, information is quickly and widely disseminated, which allows each so that it reflects investment value. An internally efficiently market is one in which brokers and dealers compete fairly, making cost of transacting low and the speed of transaction is high. (Sharp, Alexander, and Bailey, 2003:228)

The efficient market theory being extreme hypothesis, i.e. price was fully reflecting and not all the information can be tested in the empirical data in this precise form. However, postulating pricing mechanism with the types of information set was impounding in the stock market can be done. Hypothesis of the market is efficient depending upon types of information was impounded into price. There are:

I. The efficient market hypothesis (EMH)

II. Theory of weakly efficient market or random walk hypothesis (RWH)

I. The Efficient Market Hypothesis (EMH)

A large segment of financial community does not properly understand the efficient market hypothesis. The development of EMH could be traced into the random walk theory of stock market price behavior. Later, when largely random, endeavors where made to obtain empirical results with economic contents, which may be advancement of efficiency market theory. Market efficiency may be in the context of (a) operation efficiency (b) information efficiency (c) allocation efficiency.

The efficiency market hypothesis says that the market rapidly incorporates all information affecting the value of a security. Test of market efficiency require a model showing the impact of information of upon share prices. The EMH can be broken down into three sub- hypothesis, which differ according to the type of information.

Form of efficiency set of information reflected in security price Weak previous prices of securities Semi-strong all publicly available information Strong all information, both public and private. Three forms of efficient market hypothesis depending upon types of information set impound into the prices. If the pricing in the stock market has absorbed all the information available in the stock market, it was considered as weakly efficient and participant of the technical analysis approach in the market becomes futile. If current prices of the stock reflect all the publicly available information i.e. past prices volume data and all the published accounting information have no value because it would have been discounted by participants accurately and instantaneously when they are disclosed

The weak from efficient market hypothesis assumes that all past information has reflected in security prices. This means that is no relation between the past add the future price fluctuations. Consequently, investors are unable to make profit from studying trend or pattern of past of prices of the securities.

The semi- strong efficient market hypothesis holds that security prices adjust rapidly to all publicly available information, e.g. the announcement of annual earning, stock splits etc. this implies that using publicly available information investor will not be able to earn above average return.

The strong form efficient market hypothesis assumes that all information affects stock prices both public and private securities prices. Thus, in such a condition even those who have access to private information cannot consistently excess return.

The main job of fundamentalist is to find out overvalue securities. Furthermore, in a dynamic economy intrinsic value can change them because of new information. The intrinsic value of a give securities depends on the earning prospect of the company, which is related to economic, political, and company's specific factor. In some cases, the market participants do not rapidly know new information, security price change with display dependence. However, if the adjustment to new information is "instantaneous" successive price changes will be independent (Lorie 1973:4).

The semi strong efficient market hypothesis (SSEMH) and strong efficient market hypothesis (SEMH) cannot be test directly; one can do so indirectly by accumulating evidence, which contradicts these hypotheses. Thus the SSEMH is tested by examine whether share price react accurately to new available fundamental information. If the SSEMH is true, then accounting information has no value and only a few insiders trading

on valuable information can earn a high profit. “In SSEMH, the degree of variance between price and value security is relatively low. SSEMH can be tested by determining whether any investor appears to have gained and use superior information.” It is difficult to test the SSEMH because private information could not examine directly in SEMH variance between price and value is zero.

II. Theory of Weakly Efficient Market or Random Walk Hypothesis: (WEM)

The weak form of efficient market hypothesis (EMS) states that current prices fully reflect the information contained in the historical price movements. 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 very independent of pervious movements, implying the absence of any price patterns with prophetic significance. Therefore, the past price had no meaningful information to predict future course of price fluctuation, which can used to earn above average return. The movements of future price are independent to the previous price or the series of price change are random phenomenon. Actually, the weak form of EMH was referring to as random walk theory of share price behavior. Weak form of efficient market hypotheses has popularly known as the random walk theory. Random walk theories describe whether past prices can predict future prices. The fundamental believed at the back of RWH are that successive price changes of an individual stock are independent over time and that its actual price fluctuates freely over time about its intrinsic value. Fama called this model an intrinsic value random walk market (Fama 1965:18).

In contrast to this model, random walk theory denies the existence of any kind of “trends” or “patterns.” Hence, past price contains no useful information to predict future price behaviors. As Fama advocates, random walk theory implies the future path or the price level of the security is no more predictable that the path of a series of accumulated random number. The random walk model in share price actually involves two main hypotheses, which state as:

1. Successive price changes are independent, and
2. Price changes conform to some probability distribution. “Statically, independences means the probability distribution for the price change during time period t is dependent from the sequences of price changes during previous periods.” (Fama, 1965:18) More precisely, it was expressd in the following algebraic term.

P_t (x_t= x/ x_t-1, x_t-2.....) = P_r (x_t=x)

Where the term on the left side of equation is the conditional probability that is the price change during time t will take the value x, conditional on the knowledge. the previous price changes took the values 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 conditional and the marginal probability distribution of an independent random variable are identical.

Out of two hypothesis of the random walk theory, independences of successive price change are strong and most important one to make theory valid. The second one is price changes conforms to some probability distribution but its shape or form of distribution need not to be specified i.e. any distribution is consistent with the theory as long as it correctly characterizes the process generating the price changes. However, the parameter of the distribution should be stationary but not so strongly imposed. Moreover, still the form of distribution of price changes is important from investment decision, academic and research point of view. (Fama, 1965:19)

Actually, market mechanism establishes the existence of random walk theory that the successive price changes to be independent. The stock markets possess steady inflow of information that influences the set anticipation's of the individuals. Independence is an important property of random walk hypothesis. Proponents of random walk recognize that, in general, strictly an independence assumption does not exist in real world.

2.2 Review of Related Studies

This sub-section is concerned with the previous research work done by the different scholars. More especially the chapter includes the review of foreign research and review of Nepalese research.

2.2.1 Review of Articles and Journals

Research on the security prices did not begin with the development of a theory of price formation, which had subjected to empirical test. They imputes for the development of the theory came from the accumulation of evidence in the middle 1950 that the behavior of common stock and other speculator of prices could be well approximated by a random walk. Much of the theory on the random walk can be traced

on French mathematician Louis Bachelier whose PhD dissertation was title “the theory of speculation” researcher tested the model in commodity speculation in France was a “fair game.” researcher concluded that the current price of a commodity walk was unbiased estimate of its future price. After the first discovery of the random elk model by Louis Bachelier, empirical testing of the model in the stock prices almost remained stagnate until 1960;s. there were large number of studies most of which were briefly reviewed below.

Kendall (1953), Roberts (1959) and Osbern (1959) also tested the model that gave support to the theory. Then after in 1960’s and onwards numerous studies were carried out in this area validated the hypotheses while some other studies refuted this theory as a true description of the market. This research applies various analyzing tools and mechanical rules, details of that have been presented in the following paragraphs.

Kendall (1953) conducted on study on random walk model. Researcher tested the model on the weekly price changes of the 19 indices of British industrial shares and in the spot price series of cotton (New York) and wheat (Chicago). Researcher was analyzed the data by serial correlation coefficient. He found that:

- Subsequent stock price movement follows random walk.
- Successive price changes are ststically independent to its past price changes.

Roberts(1959) conducted simulation tests by comparing the cumulating of random numbers and the Dow-Jones Industrial Average Index (DJIAI) for about one year. Researcher observables the first difference of two series produce the same pattern. Researcher gives a number of methodological suggestions for testing what he calls the change model. Researcher suggested run analysis for testing independence of price changes. similarly, Osbern (1959) analyzed stock price from New York stock exchange (NYSE) using daily log price changes, which called Borwain Motion. Research found the consistency between the Borwain Motion and share prices movements rise to support on random walk hypothesis.

Counter had analyzed weekly and 14-week interval data on 14 stocks from New York Stock Exchange (NYSE). He found that:

- One-week interval stock price moves as a random walk and some dependencies in the data at 14 weeks interval

- The average serial correlation coefficient for one week as -0.047 and for 14 was 0.131.
- The importance of “differencing interval” while testing for randomness in stock price behavior.

Fama study (1965) on the random walk model, he observed the daily proportionate prices of 30 individual stock the Dow Jones Industrial Average. Researcher employed the statistical tools such as serial correlation and run test to draw inference about dependence of the price series. Researcher calculated auto correlation coefficient for daily changes in log price from 1 to 30. He found that :

- the coefficient was almost closed to zero in overall.

Dryden studied daily London all- market indices for four year, and Researcher suggests that:

- The serial correlation coefficient 0.30 to 0.16, which is significantly different from zero.
- Sufficient divergence from the random walk hypothesis to justify a more extensive analysis of the behavior of individual share quote on the London stock exchange.

Solnik investigated the daily price of 234 common stocks of eight European countries namely, France, Italy, United Kingdom, Netherlands, Belgium Switzerland, and Sweden for the time from March 1966 to April 1971. Researcher calculated the return for various interval of the each stock and studied the distribution of serial correlation coefficient. Researcher pointed out that:

- Random walk is more apparent in the European stock price behavior than in the American price behavior.

Sharma and Kennedy tested the random walk model by run test and spectral analysis against representative stock market indices of Bombay, New York and London stock exchange during 1963-73. Researcher found that:

- The stocks on Bombay stock exchange obey random walk and are equivalent in sense to the behavior of share price in the market of developed countries.

Mahapatra tested the weakly efficient market hypotheses using rank correlation analysis based on relative strength. The sample was ended of month closing price of 26 stocks from Bombay stock exchange during the period January 1989 to December 1992. Researcher argued that:

- The Indian stock market is less efficient in the short run more than efficient in the long run.

Mojnoni and Massa's studied the measurement of market efficiency of the Italian stock market. The data used two different data sets on prices and returns, first on daily data then on intraday data. The analysis based on daily data shows the strong positive correlation between price changes and trading volume. That is due to significant causal relationship between price changes and trading volume is due to increasing concentration of trading should not be interpreted as an indication of poor market efficiency since the component of price volatility due to the market imperfections has declined as a proportion of total volatility even for infrequency traded stocks.

Abraham, Seyyed and Alsakram data consist of weekly index value for the three major gulf stock markets of Kuwait, Saudi Arabia and Bahrain for the period October 1992 to December 1998. Random walk hypotheses and market efficiency hypothesis were assessed using the variance ration and the non-parametric (Run Test) consistent with results in the literature for similar emerging markets both RWH and weak from efficiency were rejected for the gulf markets when the observed index levels were used. The corrected indices show that successive price changes are independent for all three markets implying weak from efficiency random walk hypothesis for the Saudi Arabia and Bahrain markets cannot reject. Kuwait market falls to follow a random walk even after the correlation.

Pena and Alana test showed that stock index prices follow random walk in the Spanish stock market by means of variance ratios. By using daily, weekly, and monthly prices return, auto correlation in the Spanish stock market for the two indexes (IGBM and IBEX 35) were calculated and for individual securities, the calculation done means of variance ratio tests. They found that:

- Positive string auto correlation for both IGMB and IBEX 35 index daily returns could not reject the random walk hypotheses for the period march 31, 1997 to 2000, significant position of auto correlation especially in daily and weekly period.
- The positive index auto correlation monthly returns were not significance at 5% level in any period.

- On the other hand, Spanish stock market security daily positive auto correlation are low, there is no strong evidence of monthly return cross relation at one lag (a month) between portfolios based on size.
- In particular, large stock portfolios lead to the small stock ones.

Wicremasighes has conducted an empirical test of foreign exchange market efficiency. The tests have been carrying out by using a variance ratio test and random walk in foreign exchange rates. The study examined the weak and semi strong from efficiency of the foreign exchange market in Sri Lanka by using monthly data for six currencies. The monthly nominal spot exchange rates for Japans Yen (JPY) the UK Pound (GBP) the United State Dollar (USD) France Franc (FRF), Indian Rupee (INR), and German Mark (DM) for the period January 1986 to November 2000. While units root test were used to test weak form of the efficient market hypotheses. Semi strong form of the efficient market hypotheses was investigated using co- integration, granger causality and variance decomposition analysis. The result of unit root tests indicates that all six exchange rates were random walk. The efficient market hypotheses was weak from the participants in the foreign exchange market in Sri Lanka and cannot devise some rule or technique that can be used to predict future movement of an exchange rate from its past value. However, the co integration and granger causality tests and variance decomposition analysis provide evidence against the semi-strong version of the efficient market hypotheses.

They indicate that:

- The movement of one or more exchange rate can predicted from the movement of the other exchange rates.
- The participants in the foreign exchange market can engage in profitable transaction in both the short and long run.

Islam and Khaled carried out a test of weak form efficient of the Dhaka stock exchange used of monthly versus daily data or weak. The study uses daily, weekly, monthly market prices and returns of the stock exchange during the year 1990 to 2001. Starting from the January 1990, the daily market price data cover the period up to 23 November 2001, while the weekly and monthly price data cover the period up to 21 November 2001 and October 2001 respectively. Data for the period 1990 to 1991 was taking from the daily price quotations. Test of weak from efficiency of the Dhaka stock exchange had done by using the auto

correlation test. They tested separately for the period before July 1996 and for the period after March 1997. They concluded that:

- Weak efficiency had rejected by using auto correlation test but it had based on hypotheses at the 5% significance level in the case of monthly data.
- However, for weekly data and daily data the market efficiency was rejected for the pre boom period (1996) but not for the post-crash.

2.2.2 Review of Unpublished Document

A study done by Mr. Shrestha entitled with "role of securities marketing centre in the economic development of Nepal". The study has following objective:

- To examine the role played by securities marketing centre in promoting Nepalese security.
- To discover the potential investor for developing security market.

This study covered the period of 4 years (2034/35 to 2037/38). Researcher has found that:

- The securities marketing centre is very poor in term of the primary market and facing the problem in the demand and supply.
- Investors had influenced by the value of share and dividend policy of the company while buying or selling the securities.

Bhattarai carried out a study impact of securities exchange centre on capital mobilization with special reference to the government securities and share market in Nepal. The objective of the study was that:

- To evaluate the significant features of government securities make to fine out the contribution of securities exchange centre.

Researcher concluded that:

- securities exchange centre has mobilized long term capital required to the new companies lunch the development activities in the country to provided the investment opportunities to investor though the primary market.

Bhatt(1997) has conducted a research study on "assessment of the performance of listed companies on Nepal". He has taken 10 listed companies as simple based on secondary data. The study has following objectives:

- To examine the performance of listed companies
- To study the trend of stock market

He was used different statistical tools like ratio analysis, beta coefficient and portfolios to analyses the dividend yield, liquidity, leverage risk and return etc.

Researcher concluded that:

- Capital market to run efficient required continues flow of information and there was serious deficiency of such information in market.
- Investors were depressed in the market by rules, regulations, and bureaucratic set up of the companies.

Gurung conducted a study based on share price behavior of listed companies in Nepal. The sample for the study comprised of 15 companies representing form commercial bank, insurance, manufacturing & processing and trading. The study has following objectives:

- ✓ To test the monthly movement of share price behavior of listed companies in Nepal.
- ✓ To analyze the relation between traded and listed companies.
- ✓ To evaluate the trading turnover.
- ✓ To analyze the share price behavior of listed companies

He was used different statistical tools like:

- ✓ Mean,
- ✓ Coefficient correlation,
- ✓ Financial parameters.

Researcher mentioned that:

- ✓ The number of listed companies had been increased during the supply period.
- ✓ The study was.
- ✓ The performance of commercial banks was better than that of trading concerns and the investment

in this group was more attractive so, banking group was higher than compare to the other group.

- ✓ Market was bullish during the initial period of the study. The higher fluctuation in prices in decreasing trend and higher variations in prices showed the performances of listed companies had been deteriorating. More over this implies the uncertainty and instability in stock market.

Timilsena has conducted a study on "capital market development and stock price behavior in Nepal". The main objectives of the study was

- ✓ To find out the fair market price of equities
- ✓ To observe the variation of actual prices form the computed fair prices to test whether the present behavior of prices will remain stable.

The study covered a period of 8 months (1999/2000). Thirty-four listed companies were taken as a sample for the study.

He was used different statistical tools like:

- ✓ Mathematical, and
- ✓ Financial tools, including the formation of hypotheses had done in the study.

Researcher concluded that:

- ✓ The market price of share depends on earning per share (EPS) as well as dividend per share (DPS) direct and immediate response in the market.

Pradhan and Upadhaya conducted a study on "the efficient market hypotheses and the behavior of the share prices in Nepal". The objective of the study was

- ✓ to make comprehensive investigation of weak and other form of efficient market hypotheses.

He was used different statistical like:

- ✓ serial correlation
- ✓ the run test
- ✓ weighted mean
- ✓ median
- ✓ chi-square test and
- ✓ Spear's rank correlation.

Twenty- three equity shares listed and activity traded in the Nepal stock exchange ltd. They found that:

- ✓ Nepalese stock market might not be termed historical information was reflecting in security price.
- ✓ The main factors affecting share prices perceived by the respondents were dividends, retained earnings, bond share, and right issue.
- ✓ The study found market more volatile than expected dividends.
- ✓ The study also found that the shareholders in high bracket did not prefer retained earning instead of dividend.

Poudel conducted study on "share price behavior of listed companies in Nepal". The study has following objectives:

- ✓ To test the daily share price behavior of listed companies in Nepal.
- ✓ To examine the trend of stock market

The sample for the study comprised of 21 companies representing from each sector listed in Nepal stock exchange. This study was based on the secondary data. Different statistical tools like serial correlation and run test were used.

Researcher concluded that:

- ✓ NEPSE index showed a steady increase in the later month of the study period, which also shows the better performance of NEPSE.
- ✓ Stock market performance was more or less market performance was steadily increasing with the increase in the number of listed companies.
- ✓ The badly affected sectors were hotels, trading, manufacturing, & processing sector due to different reasons.
- ✓ The NEPSE index showed a better performance during the study period. NEPSE index of commercial banks was in increasing trend as compared to the other sectors.

Kharel (2002) has used filter rule to test whether sophisticated mechanical trading rule can beat the average market return. The finding indicated annual rates of return obtained from all filter trading strategy were greater than buy and hold strategy. In overall the result of these studies concluded that:

- ✓ Present stock price changes are biased outcome of past price change which, demonstrated that the random walk model was not appropriate to define the security price movement of equity shares in

Nepal. Thus the conclusion draw was drawn that Nepalese market was not even weakly efficient in pricing share.

Sangita and Rupesh (2008) conducted to study of "stock market behavior of listed companies in Nepal". The study has folloing objectives:

- ✓ To study the growth of stock market.
- ✓ To test the random walk or weak efficient market hypothesis.
- ✓ To identify the trend of annual turnover of Nepal stock exchange
- ✓ To test the dependence or independence of successive price changes with the price of historical change.
- ✓ To point out the problems faced by stock market

Researcher had study on NEPSE index and different sub indexes of various months. The listed companies are increasing every year. Finance companies and development banks are rapid growing in banking sector. The major findings were that:

- ✓ The banking and development banks indexes had been front of other sector indexes.
- ✓ Trading and manufacturing indexes were backward in trading, market capitalization and annual turnover was increasing day by day.
- ✓ The banking sectors were good performance than other sector.

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a useful bridge to solve the research problems in a systematic way. It describes the methods and process applied the entire aspect of the study. In this study, this chapter deals about various aspects regarding research methodology.

3.2 Research Design

Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance (Kerlinger, 1983:275). Research design is the conceptual structure within which a research is conducted; it constitutes the blue print for the collection, measurement, and analysis of data (Kothari, 1990) this study attempts to analyze the primary data as well as secondary data. This study is carried out to get the empirical result of the behavior of Nepal Stock Exchange index, to conduct the study, descriptive analytical research has been adopted. Descriptive is utilizing for conceptualization, problem identification, conclusion, and suggestion for the research. In this research, design is based on technical analysis approach.

3.3 Population and Sample

There is only one security market in Nepal i.e. NEPSE and all the investors and the brokers available in stock market are considered as population, potential investors and brokers who were in Kathmandu Valley are considered as the targeted population. Out of the targeted population, samples of 90 people have been taken into consideration. The number and type of the samples are presented below.

Table: 3.1
Respondents and Sample Size

S.N.	Respondents	Sample Size
1.	Investors	78

2.	Brokers	12
Total		90

3.4 Sources of Data

The study is based on both primary as well as secondary data. Primary data schedules of questionnaires were developed and distributed to the sample investors students and other related parties in the stock markets. The questionnaires were collected and analyzed from investors and brokers.

The required data for study are collected from the secondary sources also. Most of require data are provided by the NEPSE ltd. For study. The website of NEPSE and its trading reports are sources of secondary data. The other sources of secondary data are following websites:

I. Nepal Rastra bank (www.nrb.org.np)
II. Nepal Stock Exchange (www.nepalstock.com)
III. Securities Board of Nepal (www.sebon.com)
IV. Business Magazine (www.bm.com.np)
V. Nepal Share market (www.nepalsharem arket.com)
VI. Previous research studies, articles thesis, journals and other.

3.5 Data Analysis Tools

It is fact that collected data should properly be analyzed to overcome the solution of research problems. For this purpose, both financial and statistical tools have been used in this study. The used various financial and statistical tools are briefly described in below.

3.5.1 Financial tools

a. Stock market turnover ratio

b. This ratio measures the liquidity position of stock market. A high stock market turnover ratio indicates low transaction cost and relative case in buying selling of shares. It can be calculated as below:

Stock market turnover ratio= $\frac{\text{stockmarket turnover}}{\text{Market capitalization}}$

3.5.1.1 Dividend Payout Ratio

Dividend payout ratio indicates the portion of earning per share given to stockholder as dividend. Size of dividend payout ratio deepens on the respective company's policy. Higher payout ratio is assumed investor friendly dividend ratio. It can be calculated as follows.

D/P ratio= $\frac{\text{DPS}}{\text{EPS}} \times 100$

Where,

DPS= dividend per share

EPS= earnings per share

D/P ratio= dividend payout ratio

3.5.1.2 Price Earnings Ratio

Price Earnings ratio is the most important measure of value used by investors in the market palace. Many investors consider no other factor prior to making purchase as a going concerned method of valuating stock. As long as the firm is a viable business entity, its real or going concerned value is reflected in is a profit. It is considered after tax profits and market price, and links earning per share to activity in the market. It may be used to determine expected market value of a stock, to determine future market value of a stock, to determine capitalization rate of a stock.

P/E ratio= $\frac{\text{Market per share(MPS)}}{\text{Earning per share(EPS)}}$

3.5.2 Statistical Tools for Analysis

Simple percentages were used as an arithmetic tool to interpret data. Paired t- test was used to statistical tool to test null hypothesis. For the test of hypothesis 7 NEPSE index before and after four major events were considered.

3.5.2.1 Mean

Mean of a set of observations is the sum of all the observations divided by the number of observations.

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

$$\overline{X} = \frac{X_1 + X_2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots X}{n}$$

Where,

$\overline{X} = \text{Arithmetic Mean}$

$\Sigma_X = \text{Sum of all the values of the variables}$

x_1 = First Observation (i.e. variable)

x_2 = Second Observation

x_n = Last Observation

N = Number of Observation

3.5.2.2 Standard Deviation

It is quantitative measure of the risk. It is define as the positive square root of the arithmetic mean of the squares of the deviation of the given observations from their arithmetic mean. The standard deviation of a distribution is the square root of the variance of the returns around the mean.

$$\sigma = \frac{\sqrt{\Sigma(X - \overline{X})^2}}{\sqrt{n}}$$

Where,

σ = Standard Deviation

$\overline{X}$ = Arithmetic Mean of Observation

X = Observation

n = Total no. of Observation

3.5.2.3 Correlation

The degree of relationship between the variable under consideration is measured through the correlation. The measure of correlation called correlation coefficient or correlation index summarizes in one figure the direction and degree of correlation. The correlation analysis refers to the technique used in measuring the closeness of the relationship between variables. Karl Pearson's coefficient of correlation is widely used in practiced to measure the degree of relationship between two variables. Therefore Pearson's technique is used under

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

Where,

$\Sigma y^2 = \text{Sum of all the values of the varaibles}$

$\sum Y^2$ = Total sum of the square of variable in Y series.

$\sum XY^2$ = Total sum of the product of variable in X and Y series.

∑X = Total sum of x variables

∑Y = Total sum of Y variables

N = Number of variables paired.

r = Correlation Coefficient.

The value of correlation coefficient always lies between +1 to -1. If r= +1, it means there is perfect positive relationship between two variables. If = -1, it means there is prefect negative relationship between two variables. If r = 0, it means there is no any relationship between two variables.

3.5.2.4 Probable Error

Probable error is an old measure of ascertaining the reliability of the value Personian coefficient of correlation. It may be used to test if calculated value of sample correlation coefficient is significant or insignificant. If r < P.E. (r), then the value of r is not at all significant and if r < 6PE (r), then r is deficiently significant. PE (r) can be calculated as follows:

$$PE(r) = 0.6745 \times \frac{(1-r^2)}{\sqrt{n}}$$

Where,

PE = Probable Error

r = Correlation Coefficient

N = No. of Variables

3.5.2.5 Coefficient of Variation

Coefficient of Variation is the most commonly used measure of relative variation. It is specially used in such a problems where we want to compare the variability of two or more than two series. The series for which

CV is greater is said to be more variable or conversely less consistent, less uniform, less stable or less homogeneous and vice versa. It can be obtained as follows:

$$CV = \frac{\sigma}{\overline{X}} \times 100\%$$

Where,

CV = Coefficient of Variation

σ= Standard of Deviation

$\overline{X}$ = Arithmetic Mean

3.5.2.6 Chi-squire (χ^2) test

Chi-squire (χ^2) test is known as non-parametric test or distribution free test. It depends only on the set of observation and expected frequencies and on degrees of freedom (d.f.). It does not make any assumption regarding the parent population from which the observations are taken. It can be calculated as below:

$$\chi^2 = \Sigma\left[\frac{(O-E)^2}{E}\right]$$

Where,

O = Observation Frequencies

E = Expected Frequencies

χ^2 = Chi-square

3.5.3 Hypothesis Formation

Following are the hypothesis formation for the signaling effects:

Ho: null hypothesis

a. Null hypothesis (H_0): securities investment is independent on income level of people or there is no significant relationship between income level of people and securities investment.

b. Null hypothesis (H_0): the experiment does not exsist any relationship between academic background and awareness about securities investment.

c. Null hypothesis (H_0): there is no significant relationship between academic background and securities investment.

d. Null hypothesis (H_0): there is no significant difference in the perception of NEPSE staff, companies' staffs, and investors towards government efforts for stock market development.

H1: alternative hypothesis

a. Alternative hypothesis (H_1): securities investment is dependent on income level of people or there is significant relationship between income level of people and securities.

b. Alternative hypothesis (H_1): the experiment does exsist any relationship between academic background and awareness about securities investment or the people with academic background of management and economics are more awareness about securities investment than others.

c. Alternative hypothesis (H_1): there is significant relationship between academic background and securities investment

d. Alternative hypothesis (H_1): there is significant difference in the perception of NEPSE staff, company's staffs, and investors towards government efforts for stock market development.

3.5.4 The Run Test Analysis

Statistical tests based on the theory of runs ignore absolute values in a time series and observe only their signs. That is, they are essentially concerned with the direction of changes in a given time series. Thus, for the present purposes, a run can be defined as a sequence of price changes of the same sign preceded and followed by price changes of different sign. In a given share price series, there are three types of price changes in a series i.e. positive, negative and no change, thus implying three types of runs. Therefore, a plus run of length L may be defined as a sequence of positive price changes preceded and succeeded by either negative or positive price changes preceded and succeeded by either negative or zero price change (Fama,

1965:74). Likewise, a run of length L of minus and no-change sign can be defined as a sequence of L consecutive price changes of the same sign followed and preceded by negative and no change sign of price changes. Runs test is a non-parametric test that ignores the magnitude of price changes and observes only direction of changes in a given time series. The difference between expected and actual number of runs will be analyzed by the total number of runs. The randomness hypothesis is tested at given level of significance in favor of or against depending on observed values.

3.5.4.1 Layouts

Consider a sample $x_1,x_2,x_3,\ldots\ldots\ldots\ldots x_N$ of size N.

3.5.4.2 Assumptions

The given sample if is of dichotomous feature.

The measurement scale is either nominal or ordinal.

3.5.4.3 Problems

To test,

H_0: The observations are in random order.

H_1: They are not in random order.

3.5.4.4 Mechanism:

I) Compute the median of x_i and call it M_e.

II) Attach an algebraic sign + or - to each of the observations according to the following rules:

If $x_i>M_e$, then assign '+' sign to x_i.

If xi<Me, then assign '-' sign to x_i.

If xi=Me, then a tie is said to have occurred. In this case, assign 'o' to x_i and delete the observation.

Then clearly,

N=Sample size = # (+) + # (-) + # (0)

Thus the effective sample size n = # (+) + # (-)

So that the effective sample becomes

$X_1,x_2,x_3,x_4,x_5\ldots\ldots\ldots\ldots x_N$

+ + = + +……..+

1 2 3……..r

Definition of run

A run is a sequence of similar symbols.

III) Count the number of runs and denote it by r. Then clearly, $2 \leq r < n$.

3.5.4.5 Test Statistic

For large sample case, the sample distribution or r is approximately normal with mean μ_r and variance σr^2.

Symbolically,

$r \approx N(\mu_r, \sigma r^2)$

Where,

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

σr^2 = variance = $\frac{2n_1n_2(2n_1n_2-n_1-n_2)}{(n_1+n_2)^2(n_1+n_2-1)}$

Next to test H_0, we define a test statistic given by,

$$Z=\left[\frac{r-\left[\frac{2n_1n_2}{n_1+n_2}+1\right]}{\left[\frac{2n_1n_2(2n_1n_2-n_1-n_2}{(n_1+n_2)^2(n_1+n_2-1)}\right]^{\frac{1}{2}}}\right] \approx N(0,1) \quad \text{..... (3.4.1)}$$

For large sample, Z will be approximately normal with mean 0 variance 1. Therefore, for testing significance of the difference between actual and expected number of runs, the test statistic employed would be standardized normal variable Z. the null hypothesis (i.e. randomness hypothesis) will be rejected or accepted at 5 percent and 1 percent level of significance in favor of (or against) the alternative hypothesis (non-randomness hypothesis) depending on observed values of Z.

3.5.4.6 Critical Value

For a pre-assigned level of significance $\propto$ and under H_0, we obtain from the normal table A, the probability p_0 associated with values as extreme as Z.

3.5.4.7 Decision Rule

Reject H_0 V_s H_1 at x 100% level of significance, if $p_0 \leq \propto$ accept otherwise.

Remarks:

For two tail test double the probability p_0

The confidence limits of r for level of significant is given by,

C.L. for mean = $\mu_r \pm Z_{\propto \backslash 2x} \sigma r$

3.6 Limitation of the Methodology

The analysis of the study is fully based on secondary data. Therefore, the secondary data play a vital role on the study and the reliability of collected data affect the result of the study. The financial statement of the company is not listed companies and information of some listed companies is not available.

Nepal stock exchange ltd publishes financial statement and other information of some listed companies it is still unsuccessful to keep data of listed companies on its website.

CHAPTER –IV

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the main body of the study the presentation and analysis of the collected data. The first chapter deals with the historical development of capital market. The second and third part deals with the sector wise listed companies, annual turnover, market capitalization, traded share quantity, number of transaction. The rest of part deals with behavior of NEPSE index of the other sectors listed in NEPSE and findings of the study.

4.1 Sector Wise Listed Companies

Trading on the floor of the NEPSE is restricted to listed corporate securities and government bonds. Companies established under company act 1964, must be listed in Stock Exchange Ltd. Number of listed companies was 62 in initial month of the floor trading on NEPSE. Then, this number is increased by listing of additional companies. The number of listed companies is in increasing trend. The trend of group wise listing of company is increasing. The number of listed companies in finance group has increased in higher rate, than that of other sectors. The higher number listed companies in finance group imply the well management, facilities provided to investors, effective securities to the investor.

Table 4.1

Distribution of Listed Companies

Sectors	2005/06	2006/07	2007/08	2008/09	2009/10
Commercial bank	15	15	21	21	23
Finance	50	50	55	62	62
Insurance	15	15	17	17	19
Hotels	4	4	4	4	4
Mf & processing	29	29	18	16	18
Trading	8	8	4	4	4
Development bank	8	8	23	30	40
Others	6	6	4	5	7
Total	135	135	142	159	177

(Source: www.Nepal stock exchange.com)

The total number of listed companies was 135 in the year of 2005/06. In 2008/09 the number of listed companies went up to 159 and then started to increase in each year. The trends of group wise listing companies are increasing. At the end of observed period, 177 companies were listed in NEPSE. The number of listed companies in development banks increased at higher rate than that of hotel, finance, commercial banks and other groups.

Figure 4.1

Distribution of Listed Companies

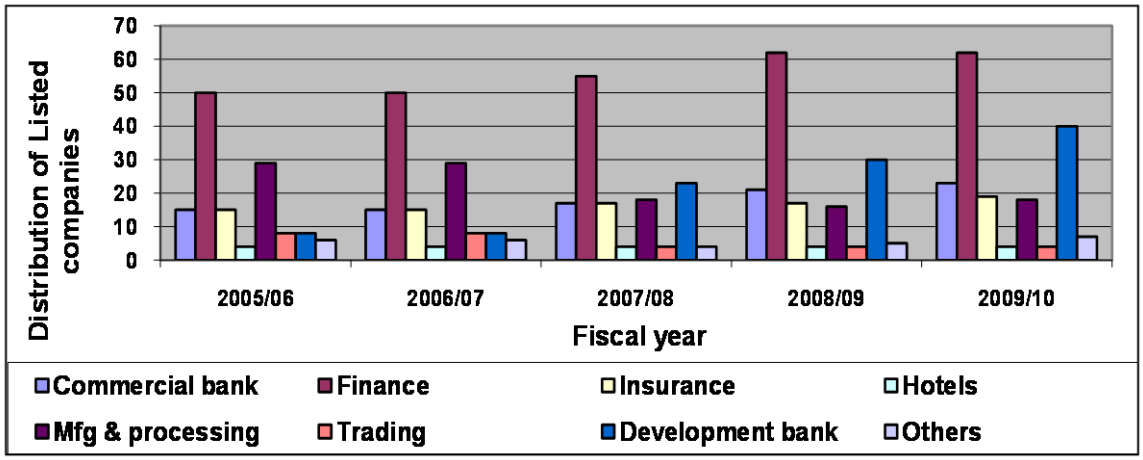


Figure 4.1 indicates that the stock market in Nepal was a burning issue with rapidly growing and constant companies i.e. 135 in 2005/06, 135 in 2006/07,142 in 2007/08,159 in 2008/09 and 177 in 2009/10.

4.2 Annual Turnovers

The most successful year so far for Nepal Stock Exchange was 2007/08 year whose annual turnover of the market was Rs. 21987.27 million compared to other year. The annual turnover was increasing continuously from three years. In 2005/06 annual turnover was Rs. 3451.43 million, in 2006/07 annual turnover was

Rs.8360.07 million, in 2007/08 the annual turnover was growing twice than previous years, which was great achievement in history of Nepal stock market. In 2008/09 and 2009/10 annual turnover was Rs.19460.36 million and Rs.11025.79 million respectively.

In the total turnover, the banking sector dominates others. In the year 2007/08, total turnover of the banking sector was 13822.15 million, which are 62.86 percent of total turnover. Other sector (mainly hydropower companies) comes in second place based on annual turnover. This sector's turnover was Rs. 3206.32million that accounted to 14.58 percent of the total transaction; manufacturing and processing sector was Rs. 343.44million (1.56 %), insurance sector were Rs.264.86million (1.2%) and hotel sector Rs.27.67million(0.12 %).The best turnover of financial sector occupied Rs.2615.40million (13.40%),Development banks sector was Rs.2740.36million (14.36%) in 2008/09. Likewise trading sector was Rs.35.43milllion (0.32 %) in 2009/10.

Table 4.2

Annual Turnover (Rs in millions)

Year	2005/06		2006/07		2007/08		2008/09		2009/10	
Sector	Value	%	Value	%	Value	%	Value	%	Value	%
Commercial Bank	2696.28	78.1	5563.49	66.55	13822.15	62.86	12406.45	63.75	7196.24	65.27
Finance	305.85	8.86	713.57	8.54	2307.53	10.49	2615.40	13.43	1263.94	11.46
Insurance	129.9	3.76	204.97	2.45	264.86	1.2	212.80	1.09	183.87	1.67
Hotel	19.77	0.57	7.04	0.08	27.67	0.12	18.69	0.096	10.15	0.09
Mfg & processing	17.19	0.5	24.27	0.29	343.44	1.56	26.08	0.13	37.14	0.34
Trading	15.8	0.46	10.42	0.12	33.65	0.15	33.49	0.17	35.43	0.32
Development bank	82.76	2.4	577.55	6.19	1981.65	9.54	2740.36	14.09	1323.53	12.8
Other	183.88	5.33	1258.76	15.05	3206.32	14.49	1407.09	7.24	975.49	8.84

Total	3451.43		8360.07		21987.27		19460.36		11025.79	

(Source: www.Nepal stock exchange.com)

Table 4.2 shows that there are the annual volumes were continuously increasing. The annual turnover was Rs. 3451.43 million in 2005/06. In 2006/07, sharp increase was recorded with the turnover reaching Rs.8360.07 million in a total volume. It was twice as much as previous year and in 2007/08, annual turnover was too much higher that is Rs. 21987.27million, which was highest record on stock exchange. In 2008/09, it was decreased to Rs.19460.36 and also decreased to Rs. 11025 .79 in 2009/10 which had been shown bad impact on turnover.

Further, the banking sectors annual turnover was continuously increasing till 2007/08 and decreasing later. In 2005/06 Rs. 2696.28million, in 2006/07 Rs. 5568.49million, in 2007/08 Rs. 13822.15million,in 2008/09 Rs.19460.36million and in 2009/10 Rs. 11025.79million was traded. In total annual turnover of percentage the banking sector had been declined as in 2005/06 it had 78.12 % but in 2006/07, in 2007/08, in 2008/09 and in 2009/10 it had been 66.55%, 62.86 %,63.75% and 65.27% respectively. For finance sector the annual turnover was in Rs. 305.85 million in 2005/06, in 2006/07 the annual turnover was Rs. 713.57 million, in 2007/08 annual turnover was in Rs.2307.53 million, in 2008/09 it was Rs.2615.40 million and in 2009/10 it was Rs.1263.94. Its shows that, the annual turnover was growing rapidly in each years till 2008/09 and decreased in 2009/10 but in percentage of annual turnover in 2005/06 was 8.86 %, in 2006/07 was 8.54 % which was little lower than previous year and in 2008/09 it was13.43% which was highest percentage in last five years record. For insurance sector, annual turnover was increasing in every year till 2007/08 and decreasing but on percentage wise turnover was declining. In 2005/06 its turnover was Rs. 129.9million, in 2006/07 was Rs. 204.87 million, in 2007/08 was 264.86 million, in 2008/09 it was Rs.212.80million and in 2009/10 was Rs.183.87million . But in percentage basis in 2005/06, 2006/07, in 2007/08, in 2008/09 and in 2009/10 was 3.76%,2.45%,1.2%,1.09% and 1.67% respectively. For hotel sector, in 2005/06 its annual turnover was Rs. 19.77 million but in 2006/07 it was declining to Rs. 7.04 million as well as in 2007/08 it had been vast increment in turnover it was Rs.27.64 million and decreased later years by Rs.18.69million in 2008/09, Rs10.15million in 2009/10. However, in basis of percentage 2005/06 had higher than later year's turnover that 0.57%, 0.08%,0.12%,0.096% and 0.09% respectively. For mfg and processing sector annual turnover was increased in every year till in 2007/08 and later volatile. Their turnovers were Rs17.19, 24.27, 343.44, 26.08 and 37.14 million respectively. In percentage wise, in 2005/06 had 0.5%, in 2006/07 had

declined to 0.29%, in 2007/08 it rose to 1.56%, in 2008/09 it declined to 0.13% and 0.34% in 2009/10. For trading sector annual turnover in 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 was 15.8 million, 10.42 million, 33.65 million, 33.49 million and 35.43 million in five years. By percentage wise in 2005/06 had 0.46%, in 2006/07 it was 0.1% which was declining and in 2007/08 it was 0.15%, in 2008/09 was 0.17% and in 2009/10 was 0.32% that little improvement than previous year. For development bank sector it had number of companies, annual turnover and percentage wise had been increasing every year till in 2008/09 declining in respective year and its turnover was Rs. 82.76, Rs577.55, Rs.1981.85,Rs.2740.36 and Rs.1323.53 million respectively.

In annual turnover percentage wise had been 2.4%, 6.91%, 9.45%, 14.09% and 12.8%at last five years. For other sector (including hydro power) annual turnover was Rs.183.88 million in 2005/06, Rs. 1258.76 million in 2006/07, Rs. 3206.32 million in 2007/08, Rs.1407.09 million and Rs.975.49 million. On the percentage base 5.33%, 15.05%, 14.49%, 7.24% and 8.84% respectively. As a whole trading sector is performing best as in annual turnover and stock market of Nepal is volatile as analyzing of past five years annual turnover.

Figure 4.2

Annual Turnover

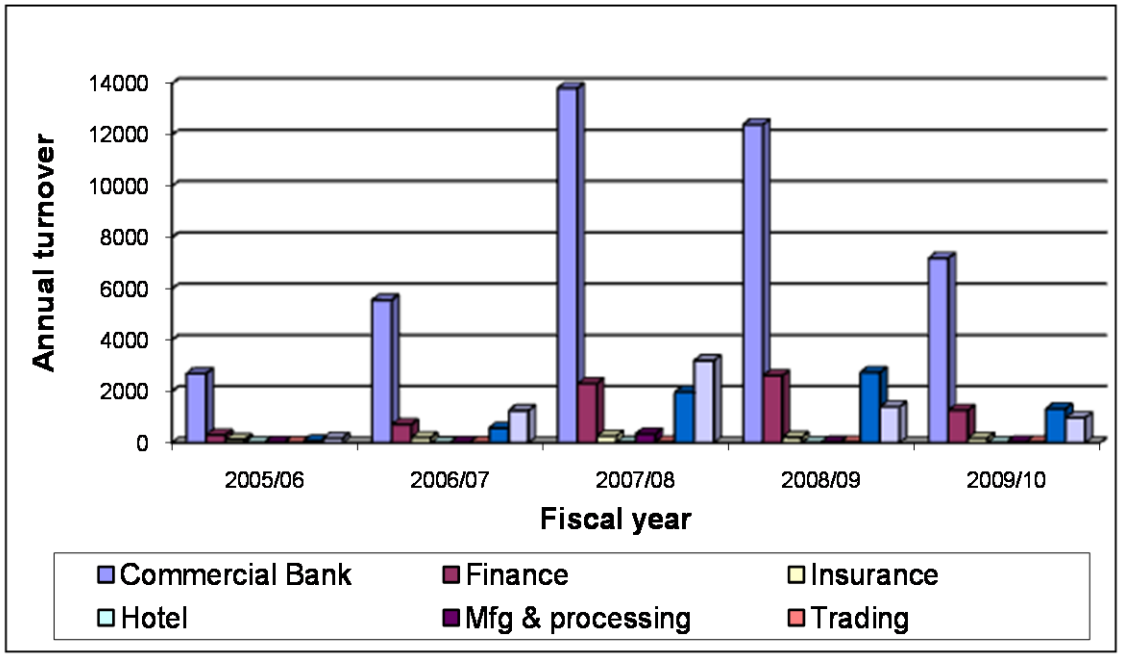


Figure 4.2 shows the highest annual turnover in the term volume was Rs.21987.27 million in 2007/08 and lowest annual turnover was Rs. 3451.43 million in 2005/06. It shows that in 2007/08 other and commercial banks were dominating to other sector in term of annual turnover.

4.3 Market Capitalization

Market capitalization is the measurement of a company's total value. It is estimated by determining the cost of buying and entire business in its current state. Market capitalization is derived by multiplying the number of shares outstanding by the current market price of the share. The increased market value suggests the good performance of the company therefore; the investors are highly interested to such companies. The market capitalization value of the listed securities the higher value of market capitalization is Rs. 360373.36 million and lowest is Rs. 95614 million.

The percentage of the market capitalization of commercial bank has highest share as 71.99%, 74.04%, 70.68%, 53.44% and 53.19% among other eight sectors of the listed companies. The commercial banks are dominating the other sectors in term of market capitalization. Commercial bank alone has a market capitalization of Rs. 68841.2 million (71.77%) in 2005/06 followed by the other sector Rs 8012.2 million (8.38%). In 2007/08 commercial banks, finance, others, development banks, insurance, manufacturing & processing, hotels and trading capitalization was Rs. 218264.19 million (70.68%) 27113.59 million (8.78%) 26128.93 (8.46%) 15619.36 (5.06%) 10897.16 (3.53%) 6576.17 (2.13) 3484.13 (1.12%) and 686.73 (0.22%).In 2008/09 total turnover were Rs.360373.36 million which were highest total turnover in Nepal stock till now. Development bank and other sector had been performed well in 2008/09 than other. In 2009/10 the turnovers were Rs.192611.17, 17342.23, 8640.23, 3346.41, 5424.58, 980.70, 16648.39 and 115379.65 million.

Table 4.3

Market Capitalization (Rs. in million)

Year	2005/06		2006/07		2007/08		2008/09		2009/10	
Sector	Value	%	Value	%	Value	%	Value	%	Value	%
Commercial Bank	68841.24	71.99	138086.43	74.04	218264.19	70.68	192611.17	53.44	174097.45	53.19
Finance	4930.93	5.16	11491.4	6.16	27113.59	8.78	17342.23	4.82	21834.23	6.68
Insurance	4852.19	5.07	7959.78	4.27	10897.16	3.53	8640.23	2.39	11285.39	3.45
Hotel	2393.61	2.5	1935.59	1.04	3484.13	1.12	3346.41	0.92	3521.89	1.07
Mfg & processing	4619.2	4.83	3760.28	2.02	6576.18	2.13	5424.58	1.50	5491.21	1.68
Trading	737.39	0.77	787.4	0.42	686.73	0.22	980.70	0.27	1599.41	0.49
Developmet bank	1227349	1.28	5980.8	3.21	15619.36	5.06	16648.39	4.61	21458.39	6.56
Other	8012.2	8.38	16503.02	8.85	26128.93	8.46	115379.65	32.04	88047.68	26.90
Total	95614		186504.7		308770.27		360373.36		327335.65	

(Source: www.Nepal stock exchange.com)

Figure 4.3

Market Capitalization

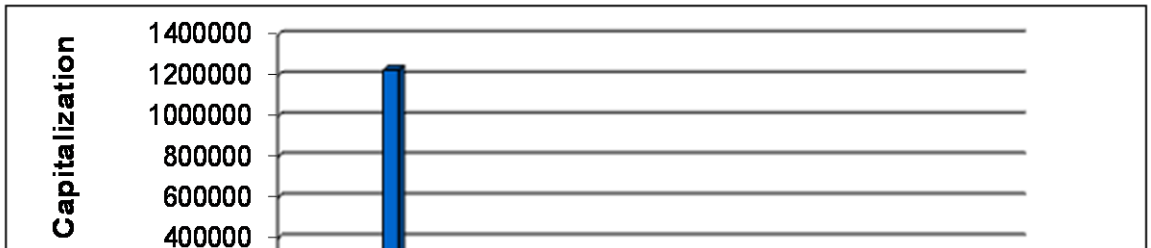


Figure 4.3 of market capitalization shows that the commercial bank dominated the trading floor. The other sector (including hydropower) occupied the second position in 2005/06, 2006/07 and 2008/09 but in 2007/08 finance companies replace to other sector. Finance and development bank were occupied better in 2009/10. Overall, the eight listed companies, likewise, other, finance and development banks better performance than that of trading and hotel groups.

4.4 Trading Volume

Commercial bank dominated the trading floor as it captured the largest chuck of the total share trading. It accounted 45.28% in 2005/06, 47.94% in 2006/07, 42.08% in 2007/08, 50.95% in 2008/09 and 42.84% in 2009/10. Commercial bank traded the maximum share i.e. 13301.43 shares of the total share in 2008/09 and lowest share traded of 5534.9 share in 2005/06. Second position is occupied by the other sectors whose percentage of share traded are 27.01% in 2005/06, 26.17% in 2006/07, 28.37% in 2007/08, 19.16% in 2008/09 and 23.84% in 2009/10. The highest share traded quantity was 7578.62 in 2007/08 and lowest share traded quantity of others was 3301.54 in 2005/06. The trading sector has lowest traded quantity comparing other sectors. Over the entire sector, the highest share quantity was in 2007/08 as 26710.64 and the lowest share traded was in 2005/06 as 12222.71.

Table 4.4

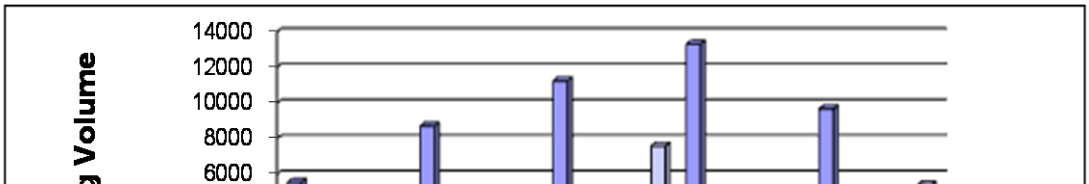
Trading Volume

Year	2005/06		2006/07		2007/08		2008/09		2009/10	
Sector	Value	%	Value	%	Value	%	Value	%	Value	%
Commercial Bank	5534.9	45.28	8700	47.94	11241.42	42.08	13301.43	50.95	9680.62	42.84
Finance	1957.68	16.02	2534.19	13.96	3094.30	11.58	3552.01	13.60	3265.92	14.45
Insurance	575	4.7	627.64	3.46	433.27	1.62	418.19	1.60	629.90	2.78
Hotel	392.18	3.32	81.7	0.45	158.07	0.59	95.89	0.36	50.28	0.22
Mfg & processing	59.8	0.49	82.9	0.46	1655.09	6.06	95.12	0.36	37.74	0.16
Trading	15.22	0.12	11.47	0.06	14.97	0.05	14.65	0.05	12.01	0.06
Development bank	386.39	3.16	1360.48	7.5	2534.90	9.42	3631.81	13.91	3535.07	15.65
Other	3301.54	27.01	4748.65	26.17	7578.62	28.37	5001.81	19.16	5387.33	23.84
Total	12222.71		18147.03		26710.64		26110.54		22598.87	

(Source: www.Nepal stock exchange.com)

Figure 4.4

Trading Volume



The figure 4.4 of traded share quantity shows that from 2005/06 to 2007/08 other, commercial bank and finance companies dominating other sectors. The highest traded value was in 2007/08 and the lowest traded quantity share was in 2005/06, which was shown in figure 4.4. commercial bank was cover more than 40% of total trading volume which shows investor were more interest to invest in this sector. In 2008/09 commercial bank and finance companies did well than previous and latter in 2009/10 it also dissatisfied.

4.5 Number of Transactions

NEPSE has fixed the trading days and hours during which the members are allowed to enter the floor to make the transactions. NEPSE has fixed the board lot of 10 shares if the face value is Rs 100 or the face value is Rs 10. The transaction on regular trading should be done one board lot. The transactions of less than 10 shares are permitted only on odd lot trading hours.

Table 4.5

Number of Transaction

Year	2005/06		2006/07		2007/08		2008/09		2009/10	
Sector	Value	%	Value	%	Value	%	Value	%	Value	%
Commercial Bank	45886	52.74	42848	35.18	54314	36.44	68171	32.99	89826	42.34
Finance	28875	33.18	18879	15.5	30462	20.44	58742	28.43	35100	16.55
Insurance	6187	7.11	16203	13.3	3332	2.23	8337	4.03	14090	6.64
Hotel	510	0.59	393	0.32	911	0.61	505	0.24	113	0.05
Mfg & processing	233	0.27	135	0.11	96	0.06	75	0.03	49	0.02
Trading	66	0.07	42	0.03	108	0.07	83	0.04	77	0.03
Development bank	4740	5.45	39413	32.36	53317	35.77	64831	31.37	63394	29.89
Other	513	0.59	3898	3.2	6519	4.37	5888	2.85	9507	4.41
Total	87010		121811		149059		206632		212156	

(Source: www.Nepal stock exchange.com)

The table 4.5 shows that the overall banking sector has a highest transaction in the term of number. The number of transaction of commercial bank was 45886(52.74%), 42848(35.18%), 54314(36.44%), 68171(32.99%) and 89826(42.34%) in 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 respectively. Bank gets first position in number of transaction in every year. Finance company got second position in 2005/06 but third position in 2006/07,2007/08,2008/09 and 2009/10.Development bank can over take to finance companies and got second position in 2006/07,2007/08,2008/09 and 2009/10 to getting 32.36%, 35.77%, 31.37% and 29.89%. Mainly in commercial banks, development banks and finance companies has encouraged investing in these sectors. Number of transaction of trading group was lowest than other sectors. Development banks had been growth rapidly in Nepalese stock exchange.

Figure 4.5

Number of Transaction

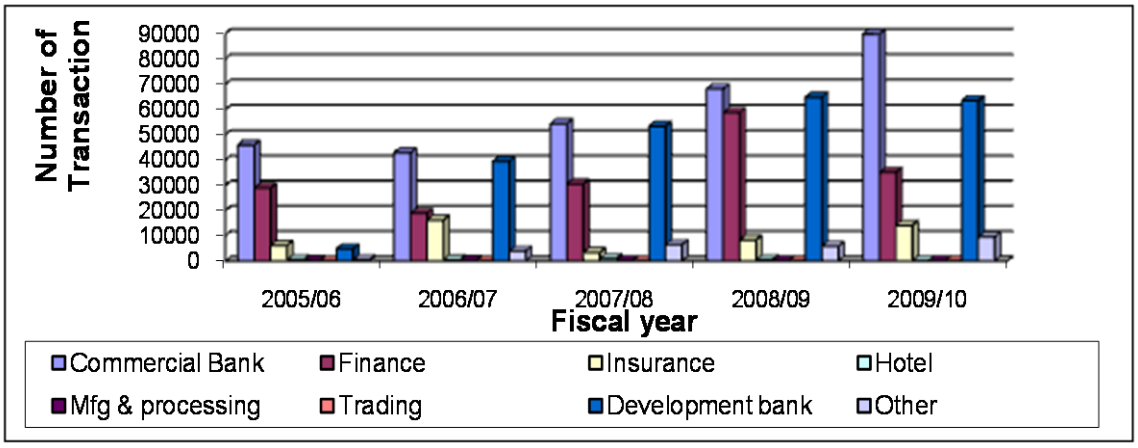


Figure 4.5 show that the commercial bank had highest no. of transaction during the last 5 year except decrease in 2006/07, which were 42846. In 2009/10, it increases to 89826 number of transaction. For development banks in 2009/10, its total number of transaction was 63394 and in 2009/10, other sector was 9507 it is in growth stage. In 2007/08, development bank's number of transaction was 53317 that are most nearer to commercial bank. For finance companies in 2008/09, its number of transaction was 58742. In 2009/10, it was declined to 35100, but in 2006/07 it did lowest to 18879. Manufacturing & processing and trading sector had lowest number of trading in five year continuously. In 2009/10 its number of transaction was 49 and 77 only, which show very poor performance in stock exchange.

4.6 Behavior of NEPSE Index

An Index is an indicator and a device designed to measure the change in a group of related variables over a period. Indexes were used to determine the relationship between historical prices movements and economic variables to determine the systematic risk for individual securities and portfolios.

Table 4.6

NEPSE Index during the Last 5 years

Month	2005/06	2006/07	2007/08	2008/09	2009/10
Aug	290.56	382.24	739.53	1175.38	702.22
Sep	296.96	384.25	885.5	962.55	630.55
Oct	307.22	408.38	878.86	881.36	578.19
Nov	300.54	486.19	897.29	750.71	528.89
Dec	302.78	514.42	984.53	695.50	548.11
Jan	307.04	513.34	863.6	658.83	512.34
Feb	341.05	511.81	756.76	677.52	485.14
Mar	337.52	480.99	709.4	664.13	443.17
Apr	361.55	513.69	736.46	647.78	419.28
May	371.74	541.38	833.18	707.89	490.08
Jun	375.14	578.81	937.46	662.63	455.75
Jul	386.83	683.95	963.36	749.10	477.73

(Source: www.Nepal stock exchange.com)

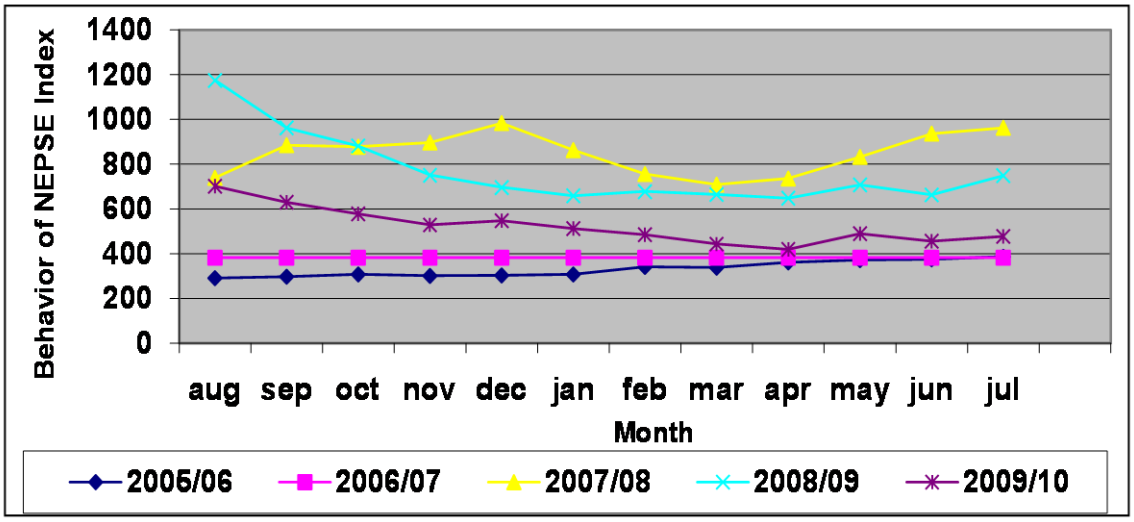
In NEPSE, no trading due to curfew and political crisis on 9th April to 13th April and 18th April to 24th April 2006

The market had remaind closed (Sunday 12th august 2007) due to untimely demise of Mr. Tanka Nath Adhikari (broker no. 18)

The NEPSE index hit the pick of price in Aug by 1175.38 in 2008. In 2005/06 the NEPSE point was 290.56 which were lowest point of above table and maximum point at 1175.38 on Aug 2008/09. The difference between highest and lowest point had been very vast, It almost 900 points. In 2005 /06 NEPSE, point gone up continuously on 386.83 at end of year. Index was growing by 100 point in 2005/06. In 2005/06 it continuously increasing three months but I came down to 300.54 point in November after that it goes to 386.83. In 2006/07 there was different in 300 points on opening and closing of the year. Its starts from 382.24 to 683.95 so NEPSE sector points was increasing but in march it declined to 480 and again rising up to 683.95 in 2007/08. In 2009/10 the highest point was 702.22 and lowest was 419.75. It showed that the index is in declining than previous.

Figure 4.6

NEPSE Index during the Last 5 years



4.6.1 NEPSE Index of Commercial Bank

Trading of commercial bank sector was the largest group at the NEPSE floor register and value of index i. e. started 311.05 in august, lowest index was 325.48 in 2005/06. The value of NEPSE index of commercial bank in 2005/06 had reach up to 424.28 and continuously rising till January 2007, it sometime increase and decrease respectively .

Table 4.7

NEPSE Index of Commercial Banks during the Last 5 Year

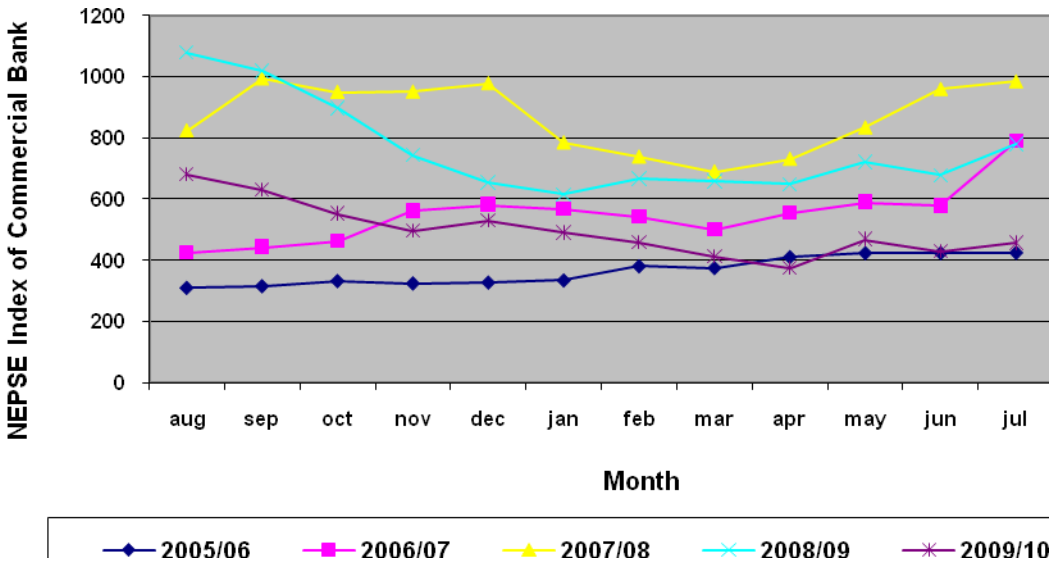
Month	2005/06	2006/07	2007/08	2008/2009	2009/10
Aug	311.05	426.39	824.91	1079.38	679.40
Sep	316.67	443.78	995.52	1019.15	631.21
Oct	333.16	463.22	951.46	899.06	552.19
Nov	325.48	562	952.23	745.06	495.92
Dec	328.31	582.02	979.7	657.10	530.09
Jan	334.9	566.88	785.9	617.46	490.62
Feb	380.62	544.01	739.29	668.61	457.54
Mar	374.9	501	690.48	660.39	411.88
Apr	410.17	555.2	732.07	649.56	375.84
May	423.04	591.03	834.76	722.72	468.56
Jun	422.81	578.81	960.78	679.74	429.25
Jul	424.28	789.21	985.65	780.87	456.93

(Source: www.Nepal stock exchange.com)

The table 4.7 shows that NEPSE index of commercial bank in 2008/09 were reached to 1079.38 on august which was the highest index of commercial bank till now and in 2009/10 the index was not satisfactory. In 2007/08, improvement in NEPSE of commercial bank was noticed. In 2007/08, the index of commercial bank increased and went up to 985.65 in the month of July. The NEPSE index of commercial bank in order of risk was fluctuating.

Figure 4.7

NEPSE Index of Commercial Banks during the Last 5 Years



4.6.2 NEPSE Index of Finance Companies

In the period of Establishment of Nepal stock exchange ltd, finance, and insurance sector were written in the same transaction in the initial years but it separated in 2001/02 from December. So separate transactions of finance sector took place in the NEPSE from December 2001/02. This has been shown in table 4.8

Table 4.8

NEPSE Index of Finance Companies during the Last 5 Year

Month	2005/06	2006/07	2007/08	2008/09	2009/10

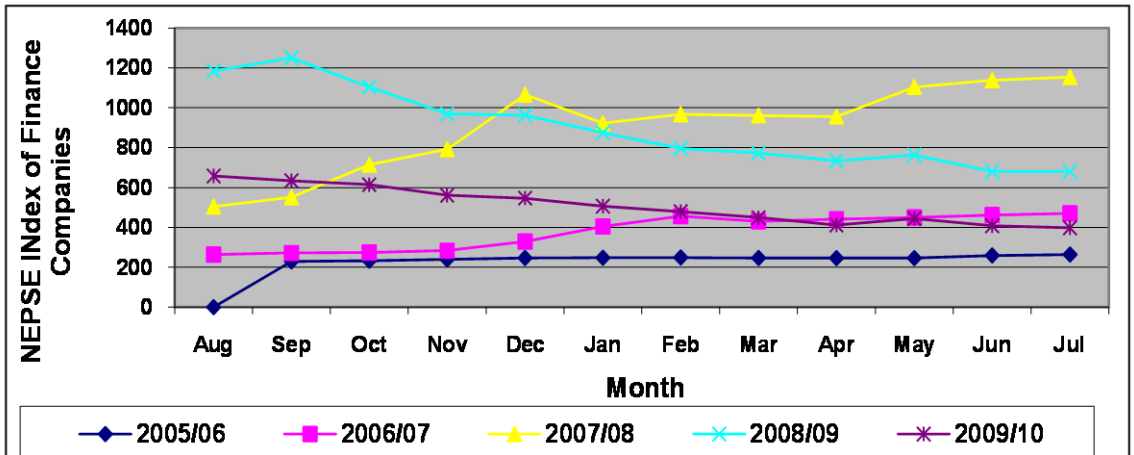
Aug	229.52	263.75	503.88	1183.91	658.23
Sep	229.3	271.62	550.06	1249.66	633.39
Oct	232.76	274.45	714.01	1104.01	614.20
Nov	238.94	283.82	791.44	968.17	560.65
Dec	246.54	329.65	1064.87	962.40	546.56
Jan	247.47	404.18	921.39	873.78	506.12
Feb	249.13	456.44	966.44	795.81	479.38
Mar	246.71	430.68	960.67	772.04	448.37
Apr	245.7	440.44	954.93	732.75	412.00
May	245.7	448.91	1103.4	762.99	443.75
Jun	259.27	461.86	1136.76	679.61	407.55
Jul	263.8	470.16	1152.74	697.61	397.38

(Source: www.Nepal stock exchange.com)

NEPSE index for finance separately took place in the month of December in the year 2001/02. The index shows increasing trend from august 2005/06 but 3 point had been decline in March, April and May after that it reach to 263.8 point. In 2005/06, finance companies index increased by 34.28 point. In 2006/07 index starts from 263.75 and close at 470.16, which was increased by at least 206 point. In 2007/08 index showed very fast growing but declined in January then after it increased up to point 1152.74 on July in 2007/08. In 2008/09 index was reached to 1249.66 which was highest index of finance sector and after that index was decreasing in respective till on July in 2010. It starts from 229.52 and reach up to 1249.66, which had increased more than 1000 point in finance index.

Figure 4.8

NEPSE Index of Finance Companies during the Last 5 Years



4.6.3 NEPSE Index of Insurance Companies

The NEPSE index for insurance had a highest in the year of 2007/08 as 1035.06 in December and the lowest recorded as 246.71 on March in 2005/06. The maximum value went up to 387.84 in the month of July and the least value was noticed in 2005/06 as decreasing process went down to 246.71 in the month of March. But it slightly increased in the year 2006/07 as 394.7 in the initial year but it slumped down to 576.08 in the month of April. The value remain declined in the year 2006/07 until the month of May and increasing process went up to 1035.06 in the month of December in 2007/08 but decreased on Jan to 820.26. Similarly it follows the decreasing trend in 2007/08. In 2008/09 it was started from 881.46 and decreasing at end of July. At last in 2009/10 it was almost decreasing till end of July which has been shown in the table 4.9

Table 4.9

NEPSE Index of Insurance Companies

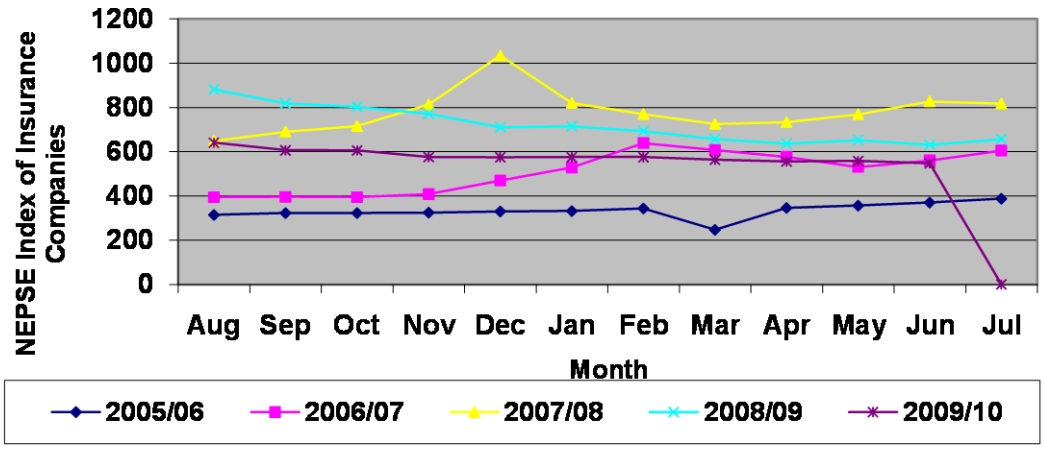
Month	2005/06	2006/07	2007/08	2008/09	2009/10
Aug	314.19	394.8	648.31	881.46	640.92
Sep	322.72	396.1	690.65	818.65	606.65
Oct	323.05	394.66	715.68	802.44	606.30
Nov	324.72	408.73	813.85	771.72	575.60
Dec	329.97	469.93	1035.06	710.47	575.34
Jan	331.69	529.14	820.26	715.16	575.44

Feb	343.59	638.83	769.8	693.72	575.51
Mar	246.71	607.45	725.83	657.22	564.03
Apr	346.41	576.08	733.54	636.88	556.13
May	356.37	530.59	769.21	651.97	557.86
Jun	370.33	559.94	827.23	630.79	547.69
Jul	387.84	605.05	817.25	656.41	548.52

(Source: www.Nepal stock exchange.com)

Table 4.9 shows that the highest value of NEPSE index of insurance sector was 1035.06 in the month of December and the lowest value was in the month of March as 246.71 in 2005/06 and in 2009/10 insurance sector was dissatisfactory.

Figure 4.9



NEPSE Index of Insurance Companies during the Last 5 Years

4.6.4 NEPSE Index of Hotel Sectors

As manufacture & processing sector like total sector was best in previous year (2000/01 and 2001/02). As a record highest point was in 420.59 in December 2007/08 and lowest record point was 177.62 on September 2005/06 as above table as well as other sector.

Table 4.10

NEPSE Index of Hotel Sectors During the Last 5 Years

Month	2005/06	2006/07	2007/08	2008/2009	2009/10
Aug	179.34	179.62	276.45	353.11	366.85
Sep	177.62	179.62	281.72	361.99	366.85
Oct	177.62	179.03	281.14	364.69	368.61
Nov	177.9	185.07	279.6	364.30	369.75
Dec	177.9	187.47	420.59	365.07	366.49
Jan	181.26	193.42	412.79	364.48	366.49
Feb	183.55	215.42	412.02	346.59	366.49
Mar	182.88	235	412.01	355.05	362.52
Apr	179.23	229.6	402.87	363.11	365.46
May	181.77	238.71	401.93	366.45	378.50
Jun	180.77	241.02	373.98	367.42	409.94
Jul	180.77	251.47	370.88	376.42	400.26

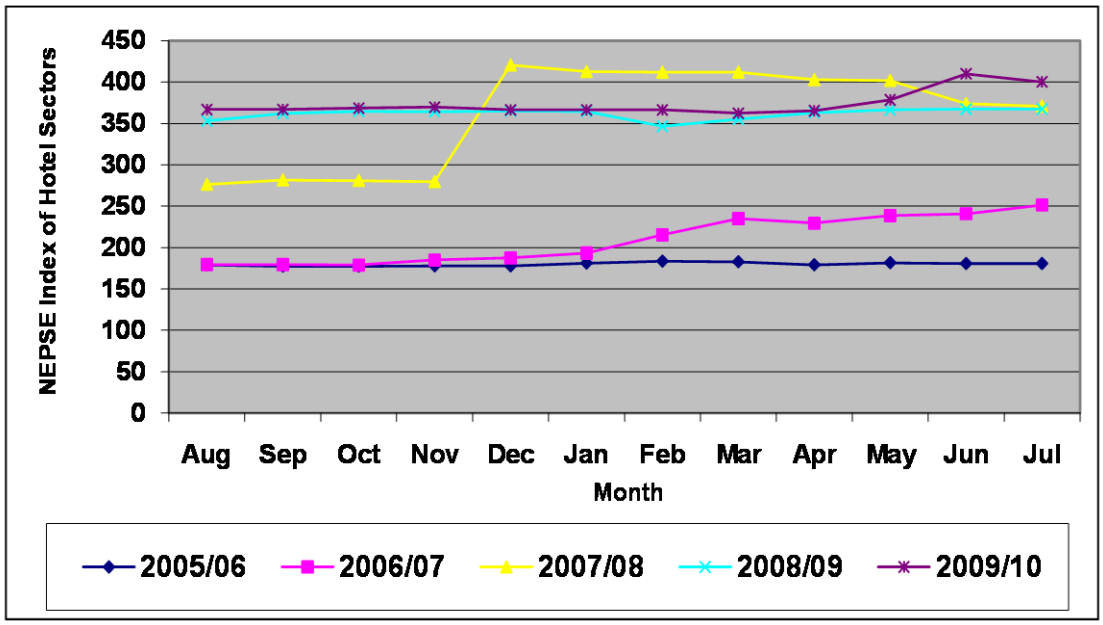
(Source: www.Nepal stock exchange.com)

Table 4.10 shows that the NEPSE index of hotels sector highest in the year 2005/06 was 183.55 in February and lowest in 177.62 Sep and October, in 2005/06 august had 179.35 index and decline in next month to 177.62 in Sep but after it went up to 183.55 on Feb. Again after that it decline on March and April. At May index shows positive signal and in June & July it down to 180.77. In 2006/07 it was rising from august 179.62 to march at 235point then after it declined in next month to 229.6 and again rising to reach 251.47 at end of

year 2006/07. In 2007/08 its shows 276.45 on august and increasing up to next 2 months sep and October by 281.74 and 281.1, but declined in November month. At December, it was 420.59, which was picked point of hotel sector, and then after it declined up to 370.88 at end of 2007/08 its shows investor was not interested to invest in hotel sector. In 2008/09 it started from 353.11 on august and slightly up and down at end of July. In 2009/10 the index of insurance showed deceasing trend slightly in respective month.

Figure 4.10

NEPSE Index of Hotel Sectors During the Last 5 Year



4.6.5 NEPSE Index of Mfg and Processing

NEPSE index for manufacturing and processing sector was the best as compared to other sectors for the study period. It was recorded the highest in the month of august in 2008/09 and lowest in the month of November in 2005/06. In 2006/07 value of NEPSE index for manufacturing and processing went up to 348.63

on July but it slightly decreased in April than March. Value of manufacturing and processing index went up and down as increasing and decreasing process from 2005/06 to 2009/10. This has been shown in table in 4.11.

Table 4.11

NEPSE Index of Manufacturing and Processing During Last 5 Years

Month	2005/06	2006/07	2007/08	2008/09	2009/10
Aug	291.74	316.82	347.74	441.92	433.94
Sep	305.01	314.69	350.19	441.92	438.35
Oct	290.53	313.38	350.19	432.79	438.82
Nov	272.31	314.69	350.19	432.79	438.82
Dec	274.42	319.82	350.19	431.44	438.82
Jan	274.42	322.36	360.96	416.08	434.61
Feb	283.77	335.09	392.75	404.10	437.47
Mar	291.08	344.95	413.23	428.28	437.47
Apr	289.81	329.42	411.15	438.21	433.00
May	292.34	331.06	418.82	434.32	434.39
Jun	297.65	339.7	418.82	434.32	427.89
Jul	303.65	348.63	423.66	434.32	427.89

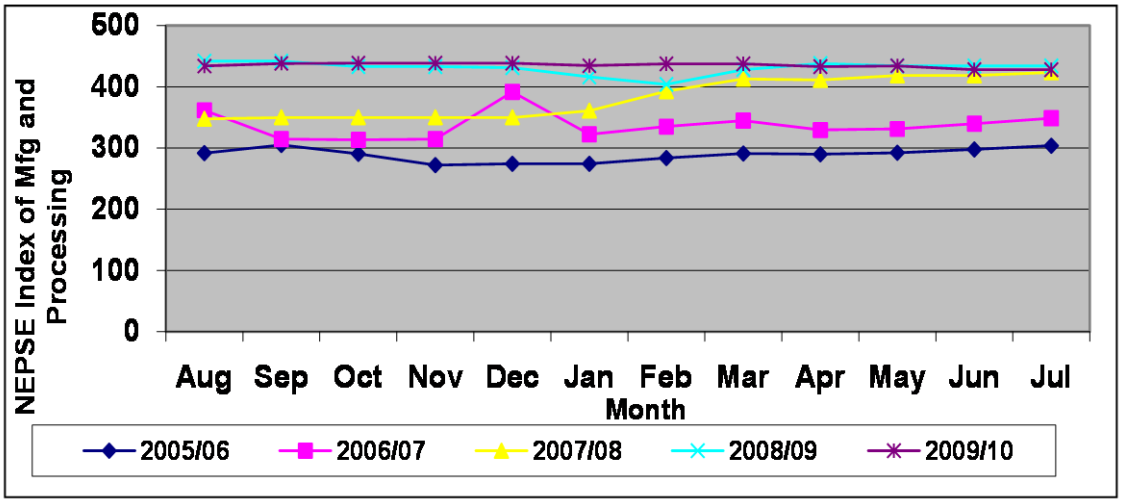
(Source: www.Nepal stock exchange.com)

Table 4.11 shows that over in 2008/09 it was the best year for the manufacturing and processing sector. In 2005/06 its movement was randomly, the maximum value was 305.01 in September and minimum value was 291.74 in august on one month difference. In 2008/09 the index reached to 441.92 which was highest

value and index trend is decreased around 10 below. In 2009/10 the index as same as previous year there were slightly up and down continuously at the end July,

Figure 4.11

NEPSE Index of Manufacturing and Processing During Last 5 Years



4.6.6 NEPSE Index of Trading Companies

NEPSE index of trading sector recorded highest in 2005/06 was 148.11 in the month of May, June and July and the lowest was 129.55 in the month of September and October. Afterwards, the increasing and

decreasing trend occurred the value reached to 295.83 in 2008/09 which was highest index till now and it was constant on July. In 2009/10 it continued up and down around 30 point.

Table 4.12

NEPSE Index of Trading Companies

Month	2005/06	2006/07	2007/08	2008/09	2009/10
Aug	134.95	148.11	162.08	210.59	281.78
Sep	129.55	150.72	162.03	214,46	261.30
Oct	129.55	149.71	162.03	218.31	261.21
Nov	134.84	149.71	162.32	208.72	256.07
Dec	134.84	150.09	165.20	206.45	265.75
Jan	142.78	148.51	162.32	202.68	260.78
Feb	148.07	152.79	162.32	221.96	251.35
Mar	141.29	148.71	125.83	214.08	266.36
Apr	147.27	148.71	196.71	218.02	287.10
May	148.11	155.21	210.83	281.78	284.22
Jun	148.11	155.21	212.55	295.83	282.08
Jul	148.11	155.37	204.08	295.83	282.08

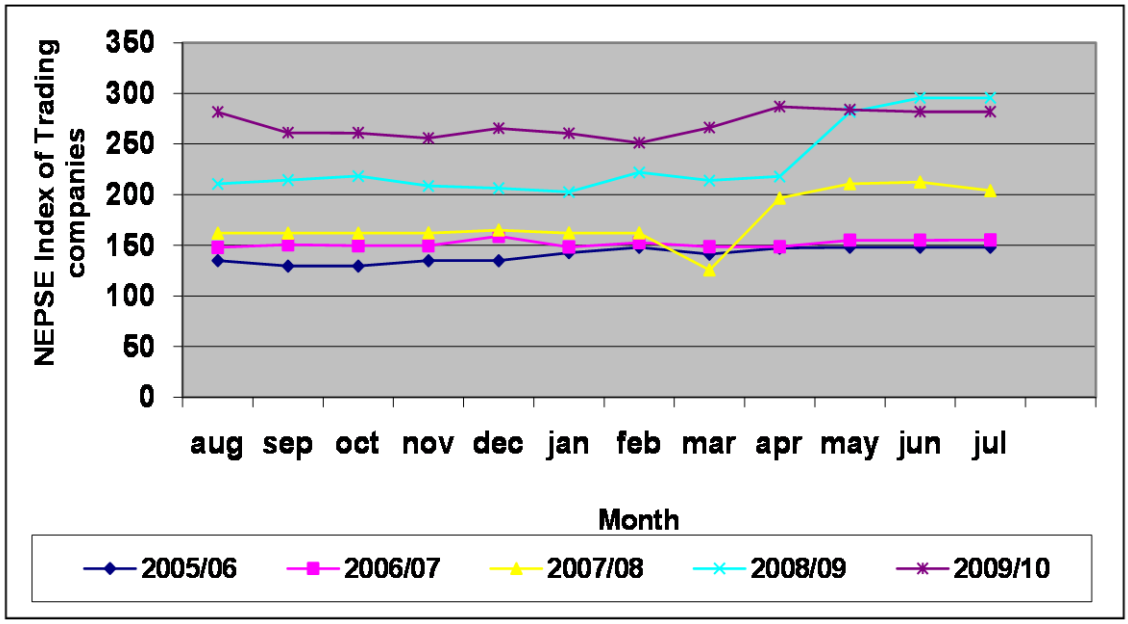
(Source: www.Nepal stock exchange.com)

From the table 4.12 it is clear that 2005/06 was not improving in sectors index there was only difference on 14 points in year and index shows constant form. In 2006/07, there was not good performance than before. It had only increasing 7 points in that year. However, in 2007/08 it had good performance than previous year its starting from 162.08 to 204.08, which had 42 points increment in that year. In March, month index

had gone to lowest point at 125.83. In 2008/09 it had satisfactory year than before due to increase in 90 points and in 2009/10 it had little bit up and down.

Figure 4.12

NEPSE Index of Trading Companies



4.6.7 NEPSE Index of Development Bank

Development bank was listed in Nepal stock exchange in the year 2001/02 in the month of January. So the transaction took palace from January, 2001/02 and development bank of NEPSE index took place in the trading floor with listed three companies. This has been shown in table 4.13.

Table 4.13

NEPSE Index of Development Bank

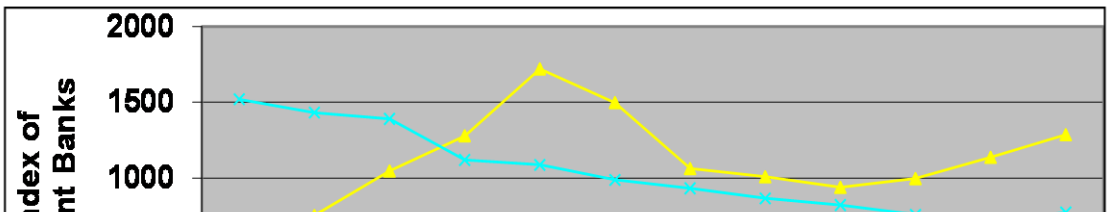
Month	2005/06	2006/07	2007/08	2008/09	2009/10
Aug	225.16	313.86	631.01	1518.74	695.44
Sep	216.3	317.27	752.23	1430.85	662.04
Oct	221.55	322.69	1046.18	1389.97	646.81
Nov	226.25	479.08	1278.63	1118.74	580.65
Dec	228.27	484.93	1720.76	1087.02	597.53
Jan	246.39	529.79	1497.91	987.20	558.26
Feb	288.5	526.62	1062.17	931.65	518.56
Mar	272.71	477.58	1008.19	866.02	455.35
Apr	292.53	422.95	938.15	821.93	428.40
May	269.83	483.9	996.15	756.91	498.94
Jun	278.16	493.94	1136.76	692.31	474.81
Jul	287.08	533.47	1285.89	772.56	478.53

(Source: www.Nepal stock exchange.com)

Development bank of NEPSE index took place January 2001/02. The index was starting from 225.16 points as increasing up to 287.08 at end of 2005/06. Highest index in observed was 1285.89 in December 2007 and lowest point in 2005/06 September which was 216.3. Development bank index was very fast growing than other index. In five year index reached from 225.16 to 1720.76 which were at least 7 times greater than previous year's growth. In 2008/09 it had 1518.74 on August and 772.56 at the end of period which showed negative sign than previous and in 2009/10 the index were reached to 478.53 which showed decreasing trend of index in later.

Figure 4.13

NEPSE Index of Development Bank



4.6.8 NEPSE Index of Other Sector

NEPSE index of other sector in November went up to 406.47 in 2005/06 and the least value is 319.85 in the month of December. In 2007/08 index was constant from august to January and February to Jun. In 2008/09 maximum value recorded was 1582.37 in month of august (due to include of ntc) and minimum point was 704.93 in the month.

Table 4.14

NEPSE Index of Other Sector

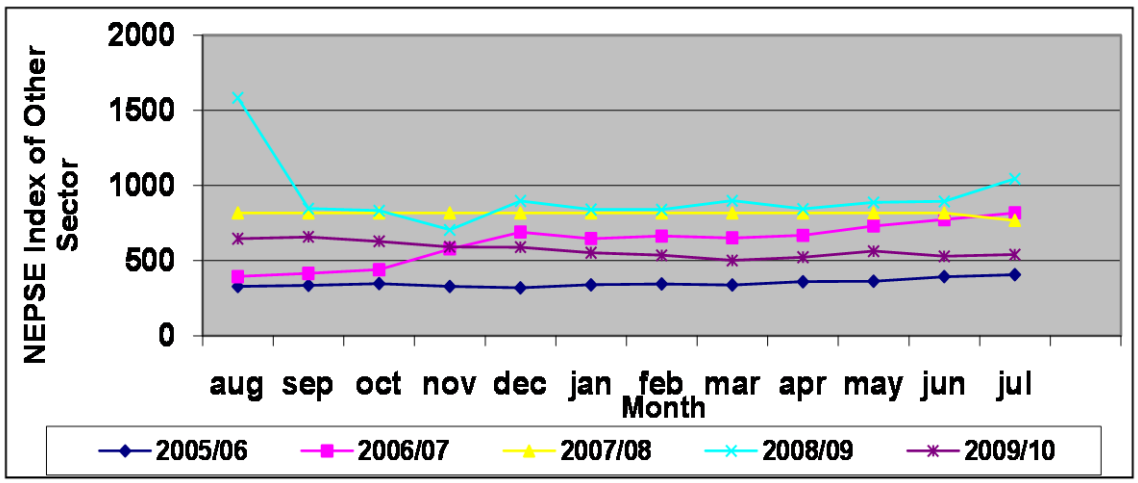
Month	2005/06	2006/07	2007/08	2008/09	2009/10
Aug	328.74	394.8	818.12	1582.37	646.19
Sep	336.36	416.2	818.12	845.88	657.94
Oct	347.78	440.1	818.12	832.96	628.57
Nov	328.74	578.56	818.12	704.93	592.16
Dec	319.85	690.4	818.12	897.49	589.81

Jan	339.4	647.4	818.12	840.01	552.22
Feb	345.39	663.8	817.47	838.78	535.78
Mar	338.79	651.59	817.47	898.54	501.72
Apr	359.76	668.59	817.47	843.63	522.86
May	363.49	731.19	817.47	887.48	562.80
Jun	393.76	773.83	817.47	894.56	528.73
Jul	406.47	818.12	768.26	1044.81	540.48

(Source: www.Nepal stock exchange.com)

Figure 4.14

NEPSE Index of Other Sector



The other sector is better than the other group because the sectors are in decreasing trend which is shown by the trend line compare to other sector. In the month of 2005/06 and 2006/07 the monthly movement process is increasing in trend but in 2007/08 had been shown constant and less declined, the trend was smoothly straight line on this year. In 2008/09 it reached to 1582.37 and started to decline continuously (except little bit increase month) till during the 2009/10.

4.7 Stock Market Turnover Ratio

The measure of liquidity of stock market is stock market turnover ratio. It is indicative of the trading relative to size of stock market; a high stock market turnover ratio may indicate low transaction cast and relative case in buying and selling of securities.

In developed countries this ratio is greater than or very close to 100% whereas in many developing countries this ratio stands in the range of 15% to 30%.

Table no. 4.15

Stock market turnover ratio in percentage

Fiscal year	Stock market turnover ratio (%)
2005/06	92.53
2006/07	96.59
2007/08	92.53
2008/09	91.45
2009/10	89.12

4.8 Dividend Payout Ratio

Dividend payout ratio indicates the portion of EPS given to shareholder as dividend. Cash dividend is a major component of holding period rate of return on share investment and bonus dividend can increase the core

capital and number of share. Thus higher dividend payout ratio may influence to invest their more funds in securities.

Table no. 4.16

Dividend payout ratios of listed companies

Name of company	Mean (%)	S.D. (%)	C.V.
Bank			
1. HBL	40	4.08	0.10
2. NABIL	108	23.22	0.22
3. NIB	48	13.82	0.29
4. SCBL	133	4.73	0.04
Finance company			
5. AFC	23	4.73	0.21
6. MFC	21	1	0.05
7. NIDC	37	4.73	0.13
8. NFC	78	31.96	0.41
Development bank			
9. GDBNL	0	0	0
10. ABBL	0	0	0
11. SBBL	0	0	0
12. ACEDBL	9	8.67	0.96

In the analysis of banking group, the mean D/P ratio of Himalayan bank ltd, Nabil bank, Nepal investment bank, standard chartered bank are 40, 108, 48 and 133 respectively. Their S.D. of D/P ratio are 4.08, 23.22, 13.82, and4.73 and their C.V are 0.10, 0.22, 0.29 &0.04 respectively. The mean of D/P ratio reveals that the standard chartered bank has the highest D/P ratio in average but S.D and C.V indicates that its D/P ratio is more volatile than other banks. However, D/P ratio of Himalayan bank is more consistent than other bank.

From analysis of the financial group, the mean value of D/P ratio of NIDC capital markets ltd, Annapurna finance co. ltd, Mahalaxmi finance co. ltd and Nepal finance and saving co. ltd are found 23, 21, 37, & 78 respectively. Their S.D and C.V are 4.73, 1, 4.73, & 31.96 and 0.21, 0.05, 0.13 &0.13 respectively. It indicates that Nepal finance and saving co. ltd has the higher and more consistent and attractive D/P ratio than other finance company limited.

The value of mean of D/P ratio of Gurkha development bank, Annapurna development bank, Sanima bikas bank and Ace development bank are 0, 0, 0, & 9 respectively. Their S.D and C.V are 0, 0, 0, & 8.67 and 0, 0, 0, & 0.96 respectively. The analysis clarifies that ace development bank pays more dividend from total earning and its D/P ratio is not instable as other development bank. Therefore, its D/P ratio has more investor friendly than other development bank.

4.9 Price Earning (P/E) Ratio of Listed Companies

P/E ratio is used to identify the undervalued or overvalued stock as well as to determine the future market value of a stock. If investors think that market value of stock will increase much more in future, they may invest in securities with the hope of getting more holding period return from the capital appreciation. Shares of a company having lower P/E ratio is assumed appropriate to invest because it indicates higher potentiality increasing share value in future.

Table no. 4.17

Price earning ratio of listed companies

Name of company	Mean	S.D	C.V

Bank			
1. HBL	26	6.16	0.24
2. NABIL	42	19.07	0.45
3. NIB	38	11.79	0.31
4. SCBL	44	4.12	0.09
Finance company			
5. AFC	31	22.31	0.72
6. MFC	31	26.18	0.84
7. NIDC	22	8.19	0.37
8. NFS	4	1.41	0.35
Development bank			
9. GDBL	101	30.41	0.30
10. ABBL	16	14.97	0.94
11. SBBL	100	21.55	0.22
12. ACEDBL	46	21.46	0.47

From above table, the mean P/E ratio of Himalayan Bank ltd, Nabil bank ltd, Nepal Investment Bank Ltd and Standard Chartered Bank Ltd are 26, 42, 38, & 44 respectively and Their C.V are 0.24, 0.45, 0.31 & 0.09 respectively. The P/E ratio of Himalayan Bank is lower and more consistent than others bank. It indicates that the investors can expect more market value in future from the share investment of Himalayan Bank than other banks.

In the analysis of finance group, Annapurna and Mahalaxmi Finance Co. has the highest P/E ratio of all finance companies but also there is no reliability in its P/E ratio due to very high instability of ratio. NIDC capital market .co. and Nepal finance and saving co. have a lower and less variable P/E ratio, which indicates the higher potentiality of getting more value in future in share investment of these companies than NIDC capital market ltd and Nepal finance and saving co.

In the analysis of development bank group, Annapurna Development Bank has low P/E ratio i.e. 16 while Gurkha Development Bank, Sanima Development Bank and Ace Development Bank have the ratio 101, 100, and 46. The C.V indicates the P/E ratio of .development bank had 0.30, 0.94, 0.22, & 0.47 Annapurna Development Bank have more uniform each year than development banks. However, P/E ratios of the entire development bank reveal better potentiality to achieve good return from share of these companies.

4.10 Correlation Analysis

Correlation coefficient summarizes in one figure, relationship, and degree of relationship between two series. The positive value of correlation coefficient refers to negative (i.e. inverse) relationship and zero value of correlation coefficient refers to no relationship between variables of two series. In this section, three correlation coefficient are analyzed by the use of Karl Pearson's correlation coefficient to find out relationship between the following variables.

1. Correlation coefficient between number of listed shares and annual stock market turnover.
2. Correlation coefficient between market capitalization and NEPSE index
3. Correlation coefficient between market days and number of share traded.

4.10.1 Correlation Coefficient between Number of Listed Shares and Annual Turnover

In Nepalese context, listed share are only allowed to transaction in NEPSE floor according to securities exchange Act 1983. Large volume of listed shares creates greater possibility of number of share traded in the NEPSE floor. As a result, the size of annual turnover may improve continuously.

In this analysis the correlation coefficient between the listed shares and annual stock market turnover has been calculated to find out the relationship between these variables for this purpose number of listed share is taken as independent variable(x)and annual turnover is taken as dependent variable (Y).

Table no. 4.18

Correlation between number of listed shares and annual turn over

R	r^2	PE (r)	6PE(r)	Sig/ insig
-0.195	0.038	0.2902	1.7412	Significance

The table 4.18 clarifies that the value of correlation coefficient is -0.195. It means there is negative correlation between number of listed shares and annual turnover and degree of negative correlation is moderate. The value of coefficient of determinant (r^2) is 0.038 which indicates that 3.8% variation of the dependent variables.(i.e. number of listed shares) has been explained of dependent variables (i.e. annual turnover) since the value of correlation (i.e. r= -0.195) is more than 6 times of P/E ratio (r) (i.e. PE(r)= 1.7412), the correlation is also significant.

4.10.2 Correlation coefficient between market capitalization and NEPSE index

Market capitalization is the total product of number of listed share, market price of these respective shares is determined by the demand, and supply of shares NEPSE index is based on market capitalization.

In this analysis, correlation of coefficient between annual market capitalizations is taken as independent variables (x) and NEPSE index is dependent variables (y).

Table no.4.19

Correlation between market capitalization and NEPSE index

R	r^2	PE (r)	6PE (r)	Sig/ insig
0.5176	0.2679	0.2208	1.3248	Insignificant.

From the above table 4.129, correlation coefficient of 0.5176 describes that there is positive correlation between market capitalization and NEPSE index. However, degree of positive relationship is high. The value of coefficient of determinant (r^2) i.e. 0.2679 indicates that 26.79% of variation of dependent variable (i.e. NEPSE index) has been explained by independent variable (i.e. market capitalization). Since value of correlation is lower than 6 times of PE ratio (r), the correlation insignificant.

4.10.3 Correlation coefficient between Market Days and Number of Shares Traded

Market day plays very important role to facilitate the securities transaction in secondary market i.e. NEPSE in Nepal, where once purchased securities are traded. High number of shares traded sin NEPSE floor may increase number of participation in stock market and motivate the investors to invest more amounts in securities.

In this analysis, correlation coefficient between market day and number of shares traded has been computed to find out the relationship between these variables of two series and degree of relationship. For this purposed market day is considered as independent variable (X) and number shares traded is considered dependent variable (Y).

Table no.4.20

Correlation coefficient between Market Days and Number of Shares Traded

R	r^2	PE (r)	6PE (r)	Sig/ insig
0.649	0.4212	0.1745	1.047	Significant.

From the above table 4.23, the correlation coefficient between market day and number of shares traded is 0.649 It implies that there is possible relationship between these two variables but degree of positive correlation is very low. The value of r^2 is 0.4212 which indicates that 42.12% of the variation of the dependent variable (i.e. Number of share traded) has explained by the independent variable (i.e. Market day).

Since, the value of correlation (i.e. r = 0.649) is very more than 6 times of PE (r) (i.e. 6PF (r) = 1.047), the correlation value is significant.

4.11 Presentation and analysis of primary data

In this section, the collection data from primary sources has been tabulated and analyzed. For the purpose of primary data collection, 100 questionnaires were sent to investor and non-investor but only 90 respondents returned the questionnaire. Similarly, the question12 was asked to brokers and 60 were to investors and remaining to public. The analysis of primary data was classified into analysis of opinion survey and test of hypothesis.

Analysis of Opinion Survey

4.11.1 Investors of Securities

Regarding investment in financial securities whether respondents have invested in securities or not i.e. question no. 1 (see appendix -1) was asked to randomly-selected respondents. The whole respondents, for the purpose of analysis, the collected data are classified in to two groups. (i.e. investors and brokers) The analysis is shown in following table.

Table no. 4.21

Investors securities

		Investors		Brokers		total	
		No.	%	No.	%	No.	%
A	Yes	68	87	12	100	80	89
B	No	10	13	0	0	10	11
	Total	78	100	12	100	90	100

Source: field survey

At the time of classification, out of 90 total respondents, 78 were found from public and 12 from brokers. It is clear from the table no.4.21 87% of public had invested in securities while 1005 of broker respondents had invested. In overall 895 of total respondents had invested in securities.

4.11.2 Source of idea about investment at first

Most of Nepalese people had well known about real investment (i.e. non- securities investment in building, machinery, factories etc.) but financial investment (i.e. securities investment like investment in common stock, preferred stock, bond etc.) is still new phenomena for them. Therefore, it was tried to know their first source of idea about securities investment. For this purpose, question no. 2 (see in appendix 1) was asked to randomly selected respondents. The analysis is as follows.

Table no. 4.22

Sources of idea about investment at first

S.N	Research variable	No. of respondents	%
A	From friends	30	33
B	From stock broker	10	11
C	From relatives	14	16

D	My selves	36	40
	Total	90	100

It is obvious in the above table 4.22, 40% of respondents had known themselves about securities investment at first, and rest 33%, 16%, and 11% of respondents had the idea about securities investment at first from their friends, from relatives and from stockbrokers respectively.

4.11.3 Consideration of Risk and Return before Investing

Consideration of risk and return factors before investing in securities is important to get success from securities investment. In this respect, one question was asked to respondents to measure the awareness of respondents about risk and return. For this purpose the respondents were classified, based on the respondents answer to the question no.3 in following two groups.

Table no. 4.23

Awareness of investors in risk

		Investors		Brokers		total	
		No.	%	No.	%	No.	%
A	Return only	19	24	0	0	19	22
B	Risk only	3	4	0	0	3	3
C	Risk and return	53	68	12	100	65	72
D	I don't know	3	4	0	0	3	3
	Total	78	100	12	100	90	100

The table no.4.23 classifies, in investor group, 72% of investor replied the answer to both risk and return to be considered 22% replied return only to be considered, replied of I don't know and risk only had 3% equally.

4.11.4 Diversification of risk by portfolio investment

Some portion of the total risk can be diversified by the portfolio investment. In this regard, respondents were again asked to find the awareness of them. For this analysis, the collected data area analyzed in the table below.

Table no. 4.24

Awareness of investors

(in term of risk diversified)

		Investors		Brokers		total	
		No.	%	No.	%	No.	%
A	Yes	50	71	12	100	62	69
B	No	28	29	0	0	28	29
	Total	78	100	12	100	90	100

It is obvious from the table no. In the group of investors, 69% of investors were awared but rest of 29% were not awared, that some risk can be diversified by portfolio investment. Likewise, 29% of the public were not awareness of portfolio investment.

4.11.5 Valuation and purchase of securities

Regarding the awareness of Nepalese people towards securities investment, next one question. (What type of share should buy form securities market?) was also asked to the respondents. The collected answers to this question were classified again into following two groups to analyze.

Table no. 4.25

Awareness of investors in pricing

		Investors		Brokers		Total	
		No.	%	No.	%	No.	%
A	Under valued	40	51	12	100	52	58
B	Over valued	17	22	0	0	17	19
C	I don't know	21	27	0	0	21	23
	Total	78	100	12	100	90	100

4.11.6 Most Preferred Sector to Invest

In this present situation 177 companies are listed in NEPSE (see appendix-1)

Large numbers of company's shares of different sectors were available for investment. In such of mass alternatives, investors can sacrifice their fund on the best companies' shares. Therefore, the researcher had tried to survey the different eight sectors in which share the investors like to invest most.

Table no. 4.26

People's preferred sector to invest

S.N	Research variable	No. of respondent	%
A	Banking	42	46
B	insurance	6	7
C	Development	14	15
D	Finance	8	9
E	Hotels	6	7
F	Manufacturing & processing	6	7
G	Trading	2	2
H	others	6	7
	Total	90	100

It is found from the table of the respondents were found most interested in the share of banks. Likewise this 7%, 15%, 9%, 7%, 7%, 2% and 7% of respondents were found most interested to invest in the share of insurance, development bank, finance, hotels, manufacturing & processing, trading and other respectively. It can be summarized that most of the Nepalese people are interested to employ their investable fund in share of banks.

4.11.7 Satisfaction from securities investment

Regarding the satisfaction with presently return from share investment, 90 randomly selected respondents were asked whether they were satisfied or not from presently getting return on share investment. The collected data in this respect is tabulated in the table no. 4.27

Table no. 4.27

Satisfaction from securities investment

S.N	Research variables	No. of respondents	%
A	Yes	62	69
B	No	28	31
	Total	90	100

From the table of 69% the investors replied that they were satisfied from the return of share investment but remaining 31% replied that they were not satisfied from the return of share investment.

4.11.8 Satisfaction with government efforts

Regarding satisfaction of respondents with government efforts to develop stock market in Nepal, the selected investors and broker were asked to question. for the purpose of analysis, the collected answers from the investors and brokers were considered.

Table no. 4.28

Satisfaction with government efforts

		Investors		Brokers		Total	
		No.	%	No.	%	No.	%
A	Yes	52	67	1	8	53	59
B	No	26	33	11	92	37	41
	Total	78	100	12	100	90	100

The above table 4.28 shows 66.67% of the NEPSE staffs, 8.33 % of companies staffs and 58.58 % of the investors were satisfied with the government efforts to develop the stock market in Nepal but 33.33 % of the NEPSE staffs, 91.66 % of investors were unsatisfied with the government efforts. In overall, only 34.67 % of the total respondents were satisfied.

4.11.9 Main cause of being reluctant to invest in securities

Main cause of being reluctant to invest in securities after the avenue of democracy in Nepal, participation of private sector is highly motivated. As a result, Nepalese people are invested in different sectors. Bank and finance are also successful to collect large deposits from domestic depositors but also most of the listed companies are still unable to collect the needed fund through the issue of securities and performance of NEPSE is still in nascent phase. Large number of investor's participation is the catalyst for stock market development. Therefore, it was tired to know the main cause for Nepalese people to be reluctant to invest in securities. The data are analyzed in the table no.4.29

Table no. 4.29

Main cause of being reluctant to invest in securities

S.N	Research variables	No. of respondents	%
A	Lower return	2	2
B	More risk	20	22
C	Lack of knowledge	54	60
D	No protection of investor right	14	16
	Total	90	100

It is from the analysis from the analysis that most of the respondent i.e. 60% pointed the main cause of the reluctant of the securities investment is the lack of knowledge about securities investment while 22% of

respondents pointed the main cause is more risk in secondary market. 165 and 25 of respondents pointed the main cause of being reluctant to invest in securities investment were no protection of investor and lower return respectively.

4.11.10 Investor's Purpose in Investment

Investors have different view to investment in market. Most of investors are confuse about which factors was more benefit. The numbers of investors are increasing but real investors are very low. The different view of investors are presented below.

Table no. 4.30

Investor's purpose in investment

S.N	Research variables	No. of respondents	%
A	Dividend	22	24
B	Management participant	10	11
C	Capital gain	46	52
D	Social status	12	13
	Total	90	100

In this research 52% of investors are invested for capital gain. And remaining 48% are invested for dividend, management participant and social status. 24% are investing for dividend, 13% of investors are for social status, and 115 of investors are investing for management participant

4.11.11 Responsible for NEPSE Performance

The investors are influenced by various factors of securities investment. Therefore, it is try to analyze the performance of NEPSE index by investors. For this purpose, the collected data are present and analyzed in following table.

Table no. 4.31

Responsible for NEPSE performance

S.N	Research variables	No. of respondents	%
A	Government	34	37
B	Investors	24	27
C	Brokers	16	18
D	NEPSE	16	18
	Total	90	100

By research main responsible for NEPSE performance was government. There are 37% of respondent voices for NEPSE performance. 27% of 90 respondents were responsible to investors, and broker & NEPSE are equal 18% responsible for NEPSE performance.

4.12 Test of hypothesis

This sections deals with different hypothesis test, which are as follows;

Hupothesis-1

In this section, the impact of income level of people on securities investment is tested using chi-square test. For this purpose, the whole respondents are classified according to their annual income level in the following table.

Table no. 4.32

Test Dependence of Securities Investment on Income Level of People

Respondent Response	Below Rs.50000	Above Rs.50000	Above Rs.100000	Above Rs. 200000	Row Total
Yes	11	6	23	16	56
No	3	4	15	12	34
Column Total	14	10	38	28	90

Formation of hypothesis

Null hypothesis (H_0): securities investment is independent on income level of people or there is no significant relationship between income level of people and securities investment.

Alternative hypothesis (H_1): securities investment is dependent on income level of people or there is significant relationship between income level of people and securities.

The computed value of χ^2 i.e. 1.9669 is lower than tabulated value of χ^2 at 5% level of significant with 3 d.f. i.e. 7.815. Therefore, null hypothesis is accepted. It implies that securities investment is independent on income level of people in Nepalese context. In order word, there is significant relationship between income level of people and securities investment. Wealthy persons have also not invested but some poor persons have invested in securities.

Hypothesis-2

In this hypothesis, the whole respondents are classified into the following two groups according to their academic background. The main purpose of this classification is to test the hypothesis, whether persons with the academic background of management and economics are more aware about securities investment or not.

Table no. 4.3

Relation between Awareness of Investment and Academic Background

Academic background Awareness	Management or Economics	Others	Row Total
More aware	46	12	58
Less aware	22	10	32
Column Total	8	22	90

Formation of hypothesis

Null hypothesis (H_0): the experiment does not exist any relationship between academic background and awareness about securities investment.

Alternative hypothesis (H_1): the experiment does exist any relationship between academic background and awareness about securities investment or the people with academic background of management and economics are more awareness about securities investment than others.

Since, the calculated value of χ^2 i.e. 1.2477 lower than tabulated value of χ^2 at 5% level of significant with d.f. 1 i.e. 3.841, null hypothesis is accepted and alternative hypothesis is rejected. It can be concluded that people with academic background of management and economics are less awared about securities investment than people with academic background of others. In another word, there is meaningless relationship between academic background of management and economics with less awareness about securities investment.

Hypothesis-3

In this hypothesis, the whole respondents are classified into the following two groups according to their academic background. The main purpose of this classification is to test the hypothesis, whether relationship between academic background of persons and securities investments or not.

Table no. 4.34

Relation between Securities of Investment and Academic Background

Academic background Response	Management or Economics	Others	Row Total
Yes	18	36	54
No	30	6	36
Column Total	48	42	90

Formation of hypothesis

Null hypothesis (H_0): there is no significant relationship between academic background and securities investment.

Alternative hypothesis (H_1): there is significant relationship between academic background and securities investment

Since, value of χ^2 i.e. 21.6963 more than tabulated value of χ^2 at 5% level of significant with d.f. 1 i.e. 3.841, null hypothesis is rejected and alternative hypothesis is accepted. It can be concluded that there is associated between the people with academic background of management and economics and securities investment. It proves that people with academic background of management and economic are less aware about securities investment is significantly above than people with academic background of others subjects.

Hypothesis-4

For this hypothesis, only the existing investors of securities are considered. Moreover, some NEPSE staffs and companies staffs were specially asked to collected their opinions regarding government efforts for development stock market in Nepal. Hence, the respondents are classified into the following three groups.

Table no. 4.35

Perception towards government efforts

Respondents Response	NEPSE staffs	Companies staffs	Investors	Row total
Yes	18	14	27	59
No	14	4	13	31
Column Total	32	18	40	90

Formation of hypothesis

Null hypothesis (H_0): there is no significant difference in the perception of NEPSE staff, companies' staffs, and investors towards government efforts for stock market development.

Alternative hypothesis (H_1): there is significant difference in the perception of NEPSE staff, company's staffs, and investors towards government efforts for stock market development

Since, value of χ^2 i.e. 2.4874 lower than tabulated value of χ^2 at 5% level of significant with d.f. 2 i.e. 5.991, null hypothesis is accepted and alternative hypothesis is rejected. It means the perception of NEPSE staffs, companies' staffs, and investors is significant difference towards government efforts for stock market development in Nepal.

4.13 Run Test Analysis

A run is defined as a sequence of price changes in the same sign. For the stock price behavior, there are three types of change pattern namely; positive, negative and zero which are known as three types or runs. This test, which is nonparametric in nature, is used to examine independence assumption of the model.

Empirical Results, If it is assumed that the simple proportions of positive, negative and zero price changes are good estimates of the population, then the hypothesis of independence can be tested by using the equation 3.6.4.1. The calculated value of standard normal variant Z for each sample bank is presented in Appendix XII. It is important to test absolute dependence in the price changes than whether the dependence is positive or negative. To test the randomness or independence of the given share prices, the values of the standard normal variant Z as calculated in Appendix IV is tested at the 5% and 1% level of significant.

Table 4.36

Name of the companies having significant value of standard normal variate Z at 5% and 1% level of significance.

		LEVEL OF THE SIGNIFICANCE	
		5%	1%
1.	HIMALAYAN BANK LIMITED	R	R
2.	NEPAL INVESTMENT BANK LIMITED	R	R
3.	NABIL BANK LIMITED	R	R
4.	STANDARD CHARTERED BANK LIMITED	R	R

NOTE: R INDICATES THAT THE HYPOTHESIS OF RANDOMNESS OR INDEPENDENCE IS REJECTED. VIEWED FROM TABLE 4.36 WHICH GIVES INFORMATION REGARDING THE COMPOSITION OF STANDARDIZED VARIABLE, IT CAN BE SEEN THAT THE STANDARD NORMAL VARIATE Z IS SIGNIFICANT 5% AND 1% LEVEL OF SIGNIFICANCE IN RESPECT TO ALL SAMPLE BANKS.

THE OVERALL RESULTS SUGGEST THAT THE HYPOTHESIS OF RANDOMNESS OF SHARE PRICES DO NOT SUPPORT THE MONTHLY CLOSING STOCK OF NEPSE. HENCE, IT CAN BE CONCLUDED THAT THESE COMPANIES DO NOT FOLLOW RANDOM WALK MODEL OR WEAKLY EFFICIENT MARKET HYPOTHESIS. IT SUGGESTS THAT THE NEPALESE STOCK

MARKET MAY NOT BE DEFINED AS "WEAKLY EFFICIENT" IN PRICING THE SHARES AS THE IMPLICATION OF NON-RANDOM BEHAVIOR IN SHARE PRICES. IN VIEW OF ABOVE FINDINGS, THE TECHNICAL ANALYSIS (CHARTIST) THEORY CAN BE USEFUL TO AN EXTENT AS AN INVESTMENT STRATEGY FOR BUYING SELLING SHARES IN SUCH MARKET SITUATION. THE RESULT OBTAINED ALSO SUGGESTS THAT THE FUNDAMENTAL OR INTRINSIC VALUE ANALYSIS IS IMPORTANT TO TEST THE EFFICIENCY OF NEPSE.

4.14 Major findings

This section contains major findings from the analysis of secondary data and primary data.

4.14.1 Findings from secondary data analysis

1. Most of the companies are not following the capital market as an alternative source of fund raising because 177 companies are only listed in NEPSE up to 2009/10. It proves that the size of Nepalese stock market is very small.
2. The numbers of listed companies are increasing trend. The number of companies in the initial year 2001/02 it was 96 and 2001/02 and in 2009/10, it was 177. A listed company was increasing by 81 companies.
3. The annual turnover is fluctuating. It is more than double in 2006/07 but marked sharp incline in 2007/08 with reaching the turnover Rs.21987.78 Million and decreased to Rs.11025.79 in 2008/9 and in 2009/10 it was increased to Rs.19460.36 million.
4. Market capitalization value is in erratic trend in each group in each year. The proportion of market capitalization of commercial bank is the highest among eight sectors.
5. In the term of traded share quantity commercial bank captured the largest chunk of the total share trading. Trading sector has lowest share traded quantity comparison to other sectors.
6. The total number of transaction is in unpredictable trend during study period. In total, the number

of transaction in commercial bank is the highest. Second position occupied the development bank in term of number of transactions. Thus, the investors are encouraged to invest in these sectors.

7 The total number of transaction is in increasing trend during the study period. In total number of transaction in commercial bank is the highest position is occupied by the finance in the term of number of transactions.

8 NEPSE index reflects the aggregate volatility of the share prices of the companies listed.

4.14.2 Findings from primary data analysis

1 During the discussion with both brokers and investors, it has been seen that they blamed each other's regarding their roles and performance.

2 Most of the populations were interested to invest in stock.

3 Regarding their preference of investment sectors, major portion were found preferring to invest in banking and finance companies.

4 Most of the investors were not conscious with Nepalese stock market.

5 Investor's motive for investment on the shares of company was to receive capital gain.

6 Most of the investors were satisfied with earning from investment.

7 On analyzing the priority taken by investors to make investment, it was found that major portion of them take investment decision based on market price.

8 Most of the investors were not satisfied with the NEPSE performance.

9 Most of the investors were in view that the government's role is important for smooth functioning of security board.

10 On analyzing investors view, it seems that the role of different parties such as broker, market makers, and securities exchanges limited is not efficient during the study.

11 Stock market is confined to equity market only and debt truncation in Nepal stock exchange is negligible.

CHAPTER-V

SUMMARY, CONCLUSION, AND RECOMMENDATION

5.1 Summary

Nepal is one of the least developed countries in the world. Nepal launched planned economic development more than four decades ago. Recently she has adopted the path of economic development through liberalization. The capital market institutions are engaged in mobilization of saving into the productive investment activities. Therefore, to develop the country an efficiency and effectiveness capital market plays a vital role. The basic objective of this study are concerned to the concept of capital market, analysis its performance and price behavior of share of listed companies and behavior of NEPSE index

Stock market facilitates the exchange of financial assets by bringing together buyers and sellers the exchange of securities. It provides an effective easy of raising money for commercial enterprises and at the same time, provides an investment opportunity for individual and institutions. Particularly the activates of buying and selling securities on the stock market are extremely important for the allocation of capital with in economics.

Since there is a vital role of stock market for overall economic development in both developing and developed countries, strong development of stock market is essential. The development of stock market determines mainly by the involvement of investors is influenced by size and liquidity position of stock market. Size and liquidity position of stock market again depends on overall development of securities market.

The main objective of the present research was to study and analyzed the stock market behavior in listed companies in Nepal. Besides this, other general objectives were about the awareness of Nepalese people regarding securities investment, size and liquidity position of Nepalese stock market, stock market trend in Nepal and some major investment influencing factors of securities investment.

Regarding the stock market more or less related books, journals and articles acts and unpublished thesis were studied including their theme in the this research.

As per the nature study, secondary data as well as primary data were collected from various sources. The collected data were tabulated & analyzed by the help of both financial and statistical tools to meet the defined objectives. Both descriptive and analytical research designs were following. Likewise, the collected data were analyzed by using bar diagram and trend lines in order to interpret them and to meet the defined objectives of the study.

The second chapter present the theoretical and research review. In theoretical, there are two approaches technical and fundamental analysis. Technical analysis involves the study of the past volume price fluctuations where as fundamental analysis deals with the securities analyst the economic factor influences industry factor and pertinent company information such as product and management in order to calculate an intrinsic value of the firms securities. In an efficient market, there are three forms a) weak form b) semi-strong form and c) strong form. In weak form of EMH, stock price behavior can be tested by using parametric (serial correlation) and non- parametric (run test).

Research methodology and presentations of data deals with the methods of analysis. This chapter presents the research design of the study. This study covers five-year form 16 July 2005 through 16th 2010. In Nepal stock exchange, there are eight sector listed. So all eight sectors 1) commercial bank 2) finance companies 3) insurance 4) hotels 5) manufacturing and processing 6) trading companies 7) development banks 8) others has been taken as a sample for the study. Data used for the study purpose are based on the primary and secondary data. The major sources of data are NEPSE SEBON, investors and non-investors. For analysis of data percentage methods bar diagram line charts have been used. A statistical tool like standard deviation has been used to measure the volatile of behavior of NEPSE index. Calculation of standard deviation is a positive relationship between risk and return. Therefore, from the viewpoint of the investors the attitude towards risk varies from investor to investor. A risk aversion is a approach where the investor doesn't want to bear additional risk and want secured and safe return. The level of risk is not so easy to measure.

The number of listed companies is in increasing trend. The numbers of listed companies were 135 in 2005/6, 2006/7 but in 2007/8, it has 142 companies, in 2008/9 and 2009/10 it were 159,177 respectively.

The annual turnover is fluctuating and market capitalization value is in increasing trend. The proportion of market capitalization of commercial bank is highest among eight sectors.

Total number of transaction increasing trend during the study period and investors are encouraged to invest in commercial bank and finance companies. Analysis of signaling factors indicates differences between NEPSE indexes.

5.2 Conclusions

The following conclusions have been derived from the major findings of this study.

1. Capital market is a vital importance to develop in the economy the country, an efficient and effective stock market. The growth of institutional, growth of primary and secondary market and increase in listed companies, i.e. the capital market in Nepal is in developing process.
2. The number of transactions traded amount and market capitalization suggest that the banks and finance companies as compared to others are in better position. They look less affected than of performance compared to hotels and other companies.
3. Commercial bank total annual turnover stood at 65.27% by the end of fiscal year 2009/10 with those shares accounting for 53.19% of the total market capitalization during the fiscal year. These indicators reveal that the shares of commercial banks have a dominant role in determining the key indicators of the Nepalese stock exchange. It is thus unsurprising that commercial banks have continued to appear as the most attractive investment alternatives since the opening of the floor.
4. Market performance of NEPSE index shows the decreasing trend and no any sign of improvement of NEPSE index. NEPSE index of commercial bank is fluctuating. Volatility of the NEPSE index hit the peak 424.28, 789.21, 985.65, 780.87 and456.93 in 2005/06, 2006/07, 2007/8, 2008/09 and 2009/10 respectively. The manufacturing & processing and finance sector is less risky according to standard deviation. Investors are suggested to invest in other sectors too but it depends on the investor's attitude towards the risk. If investors are ready to assume more risk they might obtain a higher expected monetary value so investors are encouraged to invest in manufacturing & processing and finance companies too.

5.3 Recommendations

1. The performances of commercial banks, finance companies and manufacturing & processing companies are better than the other sectors so it is recommended to the investors to invest their investment in these sectors.
2. It is also recommended to the concerned regulatory body to carry out further research on the specifics of market efficiency to develop an efficient capital market.
3. Statistical tools are serial correlation run tests and filter rules technique are not carried out study by applying these tools.
4. Thousands of investors from outside the valley are suffering due to not having an easy access to secondary market. All the investors from outside the valley who want to involve in securities transaction must come to the capital physically. There is no another way for them to participant in the secondary market. It is costly and risky. Therefore, secondary market should be expanded at least one in each development region to expand its services more.
5. When a company performance was well this performance reflects market besting the price up. However, higher price would be affordable only to high-income group and wealthy investors. Thus, benefits of as well as handsome capital gain dividend paid by companies should follow the concept of stock split to make their stock more affordable to all income level investors by reducing the price of stock. It helps to increase number of share in stock exchange to spread the earnings of society and to motivate them to participate in securities investment.
6. All listed companies have been published their financial reports quarterly.
7. Financial investment, in Nepalese context has still been new phenomenon due to the lack of enough knowledge and awareness about it. So effective programs in radio or FM or TV should be conducted small or large types of seminars should be organized frequently various books and journals should be published including rules and regulation, methods, process, and advantages and disadvantages of securities investment and should be distributed freely to increase awareness among the general public.
8. Equity issuance has covered major portion of total issue in the securities market. The issuance of such securities is viable opportunity for only risk seeker investors who wish to take greater risk foe higher return. However, there is still lack of market for risk adverse investors who want to invest lower risky or risk free securities. So corporate bonds, debentures, and preferred stock should be

issued heavily to cater the needs of risk adverse investors.

9 True, scrutinized, and credible information about the listed companies are not available because of absences of credible rating system. So independent rating agencies should be encouraged to establish here so, that potential investors will have to confident picture of financial health and future prospect of company.

10 SEBON and NEPSE are operating under the government ownership. It has put breaks on the development of securities market. Therefore, the ownership of NEPSE should be handed over to the private sectors and developed as a self-regularity organization. It helps to regulate the activities of NEPSE and market intermediaries.

11 Member of stock exchange and other associated with the working of capital market should have reasonable background in corporate finance, capital market, and economics.

12 Central deposit system should be initiated in Nepal stock exchange, which helps to easy transaction.

13 Number of broker and sub broker has been increased and stock market was not limited on Kathmandu only.

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Appendix-I

A survey on stock market in Nepal

NAME:

Please use tick mark (√) in an alternative.

1. Have you invested in any securities?
   a. Yes ( ) b. No ( )
2. How did you first get the idea about securities investment?
   a. From friends ( )
   b. Form stock brokers ( )
   c. From relatives ( )
   d. Myself ( )
3. What do you consider before investing in securities?
   a. Return only ( )
   b. Risk only ( )
   c. Risk and return ( )
   d. I don't know ( )
4. Do you know some portion of total risk can be diversified by portfolio investment?
   a. Yes ( ) b. No ( )
5. What type of share should buy from securities market?
   a. Undervalued ( )
   b. Overvalued ( )
   c. I don't know ( )
6. In which sector's share do you like to invest most?
   a. Banking
   b. Insurance
   c. Development banks
   d. Finance companies
   e. Hotels
   f. Manufacturing & processing
   g. Trading
   h. Others
7. Are you satisfied with the return that you are presently getting from share investment?
   a. Yes ( ) b. No ( )
8. Are you satisfied with government efforts to develop stock market in Nepal?
   a. Yes ( ) b. No ( )
   If no, please provide three good suggestions in short

……
……
……

9. In your opinion, which is the main cause for Nepalese people to be reluctant to invest in securities?
   a. Lower return ( )
   b. More risky ( )
   c. Lack of knowledge ( )
   d. No protection of investor's right ( )
10. How is your annual income level?
   a. Below 50000 ( )
   b. Above 50000 ( )
   c. Above 100000 ( )
   d. Above 200000 ( )
11. For what purpose do you want to invest?
   a. Dividend ( )
   b. Management participant ( )
   c. Capital gain ( )
   d. Social status ( )
12. In your opinion which of the following is most responsible for NEPSE performance?
   a. Government ( )
   b. Investors ( )
   c. Brokers ( )
   d. NEPSE ( )

Appendix-II

Dividend payout ratio of listed companies (percentage)

Name of company	2005/06	2006/07	2007/08	2008/09	2009/10
Bank					
1. Himalayan bank ltd	35	40	45	45	35
2. Nabil bank ltd	85	140	100	115	100
3. Nepal investment bank ltd	70	35	40	50	45
4. Standard chartered bank ltd	140	130	130	135	130
Finance company					
5. Annapurna finance co.	20	20	30	20	25
6. Mahalaxmi finance co.	20	22	20	23	20
7. Nepal industrial development corporation	23	13	30	24	20
8. Nepal saving and finance co.					

	123	62	50	65	90
Development bank					
9. Gurkha development bank	0	0	0	0	0
10. Annapurna development bank					
11. Sanima bikash bank	0	0	0	0	0
12. Ace development bank	0	0	0	0	0
	12	5	10	10	8

Appendix-III

Price earnings ratio of listed companies

Name of company	2005/06	2006/07	2007/08	2008/09	2009/10
Bank					
1. Himalayan bank ltd	18	33	27	30	22
2. Nabil bank ltd	17	47	63	63	20
3. Nepal investment bank ltd	21	30	46	46	47
4. Standard chartered bank ltd	40	44	49	49	38
Finance company					
5. Annapurna finance co.	8	23	61	23	40
6. Mahalaxmi finance co.					
7. Nepal industrial development	10	15	68	47	15
corporation	14	33	18	18	27
8. Nepal saving and finance co.					
	2	5	5	3	5
Development bank					
9. Gurkha development bank	88	72	143	130	72
10. Annapurna development bank					
11. Sanima bikash bank	0	12	36	12	20
12. Ace development bank	113	70	118	110	89
	16	65	57	55	37

Appendix-IV

Correlation coefficient between market days and number of transactions

F/Y	X	Y	XY	X^2	Y^2

2005/06	228	12222	2786616	51984	149377284
2006/07	232	18147	4210104	53824	329313609
2007/08	261	28600	7464600	68121	817960000
2008/09	234	26100	6107400	54756	681210000
2009/10	225	22599	5084775	50625	510714801
	ΣX=1180	ΣY=107668	ΣXY=25653495	ΣX^2=279310	ΣY^2=2488575694

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

r = 0.64898

$r^2 = (0.64898)^2$

$r^2 = 0.4212$

$$PE(r) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

PE(r) = 0.1745

Appendix-V

Correlation coefficient between market capitalization and NEPSE index

F/Y	X	Y	XY	X^2	Y^2
2005/06	96763.74	386.83	37431117.54	9363221379	149637.45
2006/07	186301.28	683.95	127420760.5	34708166930	467787.60
2007/08	366247.56	963.96	352828249.4	134137275200	928062.49
2008/09	512939.07	749.10	384242657.3	263106489500	561150.81
2009/10	376871.37	477.73	180042759.6	142032029500	228225.95
	ΣX=1539123.02	ΣY=3260.97	ΣXY=1081965544	ΣX^2=583347182500	ΣY^2=2334864.30

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

r= 0.5176

$r^2 = (0.5176)^2$

$r^2 = 0.2679$

$$PE(r) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

PE(r) = 0.2208

Appendix –VI

Correlation coefficient between no. of listed securities and stock market turnover

F/Y	X	Y	XY	X^2	Y^2
2005/06	226540	12222	2768771880	5132037160	149377284
2006/07	243504	18147	4418867088	59294198020	329313609
2007/08	321131	22873	7345229363	103125119200	523174129
2008/09	637868	21681	13829616110	406875585400	470065761
2009/10	826046	11851	9789471146	682351994100	140446201
	ΣX=2255089	ΣY=86774	ΣXY=38151955590	ΣX^2=1256778934000	ΣY^2=1612376984

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

r= -019495

$r^2 = (-019495)^2$

$r^2 = 0.038$

$$PE(r) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

PE(r) = 0.2902

Appendix-VII

Hypothesis-1 Chi-square test

R, C	O	$E = \frac{RT \times CT}{N}$	(O–E)	$(O–E)^2$	$\frac{(O-E)^2}{E}$
1,1	11	8.71	2.29	5.2441	0.6020
1,2	6	6.22	-0.22	0.0484	0.0078
1,3	23	23.64	-0.64	0.4096	0.0173
1,4	16	17.42	-1.42	2.0164	0.1157
2,1	3	5.29	-2.29	5.2441	0.9913
2,2	4	3.78	0.22	0.0484	0.0128
2,3	15	14.35	0.64	0.4096	0.0294
2,4	12	10.58	1.42	2.0164	0.1906
Total					$\Sigma[\frac{(O-E)}{E}]^2$ =1.9669

Formula: $\chi^2=\Sigma[\frac{(O-E)}{E}]^2$=1.9669

Degree of freedom (d.f.) = (R-1) (C-1)

= (2-1) (4-1)

= 1×3

= 3

Where, O= Observation Frequency

E= Expected Frequency

RT= Row Total

CT= Column Total

R= Number of Row

C= Number of Column

N= Total Number of Observations

Appendix-VIII

Hypothesis-2 Chi-square test

R, C	O	$E = \frac{RT \times CT}{N}$	(O–E)	$(O-E)^2$	$\frac{(O-E)^2}{E}$
1,1	46	43.82	2.18	4.7524	0.1084
1,2	12	14.18	-2.18	4.7524	0.3351
2,1	22	24.18	-2.18	4.7524	0.1965
2,2	10	7.82	2.18	4.7524	0.6077
Total					$\Sigma[\frac{(O-E)}{E}]^2$ =1.2477

Formula: $\chi^2=\Sigma[\frac{(O-E)}{E}]^2$ =1.2477

Degree of freedom (d.f.) = (R-1) (C-1)

= (2-1) (2-1)

= 1×1

= 1

Where,

O= Observation Frequency

E= Expected Frequency

RT= Row Total

CT= Column Total

R= Number of Row

C= Number of Column

N= Total Number of Observations

Appendix-IX

Hypothesis-3 Chi-square test

R, C	O	$E = \frac{RT \times CT}{N}$	(O–E)	$(O-E)^2$	$\frac{(O-E)^2}{E}$
1,1	18	28.8	10.8	116.64	4.05
1,2	36	25.2	-10.8	116.64	4.6285
2,1	30	19.2	-10.8	116.64	6.075
2,2	6	16.8	10.8	116.64	6.9428
Total					$\Sigma[\frac{(O-E)}{E}]^2$ =21.6963

Formula : $\chi^2=\Sigma[\frac{(O-E)}{E}]^2$ =21.6963

Degree of freedom (d.f.) = (R-1) (C-1)

= (2-1) (2-1)

= 1×1

= 1

Where,

O= Observation Frequency

E= Expected Frequency

RT= Row Total

CT= Column Total

R= Number of Row

C= Number of Column

N= Total Number of Observation

Appendix-X

Hypothesis-1 Chi-square test

R, C	O	$E = \frac{RT \times CT}{N}$	(O–E)	$(O–E)^2$	$\frac{(O-E)^2}{E}$
1,1	18	20.98	-2.98	8.8804	0.4232
1,2	14	11.8	2.2	4.84	0.4102
1,3	27	26.22	0.78	0.6084	0.0232
2,1	14	11.02	2.98	8.8804	0.8058
2,2	4	6.2	-2.2	4.84	0.7806
2,3	13	13.78	-0.78	0.6084	0.0441
Total					$\Sigma[\frac{(O-E)}{E}]^2$ =2.4874

Formula : $\chi^2=\Sigma[\frac{(O-E)}{E}]^2$ =2.4874

Degree of freedom (d.f.) = (R-1) (C-1)

= (2-1) (3-1)

= 1×2

= 2

Where,

O= Observation Frequency

E= Expected Frequency

RT= Row Total

CT= Column Total

R= Number of Row

C= Number of Column

N= Total Number of Observation

Appendix XI

Sector wise Transaction

As on 16th July 2005/06

Name	Listed co.	Annual turnover	Trading volume	No. of transaction	Market capitalization
Commercial bank	15	2696.28	5534.9	45886	68841.24
Finance	50	305.85	1957.68	28875	4930.63
Insurance	15	129.9	575	6187	4852.19
Hotel	4	19.77	392.18	510	2393.61
Mgf & trading	29	17.19	59.8	233	4619.2
Trading	8	15.8	15.22	66	737.39
Development bank	8	82.76	386.39	4740	1227.49
Others	6	183.88	3301.54	513	8012.2
Total	135	3451.88	12222.71	87010	95613.95

Sector wise Transaction

As on 16th July 2006/07

Name	Listed co.	Annual turnover	Trading volume	No. of transaction	Market capitalization
Commercial bank	15	5563.49	8700	42848	138086.43
Finance	53	713.57	2534.19	18879	11491.78
Insurance	16	204.97	627.64	16203	7959.78
Hotel	4	7.04	81.7	393	1935.59
Mgf & trading	29	24.27	82.9	135	3760.28
Trading	8	10.24	11.47	42	787.4
Development bank	8	577.55	1360.48	39413	5980.8
Others	6	1258.76	4748.65	3898	16503.02
Total	135	8360.07	18147.03	121811	186504.7

Sector wise Transaction

As on 16th July 2007/08

Name	Listed co.	Annual turnover	Trading volume	No. of transaction	Market capitalization
Commercial bank	15	13822.15	11241.42	54314	218264.19
Finance	53	2307.53	3094.30	30462	27113.59
Insurance	16	264.86	433.27	3332	10897.16
Hotel	4	27.67	158.07	911	3484.13
Mgf & trading	21	343.44	1655.09	96	6576.18
Trading	5	33.65	14.97	108	686.73
Development bank	16	1981.65	2534.90	53317	15619.36
Others	5	3206.32	7578.62	6519	26128.93
Total	135	21987.27	26710.64	149059	308770.27

Sector wise Transaction

As on 16th July 2008/09

Name	Listed co.	Annual turnover	Trading volume	No. of transaction	Market capitalization
Commercial bank	21	12406.45	13301.43	68171	192611.17
Finance	62	2615.40	3552.01	58742	17342.23

Insurance	17	212.80	418.19	8337	8640.23
Hotel	4	18.69	95.89	505	3346.41
Mgf & trading	16	26.08	95.12	75	5424.58
Trading	4	33.49	14.65	83	980.70
Development bank	30	2740.36	3631.81	64831	16648.39
Others	5	1407.09	5001.44	5888	115379.65
Total	159	11025.79	26110.54	206632	360373.36

Sector wise Transaction

As on 16th July 2009/10

Name	Listed co.	Annual turnover	Trading volume	No. of transaction	Market capitalization
Commercial bank	23	7196.24	9680.62	89826	174097.45
Finance	62	1263.94	3265.92	35100	21834.23
Insurance	19	183.87	629.90	14090	11285.39
Hotel	4	10.15	50.28	113	3521.89
Mgf & trading	18	37.14	37.74	49	5491.21
Trading	4	35.43	12.01	77	1599.41
Development bank	40	1323.53	3535.67	63394	21458.39
Others	7	975.49	5387.33	9507	88047.68
Total	177	19460.36	22598.87	212156	327335.65

Appendix XII

Run Test (Monthly Transaction Interval)

	HBL	NIB	NABIL	SCBNL
Test value (median share price)	2000	1350	3275	4580
Cases < test value	30	30	30	30
Cases > = test value	30	30	30	30
Total cases	60	60	60	60
Number of runs	5	15	13	11
Z	-6.771	-4.167	-4.687	-5.208
Asymp. Sig. (2-tailed)	.000	.000	.000	.000