CHAPTER – I

INTRODUCTION

1.1. General Background

Nepal is one of the least developed countries in the world. The main cause for underdevelopment is the lack of capital. For the balanced development of the country, she has been adopting planned economic development since past five decades. Recently she has pursued the path of economic development through liberalization. However, any strategy for development requires a steady supply of medium to long-term capital funds. Supply of capital fund is possible through capital market. Capital markets are the institutions, which are engaged in mobilization of ideal saving in productive opportunity. "Development and expansion of capital market is essential for the rapid economic growth of the country. Capital market helps economic development by mobilizing long-term capital needed for productive sector. The main objective of the capital market is to create opportunity for maximum number of people to get benefits from the return obtained by directing the economy towards the productive sector by mobilizing the long term capital" (Ojha, 2000:1).

Due to globalization of economies and market, the present world economy has been more competitive and complicated. Every sort of change occurring in one sector of the world affects the other. A healthy economy is dependent on efficient transfers of funds from people who are net savers to firms and individuals who need capital. Without efficient transfers the economy simply could not function. And economic efficiency is simply impossible without a good system for allocating capital within the economy. Nepal has predominantly a subsistence agricultural economy, which contributes about 40 percent of GDP and provides employment to more than 80 percent of the economically active population.

As the Nepalese economy is in a developing phase, so in order to speed up this pace of development, financial sector have crucial roles, as they can pool scattered savings for capital formation. The public investors are interested to invest their savings in the common stocks of the financial institutions. As a result, such institutions shares are being traded among the investors in the secondary market in larger volume everyday.

The purpose of financial market in an economy is to allocate savings efficiently during the period of time-a day-a week or a quarter-to parties who use funds for investment in real assets or for consumption. Financial markets facilitate the transfer of funds from savers to those who wish to invest in capital goods. For instance, companies that wish to undertake investment projects offer financial instruments to savers in exchange for funds to finance the projects.

A society improves its welfare through investments. Business owners need outside capital for investment because even projects of moderate sizes are beyond the reach of most wealthy individuals. Governments also need funds for public investments. Much of that money is channelled through financial markets from savers to borrowers. In so doing, the financial markets provide a link between saving and investment and between the present and the future. As a consequence, savers can earn higher returns from their savings instead of hoarding them, borrowers can execute their investment plans to earn future profits, and both are better off. As a result, the economy also benefits by acquiring better productive capabilities. Financial markets therefore facilitate real investments by acting as the sources of information.

The history of securities market began with the floatation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. in 1937. Introduction of the Company Act in 1964, the first issue of Government Bond in 1964 and the establishment of Securities Exchange Centre Ltd. in 1976 were other significant development resulting to capital markets.

1.1.1 Constituent of Capital Market in Nepal

Securities Board, Nepal (SEBO/N)

Security board, Nepal was established on 26th May 1993, under the provision of the securities exchange Act, 1983. It was established with the objective of promoting and protecting the interest of investors by regulating the securities market. It also assumes the responsibility of development of securities market in the country, besides regulatory role. Board has identified the policy development, legal and regulatory reform, standardizing disclosures, bringing enforcement to ensure compliance and promoting broad based market as a priority area to reform. The private sector has also been participating equally in establishing sound system in securities exchange. In private sector – investors, listed companies, financial and market intermediaries and in government sectors Ministry of Finance, registrar of companies (Ministry of Industry, commerce and Supply), Nepal Rastra Bank, Nepal Stock Exchange, Federation of Nepalese Chamber of Commerce and Industries (FNCCI), Institute of Chartered Accountants of Nepal (ICAN) and Association of Chartered Accountants have been playing vital role in promoting the capital market of the country.

The objective of the board are to promote and protect the interest of the investors by regulating the issuance, sale and distribution of securities and purchase, sale or exchange of securities, to supervise, look after and monitor the activities of the stock exchange and other related firms on securities business, and to render contribution to the development of capital market by making securities transactions fair, healthy, efficient and responsible.

Nepal Stock Exchange (NEPSE)

Nepal Stock Exchange was established on 1993 under securities exchange Act, 1983.Nepal Stock Exchange was known as securities exchange centre earlier. Securities exchange centre was established with an objective of facilitating and

promoting the growth of capital markets. The major task undertaken by Nepal Stock exchange are brokerage, undertaking, managing public issue, marking market for government bonds and other financial services. Nepal Stock Exchange is a non-profit organization operating under Securities Exchange Act 1983.

It was established with joint effort of Nepal Industrial Development Corporation and Nepal Rastra Bank to mobilize the public saving for ensuring public ownership in the shares public limited companies. In order to promote the stock exchange business, the centre made a series of studies in the beginning regarding both the public limited companies and undertaking the business of buying and selling of securities.

According to the Securities Act, 1983, the board of directors of NEPSE of Nepal Government and different institutional investors nominate nine directors. Among them, one from the licensed members and other, the General Manager of the NEPSE, are the Ex-officer Director of the board. The authorized capital of exchange is Rs. 50 million and Rs.34.91 million are subscribed by Nepal Government/Nepal Rastra Bank, Nepal Industrial and Development Corporation and licensed members. At present, there are 27 brokers and one market maker; besides this, it has licensed both dealers as primary and secondary market. At present 135 companies have listed their securities.

NEPSE has adopted a "computerized system". It means transactions of securities are conducted on the computer auction principle on trading floor, where the price is determined when bid and offer price match. It has fixed the board lot of 10 shares if the face value is Rs. 100 or 100 shares if the value is Rs.10. The opening price of the day shall not be more or less than 10% of the previous trading day's closing price. It can be changed within the limit of 5% in each consecutive transaction. It has adopted a T+3 systems, which mean that settlement of transaction, should be done 3 working days following the

transaction per day. The rate of brokerage on equity ranges from 1% to 1.5% depending on the traded amount.

Similarly, the basic objective of Nepal Stock Exchange is to impart free marketability and liquidity to the government and corporate securities by facilitation transactions on its trading floor through market intermediaries such as brokers, market makers, etc.

1.1.2 Securities Market

In simple sense, securities market is a place where people buy and sell financial instruments. There, financial instruments may be in form of government bonds, corporate bonds or debentures, ordinary share, preference shares etc. So far securities market is concerned; it is an important constituent of capital market. It has a wide term embracing the buyers and sellers and all the agencies and institutions that assist the sale and resale of corporate securities. Although securities are concerned in few locations, they refer more to mechanism rather than to pace designed to facilitate the exchange of securities. This securities market can be defined as a mechanism for bringing together buyers and sellers of financial assets in order to facilitate trading. In order to allocate capital efficiently and maintain higher degree of liquidity in securities, the securities market should be efficient enough in pricing the shares solely by economic considerations based on publicly available information.

An efficient market is one where current price of the shares gives the best estimates of its true transferred from one to another a fair price through the organized brokerage system. The major functions of securities market is to provide ready and continuous market for purchases and sales of securities at competitive price thereby, importing future market ability and liquidity. It is a medium through which scattered savings and scarce resources and transferred to productive areas that ultimately help in the economic development and industrialization of the nation.

Primary Market

Primary Markets denote the market mechanism for the original sale of securities by an issuer to the public. It is the marketing which the securities are sold at the time of their initial issuance. In other words, a market for a newly issued securities time of their initial issuance is called primary market. Corporate bodies issue new securities in the primary market. Securities available for the first time are offered through the primary securities market. The issuer may be a brand new company or one that has been in business for many years. The securities offered might be a new type for the issuer or additional amount of security - used frequently in the past. The key is that these securities absorb a new fund for the offers of the issuers.

All the securities whether in the money market or capital market, are initially issued in the primary market. This is the only market, in which the corporate or government issuer is directly involved in the transaction and receives direct benefits from the issue, which is the company actually receives the proceeds from the sale of securities.

Secondary Market

Secondary Market is the marketing which securities are traded that has been issued at some previous point of time. In other words, where outstanding securities are traded is referred to as the secondary market or more popularly known as the stock market. Share or stock market is a major component of securities market. Stock market is a medium through which corporate sector mobilizes funds to finance productive projects by issuing shares in the market. The efficient collection of small amounts of savings and transferring funds into the competitive and efficient uses requires a well functioning capital market to facilitate the process. Thus, secondary market deals with previously issued shares mainly traded through stock exchange, over the counter market or direct sealing.

Secondary market in simple sense, are markets in which existing, already outstanding securities are traded between investors. It is the market that creates the price and allow for liquidity. If secondary market did not exist, the investors would have no place to sell their assets. Without liquidity many people would not invest at all. The corporations whose securities are being traded are not involve in secondary market transactions and thus do not receive any funds from such sale. The function of secondary market is to provide liquidity for the securities purchased in the primary market.

Price Regulation on NEPSE

NEPSE has brought out the change in price quoting rules since the fiscal year 060/061. The percentage for the fixation of opening price has been reduced from 10 percent to 5 percent. If the opening price of any day shall not be more or less than 5 percent of the previous trading day's closing price. Once the transactions are done within this range, the price can be changed within a limit of 2 percent in each consecutive transaction.

In the same way the opening price of the corporate bond shall be quoted within the range of 0.2 percent of the previous day's closing price and once the transactions are done the changed within the range of 0.1 percent of the previous traded price. The price can be changed either at Rs. 0.10 or multiple of it.

NEPSE Index

By the end of the fiscal year 2006/07, the NEPSE index of the listed securities (Price Index) remained at 683.95 points, which is 297.12 points higher than that of the last fiscal year end index of 386.83 points. The highest index during the fiscal year 2006/07 was recorded at 683.95 points

on July 16, 2007 and the lowest index was 355.60 points on August 03, 2006. The detail of NEPSE index is presented in chart 1.

Chart - 1
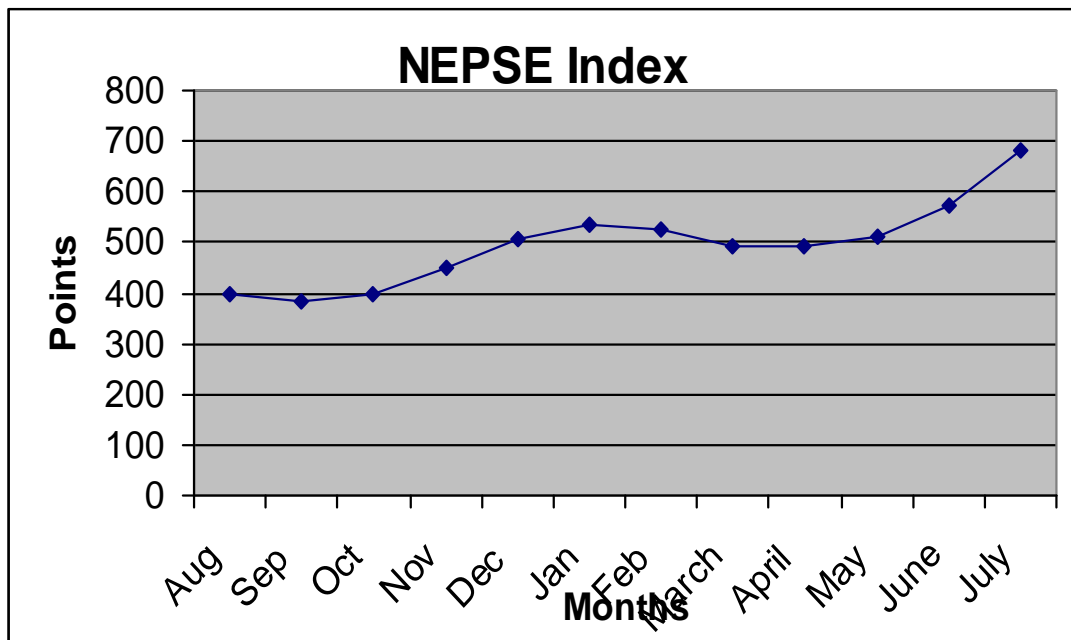
Source: SEBON Annual Report 2006/07

Market Capitalisation

By the end of the fiscal year 2006/07, the market capitalization of the listed securities reached to Rs.186301.3 million. The capitalization was Rs.96763.74 million in the fiscal year 2005/06. The highest market capitalisation recorded in the fiscal year 2006/07 was Rs.186301.3 million on July 16, 2007 and the lowest was Rs.89020.1 million on August 03, 2006. By the end of the fiscal year 2006/07, the percentage contribution of market capitalization on nominal GDP is estimated to be 27.78. The market capitalization in the fiscal year 2006/07 is presented in table -3

Table – 1

Market Capitalisation

(Rs. In Million)

S.No.	Sector	Market Capitalization	Percent
1	Commercial Bank	135588.4	72.78
2	Development Bank	6010.6	3.23
3	Finance Company	9889.3	5.31
4	Insurance Company	8059.8	4.33
5	Hotel	3261.1	1.75
6	Manufacturing & Processing Company	6200.0	3.33
7	Trading Company	796.4	0.43
8	Other Company	16495.7	8.85
	Total	**186301.3**	**100.0**

Source: SEBO/N Annual Report 2006/2007.

Securities market in Nepal could not perform well in the initial days because it was totally a new practice in the country and it was also not kept far from political interference. The big challenges to international and domestic monetary policies is to separate the economies from the politics. Often, unfortunately, the politics dominates. So, one should try to build a structure that minimizes the impact of politics. Therefore, we should try to reduce, if not eliminate the impact of politics on economy. Our efforts must be directed towards creating favourable environment for its development.

Securities market in present days has attracted the interest of both national and international investors, while raising a number of critical issues. With the development of information technology and the spread of education in the country, many people have shown their interest in securities market. It is also

revealed from the large number of applications in the initial public offerings (IPOs) of Nepalese companies.

Securities market is perhaps poorly understood among Nepalese investors. Yet, most of the investors should not know the price formation system in NEPSE. If, it is not understood, it cannot attract the interest of investors. As a result, it is natural for the investors to seek investment opportunities in the fields other than securities. "The Nepalese stock market is characterised by a low trading volume, absence of professional brokers, early stage of growth, limited movement of share price and limited information to investors (Pradhan, 1994:42)". Because of this reality, in Nepal, a large amount of funds is poured into non-productive sectors. So, development of securities market is necessary to divert the funds towards productive sectors.

Nepal has gained the experience of securities market for more than two decades; it is still in its infancy. But it is not developing as expected. The prominent reason behind it is the slow growth of corporate sector. Developing of vibrant and dynamic securities market is a pre-requisite for the developing of an efficient economy. In present Nepalese scenario, there is a dearth of pertinent studies exploring the current drawbacks and suggesting the rooms for further improvement. In such a situation, studies in securities market in Nepalese perspective would be an asset and could provide a solid feedback of further improvement. With a view to contributing to wards this avenue, this study on price behaviour in Nepal stock exchange is expected to be useful and rewarding.

1.2. Statement of the Problem

The prices of securities especially common stocks have been rapidly fluctuating over the past years. The Government has not brought any special packages to reform the stock market. Due to these various reasons, some of the companies were liquidated and some are operating hardly in the market. The

number of listed companies has been increase/decrease rapidly without effective performance in the market. As a result, very few companies' shares have been recorded on the board in each day.

Capital market in Nepal is appears to be the sufferer through the capital market is an inseparable part of a liberal economy. Existing economic imbalances, political instability and ineffective implementation of liberal economic policy have severe impact in the economy.

In the primary market, the price of common stock is par value but in secondary market the price may be equal to par value, more than or less than par value. Thus, stock price in secondary market is the main issue of this study. The following are some questions regarding stock price determination of secondary market in Nepal.

- ⯈ What would be the price for a stock in secondary market?
- ⯈ What is the effect of dividend to the stock price?
- ⯈ What are the impacts of price trend, volume of stock traded?

1.3. Objectives of the Study

Objectives of the study are guidelines by which the study can be conducted in a systematic manner. The main objective of the study is to study, examine and analyze the fluctuation of security price in the stock market. The study also examines the efficiency of the stock market in Nepal. The specific objectives of this study are as follows:

1) To study and analyze the stock price trend and volume of stock traded on the secondary market.
2) To study and analyze the investors views regarding the decision on stock investment.
3) To analyze the behaviour of NEPSE index.
4) To study and examine the factors that impact on stock price with the help of NEPSE index.
5) To provide suggestions and recommendation to the concerned authority for for further improvement.

1.4 Significance of the Study

The main reason behind this research work is to analyze the stock price behaviour of the selected companies listed in Nepal Stock Exchange. This will benefit the prospective investors to gain. The information regarding the stocks of companies and to make the better investment decisions. As well as, investors can obtain the information about the position of Nepalese Stock market during the study period. Besides, this study will contribute to the concerned authorities and the market makers. Further, it will add little worth to those who want to conduct a research or in related topic. This study is very useful to potential investors who are interested to know the effect of price trend, volume of stock and impact of signaling factors in NEPSE index.

1.5 Limitation of the Study

The study will have some limitations; basically the study is done for the partial fulfillment of Masters of Business Studies. Time constraints, financial problem and lack of research experience will be the primary limitation and other limitations are as follows;

⟩ The study will confine only to Listed Companies of Nepal Stock Exchange and its members.

⟩ This research based on Primary and secondary data, which have been collected from field survey, books, financial statement and report of the security board of Nepal (SEBON) and Nepal Stock Exchange and selected company's annual reports, company's web site and other publications. The study covers the information of only five fiscal years data.

⟩ Foreign information and rules affecting the share market is ignored.

⟩ Studies and reference were also extremely limited in the prospective of Nepalese stock market.

1.6. Organization of the study

This study is divided into five major chapters on the following format.

The first chapter entitled **"Introduction"** introduces the subject; present the research problem, reason for studying, objective of the study, along with limitation.

The second chapter entitled **"Literature Review"** concerned with the study of stock price have been reviews & presented.

The third chapter discussed the **"Research Methodology"** used in the study. It comprises research design, nature & source of data, data gathering method and analytical tools used.

The fourth chapter deals with the **"Presentation & Analysis"** of data & scoring the empirical finding out the study through definite course of research methodology.

The last chapter i.e. **"Summary, Conclusions and Recommendations"** of the study, which is followed by the basic conclusion of the study based in the fourth chapter on the basic of these conclusion and recommendation has also been presented for consideration.

CHAPTER – II
LITERATURE REVIEW

The basic concern of the study is to focus on the pricing behaviour of the stocks of the companies listed in Nepalese Stock Exchange. So, in this chapter, an attempt is made to review some of the literature concerning the stock market in Nepal and aboard as well as the market price behaviour. The price behaviour of the stock and its trading activity has got the tremendous concentration in security investment. So, a better understanding of these determinants may increase investors' confidence in the stock market and thereby enhance the effectiveness of corporate resource allocation. Hence more and more concerns over pricing behaviour are arising and most of the concerned books bear some paragraph on this issue.

2.1 Conceptual Review

2.1.1 Capital Market

A place where long term lending and borrowing takes place is known as capital market. Therefore, the capital market is the market for long term borrowing and lending. The Primary instruments of the capital market are ordinary shares, Preference shares, bond and debenture. Therefore it includes both the new issue market and the old market. Capital market is concerned with long term finance; widely it consists of series of channels through which the saving of the community are made available for industrial and commercial enterprises and authorities. It is concerned with that private saving, individual as well as corporate, that are turned into investment through new capital issue and also new public loan floated by government and semi government bodies. And capital market demands for funds come from individual or corporate savings, institutional investors and surplus of government.

The history of capital market is not so old for Nepalese context. The Capital Market was developed by the establishment of Security Exchange Centre on

2033 B.S. The number of listed companies and their trading was very negligible until and government of Nepal has made economic reforms along with broad financial policy in the process of economic liberalization. The privatization of public entities has been started and various banking and finance companies as well as other companies in the private sector are being established with local and foreign investments. As they were established as public companies, these companies have to issue some of their share of the general public. So, the development of the security market in Nepal takes its pace on the establishment of these banking and finance companies.

2.1.2. Security Market

Securities market is known as the integral part of capital market is in fact backbone of the economy. It plays a vital role in collecting funds from issues of shares. Its fundamental work is buying and selling of securities. This indicates the structural network of the securities. This indicates the structural network of the wavers and users group of fund presumably garnered for long term financing. But the formation of network originates via conversion process of saving into investment outlet. Thus the security market upholds the attempts particularly concerned with the collection, mobilization of savings. Savings diverted towards the regeneration activities in essence of financing and industrialization activities will result in the repercussion favourable to the economy as a whole.

There are two important functions of securities market, namely the raising of funds in the form of shares and debentures and trading in the form of shares and debentures and trading in the securities already issued by the companies.

In a simple sense securities market is a place where people buy and sell financial instruments. These financial instruments may be in the form of government bonds, corporate bonds or debentures, ordinary share, preference shares etc. So far securities market is concerned; it is an important constituent

of capital market. It has wide term embracing the buyers and sellers of securities and all the agencies and institutions that assist the sale and resale of corporate securities (Bhalla, 1997:393).

Stock market is one of the important types of securities market. The stock exchange is an institution where quoted securities are exchanged between buyers and sellers. The stock exchange provides market in a wide range of traded securities, generally of medium to long term maturities issued by companies, government and public organization (Winfleid, 1985:22).

The key function of securities exchange is to create a continuous market for securities at a price i.e. not very different from the price at which they were previously sold. The continuity of the securities market provides the liquidity necessary to attract investor's fund. Without exchanges investor might have to hold debt securities to maturity and equity securities indefinitely. It is doubtful that many people would be willing to invest under such conditions. A continuous market also reduce the volatility of security prices, further enhancing liquidity (Lawrence, 1992:457).

Further, stock market liquidity may influence development. Many profitable projects require a long-term venture capital to finance. Most investors tend to avoid the risk and are often reluctant to tie their savings into long-term commitment. Liquid stock market makes the investment less risky and more attractive. It encourages savers to invest in the long-term projects, because they can sell the securities quickly and easily if they want to get back their savings before the project matur5es. While at the same time, companies receive easy access to capital through new issuance of shares. Stock market liquidity is positively and robustly correlated with contemporaneous and future rates of economic growth, capital accumulation and productivity growth.

The liquid stock market also promotes the primary issuance of share (Sharma, 1996:14). The securities exchange help allocate scare fund to the best uses.

That is by disclosing the price behaviour of securities and requiring the disclosure of certain corporate financial data; they allow investors to access the securities risk and return and to move their funds into the promising investments. An efficient market is one that allocate fund to the most productive use. Along with this there is a lot of functions of security exchange, such as ready market and continuous market, evaluation of securities, safety of transactions, mobilization of savings and widening the share ownership etc. Apart from these functions, the stock market determines a fair price for the securities, it trades or price discovery function. It enables transaction to bb made at as low cost as possible or minimization of transaction cost and enables transaction to be made at this quickly and easily or provision for liquidity. Another way of classifying security market is by whether new securities are being brought i.e. called primary and secondary market.

2.1.3 Mutual Trading Procedure in NEPSE

Mutual trading is performed in NEPSE when the broker get buy and sell order of a particular share at particular price from two different clients. The mutual trading is coded with green ink marker in the board of NEPSE. If the set of brokers announce the mutual trading with little lower price of the same security, then the previous mutual trading will be replaced with the new one.

The price of the mutual trading is generally coded at the last time period, i.e. 12:50 p.m. in the floor where the market shows the trend of the particular share at that particular day. The price of the mutual trade should be placed within the range of 5%.

"The criteria of mutual trading plays vital role because the price is determined independently by only two brokers. So, it is sometimes said that the criteria or the facility to perform mutual trade should be banned. The present practice of share trading by mutual consent is a kind of wash sales that should be discouraged as it creates distortion in the price determined by the market forces. Such action helps in avoiding fictitious names created by several

different share brokers in share transaction and also to check on the creating an illusion of rising price (Shrestha; 2056:9).

With the objective of making securities transactions more transparent, SEBO has made attempts to establish a system of time stamping of the orders from clients. Likewise attempts have been made to make the mutual trading more transparent.

2.1.4 Main Function of Stock Exchange: Price Discovery

Security is a legal representation of the right to receive future benefits under conditions. Its value depends on expectation of the amount of those benefits and evaluation of risk involved. Expectation and evaluation reflect both the information available and conclusions people draw from that information. Since the market may be quite big, no single buyer or seller can influence the price of a share to any significant extent.

Price discovery is the process of arriving at fair prices for securities. Fair price indicates the compromise between fair offer price (lowest price at which any well informed trade willing to sell) and fair bid price (highest price any well informed buyer is willing to pay). Different markets do this in different way and different ways of organizing a market affect how closely the market approaches the ideal of fair prices. However, a very important fact that should not be forgotten is the concept of ideal market or market efficiency, which also the necessary pre-condition for approaching to the fair price. In an ideal market value of securities equal its price of securities and prices reflects all available information about the market.

In the securities market there is a great importance of demand and supply for price fixation. The price of a given stock is determined exclusively by the interacting forces of supply and demand converting on such stock at a given time, that the price and volumes of its past transaction are meaningful indications of the probable relationship of the future demand pressure, it is likely to encounter in the market and that such relationship is the most

important element in determining the probable direction the price movements (Ackerman, 1980: 85).

The stock exchange produces through its continuous process of evaluation, prices of securities as close as possible to investment value based on present and future income yielding prospects of various enterprises, capitalized at national rate of interest the rate which will prevail if and when all the liquid savings are employed into productive purposes (Gupta, 1982: 148).

A total of 34 public limited companies raised funds amounting to Rs.2, 295.5 million by floating securities in the fiscal year 2006/07. In the fiscal year 2005/06, a total of 29 public limited companies had raised funds amounting to Rs.2, 443.3 million.

In the fiscal year 2006/07, the total number of listed companies remained 135 as equal to 135 listed companies in the fiscal year 2005/06 due to the listing of additional 12 companies and delisting of 12 listed companies. In the fiscal year 2006/07, the turnover increased by 142.22 percent to be Rs.8,360.1 million as compared to turnover of Rs.3,451.4 million in the fiscal year 2005/06.

2.1.5 The Level of Capital Market Disorders

There are many unfair acts being performed by different parties in the stock market which eventually force the market to be inefficient. There unfair share market particles cover wash sales, cornering of the share market, churning, formation of pools and cartels, misuse of insider information and so on" (Shrestha;2056:9).

Wash sale

"A wash sale is essentially no sale at all. If a person who owns some securities sells those securities to himself, this is a wash sale. The purpose of wash sale is to create a record of a sale. This may be done to deceive someone in believing that a market price has changed" (Francis; 1998: 465).

"In wash sales, there is simply record of a sale but there is no sale of shares at all. If a man sells securities to his wife, this is a wash sale. The market makers have taken shares in the name of there family, relatives and other employees who were under their control. But, as they raise prices artificially to the peak, which is called forcefully created market boom by their own dishonest acts, they sold and later on put innocent investors to be the victims as they are made to buy at higher prices. At present, the practice of conducting shares transaction at a price agreed by mutual consent of buyer and seller is allowed in share market. This is a kind of wash sale since no money needs to be involved only the commission is to e paid to the broker".

2.1.6 Stock Exchange

The stock exchange is an institution where quoted securities are exchanged between buyer and sellers. The stock exchange provides market in a wide range of traded securities, generally of medium to long-term maturities, issued by companies, government and public organizations (Winfield, 1985: 22).

Most of the investors are attracted to the equity shares because of its marketability and liquidity. One may like to buy more shares or selling existing shares from time to time when he is in need of money or when he wants to shuffle his portfolio. Since the stock exchange is a place where a large number of buyers and sellers congregate, one can, buy and enlarge, easily find his counterpart for sale or purchase of shares. The investor can convert his shares into cash at the prevailing market price readily. The existence of stock exchange facilitates all these functions without which it is almost impossible to do so.

The key function of securities exchange is to create a continuous market for securities at a price that is not very different from the price at which they were previously sold. The continuity of securities market provides the liquidity necessary to attract investor's funds. Without exchanges, investors might have to hold debt securities to maturity and equity securities indefinitely. It is

doubtful that many people would be willing to invest under such conditions. A continuous market also reduces the volatility of security prices further enhancing liquidity (Gitman, 1992: 458).

The securities exchanges help to allocate scare fund to the best uses. That is by disclosing the price behavior of securities and requiring the disclosure of certain corporate financial data; they allow investors to access the securities risk and return and to move their fund into the promising investments. An efficient market is one that allocates fund to most productive uses. Along with this, there is lot of functions of security exchange such as ready market and continuous market, evaluation of securities, safety of transactions, canalization of savings and widening the share ownership etc. However, besides these functions, there are three things as security exchange must do:

- Determine a fair price for the securities it trades or price discovery function

- Enable transaction to be made at as low cost as possible or minimization of transaction cost.

- Enable transaction to be made at this price quickly and easily or provision for liquidity.

Table 2: Securities Markets Indicators

(Rs. In Million)

Market Indicators	Fiscal Year		
	2004/05	2005/06	2006/07
Number of Public Issue	14	29	34
Amount of Public Issue	1626.8	2443.3	2295.5
Number of Listed Companies	125	135	135
Paid-up Value of Listed Securities	16771.8	19958.0	21798.8
Number of Listed Securities (' 000)	194673	226540	243504
Turnover	4507.7	3451.4	8360.1
Market Day	236	228	232
Number of Traded Companies	102	110	116
Number of Traded Shares (' 000)	18433.55	12221.93	18147.25
Number of Transactions	106246	97374	120510
Market Capitalization	61365.9	96763.7	18630.13
% of Turnover on Market Capitalization	7.35	3.57	4.48
% of Market Capitalization on Nominal GDP at market price	12.06	16.03	27.78
NEPSE Index (points)	286.67	386.83	683.95

Source: Economic Surveys, 2006/07 and Trading Reports of NEPSE, 2006/07

In the fiscal year 2006/07, the market capitalization of the listed companies increased by 92.53 percent to be Rs.1,86,301.3 million as compared to market capitalization of Rs.96,763.7 million in the fiscal year 2005/06. In the fiscal year 2006/07, the preliminary estimate of the contribution of market capitalization to the GDP is 27.78 percent. In the fiscal year 2006/07, the price index of the listed securities in Nepal Stock Exchange Ltd. (NEPSE Index) reached to 683.95 points with the increase of 297.12 points as compared to fiscal year 2005/06. Securities market indicators in the fiscal years 2004/05, 2005/06, and 2006/07 are presented in table 3 and securities markets trend since the inception of SEBON to the fiscal year 2006/07 is presented under the heading securities market scenario.

Source: Annual Report 2006.07

2.2 Secondary Market in Nepal

The history of security market began with the flotation of share by Biratnagar Jute Mill Ltd. and Nepal Bank Ltd. in 1937. Introduction of Company Act in 1964, the first issue of Government Bond in 1964 and the establishment of Securities Exchange Centre in 1976 were other significant development resulting to capital markets.

Securities Exchange Centre was established with an objective of facilitating and promoting the growth of capital markets. Before conversions into stock exchange it was only the capital market institution undertaking the job of brokering, underwriting, managing public issue, market making for government bonds and other financial services.

Government of Nepal, under a program initiated to reform capital market, converted Securities Exchange Centre into Nepal Stock Exchange in 1993.

Nepal Stock Exchange, in short NEPSE is a non-profit organization operating under, Securities Exchange Act, 2040. The former Securities Exchange Centre

was converted into NEPSE under the program initiated to reform the capital market. The basic objective of NEPSE is to arrange marketability and liquidity to the government and corporate securities by facilitating transactions in its trading floor through market intermediaries such as brokers, market markers and others. The shareholders of the NEPSE are NRB, the central bank, Government of Nepal, Nepal Industrial Development Corporations and licensed members.

(www.nepalstock.com)

2.3 Price determination

The share price is determined in the floor by the interaction of market forces i.e. demand and supply. The price is determined by the point of equilibrium between supply and demand, the shifting of this balance results in incessant adjusting of price in search of the ever changing new equilibrium. Then market price moves upward and downward. There are many other reasons that causes the stock price fluctuation major of them are economic, non-economic and market factors.

Dividend is the most important factors on the determination of stock price. Dividends are strongly influenced by the earnings power of the firm. There is a very close correlation between corporate earnings and dividends. Earning power, in turn, is strongly influenced by interest rates. In this way, the most fundamental factor in stock price fluctuation lies in changes in corporate earnings, which together with interest rates and business cycle trends, contribute to make up the economic factors influencing stock price.

The next influencing factors are non economic factors including changes in political conditions, such as administrative changes, change in the weather and other natural conditions, and changes in cultural conditions, such as technological advance and the like. Similarly the other influencing factors are market factors, or internal factors of the market, considering to the one of the marked and supply-demand relations, may be cited as the third category, that influences the stock prices, Besides these factors the stock prices are influenced

by the corporate performance of the company, company's policy regarding the capitalization of earnings as well as government rules and signaling effect of the market.

2.4 Securities Pricing

In the securities market there is a grate importance of demand and supply for price determination. The price of a given stock is determined exclusively by the interacting forces of supply and demand converting on such stock at a given time that the price and volumes of its past transactions are meaningful indication of the probable relationship of the future supply and demand pressure, it is likely to encounter in the market and that such relationship is the most important element in determining the probable direction of the price movement (Irving, 1980:35)

Securities pricing is perhaps one of the poorly understand issues among investors. Securities pricing is complex because a large number of variables directly or indirectly affect the price formation process. The influence of individual's judgement and environmental factors has increased further complexities on it. Although securities prices are determine by the supply of and the demand of securities (Francis, 1999:521). The role of brokers, market makers and other actors of market mechanism is not crucial while creating demand and supply of securities.

Security is a legal representation of the right to receive future benefits under stated conditions. Its value depends on expectation of future benefit and an evaluation of risk involved. Price discovery is the process of arriving at fair prices for securities. Fair price indicates the compromise between fair offer price (lowest price at which any well informal trader is willing to sell) and fair bid price (highest price and well informed buyer is willing to pay). However, a very important fact that should not be forgotten is the concept of ideal market or market efficiency which is also the necessary precondition for approaching

to the fair price. In an ideal market value of the securities equals its price or securities prices reflect all available information about the market.

Price of stock changes according to the fluctuation in buying and selling orders. When a buy order is offset with a sell order, the trade is executed and it passes through certain procedures within a definite time period. Investors revise their orders periodically as per their perception and rationale.

The share price is determined in the floor by the interaction of market forces i.e. demand and supply. The price is determined by the point of equilibrium between supply and demand, the shifting of this balance results in incessant adjusting of price in search of the ever-changing new equilibrium. Then market price moves upward and downward. There are many other reasons that causes the stock price fluctuation, major of them are economic, non-economic and market factors.

2.5 Theories of stock price Behaviour

Most investors' analyzed securities depending upon the various theories on share price behaviour such theories have the most influencing role in share price formation. It is therefore, necessary and relevant to have a brief discussion of such theories.

There are two theories of stock price behaviour:

) Conventional Theory
) Efficient Market Theory

2.5.1. Conventional Theory

The conventional theory assumes that the market is inefficient and securities are mis-priced. In inefficient market, one can gain by selling the over-priced

security and buying the under-priced one. This theory includes technical analysis theory and fundamental analysis theory.

2.5.2 Technical Analysis Theory

Technical analysis theory based on the assumption that price of securities is determined by supply and demand of securities. It involves the study of stock market price in an attempt to predict future price movement of a particular firm. The past price is examined in order to identify the recurring trends or patterns in price movement. Many recent stock prices are analyzed to identify the emerging trends similar to the past ones. Matching of these emerging trends with the past ones is done in the belief that these respect themselves. Thus by identifying the emerging trends, the analyst hopes to predict the future price. Technical analysts are often called chartists because of their reliance upon graphs and charts of stock price movement. The charts used by chartists are used to detect the pattern of resistance for the share on the way up and support for shares on the way down.

The technical analysis is based on published market data. The technician should justify the trend and recognize when one trend comes to an end and prices start in the opposite direction. The focus of technical analysis is timing and the emphasis is given to the likely price change, the technical analyst focus on the internal factors by analyzing movements in the stock. The central problem in this process is to distinguish between reversals between trend and real changes in the itself.

In the technician view price changes and their significance mainly through price and volume statistics. His bag of tools helps him to measure price - volume, demand - supply relationship for the overall market or for individual stock.

The main assumptions of the technical analysis theory are:

⟩ Price of the stock is determined by the interaction of demand and supply.

⟩ Demand and supply are governed by various factors, both rational and irrational.

⟩ Series of prices contains trends that persist for appreciable length of time.

⟩ The changes of trends caused by shifts in demand and supply are detectable in the analysis of past price and volume data and the pattern tends to repeat itself.

Technical analysis records historical and financial data on charts. Study in charts in an effort to find meaningful pattern and use these patterns to predict the future prices. Technical analyst try to forecast short run shifts in supply and demand will affect the market price of one or more securities. Some of theories, techniques and methods of stock prices that are considered by technical analyst besides the charts and diagrams are given below:

The Dow Theory

The Dow Theory is one of the oldest and most famous technical tools and was originated by Charles Dow, who founded the Dow Jones Company and was the editor of The Wall Street Journal around 1900. The Dow Theory is used to predict traversal and trends in the market as a whole or for individual securities. According to Charles Dow, the market is always considered as having three movements, all going at the same time. The first is the narrow movement from day to day. The second is the short-swing, running from two weeks to a month or more; the third is the main movement covering at least four years in duration.

Dow Theory practitioners refer to these components as:

a. Primary Trends

They are commonly called bear or bull markets. Delineating primary trends is the primary goal of the DOW theorists.

b. Secondary Movements

Secondary movements are sometimes, called corrections which last only a few months.

c. Tertiary Movements These are simply the daily fluctuations. The Dow Theory asserts that daily fluctuations are essentially meaningless random wiggles. Nonetheless, the chartists should plot the asset's price are the market average each day in order to trace out the primary and secondary trends.(Francis, 1986:524)

The Main Movements

It covers four years in its duration. This movement is also called the 'primary trends'. The primary trends are the main movements in a market can be identified by means of a time-chart. In this chart the technical analyst should plot the price of the share. The peak price of the stock is called the resistance area. After that the stock price moves towards. If the price rises above the peak it breaks its level of resistance and upwards under the power of bullish momentum.

The support area shows the previous low price of stock. The price goes below previous support area then it penetrates support and stock price will continue to fail when prices go higher than peak level and sell when the price is lower than previous low price.

Breadth of the Market

The breadth of the market is calculated by subtracting the number of issue whose prices have increased or advances that is by measuring the volatility by slack prices. Line chart are used to show the breadth of the market moves in the same direction as the market average. This indicator measures the strength of declines of advances in the stock market.

Relative Strength

Relative strength is formulated to show that those securities, which have continued to stable historically in past, will give an investor a higher, return because the security has stability and is able to withstand both the depression and peak periods.

According to the analysts, the investors should make a choice of investing in those securities, which have constant strength in the market. This can be done by comparing the price of those securities, which rise and fall faster than the price of other securities. The relative strength can be calculated by measuring the rate of return of the securities by classifying the securities and by using the ration analysis.

Trading volume

Another indicator to find out the behaviour of stock prices in the market is by checking to daily list of stock exchange quotations. The volume, according to the technical analyst, measures the intensity of the investor. Technical analysts, measures the volume of stock by carefully watching the demand and supply of securities whenever there is a change in equilibrium.

Moving Average

The technical analyst also forests the prices of share by using the statistical method of moving average. The moving average smoothens the daily fluctuation and show the trend for individual securities as well as for market index. Moving average show daily prices when the average show the continuous fall there is a downward penetration and it is signed to sell and vice versa. Technical analyst asserts the superiority of their methods over fundamental analysts by pointing out those technical analysts easier and faster, and can be applied to more stocks simultaneously than fundamental analysis. They also point out that chart drawing reading is faster, cheaper and easier to learn than fundamental analysis (Subedi, 2002).

2.5.3 Fundamental Analysis

Fundamental analysis usually stats with a study of past earnings and examination of company balance sheets. They supplement this analysis with further details economic analysis, the firms standing within its industry and the prospects for the industry as whole. The hope is to attain inside into future performance of the firm that is not yet recognized by rest of the market.

Fundamental analysis theory begins with begins with the identification of true or intrinsic value of financial assets. This true value is the present value of all cost flows that the owner expects to receive. Fundamentalists are primarily interested in analyzing factors such influences, industry factors and pertinent company's information such as product demand, earnings, dividends and management in order to calculate the intrinsic value of the firm securities. Once the true value is identified, it is compared with the market price to find whether the stock is correctly priced or not. If the true value is less than the current market price the stock is known as overpriced whereas the stock that has a true value greater than its current market price is known as under price. Security analysts study companies earning and their management, the economic outlook,

the firm's competition, market conditions and many other factors to determine the real value of securities. Early words dealing with securities analysis put forward the idea that the intrinsic or fundamental value of any security is equal to the discounted cash flow which that security gives title to, and the actual price fluctuates around these fundamental values.

Fundamental analysis method arise mainly three difficulties in its implementation. The first difficulty is to estimate the pattern of future income. Since, future is uncertain, various unseen factors spoil our estimation. So, in a word of uncertainty, there is very low change of accurate estimation. The second difficulty is the determination of discounting rate. The appropriate discounting rate varies with individual perception towards risk and return. The third difficulty is to estimate the terminal value of asset that will be at the end of the period. Therefore, if the future cash flow was certain and the discounting factor was same for all investors, the value of a security would be equal for all investors. Although, many investors use technical analysis, fundamental analysis is far more prevalent. Technical analysis is frequently used as a supplement to fundamental analysis rather than as a substitute for it. Thus technical analysis frequently confirms finding based on fundamental analysis is much larger than the number using technical analysis.

Capital Assets Pricing Model (CAPM)

The basic foundation of the theory was laid down in the microeconomics studies of mean variance choice by Markowitz (1959) and Tobin (1958). The critical extension to equilibrium in the capital market, and the development of the CAPM, was accomplished by Sharpe (1964) and Lintner (1965) (Stephen, 1978:886). Like the portfolio models of Markowitz and Tobin, the Sharpe-Lintner asset pricing model assumes a market of risk averse consumers who can make portfolio decisions on the basis of the means and standard deviations of one period portfolio returns, implicitly assuming that these standard deviations of one period portfolio returns, implicitly assuming that these

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standard deviations exist (Fama, 1971:30). The CAPM substantiated the idea that, in competitive equilibrium, assets earn premium over the risk less rate that increase with their risk, by showing that the determining influence on risk premium is the covariance between the asset and the market portfolio rather the own or intrinsic risk of the asset. (Stephen, 1978:886) CAPM is concerned with tow key questions:

) What is the relationship between risk and return for an efficient portfolio?

) What is the relationship between risk and return for an individual security?

The CAPM is based on the following assumptions:

) Individuals are risk averse

) Individuals seek to maximize the expected utility of their portfolios over a single period planning horizon.

) Individuals have homogeneous expectations they have identical subjective estimates if the means, variances and co-variances among returns, expected returns and standard deviations.

) Individuals can borrow and lend freely at a risk free rate of interest.

) The market is perfect; there are no taxes there are no transaction costs securities are completely divisible; the market is competitive.

) The quantity of risky securities in the market is given.

Gorden's Model

As per the Gorden's model about relationship of dividend policy and stock price, investors are no indifferent between current dividends and retention of earnings. An
increase in dividend payout ratio leads to increase in the stock prices for the reason that investors consider the dividend yield is less risky than the expected

capital gain. Similarly investors required rate of return increases as the amount of dividend decreases. This means that there exists a positive relationship between the amount of dividend and the stock prices.

The model is based on the following assumptions:

- The firm is an all-equity firm.

- No external finance is available.

- Internal rate of return r, appropriate discount rate (Ke) are constant.

- The firm and its stream of earnings are perpetual.

- The corporate tax, do not exist.

- The retention ratio (b) once decided upon is constant. Thus the growth rate (g=br) is constant forever.

- The discount rate is greater than growth rate, K>g.

As per this model, the relationship between stock price and dividend varies on the following stages:

a) Growth Firm (r>k)

In case of growth firm the share price tends to decline in correspondence with increase in payout ratio or decrease in payout ratio or decrease in retention ratio. It means high dividend leads to increase in share prices. Therefore dividends and stock price are negatively correlated in such firms.

b) Normal Firm(r=k):

The price of share remains constant regardless of change in dividend. It means dividend and stock price are free from each other in normal firm.

c) Declining Firm(r<k):

The share price tends to rise in correspondence with rise in dividend payout ratio. It means dividend and stock prices are positively correlated with each other in declining firm.

J.E. Walter's model:

As per the study of J.E. Walter on the relationship of dividend and stock price, dividend policy of a firm affects its stock price. The relationship between firm's internal rate of return and cost of capital are the determining factors to retain profits or distribution of dividend. The stock price will be increased with the increase in the retention ratio of the firm when the internal rate of return is greater that the cost of capital. Thus as per Walter Zero dividend policy will maximize the market value of share for growth firms.

Assumptions of Walter's model:

- Retained earnings constitute the exclusive sources of financing. The firm does resort to debt or equity financing.

- The firm's internal rate of return and its cost of capital are constant.

- Value of earning per share (EPS) and dividend per share (DPS) are remaining constant.

- The firm has perpetual life.

- The firm distributes its entire earnings or retains it for immediate reinvestment.

The relationship between stock price and dividend varies on the following stages:

a) Growth Firm (r>k)

If the firm's internal rate of return exceeds the cost of capital such firms are known as growth firms. The relationship between dividend and stock price is negative on such firms. It means that more dividends leads to decrease in stock price and zero dividends will maximize that market value of shares for such growth firms.

b) Normal Firm (r=k)

If the firm's internal rate or return and cost of capital are equal such firms are called normal firms and there is no role of dividend on such firm's stock price.

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Dividend payout ration does not affect the value of share whether the firm retains the profit or distributes dividend.

c) Declining Form (r<k)

If the firm's internal rate or return is less than cost of capital, such firms are known as declining firms. The relationship between dividend and stock price positive that is increase in dividend per share leads to increase in stock price of such firms.

Thus Walter concluded that when the firm is in growth stage then dividend is negatively correlated with price of share. Similarly, in normal firm there is no relationship between dividend and stock price. In the same way, there is positive relationship between dividend and price of stock in declining stage of firm.

Efficient Market Theory (EMT)

The word "Efficiency" as applied to securities market has unfortunately been used to represent a variety of logically distinct concepts. In particular it means: A) exchange efficiency B) production efficiency and C) information efficiency. In this study, it is concerned only with informational efficiency. In an efficient market security price 'fully reflect' available information" (Fama, 1976:133). Regardless of the form of information, it is the key to the determination of stock prices; therefore it is the central issue of the efficient market concept.

An efficient market can exist if the following events occur:

1) A large number of rational, profit maximizing investors exist who actively participate in the market by analyzing, valuing and trading stocks these investors are price takers: that in one participant alone can not affect the price of a security.

2) Information is free of cost and widely available to market participants at approximately the same time.

3) Information is generated in a random fashion such that announcements are basically independent of one another

4) Investors react quickly and accurately to the new information, causing stock prices to adjust accordingly. (Charles, 1999:425)

In such a market, the current prices of a security obviously "Fully Reflect" all available information. Similarly, in a perfect and competitive economy compared of rational individual with homogeneous beliefs about future prices, by any meaningful definition present security price must fully reflect all available information about future prices.

In an efficient market, market participants, acting in their own self-interest, use available information to attempt to secure more desirable (higher returns, ceterisparibus) portfolio position. In doing so they collectively ensure that price movements in response to new information are instantaneous and unbiased and will fully reflect all relevant information. Competition among participants to secure useful information will drive security prices from one equilibrium level to another so that the change in price in response to new information will be independent of the prior change in price. Price change will be random walk in response to the information.

"In an idle efficient market, every one knows all possible to know information simultaneously, interprets it similarly, and behaves rationally."(Bhalla, 1983:2). In such a world, the only price change that would occur is due to the result from new information. "An initial and very important premise of an efficient market is that there are large numbers of knowledgeable and profit maximizing investors adjust the information rapidly." (Reilly, 1986:166) "The degree of market efficiency has important implications for the economy and for the investment decision makers. In an economic sense, it is important that security prices provide accurate signals that can be used to allocate capital resources

correctly. Mis-priced security result in incorrect allocation of capital" (Cheney, 1997:746).

One set of test of market efficiency examines the informational efficiency of security prices. Existing model of efficient markets imply that all relevant information regarding given stock is reflected in its current market price. This notion of market efficiency can be divided into three categories based on type of information used in making market decisions. They are explained as follows:

a) Weak Form Market Efficiency

"Weak form market efficiency hypothesizes that today's security prices fully reflect all information contained in historical security prices. This implies that no investor can earn excess returns by developing trading rules based on historical price or return information" (Weston and Copland, 1996:94)

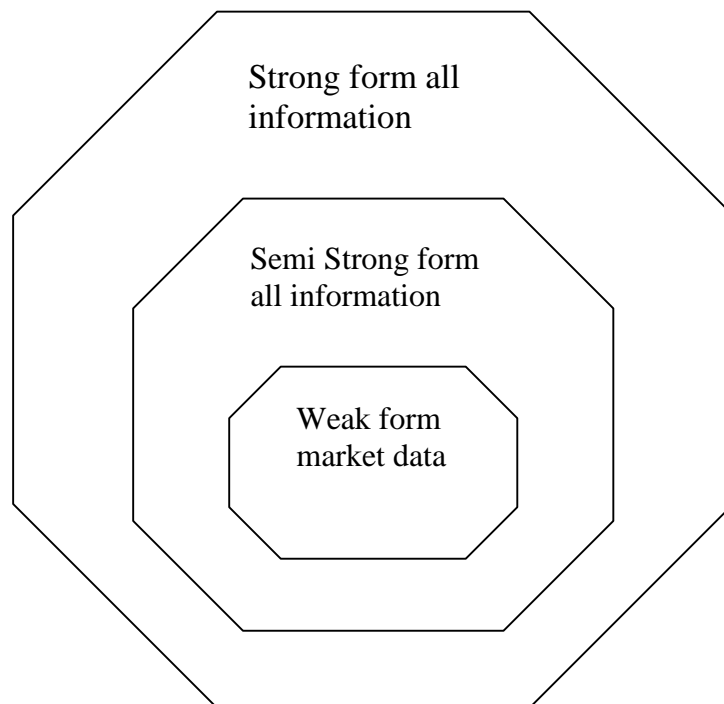**b) Semi-strong Form Market Efficiency**

It says that security prices fully reflect all publicly available information. Thus, no investors could earn excess return using publicly available resources such as corporate annual reports, NEPSE price information or published investment advisory reports. It contains all publicly available data such as earnings, dividends, stock split announcements, new products development, financing difficulties and accounting changes. A market that quickly incorporates all such information into prices is said to be semi-strong efficient. "If the semi strong hypothesis is true then only a few than what could be earned by using a naïve buy and hold strategy" (Francis, 1986:608).

c) Strong Form Market Efficiency

"The most stringent form of market efficiency is the strong form, which asserts that price fully reflect al information, public and non public." (Jones, 1943:29) In such kind of market, no group or investors should be able to earn, over a reasonable period of time, excess rates of return by using publicly available

information in a superior manner. "An extreme version of the strong form holds that all non public information, including information that may be restricted to certain groups such as corporate insiders and specialists on the exchanges, is immediately reflected in prices. In effect, this version refers to monopolistic access to information by certain market participants."

Chart: 2
Market Efficiency in Three Information Level

Strong form all information

Semi Strong form all information

Weak form market data

These three hypotheses are not mutually exclusive; they differ only in the degree of market efficiency. It is notable point that a semi-strong efficient market encompasses the weak form of the hypothesis because price and volume data are part of the larger set of all publicly available information. Strong-form efficiency encompasses the weak and semi-strong forms and represents the highest level of market efficiency. It is necessary for the weak form hypothesis to be true in order to the semi-strong and strong form hypothesis to be true.

Weakly efficient market hypothesis

The first hypothesis is the weakly efficient market hypothesis. The weakly efficient hypothesis stipulates that historical stipulates that historical price and volume data for securities contain no information which can be used to earn a trading profit above what could be attained a naive buy - and - hold investment strategy. This hypothesis suggests that technical analysis is well recorded but worthless folklore.

Weakly efficient markets were defined a market where past price provide no information that would allow a trader to earn a return above what could be attained with a naive buy - and - hold strategy. This definition means that while traders and speculators may earn positive rates of return, they will not beat a naïve buy and hold strategy with information obtained from historical data.

Semi-strong efficient market hypothesis

Fama's semi strong efficient hypothesis specifies that markets are efficient enough for prices to reflect all publicly available information. Consequently, only those insiders who have access to valuable information could earn a profit larger than what could be earned by using a naïve buy and hold strategy in a semi strong efficient market. It requires that all public information be fully reflected in security prices.

Strongly efficient market hypothesis

Fama's third hypothesis is called the strongly efficient market hypothesis, it claims that no one can earn a profit larger than what could be earn a profit larger than what could be earned with a naïve buy and hold strategy by trading on short-term security price movements. Security markets can be strongly efficient, if the rates of stock price changes are independent random variables and none of the market participant use inside information.

This hypothesis suggests that all information, public or not is fully reflected in security prices. This idealistic economic situation results in a perfectly efficient markets where prices and values are always equal as they fluctuate randomly together in response to the arrival of new information.(Francis, 1999:475)

One obvious way to check the validity of the strongly efficient markets hypothesis is to examine the profitability of traders in securities, made by insiders information allows them to earn statistically significant trading profit.

The weak efficient and semi-strong efficient market hypothesis is well supported by the facts. But the strongly efficient market hypothesis is not supported by the fact because it states not only that the stock price reflect all information relevant to the firm but also including the information available only to company insiders.

The forms of market are determined on the basis of how publicly available information is reflected in the market price of the shares. The EMH focus on historical information to determined the market price of shares. But, different countries might have different set of regulations regarding the behaviour of the stock exchange and trading of share. Table No. 3 presents basic difference level of market.

Table - 3

Efficient Market Hypothesis

Forms of efficiency	Set of information reflected in security prices of securities
Weak	Previous prices of securities
Semi-strong	All publicly available information as well as past price movement
Strong	All information

2.6 Stock Valuation Model

As discussed earlier, the fundamental principle of valuation says that the value of stock is the present value of expected future cash flows which include dividends and cash realized at the final year by sales of the stock. If the stock is hold for infinite period, the cash flow is the stream of dividends. This model attempts to develop a mathematical formulation of the variables. There are three basic valuation models:

- Net Asset Value Model (NAV)
- Dividend Valuation Model (DVM)
- Earning Valuation Model (EMV)

2.6.1. Net Assets Value Model

The net assets value is the value of total assets less current liabilities and long term debt, which is financed by the shareholders net worth. The shareholders net worth consists of paid up capital, share premium, accumulated profit and other reserves which belongs to shareholder. The NAV per share is computed by dividing the total NAV by number of outstanding shares.

2.6.2. Dividend Valuation Model

This model defined an intrinsic value of a share as the value of future dividend. If the stock is hold for infinite period, the cash flow is the stream of dividends. The value of the share as and when sold in some future year.

2.6.3. Earning Valuation Model

The earning valuation approach takes into accounts the P/E ratio(price earning ratio) for the purpose of valuing common stock. P/E ratio is computed by market price per share by earning per share. This ratio varies with the market price changes. The value of share is calculated by multiplying P/E ratio and EPS.

Above discussion has tried to clarify the concept of listing, liquidity and security pricing. It all reveals that the importance of listing lies on information disclosure. The information disclosed as a regular requirement of listing plays a major role in share price formation. Liquidity of security market is a motivating factor for many investors to invest on security. Liquid security market ensures quick trading with minimal effort. Price of security is a affected by various factors. Theories on share price behaviour can be useful in predicting future share price. In the security market like ours, correct pricing is most necessary to attract the interests of prospective investors.

2.7 Review of Nepalese Study

Although no specific studies are under-taken on the listing, liquidity and share piece of Nepalese security market. There exist some literatures on share price and liquidity. There are some studies as a milestone on this arena. Some of these are more relevant with this study and so far be selected as a concern literature. A brief abstraction of findings is summarized in the following manner:

2.7.1. Review of Journals:

"Investors were enlightened and they stated inquiring about company's financial health and future prospect before buying or selling shares. People turned to price – earning multiples: NEPSE indexes informed trading became sort of a norm when stock market entered 1995. Many who could not cope with the system of intelligent speculation left the ground. As a result, the numbers of buyers gradually came down and so did the prices" (The Kathmandu Post, May 18, 1996:6).

"**Return from investment in stock is not short run phenomenon**." Investors have to learn few things before they make investment on stock. First of all they should know the financial health of that company. For example; if somebody want to invest in the share of Standard Charted Bank, s/he must see its balance sheet or at least paid-up capital, last year net profit, current year anticipated profit and calculate earning per share and price earning per share and price earnings ratio. These two numbers would give a fair idea about company health and then market price would judged through the discount factors based upon one of the sound company's data. Market price is equal to earning per share divided by discount factor. "EPS can derived by dividing total net profit after tax by total number of shares and price earning ratio by dividing market price per share EPS. Lower the P/E ratio higher the chance of profit with capital gain and others" (Business age, March, 2001:20).

"**Investment in share has traditionally been done** by rating the institutions on the price of price earning ratio or dividend. Hardly do investors compare current assets with current liabilities or take a look at the debt equity ratio. Unless investors begin analyzing the intricate financial details of corporate institutions before making investment decision, the market cannot develop smoothly."

Share investment has traditionally been guided by the investors return. Most earning of investor here have in the form of dividends rather than capital gains, though high dividends are often seen, incorporate finance theory as a wasteful use of scares capital. With the commercial bank becoming the only potential destination, other stocks market participants hardly making profit, and even they did failing to meet investors expectations, demand for shares of commercial banks outpaced supply and their price boomed.

ADB experts have seen many obstacles to the growth of the capital market. This includes low level of investors' confidence, disclosure of poor and manipulated financial information weak enforcement of regulation absence of instructional investors, lack of diversity in the range of financial instruments and the scope of active participation for the various intermediaries limited by vertical barriers" (The Rising Nepal, September, 2001:7).

In Business Age (July 2004:53) Nepal stock exchange's securities price index (NEPSE Index) during the month of June remained fluctuating. It remained bullish till June 10 reaching 216.75 and than it turned bearish continuously reaching the level of 211.31 on June 15. The rise was started with the appointment of new government and the main leader was commercial bank group the market dominating sector in the exchange understandable enough, the increase in the price was fueled by the expectation for early end of conflict between government and political parties, after the appointment of Deuba as a prime minister. But the publication of the third quarter financial result was no way less important factor for such positive impact on commercial bank sector as been in June 2004.

NEPSE index fell after reaching 216.75 on June 10 and plummeted to 211.31 over a short span of three days. This fall was however caused by notices published by some companies inviting application for their new issue as well as possible strike of the NEPSE employees and the wrangle among the political parties that delayed the formation of coalition of government.

Since June 16, the index turned bullish again till the end of the month. Despite the strike of employees of NEPSE. The market increased on June 16, one day before the strike and continued to increase during and after the strike till the end of the month. There were no any major events to cause the price of share goes up. However, the expectation of fewer disturbances after the four parties suspended the outgoing demonstration and the Maoist, student union called off the education strike, the country budget and positive

development reported for the formation of coalition government etc increases the expectation of investors.

The NEPSE index seems sensitive to political economical and financial sectors developments it has raised after the disclosure of financial situation by the companies and when there were positive signs of political stability and it decreased for some company shares. It shows that the investors are becoming aware about when to buy and sell the securities.

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).

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).

2.8 Review of Master's Degree Thesis

There are many dissertations written by various researchers in past years. Among them some dissertations are received here for analysis of literature.

Shrestha (1999) in his study on "A Study on Stock Price Behaviour in Nepal", this study aims to examine the efficiency of the stock market in Nepal.

The main objectives of the study were to examine the serial correlation of the successive daily price changes of the individual stocks and to provide feedback policy for the institutional development of efficient market.

While conducting the study, all the companies listed in the stock exchange were considered as total population. Out of them, the companies that were existing and doing transaction in the NEPSE were considered as the sample for the study. For the purpose of presenting and analyzing the available data tools such as trend bar, Bar diagram, multiple bar diagram, ratio analysis were used.

The main findings of the study were that the dependence in the series of price changes observed imply that the price changes in the future will not be independent for the price changes of the previous days. It implies that the information of the past price changes is helpful in predicting future price changes in a way that the speculation through technical analysis can make higher expected profit than under buy- and hold policy (i.e. average market return). Therefore, opportunities are available to sophisticated (both institutional and individual) investors to earn higher return in the market.

The above mention study has recommended that, since the successive price changes are not independent random variable for the sample stock listed in the Nepal Stock Exchange ltd. (NEPSE), therefore, the random walk theory is not a suitable description for the stock market price behaviour in Nepal.

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Ojha (2000) has conducted on "Financial Performances and Common Stock Pricing".

The main objectives of his research were to study and examine the difference of financial performance and stock price as well to explore the signalling effects in stock price.

The study has used primary data obtained form the experts and the employees of security market through the means of interviews. Secondary data was used form the publication of NEPSE, SEBO and the ministry of Finance. The analytical tools used to interpret the data were various graphs, bar diagram, t-test, multiple diagrams etc.

The main findings of his study were that the Nepalese stock market is in growing stage. In general, it is very new and just started to develop. Dominance of banking sector is prevalent in the market due to other industries including finance companies, insurance and manufacturing is not encouraging. Corporate firm with long history have a relatively stable profitability parameters than the firms established after the economic liberalization of 1990. "There is a positive correlation between the net worth per share and stock prices of banking, airlines, and hotel industries, there is no perfect correlation between the net worth per share and common stock price.

Though the profitability factor as mentioned in the study are the major factors for the demand and the price determination of the stocks, but its not the whole and sole, as there are number of others supporting factors that plays a vital role for the pricing of the stock in the secondary market (i.s. investment opportunities, government policies, companies performance, investors analysis etc).The study misses to provide the needed importance to those kinds of supporting factors.

Dahal (2001) has conducted the research entitled " stock market behaviour of listed joint stock companies in Nepal".

Main objective of his research were to study, examine and analyze the stock market behaviour as well to study and analyze the rate of listing of new companies and maintenance of listed companies in NEPSE.

The study was verified by taking major seven events. Royal palace Massacre, Lease fire, September 11 attack, State of emergence, prime minister's visit to U.S.A., parliament and King's visit to India. The effects and the finding of the study was presented by the use of various financial tools such as hypothesis testing, mean, standard deviation and coefficient of variation. The study concluded that signalling factor plays major role for fluctuating NEPSE index.

The study limits its study only up to the effects and influences of such kinds of mentioned disaster. Those disasters are suppose once in a long period, as well as influences may varies according to the time and the situation though having the same characteristics. Therefore this kind of study helps to provide the required data for a certain accidental period rather than providing supports for preventing such disasters. It fails to provide any kinds of suggestion, as it is expected from such kinds of study.

Adhikari (2002) has conducted the research "Performance and return of listed commercial Bank in NEPSE".

The major objectives of the thesis were to identify and mathematically present some common variables to measure the performance to of the related companies listed in Nepal Stock Exchange.

These objectives directed the study towards determining the representative ness of the market by the floor.

Researcher has bailed the different statistical tools to analyze the data to bring the concrete conclusion. Among them correlation method, regression method, statistical tools, financial tools, test of significance researcher has presented the 5 years data.(1995 – 2000).

The major findings of the research were that the EPs of NABIL, HBL, NEB and NIB are not constant or in increasing order, the reason behind this is the increase in the number of shares outstanding as a result of announcement of bonus shares. Share price of the commercial Bank in the stock exchange were found to be increasing. Even though some fluctuation were found out the market is inefficient in determining the accurate value. Capital appreciation has not been guided by the financial performance of the institution. Rather other forces were found playing role. The information disseminated by the bank is not reflected in the share price.

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.

Subedi (2005) in her research on 'A Study on Stock Price Behavior in Nepal' concluded that the Nepalese investor do not have adequate knowledge to

analyze the scenario and to forecast share price, DPS, BPS & EPS individually do not have consistent relationship with the market price of shares, commercial banking sector has dominated the overall performance of the NEPSE, deficiencies of proper laws and policies regarding the capital market, performance of most of the companies are not transparent and NEPSE is in an increasing trend, in spite of unfavourable environment for investment.

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.

Baral (2006) in his study on 'Daily stock price behavior of commercials banks in Nepal' concluded that there is a large variation in daily stock prices of sampled banks in the fiscal year 2005/06 and also they are not doing well in Nepalese stock market. He also concluded that Nepalese stock market is inefficient in pricing the shares.

This study is based on the secondary data. Different statistical tools like serial correlation and run test were used. He concluded that NEPSE index showed a steady increase in the later month of the study period, which also shows the better performance of NEPSE.

Stock market performance is more or less in a stable position in the capital market overall in the study period. The badly affected sectors were hotels, trading, manufacturing and processing sectors due to different reasons.

The NEPSE index showed a better performance during the study period.

Above all study gives the conclusion that the dividends and share price appreciation are the main motivating factors for investors to invest in securities. It also concludes that the liquidity is the cause of the market. Many studies have empirically proved that information plays a decisive role in share price formation.

After studies of above journals and thesis this study on listing liquidity and price formation of Nepal Stock Exchange is expected to be effective. To fulfil its objective different kinds of tools and techniques like statistical tools, financial equations, propositions and models are used according to the necessity. Descriptive cum analytical research design is used.

2.9 Research Gap

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 'Trend Analysis of Stock Price (With Reference to NEPSE: A Technical View)':

) 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.

) All the researchers and scholars have analyzed technically only the share price of commercial banks but none of the researchers have analyzed sector-wise.

) All the researcher has not deal with Dividend per share but this is focussed on correlation regression of selected companies in listed in NEPSE.

CHAPTER - III

RESEARCH MTHODOLOGY

Research methodology is a way to systematically solve the research problem. It refers to the various sequential steps that are to be adopted by a researcher during the course of studying the problem with certain objectives. This chapter refers to the overall research method from the theoretical aspects to the collection and analysis of data. This study covers quantitative methodology in a greater extent and also uses the descriptive part based on both technical aspects and logical aspect. This research tries to perform a well-designed quantative and qualitative research in a very clear and direct way using both financial and statistical tools. Detail research methods are described in the following headings;

3. Research Design

The research design is the task of defining the research problem. It is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and control variance. In fact the research design is the conceptual structure within which the research is conducted.

The study was carried out to get the empirical results of the stock market listing procedure and its relation to the liquidity to the stock market, stock markets current position regarding the issue of price - value trade off in the stock market. To conduct the study, descriptive cum analytical research is adopted.

3.1 Analytical Research

Analytical research is type of research in which we apply scientific method to description of past events. It is a process or method of colleting, evaluating, verifying, synthesizing past events systematically and to reach a conclusion. The main aim of conducting analytical research is to show the relevance of past

events to the present. Every interpretation of present study can be considered as based on past data. So, historical approach is used in every research.

3.2 Descriptive Research

Descriptive Research is a type of research in which adequate information are collected. It is generally conducted to know the behaviours, opinions or characteristics of a given population. In this research there is not necessary to explain relationship, formulating and testing hypothesis.

3.3. Population and sample

All the companies listed in the Stock Exchange were considered as the total population. Out of them, the companies that were in existence and doing share transactions in NEPSE were considered as the sample for the study. Secondary as well as primary data are used for this study. The group of scholars, investors and concerned people are the primary source of data. The name of the sample companies are as follows:

Banking Sector
1. The Himalayan Bank ltd. (HBL)
2. Bank of Kathmandu Ltd. (BOK)
3. Nepal SBI Bank Ltd (NSBIBL)
4. Laxmi Bank Ltd (LBL)

Finance Sector
5. Mahalaxmi Finance. Ltd (MFL)
6. Butwal Finance Ltd. (BFL)

3.4 The sampling procedures

The primary data provides the foundation of logical deduction. And so due consideration has been given to represent the population characteristic. The judgmental sampling procedure was followed to assure the representation of following purposive sub-group.

Expert Group

University professional, researcher, scholar and other concerned scholar related to capital market and stock transaction.

Investors

This group consists of individual investor, institutional investor and member firm in NEPSE and SEBO/N.

Concerned members

This is the group of individual composed of personnel of SEBO/N and NEPSE as well as Brokers and specialists of capital market.

Stratified random sampling techniques were adopted to cover the population for secondary data.

3.5. The sampling size

10 Percent sample size has been considered for secondary data through observation units (listed companies).

The more consideration has given to reduce" judgmental sampling technique's while choosing sampling size".

The secondary data are collected from published material of several institutions. Mainly data sources depends upon SEBO/N publications, NEPSE publications and NRB publications, publications from renowned journals, magazines and publications as well as internet, website of concerned organization.

3.6 Sources of Data

Data have been obtained from primary as well as secondary sources. The sources of primary data is from questionnaires and secondary data are AGM reports of listed companies, SEBO/N, NEPSE, and other concerned organizations, bulletins, publications, researches, journals, unpublished thesis reports, newspapers, journals, and internet. The sample period cover the period of five years commencing from 2002/03 to 2006/07. Using these data financial performance as well as relation has been developed. The facilities available at Shanker Dev Campus Library, Central Library and concerned agencies researcher used which have a wide range of related books journals and other publication.

3.7. Data Collection Techniques:

The required data are browsed through the official web sites – such as www.bm.com.np of Business Manager, an electronic magazine and www.neplastock.com of NEPSE ,also www.sebonp.com .Besides this researcher has collected the data from the annual trading report of NEPSE 2006/07, the daily newspapers like Kantipur, The Himalayan Times, Gorkhapatra, The Rising Nepal and finally visited the offices of SEBON in Thapathali and NEPSE in Singhadurbar Plaza, Ktm.

3.8. Methods of Analysis and Presentation

The results from observation and statistical calculation have been analyzed by three characteristics. The academic assumptions, industrial norms and practices are used as guidelines while interpreting findings. The effort has been taken to present fact and figures in a clear and concise manner. Tabular, equation and graphic presentation are used to make the fact more visualized.

3.9. Tools of Analysis

For the analysis of data statistical tools as well as financial equations, propositions, models are used according to necessity. The financial insights including market rate, risk free- rate, equity pricing models, equation, required expected rates etc. and other capital market theories and corresponding model. The statistical tools consist of simple mean, median, standard deviation, percentage frequencies, correlation etc.

Financial Tools:

I. Market price of stock

One of the major data of this study is market price of stock. There are three prices records available i.e. high, low and closing price of each year. So two approaches either average price of high and low price or the closing price can be used. The main basic of average price may be that it represents the price of the whole year.

It was very difficult to obtain and include these all information and average of high and low price may not be reliable and representative information. Hence, the closing price was used as market price of stock, which had a specific time span of one year and the study is focused in annual basis.

II. Rate of Return

The rate of return on each stock was calculated by dividing the increment or decrement on the market price per share by the value of previous market price per share by the value of previous market price of the same stock and adding the dividend payment of the year end. The market rate of return is calculated by dividing the increment or decrement of the NEPSE index by the previous NEPSE index. In other words, return on stock j is calculated as follows:

$$\text{Return on stock } j = \frac{\text{MPS1 - MPS0 + D1}}{\text{MPS0}}$$

III. Value Trade Ratio

The value traded ratio equals to total shares traded on the stock market exchange divided by GDP. It measures the organized trading of firm equity as a share of national output. While not a direct measure of trading costs or the uncertainly associated with trading on a particular market, the assumption behind the value traded ratio is that it positively reflects liquidity on an economy - wide basis. The value - traded ratio complements the market capitalization ratio: although a market may be large, there may be little trading. Thus, taken together, the market capitalization and the value traded ratios provide more if one uses only a single indicator. For highly developed stock market the traded is greater than 0.4 and for little developed stock market like Pakistan it was 0.1.

IV. Market Capitalization Ratio

The market capitalization ratio equals to the value of listed shares divided by GDP. The market capitalization ratio can be uses as a measure of market size. Many observations use the market capitalization ratio as an indicator of stock market development under the assumption that stock market size is positively correlated with the ability to mobilize capital and diversify risk. The market capitalization ratio of developed stock market like Hong Kong, Malaysia and South Korea is greater than 1.

$$\text{Market Capitalization ratio} = \frac{\text{Market capitalization}}{\text{GDP}}$$

V. Turnover Ratio

The turnover ratio equals to the value of total shares traded divided by market capitalization. Though, it id not direct measure of theoretical defilation of liquidity, high turnover is often used as indicator of low transactions cost. The turn over ratio compliments market capitalization. A large but inactive market will have a large market capitalization ratio but a small turnover ratio. While the value traded ratio captures trading relative to the size of the stock market. A

small, liquid market will have a high turnover ratio but a small value traded ratio.

3.10. Statistical Tools:

Statistical tools are the measures or the instruments to analyze the collected data from different sources. In statistics, there are numerous statistical tools to analyze data of various natures. In this study, the researcher has used the following statistical tools to analyze the data.

I. Standard Deviation

Standard Deviation is quantitative measure of the total risk of assets. It provides more information about the risk of the assets. It measures the dispersion of returns around the mean. Its advantage is that the uncertainty of returns can be summarized into a single easily calculated number. The standard deviation of a distribution is the square root of the variance of returns around the mean.

II. Coefficient of Variation

The variance is a measure of the dispersion from the mean deviation divided by the number of observation less one.

$$C.V = \frac{S.D. \times 100}{MEAN}$$

III. Variance of stock

The variance is a measure of the dispersion from the mean deviation divided by the number of observations less one.

$$\text{Variance } ^2 = \frac{\{Rj\text{-}E(Rj)\}^2}{N\text{-}1}$$

IV. Correlation

The correlation coefficient is defined as the covariance between the dependent and independent variables, divided by the product of their standard deviations. When assets have zero correlation with each other, they are not related at least and have zero variance. Positive correlation implies positive covariance.

$$\text{Correlation (pij)} = \frac{cov(Rm.Rj)}{rrm. \ \ rrj}$$

The correlation coefficient (pij) rascals the covariance to facilitate comparisons with corresponding values for other pairs of random variables. It always remains between +1 and -1. A value of -1 represent perfect negative correlation and a value of +1 represent perfect positive correlation.

V. Mean

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

$$X \ X \frac{X}{N}$$

VI. Percentage

The percentage analysis is done to compare the two or more date for general information. It is used as a method to divide the opinions of the sectors into two or more sector.

VII. Regression Analysis

Regression analysis means the estimation or prediction of the unknown value of one variable. It is a mathematical measure of the average relationship

between two or more variables in term of the original units of the data. In regression analysis, there are two types of variables. The variable whose value is influenced or is to be predicted is called dependent variable and the variable which influences the values or is used for prediction is called independent variable. (Shrestha, 2003:37)

Line of Regression of X on Y

The line of regression of X on Y is the line, which gives the best estimate of X for any given amount of Y. The regression equation is expressed as:

$$Y = a + bx$$

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

$$Y = na + b \ X$$

$$XY = a \ X + b \ X^2$$

Where,

Y = the value of dependent variable

a = Y - intercept

b = slope of the trend line/coefficient of regression

X = value of independent variable.

Coefficient of Regression:

The coefficient 'b' which is the slop of line of regression of Y on X is called the coefficient of regression of Y on X. It represents the increment in the value of the dependent variable Y for a unit change in the value of the independent variable X. In other words, it represents the rate of change. The convenient way to calculate the value of 'b' is as:

$$b \, X \frac{n \quad xy \, Z \quad x \quad y}{n \quad x^2 \, Zf \quad x \AA}$$

Standard Error of Estimate

A measure of the estimates so obtained from the regression equation is provided by standard error (S.E.E.) of the estimate. Standard error is a word analogous to standard deviation, which is measure of dispersion of observation about the mean of the distribution and gives us a measure of the scatter ness of the observations about the line of regression.

VIII. Karl Pearson's Coefficient of Correlation

It is a statistical tool for measuring the intensity or magnitude of linear relationship between the two variables series Karl Pearson's measure, known as Personian correlation coefficient between two variables (series)x and y, usually denoted by r(x,y) or r_{xy} or simply 'r' can be obtained as:

$$r \, X \frac{n \quad xy \, Z \quad x \quad y}{\sqrt{n \quad x^2 \, Zf x \AA} \sqrt{n \quad y^2 \, Zfy \AA}}$$

Where,

r_{xy} = is the correlation coefficient between two variables x & y

'r' lies between +1 to -1

When r = +1, there is perfect positive correlation

When r= -1, there is perfect negative correlation

When r = 0, there is no correlation

When r lies between 0.7 to 0.999 9 (or -0.7 to -0.999), there is high degree of positive or negative correlation

When r lies between 0.5 and 0.699, there is moderate degree of correlation

When r is less than 0.5, there is low degree of correlation.

IX. Run Test

A non- parametric test, which tests sample observations for randomness. The test is based on the number of runs observed in the sample as compared with

the number of runs that might result under random conditions. A run is defined as s series of identical observations, which are preceded and followed by different observations or by none at all.

To test samples for the randomness of their order, statisticians have developed the theory of runs. Obviously, runs may be differing lengths and various numbers of runs can occur in one sample. Statisticians can prove that too many or too few runs in a sample indicate that something other than chance was at work when the items were selected. Run test can be used effectively in quality of control situations. A run test can detect the kinds of patterns in output quality that are associated with systematic variations. (Levin and Rubin Statistics for mgmt 2004:813)

Run Test for Randomness:

A run is defined as a succession of identical symbols. The total number of runs in any given size sample indicates whether the sample is random or not. Very few runs would be an indication of a pattern or a trend. Too many runs would also cast doubt about the randomness of the sample. For example, in an experiment of 10 tosses of a coin, if we got the sequences such as HHHHH, TTTTT, making 2 runs or on the other hand if we got HTHTHTHTHT, which is 10 runs, then both these outcomes would not be considered as random.

The concept of (+) or (-) also gives us the direction of change from an established standard. For example, if we wanted to know whether the stock market increases or decreases are random in nature or whether there is a trend or a pattern, this direction could give us a very good idea. Let us assume that for given 10 consecutive months, the stock market index was increasing every month compared to the previous month, so that a trend would be established in that there would be only 1 run consisting of 10 (+S). According, a (+) would be considered a change from an established value in one direction and a (-) would be considered a change in the other direction.

Now, if the samples are small in size, so that n1 and n_2 are less than or equal to 20 each, then we can test the null hypothesis that the occurrences of pluses and minuses are random by comparing our value of (r) with the critical value of (r) given in the appropriate table at a pre-determined level of significance. If there were too few runs so that the value of r is small, the null hypothesis would be rejected. Similarly, if there were too many runs so that the value of r is large, the null hypothesis would be rejected. Hence, the values of r must be compared with two table values of less than as well as more than the critical values of r.

X. T - Test

In order to test, whether the sample correlation coefficient is significant of any correlation between the variables in the population, t- test for significance of an observed sample correlation coefficient is applied. Let, r be the observed sample of n pairs of observation from divaricates normal population. The steps for testing of significance of an observed sample correlation are as follows:

Ho: p = 0 That is, population correlation coefficient is zero. In other words, the variables are uncorrelated in the population i.e. r is not significant of correlation in the population.

H1: p 0 That is, population correlation coefficient is not zero. In other words, the variables are correlated in the population i.e. r is significant of correlation in the population.

Test statistic:

Under H0, the test statistic is,

$$T \, X \frac{r}{\sqrt{1 Z r^2}} X \sqrt{n \, Z2} \rceil \, tn \, Z2$$

i.e. t follows t - distribution with (n-2) d.f., n being the sample.

Obtained the tabulated value of t for (n-2) d.f. at a level of significance according as whether the alternative hypothesis is one tailed test or two tailed test.

Decision:

Decision can be make by comparing the calculated value of t with tabulated value of t. If calculated value of t $\leq$ the tabulated value of t, it is not significant and H0 is accepted. Otherwise, it is rejected. (Sharma and Chaudhary).

CHAPTER – IV

PRESENTATION AND ANALYSIS OF DATA

This chapter is devoted to the presentation and analysis of secondary data. This chapter consists of three sections. Section - I analyze the recent stock market performance. Section - II analyzes the factors affecting price formation of NEPSE stock. Similarly, Part - III is devoted to determine the price behaviour of the NEPSE by using run test and regression coefficient of the selected companies.

Recent Stock Market Performance

This section presents the current facts and figures concerned to a number of listed firms, number of transaction and annual turnover and other relevant facts. The following is the short glimpse of NEPSE stock market.

4.1 Number of Listed Companies in Stock Exchange

The table below shows the number of listed companies in NEPSE from the fiscal year 1996/97 to 2006/07. The following table shows the No. of Listed companies are increasing.

Table - 4

Listed Companies under NEPSE

Fiscal Year	No. of Listed Companies	Percentage increase and decrease
1997/98	101	
1998/99	107	5.94
1999/00	110	2.80
2000/01	115	4.55
2001/02	96	-16.52
2002/03	108	12.5
2003/04	114	5.56
2004/05	125	9.65
2005/06	135	8
2006/07	135	-

Source: SEBO/N Annual Report 2006/07

The following bar diagram is used to present the number of listed companies from fiscal year 1996/97 to fiscal year 2006/07.

Chart - 3

Number of Listed Companies in NEPSE
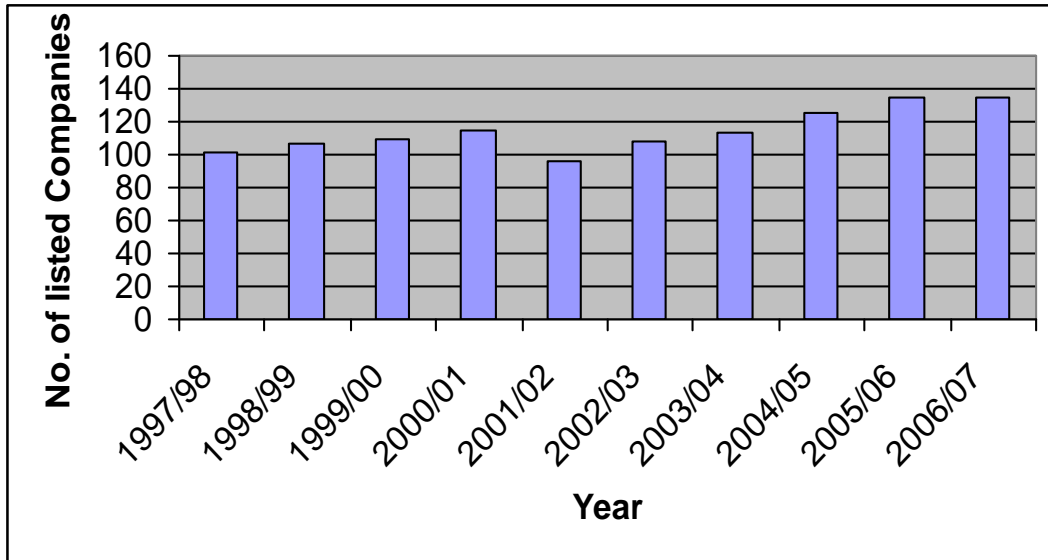
From the table it is clear that the rate of listing are in increasing trend from the FY 1996/97 to 1997/98 the percentage increase is 6.14 which is 8 percent in the year 2005/06 and remains same in the fiscal year 2006/07. In the year 2001/02 the number of listed companies has decreased by 16.52 percent.

4.2 The Number of Listed Companies under Different Sector on Stock Exchange.

Table - 5

Listing Summary of the Companies

S.No.	Sector	Numbers	Percentage
1	Banks	15	11.11
2	Development Banks	16	11.85
3	Finance Company	53	39.25
4	Insurance Company	16	11.85
5	Hotels	4	2.96
6	Manufacturing & Processing Company	21	15.56
7	Trading Companies	5	3.71
8	Others	5	3.71
9	Total	135	100

Source: SEBO/N Annual Report 2006/07.

The following Pie-Chart presents the number of listed companies under different sector by the end of the fiscal year 2006/07.

Chart - 4

Listing Summary of Company
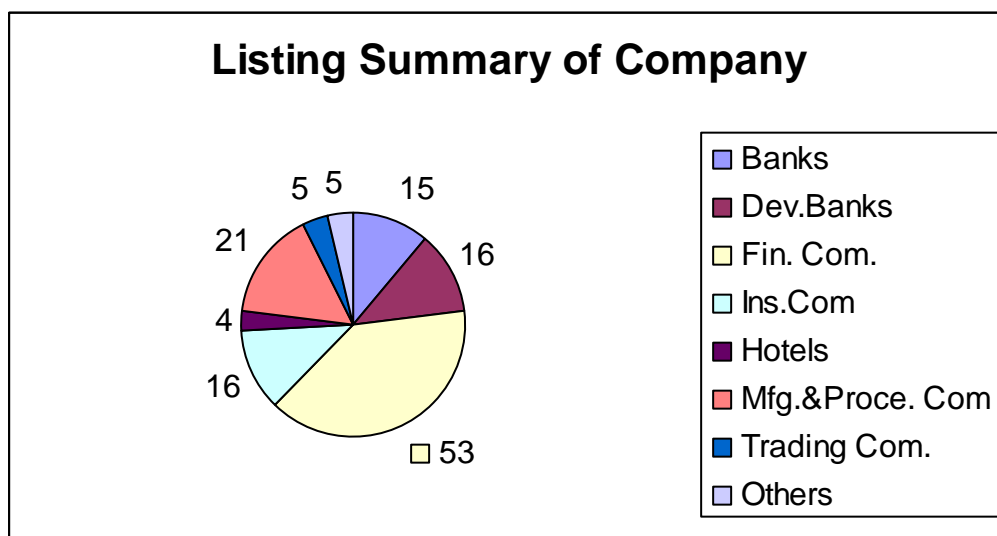
From the above figure, we can clearly see that the number of listed companies under different sector in stock exchange by the end of fiscal year 2006/07 was 135. The table also shows that the number of finance companies is high i.e. 53 and the number of the hotel is only 4. The number of the other sector is only 5 and the number of the development banks is 16 and trading companies is 5. The number of commercial banks is 15 and insurance companies are 16 and manufacturing and processing companies is 21.

4.3 Annual Turnover

<div align="center">

Table - 6

Stock market performance

</div>

Year	Annual Turnover (In million)	Market Capitalization (in million)	NEPSE index	No. of share traded (in thousand)
1997/98	202.61	14289	163.35	1194.91
1998/99	1499.98	23508	216.92	4857
1999/00	1155.78	43123	360.7	7673.74
2000/01	2344.16	46349.40	348.43	4989.15
2001/02	1540.63	34703.90	227.54	6005
2002/03	575.80	35240.4	204.86	2428
2003/04	2144.27	41424.77	222.04	6468
2004/05	4507.68	61365.89	286.67	18434
2005/06	3451.43	96763.74	386.83	12222
2006/07	8360.1	186301.3	683.95	18147

Source: SEBO/N Annual Report 2006/07.

Chart - 5

Market Capitalization (in million)
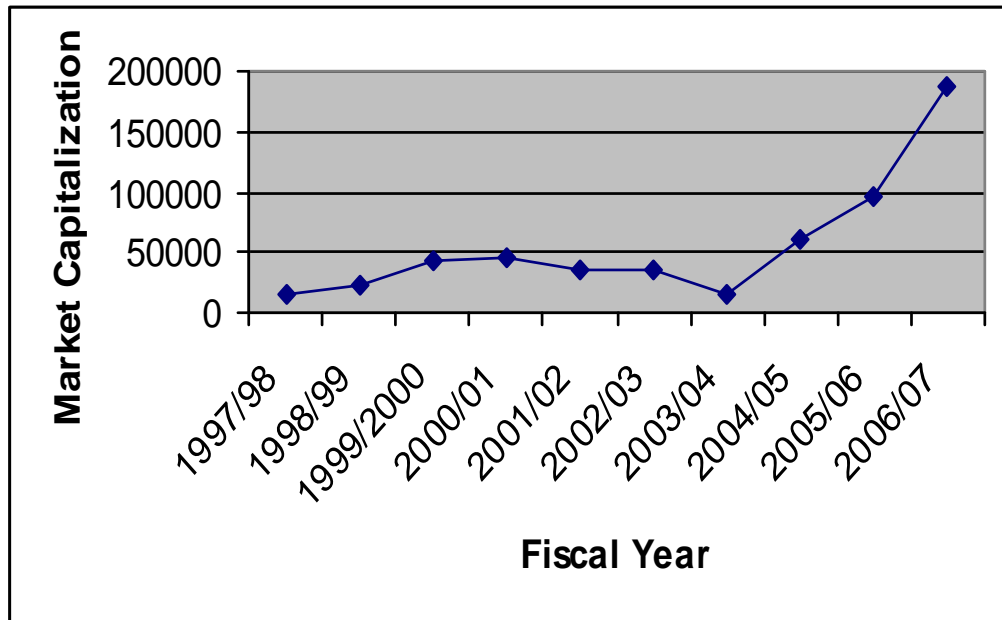
The above table and figure shows the capitalization of Nepalese stock market and NEPSE index. The annual turnover is 416.23 in 1996/97 which increased to 3451.43 in 2005/06. The turnover is increasing in year 1996/97 to 2000/01 and it is decreasing in 2001/02 and 2002/03 but increasing trend thereafter. Again the market capitalization is 12698 in 1996/97 and it rose to 96763.74 million in the year 2005/06. Similarly, NEPSE Index is in increasing trend but fluctuating year to year and number of share traded is more volatile in year to year. Due to the prevailing macroeconomic situation annual turnover, yearly stock market index has decreased in year 2002/03 and increased thereafter. The market capitalization is increased as compared as compared to past year. The highest market capitalization recorded in the year 2006/07 is Rs. 186301.3 million on July 16,2007.

By the end of the year 2006/07, the percentage contribution of market capitalization on nominal GDP is estimated to be 27.78.

Chart - 6

Trend of NEPSE Index
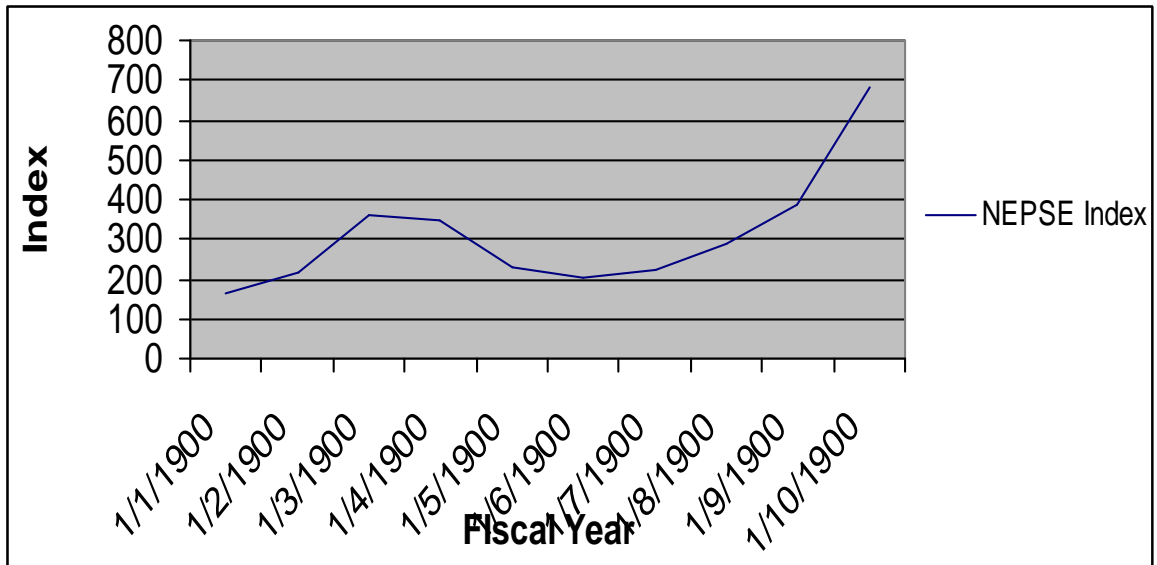
Observing the above figure of NEPSE Index Trend it can be said that high index in the beginning year and decreased in the year 1997/98. Which increase 216.92 in the year 1998/99, which is increasing in the year 1999/00. Again, it is decreasing from 2000/01 to 2002/03. Above trend started to shows increasing trend from 2003/04 to 2005/06. Above table and figure shows that the NEPSE Index is fluctuating. By the end of the fiscal year 2006/07 the NEPSE index of the listed securities remained at 683.95 points.

4.4. Liquidity in Nepalese Stock Market

In this section liquidity related calculation with analysis has presented. Liquidity is the one of the major effecting factor of stock market which factors effect in the stock market so it is also important to study about the liquidity of the NEPSE.

4.4.1 Company Trading Ratio

Company trading ratio is the ratio of the total number of company traded to the total number of company listed. The company-trading ratio measured the liquidity i.e. higher the company trading ratio higher the liquidity of the

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NEPSE stock and vice-versa. It can also be measured by dividing total number of securities traded by total number of securities of listed company.

Table - 7

Number of listed company traded and listed securities:

Year	Listed Company	Traded Company	Traded Ratio	% of traded Company	Securities (in million)
1996/97	95	67	0.7052		85193
1997/98	101	68	0.6732	67.32	90107
1998/99	107	69	0.6355	63.55	105632
1999/00	110	69	0.6181	61.81	114057
2000/01	115	67	0.5826	58.26	124971
2001/02	96	69	0.7187	71.87	124150
2002/03	108	81	0.75	75	159958
2003/04	114	92	0.8070	80.70	161141
2004/05	125	102	0.816	81.6	194673
2005/06	135	110	0.8148	81.48	226540
2006/07	135	116	0.8592	85.92	243504
Average	113	83	07345	73.45	

Source: SEBO/N Annual Report 2006/07.

The above table shows that the total number of listed companies in FY 1996/97 is 95 and 101, 107, 110, 115, 96, 108, 114, 125,135 and 135 respective year followed by 2000/01 and decreased to 96 in 2001/02 and again increase 108 in the year 2002/03 and thereafter year. Hence, the number of average listed companies is 113 and at the same period number of traded company has remained at the average label of 83. From the above table we conclude that the number of securities listing in the stock market is in increasing trend i.e.

securities are 85193 million in FY 1996/97 to 243504 million in FY 2006/07. Thus, it is taken as the satisfactory indicator toward stock market movement.

4.4.2 Market Capitalization Ratio

Table - 8

Market Capitalization Ratio

Year	GDP (in million)	Market Capitalization (in million)	Market Capitalization Ratio	Capitalization Growth rate (%)
1996/97	269570	12698	4.71	-
1997/98	289798	14289	4.93	12.53
1998/99	330018	23508	7.12	64.52
1999/00	366251	43123	11.77	83.44
2000/01	393566	46349.40	11.78	7.48
2001/02	405632	34703.90	8.85	-25.13
2002/03	435531	35240.4	8.22	1.55
2003/04	474129	41424.77	8.74	17.55
2004/05	504101	61365.89	12.17	48.14
2005/06	557869	96763.74	17.35	57.68
2006/07	603673	186301.3	30.8	
Total			**95.64**	**267.86**
Average			**9.56**	**29.75**

Source: SEBO/N Annual Report 2006/07.

The market capitalization ratio is the ratio between Market Capitalization and Gross Domestic Product. In the Nepalese stock market the average ratio of Capitalization is 9.56% so the calculation reveals that the size of the stock market with comparison to national economy is in good condition. It assures that the capital formation capacity in an adequate amount.

The growth rate in market capitalization is one of the major indicators of market development. In this case the average growth rate of market

capitalization is 29.75% in an average. In the FY 1997/98 the growth rate is 12.53% & which increases 64.51% and 83.43% in the FY 1998/99 & 1999/00 which decrease 7.48% in the year 2000/01 and negative growth rate is 25.13 in the year 2001/02 but 1.55 in FY 2002/03 and 17.55 in FY 2003/04. From the above table we can conclude that the growth rate of market capitalization is in increasing trend thereafter i.e. 57.68% in FY 2005/06. Since the market capitalization is increasing trend, the growth in sense of ratio can be assumed as the satisfactory growth.

4.4.3 Value Traded Ratio

It is the ratio of value traded to nominal GDP. Value traded ratio is the complementary of the market capitalization ratio. Market capitalization ratio is not only the indicator of the market liquidity. To know the liquidity of the market we have to compare value traded of the share to the GDP. So, in the table shown below attempts has been made to calculate the value traded ratio.

Table - 9

Value traded Ratio

Year	GDP (in million)	Value Traded	Value Traded Ratio (%)
1996/97	269570	416.23	
1997/98	289798	202.61	0.069914
1998/99	330018	1499.98	0.454514
1999/00	366251	1157.03	0.31592
2000/01	393566	2344.16	0.5956205
2001/02	405632	1540.63	0.379809
2002/03	435531	575.80	0.132206
2003/04	474129	2144.27	0.45225
2004/05	504101	4507.68	0.8942
2005/06	557869	3451.43	0.61868
2006/07	603673	8360.1	0.0138
Total			4.08132
Average			0.3710

Source: SEBO/N Annual Report 2006/07

Since, in Nepalese market average value traded ratio is 0.3710. Generally, value traded in developed country is 0.4 and in developing country is 0.1. Based on this comparison it can be concluded that the value of traded share in Nepalese stock market meets the liquidity standard of common norms of international standard.

4.4.4 Turn over Ratio

The turnover ratio calculates the activeness of the share market. This ratio calculates the trading relative to the size of the stock market. In large market high capitalization ratio may occur and but small turnover ratio shows the fact of illiquid ness.

Table - 10

Turnover Ratio

Year	Value of total Share Traded	Market Capitalization (in million)	Turnover Ratio (%)
1996/97	416.23	12698	3.278
1997/98	202.61	14289	1.418
1998/99	1499.98	23508	6.3807
1999/00	1157.03	43123	2.6831
2000/01	2344.16	46349.40	5.0576
2001/02	1540.63	34703.90	4.4393
2002/03	575.80	35240.4	1.6339
2003/04	2144.27	41424.77	5.1776
2004/05	4507.68	61365.89	7.3456
2005/06	3451.43	96763.74	3.5669
2006/07	8360.1	186301.3	4.48
Total			45.46
Average			4.1326

Source: SEBO/N Annual Report 2006/07.

The turnover ratio is used to measure the liquidity of the NEPSE stock. Higher the turnover ratio, higher the liquidity and vice-versa. In the above table the

ratio is 3.278% in the FY 1996/97 which decreases 1.418% in FY 1997/98. It is 6.3807% in the FY 1998/99 then after decreases in 1999/00 and increases in 2000/01 to 5.0576. It has decreased till 2002/03 to 1.6339 then increase thereafter. In the FY 2005/06 it has decreased to 3.5669 and increased to 4.48 in 2006/07. The value traded ratio is fluctuating. Since, the average turnover ratio is 4.1326%. This is same level of ratio as the liquid market posses.

4.5 Run test for randomness

In simple run test of randomness is used whether the movement of market price of simple taken is random or not. It is possible that security prices might fluctuate randomly but in addition, they sometimes follow trends that filter rules and serial correlation could not detect. That is price changes may be random most of the time but occasionally become serially correlated for varying periods. To examine this possibility, runs tests may be used to determine if there are runs in the price changes. A runs occurs in a series of numbers whenever the changes in the numbers reverse sign (Francis: 550). For, this purpose, the test has been done individually to each bank, insurance company and finance company. The below run tests are based on the table of critical value of 'r'. (Appendix I)

Table – 11

Run Test for HBL (2063/64)

Month	Market Price	Signs	Runs
Shrawan	1100	0	1
Bhadra	1045	-	2
Ashwin	1102	+	3
Kartik	1262	+	
Mansir	1300	+	
Poush	1210	-	4
Magh	1150	-	
Falgun	1020	-	
Chaitra	1100	+	5
Baishakh	1190	+	
Jestha	1360	+	
Ashadh	1760	+	

Market price on Ashadh 2063 is Rs.1100.

Source: SEBO/N Annual Report 2062/63 &2063/64.

H_0: The market price movement of HBL is random.

H_1: The market price movement of HBL is not random.

Here,

n_1 (number of + ve signs) = 7

n_2 (number of - ve signs) = 4

Number of runs (r) = 5

At a = 0.05 we can test whether the market price movement is random or not.

At the critical value of 'r' for n_1 = 7 and n_2 =4 form the 'r' table, the critical value of 'r' i.e. I_1 is 2 and I_2 is 0. Since, the value of 'r' is 5, the null hypothesis

is not accepted i.e. the market price movement of HBL is not random. (Appendix I)

Table - 12

Run Test for BOK (2062/63)

Month	Market Price	Signs	Runs
Shrawan	830	-	1
Bhadra	818	-	
Ashwin	837	+	2
Kartik	1120	+	
Mansir	1113	-	3
Poush	1100	-	
Magh	1055	-	
Falgun	920	-	
Chaitra	935	+	4
Baishak	950	+	
Jestha	1110	+	
Ashadh	1375	+	

Market price on Ashadh 2063 is Rs. 850.

Source: SEBO/N Annual Report 2062/63 &2063/64.

H_0: The market price movement of BOK is random.

H_1: The market price movement of BOK is not random.

Here,

n_1 (number of + ve signs) = 6

n_2 (number of - ve signs) = 6

Number of runs (r) = 4

At a = 0.05 we can test whether the market price movement is random or not.

At the critical value of 'r' for n_1 = 6 and n_2 =6 form the 'r' table, the critical value of 'r' i.e. I_1 is 2 and I_2 is 0. Since, the value of 'r' is 4, the null hypothesis

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is not accepted i.e. the market price movement of BOK is not random. (Appendix I)

Table – 13

Run Test for NSBIBL (2063/64)

Month	Market Price	Signs	Runs
Shrawan	600	-	1
Bhadra	585	-	
Ashwin	575	-	
Kartik	635	+	2
Mansir	796	+	
Poush	810	+	
Magh	805	-	3
Falgun	700	-	
Chaitra	715	+	4
Baishakh	825	+	
Jestha	990	+	
Ashadh	1176	+	

Market price on Ashadh 2063 is Rs.612.

Source: SEBO/N Annual Report 2062/63 &2063/64.

H_0: The market price movement of NSBIBL is random.

H_1: The market price movement of NSBIBL is not random.

Here,

n_1 (number of + ve signs) = 7

n_2 (number of - ve signs) = 5

Number of runs (r) = 4

At a = 0.05 we can test whether the market price movement is random or not.

At the critical value of 'r' for $n_1 = 7$ and $n_2 = 5$ form the 'r' table, the critical value of 'r' i.e. I_1 is 2 and I_2 is 0. Since, the value of 'r' is 4, the null hypothesis is not accepted i.e. the market price movement of NSBIBL is not random. (Appendix I)

Table - 14

Run Test for Laxmi Bank (2063/64)

Month	Market Price	Signs	Runs
Shrawan	379	+	1
Bhadra	350	-	2
Ashwin	325	-	
Kartik	444	+	3
Mansir	560	+	
Poush	658	+	
Magh	550	-	4
Falgun	550	0	5
Chaitra	520	-	6
Baishak	460	-	
Jestha	660	+	7
Ashadh	664	+	

Market price on Ashadh 2063 is Rs.368.

Source: SEBO/N Annual Report 2062/63 &2063/64.

H_0: The market price movement of LBL is random.

H_1: The market price movement of LBL is not random.

Here,

n_1 (number of + ve signs) = 6

n_2 (number of - ve signs) = 5

Number of runs (r) = 7

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At a = 0.05 we can test whether the market price movement is random or not.

At the critical value of 'r' for n_1 = 6 and n_2 = 5 form the 'r' table, the critical value of 'r' i.e. I_1 is 3 and I_2 is 0. Since, the value of 'r' is 7, the null hypothesis is not accepted i.e. the market price movement of LBL is not random. (Appendix I).

This demonstrates the monthly stock price movement of Laxmi Bank. The maximum price of the stock is 664 on Ashad 2064. The positive coefficient of trend line signifies the increasing pattern in the stock prices.

Table - 15

Run Test for Mahalaxmi Finance   Ltd. (2063/64)

Month	Market Price	Signs	Runs
Shrawan	210	-	1
Bhadra	260	+	2
Ashwin	0	0	3
Kartik	260	0	
Mansir	250	-	4
Poush	0	0	5
Magh	0	0	
Falgun	0	0	
Chaitra	0	0	
Baishak	255	+	6
Jestha	308	+	
Ashadh	372	+	

Market price on Jestha 2063 is Rs.260.

H_0: The market price movement of Mahalaxmi Finance Limited   is random.

H_1: The market price movement of Mahalaxmi Finance Limited is not random.

Here,

n_1 (number of + ve signs) = 4

n_2 (number of - ve signs) = 2

Number of runs (r) = 6

At a = 0.05 we can test whether the market price movement is random or not.

At the critical value of 'r' for $n_1 = $ 4 and $n_2 = 2$ form the 'r' table, the critical value of 'r' i.e. I_1 is 0 and I_2 is 0. Since, the value of 'r' is 6, the null hypothesis

is not accepted i.e. the market price movement of Mahalaxmi Finance is not random. (Appendix I).

Table - 16

Run Test for Butwal Finance Limited (2063/64)

Month	Market Price	Signs	Runs
Shrawan	120	0	1
Bhadra	120	0	
Ashwin	0	+	2
Kartik	120	0	3
Mansir	115	-	4
Poush	0	0	5
Magh	140	+	6
Falgun	210	+	
Chaitra	200	-	7
Baishak	200	0	8
Jestha	200	0	
Ashadh	200	0	

Market price on Ashadh 2063 is Rs.120.

Source: SEBO/N Annual Report 2062/63&2063/64.

H_0: The market price movement of Butwal Finance Limited is random.

H_1: The market price movement of Butwal Finance Limited is not random.

Here,

n_1 (number of + ve signs) = 3

n_2 (number of - ve signs) = 2

Number of runs (r) = 8

At a = 0.05 we can test whether the market price movement is random or not.

At the critical value of 'r' for $n_1 = 3$ and $n_2 = 2$ form the 'r' table, the critical value of 'r' i.e. I_1 is 0 and I_2 is 0. Since, the value of 'r' is 8, the null hypothesis is not accepted i.e. the market price movement of Butwal Finance is not random. (Appendix III)

4.6 Volatility of Stock Prices

To gain actual knowledge, some statistical tools are used to analyze the stock price behaviour. Therefore, this part presents the computation of average prices, S.D. and C.V. Based on the analysis of absolute variation (S.D.) and relative variation (C.V.) volatility of the monthly stock price is determined. (Appendix II)

Computation of Stock Volatility

S.No.	Sampled Companies	Average Price(µ)	SD ( )	CV (%)
1	Himalyan Bank ltd.	1217	191	15.69
2	Bank of Kathmandu ltd.	1014	156.10	15.39
3	Laxmi Bank	510	114.66	22.48
4	Nepal SBI Bank	768	170.05	22.14
5	Mahalaxmi Finance Limited	159	139.78	87.86
6	Butwal Finance Limited	148	71.86	48.55

4.7. Regression Equations

Table - 17

Regression Equation of Market Price on EPS (Appendix III)

S. N.	Company	Regression Coefficient		r	r^2	T (Calculated)	T (Table)	Significance
		Constant (a)	Shop (b)					
1	Himalyan Bank	-1664.40	51.72	0.8246	0.6799	1.457	3.182	Not Significance
2	Bank of Kathmandu ltd.	-630.47	38.774	0.10655	0.011	0.107	3.182	Not Significance
3	Laxmi Bank ltd.	4.258	63.97	0.997	0.9942	13.09	3.182	Significance
4	Nepal SBI Bank	-114.07	33.37	0.9841	0.9684	5.536	3.182	Significance
5	Mahalaxmi Finance Limited	361.24	-2.92	-0.1683	0.028	-0.17	3.182	Not Significance
6	Butwal Finance Limited	28.51	-6.588	-0.144	0.020	-0.146	3.182	Not significance

The table 17 depicts the major output of simple regression analysis between Market Price and EPS of the selected companies. The regression coefficient (b) of all the selected companies i.e. 51.72, 38.77, 63.97, 33.37, -2.92, -6.59 respectively of the HBL, BOKL, LBL, NSBIL, MLFL & BFL. They indicate that one rupee increase/decrease in EPS increases or decreases market price on average of the respective companies by, 51.72, 38.77, 63.97, 33.37, -2.92 and -6.59 respectively.

The correlation coefficient (r) between EPS and market price of the HBL, BOKL LBL, NSBIBL, MLFL & BFL is 0.8246, 0.10655, 0.997, 0.9841, -0.1683,and -0.144 respectively. The correlation indicates that there is positive correlation between EPS and market price on HBL, BOK, LBL and NSBIL but there is negative relationship on MFL and BFL.

The coefficient of determination (r^2) of LBL and NSBIL is 0.997 and 0.9841 which indicates that 99.7% and 98.41% of the total variation in the values of the market price has been explained by effect of EPS and remaining0.03 % and 1.59% is due to the effect of other factors. In the case of MFL and BFL the values of b are unimportant because the values of r^2 comparatively smaller. The t value is higher than the calculated value in case of HBL, BOK, MFL and BFL which indicates that the relationship is statistically not significant. But in case of LBL and NSBIBL the relationship is statistically significant. (Annex III)

Table - 18

Regression Equation of Market Price on DPS (Appendix IV)

S. N.	Company	Regression Coefficient		r	r^2	T (Calculated)	T (Table)	Significance
		Constant (a)	Shop (b)					
1	Himalyan Bank	1209.60	39.90	0.8329	0.6939	1.5	3.182	Not significance
2	Bank of Kathmandu	574.52	9.183	0.2538	0.0644	0.2624	3.182	Not significance
3	Laxmi Bank	1499	0	0	0	0	3.182	Not significance
4	Nepal SBI Bank	470.41	19.86	1.028	1.057	4.31	3.182	Signifincace
5	Mahalaxmi Finance Limited	267.25	0.73	0.102	0.010	0.1028	3.182	Not significance
6	Butwal Finance Limited	151.56	-3.69	-0.34	0.117	-0.3644	3.182	Not Significance

The above table shows the major output of simple regression analysis between Market Price and DPS of the sampled companies. The regression coefficient (b) of HBL, BOKL & NSBIL is positive of 39.90, 9.183 and 19.86 respectively. This indicates that one rupee increase/decrease in DPS increase/decrease market price on average of the respective companies by 39.90, 9.183 and 19.86 respectively. But in case of Butwal finance Company the value of 'b' is negative i.e. -3.69.

The correlation coefficient between DPS and Market Price of the NBL, SCBL, EBL, AFL, NIBL & HBL is 0.691, 0.116, -0.119, -0.3, -0.879 & 0.984. The correlation indicates that there is positive correlation between DPS and Market Price on NBL, SCBL & HBL but there is negative relationship on the remaining companies.

The coefficient of determination (r^2) of HBL and NSBIBL is 0.6939 and 1.057, which indicates that 69.69% and 105.7% of the total variation in the values of the market price has been explained by effect of DPS. and remaining is due to the effect of other factors. The value of r^2 is comparatively less in case of LBL, MFL and BFL. The t significant value is higher than the calculated value in case of HBL, BOK, LBL, MFL and BFL which indicates that the relationship is statistically not significant. But in case of NSBIBL the relationship is statistically significant.

CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary and Conclusions

The securities market in recent years has become an integral part of economic development. It serves as a direct link between the suppliers and users of capital fund. It canalizes the saving of general public towards the productive investments. Securities market is the cause of the economic development of the country. Examples from the developed countries have proved that securities market is the cause and economic development is the effect. Therefore, a healthy and efficient securities market is essential for the economic development.

In case of Nepal, the size of the capital market is small as compared to the securities markets of developed countries. Its competitive position in the global market is very poor. Lack of the research and development is the main cause of the slow growth of security market. Due to the lack of pertinent studies of securities market the policy making body has been suffering the lack of informational inputs.

The study is conducted to reveal the current status of stock price behavior in Nepal Stock Exchange. The main objectives of this study are to analyze the stock price trend and volume of stock traded on the secondary market, to analyze the behaviour of NEPSE index, to examine the factors that impact on stock price with the help of NEPSE index.

The study period is basically the year 2002/03 to 2006/07 and events with in them have also been used in this study. Only secondary data are used in this study. The required secondary data are collected mainly from the annual report of listed companies and web-page of NEPSE www.nepalstock.com. Other sources of secondary data are the various publications of securities Board of Nepal and Nepal Stock Exchange Ltd. Review of national and international studies, books, journals as

well as masters degree dissertation are discussed in order to make the studies more effective.

Both the descriptive and analytical research designs are adopted to carry out this study. The stock market performance is examined by analyzing the number of listed companies in NEPSE, their trading ratio and annual turnover ratio. Run test is used to know whether the movement of market price of stock is random or not. Five sample companies are used for the run test to know the stock price behaviour of NEPSE. The relationship of market price with EPS & DPS is examined with the help of simple regression equation. The significance of the relationship is measured by using t-test. The statistical results are tested at five percent level of significance.

It may be concluded that stock market is one of the integral parts for economic development. In case of Nepal, the size of the securities market in comparison to national economy is in good conditions and the growth is satisfactory. The listing of securities is increasing. The liquidity of the security market is satisfactory. The price behaviour of NEPSE stock of sample companies is measured by using run test. Among the ten selected companies the price movement of most of the companies is not random. The regression analysis between the Market Price and EPS finds that there is positive relationship between market price and EPS in four selected companies and negative relationship between market price and EPS in remaining two selected companies. The significance of the relationship is measured by using t-test and it concludes that t-significance value in case of AFL and HBL indicate that the relationship is statistically significant and the independent variable EPS explain the variation in market price. But in case of other companies the result obtained from this model is insignificant. The regression equation of market price on DPS shows that there is negative relation between market price and DPS on most of the selected companies. The relationship shown by t-test found that the in case of NSBIBL and LBL the relationship is statistically significant. And in case of HBL, BOK, MFL and BFL which indicates that the relationship is statistically not significant.

5.2 Major Findings of the Studies

The major findings of this study are as follows:

1. The Percentage of listing of finance companies is found to be highest, manufacturing and processing companies in second, commercial bank and insurance companies in third, development bank and trading companies in fourth, other sectors and hotels covered fifth and sixth position respectively.

2. Annual turnover is fluctuating, it is more than doubled in 2000/01 but sharp decline in 2001/02 with reaching the turnover Rs. 1540.63 million, in 2002/03 Rs. 575.8 million and highly increase Rs. 2144.27 million in 2003/04 and Rs 4507.68 million and Rs. 3451.43 million in 2004/05 and 2005/06 respectively.

3. The company trading is found 70 percent on an average. Considering the total number of listed companies 100, only 70 companies can trade. The ratio of traded companies can not be supposed as good indicator.

4. It is found that the annual turnover and market capitalization is increasing. Total number of share traded is fluctuating but the amount of securities is increasing.

5. It is found that the size of the stock market in comparison to national economy is in good conditions i.e. 57.68% in 2005/06. The growth in market capitalization is increasing i.e. 29% in an average which is assumed to be the satisfactory growth.

6. The complementary measure of market capitalization ratio is value traded ratio that shows the liquidness of the market in term of value of share to gross domestic product. This ratio in developed stock market is found to be 0.4 and in less developed stock market is 0.1. In Nepalese stock market it is 0.4 so the market can be found enough liquid to contribute national economy and meets the liquidity standard of common norms of international standard.

7. The findings of simple regression analysis between market price and EPS of the sampled companies are as follows: The regression coefficient (b) of HBL, BOK,

LBL, NSBIBL, MFL and BFL indicates that one rupee increase/decrease in EPS increases or decreases market price on average of the respective companies by 51.72, 38.774, 63.97, 33.37, -2.92 and -6.588 respectively. The t- significance value in the case of LBL and HBL indicates that the relation is statistically significant and independent variable EPS explain the variation in market price. But in case of HBL, BOK, MFL and BFL the t-significance values indicates that the results so obtained with the help of this model are not significant. The coefficient of determination (r^2) of LBL is 99.42, which indicates that 99.42% of the total variation in the values of the market price has been explained by the effect of the EPS and remaining 0.58% is due to other factors.

8. The major findings of simple regression analysis between market price and DPS of the sample companies are described as follows: The regression coefficients (b) of HBL, BOK, NSBIBL and MFL are positive which indicates that one rupee increase/decrease in DPS increase/decrease market price on average of the respective companies by 39.90, 9.183, 19.86 and 0.73 respectively. But in case of BFL the value of b is negative and Laxmi Bank is zero. The relationship shown by t-test found that the in case of NSBIBL the relationship is statistically significant. And in case of HBL, BOK, LBL MFL and BFL which indicates that the relationship is statistically not significant.

5.3 Recommendation

Based on the analysis of data, this study has reached to the following recommendations:

1. Since, most of the time theory and assumptions of technical analysis match with the Nepal's stock market. So, the investors, brokers, and other related to Nepal's stock market are strongly recommended to focus more on technical tools for analyzing the share price movement.

2. Investors are eager to apply technical analysis for analyzing share price movement. Therefore, it is recommended to regulating body, brokerage house, and training institutes to provide in-depth knowledge about technical analysis.

3. Brokerage companies must provide good counselling service as regards to stock investment. Small investors are also encouraged to participate in active stock trading.

4. The investors should be educated, self aware and informative regarding the daily stock price behaviour. They should be extremely careful before making the investment decision.

5. Many individuals and institutional investors should be encouraged to invest in securities so that the liquidity of stocks may be improved.

6. Investors must be familiar with fundamental analysis of the stock investment so as to make best stock investment

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