CHAPTER I
INTRODUCTION

1.1 Background of the study

Needless to say present world economy has been more competitive and complicated. Globalization of economies and market has been one of the major instruments of change. Due to globalization, every sort of change occurring in one sector of the world affects the other. With the result of dynamics of global changes and development, securities markets are rapidly responding. Therefore, nowadays securities market has become global phenomena and a basic concern of financial and economic condition of any nation. Security market index is perceived as an indicator of investors' confidence to invest in securities, which obviously, represents economic pulses of that nation. As capital market is a crucial element in the national economy, its role in reinvigorating and boosting the economic activities in the country holds significance. It helps to mobilize domestic resources as well as protect the interest of investors. Its role to provide the best investment opportunity by transferring the funds from surplus saving to deficit saving through transaction of long-term financial securities cannot be ignored. Hence in a nutshell, for attainment of self-reliant growth of national economy and smooth running of the economic activities of a nation, security market's role has become paramount importance.

No doubt, as capital deficient economy, Nepal requires a huge amount of investment in productive activities for rapid economic development. Though a decade has passed since Nepal embarked on the path towards open market economy and liberalization policies, there are still a number of problems associated with it. Lack of proper commitment towards implementation of policies, rampant corruption, social and business insecurity and importer coordination between government and private agencies, among a host of the other factors has marred the overall performance of Nepalese economy. Despite these shortcomings, capital market, no doubt is therefore the most important sector of the Nepalese economy. The capital market offers the opportunity for investors to invest in the long-term ventures and also imparts liquidity to the security holders' by converting the securities of investors into liquid cash before

the maturity of project. The capital market renders very valuable service to the community by increasing the productive capacity of the country and thereby accelerating the pace of economic development. In short, the growth of economy is tied with the growth of capital market in the country.

In simple sense, securities market is a place where people buy and sell financial instruments. Although securities markets are concentrated in a few locations, they refer more to mechanism, rather than to physical locations designed to facilitate exchange of securities like government bonds, corporate bonds or debentures, ordinary shares, preference shares etc. Therefore, securities market can be defined as a mechanism for bringing together buyers and sellers of financial assets in order to facilitate trading.

The history of capital market in Nepal dates back to the era of Rana Prime Minister Judha Samsher, when Gunjman Singh, the first secretary at the Nepalese Embassy in England returned back to Kathmandu and set up to Industrial council. It drafted the company Act and Nepal bank Act for the first time in 1936 A.D. And Biratnagar Jute Mills Limited initiated the first public flotation of shares in the securities market in 1937 A.D. There were very few companies in Nepal issuing shares to general public until another company Act came into operation in1951. Despite of various barriers, the profit margins are much higher and capital market is the most booming sector in Nepalese economy. In this regard Ram Sharan Dangal, an entrepreneur says it is impossible to take turn for the better without the development of the capital market (The boss, 16 April-14 May, 2006:48).

Capital market can be divided into two segments, i.e. securities market and non-Securities market Segment. The long termed nature of business debts, installment debts, commercial debts represented by acceptance bills, accommodation paper etc. and saving and deposits schemes which are not securities bearing fall under the Non-securities segment of the market. Security market deals in the financial instruments such as government bonds, industrial securities, bonds, etc. Here, our concern is only on securities market. The securities market refers to the market for securities where securities like government bonds, corporate bonds or debentures, ordinary shares, preference shares, mutual funds and unit certificates are bought and sold as other

commodity. The uniqueness of securities market is that the market consists of institutions and mechanism apart from buyers, sellers and securities in the market.

The securities market is basically divided into two parts; namely the *primary market* where initial flotation of shares take place, and the *secondary market* where the initially floated share are traded ensuring liquidity to the investors in the primary market.

Primary market is the market place where instead of goods and services, securities are sold to mobilize the saving for the establishment and operations of the business. "Securities issued for the first time are traded in the primary market. The issuer may be a new company or one that has been in business for many years" (Weston and Brigham, 1981:375). The first issue of securities by new established company is called initial issue. Additional securities issued by existing companies are termed as further issue. There are three ways in which a company may raise capital in the primary market (Shrestha, 1996: 58):

- Granting stock subscription right to shareholders (i.e. Right Issue)
- Granting subscription rights to non-share holders (i.e. Allotment to special group and selected persons)
- Issuing new shares without granting subscription rights (i.e. public offering & private placement).

In this market, the securities can be sold either at par, or premium or discount. In Nepal, the corporate body must file an application to the securities board of Nepal (SEBON) for the registration of their public issues. The application must be filled with a prospectus which must be approved from the office of the Registrar. If appropriate the board will then register the securities to be issued. The issuing company must pay fee to SEBON for the registration of their public issue. Then, company issues the securities in the primary market through the issue manager. In case of Nepal; Nepal stock exchange (NEPSE) has issued license to the interested organizations to perform the job of issue manager by operating primary market.

Secondary Market is the market place where second hand securities are traded, i.e. securities that have been previously issued are traded in the secondary market. The

majority of all capital market transactions occur in the secondary market. The proceeds from sale of securities in the secondary market do not go to the original issuer but to the owners of the securities. In other words, securities are traded among the individual as well as institutional investors.

Stock exchanges are considered as an organized secondary market, which are called voluntary associations of members, who come together for the purpose of buying and selling securities. Only the securities of listed companies are traded in the stock exchanges and are bought & sold by auction.

Thus the various virtues governing stock exchange include enhanced marketability of securities, rational allocation of invest able funds; facilitate economic growth and wealth generation and proper maturity, liquidity, marketability and diversification of investment. Stock exchanges play an indispensable role in mobilizing funds in capital market by providing active market place for corporate shares and other listed securities.

OTC market from the earlier days considered as unorganized secondary market. But presently, this market is also as organized as the stock exchanges. OTC market is the market for those securities not listed on the stock exchanges (Bhattarai, 2002: 5-6). When the company first sells its securities to the public, the securities are traded in the OTC market. It includes all the transactions in the securities other than those taking place in the stock exchanges. In practice, however, the term is usually limited to the activities of dealers and brokers specializing in unlisted securities. OTC has very low entry barriers, and traders my range in size from very large houses doing an international business to one person firms that trade only in local markets.

Over the counter market is a part of the secondary market. The risk taking investors sell his securities to a new company, which is partly established. S/he takes the funds released by the sale, and searches for another new venture (Bhalla, 1999: 26). By 2 June 2008 NEPSE has stated OTC Market.

However, the secondary market is said to give liquidity to primary issues, and this liquidity is an essential ingredient in the capital formation process of the economy.

NEPSE is only the secondary market in the country. Nepal Stock Exchange, in short NEPSE, operating under Securities Exchange Act, 1983.

1.2 Securities Market in Nepal: History and Development

Security market is a place where buying & selling of securities takes place in organized way. In Nepal, though the historical development of security market is not very old, the organization of security market has changed radically in several new dimensions. The history of securities markets began with the floatation of ordinary shares by Biratnagar Jute Mills Ltd. and Nepal Bank limited in 1937. The introduction of company Act in 1964, the first issuance of Government Bond in 1964 and the establishment of Securities Exchange Centre Ltd in 1976 were other significant developments relating to securities markets (www.nepalstock.com, April 2008).

Securities exchange centre was established with the objective of facilitating and promoting the growth of capital markets and its act become effective in 1984 and later renamed in 1993 into Nepal stock Exchange (NEPSE) Limited brought new atmosphere the Nepal's capital market. Before its conversion into Nepal Stock Exchange, it was only capital market institution under taking the job of brokering, underwriting, managing public issue, market making for government bonds and other financial services. Nepal Government, under a program initiated to reform capital markets converted Securities Exchange Center into Nepal Stock Exchange in 1993 (The Himalayan Times, July24, 2007: 8).

The shareholders of the NEPSE are NRB, the central bank, Government of Nepal (HMG/N of that time), NIDC and licensed members. NEPSE has its own Board of Directors to direct, control and monitor. It consists of 9 directors in accordance with the Securities Exchange Act, 1984. Government of Nepal (HMG of that time) and different institutional investors nominate six directors and two from the licensed members. The General Manager of the NEPSE is the Ex-officio direction of the board.

The authorized capital of the exchange is Rs50 million. The issued capital is also Rs50 million. Government of Nepal (HMG of that time), NRB, NIDC and members

subscribe Rs.34.91, million. Government of Nepal has contributed 58.67 %, 34.60%, NIDC 6.13% and the members 0.60% on its capital (Bhattarai, 2002: 7-8).

The basic objective of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating on its trading floor through members' market intermediates, such as brokers, market makers etc. It has opened its trading floor on 13thJanuary1994 with 25 licensed member brokers. All the transactions on the stock market (i.e. NEPSE) have to take place through licensed brokers. NEPSE have an "Open out Cry" system in the trading floor, where brokers have to shout out loud their buying and selling offers (The Himalayan Times, July24, 2007: 8).

Before the floor starts, the buying broker with the higher bid will post the price and his/ her code number on the buying column, while the selling broker with the lowest offer will post the price and code number on the selling column of the quotation board. The market maker will then quote their bid and offer price on their own board. The brokers will now have to shout out loud their bids on the trading floor. Once the bid and offer price match contracts between the buying and selling brokers or between the brokers and market makers are concluded on the floor (The boss, 15April-14May2006:44). But from the August 24, 2007, finance minister Dr. Ram Sharan Mahat formally inaugurated automated trading of the NEPSE. This system has replaced ‘open-out-cry’ system by electronic trading system, which is now operating only in Local Area Network (LAN) will be soon upgraded to Wide Area Network (WAN). The stock market automation was supported by Asian Development Bank (ADB) under the CFG project (The Himalayan Times, August 25, 2007: 11). NEPSE also adopted T+3 concepts, which allows for transactions and payments to be settled in three days of an agreement.

By the end of fiscal year 2006/07, there are 9 issue managers, they are: NMB, NFL, AFCL, NSML, UFL, NSMBL, CIT, NCML, NEFINSCO to manage the primary market, which are licensed by SEBON and NEPSE is the only one secondary market of the country for security transaction, in Nepalese securities market. Other forms of secondary market, such as OTC market, the third market and fourth market are not

initiated till date. At end of fiscal year 2006/07, NEPSE has 23 stockbrokers and 144 listed companies from different 8 sectors (www.nepalstock.com, September 2007).

SEBON is the supreme body to regulate, monitor, direct, control and coordinate the entire Nepalese capital market. The objective of the board is to promote and protect the interest of investors. It develops the policies for the development of the market, issues licenses to establish and operate stock exchanges, registration of public issues and other. This supreme board was established on May26, 1993 under the provision of Securities Exchange Act, 1983 (first amendment). The SEBON works under the ministry of finance.

Since its establishment, SEBON has been concentrating its efforts on improving the legal and statutory frameworks, which are the bases for the healthy development of the capital market. It is also striving from the very beginning as a market developer and regulator. As a part of its continuous efforts to build a sound system, the Securities Exchange Act, 1983 was amended for the second time on January30, 1997. This amendment paved the way for establishing SEBON as an open regulatory body as it widened the horizon of SEBON by bringing market intermediaries directly under its jurisdiction and also made it mandatory for the corporate bodies to report to SEBON annually as well as semi-annually regarding their performance. Although the second amendment of the Act, established a direct relationship of SEBON with the market intermediaries and the listed companies, supremacy in its jurisdiction is yet to be established and clearly recognized (Bhattarai, 2005: 44-45).

SEBON has its own Board of Directors for the accomplishment of its objectives. The board of Directors consists of 7 members of whom the person appointed by Government of Nepal will be the full time chairman and one representative each from Ministry of Finance, Ministry of Law and Justice, NRB, FNCCI, Chartered Accountants Association.

SEBON is basically relying on government grant to finance its activities. Other financing sources for SEBON include registration of corporate securities, renewal of Stock Exchange and registration, renewal of market intermediaries and the income from the mobilization of its revolving fund (Bhattarai, 2002: 6)

1.3 Focus of the Study

Investment is a process to earn income through wise allocation of funds in selecting portfolio of investment area by minimizing risk with three things in mind i.e. planning horizon of investment, risk assessment in investment map & intelligent speculation to take advantage of market opportunity. Investment is also known as post pond consumption for future. So while making investment several factors affect the investment decision.

"Investment in its broadest sense means the sacrifice of current dollars for future dollars. Two different attributes are generally involved, time and risk. The sacrifice take place in the present is certain. The reward comes later, if at all and the magnitude is generally uncertain. In some cases the element of time predominates (for example, government bonds). In other cases risk is the dominant attribute (for example, call options on common stock). In yet others both time and risk are important (for example, shares of common stock) (Sharpe and Alexander, 1990)

Investment that is either financial or real, the investor has to suffer from different deviations, which are resulted in the market or according to the nature of the investment. Investment activities are influenced by different factors like investment objectives, age, family background, educational background, income, instrument available, tax position, existing wealth and investment, attitude to risk personal preference and others. At present due to massive competition in each and every field, investment is being more unsecured as well as less income generating (Bhattarai, 2005:1).

Therefore this study focuses on the movements of the share prices along with its influencing factors in Nepalese security market. There are various approaches to predict the successive price movements of stocks. Fundamental and technical Analysis is the best approaches. Likewise efficient market theory is also one of the best and effective approaches. However, in Nepalese context extensive study on efficient market theory and fundamental analysis has been done but technical analysis has been always ignored. So, here researchers tried to apply technical analysis tools to forecast the share price movement of sample companies using historical financial

data. Thus, this study focused to analyze the trends of sample companies during the study periods and to predict future market trends on the basis of identified market trends.

1.4 Statement of the Problem

Stock market is always being the most important role in modern capital market. And stock market is becoming one of the most popular investment areas these days. Because of the globalization of capital markets, the spreading of capital becomes faster and easier. It is regarded as one of important economic indicators of countries.

To this date, Nepalese stock market has also become major area of investments. People in general and investor's inclination towards the capital market as they are attracted to multiply their money in a shorter time span. Currently seen events of Nepal's capital market like oversubscription in each & public issues, increment in transactions & investors day by day, media coverage on stock market news, about 1.5 million investors, etc confirmed the attraction of stock market in Nepal.

Stock market prediction has always had a certain appeal for researchers & financial investors. The reason is that who can beat the market, can gain excess profit. Investors who invest in stock markets usually are not aware of the stock market behavior. They are facing the problems of stock trading as they do not know which stocks to buy and which to sell in order to gain more profits. If they can predict the future behavior of stock prices, they can act immediately upon it and make profit. The more accurate the system predicts the stock price movement, the more profit one can gain from the prediction model. This type of problem of stock trading problem is also facing by the Nepalese investors.

The financial market is a complex, evolutionary and non-linear dynamical system. The field of financial forecasting is characterized by data intensity, noise, non-stationary, unstructured nature, high degree of uncertainty, and hidden relationships. Many factors interact in finance including political events, general economic conditions, and investors' behavior or expectations. Therefore, predicting price movement in financial market is quite difficult.

Stock market analysis based on two very different forecasting approaches: Fundamental Analysis and Technical Analysis. They have the own underlying assumptions and conditions.

The fundamental analysis is based upon the economic conditions of world, industry and company itself. It is able to say intrinsic value of certain stock and able to say whether to buy or sell a particular stock. On the other hand technical analysis is based upon the empirical study of the historical price, also known as "Charting". It references the data of historical trading price and trading volume to predict and explain the future trend with charting analysis and technical indicators tools. Technical investors believe that every price sensitive factors automatically reflect in the stock price, only analysis of price movement is required.

There are numerous study and research conducted on the analysis of stock price movement in NEPSE. Most of the studies were focused on the fundamental analysis by using various ratios and financial tools. But the worldwide popular and accepted tools of stock market analysis i.e. technical analysis, is always being ignored. In other words only limited research and study conducted to analyze the stock market of Nepal by applying technical analysis. Until now Sigdel (2002), Lamichhane (2005), Mainalee (2006) and Karki (2008) conducted study on technical analysis.

Therefore, here researcher main concern will be about technical analysis. This study will puts an effort to improve on shortcoming of limited of past studies in the hope that trends of future stock price can be predicated using technical analysis.

Considering the problems of Nepalese stock market (Share trading & application of technical analysis) question can be listed as follows:

- What is the movement of sample companies share price on the basis of oscillators?
- Is there possibility to predict share price trend of sample companies on the basis of oscillators?

1.5 Objectives of the Study

The prime objective of this study is to analyze the share price trends in NEPSE using technical tools. Within the periphery of above stated problems, the objective of the study is to analyze 'technically' the share price trends in NEPSE. However the specific objectives are;

- To analyze market trends shown by sample companies share price.
- To predict the future market trends of the sample companies on the basis of identified market trends.

1.6 Significance of the Study

Although money doesn't grow more than it does in the capital market, Nepalese Stock Market is still failure to convert its potential investors into actual investors. Many investors in Nepal are still unaware about the stock market. Investors who know are also being doubtful for the investment due to its fluctuation and scandalous based activities. Beside this there are also lack of intuitional and professional experts and brokers in Nepalese stock market to provide the right advice for the investors. Many investors, analysts and brokers in Nepalese Stock market are still failure to apply the popular techniques like 'technical analysis' for predicting the stock price. Most of the investors are investing haphazardly in shares rather than analyzing it before investment. Despite the essential of prediction, predictability in NEPSE is difficult.

In such scenario, this study may prove as "milestone" for Nepalese investors to take investment decision. Also their may be establishment of new trend of using 'technical analysis" as a tools for analyzing the securities in Nepalese stock market. This study also helps to know the effectiveness and potentiality of technical analysis in Nepalese stock market.

1.7 Limitations of the Study

This study mainly deals with technical analysis (i.e. analysis past market information) rather than fundamental analysis / intrinsic value analysis (i.e. analyzing firm's cash flow, future earning and dividends) to predict the stock price behavior in NEPSE. Apart from these the specific limitations of the study will be:

- No effort has been made to verify the secondary data provided by the NEPSE, SEBON and other corporate bodies from their official records.
- Due to the unavailability of sophisticated computer software to carryout comprehensive test of all the methodological tools, only simple tools and techniques are used in the data presentation and analysis.
- Only 3 Companies are taken as sample from the whole listed companies in NEPSE as population, which may not represent the character of whole Nepalese stock market.
- Technical analysis is usually undertaken after taking historical data of share price of company of longer period, only two years (FY 2005 July -2007 June) data are taken for this study.
- There are several technical tools but only i.e. ROC and RSI are selected to interpret the market trends.
- The market price of shares also get affected by happening on the political and economic factors or fundamentals of the company, i.e. changes in an intrinsic value of the share, hence all the deviations cannot represent the market sentiments.

1.8 Organization of the Study

The study is organized into five chapters. These five chapters are on the standardized patterns of usual sequence like Introduction, Review, of literature, Research methodology, Data presentation & analysis and Summary, Conclusion & Recommendations.

The first chapter, Introduction, deals with the subject matter of the study which includes background of the study, focus of the study, statement of problem, objectives

of the study, limitations of the study, significance of the study and organization of the study.

The second chapter, Review of Literature, deals with theoretical frame work of share price behavior and the review of studies on capital market and share price behavior conducted inside or outside the country.

The third chapter, Research Methodology, includes research decision, nature and sources of data, population and samples methodology used.

In the fourth chapter, Presentation and Analysis of Data, includes presentation and analysis of primary data, presentation and analysis of secondary data and major findings of the study.

Finally the fifth chapter Summary, Conclusion and Recommendations, summarize the whole study, it draw the conclusion and recommends suggestions for concerned body.

CHAPTER II
REVIEW OF LITERATURE

A comprehensive review of recent and relevant literature has been considered as the background of research work. Previous studies provide the foundation to the present study. Therefore, the objective of this chapter is to review the conceptual framework and empirical finding relevant to this study within and outside the country.

This chapter has been divided into two sections. The first section includes conceptual review or theoretical framework and second section includes review of the previous studies.

2.1 Conceptual Review

This section contains a brief description of the theories of stock price behavior.

Theories of Stock Price Behavior

Stock price is the function of many factors. How the stock price shows the behaviors in itself un-predictive. But few theories can explain to some extent about the stock price behaviors. There are three schools of thoughts concerning the valuation of securities and their price behavior. They are:

- Random Walk or Efficient Market Analysis
- Fundamental Analysis
- Technical Analysis

2.1.1 Random Walk or Efficient Market Analysis

Efficient Market

Efficient market in this context may be defined as the market where stock prices reflects all the available information and adjust instantaneously every influx of new

information. In other words security prices fully reflect available information in an efficient market.

According to Eugene F. Fama (1960), “an efficient market is defined as a market where there are large number of rational profit maximizers actively competing with each trying to predict future market values of individual securities and where important current information is almost freely available to all participants.”

In an efficient market, the new information plays vital role of changing the price of stocks. In such market the only price charges that would occur, are those, which result from new information. The efficient market theory says that security prices correctly and almost immediately reflect all available information and expectation. Efficient market 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.

“Nepalese stock market is not efficient enough to evaluate the prices of stocks. Most of the investors are not very responsive to many financial and economic changes” (Timilisina, 2001: 17).

Thus, efficient market means a market in which share prices follow an independent path, this happens because of the presence of (Khatri, 2006: 145)

- Large number of investors in the market.
- Free flow of information to all the investors.
- Every investor is capable to interpret the information.
- Every kind of price sensitive information is discounted in the prices immediately.
- No one is in a position to influence the market unduly.

When a market is efficient then each price of a share is independent of the previous price, the prices are influenced by the equilibrium of demand and supply. A market can be either identified as efficient or inefficient. The market efficiency totally depends upon the facilities, full disclosure, transparency and regulatory provision governing the market.

Efficient Market Hypothesis

Efficient market hypothesis is based on the fundamentals 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 (Khatri, 2006:147).

A number of studies on RWH have been conducted abroad as well as in Nepal also. In Nepalese capital markets context, most of the studies show that RWH does not hold true. Studies conducted by Aryal(1995), Shrestha(1999), Paudel(2003), Bajracharya(2003), Mainali(2003), Pradhan and Upadhya(2004), Shresths(2004), and Paudel(2005) have tested the RWH in the context of Nepalese capital markets. All these studies have provided the evidence against the proposition of RWH. None of the studies shows that RWH hold true in Nepalese capital markets (Baral, 2006: 101).

The random walk hypothesis states that stock markets are highly efficient and that at any one time, therefore, share prices reflect all the available information about companies and economics, including the best guess of million of investors about what the future holds. In these conditions prices will change for one reason only: that new information has become available, including any facts or ideas that alter perceptions of the future (Cowdell, 2002: 224).

2.1.1.1 Forms of Market Efficiency

Efficient Market Hypothesis assumes the following three forms of efficiency (Khatri, 2006:148-149):

- Weak form of efficiency

- Semi strong form of efficiency
- Strong form of efficiency

Weak Form of Efficiency

A market is considered efficient in weak form only when each subsequent price is independent of the previous price. The price always makes a random walk, and gets affected only by the demand and supply position. If a market reflects such form of efficiency then 'Technical Analysis' cannot benefit the investors in making investment decisions. Under technical analysis it is presumed that past price trends and traded volumes affect the price trend in the future, the study of past trends can help in predicting near future trends.

Semi-strong Form of Efficiency

A level of efficient market in which companies, industrial houses and government, follows the principal of full disclosure and transparency. Every kind of prices sensitive information is made available in the market as soon as it is generated. The effect of this is that such information gets reflected in the prices immediately and influences the price only during the shorter span of time; it has no subsequent effect on the prices. If a market has such form of efficiency, then, even 'Fundamental Analysis' cannot benefit. Fundamental analysis is the study of fundamental factors about the economy; industries and companies for investment decisions.

Strong Form of Efficiency

Market is considered to be efficient in strong form, when an insider is not able to gain from the information. A strong form of efficiency is achieved only when high level of disclosure standards and transparency at the end of company is maintained; it may be obligatory or voluntary. Such a strict restriction and check on insider trading, this can be achieved through immediate, regular and full disclosure by companies, this does not give any chance for insiders to gain from insider information.

According to the efficient market hypothesis it can be concluded that share price follow an independent movement because of the market efficiency. Provisions of full disclosure and transparency do not provide any one to exercise undue influence on the market. Presence of large number of investors having capability to interpret the information in right direction, make the prices to move independently. In an efficient market neither fundamental analysis nor technical analysis can help in decision making, it is the demand and supply position which influences the price movement. In a high degree of efficiency of market even an insider cannot achieve undue gains.

2.1.2 Fundamental Analysis Theory

Fundamental analysis is the analysis of various fundamental factors like economic aggregate, industrial indicators as well as facts related to the companies. The person who analyzes the securities based on fundamental factors is called fundamental analysts. Every investor is interested to know the appropriate timing of investment as well as the best avenue for investment. Under this various factors are analyzed to give the answer for these two questions. Fundamental analysis also aims at arriving at the intrinsic value of shares.

Intrinsic value is the value of the share which is supported by assets, profitability, financial performance, future prospects, industry scenario, economy wide factors, etc. The idea about the intrinsic value helps in making investment decisions. It is believed that shares are likely to command the prices around the intrinsic value, therefore a comparison of intrinsic values and prevailing market price can help in deciding about the scrip to be purchased or sold. If intrinsic value is higher than the market price then the share price should be purchased and sell in vice versa condition (Khatri, 2006:122).

In order to analyze the securities effectively based on 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.

To forecast future stock price fundamental analysts combines economics, industry and company wide factors and analysis to derive a stocks current fair value (i.e. intrinsic value) and forecast future value. Fundamental analysis claims that any point in time, an individual security has a fair value, which should be equal to the present value of future cash flow from the security, discounted at appropriate risk-adjusted rate. If fair value is not equal to the current market price of stock, fundamental analysts believe that the stock is either over or under valued and the market price will ultimately gravitate towards fair value. Fundamentalists do need the advice of the random walkers and believe that markets are weak form efficiency. By believing that prices do not accurately reflects all available information, fundamental analysts' look to capitalize on perceived price discrepancies (www.stockscharts.com, June 2007).

"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 of interest"(Bhalla,1983:283). Therefore, the actual price of security is considered to be a function of a set of anticipation. Price changes as anticipation changes which in turn change, as a result of new information. In other words, a new price of news is released; securities market price will adjust towards the new values.

Since in the world of uncertainty, the anticipation of the values cannot be known exactly, there will be disagreement on the opinion about the estimation among the market participants. Then the actual price fluctuates closely around the 'economic value' of shares, because too far from the true value is profitable for the participants and they do not miss to explicit the situation. Over the time, with continuous generation of new information related to company's earning prospect, the intrinsic value also changes. As a result, prices of the stock adjust to new intrinsic values. The actual price of the security therefore is considered to be function of a set of anticipation. Price changes as anticipation changes which in turn change as a result of new information (Bhalla, 1983:283). Therefore "the fundamental analysts work to

find new information before other investors so they can get into a position to profit from price changes they anticipate" (Fransics, 1988:609).

Fundamental analysis can suggest only a range of prices rather than a specific value opposition to the fundamental or security analysis approach comes 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 determining 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, s/he would rather adopt a buy-and-hold-policy (Yasswy, 1992:155). Therefore, fundamental analysis allows the analyst to forecast holding-period yield and riskiness of achieving that yield, but these figures alone do not necessarily prompt a buy or sell action.

2.1.3 Technical Analysis Theory

Technical analysis is the analysis of share price and traded volume to predict future share price trends. The people who analyze the securities based on technical tools are called technical analyst or technicians. They record various financial data on graph paper and the data are scrutinized in search of repetitive patterns. Technical analysts based their decisions on the charts they prepare. In other words technical analysts records historical financial data (and, less frequently, statistics derived from historical financial data) on charts; they study these charts in an effort to find patterns, and then somehow use these patterns to predict future security prices. As a result, technical analysts are often called chartists and technical analysis is called Chartism.

Technical analysis is the 90 percent psychological and 10 percent logical, which means market is driven by psychology of investors in 90 percent of the times and, in 10 percent 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, 2006:158).

The methodology of technical analysis rest upon the assumption that history tends to repeat itself in the stock exchanges. If a certain patters of activity has in the past produced certain result nine times out of ten, one can assume a strong likelihood of the same outcome whenever this patterns appears in the future (Ronsenfield, 1975:297-298). Thus technicians assert that the study of past patterns of variables such as prices and volumes will allow the investor to accurately identify times when certain specific stocks (or groups of stocks, or the market in general) are either overpriced or under priced. Most (but not all) technical analysts rely on charts of stock prices and trading volume (Sharpe, Alexander, & Bailey, 2001:746).

Technical analysis is not concerned with why a price is moving (e.g. poor earnings, difficult business environment, poor management, or other fundamentals) but rather whether it is moving in a particular direction or in a particular chart pattern. Technical analysts believe that profits can be made by "trend following". In other words if a particular stock price is steadily rising (trending upward) then technical analyst will look for opportunities to buy this stock. Until the technical analyst is convinced this uptrend has reversed or ended, all else equal, he will continue to own this security. Additionally, technical analysts will look for various price patterns to form on a price chart and will take position in anticipation of the expected move following that pattern. The various tools of technical analysis assist the technician in determining when trends have formed, ended, etc. and when particular patterns are unfolding. But they all rely on the assumption that price patterns and trends exit in markets, and that they can be identified and exploited. Thus, technical analysis does not try to analyze the financial data of a company such as cash flow, dividends and projection of future dividends. Nor does it claim to be 100% accurate. It attempts to give the "most likely" outcome by studying charts of past price movement (Pring, 2003:3).

The premises here is that price move in trends and that trend is likely to continue than reverse. It is noteworthy to mention here the quotation of Veteran scientist and inventor, Benzamin Franklin that "show me the man who does not believe in history and I will show u a fool". Also there are two well known saying among technical analysts are, "the trend is your friend (George lane, a technical analyst, coined this phrases on Wall Street)", and "forget the fundamentals and follow the money"(Pring, 2003:4).

Dhanesh Kumar Khatari (2006: 158) in his book 'Investment Management and Security Analysis' presented that technical analysis is based on the following premises:

- Price follows a particular movement over the period.
- Price movement is influenced by demand and supply.
- Demand and supply are affected by certain rational (logical) and irrational (psychological) factors.
- Every kind of price sensitive information is discounted into prices, which is the base of predicting near future price movement.
- Prices follow a particular path continuously, which gets repeated again and again, this repetition provides a chance to take investment/disinvestment decision.
- Price movement is supported by traded volume.

2.1.3.1 Three Beliefs of Technical Analysis

There are mainly three beliefs of technical analysis:

Price Action in the Market Discounts Everything

Technical analysis holds that because every possible bit of information is immediately included in the price of a security, it is not necessary to explicitly analyze the fundamental, economic, political, etc. factors that in the price, only a study of the price movement is required (Murphy,1999:24)

Price Move in Trends

While if cannot be shown that prices must trend, technical analysis relies on empirical evidence and common sense to assert that prices do trend. To a technician, markets are trending up, trending downs or trending sideways (flat). This definition of a price is essentially the one put forward by Dow Theory (Murphy, 1999:24).A person who does not believe that prices move in trends will find little use of technical analysis.

The assumption that prices must trend is probably the most important concept in technical analysis.

History Tends to Repeat Itself

Technical analysts believe that investors en masse repeat the behavior of the investors that preceded them. To a technical analyst, the human characteristics of the market might be irrational, but they exist. Because investors' attitudes often repeat, investors' actions in the market place often repeat as well i.e., patterns of price movement will develop on a chart that a technical analyst believes have predictive qualities (Murphy, 1999:25).

Technical analysis is not limited to charting. Technical analysis is always primarily concerned with price trends. Anything that can influence the price trend is of interest to a technical analyst. As an example, many technical analysts monitor surveys of investor enthusiasm. These surveys attempt to gauge the general attitude of the investment community to determine whether investors are bearish or bullish. Technical analysts use these surveys to help determine whether a trend will reverse or whether a new trend will develop. A technical analyst would be alerted that a trend might change when these surveys report extreme investor reactions. When surveys are overly bullish, for example, a technical analyst will look for evidence than an uptrend will reverse. The logic being that if most investors are bullish, then they would have already bought the market (anticipating that the market will move higher). But because most investors are bullish and have invested, it is safe to assume that there are few buyers remaining in the market. With most investors long, there are more potential sellers in the market than buyers despite the fact that the overall attitude of investors is bullish. This implies that the market is set to trend down and is an example of a technical analysis concept called contrarian trading (Hurst, 1972:4).

2.1.3.2 Types of Charts

Technical analysts 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 (Khatri, 2006:158).

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 (Khatri, 2006:159).

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 a '*' and a downward movement is shown by a '0'.Date for which prices have been shown is also placed at the end of all the prices of the concerned day (Khatri, 2006:159).

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 prices have move downside (Khatri, 2006:159).

2.1.3.3 Uses of Technical Analysis

Technical analysis is used for different purposes like predicting 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: Impact costs is the average of the best bid and ask price difference.

High Value Representation in Market Capitalization: Market capitalization is the value-wise representation of an individual share. It is calculated by multiplying market price with number of shares issued by the company. Nowadays, floating stock is used instead of shares issued by the company.

Large Number of Traders per Day: By traders we mean a transaction of either buying or selling. One trade is equal to buying and it's matching sales or vice-versa.

Large Traded Volume per Day: Volume is the number of shares traded.

Frequent Trades on Every Day: Each share should be traded many times.

In totality it can be said that movement of these shares certainly reflects an overall status of the market. Following are the tools for the analysis of overall market trends:

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

Dow Theory

The Dow Theory is one of the oldest and famous technical analysis theories. This theory was developed by Charles Dow, who helped found Dow Jones and Company and was the editor of the Wall Street Journal around 1900. Dow died in 1902, and the Dow Theory was further developed and given its name by members of The Wall Street Journal Staff. Over the years, numerous writers have altered and extended the original Dow Theory. As a result, different versions of the theory exist and are used today. In spite of these various interpretations of the Dow Theory, it is the basis of many techniques used by technical analysts (Sheimo, 1993:3).

The Dow Theory is used to predict reversals and trends in the market as whole, or for individual securities. He was the opinion that movement in share prices is always supported by a definite like business trends, overall business trends, the fundamental factors affecting the shares, etc. On the basis of this he created two averages (indices): Dow John Industrial Average (DJIA) and Dow John transport Average (DJTA). These were considered to be the representative of the economy. DJIA was established by taking the shares belonging to transport sector companies. It was believe that movement of share prices could be confirmed and predicted on the basis of parallel movement of these averages. The study of these two averages helps in predicting the near future movement of the overall market. Accordingly an index of a market, which is the true representative of the overall market, can be used to make near future prediction about the market (Khatri, 2006:160).

According to Charles Dow that share prices show three kinds of price movements all moving at the same time: daily movements, secondary movements and primary movements. Primary move last from a few months to many years and represent the broad underlying trend of the market. Secondary (or reaction) movements last from a few weeks to a few months and move counter to the primary trend. Daily movements

can move with or against the primary trend and last a few hours to a few days, but usually not more than a week. They are explained as follows (Hamilton, 1929:114-120):

Daily Movements

Daily movements, while important when viewed as a group, can be dangerous and unreliable individually. Due to the randomness of the movements from day to day, the forecasting value of daily fluctuations is limited at best. At worst, too much emphasis on daily fluctuation will lead to forecasting errors and possibly tossed. Getting too caught up in the movement of one or two days can lead to nasty decisions that based on emotion. It is vitally important to keep the whole picture in mind when analyzing daily price movements. Think of the pieces of a puzzle. Individually, a few pieces are meaningless, yet at the same time they are essential to complete the picture. Daily price movements are important, but only when grouped with other days to form a pattern for analysis. The study of daily price action can add valuable insight, but only when taken in context of the larger picture. There is little structure in one, two or even three days' worth of price action. However, when a series of days is combined, a structure will start to emerge and analysts become better grounded.

Secondary Movements

Secondary movements run counter to the primary trend and are reactionary in nature. In a bull market a secondary move is considered a correction. In a bear market, secondary moves are sometimes called reaction rallies.

Primary Movements

Primary movements represent the broad underlying trend of the market and can last from a few months to many years. These movements are typically referred to a bull and bear markets. Once the primary trend has been identified, it will remain in effect until proved otherwise. According to William Hamilton, refiner of Dow John Theory, length and the duration of the trend were largely indeterminable and he warned against attempting to apply these as rules for forecasting. The reality of the situation is

that nobody knows where and when the primary trend will end. But the objective of Dow John Theory is to utilize what we do know, not to haphazardly guess about what we don't know. Through a set of guidelines Dow Theory enables investors to identify the primary trend and invest accordingly.

Identification of the Trend

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

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 trough 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.

Dow Theory's goal is to identify the primary trend and catch the big moves. Markets are influenced by emotion and prove to over-reaction both up and down. With this in

mind, one should concentrate on identification and following: identify the trend and follow the trend. The trend is in place until proved otherwise i.e. when the trend will end, when it is proved otherwise (Hamilton, 1929:115):

This theory is based on the fundamentals that averages (indices) can be a true representative of the overall market. A joint movement of these averages can help in predicting near future market trend. When both the averages are moving in a particular direction, then the overall market is also likely to move in the same direction, then the overall market is also likely to move in the same direction. To predict near future market trend a representative price index supported by the data of traded volume can be used. If the movement of price index is supported by the traded volume then it confirms the movement of market in the direction of price index (Khatri, 2006: 160).

Advance Decline Index

By 'advance decline' we mean a difference between the number of shares whose prices have increased 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 the signals about the market, like (Khatri, 2006:161):

- 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 requirements 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 (Khatri, 2006:161).

2.1.3.3.2 Tools to Predict for Individual shares Price Trends

With the help of technical indicators analysis of individual shares is done to identify buying and selling signals. These signals are generated with the help of such technique which are full proof and much in advance of the actual movement. Following tools are used for this:

- Moving Average Analysis
- Elliott Wave Theory
- Oscillators
- Chart Patterns

Moving Average Analysis

Moving Average is one of the most popular and easy to use tools available to the technical analyst. They smooth a data series and make it easier to spot trends, something that is especially helpful in volatile markets. They also form the buildings blocks for many other technical indicators and overlays. There are mainly two most popular types moving averages: Simple Moving Average (SMA) and the Exponential Moving Average (EMA). Here, researcher best only on simple moving average.

Moving Average is simply the rolling average of past prices. To calculate the moving averages daily or weekly prices are taken for a period and every time on average is calculated by dropping the oldest and traders should first and a new value is added.

This average is plotted on a graph along with the prices of the shares on the basis of which such an average is calculated. A study of the movement of these prices and the average helps in generating buying and selling signals. A short-term moving average is used to predict near future movement whereas a along term moving average is used to take the decision about the longer time period. With the help of moving average the following signals can be generated (Khatri, 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 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.

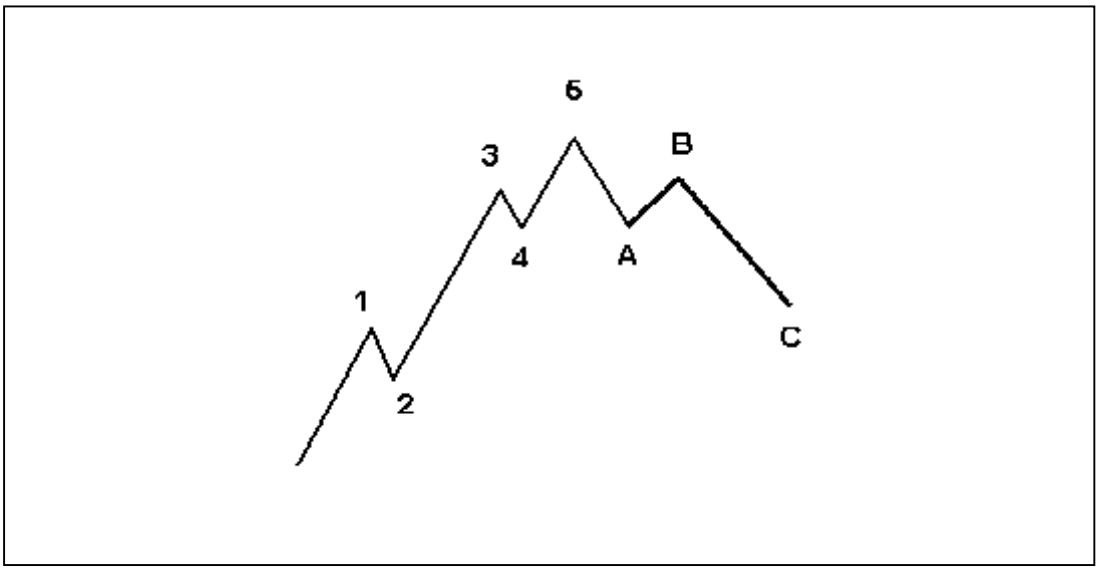
Moving average smoothes out a data series and makes it easier to identify the direction of the trend. Because past price data is used to form moving averages, they

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 prediction (Hurst, 1972:65-67):

Elliott Wave Theory

R.N. Elliot believes markets had well-defined waves that could be used to predict market direction. In 1939, Elliot detailed the Ellioitt Wave Theory, which states that stock prices are governed by cycles founded upon the Fibonacci series(1-2-3-5-8-13-21……) (Wilder,1978:72-73).

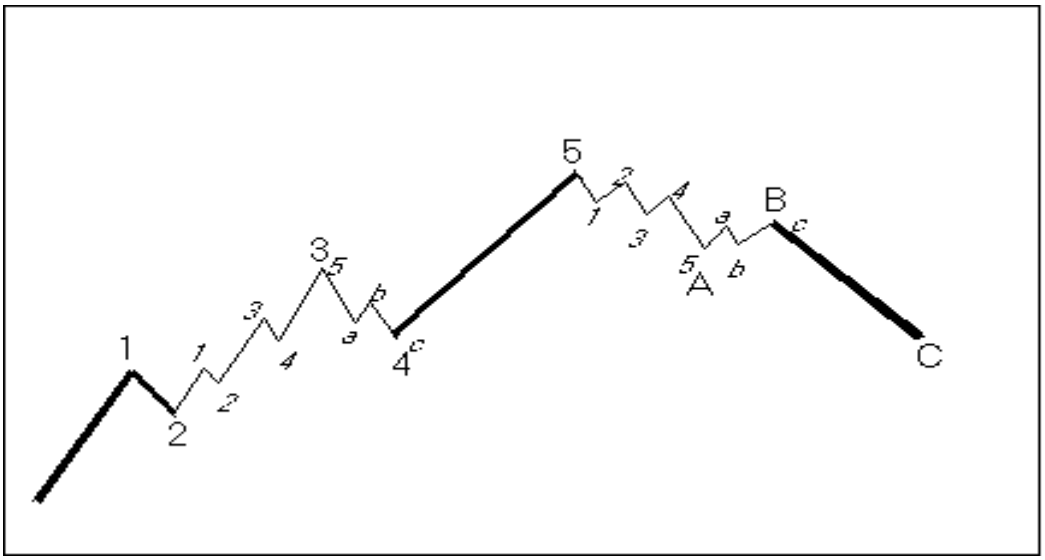
According to the Ellioitt Wave Theory, stock prices trend to move in a predetermined number of waves consistent with the Fibonacci series. Specifically, Ellioitt believed the market moved in five district waves on the upside and three distinct on the down side. The basic shape of the wave is shown below:



Source: www.stockcharts.com, June 2007

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 represents the minor down-waves in a major bear move, while B represents the one up-wave in a minor bear wave.

Elliott proposed that the waves existed at many levels, meaning there could be waves within waves. To clarify, this means that the chart above not only represents the primary wave pattern, but it could also represent what occurs just between points 2 and 4. The diagram below shows how primary waves could be broken down into smaller waves.



Source: www.stockcharts.com, June 2007

Elliott wave theory ascribes names to the waves in order of descending size: Grand Supercycle, Supercycle, Cycle, Primary, Intermediate, Minor, Minute, Minuttee and Sub-Minutee.

The major waves determine the major trend of the market, and minor waves determine minor trends. This is similar to the way Dow Theory postulates primary and secondary trends. Elliott provided numerous variations on the main wave, and placed particular importance on the golden mean, 0.618, as a significant percentage of retracement. Trading using Elliott Wave patterns is quite simple. The trader identifies the main wave or supercycle, enters long, and then sells or shorts, as the reversal is determined. This continues in progressively shorter cycles until the cycle completes and the main wave resurfaces. The caution to this is that much of the wave identification is taken hindsight and disagreements arise between Elliott Wave techniques as to which cycle the market is in.

Oscillators

An oscillator is an indicator that fluctuates above and below a centerline or between set levels as its value changes over time. 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 to predict the trends about the individual shares. These oscillators are fine tools to predict future movements much before such movement take place, and thus leave a sufficient time gap to take decision on the basis of these (Khatri, 2006:163).

There are many difference types of oscillators and same belong to more than one category. The breakdown of oscillator types begins with two types: centered oscillators which fluctuate above and below a center point or line, and banded oscillators which fluctuate between overbought and oversold extremes. Generally, centered oscillators are best suited for analyzing the direction of price momentum, while banded oscillators are best suited for analyzing the direction of price momentum, while banded oscillators are best suited for identifying overbought or oversold levels (Aspray, 1986:33).

Prominent oscillators tools, used to predict the trends about the individual shares are (Khatri, 2006:163):

- Rate of Change (ROC)
- Relative Strength Index (RSI)

Rate of Change (ROC)

ROC is centered oscillator that also fluctuates above and below zero. As its name implies, ROC measures the percentage price change over a given time period. For example: 20 day ROC would measure the percentage price changes over the last 20 days. The bigger the difference between the current price and the price 20 days ago, the higher the value of the ROC Oscillator .When the indicator is above O, the percentage price change is positive (bullish). When the indicator is below O, the percentage price change is negative (bearish). In calculating ROC current days,

market price is divided by the price which prevailed a few days ago for share. The value achieved so is identified as 'Rate of Change' indicating whether the prices at present are moving upward or downward as compared to the prices which prevailed a few days ago (Aspray, 1986:37).

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, 2006:164).

Buying Signals

- 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.

Relative Strength Index (RSI)

RSI is an example of banded oscillators that fluctuate above and below two bands that signify extreme price levels. It is one of the powerful oscillators which indicate market movement before such movement takes place. Under RSI gains and losses of the prices over the immediate previous days' price for a certain period is calculated. With the help of the formulae RSI value is calculated and plotted on the graph to identify over bought and over sold market. Market always moves southward after an overbought situation and it moves northward after an oversold situation (Khatri, 2006:164):

For RSI, the bands for overbought and oversold are usually set at 70 and 30 respectively. When RSI value is at or above 70 levels and moving upward it indicates that market is likely to reach the peak due to over bought position. On the contrary to this when RSI value is at or below 30 levels it indicates an oversold situation and market is likely to bottom out. In between 50 level of RSI is used to generate confirm and safe signals. Market always moves southward after an over bought situation and it moves northward after an over sold situation. Even though 70 and 30 are the recommended band sittings, certain securities may not adhere to these ranges and might require move fine-tuning. Making adjustments to the bands is usually a judgment call that will reflect a trader's preferences and the volatility of the security. The RSI is range-bound by 0 and 100 and will never go higher than 100 nor lower than 0 (Aspray, 1986:42).

With the help of RSI, market value can be identified as Over Bought or Over Sold. This identification helps in generating buying and selling signals. RSI value is plotted on graph and this oscillates above or below a central value that is Fifty '50' mark. Here RSI value Fifty '50' is the benchmark value. Buying and selling signals are generated as follows (Khatri, 2006:165):

Buying Signals

- When RSI is more than 'Fifty' and moving upward continuously, it indicates that market is likely to move upward, it is a buy signal.
- When RSI line is less than 'Fifty' 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, it is a buy signal.
- When RSI is moving downside below the 'Fifty' mark 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 Signal

- When RSI line is increasing above 'Fifty' mark but the pace of increase has declined 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 averse investor can sell at this moment.
- When RSI line has made a peak at around 70 levels it is the identification of Over Bought market, and market is likely to move southward (downward) direction one should sell.
- When RSI is more than 'Fifty' but declining, it indicates that market will enter in south zone, i.e. declining zone and one should sell at this level.

Chart Patterns

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. Under technical analysis it is believed that prices show a particular pattern again and again due to this tendency chart patterns get generated. These chart patterns can be used to predict about the near future price movements, but these are not strong as oscillators and moving average (Khatri, 2006: 165).

These chart patterns can be generated for the index value as well as for the prices of individual shares, these help in identifying the Support Level and Resistance Level.

Support Level

It is the lower price level at which demand for the shares gains momentum, as a result of which declining prices take an upward turn at this level. It is expected that prices will not fall below this level and hope of gaining something from the rising prices creates a demand.

Resistance Level

It is the upper price level at which supply for the shares gains momentum, as a result of which rising prices take a downward turn at this level. It is expected that prices will not rise above this level and fear of likely loss due to decline in the share prices generates the supply.

Type of Chart Patterns

Mainly there are following types of chart patterns (Khatri, 2006: 166-167):

- Head and Shoulders
- Inverse Head and Shoulders
- Triangle
- Flag

Head and Shoulders

This reflects resistance and support level in an upward moving market, to identify expected movement in the market. Either index or prices of individual shares can be used for these. In this neck line is considered as the ultimate support level, whereas shoulder lines are the intervening resistance levels and head line is the final resistance level. With the help of such identification buy and sell signals can be generated. One

should buy at the neck line and sell at the shoulder and head levels. 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 generated. 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. Either index or prices of individual shares can be used for these. In this neck line is considered as this ultimate resistance level, whereas, shoulder lines are the intervening support levels and head line is the final support level. With the help of such identification buy and sell signals can be generated. One should buy at the support level and sell at the resistance level. 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

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

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.

2.1.3.4 Confirmation through Traded Volume

Buying and selling signals generated with the help of different tools like Dow John Theory, Elliot Wave Theory, Moving Average, Oscillators- MACD, ROC, RSI and Chart Patterns need to be confirmed with the help of traded volumes.

- A thin traded volume simply indicates lack of support in the indicated trend by majority of the investors and such trend might not continue in the near future.
- A heavy traded volume indicates about association of more and more investors for the indicated trend and such trend is likely to continue in the future (Khatri, 2006:167).

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 derives the market and accordingly price formation take place. The prediction 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.

Although chartists or technical analysts assert their techniques provide excess returns over time, this assertion is controversial. Technical analysis is viewed by many of its practitioners as more art than science. Many academics studies concluded that technical analysis has little; if any, predictive power. Burton Malkiel in his book "A Random Walk Down Street" and Eugene Fama in "Efficient Capital Markets: A Review of Theory and Empirical Work," summarize many early studies, concluded from the 1950s-70s, that show that after trading costs are considered, the returns generated by many technical strategies underperforms a simple buy and hold strategy (Pring, 2002:6).

It is not readily apparent to economists and other non-technicians how this activity is supposed to produce measurement of supply and demand or produce valuable economic forecasts. To make matters worse, most technicians are not capable of explaining the logic behind their tools. So, inquiring non-technicians are forced to "fill in the blanks" for themselves. To make a matters even more confusing, some charting techniques are used buy some technicians to predict only the movements of individual securities; other technicians use the same techniques to predict only the movement of a market index; still others use the same techniques to predict both the action of individual securities and indexes of the market as a whole. Those technicians who use the same tools may be using them in different ways. Thus, it is frustrating and confusing to try to learn about the theory or philosophy of technical analysis. Discussion with many technicians will not produce a single set of clear-cut guiding principles. Many technicians are vague when explaining what they do (Francis, 2001:580-581).

Critics of technical analysis include well known fundamental analysts Warren Buffett, an investor, has exclaimed, "I realized technical analysis didn't work when I turned the charts upside down and didn't get a different answer" and "If past history was all there was to the game, the richest people would be librarians." Still, even an investor like Buffet occasionally recognizes technical analysis. In a recent conference on investing in mining companies, Buffett commented, "In metals and oils, there's been

a terrific (price) move. It's like most trends: at the beginning, it's driven by fundamentals, and then speculation takes over…then the speculation becomes dominant". To a technician, Buffett basically paraphrased Dow Theory. As an example of the debate regarding the efficacy of technical analysis, Peter Lynch, a very well known and successful fundamental analyst once commented, "charts are great for predicting the past". On the other hand, the U.S. Federal Reserve once published a study saying that certain elements of technical analysis were effective in price forecasting in the intraday foreign exchange market (Pring, 2002:7).

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 analysts 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 analysts are estimated. In view of these difficulties involved with doing 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 (Francis, 2001:582-583).

2.2 Review of the Evidential Research

Technical analysis is one of the most important tools to analyze the securities behavior in stock market despite of its various controversial aspects. Broadly there are

three schools of thought concerning the valuation of securities and their price behavior: efficient market analysis, fundamental analysis and technical analysis (Timilsina, 2001:16). Various studies have been conducted for the valuation of securities and their price behavior. Regarding various studies, some major empirical studies are highlighted to make the subject matter presentation more effective.

2.2.1 International Context

Cowles (1934) in his article "Can stock market forecasters forecast?" found little evidence that market analyst could foretell future prices. This theory analyzed the Hamilton version of Dow Theory and concluded that the Dow Theory would have yielded 15.5 percent p.a. But contrary to that study carried out by Couris and Jones (1937) has reported that stock prices moved with predictable trends.

Edwards and Magee (1958) in their book 'Technical Analysis of Stock Trends' assert the superiority of technical analysis over fundamental analysis by stating that "It is futile to assign an intrinsic value of a stock certificate .One share of United States Steel, for example, was worth $261 in the early fall of 1929, but you could buy for only $22 in June 1932. By March1937, it was selling for $126 and just one year later for $38…. This sort of thing, this wide divergence between presumed value and actual value, is not the exception; it is the rule; it is going on all the time. The facts are that the real value of a share of U.S Steel common is determined at any given time solely, definitely and inexorably by supply and demand, which are accurately reflected in the transactions consummated on the floor of the Exchange."

Emphasizing the importance of technical analysis, Roberts (1959) in his article paper entitled "Stock-market 'Patterns' and financial analysis" states that "a common and convenient name for analysis of stock market pattern 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 these physical processes, such as fides and waves." Roberts further argued that "the history of the markets 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".

Moore (1962) in his book entitled 'Some characteristics of Change in common Stock Prices' studied weekly price changes of 29 randomly selected stocks for 1951-58 and found an average serial correlation coefficient of 0.06. This value is extremely low indicating that data on weekly changes are value less in predicting future changes.

Technicians assert that the study of past patterns of variables such as prices and volume will allow the investor to accurately identify times when certain specific stocks are either overpriced or under priced. Most technical analysts rely on charts of stock prices and volumes. Therefore Fama (1970) accepted the facts in journal "Efficient Capital Markets: A Review of Theory and Empirical work' stating that, early studies found little evidence showing technical analysis to be useful in enabling investors to "beat the market".

Pinches (1970) also carried out study on technical analysis and he argued that "the tests of various trading strategies that have been carried out thus for do not adequately simulate the behavior of the technical analysts that we meet in actual practice. The test have been tool simple, because they have been of one trading system or technical tool at a time, rather than testing various methods incorrectly and then somehow weighing the results if the various tools and reaching a consensus."

Another study conducted by Hulbert, Mark and Wittenberg(1985) showed the evidence suggesting that, "a few investment news letter that used technical analysis techniques are able to earn better rates of returns than the naïve- buy –and –hold strategy would have yielded over the same period."

Agreeing with the usefulness of technical analysis to forecast the future price, Fama (1991) in his journal "Efficient Capital Markets: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."

Pistolese (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 through 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 share’s 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 Pistolese 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”.

The study conducted by Mitchell and Mulherin (1994) about ‘The impact of public information on the stock market’ focused the public information to influence of share market. They asked straight forward question of weather the amount of information that is publicly reported affect the trading activity and the price movements in security markets. The primary contribution of their research design to this important issue that they 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.

Regarding the efficacy of technical analysis, Peter Lynch, a very well-known and successful fundamental analyst, once commented “charts are great for predicting the past”. On the other hand, the U.S. Federal Reserve once published a study saying that certain elements of technical analysis were effective in price forecasting in the intraday foreign exchange market. Similarly George Lane, a technical analyst, coined

one of the most popular phrases on Wall Street, “The trend is your friend!” (Federal Reserve of New York, 2005:25).

Cheol-Ho-Park and Scott H. Irwin reviewed 93 modern studies on the probability of technical analysis and considered 59 of them to indicate positive results, and 24 negative results (Pring, 2002:15).

Khatri(2006) in his case study entitled ‘Trend analysis of selected scrips-A technical view’ based upon three oscillators (MACD, ROC, RSI), tools for technical analysis, concluded that most of the time the technical analysis gives true result however RSI and ROC gives more accurate result but MACD is also able to interpret the market trends most of the time. He also added that the three oscillators RSI, ROC, and MACD, are very useful tools for technical analysis, which helps in depicting the future market.

2.2.2 Nepalese Context

A number of studies have been conducted on the stock market behavior in developed and big capital markets but their relevance is yet to be seen in the context of smaller and underdeveloped capital markets. The stock market behavior in smaller and underdeveloped capital market is thus one of the important areas of the study in finance (Pradhan, 2003:59). In this regard there is only few research studies conducted on stock market behavior of Nepalese stock market.

In Nepal, the research and study exactly on trend analysis of share price using technical view has not been conducted. 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.

Shrestha (1991) conducted a study on stock price behavior in Nepal using random walk analysis or weekly efficient market hypothesis to determine whether stock market of Nepal is efficient in pricing shares or not. The conclusion drawn in the

study was that the random walk theory is not a suitable description for the stock market price behavior in Nepal. Further Mr. Shrestha concluded the dependence in the series of price changes implies that the price changes in the future market will not be independent from the price changes on previous days.

Pradhan (1993) conducted a research in 'Stock market behavior in a small capital market: A case of Nepal' to examine the relationship of market equity, market value to book value, price-earning, and dividends with liquidity, leverage, profitability, assets turnover, and interest coverage. He concluded that market equity is positively related to leverage, and profitability; and negatively related to liquidity, assets turnover, and interest coverage. Market value to book value is negatively related to liquidity, profitability, assets turnover, and interest coverage; and positively related to leverages. Price earning is negatively related to liquidity, profitability, assets turnover sand interest coverage; and is positively related to leverage. Similarly, positive relationship of dividend per share to earning per share with liquidity, profitability, assets turnover and interest coverage; and negative relationship with leverage.

Aryal (1995) on his study on the general behavior of stock market prices based on the efficient random walk model concluded that the assumption of the independence, as predicted by random walk model of security price behavior, has been refuted at least for the Nepalese context as the first approximation even in the rough way for early days of stock market operation. The study made the clear that the knowledge of past and now becomes useful in predicting the future movement of stock market prices. The investor on the floor of stock exchange for securities can make higher expected profits in the future based on the historical price series. The dependence nature of price series produced by general market fluctuation statistically implied, today's price change is positively depending upon yesterday's price changed.

Bhatta (1997) in his unpublished dissertation on 'Dynamics of Stock Market in Nepal' using random walk hypothesis or weakly efficient market hypothesis tried to determine whether stock market of Nepal is efficient in pricing shares or not . The conclusion drawn in the study was that the random walk theory is not a suitable description for the stock market behavior in Nepal. Further Mr. Bhatt concluded the

dependence in the series of the price changes implies that the price changes in the future market will not be independent from the price changes on previous days.

Shrestha (1999) carried out a study on stock price behavior in Nepal by examining daily closing prices of 30 companies by using serial correlation and run tests found that successive price changes are dependent. He also concluded that the Nepalese stock market is not efficient in pricing shares even in its weak form.

Timilisina (2001) conducted a research on 'Capital Market Development and Stock Price Behavior in Nepal' to find out the fair market prices of equities and observe the variations of the actual market prices from the computed fair prices to test whether the present behavior of prices will remain stable. He founded that the market price of share depends on EPS as well as on DPS, but DPS is more price sensitive and it will have direct and immediate response in the market. However market values of shares computed on the basis of EPS are near to the observed values. Therefore the observed market prices of equity share reveal that the stock market is not consistent.

Paudel (2001) has also conducted the research on 'A Study on Share Price Movements of Joint Venture Commercial Banks in Nepal'. He concluded that the ordinary least square equation of book value per share an market value per share reveals that the independent variable(i.e. BVPS). It obviously implies that Nepal Stock Exchange operates in a weak form of hypothesis, indicting that the market price of sample companies' move randomly. In the words of Mr. Poudel, "from the study it is revealed that the publicly available information does not fully support the share price movement. Another issue in this regard in the transparency of facts and figures reflected in the financial return. In this regard Mr. Poudel has rightly concluded that financial statement prepared by the most companies lacks transparency. Since the financial statement prepared by Nepalese commercial banks is yet to be meet the international accounting standard.

Sigdel (2002) conducted a research on 'Technical Analysis on Common Stock of Listed Joint Venture Commercial Banks'. The main objective of his research was to analyze the common stocks of five joint venture commercial banks through technical approach. The specific objectives were to analyze the investment behavior of

investors, predicts the movements of market index, examine the performance of individual securities and to recommend the timing of purchase or sell. The research relied on both primary and secondary sources of data. This data are analyzed in various useful tabular formats, graphs, charts, moving average etc. On the basis of technical analysis and other tools Sigdel concluded that investors have no idea about technical analysis approach to take investment decision, they also have less confidence in Nepalese stock market, weak relationship between the stock activity and the economic growth, analyzing the sales with technical tools, increase the chances of taking right actions at the right time but it largely depends on the skills or expertise of analyst and market index reflects markets trends and it takes all issues listed on the exchange on account.

Pradhan and Upadhaya (2004) on their research on 'The Efficient Market Hypothesis and the Behavior of the Share Price in Nepal' concluded that the Nepalese stock market might not be termed as weakly efficient in pricing shares where market efficiency is defined as the historical information is reflected in security price. The main factors affecting share prices perceived by the respondents are dividend, retain earnings, bonus shares and right issue. The share prices have been found more volatile than expected dividends. Similarly publicly available information is useful for identifying over or under priced securities. Nepalese investors are not really indifferent towards making or non-making information public. The respondents slightly accepted the weak form of efficient market hypothesis. The study also found that the share holders in high tax brackets did not prefer retain earning instead of dividends.

Bhattrai (2004) in his article entitles 'History Repeats' mentioned that the NEPSE index reached the peak of 545.82 points on 23rd November 1999 before turning bearish. The pessimism of investors towards the investment through secondary markets rose unexpectedly but the last few months bullish trend has aroused a hope in the investors that the history definitely will repeat itself in the stock market. He also urged that the stock market is very much unpredictable but the movement can some how be forecasted on the basis of past pattern of price movement through the trend analysis and behavior analysis. Bhattrai's prediction seems to be correct. By the end of July 16, 2007 NEPSE index reached up to 683.95. From this it is clear that

technical analysis can be taken as reliable tools to predict or analyze the stock price trend.

Ghimire (2005) in his study on 'Stock Price Behavior in Nepal' concluded that the information concerning the market and the implications involved are not disseminated efficiently and quickly to all potential investors. As a result, chartists and superior fundamental analysts should be able to make greater gains than those of the market. He also added that the implication of the non-random behavior of share prices is that the Nepalese stock market may not be termed as "weekly efficient" in pricing of shares where market efficiency is defined as all historical information is reflected in security prices.

Gautam (2005) in her research on 'A Study on the Behavior of Stock Prices' concluded that NEPSE is not providing facilities for investors such as general awareness about investment, investment procedure for general public and movement of stock trend in different periods and their cause. Market makers, brokers, and NEPSE staffs are making coalition for fraudulent activities towards investors. She also concluded that signaling factors play major role for fluctuating NEPSE index.

Lamichhane (2005) on his study on 'Technical Analysis of Common Stock Listed Companies in Nepal' analyzing through technical tools like line chart, bar chart, Dow Theory, moving average concluded that the Nepalese stock market is in growing trend, market is totally dominated by banking sector and the NEPSE index pushed by the increase in the price of banks shares. He also claimed that the Nepali stock market is primarily guided by whims and not by new information that is a sign of market inefficiency.

Bhattarai (2006) in her study on 'Stock Price Behavior of Financial Institutions and Commercial Banks' concluded that there is not a single financial indicator that has dominated role to determine MPS & EPS. The degree of interrelationship of MPS&EPS with different financial indicators varies from one company to another. There is uniformity in the relationship between MPS & EPS of various financial indicators of the sampled companies.

Shrestha (2006) in his study on ‘Share Price Behavior of Commercial Banks Listed in NEPSE’ concluded that the dependence in the series of price changes implies that the price changes in the future will be dependent with the historical price. Thus, the information of historical price is helpful to predict future prices of the shares. Nepalese stock market may not be defined as weakly efficient in pricing the shares where market efficiency is defined as all past information is reflected in share prices. Also Mr. Shrestha concluded that the share price movements are caused by flow of several kinds of information in the market.

Mainalee (2006) on his study on ‘Technical Analysis of Common Stock of Joint Venture Bank’ concluded that investors in the stock exchange are not well aware about their investment decision. He also concluded that in all cases it is not possible to forecast the future price movements through technical analysis.

Paudel (2006) in his article concluded that current Nepal's stock market is inefficient and there is critical boom. He mentioned that "the recent boom is difficult to rationalize in the absence of improved status of informed decisions of investors since there is no sign of improvements in disseminating true financial status, among others, of listed companies. NEPSE should enquire immediately with concerned companies for possible reasons for extreme ups and downs in prices and make them public. Commercial banks are advancing loan against shares, which may help professional speculators to gain at the cost of small investors' ignorance. Thus, major stakeholders of capital market like NRB, SEBO and NEPSE should diagnose speculators' behavior and artificial crash. Otherwise, there is no reason to appreciate sudden bubble and boom in an unsustainable manner without any supporting opportunity of informed decisions". (The Himalyan Times, December 4).

Ghimire (2006) in his article stated that NEPSE is operating in unhealthy way. His logic behind this is that artificial boom of share price, less numbers of brokers, lack of institutional investors, and limited supply of shares i.e. only 3% of shares are on trading (Kantipur Daily, December 13)

Ghimire (2007) in his article mentioned that Nepal's stock market is humor driven. He stressed upon the need of effective role of regulating body, SEBO & NEPSE for the

balance of stock market. In order to protect the investors from the crash of market, regulating body should bring courage to interfere the market (Kantipur Daily, November 21)

Nepal (2007) in his article stated that in Nepal's share market there is less trading of volume compare to its market price, which is against the general norms of stock market. He also claimed that there is large number of speculative investors who are manipulating the stock market. Most of the new faces are entering the market and he also predicted that whatever be the economic condition tomorrow, crash of market is most (Himal Khabar Patrika July 17-31)

Sthapit (2007) stated about the current bullish market that capital market should not be a gambling places but a rational and calculative business. A well functioning mechanism for monitoring and evaluation under the aegis of securities board and NEPSE is essential. So is the compliance with global trends and practices. Efforts to promote real sector industry and funds are imperative. He also added that these steps shall enable Nepal to prepare its capital market for liberalization after 2010 as compiled at the WTO. (The Rising Nepal, July 29)

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 (The Kathmandu Post, January 17).

Adhikari (2007) in his article mentioned that increase in size of market, modernization, decrease of financial institution dominance in stock market, reduction of capital gain tax, elimination of lengthy process of settlement, are the challenges of Nepalese share market (Gorkhapatra Daily, April 19).

Shrestha (2008), In his article stated that due to lack of institutional investors and mutual funds Nepal's share market is not able gain the trust of overall investors and potential investors. He recommended in the need of institutional investors,

transparency of all the listed companies, consultants and portfolio managers for the systematic development of stock market (Rajdhani Daily, April).

Pokhrel (2008) former president of Nepal Brokers Association, in the case of under subscription of Nepal Telecom share expressed his view in Kantipur daily that in Nepal's share market general investors' psychology is more important than fundamental financial statement. His opinion clears the importance of technical analysis in Nepalese stock market.

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.

Karki (2008) on his study of "Trend Analysis of Share Price in NEPSE" concluded that most of the theories and assumptions of technical analysis matches with the Nepal's stock market. Although mostly fundamental factors influence the share price in NEPSE but one cannot also ignore the past price and traded volume of the company. Investors were found that they were eager to learn and apply the technical tools. He also concluded on his study that three oscillators (i.e. MACD, ROC and RSI) are very helpful tools of technical analysis, which help in depicting the future market.

2.3 Research gap

In this way, various empirical studies have been carried out by many researcher and scholars regarding the stock price behavior. Although these studies are found to be quite useful in their own side or other academic use, the question and validity of 'efficiency' of Nepalese stock market in pricing behavior is still unresolved.

Various researcher and scholars have analyzed the stock price behavior through fundamental and efficient market theory but only few of them are analyzed 'technically'. Thus, the current study is a supplement to overcome the weakness and limitations of previous studies. Therefore, in order 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 'Prediction of Share Price Trend in NEPSE (With Reference to Technical Analysis)':

- Most of the share prices of listed companies in NEPSE 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.
- Technically analysis is easier and faster, and can be applied to move stocks simultaneously than can fundamental analysis.
- All possible information is reflected in the price; only a study of the price movement is required. So, it is not necessary to explicitly analyze the fundamental, economic, political, etc. factors that might influence the share price.
- Most of the investors are making their investment haphazardly i.e. mostly based on rumors in Nepalese stock market. In such situation this study can be milestone for the investors who analyze the stock using technical tools.
- All the researchers and scholars have analyzed technically only the share price of commercial banks but none of the researchers have analyzed other sectors.
- Pervious studies are only based only on the moving average analysis, line chart, Bar chart, and Dow Theory in Nepalese stock market but none of the researchers applied the importance tools of technical analysis like oscillators that are ROC, and RSI.

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 inferences 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 vie to systematize data collection and data interpretation, the sample statistical tools, however not sophisticated; have been studded here. For our purpose the following steps provide 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 questions 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 Nature and Source of Data

Only secondary data will be used in this study. Secondary data are collected through the website of Nepal stock exchange. Others secondary sources of data will be collected from different unpublished thesis reports, journals, magazines, daily/monthly/annual trading reports of SEBON, NEPSE and sample companies, official records, daily newspapers, periodicals, internet, websites and other resources.

3.4 Population and sample

The listed companies of NEPSE were the population for the study. By the end of fiscal year 2006/2007 there was altogether 162 listed companies from different 9 sectors. Among which 23 are commercial banks, 29 are manufacturing and processing companies, 4 are hotels, 8 are trading, 16 are insurance, 63 are finance companies, 13 are development bank, 4 are hydropower and 2 are others are listed in NEPSE.

In this study 3 sample companies are taken into consideration among listed companies from 9 different sectors as shown in table 1.1:

Table 1.1

Population and Sample

Sectors	**Total Listed Companies**	**Sample Size**	**Name of the Company**
Commercial Banks	23	1	Everest Bank Limited
Manufacturing and Processing Company	29	1	Uniliver Nepal Limited
Hotel	4	1	Soaltee Hotel Limited

3.5 Methodology/Method of Analysis

The major objective of this study will be focused on the prediction of the future share price trend to screen out the performance of securities and take right investment strategy on right time. For the achievement of such objective data analysis is the main body and for analysis a technical tools used. Dow Theory, Advance Decline Index, Client Account Position, Moving Average Analysis, Elliot Wave Theory, Oscillators, Chart Patterns, etc. are the technical (i.e. non-statistical) tools.

Since all the technical tools cannot be harmonized to this study. Also all the technical tools are not very relevant to the Nepalese context and not in practice due to lack of sophisticated computer software packages and complexity of application. Thus, the study will focused only on simple technical tools for the presenting and analysis of secondary data. Further explanatory method of interpretation is also employed for the presenting and analyzing of data.

3.5.1 Technical Tools and Method of Analysis

After the collection of necessary and useful secondary data from the different sources, researcher will analyzes those data with the help some technical tools. There are several technical tools but only the major ones will be selected to interpret the market trends. Thus research will be based upon two technical tools that are ROC and RSI. Value of ROC and RSI will be calculated in excel sheet and those calculated value are analyzed to analyze the market trend shown by sample companies.

- Rate of Change (ROC)
- Relative Strength Index (RSI)

ROC

ROC is an indicator which helps in identifying 'Over Bought' and 'Over Sold' market. With the help of this buying and selling signals are generated much before the market makes a movement. In calculating ROC current days, market price is divided by the price which prevailed a few days ago for share, which can be calculated using following formula:

$$ROC = \frac{Current\ price}{Price\ 'n'\ days\ ago}$$

Along with the price data, ROC value is plotted on a graph and this moves above or below, that is, one '1', market can be identified as 'Over Bought' or 'Over Sold'. Buying and selling signals are generated as follows:

Buying Signals

- 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.

RSI

RSI is one of the powerful oscillators which indicate market movement much before such movement takes place. RSI can be calculated using the following formula:

$$RSI = [100- 100/1+RS]$$

[RS =Average of 'n' periods price gains/Average of 'n' periods price losses]

With the help of RSI, market can be identified as 'Over Bought' or 'Over Sold'. This identification helps to generate buying and selling signals. Along with the price data, the RSI data are plotted on the graph and the following signals can be generated:

Buying Signals

- When RSI is more than 'Fifty' and moving upward continuously, it indicates that market is likely to move upward, it is a buy signal.
- When RSI line is less than 'Fifty' 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, it is a buy signal.
- When RSI is moving downside below the 'Fifty' mark 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 Signal

- When RSI line is increasing above 'Fifty' mark but the pace of increase has declined 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 RSI line has made a peak at around 70 levels it is the identification of Over Bought market, and market is likely to move southward (downward) direction one should sell.

- When RSI is more than ‘Fifty’ but declining, it indicates that market will enter in south zone, i.e. declining zone and one should sell at this level.

Buying and selling signals generated with the help of above technical tools need to be confirmed with the help of traded volumes. A thin traded volume simply indicates lack of support in the indicated trend by majority of the investors and such trend might not continue in the near market. On the other hand, a heavy traded volume indicates about association of more and more investors for the indicated trend and such trend is likely to continue in the future.

CHAPTER IV
DATA PRESENTATION AND ANALYSIS

This chapter deals with presentation, analysis, and expression of data (secondary) as per the research design to fulfill the objective of study.

This section is fully devoted to analysis and interpretation of secondary data. Among various technical tools, oscillators is used to analyze and interpretation of data. There are several oscillators but only the major ones i.e. ROC & RSI were selected to interpret the market trends of selected companies share price. All the calculated values presented in the annex (including detailed calculation of one Sample Company) are calculated using excel sheet. So the calculated values of all the sample companies are analyzed and interpreted below.

4.1 Analysis and Interpretation Share Price Trend

4.1.1 Analysis and Interpretation Share Price Trend of EBL

Rate of Change

The fig.4.1 drawn from the data of ANNEX-I exhibits that general trend of ROC was concentrated most of the time near the 1 mark line, which is the clear indication of upward and downward fluctuation in the price of shares over a period of 17 July 05 to 21 February 06. This can also be verified from the prevailing price which starts from Rs.871 on 21 September 05, Rs.1000 on 27 October 05, Rs.875 on 23 January 06 and Rs.990 on 21 February 06. After that also ROC showed fluctuations around 1 mark line. Then after 14 May 07 ROC line raised drastically, which is also confirmed by the price of Rs.1750 on 14 May 07, Rs.2000 on 30 May 07, Rs.2240 on 21 June 07, and Rs.2430 on 16 July 07. This oversold level of market i.e. buying signal trend of EBL was also supported by the increasing trading volume of share towards the end of study period. Out of total 412 traded days whole study period (i.e. 2 years) ROC line remained in above 1 mark line zone (which indicates bullish trend) for 212 periods, 43 periods in 1 mark line (which indicates stable trend), and 145 periods in less than 1 mark line zone (which indicates bearish trend).

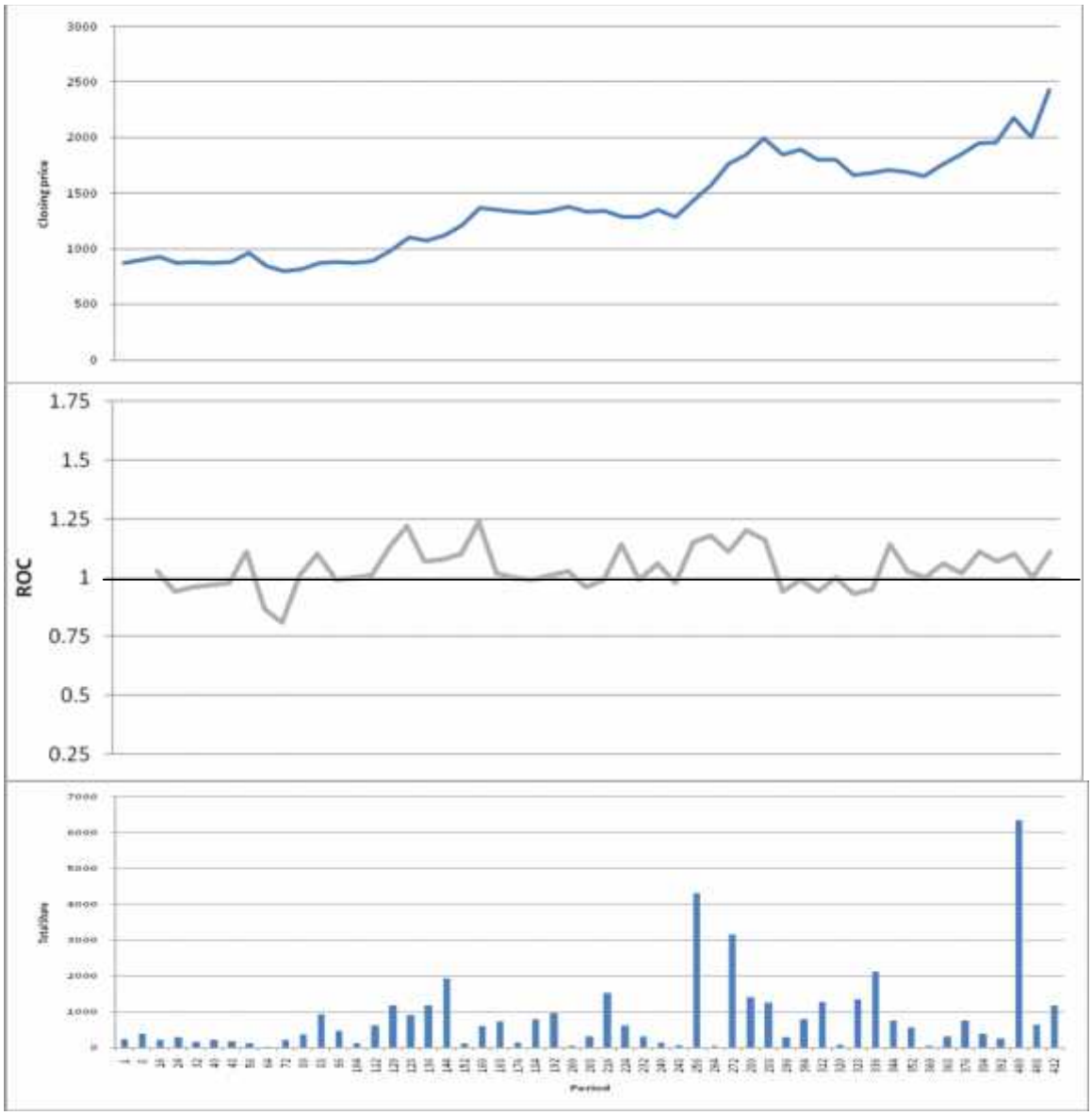


Fig. 4.1 : ROC EBL

Relative Strength Index

The fig.4.2 (plotted on the base of ANNEX-II) demonstrates that in most of the time of study period RSI line remained above the 50-mark line, which indicates a bullish market for the shares (i.e. down trend). The price fluctuated and remained on the upper zone most of the time. So, during the whole of the study period RSI line showed uptrend and downtrend alternatively (it can be confirmed by the movement of the price of the share).Out of total 412 traded days of whole study period (i.e. 2 years) RSI line remained in above 50 mark line zone (which indicates bullish trend) for 158 periods, 7 periods in 50 mark line (which indicates stable trend), and 149 periods in less than 50 mark line zone (which indicates bearish trend). But due to continuous stable price in various periods of the study period, calculated value of RSI is zero.

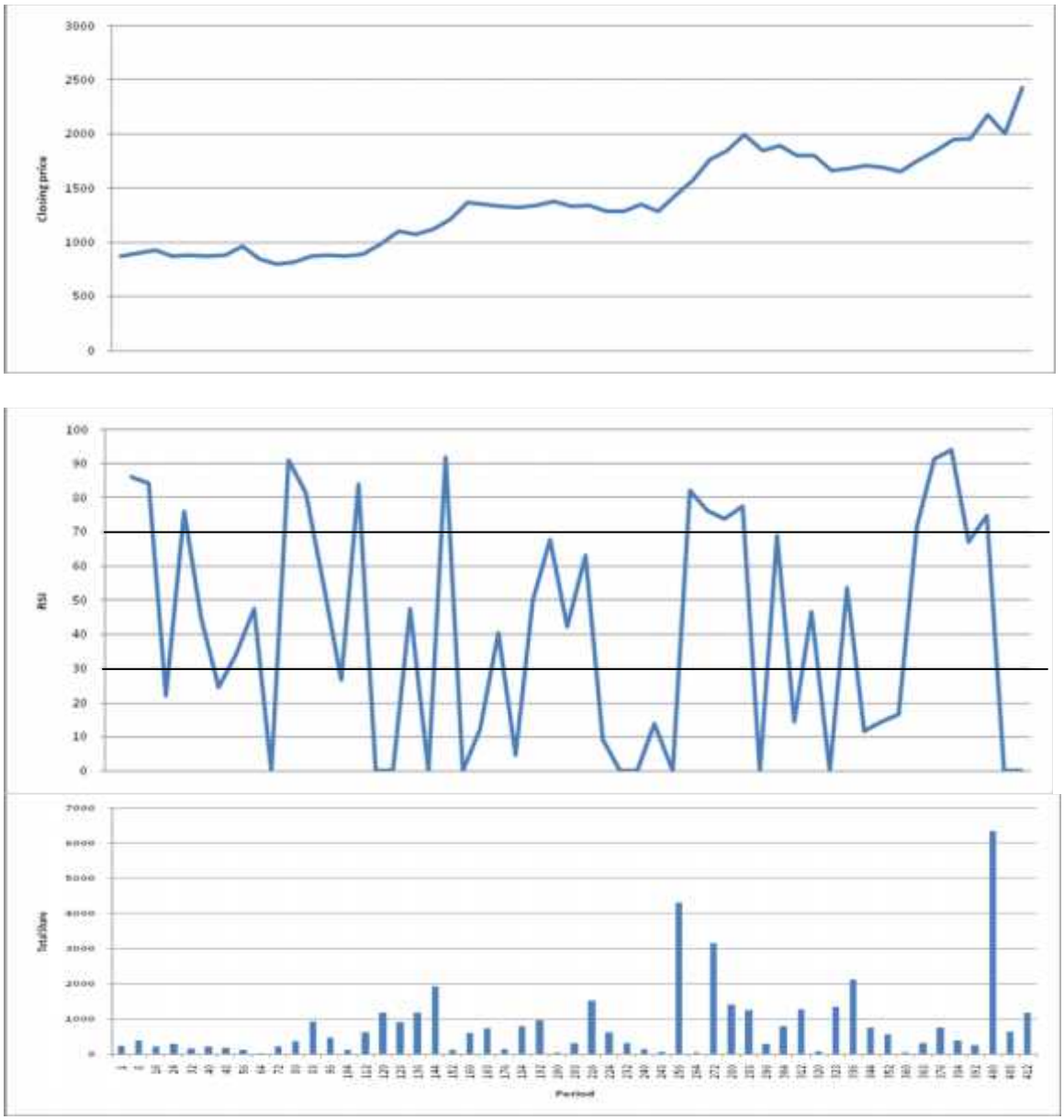


Fig. 4.2 : RSI EBL

The maximum share price of EBL was Rs.2430 on 16 July 07, the minimum share price Rs.803 on 6 December 05, the maximum traded volume 6343 units on 24 June 07 and the minimum 10units on 24 September 06 during the study period.

4.1.2 Analysis and Interpretation Share Price Trend of UNL

Rate of Change

The fig.4.3 (drawn from the data of ANNEX-III) exhibits that mostly ROC line remained above the 1 mark line, it can be observed from the charts that ROC line shows continuous increasing trend over the study period. This can be verified from the price of Rs.1630 on 19 July 05, Rs.1900 on 13 February 06, Rs.2150 on 1 May 06, Rs.2300 on 7 June 06, Rs.3366 on 5 March 07 and Rs.3400 on 16 July 07. These all

clears the bullish trend of the Unilever Nepal Limited despite of slightly decreasing of trading volume on the last day of study period. Out of total 108 traded days whole study period (i.e. 2 years) ROC line remained in above 1 mark line zone (which indicates bullish trend) for 80 periods, 0 period in 1 mark line (which indicates stable trend), and 16 periods in less than 1 mark line zone (which indicates bearish trend).

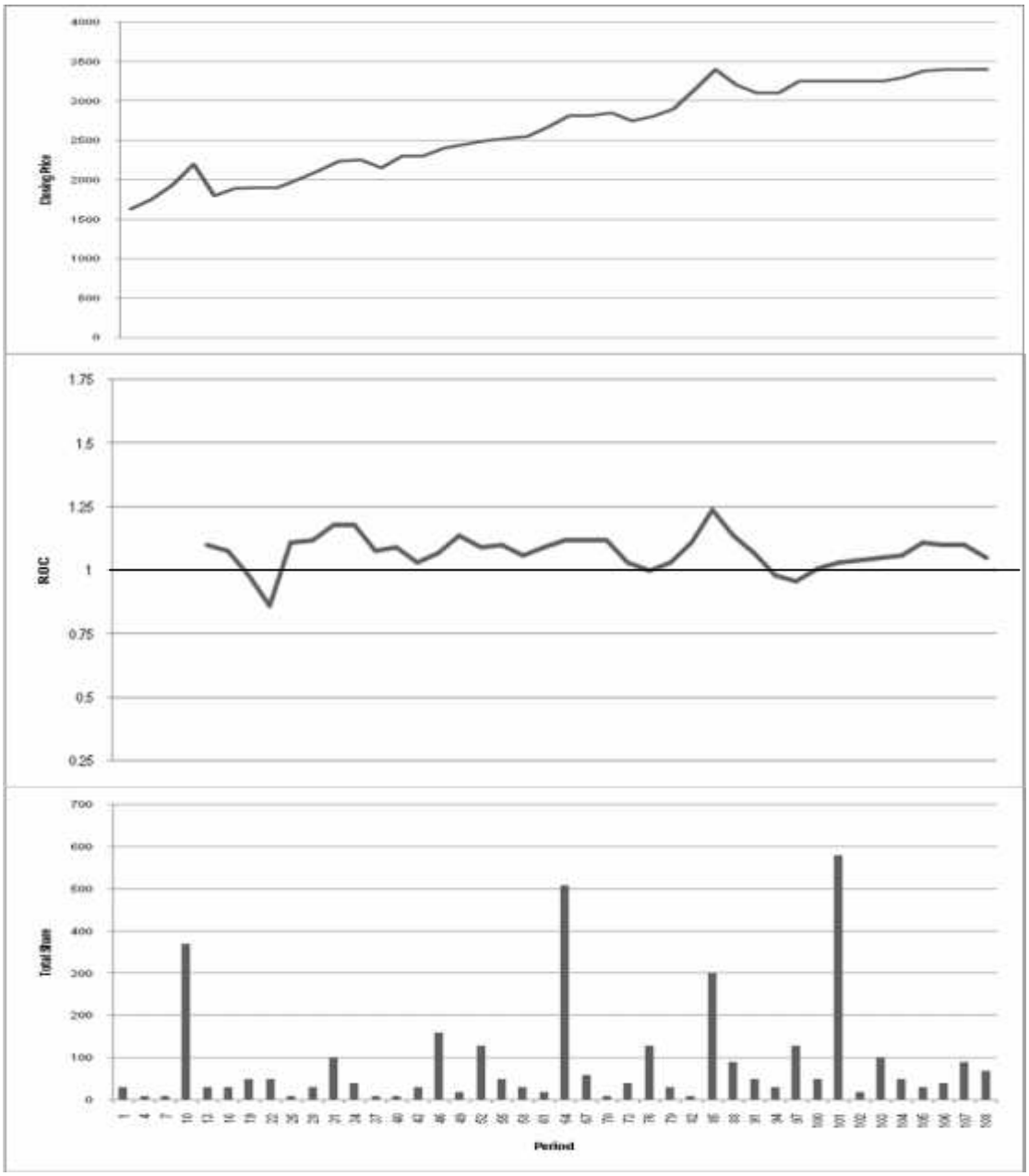


Fig 4.3: UNL ROC

Relative Strength Index

The fig. 4.4 (plotted on the base of ANNEX-IV) demonstrates that in most of the time of study period RSI line remained above the 50-mark line, which indicates a bullish

market for the shares (i.e. upward trend). The price fluctuated and remained on the upper zone most of the time. So, during the whole of the study period RSI line showed uptrend and downtrend alternatively (it can be confirmed by the movement of the price of the share). Out of total 108 traded days whole study period (i.e. 2 years) RSI line remained in above 50 mark line zone (which indicates bullish trend) for 27 periods, 1 period in 50 mark line (which indicates stable trend), and 20 periods in less than 50 mark line zone (which indicates bearish trend). But due to continuous gain and loss in various periods of the study period, calculated value of RSI is zero.

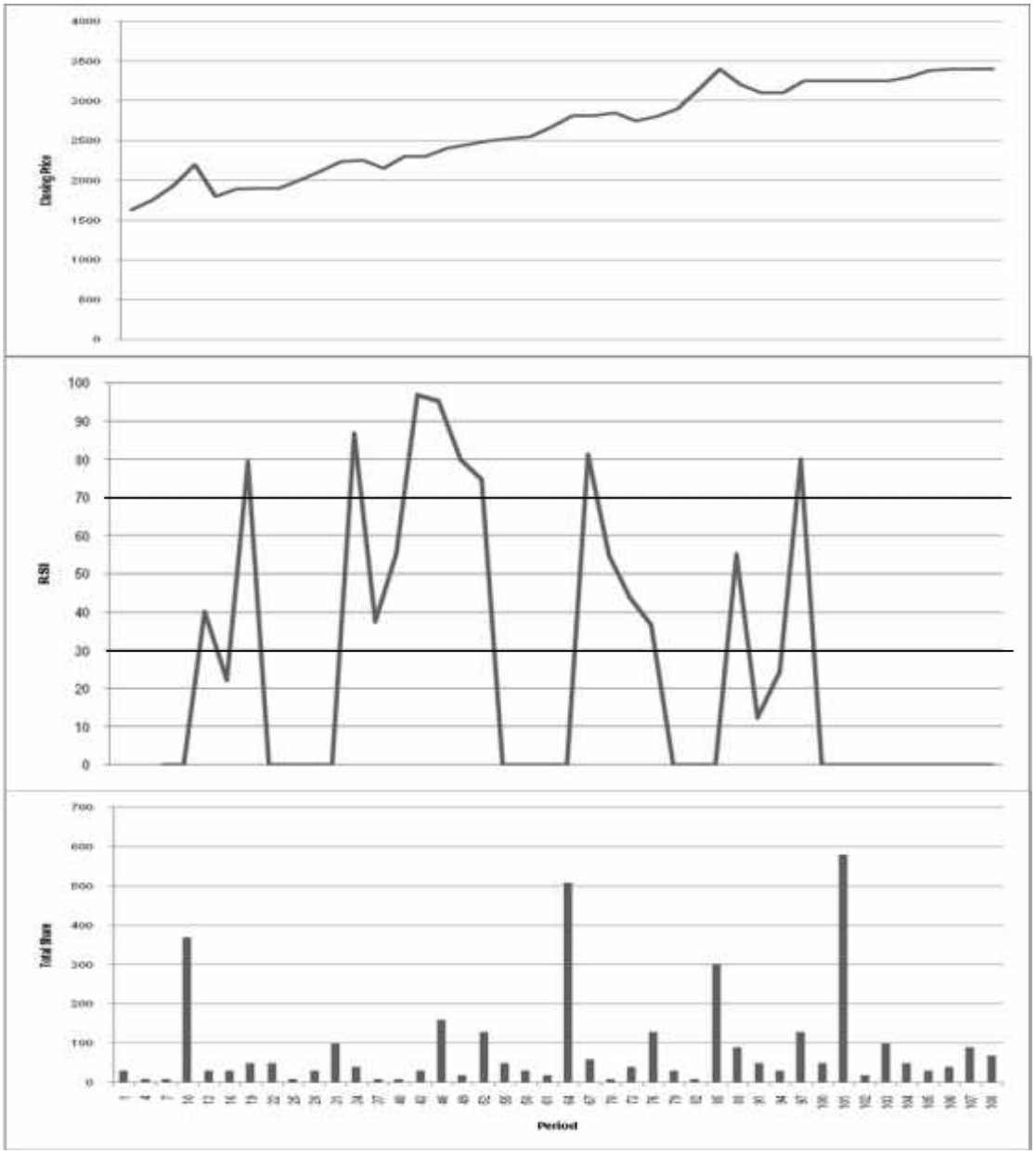


Fig 4.4: UNL RSI

The maximum share price of UNL was Rs.3450 on 13 March 07, the minimum share price Rs1630 on 19 July 05, the maximum traded volume 1470 units on 3 August 06, and the minimum 10 units on 9 August 05, 17 August 05, 27 December 05, 13 February 06, 20 February 06, 8, 11, 15, & 17 May 06, 11 June 06, 21 August 06, 12 October 06, 28 February 07, and 10 April 07 during the study period.

4.1.3 Analysis and Interpretation Share Price Trend of SHL

Rate of Change

The fig.4.5 (drawn from the data of ANNEX-V) exhibits that ROC line fluctuated little bit remaining almost above 1 mark line over the study period. This can be clear from the ROC value 1.10 on 6 June 06, 1.29 on 28 November 06, 1.49 on 18 February 07, 1.53 on 5 April 07, 1.41 on 23 April 07 and 1.15 on 16 July 07. These values of ROC signaled the bullish trend of the Soaltee hotel limited but not drastically. But trading volume and price gave the contradict signal i.e. decreasing trading volume doesn't support the trend of ROC and rising price of share support the trend of ROC. Out of total 46 traded days whole study period (i.e. 2 years) ROC line remained completely in above 1 mark line zone (which indicates bullish trend) for 34 periods.

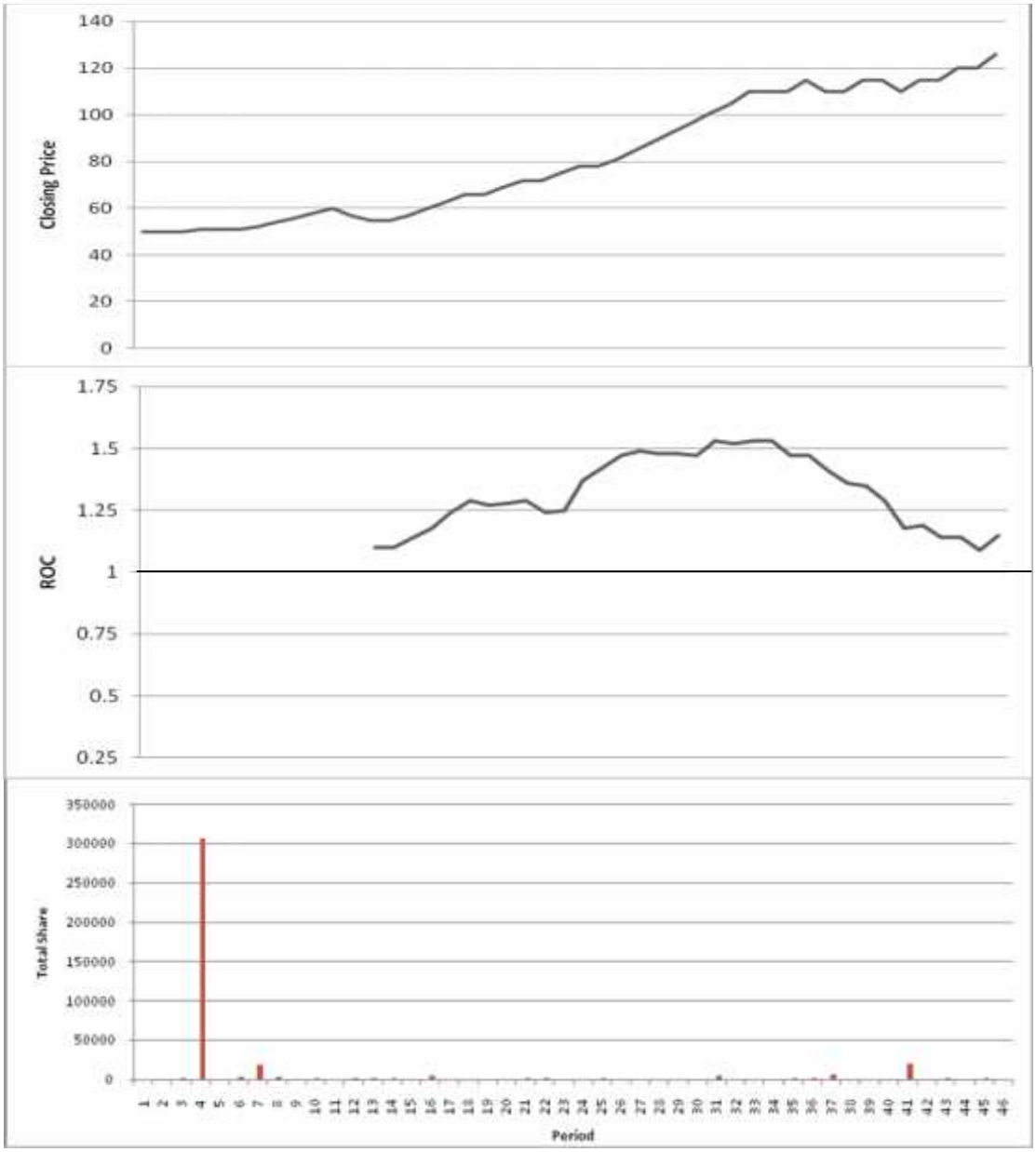


Fig 4.5: SHL ROC

Relative Strength Index

The fig.4.6 (plotted on the base of ANNEX-VI) demonstrates that in most of the time of study period RSI line remained above the 50-mark line, which indicates a bullish market for the shares (i.e. upward trend). The price fluctuated and remained on the upper zone most of the time. So, during the whole period the RSI line shows uptrend and downtrend alternatively (it can be confirmed by the movement of the price of the share). Out of total 46 traded days whole study period (i.e. 2 years) RSI line remained

completely in above 50 mark line zone (which indicates bullish trend) for 17 periods. But due to continuous stable price in various periods of the study period, calculated value of RSI is zero.

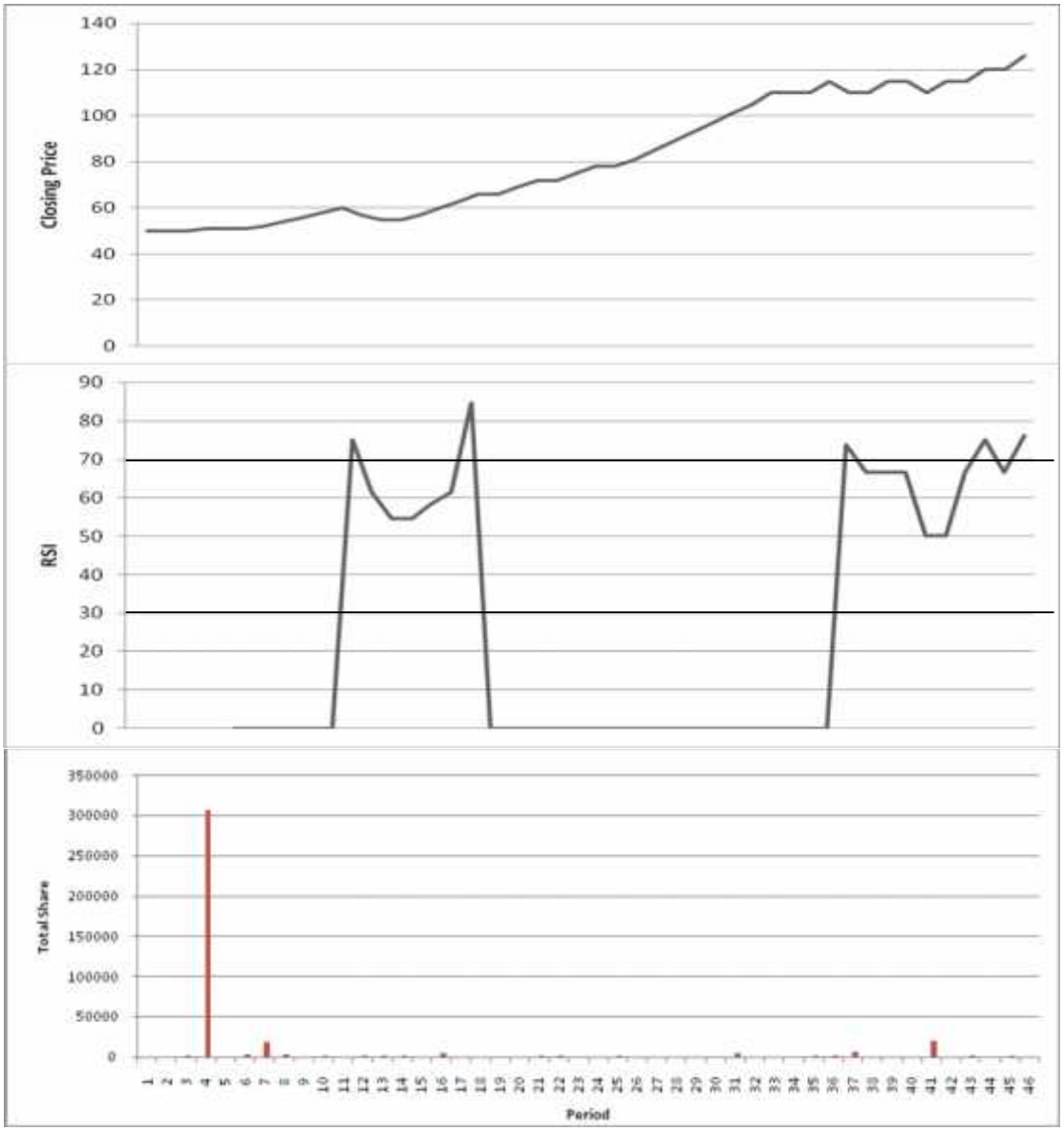


Fig 4.6: SHL RSI

The maximum share price of SHL was Rs.126 on 16 July 07, the minimum share price Rs.50 on 2, 5 & 6 October 05, the maximum traded volume 307152 units on 20 November 05 and the minimum 100 units on 1 February 07, 7 February 07, 18 February 07, and 16 July 07 during the study period.

4.2 Major Finding of the Study

The findings from the analysis of secondary data are presented separately.

4.3.2 Findings from the Secondary Data Analysis

Findings from the analysis of secondary data are presented separately of each company.

Everest Bank Limited

ROC: BUYING SIGNALS

During the following instances ROC line touched its bottom during the whole of study period i.e. formed trough and gave clear signal of trend reversal.

23 August 06,	1 December 05,	9 January 06,
1 June 06,	17 August 06,	5 September 06,
4 January 07,	19 April 07,	20 June 07,
4 July 07.		

During the following intervals ROC line increased from its bottom towards one mark line, which signified the bullish trend in the market for the shares

25 September 05-26 September 05,	1 December 05-8 December,
1 June 06-7 June 06,	5 September 06-18 September 06,
18 October 06-30 October 06.	

During the following intervals ROC line declined from its extreme towards one mark line but fails to penetrate it, and instead started to rise upward.

15 February 06-21 February 06,	1 March 06-7 March 06,
4 December 06-13 December 06,	6 May 07-10 May 07.

ROC: SELLING SIGNALS

During the following instances ROC line touched its extreme during the whole of study period i.e. formed peak and gave clear signal of trend reversal.

3 August 05,	6 September 05,	27 October 05,
20 December 05,	15 February 06,	16 May 06,
24 August 06,	21 December 06,	16 April 07.

During the following intervals ROC line declined from its extreme towards one mark line, which signified the bearish trend in the market for the shares.

3 August 05-16 August 05,	6 September 05-8 September 05,
20 December 05-4 January 06,	19 July 06-23 July 06,
24 August 06-3 September 06,	21 December 06-28 December 06.

During the following intervals ROC line rose from its extreme towards one mark line but fails to penetrate it, and instead started to decline downward.

3 August 06-13 August 06,	7 February 07-11 February 07.

RSI: BUYING SIGNALS

During the following periods RSI line crossed the 30-mark line from upwards, which indicates an oversold market for the shares. It signified that soon trough would be generated and then market will rise i.e. it will become bullish.

2 August 05,	14 August 05,	21 August 05,
26 September 05,	20 October 05,	23 October 05,
15 November 05,	14 December 05,	29 December 05,
12 January 06,	19 January 06,	5 February 06,
1 March 06,	27 March 06,	5 April 06,
16 May 06,	25 May 06,	19 June 06,

3 July 06,	19 July 06,	1 August 06,
24 August 06,	21 November 06,	13 December 06,
1 January 06,	29 January 07,	21 February 07,
28 March 07,	23 April 07,	3 May 07,
14 May 07,	28 May 07	4 July 07.

During the following intervals RSI line moved upwards in the 30-70 zone and gave clear bullish signals ahead.

25 August 05-29 August 05,	7 December 05-11 December 05,
22 January 06-30 January 06,	12 March 06-19 March 06,
20 June 06-27 June 06,	6 August 06-13 August 06,
26 November 06-28 November 06,	4 February 07-7 February 07,
5 March 07-15 March 07,	23 April 07-26 April 07

RSI: SELLING SIGNALS

During the following periods RSI line crossed the 70-mark line from downwards, which indicates an overbought market for the shares. It signified that soon peak would be generated and then market will fall i.e. it will become bearish.

8 August 05,	30 August 05,	5 October 05,
12 December 05,	25 December 05,	31 January 06,
20 February 06,	5 March 06,	3 April 06,
30 April 06,	18 May 06,	14 June 06,
28 June 06,	6 July 06,	14 August 06,
14 November 06,	29 November 06,	21 December 06,
8 February 07,	21 March 07,	16 April 07,
10 May 07,	17 May 07,	30 May 07,
30 May 07	14 June 07.	

During the following intervals RSI line moved downwards in the 70-30 zone and gave clear bearish signals ahead.

8 August 05-11 August 05, 5 October 05-20 October 05,
7 November 05-14 November 05, 25 December 05-28 December 05,
15 January 06-18 January 06, 18 May 06-24 May 06,
9 July 06-18 July 06, 15 August 06-22 August 06,
14 November 06-20 November 06, 11 January 07-25 January 07,
12 February 07-20 February 07, 16 April 07-22 April 07,
21 June 07-3 July 07.

Unilever Nepal Limited

ROC: BUYING SIGNALS

During the following instances ROC line touched its bottom during the whole of study period i.e. formed trough and gave clear signal of trend reversal.

13 February 06, 7 December 06, 28 May 07.

During the following intervals ROC line increased from its bottom towards one mark line, which signified the bullish trend in the market for the shares

13 February 06, 14 February 06, 28 May 07-14 June 07.

During the following intervals ROC line declined from its extreme towards one mark line but fails to penetrate it, and instead started to rise upward.

17 May 06-7 June 06, 23 July 06-3 August 06.

ROC: SELLING SIGNALS

During the following instances ROC line touched its extreme during the whole of study period i.e. formed peak and gave clear signal of trend reversal.

24 November 05, 12 October 06, 13 March 07.

During the following intervals ROC line declined from its extreme towards one mark line, which signified the bearish trend in the market for the shares.

24 November 05-26 December 05, 12 October 06-8 November 06, 13 November 07-10 April 07.

During the following intervals ROC line rose from its extreme towards one mark line but fails to penetrate it, and instead started to decline downward.

RSI: BUYING SIGNALS

During the following periods RSI line crossed the 30-mark line from upwards, which indicates an oversold market for the shares. It signified that soon trough would be generated and then market will rise i.e. it will become bullish.

17 January 06,	4 May 06,	18 July 06,
28 December 06,	4 April 07,	14 June 07.

During the following intervals RSI line moved upwards in the 30-70 zone and gave clear bullish signals ahead.

21 December 05-27 December 05, 8 May 06-17 May 06, 12 April 07-28 May 07.

RSI: SELLING SIGNALS

During the following periods RSI line crossed the 70-mark line from downwards, which indicates an overbought market for the shares. It signified that soon peak would be generated and then market will fall i.e. it will become bearish.

1 January 06,	3 April 06,	22 May 06,
30 August 06,	29 March 07,	7 June 07.

During the following interval RSI line moved downwards in the 70-30 zone and gave clear bearish signals ahead.

29 March 07.

Soaltee Hotel Limited

ROC: BUYING SIGNALS

During the following instance ROC line touched its bottom during the whole of study period i.e. formed trough and gave clear signal of trend reversal.

15 July 07.

During the following intervals ROC line declined from its extreme towards one mark line but fails to penetrate it, and instead started to rise upward.

28 November 06-5 December 06, 17 January 07-18 January 07, 13 March 07-15 July 07.

ROC: SELLING SIGNALS

During the following instance ROC line touched its extreme during the whole of study period i.e. formed peak and gave clear signal of trend reversal.

13 March 07.

RSI: BUYING SIGNALS

During the following period RSI line crossed the 30-mark line from upwards, which indicates an oversold market for the shares. It signified that soon trough would be generated and then market will rise i.e. it will become bullish.

5 December 06.

During the following intervals RSI line moved upwards in the 30-70 zone and gave clear bullish signals ahead.

20 July 06-26 November 06.

RSI: SELLING SIGNALS

During the following periods RSI line crossed the 70-mark line from downwards, which indicates an overbought market for the shares. It signified that soon peak would be generated and then market will fall i.e. it will become bearish.

30 April 06, 23 April 07, 11 July 07, 16 July 07.

CHAPTER V
SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is divided into three sections: first section provides a brief summary of the research study; second section provides the conclusion of study based only secondary data, and in the third section of this chapter researcher has tried to give the suggestions and recommendations based on the findings of the study.

5.1 Summary

Stock exchange is a regulated market place, in which listed securities are bought and sold through the intervention of members (brokers) of stock exchange, by following an open system of two ways quotation, the settlement of trades is done according to the bye-laws of the stock exchange. In other words it is a trading platform for the buyer and seller of securities. The stock exchange acts as a 'barometer' of the health of the economy or considered a mirror of economy. If the market as a whole expects economic prospects to improve, share price will rise, and vice versa.

The history of securities market began in Nepal with the flotation of shares by Biratnagar Jute Mills Ltd and Nepal Bank Ltd in 1937 A.D. Introduction of the company Act in 1964 A.D., and the establishment of Securities Exchange Center Ltd in 1976 was other significant developments relating to capital markets in Nepal. At present there is only one stock exchange in Nepal, which is also called secondary market i.e. Nepal Stock Exchange (NEPSE). Nowadays, Nepal's stock market has become major area of investments. People in general and investor's inclination towards the capital market as they are attracted to multiply their money in a shorter time span. Currently seen events of Nepal's capital market like oversubscription in all of the public issues, increment in transactions amount day by day, about eight hundred thousand investors, etc confirmed the attraction of stock market in Nepal. In order to beat the market one has to analyze the securities properly and effectively. Basically there are two approaches of analyzing the securities: fundamental analysis and technical analysis. The person who analyzes securities using fundamental approach called fundamental analyst and technical approach called technical analyst. Both types of analysts try to predict share price movements as a whole. The

fundamental analyst compares the share price with indicators of such as the level of interest rates, inflation, and the index of employment. They also delve into the company's balance sheet and looks at the industry itself. From this the fundamental analyst claims to be able to say whether to buy or sell a particular share from the point of a medium-to long term investor. Technical analysts on the other hand disagree with the fundamental analyst's view because they claim that reliance on past performance is a hindrance in judging future prospects. Technical analysts consider that the share price is fixed by supply and demand and past performance as evidenced by the company's accounts is no guide whatsoever. They also believe that every price sensitive factors automatically reflect in the share price, only analysis of price movement is required. Beside these there is another technique for analyzing the share price behavior that is called efficient market hypothesis. It is based on the fundamentals that markets are efficient and price makes 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 moment of prices is called random walk of prices, therefore, this hypothesis is also called random walk hypothesis. According to this hypothesis prices get affected by the demand and supply position. Prices reflect equilibrium position of the demand and supply; these show a wide fluctuation, only on account of disequilibrium in the demand and supply position. This theory believes this happens due to the large number of investors in the market, free flow of information to all the investors, every investor is capable to interpret the information, every kind of price sensitive information is discounted in the prices immediately, no one in a position to influence the market unduly.

In the first chapter of this study researcher stated the various problems of stock market relating to the technical analysis and efficient market. Thus, main objectives of this study were to analyze and identify the market trends shown by the sample companies share price based on technical tools ROC & RSI.

In the second chapter of this study researcher tried to provide detail literature regarding the subject matter of the study. So, researchers reviewed 40 literatures including books, journals, term papers, newspaper, bulletins, magazines and thesis. Most of the study conducted using the fundamental approach and efficient market

hypothesis but only limited study concerned on technical approach. Limited researchers concerned on technical analysis but none applied ROC & RSI tools for analyzing the share price movement in Nepal's stock market. So, researcher tried to provide new findings to the Nepal's stock market by fulfilling the gaps of the previous study.

To meet the objectives stated above, different research designs were designed in third chapter of this study to present and analyzed the data. For this researcher relied only one secondary source of data. For this daily closing price and trading volume for two years period were downloaded from the website of Nepal stock exchange.

In fourth chapter secondary data were analyzed using one of the most popular technical tools: oscillators (ROC and RSI) presenting in the chart and graphs based on the calculated value. Based on such analysis the findings were evaluated in real terms and on the basic of such findings appropriate conclusions is drawn.

Data analysis showed most of the time ROC & RSI gave the true result and all the sample companies showed the bullish trend. But share price of commercial banks share price showed more bullish than other sectors share price. Also commercial banks share price found more active than other share in NEPSE.

5.2 Conclusions

Mass participation in industrialization process is possible through the efficient securities market. Securities market promotes efficient collection of small and scattered savings and provides returns. It plays a key role in allocating capital to the corporate sector that will have real effect in the economy. Stock market is the booming sectors in Nepalese economy. Oversubscription in all the IPO, coverage in Medias & newspapers matter related to stock market, lack of other investing sectors in the country, bullish trend in NEPSE in last two years, emerging of share training institutions & portfolio managers etc. signal the booming trend of capital market in Nepal. Despite of booming sectors stock market in Nepal is not yet mature in terms of its infrastructure, governance, investors' confidence, pricing of stock and stability and analyzing stock before investment decisions. Rather than investing haphazardly one

should analyze stock to beat the market. In order to have the accurate result from the analysis necessity of efficient market is most. Based on these various problems researcher tried to conclude actual situation of Nepalese stock market on this study. Based on major findings of the study various conclusions are drawn

Study showed that most of the theories and assumptions of technical analysis matches with the Nepal's stock market. Although mostly fundamental factors influence the share price in NEPSE but one cannot also ignore the past price and traded volume of the company.

Similarly, from the analysis and interpretation made upon the three sample companies researcher can conclude that most of the time technical tools gives true result. Despite of technical correction in the market from time to time technical tools are able to interpret the market trends most of the time. Although technical analysis 90 percent psychological and 10 percent logical, it does give signals future market trends (i.e. bullish and bearish) except in some cases. Only trend identification knowledge is most but one should equally consider the trading volume. However most of the time it was difficult to identify trend shown by the ROC. During the study period most of the time ROC and RSI line remained in upward zone of all the sample companies, indicates the bullish market of the share. Thus, researcher concludes that the two oscillators (i.e. ROC and RSI) are very helpful tools of technical analysis, which help in depicting the future market.

5.3 Recommendations

Based on the analysis secondary data following recommendations are presented to the concerned body.

- Trend is the most in technical analysis. So it is recommended to all the concerned body to identify the trend before banking investment decision.
- Technical tools ROC gives the signal of future signal. So, investors and stock analysts are highly recommended to apply ROC for analyzing share price trends.

- Similarly other technical tools RSI also gives the signal of future signal, So, investors and stock analysts are highly recommended to apply RSI finally share price trends along with the fundamental approach to but the market.
- Since the technical analysis give the variable signal. So it is recommended to regulation body, brokerage house and training institute to provide in-depth knowledge about the technical analysis.

5.4 Suggestions for Further Research

There are various technical tools which can be applied to analyze the stock price movement. It will be better if further researcher will apply other tools of technical analysis using technical analysis software. Also it is recommended to test the effectiveness of technical tools to further researcher.

Although researcher strongly suggested for applying the technical tools, one should not ignore the fundamental facts of the company.

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