

Application of Technical Analysis Tools in Nepalese Stock Market



By

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VIVA – VOICE SHEET

We have conducted the viva- voce examination of the thesis presented by

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And found the thesis to be the original work of the student written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for

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DECLARATION

I hereby declare that the thesis "Application of Technical Analysis Tools in Nepalese Stock Market" submitted to Shankar Dev Campus, the faculty of Management, Tribhuvan University is my original work done for the partial fulfillment of requirements for the Master of Business Studies (M.B.S) under the supervision of Associate Professor. Dr. Mahendra P. Shrestha and Rabindra Bhattarai of Shanker Dev Campus.

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LIST OF ABBREVIATIONS

BOK	= Bank of Kathmandu Ltd.
i.e.	= that is
Ltd.	= Limited
NEPSE	= Nepal Stock Exchange
NRB	= Nepal Rasta Bank
OTC	= Over the counter (Market)
Pvt.	= Private
ROE	= Return Equity
ROI	= Return on Investment
SBI	= State Bank of India
SEBO/N	= Securities Board of Nepal

CHAPTER- I

INTRODUCTION

1.1 Background of the study

Nepal is an underdeveloped country having low per capita income of about \$260 and low corporate growth rate. During that the Rana period, there was no any development in financial sector and other sectors which contribute to development of the country. After the Rana period there was a little development but it was not satisfactory for the economic development of nation. After the restoration of democracy in 1990 and universal echo of economic liberalization, Nepal implemented liberal economic policy. As a result, many more companies are established in different sectors such as industrial, tourism, transportation, trade and mostly in financial sector that contribute to build up economy of the country. Nepal is a country trying to develop its economy through global trend and cooperation with developed countries. Development on the financial terms is the efficient flow and generation of the funds in the most productive sectors. The nation having effective fund collection of funds from the nook and corners of the country and investing them in the productive sectors are the developed and established country in the present world.

The development of an economy requires expansion of productive activities, which in turn is the result of the capital formation, which is the capital stock of the country. The change in the capital stock of the country is known as investment. Investment is the key factor for capital formation. Investment promotes economic growth and contributes to a nation's wealth. Investors desire to earn some return on it investment, without any return there is no any investment.

Money market is the market for short-term highly liquid debt securities (such as Short Term Loan, T-bills, commercial paper etc.) Money market typically involves financial assets that have a life span of one year or less. Money market instruments sometimes are also called cash equivalents. Thus money market brings together the supplier and the demander of short term liquid fund. It is created by means of financial relationship between suppliers and the demanders of short-term funds.

Capital market is the market for intermediate or mostly long – term debt and corporate securities (such as T- notes and bonds, corporate bonds/ debentures, equity

securities etc.) Capital markets typically involve financial assets that have life spans of greater than one year.

The main objective of the capital market is to create opportunity for maximum number of people to get benefit from the return obtained by directing the economy towards the productive sector by mobilizing the long- term capital. The objective can be fulfilled by the rational and accountable behaviors relating to the three factors of the capital market such as institution, mediator and investor (Ninth Plan, 1997- 2002:167). Thus financial institutions are assumed to be the pillar in the capital market.

The security market can also be classified on the basis of its economic function into primary market and secondary market. The original sale of securities (new issue of securities also called initial public offering IPO) by government and corporation occurs in the primary market. It means new capital is raised from primary market. The market where the existing and pre- developed securities are bought and sold is called secondary market. Secondary market provides liquidity to the purchaser of the securities. High liquidity of the secondary market encourages the investors to invest in the primary market as well. Secondary market can be regarded as the centre to convert stocks, bonds and other securities into cash immediately. It is noteworthy that the primary and secondary market works in association with each other.

Secondary market is composed of auction markets and dealer markets. This categorization is on the basis of organizational structure of the market. Auction market or exchange traded market popularly known as "Stock Exchange" is characterized by a centralized organization with standard procedures. In the organized exchanges the agents of buyers and sellers operate through the auction process. The equity shares of most of the firms are traded in the auction markets. The largest auction market in the world is the New York Stock Exchange (NYSE); other auction market includes London Stock Exchange (LSE). Tokyo Stock Exchange (TSE), American Stock Exchange (AMXE), Nepal Stock Exchange (NEPSE) etc. It is notable that, NEPSE is only that secondary market in Nepal.

Dealer market is popularly known as Over-The-Counter (OTC) market. It is an unorganized decentralized market with no physical location, which means that physical boundaries do not impose a great barrier and there is now a huge international OTC debt market. (Ross, Westerfield and Jorden, 2002:18).

Stock market helps transfer of funds from surplus savings to deficit areas through transactions of long-term financial securities. As a vital part of economic activities and development, stock market mobilizes saving as well as protects the interest of investors. An efficient stock market offers opportunities for both surplus savers and deficit groups to optimally meet their requirements. The deficit group is most often business enterprise, government and its agencies, which need to raise large sums of money at the lowest possible cost to finance their long-term projects and the surplus units is mainly the household units seeking investment opportunity.

The capital market plays a vital and effective role in the overall economic development of any nation. The health of the economy is related in the two wings of capital market namely primary market and the secondary market (Agrawal, 2002:204). Through the well-developed financial system, an accelerated rate of investment or capital formation in the economy and consequently the achievement of self-reliant economic growth are possible (Bhattra, 2002: 1). Thus the capital market has been an unavoidable part of today's economic system. Therefore it is rightly said that existence of an organized security market is considered to be the pre-requisite for modern free enterprise as well as for a mixed economy, where private sector has a large role to play. Although some analysts view stock markets in developing countries like Nepal as "Casinos" that have little positive and potentially a large negative impact on economic growth, recent evidences suggest that stock market can give a big boost to economic development for the developing countries like Nepal (Bhatta, 1997:2).

Talking about the history of Nepalese capital market, it is not so much old. Capital market history of Nepal dates back to the era of Rana Prime Minister, Juddha Shamsheer when Gunjaman Singh, the first secretary at the Nepalese Embassy in England returned back to Kathmandu and set up the 'Industrial Council'. The council drafted the Company Act and Nepal Bank Act for the first time in 1936. Then Biratnagar Jute Mill Limited initiated the first public floatation of shares in the securities market in 1937. Even though participation of ownership structure of the corporate sector at that time was restricted mostly to the Rana family, some signals of development of capital market were seen. After this the introduction of the company act in 1951 and the first issue of government bond in 1964 were other developments relating to capital markets.

The establishment of securities Exchange Centre (SEC) in 1976 was the first and most important attempt made by the government to develop the stock market. The main objective of the establishment of the centre was to mobilize public savings and encourage the people to participate in the ownership on industries and business enterprises thereby facilitating and promoting the growth of capital market in Nepal. After the establishment of SEC under the Company Act, institutional development of securities market in Nepal was started. At that time there were less than 3, 000 shareholders in Nepal and there were very few publicly traded companies.

Initially SEC limited its function for trading the government bonds and national savings certificate only, which had predominantly held by Nepal Rastra Bank (NRB), SEC started secondary market for the corporate securities in 1984 only. Then also the capital market remained very steady over the year. The number of listed companies reached from 11 in 1984/85 to 62 in 1992/93. Where as the paid up capital of listed companies reached from Rs. 273 million to Rs. 1.08 billion and market capitalization from Rs. 360 million to Rs. 3.81 billion, and annual turnover from Rs. 2 million to Rs. 80 million. (Bhattarai, 2002:1)

After the first amendment in the Securities Exchange Act, 1983, Securities Board Nepal (SEBO/N) was established on 26 May 1993. The basic objectives of SEBO/N was ensuring regulated and orderly capital market for the primary issue and secondary trading of securities and fostering the development of stock exchanges by protecting and promoting the interest of investors. Thus SEBO/N acts as a securities market regulator and promoter.

After 18 years of incorporation, the then His Majesty's Government converted SEC into Nepal Stock Exchange (NEPSE) Limited on 16 May 1993, under a program initiated to develop a competitive and efficient security market. With the basic objective to impart free marketability and liquidity to government bonds and corporate securities by facilitating transaction in the trading floor through market intermediaries such as brokers, market makers, NEPSE was established as a non-profit organization. After SEC's conversion into Nepal Stock Exchange, it appointed 25 brokers and 5 market and started open out- cry system of trading through brokers and market makers on 13th January, 1994. Thus, Nepal Stock Exchange Limited is working as a trading institution which operates under Securities Exchange Act, 1983, where as Securities Board, an autonomous institution is acting as a focal organization for the development and regulation of the securities market and it is the regulatory body in all aspects of securities market. However, government securities are

entirely handled by Nepal Rastra Bank. At present, Nepal Stock Exchange Limited is only the corporate body having permission from SEBO/N to operate stock exchange business in Nepal. (SEBON, 2001/ 2002: 12).

The establishment and operation of the stock exchange market has opened door to small investors otherwise limited by prevailing opportunities and inability to assemble diverse sources. The only probable option left for them was bank deposits. Thus, enterprising and venturesome small investors were deprived of opportunities to invest. However, the establishment of the securities market in Nepal in 1985 and Nepal Stock Exchange Board (SEBON) is operating since 1993. However to what extent, their interest is being given attention has remained an issue of concern in Nepal.

1.2 Focus of the study

Investors are attracted to the capital market to get the handsome return from the investment in securities. Development of capital market played important role in economic development and growth of commercial, trading, manufacturing sector of the country. Every investor should think and analyze the share price of the every organization before investment. The investment in securities is important and risk taking utilities also. To make investment profitable, there are different kinds of tools and techniques available for the purpose analysis . Among then technical analysis is one of the important tools.

This study focuses the analysis of movement and patterns of prices of selected commercial banks interms of share price movement. This study uses technical analysis which include the Dow Theory, moving average analysis and line and bar charts. The monthly closing price movement of commercial banks and NEPSE index are used for the analysis.

1.3 Statement of the problem

Although Nepal's stock market has witnessed a large quantitative growth during past decade, there are many challenges and complexities confronting this sector. Investors are losing confidence on the performance of share due to this experience of fraudulent and scandalous activities undertaken by handful of market swindlers. Due to greed for quick gain from the share market investors are becoming more credulous and they are ready to follow even the wrong advice from the brokers. At the same time there is no denial in the fact that

investors too are responsible for not having self control and self-judgment in the choice of securities for investment. Thus, having lack of adequate knowledge about the securities of certain company, investors are haphazardly investing in shares. All of these facts indicate that there is extreme necessity to establish clear concept about return that yield from investing securities.

The investment process is concerned with how an investor should go about making decisions with regard to what marketable securities to invest in how extensive the investment should be and when the investment should be made.

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The investors whether they are small or professionals should analyze the securities in terms of price and volume before investing on them. The main purpose of security analysis is to examine whether the securities currently appear in the market to be mispriced. Moreover, security analysis helps in forecasting future price movement in a way to secure higher expected buy and hold return.

The technical analysis theory involves the study of past volume and price data of the stocks to predict future price fluctuations. This approach studies various graph and charts of the past share prices and reduce from the analysis about the future pattern. The chartists seek to predict future movement by seeking to interpret past pattern on the assumptions that history tends to repeat itself. In essence, technicians believe that the past 'patterns' or trend of market action will be recurring in the future and can therefore be used for prediction purpose. Thus, technical analysis provide the important information about the behavior of share price and movement which is useful for the investment, holding share and sell,

The study mainly deals with following issues.

- ❖ Does the past performance of securities determine the behavior of stock price movement in future?
- ❖ What are the reasons behind ignoring technical analysis in comparison to fundamental analysis?
- ❖ To what extent, it is possible to predict future price on the basis of historical data recorded in future?

- ❖ Does the statement "History may repeat" explain its importance in Nepalese stock market?
- ❖ How far an investor can predict the future price of stock based on technical analysis?
- ❖ How technical Analysis helps investors to reach best investment decision about common stock?

The issues just pointed are some of the problems in Nepalese stock market. Therefore underlying motivation for this research is directed towards these to problems.

1.4 Objective of the Study

The main objective of the study is to test the applicability of technical analysis tools in the Nepal Stock market.

- ❖ To test the theory of technical analysis tools in Nepalese security market. But we are using only simple type of Technical Analysis tools.
- ❖ To study about the trends and patterns of share price movement.

1.5 Limitations of the Study

The study has some limitations. Basically the study is conducted for the partial fulfillment of degree of Masters of Business Studies. However this study may face the following limitations during the course of research.

1. Time constraints
2. Takes into account some selected organizations from among the listed companies.
3. The resources are limited.

1.6 Organization of the Study

The study is divided and organized in the following chapters.

Chapter-I Introduction

It includes the introductory framework of the study that contains general background, statement of the problem, focus of the study, objective of the study and limitation of the study.

Chapter-II Review of Literature

This chapter deals with the review and analysis of available relevant published materials including unpublished thesis, journals, books, dissertations and government publications.

Chapter -III Research Methodology

This chapter includes the research design, data collection procedure, tools for analysis and methods and procedure of data analysis and presentation.

Chapter -IV Data presentation and Analysis

This chapter deals with the application of defined research method on the collected data and information. The generated result then will be analyzed and interpreted in this chapter. This is very important part of the study.

Chapter -V Summary, Conclusions and Recommendations

This final chapter summarizes the findings in a ground of result obtained from data presentation and analysis and further presents the concluding remarks with a suggestive package as recommendation.

CHAPTER – II

REVIEW OF LITERATURE

This chapter focuses conceptual or theoretical framework regarding theories on the topic and review of previous related studies within and outside the country. The previous studies can not be ignored because they provide the foundation to the present study. Textbooks, Articles, Journals and Bulletin are of great significance to review the related literatures for the research activities. Therefore in this chapter an attempt is made to review some of the basic literatures on the related of technical analysis subject. This chapter has been divided into two sections. The first section includes review of conceptual or theoretical framework and second section includes review of the previous studies.

2.1 Conceptual Framework

2.2 Theories of stock price Behavior

There are three theories concerning stock price behaviors. These theories explain fluctuation of share price in the stock market. These theories are:

- ❖ Efficient market theories
- ❖ Fundamental analysis theory
- ❖ Technical analysis theory

2.1.1 Efficient Market Theories

Efficient Market

An efficient market is one where, shares are always correctly priced and where it is not possible to out perform the market consistently. In other words security prices fully reflect available information in an efficient market.

In efficient market, the new information plays vital role of changing the price of stock. In such market the only price changes that would occur, are those, which result from new information. So, if efficient market it uses all available information to determine stock

price, the efficient market reflected from the perfect competition market where all information is available without cost and rational investor with no taxes or transaction cost. The following are the basic requirement for a securities market to be efficient market is (Valla, 1983:309).

- Prices must be efficient so that new inventions and better products will cause a firm's securities price to rise and cause investors willing to supply capital to the firm (i.e., buy its stock).
- Information must be discussed freely and quickly across the nation, so all investors can react to new information.
- Transactions cost such as sales commissions on securities are ignored.
- Taxes are assumed to have no noticeable effect on investment policy.
- Every investor is allowed to borrow or lend at the same rate.
- Investors must be rational and able to recognize efficient assets so that they will want to invest money where it is needed most (i.e., in the assets with relatively high returns)

"In an efficient market, competition among many intelligent participant leads to situation where at any point in time, actual prices of individual securities already reflect the effects of information based both on events that have already accrued and on events which, as of now, the market expects to take place in the future"(www.investorhome.com/emh.htm) In other words, in an efficient market, current stock price at any point in time the actual price of the security will be good estimate of its intrinsic values

Efficient Market Hypothesis

Efficient market hypothesis based on the fundamental that markets are efficient and prices make an independent movement in these markets. Each price of an individual share is independent of the previous price, the implication of this is that price of a moment does not affect the price of another moment, this type of movement of price is called random walk of prices, and therefore, this hypothesis is also called 'Random Walk Hypothesis.' According to this hypothesis prices get affected by the demand and supply position. Price reflect equilibrium position of the demand and supply, these show a wide fluctuation, only on account of disequilibrium in the demand and supply position (Ibid, 147).

2.1.1.1. Principle of Efficient Market Hypothesis

Efficient market hypothesis believes that markets are efficient and every kind of price sensitive information is available to all the investors, who are capable to interpret it efficiently. It is based on the following (Khatri, 2005:147-148).:

- Full disclosure and transparency.
- Free flow of information.
- Large number of investors.
- Price reflects information effect.
- No one can influence the market unduly.

Full Disclosure and Transparency

It is assumed that companies, government and the regulator maintain a high degree of transparency. All the information is disseminated immediately and widely. The effect of this is that the information is disclosed properly in the prices. Therefore, subsequent study of the prices cannot help an investor to gain from such information.

Free flow of information

Everyone who is associated with the market or affected by the market is provided a free access to the information on about companies, government policies or stock market activities. The information may be about the financial performance of companies, government policies, traded volume, etc. This free flow makes all the investors at par with respect to the accessibility of the information.

Large Number of Investors

An efficient market should have a large number of buyers and sellers in all the securities available in the market. This helps in creating proper demand and supply for the securities. It is like perfect competition.

Price Reflect Information Effect

All the price sensitive information is reflected in the price immediately, price move only on account of the information about companies, government policies, demand and supply facts, and other market related information.

No one can Influence the Market Unduly

In an efficient market none of the investors, whether big or small, can influence the prices in his/her favor. Market has a system of transparency and full disclosure due to which none of the investors is at an advantageous position.

2.1.1.2. Levels of Market Efficiency

There are three levels of market efficiency information regarding to past prices, other public information and inside information. In an efficient market, it is impossible to make average return regardless of the information available, unless abnormal risk taken. Tests of market efficiency have also, been turned as weak form, semi strong form and strong form. It is common to distinguish among three level of efficiency. These levels differ by their term all available information.

Weak form efficiency

It is dependent upon past records, the stock price reflects all information that is explain by history of past prices, trading volume or short interest, and this state is considered as weak form of efficiency.

Semi strong form efficiency

All publicly available information as well as records of past prices is reflected to the current prices of stock is considered semi strong form efficiency. If investors have access to such information from publicly available sources, one would expect it to reflect in stock prices. In that market, even fundamental analysis of published accounting information has no value, because participants would have discounted it accurately and instantaneously when they cleared so in this form all publicly available information and past information is considered.

Strong form efficiency

Above two form we have studied that one is reflected by past information and another is all publicly information as well as past information but strong form efficiency reflected all relevant information that are publicly and also privately. In this version is extreme. In addition, in this market insider information does not consider to determine stock price.

These three levels of efficiency described above are different to each other, but they are serially higher order in degrees of market efficiency. The above three market quantitatively stronger than earlier. Weak market consider in weak sense because the past

price data is one form of published information. In addition, if the market is semi strong future price is determine based on past data but concerning the other publicly available information. For the market to be strongly efficient relevant information that are important information than previous two market, are consider to determine stock price for the market to be strongly efficient it must be consider at semi strong and weak levels.

2.1.1.3. Limitations of Efficient Market theory

Market efficiency has been issue of study for the academicians and researchers. Especially for the good investors of stock market has been needed vast knowledge of market efficiency The advocates of the efficiency market theory are matched by an equally eloquent opposing camp which argues that the stock market is neither competitive nor efficient. The cities contend that one or more of the following factors cost their shadow over the efficiency and competitiveness of the stock markets (Chandra, 1994:589).

Inadequacy of information

Information is not available easily and there is the problem for transmitted of information to all the participants in the stock market.

No availability of information

According to Nobel Laureate Herbert Simon: "Every human organism lives in an environment which generates millions of new bits of information every second, but the bottleneck of perceptual apparatus certainly does not admit more than a thousand bits per second and possible much less." The experts of information processing abilities, David Dreman argues: "under conditions of anxiety and uncertainty, with a vast interacting information grid the market can become a grant Rorschach test, allowing the investor to see any pattern he wishes: expert can not only analyze information incorrectly, they can also find relationships that aren't there a phenomenon called illusory correlation" (Dreman, 1984: 147).

Problems of rationality

Generally, theory explains that investor's behave rationally with respect to ensure a close correspondence between market prices and intrinsic value but practically this may not be true. To prove that fact J.M. Keynes explains: In fact, all sorts of consideration enter into the market valuation, which is in no way relevant to the prospective yield.

Monopolistic influence

Theory argues that market is always highly competitive. In competitive market, no single buyer or seller can influence but in practice, powerful institution has highly influence over the market. The monopolistic power enjoyed by than diminishes the competitiveness of the market.

Finally, in term of lot of challenges faced by the critics of efficient market theory, there are other many factors to point the finger at its reality, validity and authenticity. In context of Nepal, our capital market is not efficient regarding to information as well as operations.

2.1.2 Fundamental Analysis Theory

Fundamental analysis, the first approach to security analysis, tries to identify the real or true value of financial assets. The real value of any kind of financial assets is the present value of the future cash flow to forecast the timing and size of these cash flows, and then converts them into their equivalent present value by using an appropriate discount rate. Once the real value is calculated, it is, thereby, compared with the current market price per share to identify whether the security is under-priced or over-prices. If

Current market price > Real value (price) - Overpriced or overvalued

Current market price < Real value (price) - Underpriced or undervalued

These unusual cases of mis-pricing will be corrected in the future. The price of an over-priced security declines to meet the real value and the under- priced security's price increases to meet the real price. The person utilizing this technique is called a fundamentalist or a fundamental analyst. (Bhattrari, 2005:4)

Fundamental analysis requires following assumptions (Raymond, 1987:324)

- A business has an intrinsic value.
- Intrinsic value can be determined by analyzing company- generated information
- Intrinsic value may go unrecognized by the market in the short term.
- The market will eventually recognize the intrinsic value in the long run.

Fundamental Analysis Concern estimates of the basic determinants of security values, such as future sales, expenses and earning for firms. This approach studies to analyze different action, firm's financial statement etc. for calculation of intrinsic value for firm's securities. The fundamental analyst or fundamentalist believes on fundamental facts to

determine the intrinsic value of stock. "Fundamental analyst forecast, among other things future levels of the economy's gross domestic product, future sales and earnings for a number of industries and future sales and earnings for an even larger number of firms" (Sharp, Gorden, Alexander and Jeffery and Bailey, 2001: 853). Especially economic industry and company statistic is the basis of fundamentalists. The principal decision variable ultimate take form of earning and value with a risk-return framework based upon earning power and the economic environment. "Fundamental analysts delve into company's earnings, their management, economic outlook, firm's competitor's market conditions and many other factors (Francis, 1986: 398).

The objective of fundamental security analysis is to appraise the intrinsic value of a security. The actual economic worth of financial asset is the intrinsic value. "the fundamentalists maintain that any points of time every stock has an intrinsic value which should, in principle, be equal to the present value of the future stream of income from that stock discounted at an appropriate risk related rate of interest. (Bhalla, 1983:380). Therefore, the actual price of security is determined by an appropriate interest rate of the future stream of income. Price changes as anticipation changes, which in turn change, because of new information. In other words, a new price of news is releases securities intrinsic values will change and regarding to new information the securities market price will adjust.

Fundamental analysis uses earnings and dividend prospects of the firm, expectations of further interest rates, and risk evaluation of the firm to determine proper stock prices. "The value of common stock is simply the present value of all the future income which the owner of the share will recent.(Jack Clarc's op. Cite.:398) Ultimately, it represents an attempt to determine the present discounted value of all the payments of stockholder will receive from each share of stock. Therefore, fundamentalists estimate their intrinsic value by studying in details all matters that are relevant to the company. "The study would involve examining its sales, earnings, profit margins, dividends, management proficiency, industrial and business outlook, labor competence and factor that would have a hearing in its performance in the future." (Palat, 1991:167)

Fundamental analysis usually starts with a study of earnings and an examination of company balance sheets. They supplement this analysis with future detailed economic analysis ordinarily including an evaluation of the equity of the firm's management. The firm's standing within its industry, and the prospects for the industry as a whole on the basis

of such a study, fundamentalists projects a company's future profits and earning capacity with reasonable accuracy what the price of a company's share ought to be. This estimated price is termed as intrinsic value. If the intrinsic value is higher than the market value, fundamentalist will acquire shares as this difference present them with an opportunity to make a profit and on other hand if the intrinsic value is lower than the market value, the share is over price and is an indication to the fundamentalists to sell. Therefore the fundamentalists argues that key role of intrinsic value of share in any common stock market with compare to present market price and take appropriate decision of investment or sell the common stock.

Some investment organizations that employ financial analysis follow a sequential top-down forecasting approach with this approach the financial analysts are first involved in making forecasts for the economy there for industries, and finally for companies other investment organization begin with estimates of the prospects for and ultimately the economy. Such Bottom-up forecasting may unknowingly involve inconsistent assumptions. Therefore, to reach investment decision fundamental analysis uses such different analytical tools.

Fundamental analysis uses different models like Top-Down versus Bottom-up forecasting, probabilities forecasting, econometric models, and financial statement analysis etc. to estimate the value of security (Sharnse, Gorden, Alexander, Baile, 2001: 853).

Fundamental analysis is much more difficult than merely identifying well run firms with good prospects. Though many security analysis or prospective investors to make use fundamental analysis approach a judgment of the stock's value with a risk return framework based upon earning power and the economic environment, it is hard and time consuming work. 2.1.2.1. Limitations of Fundamental Analysis

Though fundamental analysis approach is used by many security analysts or prospective investors to make a judgment of the stock's value with a risk return framework based upon earning power and the economic environment, it is hard and times consuming work. As stated by Raghu Palat, some of the limitation of fundamental analysis approach is as follows: (Ragut Palat, Op.Cit:168)

- The approach though sound and based a basic financial figures does suffer form drawbacks and to make this approach work effectively one must be aware of them.

- It tends to ignore market behavior and assumes that the market will act rationally. The market seldom does.
- The entire fundamental approach is based on rationally scientific analysis of data. The market is rarely rational.
- The information and analysis use may be incorrect.
- Many companies, with the help of creative innovative accountings and accounting cosmetics disguise real earnings.
- The fundamentalist's estimate of intrinsic value may be incorrect. This is not only possible but also more probable than not as he has to often forecast growth, profit and other factors without having in his grasp all the facts.
- The fundamentalists may not fully understand the economy or the industry, as there are several external factors.
- There is also the possibility always that the market may not move in the manner a fundamentalist expects and conversely towards the intrinsic value.
- It is also difficult to determine corporate action.

Fundamental analysis can suggest only a range of price rather than a specific value in opposition to the technical or security analysis. Approach come from followers of the technical or chartist school, who maintain that all financial data and market information of a given security is already reflected in the market price of the security fundamental analysis is not effective tool in deterring future price movements and hence it is not very dependable for short-term profits. "By nature the fundamentalist is conservative in approach and is generally unwilling to take a quick loss, he would rather adopt a buy-and-hold-policy. (Yasaswy, 1992:155) Therefore, the conservative analysis may not always be effective. The fundamentalist argue that in case there is something less than complete information the actual price of the stock is generally away from its intrinsic value. Thus, they believe that market can often be wrong in appraising the value of a share of a company.

2.1.3 Technical Analysis Theory

Technical analysis of the security prices involves the study of market price in an attempt to predict the future price movement. It is an alternative theory of predicting the market price of share in stock market it is market oriented theory based on force of demand and supply. The share price is reflected in the action of market especially past market rather than the intrinsic value of share. The analysis who analyze the security behavior of past

movement to predict the future price of share, is known as technical analysis or technicians. Technical analysts focus most of their attention on the charts of security market prices and on related summary statistics about security transactions. Therefore technical analysts are called chartists. Most technical analysts prepare and study the charts of various financial variables in order to make forecasts about security prices.

Technical analysis is the 90 percent psychological and 10 percent logical, which means market is driven by psychology of investors in 90% of the times and in 10% of the times logical factors affect the market. It is based on the belief that history repeats itself, which means price patterns and traded volume occurs again and again over a period of time. This repetition of price and volume pattern helps in predicting near future price movements (Khatri, 2006: 156).

Technicians believe in past behavior. It is analysis the past data and then reach conclusion of coming future. "The technician believes the forces of supply and demand are reflected in patterns of price and volume of trading. By examination of these patterns, he predicts whether prices are moving higher or lower and even by how much." (Fisher and Jordan Op. Cit, 51). Therefore, the past behavior in market prices is the basic of technical analysis. Trend analysis of past prices is major focus of this analysis to determine whether prices are likely to rise or fall. Looking backward is the false of technicians." The technician usually attempts to predict short-term price movements and thus makes recommendations concerning the timing of purchases and sales of either specific stock or groups of stocks (such as industries) or stocks in general. It is sometimes said that fundamental analysis is designed to answer the question "What?" and technical analysis to answer the question "When?" (Sharpe, Alexander and Bailey, Op. Cit., 844).

Past behavior of stock market, which may be self-repeat in future is main slogan of technical analysis. Technicians recommend for short term on the basic of history for profitable investment. "Technical analysis is the study of stock exchange information as such. The word 'technical' implies a study of market itself and not of those external factors, which are reflecting in the market, relevant factors, whatever they may be, can be reduced to the volume of stock exchange transactions and the level of share prices; or more generally to the sum of the statistical information produced by the market." (Rosenfield, 1975: 297) Statistical information is matter of technical analysis.

"Technical analysts maintain that the price of a share at any time (Present price) is the balance struck by buyers and sellers at a point in time. Price movements take place because of changes in buying and selling pressures. This occurs in account of diverse internal and external factors (profit, political environment, predictions and the likes). Price stabilizes when equilibrium between buyers and sellers achieved. They believe that a record of price movements over a period depicts how investors (both buyers and sellers) have acted and behaved over a period in the past as the whole theory is based on the assumptions that history repeats itself. That human nature doesn't change and that man is likely to repeat his pattern of past behavior in the future, it is believed that this record of past movements call repeat themselves in the future.

Estimation of price of stock is task of technical analysts rather than value. Technicians totally ignored the fundamental facts of stock market such as risk and earning growth rates. Technical analysis focuses on demand and supply and determines the future price on the basic of that behavior. "The methodology of technical analysis.... Rests upon the assumption that history tends to repeat itself in the stock exchange. If a certain pattern of activity has in the past produced certain results nine times out of ten, one can assume a strong likelihood of the same outcome when ever this pattern appears in the future" (Palat, Op, Cit., 172)

2.1.3.1. Basic Assumptions of Technical Analysis

Edwards and Magee has mentioned the following basic assumptions underlying technical analysis are as under." (Edards and Magee, 1958: 86)

- ❖ Market value is determines solely by interaction of supply and demand.
- ❖ Supply and demand are governed by many rational and irrational factors.
- ❖ In disregard of minor fluctuations in the stock market, share price tends to move in trends, which persist for an applicable length of time.
- ❖ Change in trend is resulted by shifts in supply and demand.
- ❖ Shifts in supply and demand, no matter why they occur can be detected eventually in charts of market action.
- ❖ Some chart patterns tend to repeat themselves.

In essence, technical analysis believe that past behavior of stock market will repeat in future and can therefore be used for predictive purposes at last technical analysis involves short-term predictions of security price movements based an past patterns of price and trading volumes.

2.1.3.2 Types of charts

Technical analyst make the prediction about near future after making a study of price and volume data as plotted on any of the following typed of charts:

- ❖ Line charts
- ❖ Bar charts
- ❖ Point and figure charts
- ❖ Candle charts

Line chart

Line charts are charts in which various prices either of particular day or across the days are plotted on the graph and then these are joined with the help of a line in the chronological order. A simple line indicated the movement of price and volume over a period of time. These are most commonly used charts. Various movements like support, resistance, up-trend, downtrend, etc. can easily be identified in these.

Bar Charts

Bar charts are charts which provide details about the four prices prevailing for a day for one particular share, i.e. highest, lowest, opening and closing price of a day.

Point and Figure Chart

In this type of chart each price of a particular day for the individual share is potted on a graph. The upward price movements are shown by "*" and a downward movement is shown by '0'. Date for which prices have been shown is also placed at the end of all the prices of the concerned day.

Candle Chart

In the candle chart a thick bar called a candle is drawn in the chart. The upper edge of the candle indicates high price and lower edge of the candle indicates the low price of the day. Candle is left blank to show an upward movement during the day, whereas it is darkened when price have move downside.

2.1.3.3. Uses of Technical Analysis

Technical analysis is used for different purposes like predicating overall market trend as well as making prediction about individual shares. For both of these separate types of tools are used (Khatri, 2006:159)

- Tools to predict overall market trends.
- Tools to predict for individual shares trends.

2.1.3.3.1 Tools to predict Overall Market Trends.

Prediction about the overall market is based on the movement of an index representing the trend of the market. An index is considered to be representative of the market because it is calculated by considering the shares which have the following features.

- Minimum impact cost
- High value representation in market capitalization
- Large number of traders per day.
- Large traded volume per day.
- Frequent trades on every day.

Following are the tools for the analysis of predicting overall market trends:

- ❖ Dow Theory
- ❖ Advance Decline Index.
- ❖ Client Account Position

Dow Theory

The Dow Theory is one of the oldest and most famous technical tools; it was originated by Charles Dow, founder of the Dow Jones Company and editor of the wall street Journal around 1900. Mr. Dow died in 1902, and the Dow Theory was developed further and given its name by staff members at wall street journal. Today, many versions of the theory exist and are used: it is the basis for much of the work done by technical analysts. The Dow Theory is used to delineate trends in the market as a whole or individuals securities. According to Mr. Dow "The market is always considered as having three movements, all going at the same time. The first is the narrow movements from day to day. The second is the short swing, running from two weeks to a month or more, the third is the main movements covering at least 4 years in duration."

Dow Theory Main Concepts (Sheimo, 1993)

Primary Trend

The primary trend is the most important trend, as it is the dominant long-term trend of the stock market. It is generally measured in months and years.

Secondary Trend

Secondary trend can occur at any time. Secondary trends proceed in a contrary direction to the primary trend. Secondary trends are shorter term and are usually measured in days, weeks, and some times months.

Tertiary Trend

This is the daily fluctuation of the stock market. Charles Dow, among others, believed daily trends to be of little or no importance. These trends have gained importance in recent years.

Averages Must Confirm

The Dow Jones Industrial Average and Transportation Average must confirm each other in trend determination. This confirmation does not necessarily occur at the same time, or even on the same day. A lack of confirmation can be an importation signal of weakness, gathering strength, or an impending change in direction.

The Averages Discount Everything That Can be known

That is, everything known about the financial condition of the country and to a large extent, the world, is discounted.

Forming a Line

A period of accumulation and distribution of stock, where the market averages fluctuate within a small range. If breaks of the trading range occur, it is bullish when they break to the upside, but bearish if they break more often to the downside.

Volume Can Relate To Price Movement

Volume is a broad market indicator which can show the existence of strength or weakness in a particular move. The up volume and down volume figures can be an indication of overall market sentiment.

Double Tops and Double Bottoms

Tops and bottoms, whether doubled or tripled, can be of technical significance, but tend to be misleading when considered alone.

Stocks Tend to Move as a Group

This is true of the market as a whole and is also true of different industry sectors.

Manipulation Does Exist in the stock Market

To some extent it can be observed, but it can seldom be counted on for a specific move of an individual stock or the market as a whole.

Identification of the trend

According to the Dow theory, there are three main trends (Khatri, 2006:160-161)

Uptrend

Whenever, subsequent peak formation is at higher level as compared to the previous peaks, coupled with the formation of subsequent trough at the higher level as compared to the previous through, it is identified as uptrend. In normal circumstances this trend continues for a period of 6-8 weeks barring intervening technical corrections.

Downtrend

When subsequent peak is formed at a lower level as compared to the previous peak, coupled with the formation of subsequent through at a lower level as compared to the previous level, it is identified as downtrend. This type of trend also continues for about 6-8 weeks barring intervening technical corrections.

Horizontal trend

A horizontal trend is identified when every peak is almost at the same level as the previous level of peak, and similar pattern is for the formation of trough. Such movement indicates indifferent market in the near future.

Advance Decline Index

By 'advance decline' we mean a difference between the number of shares whose prices have increase and the number of shares whose prices have declined on a particular day. This is also called as a net advance. A series of such values over a period of time is called as "Advance Decline Index". The movement of this index can be used to confirm the signals generated by the general price index of the market. 'Advance Decline Line' is plotted along the general price index and a combined movement of both these indices helps in confirming signals about the market, like (Ibid, Op. Cit., 161)

- If price index is raising and advance decline index is also rising, it indicates continuation of upward trend in the market.

- If price index is failing and advance decline index is also failing, it indicates continuation of down trend in the market.
- If price index is rising but advance decline index is falling, or vice versa, it indicates divergence in the price trend in the near future.

Client Account Position

As per the requirement of market regulator every broker is required to maintain a separate bank account for keeping client money. The balance position of this account can be used to indicate expected market movement. Like, if clients have sold the shares but not claimed the payment from their brokers, it indicates, they will buy the shares with this money in the near future- an indication of bullish market. (Ibid, Op. Cit., 161)

2.1.3.3.2 Tools to predict for Individual Shares Trends

Predication about the individual shares trends is done to identify buying and selling signals. These signals help of such technique in advance of the actual movement following tools are used for this;

- ❖ Moving Average Analysis
- ❖ Elliot Wave Theory
- ❖ Oscillators
- ❖ Chart Patterns

Moving Average Analysis

Moving average analysis is important tool of technical analysis. The moving average used to provide a smoothed stable reference point against which the daily fluctuations can be measure exactly moving average analysis provide buy and sell signals of securities. Moving average analysis used for individual securities or market indexes with the help of moving average the following signals can be generated (Khatre, 2006:162)

- Buying signals
- Selling signals

Buying Signals

- Whenever price line is above the moving average lines it moves towards the average line but fails to penetrate it, instead starts rising upward supported by an upward movement of the average line, it is a buy signal.

- When price line is below the moving average line and it penetrates towards the upside and continues to move upward, supported by an upward movement of the average line, it is a buy a signal.
- When price line is above the moving average line and is moving upward continuously, supported by similar movement of the average line, it is also a buy signal.

Selling Signals

- When price line is below the moving average line, it moves towards the average line but fails to penetrate it, instead, starts declining, supported by a downward movement of the average line, it is a sell signal.
- When price line is above the moving average line, and it penetrates towards the downside and continues to move downward, supported by a downward movement of the average line, it is a sell signal.
- When price line is below the moving average line and moving downward continuously, supported by similar movement of the average line, it is also a sell signal.

Moving average smooth out a data series and makes it easier to identify the direction of the trend, because past price data is used to form moving averages, they are considered lagging, or trend following, indicators. Moving averages will not predict a change in trend, but rather follow behind the current trend. There fore, they are best suited for trend identification and trend following purposes, not for predication. (www.stockcharts.com. June 2007)

Elliott Wave Theory

R.N. Elliot believes market had well-defined waves that could be used to predict market direction. In 1939, Elliot detailed the Elliott Wave Theory, which states that stock prices are governed by cycles founded upon the Fibonacci series (1-2-3- 5 -8- 13- 21.....)

According to the Elliott Wave Theory, stock prices trend to move in a predetermined number of waves consistent with the Fibonacci series. Specifically, Elliott believed the market moved in five distinct waves on the upside and three distinct on the down side.

Waves one, three and five represent the 'impulse', or minor up- waves in a major bull move. Waves two and four represent the corrective', or minor down-waves in the major bull move. The waves lettered A and C represent the minor down-waves in a major bear move, while B represents the one up- wave in a minor bear wave.

Oscillators

Oscillators are the fine tools to predict future movement much before such movement take place, and thus leave a sufficient time gap to take decisions; by word 'oscillation' we mean a movement of certain item again on path with the same frequency , like that of a pendulum in a wall clock. On this basis certain oscillators have been developed shares. (Khatri, Op. Cit., 2006: 163)

- Moving Average convergence and divergence (MACD)
- Rate of change (ROC)
- Relative Strength Index (RSI)

Moving Average Convergence and Divergence (MACD)

MACD is used to predict movements in the market. An analyst is generally in a dilemma whether to use long term moving average or short term moving average. The solution for such dilemma is to use MACD. MACD is the difference between short term moving average and long term moving average. The difference helps in identifying whether price in the recent past have moved upward or downward as compared to longer movement with the help of MACD line various signals can be generated. When MACD is in a positive zone it indicates buying as share price are likely to move upward in the future; on the contrary, when MACD is in negative zone it indicates south-ward movement of the market in the near future and one should sell the shares. The following signals can be generated with the helps of MACD(Khatri, Op. Cit. 2006:163).

Buying Signals

- Whenever MACD line is above the moving average line of MACD, it moves towards the average line but fails to penetrate it, and instead starts rising upward, supported by an upward movement of the average line, it is a buy signal.
- When MACD line is below the moving average line of MACD, and it penetrates towards the upside and continues to move upward, supported by and upward movement of the average line, it is a buy signal.

- When MACD line is above the moving average line of MACD and moving upward continuously, supported by similar movement of the average line, it is also a buy signal.

Selling Signals

- When, MACD line is below the moving average line of MACD, it moves towards the average line but fails to penetrate it, instead, starts declining supported by a downward movement of the average line, it is a sell signal.
- When, MACD line is above the moving average line of MACD, and it penetrates towards the downside and continues to over downward movement of the average line, it is a sell signal.
- When MACD line is below the moving average line of MACD and moving downward continuously, supported by similar movement of the average line, it is also a sell signal.

Rate of changes (ROC)

ROC measures the percentage price change over a given time period with the help of ROC market can be identified as 'Over Bought' or 'Over Sold'. This identification helps in generating buying and selling signals. ROC value is plotted on a graph and this move above or below a central value, that is one '1'. Here ROC value one '1' is the benchmark value. Buying and selling signals are generated as follows (Khatri, Op. Cit., 2006: 164).

- When ROC is more than one ($ROC > 1$) and moving upward continuously, it indicates that market is likely to move upward.
- When ROC line is less than one ($ROC < 1$) and moving upward continuously, it indicates that market has come out of the red and in the near future it is expected to have a northward (upward) movement.
- When ROC is moving downside but the pace of decline has decreased, it indicates that market is likely to reach over sold level and after that it will start rising. An opportunist who can take a risk can buy at this level.

Selling Signals

- When ROC line is increasing but the pace of increase has decline, it indicates that market is about to reach the over bought zone, after which it is likely to decline. One should take precaution or a risk adverse investor can sell at this moment.
- When ROC line has made a peak it is the identification of 'Over Bought 'market, and market is likely to move towards southward (down ward direction, one should sell.
- When ROC is more than one ($ROC > 1$) but declining, it indicates that market will enter in south zone, i.e, declining zone, and one should sell at this level.

Chart Patterns

Technical analysts employ different charting techniques such as line chart, bar chart, point and figure charts. When price of individual shares plotted on a line chart, these indicate several patterns like head and shoulder movement, inverse head and shoulder, flag and triangles etc. these patterns are used to generate signals about the expected movement of the market. This chart patterns can be used to predict about the near future price movement, but these are not strong as oscillators and moving average. These chart patterns can be generated for the index value as well ad for the prices individual shares, these help in identifying the support level and Resistance level (Ibid, 165, 166).

Type of chart patterns

Mainly there are following types of chart patterns

- Head and shoulders
- Inverse Head and Shoulders
- Triangle
- Flat
- Flag

Head and Shoulders

The head and shoulders pattern can be either head and shoulders top, or head and shoulders bottom. This pattern is observed in an upward moving market. It is believed, if, one cycle of head and shoulders has been created and market has again started upward then again a set of head and shoulders will be generate. It is based on the principle that history repeats itself.

Inverse Head and Shoulders

This reflects resistance and support level in a downward moving market to identify expected movement in the market. This pattern is observed in a downward moving market, it is believed, if one cycle of inverse head and shoulders has been created and market has again started moving downward then again a set of inverse head and shoulders will be generated. It is based on the principal that history repeats itself.

Triangle

Triangle is one of the most popular chart patterns and is quite close to flags and pennants. These are the price patterns which show the movement of shifting resistance and support level. Whenever in a declining market resistance line tends to shift towards support level at a faster rate, it will form a triangle indicating a further decline in the near future. Similarly in an upward moving market support line tends to shift towards the resistance line at a faster rate, it indicates an improvement in the market in the near future and market is likely to advance in the future.

Whenever support and resistance lines are shifting towards each other at a normal place at equal distance it indicates a horizontal trend in the market and market may be side way.

Flag

These are patterns which look like flags and pennants on a chart. A flag is identified as a narrow movement of the market either after an uptrend or a downtrend. This means market has taken a pause after the previous trend and after a short while market is likely to continue in the same direction as previously. With the help of this uptrend and downtrend can be identified. If a flag has been created after an uptrend, it indicates an uptrend in the future; however this needs to be confirmed with the help of traded volume. If a traded volumes are very high at the support level as compared to the resistance level it confirms the uptrend. If a flag has been created after a downtrend, it indicates a downtrend in the future; this also needs to be confirmed with the help of traded volume. If traded volumes are higher at resistance level as compared to the support level, this confirms downtrend in the future.

In conclusion, technical analysis is the study of past price pattern and the traded volume. In this it is believed that market is driven more by the psychological factors as compared to the logical factors. It is the psychology and the past experience of the investors

/operators, which derive the market and accordingly price formation, take place. The predication about price patterns is supported by the traded volumes. Technical analysis is an art form and the eye grows keener with practice. Thus, John Murphy stated that "Technical Analysis is a skill that improves with experience and study. Always be a student and keep learning." In the technical analysis support and resistance level are identified to take buy and sell decision.

In fact, many technical analysts would agree with fundamental analysts that security prices do fluctuate around their true intrinsic values. Technicians assert the superiority of their methods over fundamental analysis by pointing out that technical analysis is easier and faster, and can be applied to more stocks simultaneously than can fundamental analysis. Many technical analysts would say that fundamental analysis has some value but that it is just too complex and troublesome to bother with. Consider the criticisms that some of the more thoughtful technical analysts have aimed at fundamental analysts. First, some technicians have correctly pointed out that even when fundamental analyst do find an under priced security, they most wait and hope that other investors in the market agree with them about the security's value and seek to buy it and bid up its price. Second, technical analysts can correctly assert that fundamental analysis is hard, time consuming work. Very few people would disagree with the fact it is easier to draw graphs than it is to study economic and accounting. Third, technical analysts can criticize the income statements produced by accountants, which form the basis for much fundamental analysis. Finally, technical analysts point out the highly subjective way in which the earnings multipliers used by fundamental analysis, some people conclude that they prefer the ease and simplicity of technical analysis over the hard work and education needed to be a competent fundamental analyst.

2.2 Review of the previous studies

Technical analysis played the vital role an investment management which provides the guideline for the investment decision. Various studies have been conducted for the behavior of share price. "Historically, there have been essentially two theories concerning valuation of securities and price behavior; technical analysis, intrinsic value analysis theory(Timilsina, 2001:1–33).

Regarding this various empirical studies have been conducting related area of technical analysis. Some empirical studies that try to highlight about the subject matter are discussed below.

Roberts (1959) in his article paper entitled "stock market patterns" and financial analysis stating that, "a common and convenient name for analysis of stock market patterns is technical analysis. Perhaps no one in the financial world completely ignores technical analysis indeed, its terminology is ingrained in market reporting and some rely intensively on it. Technical analysis includes many different approaches, most requiring a good deal of subjective judgment in application. In part they are based on analogy with physical processes, such as tides and waves. Roberts further argued that "the history of the market itself contains "patterns" that give clues to the future, if only these patterns can be properly understood. Technical analysis theories maintain that only the pattern of the past need to be studied since the effect of everything else is 'reflected on the tape'".

Agreeing with the usefulness of technical analysis to forecast the future price, Fama (1991) in his journal "Efficient Capital Market: II" pointed out that, "Many proofs of the ability of technical analysis "to beat the mark" were offered, but most committed at least one of the errors described earlier. However, several recent studies have indicated that technical analysis may be useful to investors."

Pistoles (1992) based on his research studies of over more than 25 years on stock market investment published 'a self teaching guide for the stock market investor using technical analysis' book stated that, "A thorough understanding of technical analysis can mean the difference between handsome profit or only mediocre returns from investment in the stock market chart and correctly interpret past and present share price movements and trading volumes. Once you understand what is happening to a shares' price you greatly increase your chance of taking the right action at the right time- thus making higher profits in the stock market". In this way Pistoles argued that technical analysis is one of the profitable approaches to stock market strategy. According to him, "the forces of supply and demand result from two powerful emotions, demand results from the hope for profits, and supply results from the fear of loss. When these two opposing forces are not in balance, stock price move up if the demand side is greater and down if the supply side is greater. A chart showing the recent history of how these forces have interacted to change the price of

the stock is a tool for analyzing what has been happening to the stock price recently and what happen to it in the future".

Similarly another study concluded by Mark C. Mitchell and T. Harold Mulherin in (1994) about. "The impact of public information on the stock market" focused the public information to influence of share market. The express that, in this article, we ask the straight forward question of weather the amount of information that is publicly reported affects the trading activity and the price movements in security markets. The primary contribution of our research design to this important issue that we employ distinctive proxy for information the number of announcement released daily by Dow Jones and company. Although this proxy certainly yields an imperfect treatment of the information available to securities market participants it is more comprehensive than most measures used in prior studies and provide a reasonably broad observable variable with which to address the question of the impact of public information on the stock market.

In least development country research and development activities are done less them the developed country. There are few research studies conducted on stock market prices of Nepal as compared to the capital market else where in the world. The Nepalese stock market is just coming of age is therefore, possible for a few individuals to manipulate the prices of securities and engage in undesirable practices.

Specially focusing the studies of technical analysis very little thesis and article related to stock market behavior are available. So, in order to make this study more comprehensive and meaningful some studies, journals thesis, periodicals, case study etc. related to Nepalese stock market behavior are consulted and reviewed in this section.

Khatiwada (1996) for his master degree thesis on "A study on securities investment in Nepal" had discussed about the performance of securities in Nepal in order to draw inference in relation to subject matter, following are the summarize objective of his study.

- Analyzing the stock market performance
- Measuring the stock market in terms of size, liquidity and concentrations
- Presenting a comparative analysis of money market in the face of new issue market, etc.

Khatiwada further elaborate the objective of this study is to evaluate the performance of securities market in Nepal. For that, he has done detailed analysis by data from primary market and secondary market. He has done a lot of though the study of securities market without taking consideration of investors awareness and there investment decision problem cannot be supposed as a rational study.

Bhatta (1997) in his unpublished thesis on "Dynamics of stock market in Nepal" has more discussed about the behavior of stock prices of Nepalese stock market. He explained that for the evaluation of stock prices. The investors could not identify the appropriate stocks because of not available the price earning information timely to the investors prices led to set the stock prices in the market, lack of value judgment to determine the stock price is the serious problem of the Nepalese stock market. Bhatta use different type of statistical tools and financial performance analysis that earning per share (EPS) and return on Equity (ROE) have decisive effect on the market price of the stocks. His conclusion is that stock market and economic activities mover in similar direction. They influence each other. The development of the former is reflected in the latter. The stock markets raises and mobilize the invisible resources to finance the long-term large projects in the economy. The stock market can be regarded as a heart of an economy. It has been even a great role for the capital information of the capital deficient economy like Nepal.

Timilsina (1997) in his unpublished thesis entitled "Divided and stock price: An empirical study" has made as attempt to provide some evidences concerning the dividends and stock covering 16 enterprises. He has set forth the objective of his study are to test relationship between dividend per share and stock prices. To determine the impact of dividend policy on stock prices, to identify whiter it is possible to increase the market value of stock changing dividend policy or pay out ratio.

After study and analysis of data and information by using different tools, he has mentioned the following conclusion of his study.

- I. The relationship between dividend per share and stock prices is positive in the sample companies.
- II. Dividend per share affects the share prices variedly in different sectors.
- III. Changing the dividend policy or dividend per share might help to increase the market price of shares.

Panta (2000) on "current status and problems of stock market in Nepal" an unpublished thesis of Master's Degree, explains that interaction between buying and selling of shares on the stock are extremely important for the allocation of capital within economics and it requires in depth analysis.⁴¹ No doubt, trading activities are the core of the stock exchange for allocation of capital within economics. Although the most of investors have not been able to reap benefit from these activities, it is a matter of concern. Though part has stressed for the detailed study and analysis of stock market activities, she herself has not reached to intense and in depth analysis since the data collected by her for analysis purpose are all from secondary sources.

Thus, the fact remarks that the study does not depict a true analysis of stock market moreover; neglecting the primary source of data for intensive study is another imperfection of her study.

Pant's study has focused an specially problem of stock market in Nepal and by summarizing her objective, following are key points. (Pant, Op. Cit., 5)

- To analyze the trend of Nepalese stock market
- To analyze present state of primary and secondary market
- To analyze problems of stock market.
- To analyze the prospects and potentials of Nepalese stock market
- To suggest measures for the improvement of stock market.

The study of the Pant focused different objective, which would have ostensibly held a sense, but in absence of both sources of data the real picture of stock market for fulfillment of the objective is not, possible stock market refers both primary and secondary market. In absence of one the study does not present true figure of stock market, thus her study hardly covers her objective of the study.

With study and analysis of available data and picture, following major findings derived.

- The development of stock market primarily depends on the government policies and programs and there proper implementation. Government should develop an appropriate policy framework to increase the demand for and supply of securities,

- There is lack of investor's confidence in the stock market since many listed companies do not trade on a regular basis or held Annual General Meeting (AGM) and provide disclosure information to investors on timely basis, beside this there is a general lack of investors, awareness about the listed companies, the operational and potential rate of securities market, techniques of financial analysis and the risk and rewards of holding securities.
- In Nepal, institutional investor base is small and besides this, some of these institutions have not been able to reach their full potential due to institutional, legal and regulatory constraints who otherwise might participate in stock market. At present these institutional investment channeled towards bank deposits and government securities.

On the above findings, Pant has come to conclusion that investors' confidence in Nepal stock market is relatively low because of stock market volatility, low return on investment, inadequate information, lack of financial market instrument and investors not knowing about the risk of stock market investment. That is why building the investors confidence will require an integrated plan of action not piecemeal efforts.

Sigdel (2002) on a "Technical Analysis on Common Stock of Listed Joint Venture Commercial Banks" has focused to study of pattern of share price movement. He express that t within the periphery of the stated problems the broad objective of this study is to analyze "technically" the market price of common stocks of selected 5 joint- venture commercial banks listed in the Nepal Stock Exchange (NEPSE) Ltd. and its significance in the content of Nepal. However, the specific objectives of the study are follows:

1. To analyze the investment behavior of investors in the stock exchange and examine the lacuna of security analysis process.
2. To predict the movement of market index.
3. To examine action of individual securities and market action.
4. To forecast the common stock's price movement of 5 selected joint venture commercial banks listed in NEPSE.
5. To suggest and recommend the "timing" of purchase or selling the common stock of the selected in commercial banks on the basis of findings and conclusion.

The researcher has used the data of five joint venture Banks and uses the different tools like moving average analysis of share, chart analysis, line chart analysis and also use questionnaire analysis, analysis of open end opinions of investors. On the using of those tools the findings of the study are as follows.

The investement behavior of investor in the stock exchange market of Nepal is miserable

- Investors have no idea about technical analysis approach to take investement decision.
- The relationship between the stock market activity and economic growth is very weak indeed.
- Stock market index is a barometer that represents value of shares of companies listed with stock exchange. It is a yardstick to measure investor's confidence. A change in market index means change in performance of the economy's of the corporate sector. Thus, market index reflects market trends and it takes all issues listed on the exchange on account.
- The confidence of investors in Nepalese stock market is relatively low due to frequent fluctuation in market price of shares, Scandalous activities undertaken by handful of market swindlers.
- The analysis of shares through technical approached based on actual price movement in the market and its in not based on anticipated or forecasted value, thus, analyzing the shares with technical tools, increase chance of taking right actions at the right time but if largely depends on the skill or expertise of analyst.
- The overall performance of securities of Joint Venture Commercial Banks in Nepal is satisfactory. While comparing their individual performance with market action they are more or less directed towards market behavior.

Pradhan and Upadhyaya (2004) on "The Efficient Market Hypothesis and the behavior of Share Price in Nepal" tried to highlight efficiency of market and behavior of share price. "The Nepalese stock market may not be termed as "weekly efficient" in pricing of shares. The surveys of the opinions of Nepalese financial executive indicate that the current market prices of shares are useful to make buy or sell decision, to predict future average returns and to predict future prices. The main factors affecting share prices as perceived by them are dividends, retained earnings, bonus hares, and night issues. The share price has been found more volatile than expected dividends. The study also revealed that Nepalese investors are not indifferent towards making or non-makings of information public. Among others, the

company information, lack of profitability of the company market operation system and government policy regarding investment is appeared to be major causes of deficiency in Nepalese stock market. Information on favorable future prospect of the company would increase market price of share and shareholders in high tan brackets do not prefer retained earnings instead of dividends"

The study of Pradhan and Upadhyay conclude that with respect to predication of future price change form past price changes, the majority of the respondents (50 percent) feel that the future price changes can not be predicated from past price changes. Forty- four percent of the respondents feel that future price changes can be predicted from historical price changes. Thus, the majority of the respondents accepted the weak form efficient market hypothesis or random walk hypothesis. Some investors who analyze past pattern in the movement of share prices by preparing various types of charts are not able to "beat the market" without using any accounting information. Fifty three percent of the respondents felt that they are not able to "heat the market" without using any accounting information. Thirty- one percent stated that the investors are ask to "beat the market" by preparing various types of charts. Without using accounting information the other 16 percent of the respondents stated that they have no any idea about it. The analysis conclude that "the result of both the tests serial correlation and runs test analysis do not support the independence assumption of random walk model. However, in terms of both tests, a few of the price series support the random walk model. One important implication of the non-random behavior of share prices is that the Nepalese market may not be termed as "weakly efficient" in pricing shares where market efficiency is defined as all historical information is reflected in security prices. An other conclusion that can be drawn from the views of financial expectative is that the current market price of shares in Nepal are useful to make buy or sell decision to predict future average return, and to predict future prices. This study provides the foundation to the technical analysis.

Bhattarai on "New Business Age", September 2004, in title "History repeats" has mentioned that; History tends to tends to repeat itself. The securities analysis, who analyze securities presenting the past data on the charts, graphs, figures etc. and forcast whether the price will fall or rise, agree to this theory and say the share prices once turned bearish definitely turn to be bullish sometime in the future." He further discussed about demand and supply about stock market and he continued that history may repeats own self in future market because of many reasons. He argue that "These analysis assume that the market price is a function of demand and supply of stocks and the commanding forces behind the demand

might be various factors like political, economic, financial, national, international events as well as the information disclosed by the companies. The various factors make the people either invest in the securities or disinvest. These decisions eventually result in the demand and supply of the stocks to go up or down.

Subedi (2005) in her research on "A Study on Stock Price Behavior in Nepal" concluded that the Nepalese investor do not have adequate knowledge to analyze the scenario and to forecast share price, DPS, BPS & EPS individually do not have consistent relationship with the market price of shares, commercial banking sector has dominated the overall performance of the NEPSE, deficiencies of proper laws and policies regarding the capital market, performance of most of the companies are not transparent and NEPSE is in an increasing trend, in spite of unfavorable environment for investment.

Mainalee(2006) on his study on "Technical Analysis of Common Stock of Joint Venture Bank" has focused to study is to analyze, state the problems and prospects of technical analysis of common stock in Nepal. The special objectives of the study are as follows:

- To study investment behavior of the common stock investment in Nepal,
- To predict the movements of market index,
- To analyze security action with respect to market action,
- To recommend for the future betterments on the basis of major findings of the study.

After study and analysis of data and information by using different tools, Mainalee is major finding that investors in the stock exchange are not well aware about their investment decision and in all cases it is not possible to forecast the future price movements through technical analysis.

Pandey (2007) in his article mentioned that while investing in IPO one should care to the overall political and economic indicators of the country as capital market behaves in direct proportionate to the eco-political situation of the country. He also added that market trend (bearish, bullish, trend reversal etc.), technical should be beneficial in short-term investment.

Gupta (2008) an investor, in his interview on Arthik Abhiyan stated that most of the prediction from technical analysis will be true in Nepal's share market. He also answered

that his base of investment is technical analysis. Fundamental analysis is second priority for him.

2.3 Research Gap

Many researchers have studied stock market behavior of Nepal through fundamental and efficient market theory, but only few researchers have studied about technical analysis, tools in stock market. Thus, the current study is a supplement to overcome the different of past works and fill up the research gap, the investigator claims that following points will be justifiable to the study conducted on "Application of Technical Analysis Tools in Nepalese Stock Market."

- ❖ Some researchers have concluded that most of the share prices of companies are overpriced. Despite of overpriced, none of them are arriving at their intrinsic price. This concludes that the fundamental analysis seems to be failure in Nepalese stock market. Thus, analyzing security technically became most essential.
- ❖ Some researchers conclude that the fundamental analysis seems to be failure in Nepalese stock market. Thus, analyzing security technically became most essential.
- ❖ Technically analysis is easier to apply to more stocks than fundamental analysis.
- ❖ In Nepalese stock market, most of the investors are investing based on rumors. But, they can analyze the stock using technical tools.
- ❖ None of the previous studies have focused their study to provide the several buy and sell signals of security.
- ❖ None of previous studies shows considerable potentiality of technical analysis tools in Nepal's stock market.
- ❖ None of the previous studies have focused their study to know the state and potentiality of technical analysis in Nepal's stock market.
- ❖ None of the previous studies tried to test the efficiency of Nepal's stock market related to issues related to NEPSE through qualitative test.
- ❖ All the researchers and scholars have analyzed to take only one year period.

CHAPTER – III

RESEARCH METHODOLOGY

3.1. Introduction

The purpose of this chapter is to discuss the research methodology such as research design, population and sample data collection technique and analytical tools of the research study. It is widely accepted that research is simply the process of arriving at dependable solution to problem through the planned and systematic collection, analysis and

interpretation of data. It is important tools for advancement of knowledge and accomplishment of purposes. "Thus research methodology is a way to systematically store the research problem. It may be understood as science of studying how research is done scientifically" (Kothari, 1990). Research methodology, as a vital part of research study, describes the various sequential steps to be adopted by researcher in studying research problem along with the logic behind them.

In order to draw inference on security analysis especially through the technical analysis approach in Nepal Stock Exchange, the different measures have been adopted while collecting and interpreting the relevant data, facts and figures. With a view to systematize data collection and data interpretation, the simple statistical tools, however not sophisticated; have been used here. For our purpose the following steps provides useful procedural guidelines so far as research methodology is concerned.

3.2 Research Design

A research design is the arrangement and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In fact, research design is the plan, structure and strategy of investigation so as to obtain answer of the research question and to control the variance.

As the title of the study connotes the analysis of common stock, it is carried on to get the empirical results of stock price movements. Therefore, while conducting this study, descriptive cum analytical approach is followed. Descriptive approach is utilized for conceptualization, problem identification conclusion and recommendation of the research. On the other hand, analytical approach is adopted for the parametric and non- parametric test of the data.

3.3 The population and Sample

There are altogether 144 listed companies from 9 different sectors at the end of the fiscal year 2007/2008. Out of these 15 are commercial banks, 29 are manufacturing and processing companies, 4 are hotels, 8 are trading, 16 are insurances, 53 are finance companies, 13 are development bank and 6 are other companies.

Out of the listed companies Standard' Chartered Bank, Himalayan Bank, NABIL Bank, Nepal Investments Bank, Nepal SBI Bank, Everest Bank and Nepal Industrial and Commercial Bank are selected as sample of the study.

Thus the research period is undertaken in this study is of five year (Nov 2003 to Nov 2007). The research covers the 59 months data. The share transaction of commercial banks usually controls over 90% of the total transaction at NEPSE, any fluctuation in its price easily reflects the behavior of market.

3.4 Data Collection

Here, only the secondary data has been used for analysis purpose. Actually the research study, technical analysis related with share price movements. all the information related to the stock price are taken from NEPSE. Thus, in order to make the study more reliable coherent and convenience secondary sources have been applied here while collecting data, facts and statistics. The main source of secondary data are daily, monthly and annual trading reports, official records and other relevant publications of Nepal stock exchange and security board of Nepal and web site of this organization. From these sources the relevant historical data regarding. The market price, trading volumes and market index of share price are gathered for analysis purpose.

3.5 Data Analysis Tools

To analyze the collected data many statistical and non- statistical tools are used. Among the different tools in the field of technical analysis, some of the commonly used tools Bar charts, high & lows, confidence index, Breath of market, trading volume, moving average are used in this study etc. which are non statistical tools and major statistical tools are mean, standard deviation and simple regression. Since all of these tools are not very relevant to the Nepalese context due to lack of sophisticated computer software packages and complexity of applications. So the study focused only simple type tools for the presenting and analyzing data.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The main objectives of this chapter are to analyze and to illustrate the collected data using the different kinds of tools and techniques. This chapter presents the analysis and interpretation of the data related to stock price movements such as high; low and closing price of shares, volume of shares traded, NEPSE index, determinants of share prices and moving average analysis.

4.2 Moving Average Analysis

One of the most reliable and easily read technical indicators to investors is the moving average. The effect of averaging is to give a smoother curve and to lessen the fluctuation that pulls the actual figure from the general trend. In American context, 30 week and 240 day moving averages of closing prices or market index is popular but here in the study 7 month moving average of market index is presented for analysis purpose.

Chart construction: In a 7 month moving average, the first moving average line, technicians interpret this penetration as a signal when market indexes move downward through moving average; they frequently fail to rise again for many months. Thus, a downward penetration through a moving average line is signaling to sell. When indexes are above the moving averages but the difference is narrowing, a bull market may be ending this signal. The buy and sell signals, which are usually followed by moving average chartists, are summarized as below;

The buy signal

- ❖ The graph of 7 month moving average flattens out and the stock's market index rises through the moving average.
- ❖ The market index falls below a moving average line which is rising.
- ❖ A market index, which is above the moving average line, falls but turns around and begins to rise again before it ever reaches the moving average line

The sell signal

- ❖ The moving average line flattens out and stock's market index drops downward through the moving average line.
- ❖ The market index rises above a moving average line, which is declining.

- ❖ The market index falls down through the moving average line and Turns around to rise but then falls again before getting above the moving average line.

The following moving average charts has been drawn from ANNEX –I in this chart, moving average market index along with 7 month moving average is plotted. It is very simple technical tools where market indexes and 7 month moving averages are plotted on a vertical axis and time intervals (i.e. monthly) are recorded on the horizontal.

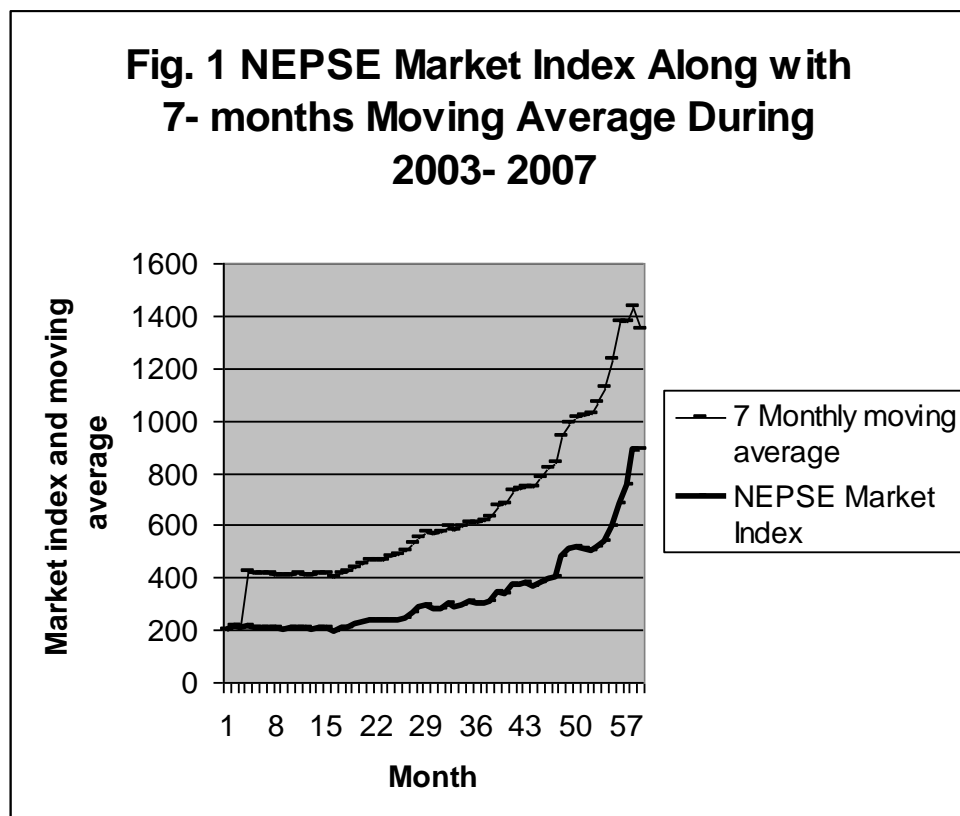


Figure 1 is derived from ANNEX – I which shows seven monthly moving average of NEPSE index indicated by bold dark line and monthly value of market index is represented by thin line. From the relationship between the actual values and moving average values of market index the information regarding the market condition is obtained.

Since at the end of the 9th month, the market index has fallen below the 7 monthly moving average indexes and the average line is still rising; this is a signal of upward market movement.. Thus, it is appropriate for investors to buy the shares at the beginning of 10th month. The investors who bought the shares at the beginning of 10th month, should sell at the 16th month to earn better profit .

Flattened out and the market index has dropped downward through the moving average line above figure gives many opportunity of buy and sell decision. So, far as the prediction of market index at the end of year 2007 is concerned it may rising because of the upward trend of moving average from beginning but the highest moving average is in 58th month. From the viewpoint of technicians, the trend once occurred in the market remains for few months.

4. 3 Charts Analysis

However, some investors do not see much difference between charting techniques and palmistry, on the other hand, many of others sear by charts. Normally, technical analysis uses three basic types of charts – point – and – figure charts, line charts and bar charts. Due to unavailability of sophisticated computer programs, the use of point and figure charts are not included in the study only line charts and bar charts are applied here.

The line charts are easy to understand on which horizontal axis shows the time and vertical axis shows the price of the share. Similarly, for a bar chart the horizontal axis will be a time line with the vertical axis measuring a particular stock's price. Bar charts are made up of a series of vertical bars representing each time interval's (Monthly) price movement move specifically, each bar spans the distance from the day's highest price to day's lowest price a small cross on the chart marks the closing price. Bar charts have bar graphs along the bottoms of the charts showing the volume of shares traded at each trading data in the graph. Both line and bar charts have been plotted for analyzing the data on the following pages.

4. 3. 1 Line chart Analysis for market index and closing price of 5 different commercial Bank

Figure 4.2 Monthly Closing Price of Nabil Bank Ltd. And Market Index During Five Year

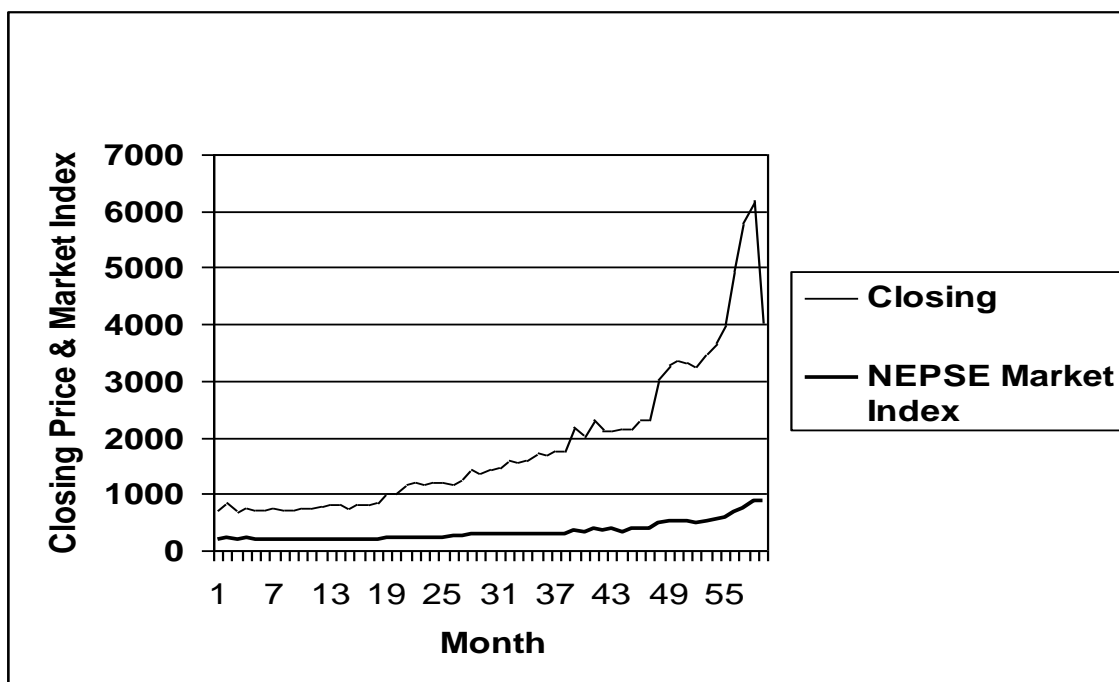
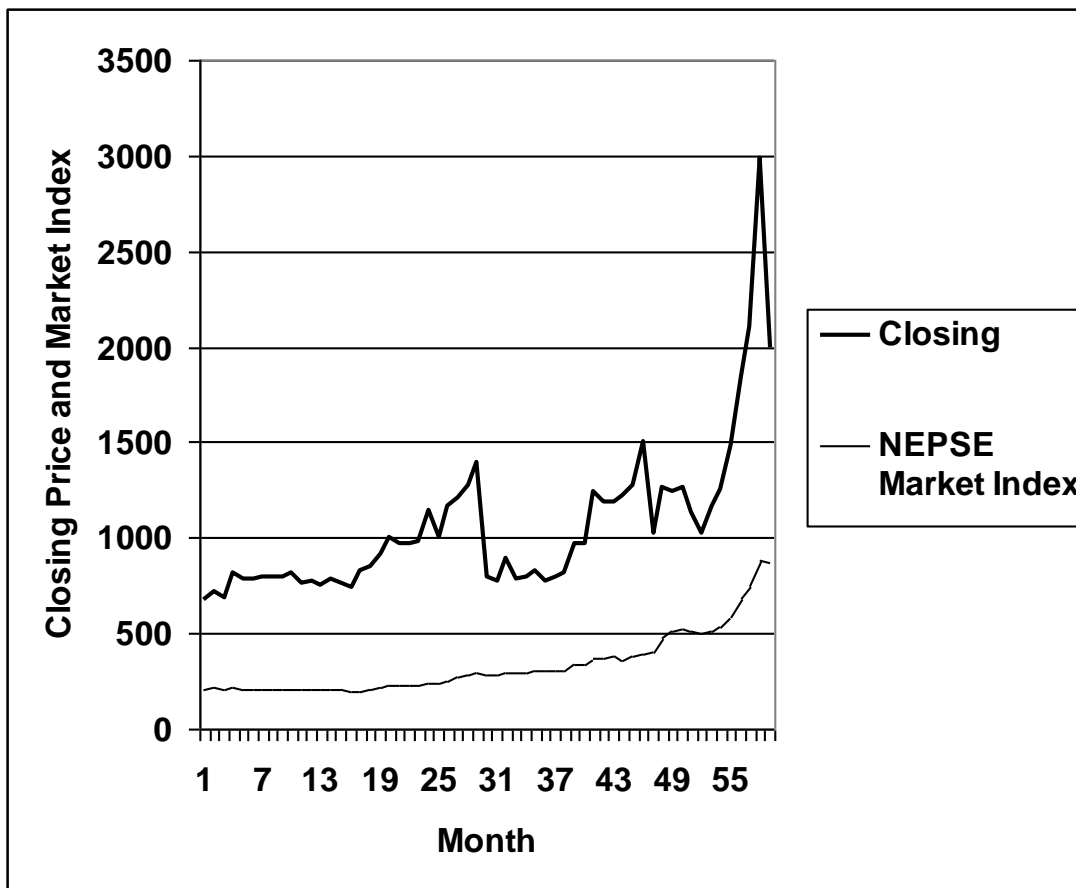


Figure 4.2 represents the Monthly closing price of Nabil Bank's share with NEPSE Market Index the only indicator of share investors confidence is the country's sole secondary market. The figure shows that NEPSE Index rise from 204.1 to 887.59 during the year five (November 2003 to November 2007), while price of Nabil Bank's share decline from 700 to 4000 after many up and down of share prices. The figure shows upward curve of NEPSE Index up to 14th month and closing price of share also rise. The share price of bank's is reach highest point (i.e. 6200) at the end of 58 month and than turn drastically decrease and decreasing trend is continuing except of few increase although overall price is continuously decreases, but the market index is also increasing trend and the highest point (i.e. 887.59) at the end of 59th month and the increase in market index is because of higher share price of other company and bank. The trend of bank share's show that in other words market index and closing price of shares implies that the performance of Nabil Bank is good condition.

Fig No. 4.3 monthly Closing Price of Nepal Investment Bank and Market Index During Five Years (Nov 2003 to Nov 2007)



The figure 4.3 is derived from ANNEX – II that exhibits 59 month closing price of Nepal Investment Bank along with NEPSE Index for respective months. The figure shows that the share price of Bank as well market index both are in up and down trend although overall trend is increasing beginning month trend is increasing but it has not stayed long time and after 5th month closing share price has started to decrease and recently it has started to increasing trend. Because of many reason the Nepal Investment Bank's share transaction has stop so in above figure it has shown in plot area. In aggregate, it has 18 times so, the line has disconnected. Until 52nd month closing price is some time higher and some time lower. At that price of market index has also more fluctuation, in 44th month the market index has suddenly decrease after than it has gone to increasing trend. The market index has increase overally market has few decrease accident and other has increased scenario closing price of share so that after 52nd month continuously increase trend. That may be due to effect of any extra factor so; by evaluating market index and closing price of bank the performance is excellent.

Fig No. 4.4 Monthly Closing Price of Bank Of Kathmandu and Market Index During Five Year (Nov 2003 to Nov 2007)

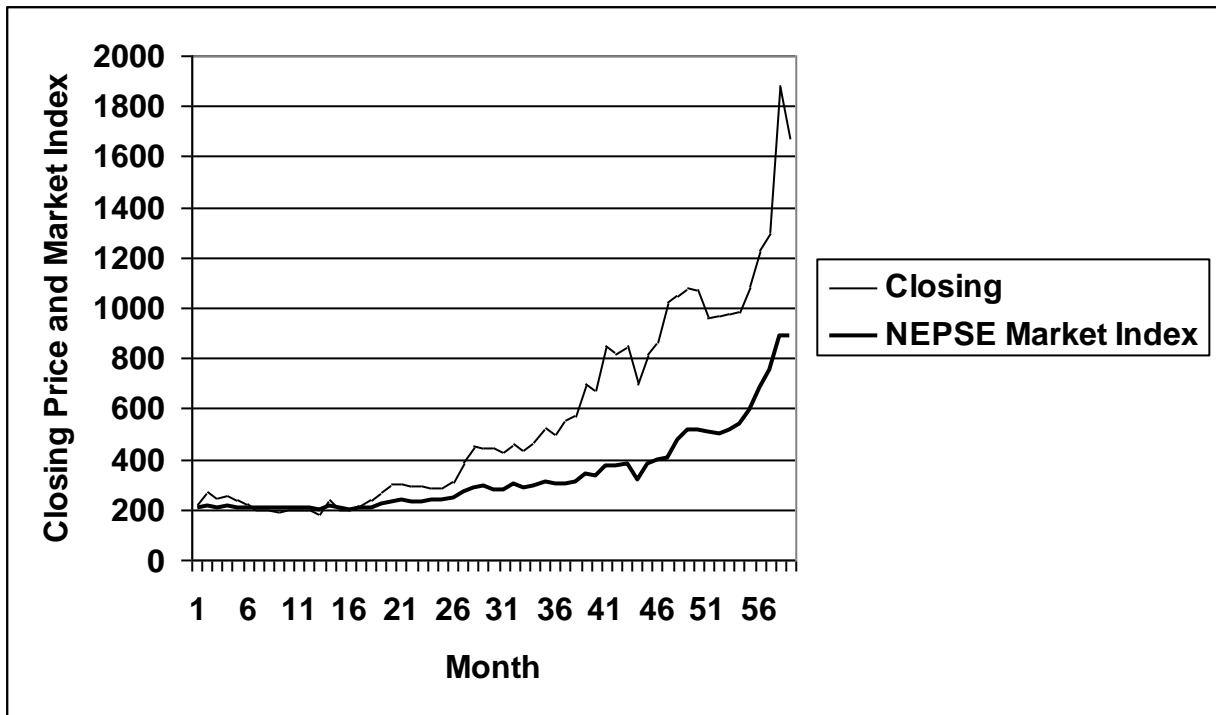


Figure 4.4 is derived from ANNEX – III that shows 59 months' closing price of Bank of Kathmandu Ltd. along with the NEPSE Index for respective months. The figure shows that the share price of the bank is lower than the NEPSE Market Index in the 13th month, but after that, the share price of BOK Ltd. and the NEPSE Market Index both show an increased trend, though with more fluctuations. For the first 16 months, the share price of BOK is similar to the NEPSE Index, although the share price is lower than the NEPSE Index. The share price increases from 270 to 1800, but the price of the share and market index both show a steeping uptrend followed by an immediate downtrend, which lasts only one month, and then both trends change upward. The peak point of the market index is 887.59 in the 59th month, and the closing price is 1800 in the 58th month. After reaching the peak point, the share price has declined throughout the five-year period, and the index performance of the bank is not in a bad condition because the beginning month share price is 223 and the last month price is 1669.

Fig No. 4.5 Monthly Closing Price of SBI Bank Ltd. and Market Index During Five Year (Nov 2003 – Nov 2007)

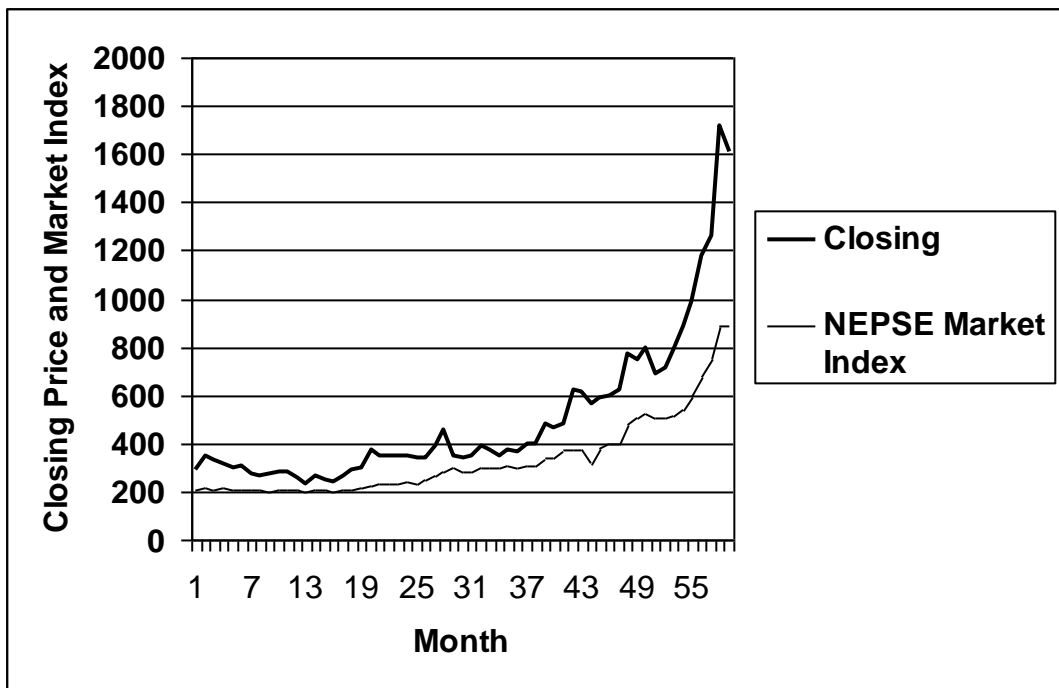
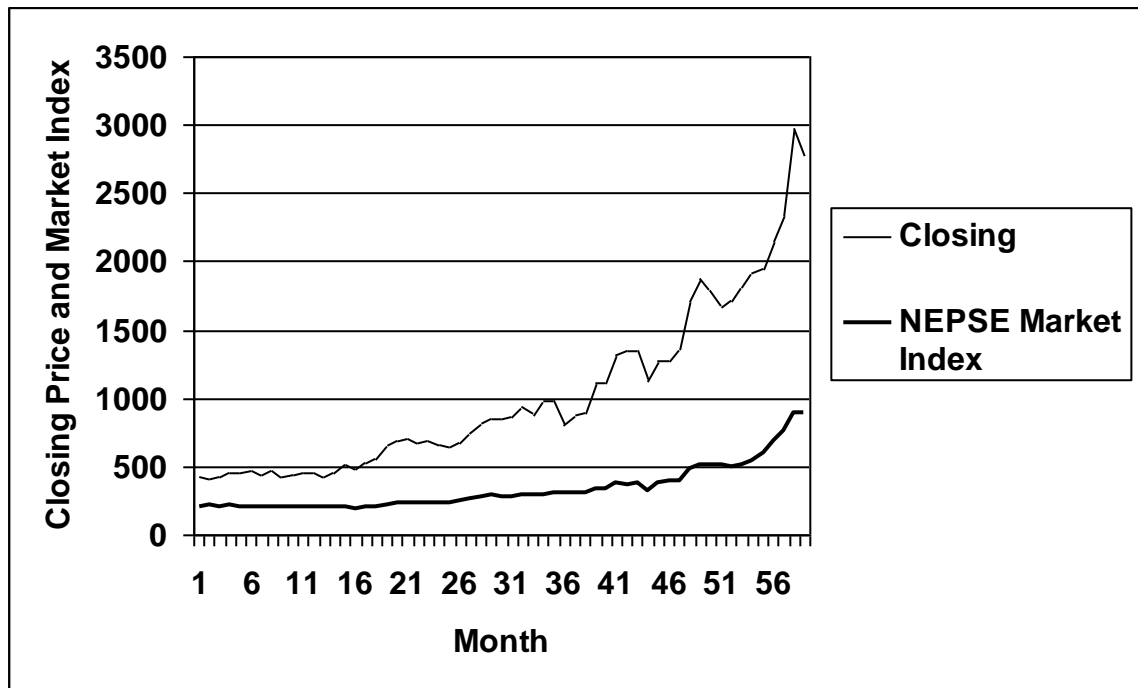


Figure 4.5 illustrates the movements of monthly closing price of share of SBI Bank Ltd and movements of NEPSE Index for the same period. From the figure it has been seen that the trend of the bank's share price at beginning weeks has decreasing condition figure shows that after 3rd month the price started to decrease and it is continued until 13th month at that period the share price reached from Rs. 291 to 235. In other hand the market index at that period is up and down movement. The highest price of share is at the end of 58th month at that period the price of bank's share is 1718 and at the same time NEPSE Market Index is only 887.45. The share price of bank is increasing trend in last period. From 52nd month the bank's share price is continue increased also the market index from 54th month. At that period a few up and down has seen although the trend is upwards at that period. So, comparing market index the performance of bank is not good condition the different between beginning price of shares and ending price of share's has not very little different during Five year, it shows that the performance of stock market movements is not good condition although the banks share's prices trend is up than market index trend that is little bit positive signal. Thus, the performance of Nepal SBI Bank has not better condition.

Figure 4.6 Monthly Closing Prices of Everest Bank Ltd and NEPSE Market Index During Five Year (Nov 2003 to Nov 2007)



The line shown in the figure 4.6 is plotted based on data presented in ANNEX – II , in which the monthly closing price of Everest Bank's share are presented and based on market index. Through closing price, line shows the upward trend from beginning but there are many plot area because of many reason the bank's transaction is stop. Through closing price, line shows the upward and down ward from beginning and the various short- term difficulties have appeared amid during five year. During the period the price of share has reached from Rs. 430 to 2968. The market Index has been increasing trend but in 44th month the index has decreased. The market trend has up and down although it has higher than previous month index or beginning month index and same trend has been seen the closing price of Everest Bank Ltd. the trend has not any clear way or trend of share's price is up and down. So the relationship between share's price and market index is relatively positive. By evaluating such condition we can draw positive conclusion in other words condition of bank is going prosperous day by day and the trend shows us better performance and appreciate to invest in Everest Bank's share's.

4.3 Bar Chart Analysis for Monthly Stock Price Movements of 5 Different Commercial Banks

Figure 4.7 Bar Chart of Monthly Stock Price Movements of Nabil Bank Ltd.

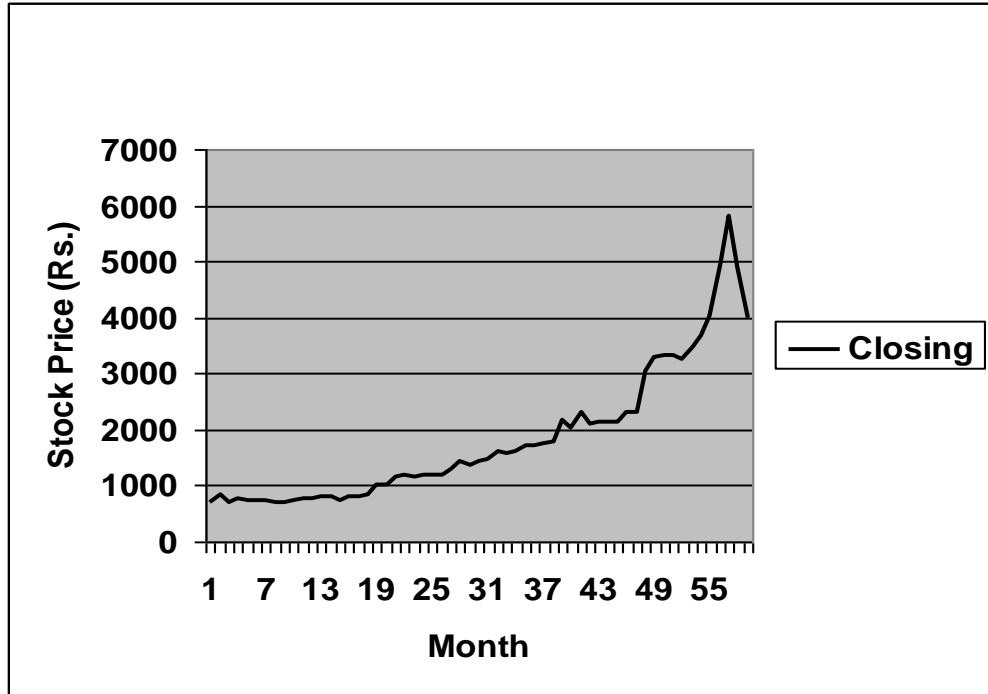


Fig No. 4.8 Bar Chart of Monthly Stock Price and Volume Movements of Nabil Bank Ltd.

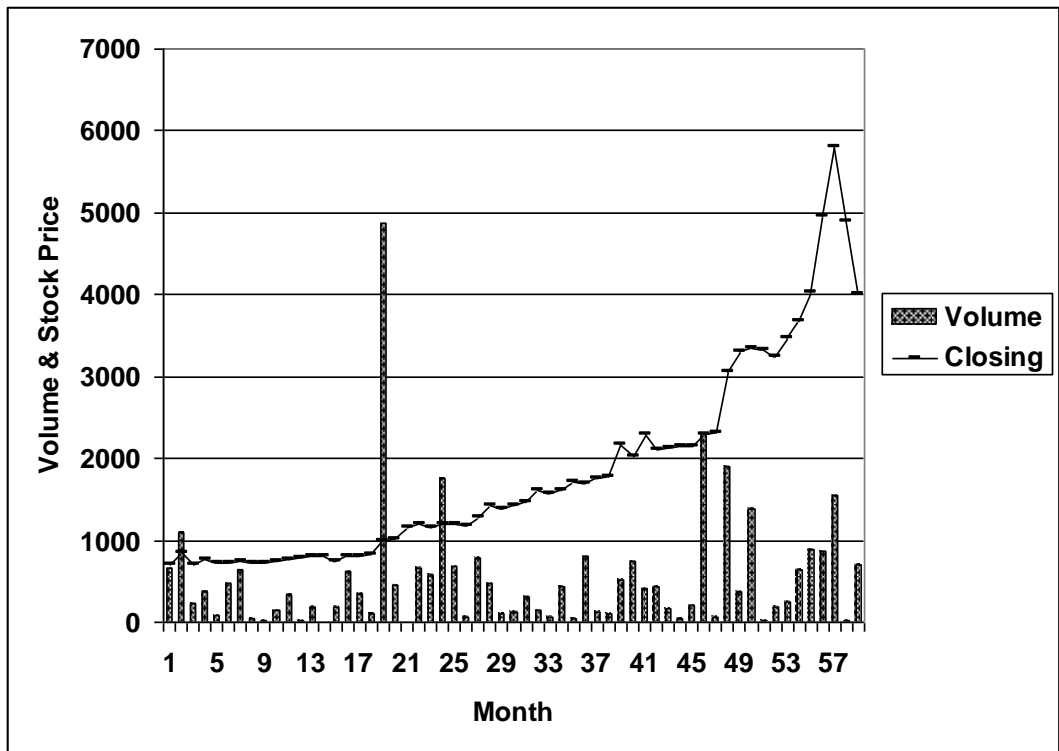


Figure 4.7 presents a bar chart of monthly stock price movement for Nabil Bank Ltd. The bar chart is prepared based on data exhibited in ANNEX – III. It shows successive months closing price is connected and a trend line is drawn on the chart, it shows that movements of stock price begins with an increasing trend but there are many up and down movements. The figure shows that the highest stock price is Rs. 5800 in the 57th month. A few months show a downward trend except that the overall trend of shares of banks is upward. In the third month the stock price is lowest. So, the right time to invest in shares is at the 3rd month when the share price is decreased. Similarly, the right time to sell shares is at the 19th month. Again, the right time to buy is at the end of the 26th month when the price is Rs. 1186 and the right time to sell is at the end of the 39th month. There are many fluctuations so a good investor must be conscious to invest. If we carefully study the bar chart the trend of share price of Nabil Bank is in an increasing condition. The highest price share is at the 57th month that is Rs. 5800 and other months' price has not less than the first three months. Only a short downward price fluctuation overall the price is not decreased in other words the trend is upward during the 57th month. Suddenly, the share price is decreased from the 57th month when the price is Rs. 4000 at the 59th month. So, the right time to invest is at the 59th month.

Similarly, Figure 4.8 refers to the information along with the volume of shares traded included in the bar chart. After drawing the figure we saw that the share volume of trading is supremely associated with price movements and patterns. As the price of Nabil Bank's stock

has increased the volume of trading also increases on the other hand the volume of trading has decreased with the decreased price of share after the price has made a high volume breakout on the upside from a reversal formation at bottom. The best time to sell the share is immediately after the downtrend time is established.

Fig. 4.9 Bar Chart of Monthly Stock Price Movements of Nepal Investment Bank Ltd.

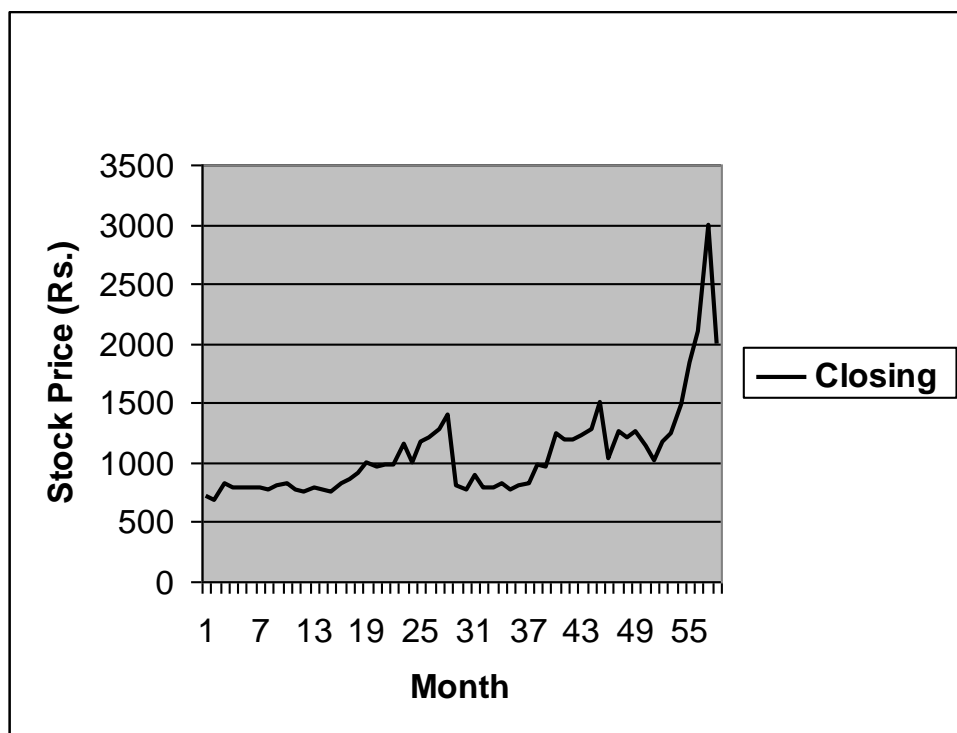


Fig. 4.10 Bar Chart of Monthly Stock Price and Volume Movements of Nepal Investment Bank Ltd.

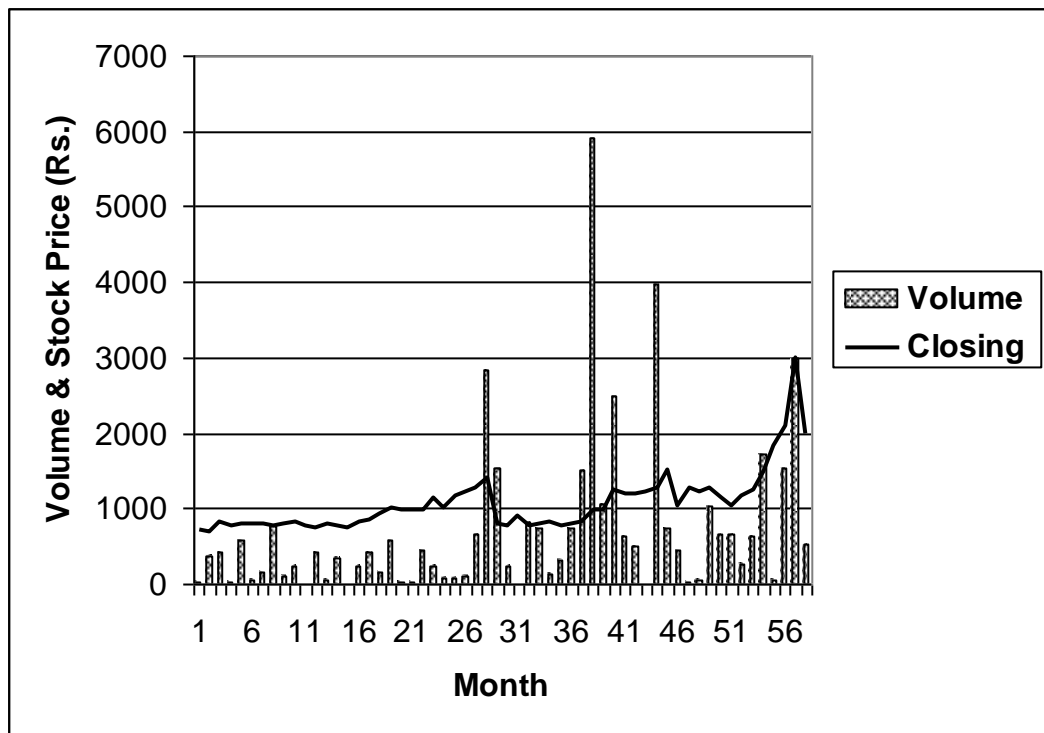


Figure 4.9 , it is clearer that a large volume is accompanied by fall is price of shares. To put it differently, the volume of share traded has increased with the increase in price and vice-versa.

The figure 4.9 shows the monthly stock price movements of Nepal Investment Bank Presented in the bar chart. The chart shows that the price of shares is up and down. The chart shows that the price of share's is on downward trend up to 16th month. After 16th month the price has increase steeply which sustains no longer. After 40th month it started to increased and attained peak at the end of 57th month immediately decreases and that stay for three month an after that again change towards upwards in this way the rise and fall in the price of shares has continued throughout the five year. The patters of rising and falling in the share price are due to the pressure of demand and supply. When the demand is high, the price of share rises and when supply is high the price of share declines. Here the right time to buy the share declines. Here the right time to buy the shares of Nepal Investment Bank is at the end of 30th month and the right time to sell the shares is at the end at 57th month. If investors do not sell their shares during this time they have to bear losses from their sales there after.

In the same way the figure 4.10 illustrates the monthly stock price of volume information containing at the bottom of the chart for the same period that price information covers . By studying the volume of trading ,it is possible to detect whether the market is

general and certain security issues are bullish or bearish of investor' emotions. However, it is considered that a large volume of shares traded is accompanied by a rise in price and the volume of shares decrease as the price decrease. That is reflected in transaction of Nepal Investment Bank share volume, here, because of volume of shares decreased the price also decrease at 30th month and also share volume decrease at 34th month at that time the price also decreased. Therefore price of shares increased only when share volume increase at 38th month at that time the price of shares increased to Rs. 972 and the share volume of this month is 5902. But the price is highest in 58th month (Rs. 2985).

Fig 4.11 Bar Chart of Monthly Stock Price Movements of Bank Of Kathmandu Ltd.

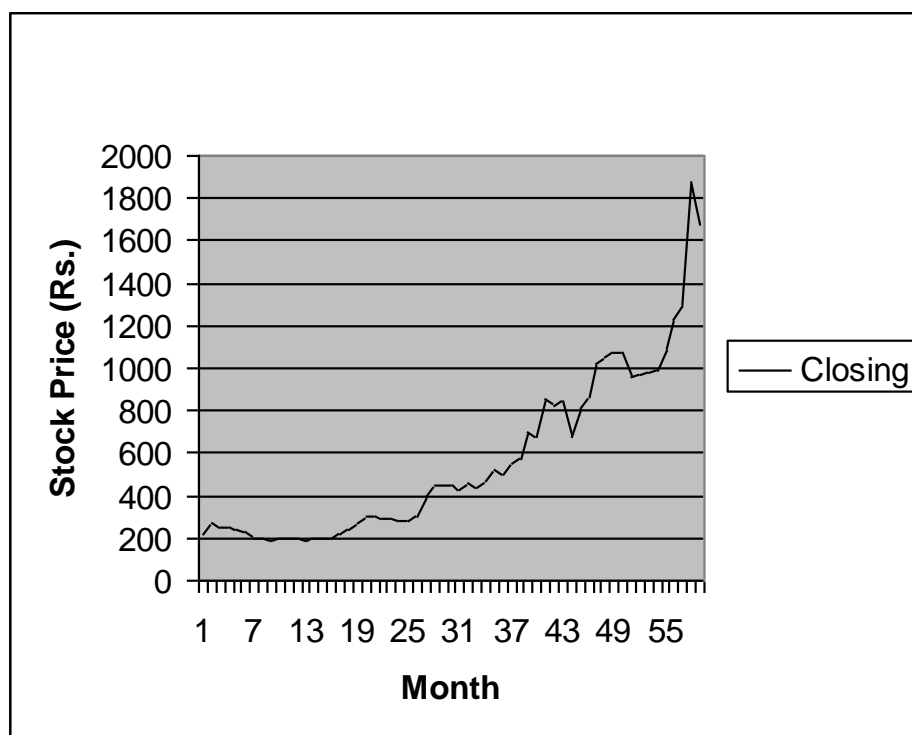


Fig No. 4.12 Bar Chart of Monthly Stock Price and Volume Movements of Bank of Kathmandu Ltd.

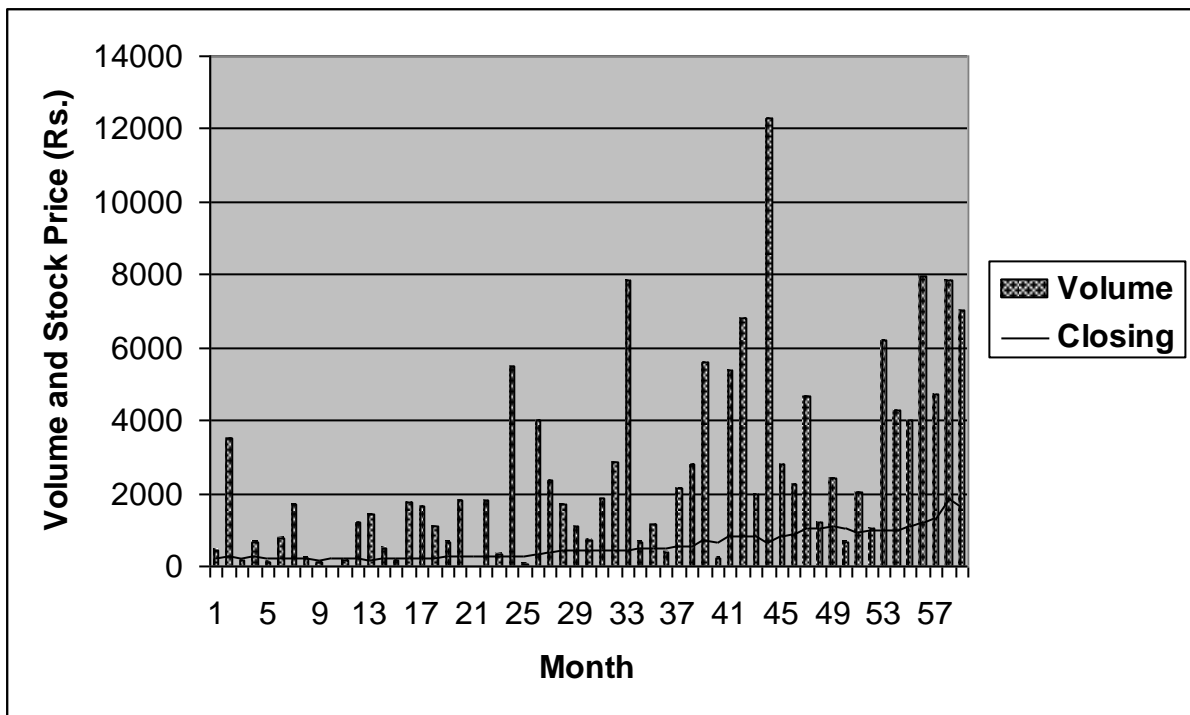


Figure 4.11 presents a bar chart of Monthly Stock Price Movements for Bank of Kathmandu Ltd. The chart shows that the share price of Bank of Kathmandu Ltd is decreasing slowly at beginning period but upward trend from 16th month and down ward trend from 22nd month to 25th month and last period of five year upward trend from 55th month to 58th month. There are many fluctuation ups and down in during the period Nov 2003 to Nov 2007. The highest price of share is on 58th month Rs. 1880 and lowest price is 13th month Rs. 186. Here, demand and supply pressure to determine the stock price correctly. When demand high the price is also going to increase and when demand is low then price also lower than other month. Here right time to buy the stock of Bank of Kathmandu of 13th month when the price of shares is Rs. 186 decreased from Rs. 270 and right time to sell 28th month when the price of shares is Rs. 450 or still is better to hold the share's because the last period trend is increasing it should be continued coming year.

In the same way the figure 4.12 illustrate the monthly stock price movements with volume information containing at the bottom of the chart for the same period that price information covers. The relationship between volume and price of shares is always positive. Here the volume of Bank of Kathmandu's share's is highest in 44th month 12294 at that time because of initial phase of Bank share's market only slightly increase the price of share's and other many example has seen that when share volume increase the price also going to increase and when volume decrease price also decrease.

Figure 4.13 Bar Chart of Monthly Stock Price Movements of State Bank of India Ltd.

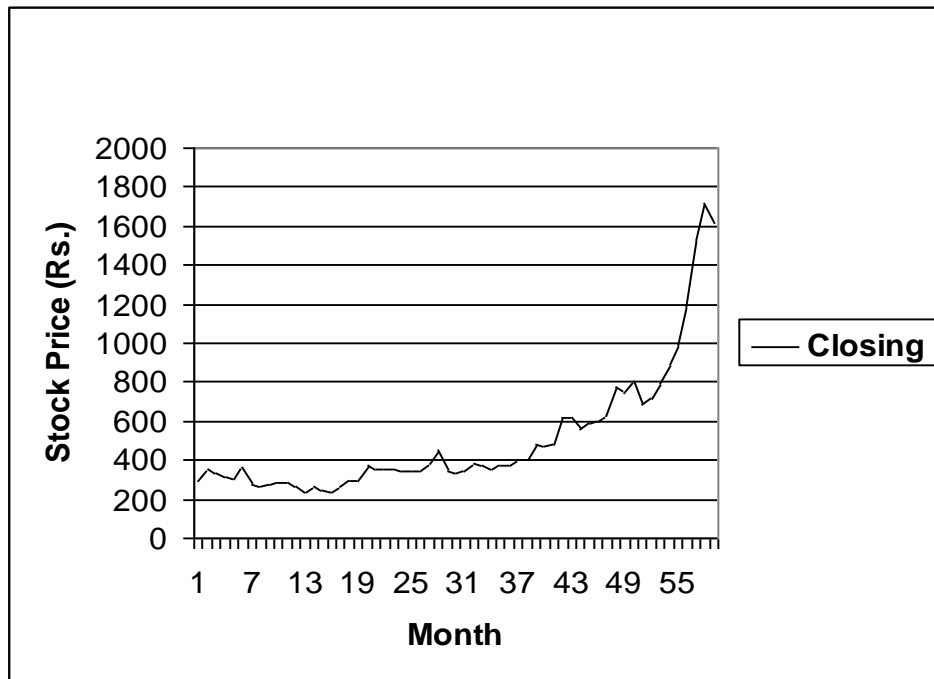


Figure 4.14 Bar Chart of Monthly Stock Price and Volume Movements of State Bank of India Ltd.

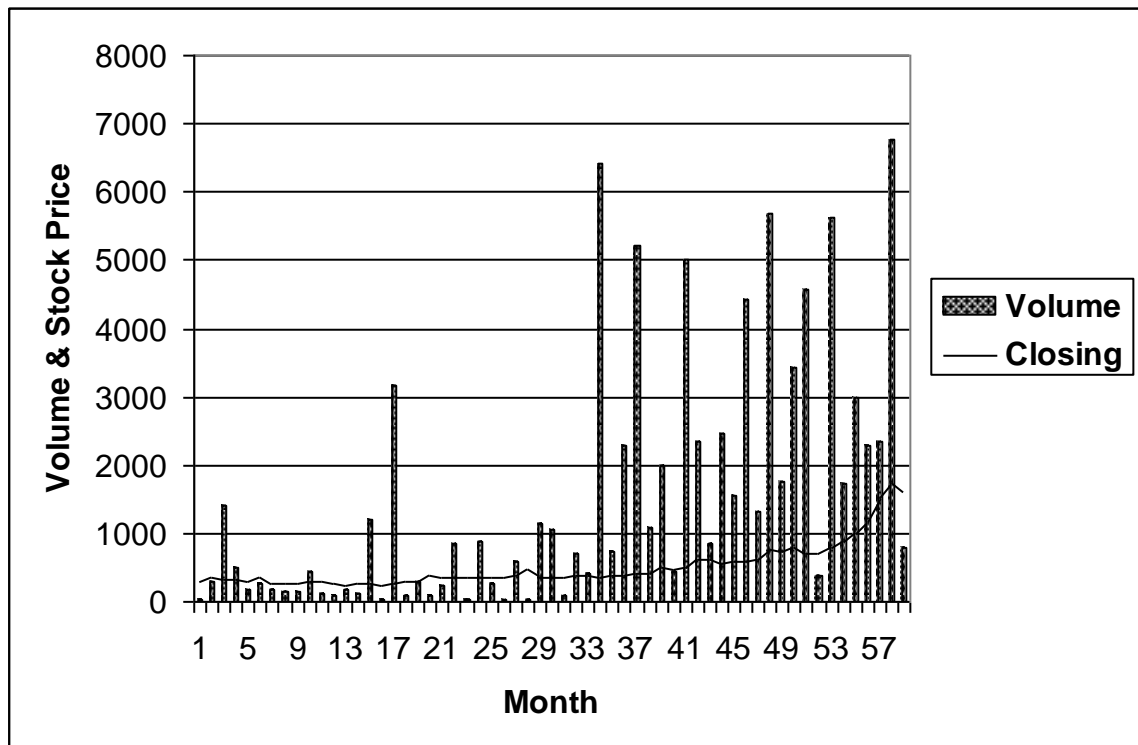


Figure 4.13 shows the monthly stock price movement of SBI Bank Ltd. The figure show that the monthly price movements of SBI Bank Ltd presented in the bar chart. The

chart shows that the price of shares is on downward trend up to 20th month. After 20th month the price has increased steeply which sustains no longer. After 37th month it started to increased and attained peak at the end of 58th month. Where the stock price is Rs. 1718. The figure from 1st month to 41st month the stock price has not increased and like same, the range of price that time is Rs. 291 in 1st month and Rs. 485 in 41st month. The price decrease due to various factor but decreased condition is not stay long it again change upwards except short ups and down fluctuation at the end of month the chart show highest price of share's but it also not stay other month. For investment decision right time to buy the share is at the 15th month and right time to sell is at the end of 58th month although it is long time.

Similarly, the other figure 4.14 shows the price volume far chart. The figure shows that when increase in share volume that reflected to the share price. But, we have taken long period. So, figure may be not match with principle. The price of share's Rs. 1718 that is highest price of during five year, which is the highest because of highest volume of shares. At the end of 58th month, 6782 numbers of shares have been traded while closing price of share is Rs. 1718. So, this events spangle support that the investment decision made on the basis of volume indicator for profitable investment.

Fig no 4.15 Bar Chart of Monthly Stock Price Movements of Everest Bank Ltd.

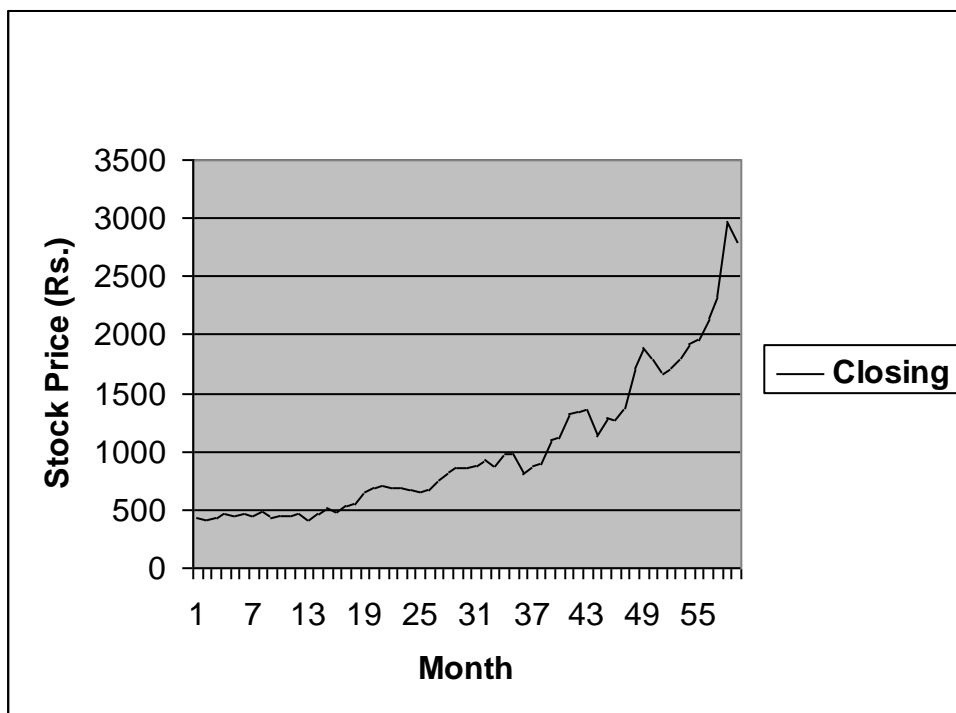
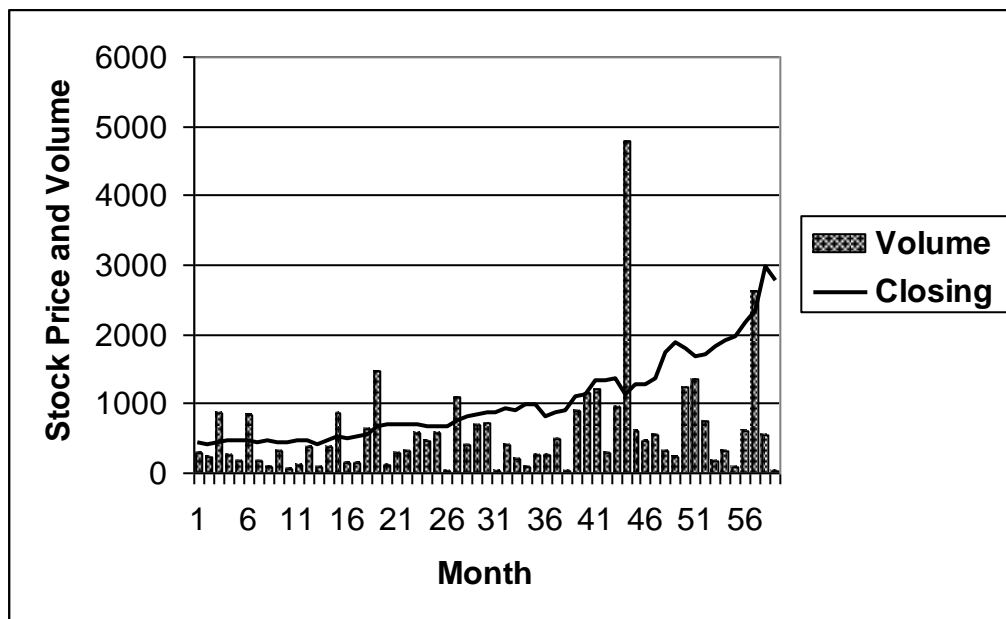


Fig no 4.16 Bar Chart of Monthly Stock Price and Volume Movements of Everest Bank Ltd.



The monthly stock price movements of Everest Bank Ltd are charted in Figure. 4.15. The figure provides the patterns, which is more or less same as pervious study. The trend is up wards starting from 3rd month. The highest price is at 58th month which is Rs 2968. The stock price of the bank has increased slowly day by day. So, the chart provides investors to decide more accurate decision about sell or purchase the stock. When the stock price is comparatively lower at that time investor decide to purchase so investor decide to purchase the Everest Bank's shares at the end of 17th month and sell the share after long period hold or at the end of 58th month when share price reaches Rs. 2968.

In the same manner, the figure 4.16 represents the price volume bar chart of Everest Bank Ltd. volume of shares traded during five year has been fluctuated in short term difficulties. From the figure, it is clear that the large volume is accompanied by either rise in price or a fall in price. The stock price is more fluctuation due to the economic show down and unfavorable events or rumors, which erodes the confidence of investors.

4.5 Major Findings of the Study

The followings are the major findings of the study made above:

Individual performance of 5 different commercial Banks

1. **NABIL Bank**

The highest and lowest price of NABIL Bank's share was found Rs. 5800 and Rs. 700 respectively during the study period. Over the period of the time the market price of the bank is in bullish trend . In this period is was better to the investors to buy and hold the stocks. For investor at 59th month is right time to invest it. Share volume of trading is supremely associated with price movements and patterns. As the price of Nabil Bank's stock has increased the volume of trading also increased on the other hand the volume of trading has decreased with the decreased price of share after the price has made a high volume breakout on the upside from a reversal formation as bottom.

2. **Nepal Investement Bank**

The highest and lowest price of Investement Bank was found Rs. 2985 and lowest was Rs. 685. The Patten of rising and falling in the share price are due to pressure of demand and supply. The right time to buy the share of Nepal Investment Bank is at the end of 30th month and right time to sell the shares is at the end at 57th month. If investors do not sell their shares during this time they have to bear losses from their sales there after. By studying the volume of trading, it is possible to defect whether the market is general and certain security issues are bullish or bearish of investor's emotions. However, it is considered that a large volume of shares traded is accompanied by a rise in price and the volume of shares as the price decrease.

3. **Bank of Kathmandu**

The highest and lowest price of Bank of Kathmandu was found Rs. 1880 and 186 respectively during the five year. There are many fluctuation ups and down in during the period. Here, demand and supply pressure to determine the stock price correctly when demand high the price is also going to increase and when demand is low then price also low. Here, right time to buy the stock of Bank of Kathmandu of 13th month when the price of shares is 186 decreased from Rs 270 and right time to sell 28th month when the price of shares is Rs. 450 or still is better to hold the share's because the last period trend is increasing.

4. **State Bank of India**

The highest price of Nepal State Bank of India was found 1718 and lowest Rs 250 during the study period. The price decrease due to various factor but decreased condition is not stay long it again change upwards, except short ups and down fluctuation at the end of month the highest price is at 57th month. So, for investors right time to buy the share is at 15th month and right time to sell is at the end of 58th month although it is long time.

5. Everest Bank

The highest price was found Rs. 2968 and lowest was Rs 410 of Everest Bank Ltd. during the study period. When the stock price is comparatively lower at that time investor decide to purchase so, for investor decide to purchase the Everest Bank's Shares at the end of 17th month and sell the share after long period hold or at the end of 58th month when share price reaches Rs 2968. The stock price is more fluctuation due to the economic show down and in favorable events or rumors, which erodes the confidence of investors.

Among 5 samples of different joint venture commercial banks the performance, some are satisfactory performance and some are not good condition. These performance were categorized on the basic of fluctuation shown is the closing market price of shares other findings related to share prices and market index are as follows:

- ❖ The highest price of Nepal Investment Bank was found Rs 2985 and lowest was Rs 685.
- ❖ The highest and lowest price of Bank of Kathmandu Ltd. was found Rs. 1880 and Rs. 191 respectively during the five year.
- ❖ The highest price of Nepal SBI Bank Ltd. was found Rs. 1718 and lowest Rs 250 during the study period.
- ❖ The highest price was found Rs. 2968 and lowest was Rs. 410 of Everest Bank Ltd. during the study period.
- ❖ The highest and lowest values of NEPSE market index was 882.45 and 238.32 in points during the 59th month's transaction of five year [Nov 2003 to Nov 2007)

CHAPTER – V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary, conclusion and recommendation from the study. It consists four sections; the first section provides the summary, second conclusion and the third recommendations on the basis of findings and conclusion drawn in the study and the last section suggests potential avenues to carry out the further research in this area.

5.1 Summary

Globalization of economies and market has been one of the major instruments of changes. There is no gainsaying that Nepal is already sandwiched between the economic liberalization and globalization process. Therefore, Nepal cannot stay from these developments by pursuing a policy of isolation and inward looking strategy. Though overall policy setting has not been conducive to the development of the stock market, it can be said that the Nepalese stock market is in stage of development. Since stock market offers opportunity and liquidity to the government and corporate securities by facilitating transaction, it is considered a crucial element in the national economy.

Investors are losing their confidence in the stock market of Nepal due to the heavy fluctuations in their share prices. They have taken the stock exchange as moneymaking enterprise and thought that any investment made would bring a sure return on the other hand. Some handful market players have joined hands with officials for price manipulation. With such a scenario prevailing in the market, there is necessary to establish clear concept on share price fluctuation. Analyzing the securities before taking investment decision is the best way to get high return from the shares.

There are mainly two conventional approaches for analyzing the securities, they are; fundamental analysis approach and technical analysis approach. Fundamental analysis approach involves analyzing the common stocks by examining the sales, earning, profit margins, dividends and other fundamental facts of a company to determine the intrinsic value of shares in contrast, technical analysis approach largely ignores, the fundamental facts to determine the price of shares.

But this method involves the study of past volume and price data of the stocks to predict future price movements. With the help of technical analysis, investors can interpret, past present and predict even the future stock price movements and volume of trading to make better investment decision. Using the concept of technical analysis in making investment decision, will improve the chances of making significant profits in the stock market.

Main objective of this research work is concerned with analyzing the common stocks of sample commercial banks through technical analysis approach. The specific objectives are to analyze the investment behavior of investors, predict the movements of market index, and examine the performance of individual securities and to recommend the timing of purchase or sell. Therefore, this research work is supposed to be much helpful to investors to evaluate the common stocks they possessed and make further plans to take right investment decision. Besides this, the research also provides good literature to other interested researchers in this area.

More those to literatures have been reviewed including books, journals, research papers and thesis. These literatures have revealed the need of investor's awareness in the capital market for smooth running of stock market activities. The researcher has used every

aspects of technical analysis including its weakness and strengths for predicting future price movements of common stocks.

In order to achieve the objective of the study as started above the study relied on secondary source of data. For secondary data, the daily and annual trading reports of Nepal Stock Exchange and other official documents of securities board of Nepal were the main sources. Descriptive cum analytical research design was followed to present and analyze the data. The data were analyzed in various useful tabular formats, graphs and charts as per the need of the study based on such concrete analysis. The findings were evaluated for the study was informative which really helped in facilitating research procedures.

However, in all cases it was not possible forecast the future price movements of commercial banks through technical analysis tools it have tremendous scope in Nepalese context.

NABIL BANK

NEPSE Market Index the only indicator of share investors confidence is the country's sole secondary market. NEPSE Index rise from 204.1 to 887.59 during the five year. While price of Nabil Bank's share decline from 700 to 4000 after many up and down of share prices. The trend of bank share's shows that in other words market index and closing price of shares implies that the performance of Nabil Bank is good in condition.

The highest and lowest price of NABIL Bank's share was found Rs. 5800 and Rs. 700 respectively during the study period. Over the period of the time the market price of the bank is in bullish trend . In this period (59 months) in was better to the investors to buy and hold the stocks. For investor at 59th month is right time to invest. Share volume of trading is supremely associated with price movements and patterns. As the price of Nabil Bank's stock has increased the volume of trading also increased. On the other hand the volume of trading has decreased with the decreased price of share after the price has made a high volume breakout on the upside from a reversal formation as bottom.

NEPAL INVESTMENT BANK

The share price of Bank as well market index both are in up and down trend although overall trend is increasing in the beginning month. But is has not stayed long time. Closing

price and market index also has more fluctuation. Due to effect of any extra factor so; by evaluation market index and closing price of bank the performance is excellent.

The highest and lowest price of Investment Bank was found Rs. 2985 and lowest was Rs. 685. The Pattern of rising and falling in the share price are due to pressure of demand and supply. The right time to buy the share of Nepal Investment Bank is at the end of 30th month and right time to sell the shares is at the end at 57th month. If investors do not sell their shares during this time they have to bear losses from their sales there after. By studying the volume of trading, it is possible to detect whether the market is general and certain security issues are bullish or bearish of investor's emotions. However, it is considered that a large volume of shares traded is accompanied by a rise in price and the volume of shares as the price decrease.

BANK OF KATHMANDU

NEPSE Market Index has increased trend but there have also more fluctuation. First 16th month share price of BOK is similarly of NEPSE Index although the share price is lower than NEPSE Index . The share price has increase from 270 to 1800. but the price of share and market Index both has showed sleeping up trend followed by immediately downtrend but that is stay only one month and again change the both trend upward. The peak point of market index has 887.59 that 59th month and the closing price has 1800 that 58th month after reaching the peak point share price has declined throughout the five year and index performance of bank is not bad condition because the beginning month share is 223 and last month price is 1669.

The highest and lowest price of Bank of Kathmandu was found Rs. 1880 and 186 respectively during the five year. There are many fluctuation ups and down in during the period. Here, demand and supply pressure to determine the stock price correctly when demand high the price is also going to increase and when demand is low then price also low. Here, right time to buy the stock of Bank of Kathmandu of 13th month when the price of shares is 186 decreased from Rs 270 and right time to sell 28th month when the price of shares is Rs. 450 or still is better to hold the share's because the last period trend is increasing.

STATE BANK OF INDIA

At that period a few up and down had seen although the trend is upwards at that period. So comparing market index the performance of bank is not good condition the

different between beginning price of shares and ending price of share's has not very little different during five year. It shows the performance of stock market movements is not good condition although the banks share's prices trend is up than market index trend that is little bit positive signal. Thus, the performance of Nepal SBI Bank has not better condition.

The highest price of Nepal State Bank of India was found 1718 and lowest Rs 250 during the study period. The price decrease due to various factor but decreased condition is not stay long it again change upwards, except short ups and down fluctuation at the end of month the highest price is at 57th month. So, for investors right time to buy the share is at 15th month and right time to sell is at the end of 58th month although it is long time.

EVEREST BANK

The relationship between share's price and market index is relatively positive. By evaluating such condition we can draw positive conclusion. In other words condition of bank is going prosperous day by day and the trend shows us better performance and appreciate to invested in Everest Bank's share's .

The highest price was found Rs. 2968 and lowest was Rs 410 of Everest Bank Ltd. during the study period. When the stock price is comparatively lower at that time investor decide to purchase so, for investor decide to purchase the Everest Bank's Shares at the end of 17th month and sell the share after long period hold or at the end of 58th month when share price reaches Rs 2968. The stock price is more fluctuation due to the economic show down and in favorable events or rumors, which erodes the confidence of investors.

5.2 Conclusion

The major objective of the study was to test the theory of technical analysis tools in Nepalese security market and to study about the trends and patterns of share price movement. Through the use of technical tool and analysis it is concluded that Nepalese investors can use these tools to predict the future movement of the market.

Based on the findings of the study it can be concluded that most of the theory and assumptions of technical analysis matches with the Nepal's Stock market procedures. Mostly fundamental factors influence the share price in NEPSE but one can't also ignore the past price and traded volume of the company.

- ❖ From the moving average analysis NEPSE Index has provided the several buy and sell signals of security.
- ❖ This analysis shows that sometimes the Nepali stock market is primarily by whims and not by new information this is a sign of market inefficiency but investor can earn more gain from this if they try to understand such underlying causes of market movement and act accordingly.
- ❖ Analyzing from the line chart and bar chart of security price of 5 commercial banks NEPSE Index shows that the security price is in increasing trend and there is little fluctuation of share of the banks and NEPSE Index has been in increasing trend.
- ❖ The analysis shows the performance of sample of 5 commercial banks. Among them the performance of Nabil Bank is good and the performance of Nepal investment Bank, Nepal SBI Bank, Everest Bank.

Recommendations

Following recommendations are made for smooth running of stock market and to realize its significance to boost up the national economy to new horizon.

- ❖ If investors want to invest in securities to take profit, they should use the analysis technique of securities and must know the patterns of market not running with whims.
- ❖ There are different kinds of tools and techniques available for analysis purpose of securities. Technical analysis is one of the convenient and simple methods, which may provide valuable guidelines for investment in securities.
- ❖ Investors should define the objectives of investment before investment in securities.
- ❖ For those investors who want to maximize their return through capital gains in the short run it is better to investment in commercial bank's share.
- ❖ Since the predication of future price movements of common stock is possible through technical analysis, the investors and analysis are strongly recommend these tools while taking investment decision. Because mere help of technical analysis can provide much help in forecasting future, price movements in a way to secure higher expected return than native- buy – and – hold return.
- ❖ Securities Board of Nepal, apex regulatory body, overseeing the activities of NEPSE should reform the stock market by enhancing the capacity of NEPSE

to make it more sustainable and credible with an ability to serve larger investors base.

- ❖ Investor's awareness programmes should be launched and provided with investment guidelines.

5.4 Suggestion for Further Research

In this research process moving average analysis, bar charts, line charts have been included beside this technical analysis should consider the contrary opinion theories, the Confidence index, breadth of market, relative strength analysis Elliott wave theory oscillators, But these are not included here,. It will be better if the further research use these tools. If the research to make more detail the research can use both technique fundamental as well as technical analysis and to take the more sample of listed companies.

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ANNEX – I

7 Month Moving Average Of NEPSE Market Index

Date	Month	NEPSE Market Index	7 Weekly Moving Average
1-Jan-03	1st	204.1	
3-Feb-03	2nd	213.3	
3-Mar-03	3rd	209.19	
1-Apr-03	4th	216.71	209.67
1-May-03	5th	209.56	209.89
2-Jun-03	6th	209.74	208.45
1-Jul-03	7th	205.12	208.13
11-Aug-03	8th	205.63	206.86
1-Sep-03	9th	203.18	206.33
1-Oct-03	10th	206.96	205.21
1-Nov-03	11th	207.8	206.06
1-Dec-03	12th	205.89	206.50
1-Jan-04	13th	201.88	205.35
2-Feb-04	14th	211.11	205.08
1-Mar-04	15th	208.68	205.00
1-Apr-04	16th	195.14	206.93
3-May-04	17th	205.07	210.57
1-Jun-04	18th	207.25	214.07
1-Jul-04	19th	219.41	217.68
2-Aug-04	20th	227.3	223.17
7-Sep-04	21st	235.61	227.79
1-Oct-04	22nd	233.99	232.23
1-Nov-04	23rd	233.54	236.22
1-Dec-04	24th	237.41	242.09
1-Jan-05	25th	238.32	249.12
1-Feb-05	26th	247.35	257.81
1-Mar-05	27th	268.42	264.46
1-Apr-05	28th	284.81	270.73
1-May-05	29th	294.79	279.49
1-Jun-05	30th	280.15	285.49
3-Jul-05	31st	281.28	289.49
1-Aug-05	32nd	299.61	292.72
1-Sep-05	33rd	289.4	295.00
1-Oct-05	34th	296.37	298.30
6-Nov-05	35th	307.42	302.15
1-Dec-05	36th	310.76	308.39

1-Jan-06	37th	303.26	315.15
1-Feb-06	38th	308.25	326.36
1-Mar-06	39th	343.28	335.58
2-Apr-06	40th	336.71	345.01
1-May-06	41st	374.84	354.08
1-Jun-06	42nd	371.97	364.70
2-Jul-06	43rd	376.77	372.44
1-Aug-06	44th	366.73	381.79
3-Sep-06	45th	382.63	396.79
8-Oct-06	46th	397.46	416.89
1-Nov-06	47th	402.11	437.22
3-Dec-06	48th	479.83	457.53
1-Jan-07	49th	512.72	474.60
1-Feb-07	50th	519.05	491.34
1-Mar-07	51st	508.89	510.72
1-Apr-07	52nd	502.15	526.98
3-May-07	53rd	514.65	551.36
3-Jun-07	54th	537.74	585.21
1-Jul-07	55th	593.65	639.29
1-Aug-07	56th	683.36	694.36
2-Sep-07	57th	756.05	
1-Oct-07	58th	887.45	
1-Nov-07	59th	887.59	

ANNEX – II

Monthly Closing Price of Five Different Commercial Banks and Market Index During Five Year

Month	Nabil Bank	Inv. Bank	BOK Bank	SBI Bank	Eve Bank	NEPSE Market Index
1st 2003	708	660	223	291	430	204.1
2nd	850	715	270	350	410	213.3
3rd	700	685	246	336	430	209.19
4th	765	815	252	316	461	216.71
5th	725	780	240	301	450	209.56
6th	730	790	224	305	466	209.74
7th	740	795	198	275	445	205.12
8th	715	791	199	266	475	205.63
9th	716	765	191	275	430	202.41
10th	750	801	200	287	446	206.96
11th	757	815	202	281	451	207.8
12th	780	775	195	255	458	205.89
13 th 2004	800	750	186	235	418	201.88
14 th	800	773	238	268	461	211.11
15 th	751	765	198	250	509	208.68
16 th	800	745	200	240	488	195.14
17 th	806	830	216	269	526	205.07
18 th	835	853	242	290	552	207.25
19 th	1001	915	270	295	660	219.41
20 th	1016	1006	298	375	690	227.3
21 th	1160	970	299	350	700	235.61
22 th	1206	975	290	351	680	233.99
23 th	1161	985	291	350	685	233.54
24 th	1195	1150	282	345	665	237.41
25 th 2005	1200	1000	282	340	650	238.32
26 th	1186	1170	306	339	674	247.35
27 th	1280	1211	391	387	750	268.42
28 th	1420	1281	450	455	820	284.81
29 th	1381	1401	447	346	850	294.79
30 th	1430	800	444	338	855	280.15
31 th	1460	775	430	346	870	281.28
32 th	1605	890	460	386	930	299.61
33 th	1570	780	435	370	880	289.46
34 th	1601	793	470	352	980	296.37
35 th	1715	831	521	375	986	307.42
36 th	1700	775	499	369	800	301.76
37 th 2006	1750	800	555	400	875	303.26
38 th	1770	820	575	399	891	308.25
39 th	2170	972	700	484	1106	343.28
40 th	2015	968	678	468	1120	336.71
41 th	2300	1240	850	485	1321	374.87
42 th	2106	1190	821	621	1340	371.97
43 th	2130	1188	848	611	1347	376.77
44 th	2142	1217	697	561	1130	316.73
45 th	2140	1275	815	590	1280	382.63
46 th	2301	1500	863	600	1270	397.46
47 th	2320	1025	1025	625	1365	402.11

48 th	3025	1268	1050	770	1720	479.83
49 th 2007	3300	1238	1078	745	1880	512.72
50 th	3340	1260	1070	800	1790	519.05
51 th	3318	1135	960	690	1670	508.89
52 th	3240	1021	968	714	1711	502.15
53 th	3475	1170	975	790	1810	514.65
54 th	3675	1250	985	890	1913	537.74
55 th	4020	1485	1090	990	1950	593.65
56 th	4950	1841	1228	1182	2150	683.36
57 th	5800	2100	1305	1260	2336	756.05
58 th	6200	2985	1880	1718	2968	887.45
59 th	4000	2000	1669	1610	2774	887.59

ANNEX – III

Monthly Stock Price Movements of NABIL Bank Ltd. With Volume of Share Traded of During Five Year

Date	Month	volume	High	Low	Closing
1-Jan-03	1st	656	708	708	708
4-Feb	2nd	1101	708	797	850
3-Mar	3rd	230	700	700	700
1-Apr	4th	364	765	760	765
1-May	5th	85	725	725	725
2-Jun	6th	472	730	725	730
1-Jul	7th	633	740	740	740
11-Aug	8th	33	715	715	715
3-Sep	9th	21	716	716	716
1-Oct	10th	150	750	750	750
3-Nov	11th	328	757	750	757
1-Dec	12th	16	780	780	780
2-Jan	13th	187	800	800	800
2-Feb	14th	61	800	800	800
1-Mar	15th	190	751	750	751
1-Apr	16th	615	800	800	800
3-May	17th	347	806	805	806
1-Jun	18th	102	835	835	835
1-Jul	19th	4875	1002	1000	1001
2-Aug	20th	454	1016	1010	1016
7-Sep	21st	10	1160	1160	1160
1-Oct	22nd	653	1206	1205	1206
1-Nov	23rd	576	1161	1150	1161
1-Dec-04	24th	1750	1195	1195	1195
3-Jan-05	25th	682	1200	1200	1200
4-Feb-05	26th	65	1186	1186	1186
1-Mar-05	27th	790	1280	1280	1280
1-Apr-05	28th	472	1420	1415	1420
1-May-05	29th	109	1381	1375	1381
1-Jun-05	30th	131	1430	1430	1430
3-Jul-05	31st	300	1460	1460	1460
1-Aug-05	32nd	146	1605	1600	1605
1-Sep-05	33rd	71	1570	1570	1570
2-Oct-05	34th	439	1601	1601	1601

7-Nov-05	35th	45	1715	1710	1715
1-Dec-05	36th	800	1700	1670	1700
1-Jan-06	37th	123	1750	1750	1750
1-Feb-06	38th	93	1770	1765	1770
1-Mar-06	39th	513	2185	2170	2170
2-Apr-06	40th	735	2015	2015	2015
1-May-06	41st	410	2300	2300	2300
1-Jun-06	42nd	441	2106	2100	2106
2-Jul-06	43rd	159	2130	2125	2130
1-Aug-06	44th	44	2185	2142	2142
3-Sep-06	45th	198	2145	2140	2140
8-Oct-06	46th	2305	2301	2300	2301
1-Nov-06	47th	54	2320	2300	2320
3-Dec-06	48th	1903	3050	3000	3050
1-Jan	49th	382	3300	3300	3300
1-Feb	50th	1375	3340	3325	3340
1-Mar	51st	13	3318	3318	3318
1-Apr	52nd	189	3240	3180	3240
3-May	53rd	239	3475	3475	3475
3-Jun	54th	636	3690	3675	3675
1-Jul	55th	896	4020	4000	4020
1-Aug	56th	858	4950	4900	4950
2-Sep	57th	1545	5800	5790	5800
1-Oct	58th	13	4900	4900	4900
1-Nov	59th	703	4060	4000	4000

ANNEX - IV

Monthly Stock Price Movements of Nepal Investment Bank Ltd. With Volume of Share Traded of During Five Year

Date	Month	Volume	High	Low	Closing
1-Jan	1st	58	660	660	660
3-Feb	2nd	25	715	715	715
4-Mar	3rd	371	700	685	685
1-Apr	4th	425	815	800	815
1-May	5th	29	780	780	780
2-Jun	6th	576	790	790	790
3-Jul	7th	64	795	795	795
11-Aug	8th	156	791	790	791
2-Sep	9th	765	765	765	765
13-Oct	10th	107	801	800	801
4-Nov	11th	230	815	815	815
2-Dec	12th	13	775	775	775
14-Jan	13th	424	750	750	750
3-Feb-04	14th	57	790	790	790
1-Mar-04	15th	343	765	765	765
1-Apr-04	16th	13	745	745	745
5-May-04	17th	243	830	830	830
4-Jun-04	18th	416	853	850	853
2-Jul-04	19th	169	915	915	915
2-Aug-04	20th	585	1006	1005	1006
9-Sep-04	21st	20	970	970	970
1-Oct-04	22nd	20	975	975	975
1-Nov-04	23rd	453	985	985	985
1-Dec-04	24th	242	1150	1148	1150
3-Jan-05	25th	78	1000	1000	1000
1-Feb-05	26th	79	1170	1170	1170
1-Mar-05	27th	117	1211	1211	1211
1-Apr-05	28th	672	1281	1280	1281
1-May-05	29th	2827	1401	1400	1401
1-Jun-05	30th	1546	800	795	800
4-Jul-05	31st	235	775	775	775
1-Aug-05	32nd	10	890	890	890
1-Sep-05	33rd	818	790	780	780
2-Oct-05	34th	744	800	793	793
6-Nov-05	35th	142	831	830	831
1-Dec-05	36th	318	775	775	775
1-Jan-06	37th	732	800	795	800
1-Feb-06	38th	1524	820	815	820
1-Mar-06	39th	5902	975	963	972
2-Apr-06	40th	1050	968	960	968
1-May-06	41st	2487	1245	1160	1240
1-Jun-06	42nd	638	1195	1190	1190
2-Jul-06	43rd	501	1188	1188	1188
2-Aug-06	44th	12	1217	1217	1217
3-Sep-06	45th	3974	1275	1265	1275

8-Oct-06	46th	730	1500	1470	1500
1-Nov-06	47th	462	1025	1025	1025
4-Dec-06	48th	26	1268	1268	1268
1-Jan-07	49th	48	1210	1210	1210
1-Feb-07	50th	1030	1260	1250	1260
1-Mar-07	51st	658	1140	1135	1135
1-Apr-07	52nd	674	1021	1021	1021
3-May-07	53rd	265	1170	1170	1170
3-Jun-07	54th	645	1260	1250	1250
1-Jul-07	55th	1733	1499	1485	1485
1-Aug-07	56th	52	1841	1841	1841
2-Sep-07	57th	1540	2100	2010	2100
1-Oct-07	58th	2983	3100	2960	2985
4-Nov-07	59th	535	2050	2000	2000

ANNEX - V

Monthly Stock Price Movements of BOK Bank Ltd. With Volume of Share Traded of During Five Year

Date	Month	Volume	High	Low	Closing
1-Jan-03	1st	430	223	222	223
3-Feb-03	2nd	3491	285	244	270
3-Mar-03	3rd	174	250	246	246
1-Apr-03	4th	686	254	250	252
1-May-03	5th	134	240	240	240
2-Jan-03	6th	792	225	223	224
2-Jul-03	7th	1722	200	197	197
11-Aug-03	8th	219	199	197	199
1-Sep-03	9th	100	191	191	191
1-Oct-03	10th	26	200	200	200
3-Nov-03	11th	177	202	200	202
1-Dec-03	12th	1210	195	195	195
1-Jan-04	13th	1446	186	185	186
2-Feb-04	14th	469	194	192	196
1-Mar-04	15th	167	198	195	198
1-Apr-04	16th	1731	202	200	200
3-May-04	17th	1672	221	216	216
2-Jun-04	18th	1100	242	235	242
1-Jul-04	19th	665	270	269	270
2-Aug-04	20th	1831	300	297	298
7-Sep-04	21st	10	299	299	299
1-Oct-04	22nd	1803	290	290	290
1-Nov-04	23rd	352	291	290	291
1-Dec-04	24th	5477	285	281	282
4-Jan-05	25th	50	282	282	282
1-Feb-05	26th	3998	306	305	306
1-Mar-05	27th	2341	391	380	391
1-Apr-05	28th	1701	451	440	450
1-May-05	29th	1095	450	447	447
1-Jun-05	30th	714	445	444	444
3-Jul-05	31st	1858	430	429	430
1-Aug-05	32nd	2857	460	455	460
1-Sep-05	33rd	7871	435	430	435

2-Oct-05	34th	679	472	465	470
6-Nov-05	35th	1134	521	521	521
1-Dec-05	36th	400	499	490	499
1-Jan-06	37th	2154	555	555	555
1-Feb-06	38th	2780	575	570	575
1-Mar-06	39th	5575	702	688	700
2-Apr-06	40th	214	678	678	678
1-May-06	41st	5405	850	800	850
1-Jun-06	42nd	6805	822	815	821
3-Jul-06	43rd	1952	851	831	848
1-Aug-06	44th	12294	735	691	679
3-Sep-06	45th	2822	815	813	815
8-Oct-06	46th	2239	863	855	863
1-Nov-06	47th	4669	1030	1025	1025
3-Dec-06	48th	1228	1065	1045	1050
1-Jan-07	49th	2394	1080	1078	1078
1-Feb-07	50th	648	1070	1065	1070
1-Mar-07	51st	2023	960	950	960
1-Apr-07	52nd	1048	968	924	968
3-May-07	53rd	6230	975	925	975
3-Jun-07	54th	4287	991	985	985
1-Jul-07	55th	4003	1100	1090	1090
1-Aug-07	56th	7936	1229	1205	1228
2-Sep-07	57th	4728	1315	1290	1305
1-Oct-07	58th	7855	1938	1862	1880
1-Nov-07	59th	7025	1675	1640	1669

ANNEX – VI

Monthly Stock Price Movements of SBI Bank Ltd. With Volume of Share Traded of During Five Year

Date	Month	Volume	High	Low	Closing
1-Jan-03	1st	40	291	291	291
3-Feb-03	2nd	286	350	340	350
3-Mar-03	3rd	1412	340	330	336
2-Apr-03	4th	502	316	315	316
1-May-03	5th	188	301	300	301
2-Jun-03	6th	266	306	305	365
1-Jul-03	7th	184	280	275	275
11-Aug-03	8th	142	266	266	266
2-Sep-03	9th	138	275	271	275
13-Oct-03	10th	449	286	296	284
3-Nov-03	11th	126	281	278	281
2-Dec-03	12th	90	260	260	260
1-Jan-04	13th	188	235	235	235
3-Feb-04	14th	124	264	263	263
1-Mar-04	15th	1200	250	250	250
1-Apr-04	16th	36	240	240	240
3-May-04	17th	3152	269	265	269
1-Jun-04	18th	96	290	290	290
1-Jul-04	19th	288	296	296	295
2-Aug-04	20th	100	375	375	375
8-Sep-04	21st	230	350	350	350
1-Oct-04	22nd	854	352	350	351
1-Nov-04	23rd	36	350	350	350
1-Dec-04	24th	868	345	345	345
3-Jan-05	25th	260	340	340	340
4-Feb-05	26th	38	339	339	339
1-Mar-05	27th	587	387	387	387
1-Apr-05	28th	36	455	455	455
1-May-05	29th	1150	347	345	346
1-Jun-05	30th	1056	340	338	338
3-Jul-05	31 st	94	348	345	346

1-Aug-05	32nd	712	386	382	386
5-Sep-05	33rd	412	370	370	370
2-Oct-05	34th	6414	352	340	352
6-Nov-05	35th	734	375	375	375
1-Dec-05	36th	2300	369	366	369
1-Jan-06	37th	5205	401	400	400
1-Feb-06	38th	1079	399	399	399
1-Mar-06	39th	2005	484	450	484
2-Apr-06	40th	441	468	468	468
1-May-06	41st	5000	485	485	485
1-Jun-06	42nd	2354	626	620	621
2-Jul-06	43rd	848	618	611	613
1-Aug-06	44th	2471	561	561	561
3-Sep-06	45th	1547	590	585	590
9-Oct-06	46th	4429	600	600	600
1-Nov-06	47th	1307	625	601	625
3-Dec-06	48th	5685	770	770	770
1-Jan-07	49th	1772	755	745	745
1-Feb-07	50th	3426	802	785	800
1-Mar-07	51st	4567	700	690	690
1-Apr-07	52nd	390	714	714	714
3-May-07	53rd	5632	790	790	790
3-Jun-07	54th	1718	895	890	890
1-Jul-07	55th	2984	990	990	990
1-Aug-07	56th	2285	1182	1160	1182
2-Sep-07	57th	2350	1197	1260	1525
1-Oct-07	58th	6782	1725	1630	1718
1-Nov-07	59th	787	1610	1573	1610

ANNEX – VII

Monthly Stock Price Movements of Everest Bank Ltd. With Volume of Share Traded of During Five Year

Date	Month	Volume	High	Low	Closing
1-Jan-03	1st	292	432	430	430
3-Feb-03	2nd	226	425	355	410
3-Mar-03	3rd	876	430	430	430
1-Apr-03	4th	266	465	460	461
1-May-03	5th	168	450	450	450
2-Jun-03	6th	834	466	465	466
1-Jul-03	7th	174	445	440	445
11-Aug-03	8th	96	475	470	475
1-Sep-03	9th	326	430	429	430
1-Oct-03	10th	66	446	446	446
3-Nov-03	11th	115	451	450	451
1-Dec-03	12th	384	465	458	458
2-Jan-04	13th	100	418	418	418
2-Feb-04	14th	389	462	461	461
1-Mar-04	15th	876	509	505	509
1-Apr-04	16th	158	488	488	488
3-May-04	17th	136	526	525	526
1-Jun-04	18th	623	555	552	552
1-Jul-04	19th	1462	663	645	660
2-Aug-04	20th	106	690	690	690
7-Sep-04	21st	280	700	700	700
1-Oct-04	22nd	327	680	680	680
1-Nov-04	23rd	564	685	683	685
1-Dec-04	24th	462	670	665	665
1-Jan-05	25th	568	650	649	650
2-Feb-05	26th	26	674	674	674
1-Mar-05	27th	1094	750	750	750
1-Apr-05	28th	393	821	820	820
1-May-05	29th	700	850	845	850
1-Jun-05	30th	711	860	855	857
3-Jul-05	31st	36	870	870	870
1-Aug-05	32nd	409	930	912	930

1-Sep-05	33rd	202	882	880	880
2-Oct-05	34th	92	990	980	980
7-Nov-05	35th	258	980	985	986
1-Dec-05	36th	252	805	800	800
1-Jan-06	37th	486	875	875	875
1-Feb-06	38th	38	891	891	891
1-Mar-06	39th	892	1106	1070	1106
2-Apr-06	40th	1150	1125	1120	1120
1-May-06	41st	1215	1321	1320	1321
1-Jun-06	42nd	281	1340	1330	1340
2-Jul-06	43rd	965	1347	1340	1347
1-Aug-06	44th	4792	1180	1130	1130
3-Sept-06	45th	607	1280	1280	1280
10-Oct-06	46th	450	1270	1270	1270
1-Nov-06	47th	536	1365	1365	1365
4-Dec-06	48th	304	1725	1720	1720
1-Jan-07	49th	232	1880	1880	1880
1-Feb-07	50th	1248	1800	1780	1790
1-Mar-07	51st	1344	1685	1660	1670
1-Apr-07	52nd	742	1711	1670	1711
3-May-07	53rd	177	1810	1775	1810
3-Jun-07	54th	318	1935	1911	1913
1-Jul-07	55th	86	1950	1950	1950
1-Aug-07	56th	600	2180	2150	2150
2-Sep-07	57th	2639	2350	2300	2330
1-Oct-07	58th	536	2168	2900	2968
12-Nov-07	59th	20	2774	2774	2774

