CHAPTER - 1

INTRODUCTION

1.1. Background

Capital Market is the market that plays significant role in the economic development of the nation. Banks, investment companies, financial corporations, stock exchange etc are some important constituent of the Capital markets which are engaged in mobilization of ideal savings in productive opportunities. “Development and expansion of capital market is essential for the rapid economic development by mobilizing long term capital needed for productive sector. The main objective of capital market is to create opportunity for maximum number of people to get the benefits from the return obtained by directing the economy towards the productive sector by mobilizing the long term capital.”[Ojha, 2000: 1]

Capital market involves those financial assets that have life span of more than one year. It consists of both securities and non securities markets. Securities market is an important part of capital market. It can be classified into two parts that is Primary market and Secondary market. Primary market deals with selling of new securities so that companies can meet their financial requirements. Once the security is transacted in primary market its further trading takes place in secondary market. Therefore, it facilitates investors to buy or sell securities such as shares, bonds and debentures. It is a mechanism for bringing together the buyer and seller of financial assets in order to ease trading. Thus, the security indirectly aids new financing for development of economy.

Security market is the major constituent of capital market. It 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 shares, preference shares etc. It has a wide term embracing the buyers and sellers of securities and all the agencies and institutions that assist the sale and resale of corporate securities. (Patrik, 1996:50). Although some analysts (Irwin friend etc)

view securities markets in developing countries as gambling 'casinos' that have little positive impact on economic growth . Recent evidence shows that securities market gives a big boost to economic development (Levine: 1996.7).Security market is the foundation stone of any economic development. It has become an integral part of the economy and its role in developing countries is increasing day by day.

The securities commonly available in the market can be in the form of equity shares such as corporate bonds and government securities or equity equivalents such as convertible bonds or debentures. The choice of such instruments depends on the attitude of investors towards risks & returns.

In Nepal, the history of the security market began with the flotation of shares by Biratnagar Jute Mills Ltd & Nepal Bank Ltd in 1937. Establishment of Security Market Center (SMC) was another important dimension for the growth of security market in Nepal, which was later on restructured & renamed as Security Center Exchange (SEC).But after the first amendment to securities exchange act in 1993, SEC restructured into present form of Nepal Stock Exchange Ltd (NEPSE) to act as a market operator & Security Board of Nepal (SEBON) was established as the separate government regulating body. NEPSE is working under SEBON. NEPSE is the sole organization for the operation of secondary market for listed security.

NEPSE opened its trading floor on 13th January 1994 through licensed members. Nepal Government (NG), Nepal Rastra Bank (NRB) Nepal Industrial Development Corporation (NIDC) and licensed members are the shareholders of the NEPSE. It is non profitable organization operating under Securities Exchange Act, 1983. It has its own board of directors (BOD) to direct and to formulate the policy matter to run the securities transaction business in the country. The BOD is responsible to form the policy for the development of capital market. Its board consists of 9 members. Of which, Government nominates a chairman, Nepal Rastra Bank nominates two directors, NIDC nominates one director, two represents the licensed members through election and Securities Exchange Board

of Nepal can nominate two directors. General Manager is the Ex-officio director. (Bhattarai: 2061.5).

Members of NEPSE are allowed to act as intermediaries in buying and selling of government bonds & listed corporate securities. At present there are 27 member of broker operating on the trading floor. Besides this, NEPSE has also licensed to dealer primary market and dealer secondary market. Dealer primary market operates as a manager to the issue and underwriter whereas dealer secondary market operates as a portfolio manager.

Trading System on NEPSE

NEPSE has adopted an "Open Out-Cry" system in the beginning of secondary trading in 1994. It means transactions of securities are conducted on the open principle on the trading floor. The buying broker with the highest bid post the price and his code number on the buying column, while the selling broker with the lowest offer post the price and code number on the selling column on the quotation board. The market maker quotes their bid and offer price on their own board before the floor starts. Once the bid and offer price match, contracts between the buying and selling brokers or between the brokers and market makers are concluded on the floor.

In the beginning of the fiscal year 2007/08 NEPSE replaced the old open-out cry system of securities trading with the automated trading system (ATS) which cost NEPSE almost 300 thousand US dollar. The ATS has not only mechanized securities trading, but also reduced the manipulation of prices and human errors. The ATS adopts the principles of order driven market. The best-buy order is matched with the best- sell order. An order may match partially with another order producing multiple trades. For the order matching the best buy order is the one with the highest price and the best sell order is the one with the lowest price. This is because the system views that all buy- orders are available from the point of view of the sellers and all sell orders are available from the point of view of the buyers in the market. So of all the buy orders available in the market at any point of time, a seller would obviously want to sell his shares at the highest

possible buy- price that is being offered. Hence, the best- buy order is the order with the highest price and the best sell order is the order with the lowest price.

Trading through WAN has started from 13 October 2007. Now stockbrokers do not have to come to the NEPSE's office to buy or sell shares. They can do that from their In the first phase, NEPSE granted permission to Malla and Malla Stock Broking Limited, Nepal Stock House, Nepal Investment and Securities Trading Private Limited, Shreekrishna Securities Limited and Premiere Securities Company Limited to trade through WAN. All the brokers with the following infrastructures can get access to WAN: a price board, separate rooms with computers to post clients' orders or settle shares and provide up to date information to clients

Trading Days and Hours in NEPSE

The NEPSE has fixes the following trading days and hours in which the transactions are made.

Table 1.1

Trading Timing

Trading Days	Trading Hours	Types of Trading
Sunday – Thursday	12 a.m. – 3 p.m.	Regular Trading
Friday	12 a.m. – 1 p.m.	Odd Lot Trading

Source: NEPSE annual report

NEPSE has adopted a T+3 settlement system. Settlement will be carried out on the basis of paper verses payment. The trading is done at "T" and at T+1; the buying brokers have to submit bank vouchers for settlement with covering letter. At T+2, the selling brokers must submit share certificate with covering letter. At T+3, NEPSE prepares billing for payment and this will be forwarded to the bank.

Once the settlement is done the buying brokers with the consultation of the clients must decide and present the purchased shares if they want to record it as blank transfer. This must be completed within T+5.

Listing Fees

The structure of listing and annual fees is based on the issued and paid up capital. The fees that the stock exchange used to charge are as follows.

Table 1.2

Listing & annual fees in case of shares

Paid up Capital	Listing Rs.	Annual Rs.
Up to Rs.10 million	0.20% or minimum Rs.15,000	Rs.15,000
Above Rs.10 million to Rs.50 millions	0.15% or minimum Rs. 45,000	Rs.25,000
Above Rs.50 million to Rs. 100 million	0.10% or minimum Rs.75,000	Rs.35,000
Above Rs.100 million	0.075% or minimum Rs100,000	Rs.50,000

Source: *www.nepalstock.com*

Table 1.3

Listing and annual fee in case of debentures, mutual funds

Issued or paid-up capital	Listing Rs.	Annual Rs.
Up to Rs.10 million	Rs. 15,000	Rs. 15,000
Above Rs.10 million to Rs. 50 million	Rs. 45,000	Rs. 25,000
Above Rs.50 million to Rs.100 million	Rs. 75,000	Rs. 35,000
Above Rs. 100 million	Rs. 100,000	Rs. 50,000

Source: *www.nepalstock.com*

After receiving all these required documents and fees the process will be initiated and if finds feasible to enlist that will be forwarded to the BOD who in turn analyses the documents and makes decisions for listing.

Brokers

Brokers are the people who actually bring the prospective investors and the company together. The function of the broker and dealer is separate in NEPSE. The service of the broker is defined under the securities law. It acts as an agent on behalf of the buyer or the seller of the stock.

Brokerage Charge

Brokers charge the agency commission for their services according to the transition amount. The commission rates are given below:

Table 1.4

Brokerage for equity

S.No.	Trading Amount	Brokerage %
A	Up to 50,000	1
B	> 50,000 & < 5,00,000	0.9
C	> 5,00,000 & < 10,00,000	0.8
D	> 10,00,000	0.7

Source: *www.nepalstock.com*

Table 1.5

Brokerage for Government Bond

S.No.	Trading Amount	Brokerage %
A	Up to 5,00,000	0.20
B	> 5,00,000 & < 50,00,000	0.10
C	> 50,00,000	0.5

Source: *www.nepalstock.com*

Table 1.6

Brokerage for all other stocks not listed in 1 and 2

S.No.	Trading Amount	Brokerage %
A	Up to 50,000	0.75
B	> 50,000 & < 50,00,000	0.60
C	> 50,00,000	0.40

Source: *www.nepalstock.com*

Securities market in Nepal could not carry out well in initial days as it was a new practice and was affected from political interferences and handful of the investors. The big challenges to domestic monetary policies is to separate the economics from the politics and these interferences. Therefore, we should try to reduce and eliminate the impact of politics on economy and should make effort to create appropriate environment for its development.

In present days, securities market has attracted interest of both national and international investors, while raising a number of critical issues. Of these, listing, liquidity and pricing of securities market are very important. Listing of securities in both domestic and foreign market has become a common practice in developed countries. Foreign listing gives an international exposure to listed companies. With the development of the 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 (IPO) of the Nepalese companies.

Securities market may affect economic activity through the creation of liquidity which makes investments less risky and more attractive by allowing easy and quick trading. The role of organized exchange is very important in providing liquidity. Liquid market improves the allocation of capital and enhances the prospects for long –term economic growth. Further, by making investment less risky and more profitable, stock market liquidity can also lead to more investments (Levine, 1996:7).Since, investor's activities are directed to maximizing profit and

minimizing risk and liquidity is an issue of their interest so liquidity attracts the interest of investors by ensuring quick investment recovery and easy trading.

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 properly 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 characterized 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 our country 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 then only economic development of our country is possible.

Though, Nepal has gained the experience of securities market for more than two decades, it is still in its infancy. It is not developing as expected. The major reason behind it is the slow growth of corporate sectors. The effort of the government seems to be insufficient in this regard. General public are expected to support plans and policies and good co-ordination in their activities is essential. The secret of development is not concealed in the interstices of the government and administrative structure. Development takes place when skill is supported by commitment and human material resource exist to translate that into reality (Fainsod, 1963:23).

Therefore, development of vibrant and dynamic securities market is a pre-requisite for the development of an efficient economy. But, in the present Nepalese scenario, there is a lack of pertinent studies exploring the current drawbacks and suggestion for the further improvement. In such situation, studies in securities market in Nepalese perspective would be benefit and could provide a solid feedback for further improvement. With a view to contributing towards this avenue, this study on listing provision and price formation mechanism in Nepal stock exchange is expected to be useful and worthwhile.

1.2. Statement of problems

NEPSE is an organized secondary market operating under Security Exchange Act, 1983 which clearly spell out that no security can be traded without listing in stock exchange. Presently 135 companies are listed in NEPSE. According to Security Exchange Act 1983, the listing securities of is mandatory but the rules and laws made there on state the minimum criteria to be listed. If these are not fulfilled NEPSE can deny listing. This is a contradictory situation creating problems.

Security market in Nepal is facing different difficulties. Security investment is not so satisfactorily popular in the public. After the issuance of the shares of Nepal Telecom and Agriculture Development Bank, public interest on share trading has grown significantly. But even after the rapid growth in the number of investors, there is lack of professional investors in Nepalese security market. Most of the investors hold the view of making the profit by speculation which is one of the main causes of price fluctuation.

Security Board of Nepal is trying to achieve its goal to maintain the credibility, fairness, responsiveness, efficiency and transparency in stock market. But the efforts it is showing are sufficient in achieving the stated target or not is the big question arising. This study attempted to search the answer for the questions enlisted below:

- What is the situation of the listed companies?
- How the price formation in NEPSE can be improved?
- How effective are the services provided by the brokers?
- What measures can be adopted to improve the price formation of Nepalese stocks?
- How easily are the securities traded in Nepalese Stock Market?

1.3. Objectives of the Study

Every study has its own objective, like wise this study also has its objective. So the main objective of the study is to analyze the status of listing provision and

price formation in Nepal Stock Exchange. Therefore, the specific objectives are as follows:

- To analyze the brokering services and the role of the brokers in price formation in NEPSE
- To study the current situation of listed companies in NEPSE
- To analyze behavior of NEPSE index.
- To examine the share price behavior of the listed companies in NEPSE.
- To evaluate the factors affecting the share price formation in Nepal
- To give recommendation on the basis of findings.

1.4. Limitation of the Study

The research on capital market in Nepal is still difficult because of the lack of good database. The reliability of available data may also be questionable. Disclosure of information and transparency is regarded as a pre-requisite for corporate prosperity but some Nepalese companies still hesitate to provide their details treating the information as confidential. In such case exact analysis of data may not be possible and its validity remains almost unjustified.

Being an academic research, this study is done within some limitation and constraints. This research has been conducted under time and financial constraints. Findings are based mainly on primary data like on field interviews, questionnaire and the secondary data provided by NEPSE, SEBON and some other corporate. So, the reality of the study is depends on the answers get and the secondary source of data.

To analyze the stock market listing procedures and price of stock traded, time period was taken from fiscal year 2001/02 to 2007/08. Only the companies listed in NEPSE from fiscal year 2001/02 to 2007/08 are considered as new companies to analyze the newly listing rate and sample includes only those companies which have submitted their financial statement to SEBON within

specific time. This study doesn't cover all the Nepalese enterprises. Therefore, the conclusions drawn are of a tentative nature and firm generalization should be avoided.

1.5. Organization of the Study

Simple research methodology is followed for the study. The study consists of five different components i.e it classified into five chapters which consists of introduction, review of literature, research methodology, presentation and analysis of data and finally summary, conclusion and recommendation part. The content of these chapters are given below:

Chapter 1: It deals with the introduction part of the study. It contains general background, statement of problems, objectives of the study, limitation of the study and organization of the study.

Chapter 2: This part deals with review of literature which consists of the theoretical framework, review of empirical studies and review of major studies in Nepal.

Chapter 3: This part of research methodology deals with various methods used to conduct the study. It consists of research design, nature and source of data. Methods used for data analysis and presentation, tools of analysis and lastly it define the key terms used in this study.

Chapter 4: In this part of presentation and analysis of data, different analysis are conducted to show the stock market performance, it current position of listing under NEPSE and position of liquidity in Nepal stock market and run test of randomness and regression equation is applied to examine stock price behavior.

Chapter 5: This part deals with the summary and conclusion of the study. It states the major findings of the study and offers some appropriate recommendation for further studies.

CHAPTER -2

REVIEW OF LITERATURE

This chapter attempts to review some of the basic literature related to the stock market. It describes the concepts of listing, liquidity and pricing of securities and brokering services. For this purpose, the national and international literatures are reviewed and relevant published materials such as booklets, browsers and thesis done by previous years students are discussed.

2.1. Security Market

Security market, a structural network of savers and users of fund is such a market mechanism, which mobilizes the fund of savers to the users and thus this financial activity boosts the industrialization and trading activities, which will bring the positive result to the economy as the whole. (Sharma, 2002:16).

Security market is the important constituent of capital market. It is the basis of economic development for the country. As it gives a big boost to economic development it has become an integral part of both developed and developing countries. Its role is increasing day by day in developing countries. In security market, the securities of the listed are traded through brokerage system. It is the process of bringing together the buyer and the seller of financial assets to facilitate the trading.

It plays a vital role in collecting funds from issues of shares and buying and selling of securities. This indicates the structural network of the securities and the structural network of the savers 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. So, it is concerned with the collection and mobilization of savings. There are two important functions of securities market. One is rising of funds through the issue of shares and debentures and another is the trading of securities issued by the listed companies.

The securities commonly available in the market are in the form of equity such as shares and stocks, debt instruments such as corporate bond, convertibles bonds or debentures etc. But stock market is one of the most important types of securities market as it has spontaneous marketability. The stock exchange provides in a wide range of traded securities. It is the place where a large number of buyer and seller meet so investors can easily convert their shares into cash. One may like to buy more shares or sell existing shares from time to time. Hence, it provides liquidity necessary to attract investors fund and also reduces the volatility of security.

There are two important functions of the security market, namely the raising of funds in form of the shares and debentures and trading the securities already issued by the companies. While the finest aspect is obviously much more important from the economic point of view, the second point of view is also equally important. In fact, if facilities for transferring of existing securities are abundant, the raising of new capital is considered assisted as the buyer of the new issue become confident that whenever he wants to get cash he can find a buyer for the security without much difficulty. The security exchange help allocate limited 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 funds into the promising investment. An efficient market is one which allocates funds into the most productive use. Besides this there is a lot of functions of securities exchange, such as to provide ready and continuous market, evaluation of securities, mobilization of savings widening the share ownership. Likewise, it determines a fair price for securities. It also enables transaction to be made at low cost as possible or minimization of transaction cost and enables transaction to be made quickly and easily. So, it is the major part of capital market. It indirectly aids new financing for the development of economy. Securities market can be classified into two parts ie Primary market and Secondary market.

Primary Market

Primary market deals with the selling of new securities. It is the place where the securities are sold to mobilize the saving for the establishment and operation of the business. It is also known as IPO market ie Initial Public Offering market. Here the securities can sell either at par or premium or discount. As the primary market is the new issue market it brings together the demand and supply or sources and uses for new capital fund. Securities available for the first time are offered through the primary market. The issuer may be the brand new company or the one that has been in business for many years (Weston and Copland, 1981: 375). Therefore, companies meet their financial requirements by issuing securities in primary market. So, it plays important role in securities market which can considered as follows:

- To assist entrepreneurs to launch the business.
- To industrialize the country.
- To generate employment opportunities.
- To generate government revenue.

Secondary Market

Once a security is traded in primary market, its further trading takes place in secondary market. Secondary market is the place where second hand securities are traded. So it facilitates investors to buy or sell securities. It consists of Stock Exchange and Over-the –counter market ie OTC market.

Unlisted securities are not traded in stock exchange. Exchanges generally have their own listing rules. Stock Exchanges are considered as organized market where as OTC market are unorganized markets. Nepal does not have OTC market; NEPSE is only one secondary market in Nepal. NEPSE is a non-profit organization operating under, Securities Exchange Act, 2040.

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. This market has been started with licensed members such as member broker and market makers since January 13, 1994. It is only the sole organization for the operation of secondary market for listed securities.

Secondary market arranges liquidity in listed securities. We mostly say that marketable assets have more liquidity but all the marketable assets may not be liquid assets. Marketability of the assets and liquidity of the assets are two different things. Secondary market reflects the economic policy of the country. The rising price shows the policy is favorable and the declining price shows the opposite one. Like Primary market, Secondary market also plays an important role which is as follows:

- To enable the entrepreneurs to raise additional capital.
- To generate employment opportunities.
- To collect revenue.
- To make valuation of securities on daily basis.
- To show the efficiency of capital market.

2.2. Secondary Market in Nepal

NEPSE is the sole organization for the operation of secondary market for listed securities in Nepal. It is working under SEBON. It started its trading floor on January 13, 1994 through licensed member. Nepalese Government (NG), Nepal Rastra Bank (NRB), Nepal Industrial Development Corporation (NIDC) and licensed members are the shareholders on NEPSE.

The history of secondary market in Nepal is not that must old. It began with the flotation of shares by Biratnagar Jute Mill Ltd and Nepal Bank Ltd in 1937. Establishment of Security Market Center (SMC) was another important dimension

for the growth of security market in Nepal, which was later on restructured and renamed as Security Exchange Center (SEC). SEC was established with an objective of facilitating and promoting the growth of capital markets. Before conversion into stock exchange it was only the capital market institution undertaking the job of brokering, underwriting, managing public issue, market making for government and other financial securities. But after the first amendment to securities exchange act in 1993, SEC was restructured into the present form of Nepal Stock Exchange Ltd (NEPSE) to act as a market operator and Security Board of Nepal (SEBON) was established as the separate government regulating body.

NEPSE is a non-profit organization operating under Securities Exchange Act, 1983. It has its own Board of Directors (BOD) to direct and formulate the policy matter to run the security transaction business in the country. The BOD consists of nine members of whom NG nominates a chairman, NRB nominates two directors, NIDC nominates one director, and two represents the licensed members through election and SEBON can nominate two directors. General Manager is the Ex-officio director. Therefore, BOD is responsible to form the policy for development of capital market in Nepal.

2.3. Price Formation

Price formation is the process of determining the price of the securities by the demand and supply of the securities. Securities pricing is the complex because a large number of variables directly or indirectly affect the price formation process. It is perhaps one of the poorly understood issues among investors. The influence of individual's judgment and environmental factors has increased further complexities on it. Although security price is determined by the supply and demand for securities (Francis, 1999: 521) the role of brokers, market makers and other actors of market mechanism is most 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 the expectation of the 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 offers price ie lowest price at which any well informal trader is willing to sell and fair bid price ie highest price any 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 price reflect all available information about the market.

Price of stocks 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 period of time. Investors revise their orders periodically as per their perception and rationale.

Most investors analyze securities depending upon the various theories on share price behavior. 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.

Theories of Share Price Behavior

How securities market form prices is the most studied but least understood issue in finance. Many scholars have studied the price formation system of the stock exchanges and developed their theories on share price behavior so it is necessary to have a brief description of these major theories.

1) Conventional Theory

The conventional theory of share price behavior assumes that the market is inefficient and securities are miss-priced. In inefficient market, one can gain by selling the over-priced security and buying under-priced one. The major analytical

tools commonly used by the followers of this approach are technical analysis and fundamental analysis.

Technical analysis:

It is based on the assumption that price of the securities is determined by the demand and supply of the securities. It involves the study of stock market price in an attempt to predict future price movement of a particular firm. The past prices are examined in order to identify the recurring trends or patterns in price movement. Many recent stock prices are analyzed to identify emerging trends similar to the past ones. Matching of these emerging trends with the past ones is done in the belief that these patterns repeat themselves. Therefore, by identifying the emerging trends, the analysts hope to predict the future price. Technical analysts are often called chartists because of their reliance upon graphs and charts of stock price movement. They record the historical financial data on charts and graphs and carefully analyze the trend to set forecast the future price.

This analysis is based on published data. The technician should justify the trend and recognize when one trend comes to an end and price start in the opposite direction. The focus of this 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 main problem in this is to distinguish between reversals trend and real changes itself.

The main assumptions of 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 the past price and volume data and the pattern trend to repeat itself.

Technical analysis records historical and financial data on charts. Study in charts is an effort to find meaningful pattern and use these patterns to predict the future prices.

Fundamental analysis:

This analysis begins with the identification of true or intrinsic value of the financial assets. This true value is the present value of all cash flows that the owner expects to receive. 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 overpriced and if the true value is high than the current market price then it is under priced. Security analysts study companies' earning and their management, the economic outlook, the firms' competition conditions, and many other factors to determine the real value of securities. Early works dealing with securities analysis (like Graham and Dodd, 1934:32) 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. In other words, price of security is the present value of the expected future cash flows as expressed in the following equation.

$$\text{Present Value per Share} = \frac{\textit{Forecasted cash flow per share}}{(1\Gamma K)^{t}}$$

Where,

K = Risk adjusted discount rate

t = Time period

Although this method seems to be sweet and easy, there arise mainly three (Parlten, 1994:49) 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 the world of uncertainty, there is very low chance of accurate estimation. The second difficulty is the determination of discounting rate. The appropriate discounting rate varies with individual's

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 discounting factor was same for all investors, then the value of a security would be equal for all investors.

Empirical works like Cowles (1993) Gaham and Dodd (1934) Le Ray (1989) raised an awkward question for the proponents of fundamental analysis. If the fundamental analysis worked, why did new entrants into the business of fundamental analysis, realizing two facts, not compete trading gains away? That is what is supposed to occur in other competitive industries, so why not in financial markets? (Patten, 1994:19). Such works have logically weakened the validity of fundamental analysis theory.

2) Efficient Market Theory (EMT)

Market efficiency has evolved from the notion of perfect competition, which is mostly a theoretical concept. In efficient stock market, the price of share fully reflects the available information and the rationality of investors. The role of information is therefore very important in this regard. Investors are supposed to react instantaneously and rationally once they receive any price sensitive information. In lack of pertinent information, rumors and whims plays vital role on share price formation and stock market becomes like a gambling casino. Therefore, in inefficient stock market, the speculative behavior of some of the investors plays a major role in share price formation.

On the theoretical base of efficient market theory, Fama (1965) present the concept of efficient market hypothesis (EMH). The EMH implies that investors can forecast returns that they estimate a probability distribution for each company's profits and dividends for each year stretching into the distant future (Pratten, 1994:18). According to Fama, his study was designed to measure the degree of randomness with which stock price fluctuated. He thought that financial information arrived randomly and assuming that price, responded efficiently to the new information, the price fluctuate randomly too. Fama delineated three levels of

market efficiency which are weak, semi-strong and strong efficient market hypothesis.

Weak efficient market hypothesis stipulates that historical price and volume data for securities contain no information, which can be used to earn trading profit above a native buy-and-hold investment strategy. Semi-strong efficient market hypothesis specifies that markets are efficient enough for price to reflect all publicly available information. Consequently, only those insiders who have access to valuable inside information could earn a profit above a native buy-and-hold investment strategy. Strong efficient market hypothesis claims that no one can earn than what could be earned with a native buy-and-hold investment strategy. Security markets can be strongly efficient, if the rate 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 market where prices and values are always equal as they fluctuate randomly together in response to the arrival of new information (Francis, 1999:475).

3) Capital Assets Pricing Model (CAPM)

The capital assets pricing model (CAPM) provides a measure of the risk of an individual security which is consistent with un-diversifiable risk of a single assets. Sharpe (1964:425-442) showed the relationship between expected return and unavoidable risk. He pointed out that there are two types of opportunities for an investor. The first was risk free securities whose return over the holding period was known with certainty. The treasury securities were regarded as risk free securities and return from such securities were regarded as risk free rate (R_f). The second investment opportunity was the market portfolio of the common stocks. Return of market portfolio (R_m) was represented by all available stocks, weighted according to their market values outstanding. Risk associated with individual stock was another important factor affecting stock return. Sharpe divided risk into two parts: systematic and unsystematic risk.

Unsystematic risk: It is the risk which can be avoided by constructing a well diversified portfolio. It is also known as avoidable risk non market risk or company specific risk. It is caused by events particular to the firm.

Systematic risk: It is the portion of the total risk of as individual security caused by market factors that simultaneously affect the prices of all securities. It cannot be diversified away. It is also known as unavoidable risk or market risk or non diversifiable risk. It stems from factors which systematically affect all firms. As a measure of systematic risk, Beta (β) was considered in this model.

The relationship of Beta, Risk Free Rate and Market Return is shown as follows in CAPM model:

$$E(R_i) = R_f + E(R_m - R_f)\,\beta$$

Where,

$E(R_i)$ = Expected return from security i

R_f = Risk Free Rate of Return

$E(R_m)$ = Expected return from market portfolio

β = Beta (systematic risk)

Figure 2.1

R_f

Under the assumption of CAPM, all securities lie along the Security Market Line (SML). When CAPM is graphed is called SML. It describes the relationship between an assets systematic risk and expected returns. The SML be used to

explain the required rate of return on all securities whether or not they are efficient. The basic of the SML equation is that the required return on any investment is the risk free return plus a risk adjustment factor. The risk adjustment factor is obtained by multiplying the risk premium required for the individual investment. Thus, the CAPM is an equilibrium theory of how to price and measure the risk. It has many applications for decision making under uncertainty.

The CML (capital market line) is used to determine required rate of return only for those that are perfectly correlated with the market portfolio but the SML is used to explain the required rate of return on all securities whether they are efficient or not. CAPM utilized historical data and all the returns in the SML can be different depending on the time period selected for measurement.

Various empirical tests supported the validity of the CAPM and this theory was regarded as having predictive power. Although price in developed securities markets follow CAPM, its validity in under developed security markets like NEPSE is yet to be tested.

In recent years, many critics from various angles have criticized CAPM model. They have not only criticized CAPM but have suggested their models to be more realistic than CAPM. Stephen Ross developed arbitrage-pricing theory (APT) as an alternative theory of assets pricing. This model, in some ways is less complicated and requires few assumptions than CAPM. Holmstrm and Tirole (2001) suggested liquidity based assets pricing model (LAPM). Mcnulty and friends (2002:115) have suggested their new model: Market Derived Capital Pricing Model (MCPM). This model is based on the traded price of equity options on the future price volatility of that company's share rather than using the historical data as in the CAPM model.

4) Stock Valuation Model

As stated before, the fundamental principle of valuation refers that the value of stock is the present value of expected future cash flows which include dividends and cash realized at 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 which are as follows:

- Net Assets Valuation Model (NAV)
- Dividend Valuation Model (DAV)
- Earning Valuation Model (EVM)

Net Assets Valuation Model (NAV)

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

$$\text{NAV per share} = \frac{Total\ NAV}{No.of\ Shares}$$

Dividend Valuation Model (DVM)

This valuation 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 the dividends. The value of the share as and when sold in some future year.

Earning Valuation Model (EMV)

The earning valuation approach takes into accounts the P/E ratio i.e price earning ratio for the purpose of valuing common stock. P/E ratio is calculated by market price per share by earning per share (EPS) i.e

$$\text{P/E ratio} = \frac{Market\ per\ Share}{Earning\ per\ Share}$$

This ratio varies with the change in market price. The value of the share is calculated by multiplying P/E ratio and EPS.

Therefore, these above discussions have tried to describe the concept of listing, liquidity and price formation of security. It all reveals that the importance of listing lies on the information disclosure. The information disclosed as a regular requirement of listing plays a vital role in share price formation. Liquidity of security market is a motivating factor for many investors to invest on security as it ensures quick trading with minimal efforts. Price of security is affected by various factors. Theories on share price behavior can be useful in predicting future share price. In the security market correct pricing is most necessary to attract the interest of prospective investors.

2.4. Listing

Listing is one of the most important and least studied areas but it is the primary step that the company has to cross to make their securities suitable for trading. In order to make securities eligible for trading in the stock exchange several criteria must attain order wise it can be denied for listing. So it is compulsion part of secondary market. Listing can be defined as the process of the registration of issued securities with stock exchange to make them eligible for trading. It facilitates trading in two ways, firstly it introduces securities among various prospective to execute their buy and sell orders instantaneously. A large number of buy and sell orders around current market price indicate the liquidity of individual security. Secondly, it facilitates and systematizes price discovery process within a competitive environment. The information disclosed as a regular process of listing requirement plays a dominant role in this process. Therefore, it aid to investment decision. Although listing is understood only as a process of issuing and trading securities, it is instrumental in providing liquidity and information disclosure. It indirectly fosters disclosure of information because companies need to fulfill the listing requirements as specified by concerned stock exchange.

Listing fosters saving mobilization by providing good investment opportunities and also creates the responsibility towards shareholders and stock exchange and other governing entities. Most people hesitate to invest their saving because of the fear of the illiquidity (Fisher, 2000: 56).

If stock market could ensure liquidity and safety, saving among general public is sure to be deployed towards productive sectors. When common stock begins trading on an organized exchange, its liquidity and marketability improves which may attract the interest of prospective investors. Although firms need to meet strict requirement to be listed, they like to be listed in the organized exchanges rather than be traded over the counter (OTC). It is because the listed companies may get benefit from the publicity they gain being listed and having their trading data reported in daily news. So, listing severs as a good advertisement for the listed companies. Securities Exchange Bye laws, 2053 has categorized the listing of securities into two types which are as follows:

Temporary Listing

If the securities are issued for certain periods and if the issuers have promised to refund the amount invested in securities after the period is over, such securities will be listed for such periods. This type of listing is called temporary listing.

Permanent Listing

The securities of perpetual nature are listed under this type of listing. The securities like common stocks, preferred stocks and debentures, closed end funds will be listed permanently.

Listing is beneficial from both the issuer's and investor's point of view as it has the following objectives and benefits;

The objectives of listing:

- To provide liquidity and marketability to securities,

- To mobilize savings for economic development,
- To protect interest of investors by ensuring full disclosures,
- To enhance the prestige of the listed firms.

Benefits of listing:

- Detail information about the company is available.
- Creates a favorable impression on the investors.
- Increases the activity of purchase and sale of the security.
- Continuous dealing raises the value of security.
- Provides safety in dealing and insures creditworthiness.
- It gives the collateral value in making loans.
- Listing widens the market of security.

Therefore, it is worth full for both investors as well as the company. So, now days listing in both domestic and foreign stock exchange have become a common practice in developed countries. Companies go to list their securities abroad to take the advantage of temporarily high price due to over-valuation in the foreign market, or under valuation in domestic market (Pagano, 2002:143). Listing in foreign stock exchange gives international exposures to listed companies. Such exposure is highly beneficial for growing companies, and it enhances their chance to be multinational companies. Price of the stocks listed in both domestic and foreign exchange is found to be co-integrated and mutually adjusting (Eun and Sabherwal, 2003: 67). This indicates that cross listing reduces the chance of wrong pricing and helps to form competitive price.

Various factors affect stock market listing. The most important factors are listing requirements which must be realistic, easily meet able and beneficial for both the issuers and investors. Lengthy listing procedure discourages companies to be listed and another important factor of listing is its benefits such as tax incentives, recognition and prestige, share price appreciation etc. So these benefits attract the company for listing. Every stock exchange specifies certain listing requirements for listing securities. Companies which cannot fulfill those requirements are denied for listing. So, under the frame work of the Securities

Exchange Act1983, the Securities Listing Bye Laws, 1996 has been formulated to systematize securities listing in Nepal. The major provisions made in the Bye Laws, and the important listing requirements of NEPSE are presented below.

Pre-requisites for listing

Listing is not an easy task; it consists of different criteria of listing for companies. All the companies are not worthwhile to enlist. It is very difficult to get the securities listed in abroad. Once the securities got listed, it makes them eligible for trading. So the factors to make the securities eligible for listing are provisioned below. In our context too, NEPSE has set aside the following pre-requisites for listing which are as follows:

- The minimum paid up capital must be of Rs.25 million.
- The minimum number of shareholders should be 500. But if the company has not floated the share at the time of submitting the application form for listing, then in this case listing can be done with the condition that the given number of shareholders will be attained within two years.
- The face value of the share should be either Rs.10 or Rs.100.
- The floatation of shares

The companies which do not attain the above set criteria are not eligible for listing. Therefore, listing is the first step of securities market so it is very important for smooth process of stock market. It is like a base of a house without which progress is impossible. So, every investor must have good knowledge of listing for good investments.

2.5. Brokering Services in NEPSE

Brokers are the people who actually bring the prospective investor and the company together. The function of the broker and dealer is separate in NEPSE. The service of the broker is defined under the securities law. It acts as an agent for the buyer and the seller of the stock.

"Brokers have to get the license from SEBO\N and membership certificate from NEPSE before starting the services. Under the provision of securities legislation brokers have to renew their license before the expiration of each fiscal year." (Hampton, 1996:33-45). The role of the brokers in Nepalese security market is limited to advise the client whether investing in particular stock is a good decision or not. They should advice their client by analyzing the company report and other information regarding the company. This can affect the market and the concerned companies.

Brokers are not obliged to offer advice to their clients, and even if they do, they cannot be held responsible for the quality of the information they offer. But, the quantity of the information work as the main source of their goodwill and uplift the moral responsibility towards their clients.

Brokers are supposed to behave more legally and morally towards the fulfillment of the satisfaction of their clients. However, it is not the case in each and every situation. They were often intended to increase the trade volume and blamed for the stock price crash and thereby making profit by ignoring the client's losses. The amount of commission is directly related to the amount of turnover (i.e.; trading) in an investors account. This provides some temptation to recommend frequent changes in investor's holding. Such behavior may be advantageous for them in the short run.

There were some conditions and circumstances seen in the stock market when brokers have done some activities, which create the market disorders. These activities were performed to protect their sole interest and the mutual interest connected with sample number of clients. For instance, there had been immediate reactions seen in the stock market against the political and legal changes.

"The number of stock brokers who have been charged with or found guilty of security exchange commissions' violation is frighteningly large. I believe the reason for brokerage abuse is simple. The commission sales system, which pays broker for what they sell rather than for what they earn for their clients, is the root of the evil. The brokerage investment industry is highly regulated, yet brokers

abuses continuously to escalate. Why? Although the regulations are more than adequate, they are seldom enforced. Couple of this with the fact that brokers are constantly pressurized by their house to sell, sell, sell and… It is easy to see why many forget that they are first legally and morally charged with the financial well-being of their clients. The reality of the industry is that sales come first." (Mrkvicka, 1991:131)

The first thing a prospective buyer or seller has to do is to locate a broker. In choosing a broker it is always preferable to select one who is recommended by someone who has dealt with him for sometime and is satisfied with his integrity and honesty. But almost all the brokers' office is not placed in the convenient locality in Nepal.

"Because of the lack of confidence in their own business, brokers are not maintaining the offices to make it possible for the customers to come and contact. Brokers are undermining their business because of lack of their clear vision to perceive the relationship, brokerage business and their needed dedication and contribution of time, effort and full energy to honor their market matching profession through the rational art, science and techniques of institutionalization". (Shrestha, 2056:12)

Brokers are supposed to give the potential investors the adequate and the real information about the different stocks available in the market. But in reality, they have also been criticizes for the use of imaginary words to persuade them to buy and sell the security as immediately as possible.

Members of NEPSE are permitted to act as intermediaries in buying and selling of government bonds and listed corporate securities. At present there are 23 member brokers and 2 market makers operating in the trading floor as per securities exchange act 1983, rules by laws of the exchange. There are many intermediaries involved in the Nepal Stock Exchange for stock trading and brokers are one of them. They play an intermediary role on behalf of their clients and receive certain commission for their service.

Besides this, NEPSE can also license to dealer primary market and dealer secondary market. Dealer (Primary market) operates as a manager to the issue and underwriter whereas dealer (secondary market) operates as a portfolio manager.

Presently, NEPSE licensed to 11 dealers (primary market) and 2 dealers (secondary market). Brokers are the legal person who brings the perspective investors and the company together. Brokers have to get license from security board of Nepal (SEBO/N) and member certificate from Nepal stock exchange (NEPSE). Under the provision of securities legislation, the tenure of the membership is one year. The license should be renewed within three months after the closure of the fiscal year. If not, it can be done within three months by paying 25% penalty.

2.6. Review of Journal and Articles

Articles, journal and bulletins are of great significances for thesis writing. So in order to make this study more comprehensive some articles, books etc related to stock price are consulted and reviewed.

The study conducted by Pettit on "Dividend Announcements, Security Performance and Capital Efficiency" has the objective of providing further support or evidence about the validity of the efficient market hypothesis by estimating the speed and accuracy, with which market price reacts to announcements of changes in the level of dividend payment. He analyzed 625 announcement dates of all dividend changes collected from New York stock Exchange for the period of January 1964 through January 1968, within which 1000 dividend changes were announced and daily price information was also studied for 135 announcements in 1967 – 1969. For analysis, market model is used. The study draws the conclusion that the market makes use of announcements of changes in dividend payments in assessing the value of a security and most of the information implicit in the announcement is rejected in the securities' price as of the end of the announcement period. (Pettit; 1972:63), and the study strongly supports the proposition that the market is reasonably efficient both on a monthly and daily basis.

In the journal of Financial Economics, summer 1996, entitled "Commonality in the Determinants of Expected Stock Returns" by Robert A. Haugen and Nardin L. Baker, they presented with evidence that the determinants of the cross section of expected stock return were stable in their identify and influence from period to period and from country. The determinants were related to risk, liquidity, price level, growth potential and stock price history. Out of sample predications of expected returns, using moving average values for the pay-offs to these firm characteristics were strongly and consistently accurate. Two findings, however, distinguished their paper form others in the contemporary literature. First, the stock with higher expected and realized rate of return was unambiguously of lower risk than the stocks with lower returns. Second, they found that the important determinants of expected stock returns were strikingly common to the major equity markets of the world. Given the nature of the texts, it was highly unlikely that those results may be attributed to bias or data snooping. Consequently, the result seems to reveal a major failure in the efficient market hypothesis. (Haugen, et al.; 1996:182)

Fama's (1965) on the random walk model was one of the best definitive and comprehensive every study conducted. He observed the daily proportionate prices of 30 individual stocks of the Dow Jones Industrial Average Index (DJIAI) for the period of 1957 to 1962. He employed the statically tools such as serial correlation and runs test to draw inference about depended of the price series. He calculated auto-correlation coefficient for daily changes in log prices for lag from 1 to 30 and found that the coefficient were almost close to zero in overall. The correlation coefficient for daily changes in average was +0.03, which is near to zero. But on the daily price changes, 11 out of 30 stocks had correlation coefficient more than twice their computed standard errors. The coefficient ranged from smallest 0.06 to largest 0.123. However Fama concluded, "Dependence as such a small order of magnitude is, from a practical point of view, probably unimportant for both the statistician and the investor." Fama also calculated serial correlation for lag from 1 to 10 for no-overlapping differencing intervals of four, nine and sixteen days to examine the possibility if price change across longer

interval shows dependence. All the results are again not significantly different from zero. (Fama; 1965:283)

In 1997 International Monetary Fund [IMF], Policy Development and Review Development Division published a working paper entitled "Determinants of Stock Prices: The case of Zimbabwe". The working paper examined the general relationship between stock price and macroeconomic variables in Zimbabwe, using the revised DDM, error-correction model, and multi factor return generating model. Despite the large fluctuation in stock prices since 1991, the analysts indicated that the Zimbabwe Stock Exchange functioned quite constituently during the period. Whereas, sharp increases in the share prices in stock prices during 1993-94 were mainly due to the shift of the risk premium that was caused by partial capital account liberalization, the monetary. (IMF; 1997:17)

2.7. Review of Unpublished Dissertations

Many empirical studies have been conducted on the various aspects of capital market using cross country as well as time series data. Although the model used and the conclusions derived by these studies are different as per the nature and scope of the study, such studies have contributed a lot in the field of security market. Then also no specific studies are done on the listing, liquidity and share price of Nepalese security market. There are some literatures on the share price and liquidity. Some of them are more relevant with this study and are selected as a concern literature. A brief concept of findings is summarized in the following ways:

Guragain, R.K. (2002) evaluated the role of brokers in share price formation in his thesis entitled "The Role of Brokers in share price formation." He identified the positive effect of effective price formation process on liquidity of stocks. This study indicated that no stocks were correctly priced in Nepal. Investors were attracted by share price appreciation rather than dividend yield. The listing and

trading function of NEPSE were found to effective. Taxes on capital gains and dividend earnings adversely affected market liquidity. He has used the CAPM model to determine whether the stocks in Nepal are correctly priced or not.

Gautam, R. (2003) when conducting a research on "Listing, liquidity and price formation in Nepal Stock Exchange" states the main objective of the study is to analyze properties of portfolios formed on liquidity and share price formation in Nepalese enterprises. His study finds the stock with the higher MPS have higher liquidity, higher profitability, higher price earning and lower trading turnover. He further states that the stocks with higher trading turnover have higher liquidity and lower price earning.

Pandey, S. (2004) on "Listing, liquidity and price formation in Nepal Stock Exchange" examined the current position of listing, liquidity and share price formation in the Nepal Stock Exchange. Ten companies were taken as sample for the study. She concludes that the position of the stock market is good. Trend of listing is growing which helped in the growth of the liquidity position of the stock market. She also states that the price formation of the sample is in the progressive trend. Overall the performance of stock market is very satisfactory.

Giri, A. (2005) made a research on "A study on Share Price Behavior of Listed Commercial Banks" states after the series of tests like correlation, coefficient of variation etc. concluded that the information of the past price change helps in predicting the future price changes. The analysis regarding risk and return of most of her sample stock was riskier than the average ones.

Shrestha, P. (2006) conducted a research on "Share Price Behavior of Commercial Banks listed in NEPSE" found that the price change depends on the information about past. His survey among the share brokers and the investors draws the conclusion that the share price movements are caused by several kinds of information flowing in the market along with the evaluation of past information and experience influenced by weak market hypothesis.

Rayamajhi, K.J. (2007) on his study "Provision for the investor protection in Nepalese Law" identified that the small investors were deceived and adversely suffered because of inside trading, wrong auditing reports and delay in public information disclosures. He also indicated that Nepalese legal provisions were also not sufficient to protect the interests of investors. Prevailing rules and regulations were not properly exercised due to weak implementation mechanisms, contradiction on jurisdiction and lack of investor's awareness on their right and obligations.

2.7. Research Gap

Above mentioned studies indicated that the impact of dividends on share price in Nepal and the share price appreciation are the main motivating factors for investors to invest in securities. Nepalese companies scarcely disclose information other than that statutorily required. Such statutory requirements were generally confined to financial information only. Many studies have proved that information plays a decisive role in share price formation.

Many studies are conducted on the various aspects of listing, liquidity and formation of security prices on Nepalese stock market. Their applicability is to be tested in the context of smaller and underdeveloped capital market like ours. Testing the validity and applicability of these studies is necessary to know their relevance. No study has been conducted on price behavior related to stock market efficiency by using share brokers and individual investors as primary source of information. This study on Price Formation, Listing and Brokering Services in NEPSE is expected to fulfill the drawbacks of previous studies and shed some more light towards these aspects. To make the study more effective, fulfill its objective and to verify its arguments different kinds of tools and techniques such as statistical tools, financial equations, different models etc are used according to the necessity. Descriptive and analytical research design is also used along with the on-field questionnaire for the effectiveness of the study. Viewed and analyzed accordingly to the determined objectives this study is expected to be rewarding and worthwhile.

CHAPTER -3

RESEARCH METHODOLOGY

Research methodology is systematic way of conducting research for obtaining stated objective. So this chapter provides the methods used to achieve the study goal stated earlier. It includes research design, population and sample, the sampling procedures and size, sources and data collection procedures, methods of analysis and presentation and different tools used for analysis part.

3.1. Research Design

The research design is the task of defining the research problem. In research study it acts as a general framework for carrying out it. It is major base of the study. “Research design is the plan, structure and strategy of investigation conceived so as to obtain the answer to research questions and to control variance” (Kerlinger, 1986:275). Hence, it is road map by which the researchers achieve their objective correctly in time.

This study is carried out to get the empirical result of the stock market Listing s and its relation to its liquidity, stock markets current position regarding its price formation procedures. For which both descriptive and analytical research design are adopted. The descriptive approach has been adopted mainly for the conceptualization of problem. Likewise, analytical approach has been used to analyze the related data and relationship among variables.

Descriptive Research

It is a type of research in which adequate information are collected. It is generally conducted to know the behaviors, opinions or characteristics of a given population. In this research there is no necessity of explaining relationships, formulating and testing hypothesis.

Analytical Research

It is a type of research in which scientific method is applied to describe past events. It is a process of collecting, evaluating, verifying, synthesizing past events systematically and to reach a conclusion. The main aim of using 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. Variables

A variable is a symbol to which numerals or values are assigned. So, the variables can take on values. This research intends to identify the factors that affect the share price in share market. Market price of share is the dependent variable, which is affected by many variables. Such variables are regarded as the independent variables in the study. The entire factors that affect the market price of shares such as earnings, dividend, interest rates, liquidity, book values of the shares, rumors and whims etc. are the independent variables.

3.3. Population and Sample

Altogether 146 organizations and 27 brokers are listed in the NEPSE and all of them have been considered as the population of this study. Since, it is impossible to study and analyze all of them. The researcher has selected eleven companies as a sample. The companies selected are as follows:

1. Bank of Kathmandu Ltd.
2. Everest Bank Ltd.
3. Himalayan Bank Ltd
4. Laxmi Bank Ltd.
5. Lumbini Bank Ltd.
6. Machchhapuchhre Bank Ltd.
7. Nabil Bank Ltd.

8. Nepal Investment Bank Ltd
9. Nepal Industrial and Commercial Bank Ltd.
10. Siddhartha Bank Ltd.
11. Standard Chartered Bank Ltd.

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 procedures were followed to assure the representation of following purposive sub-group.

Investors: This group consists of individual investor, institutional investor and member of SEBON and NEPSE.

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

Concerned members: This is the group of individual composed of personnel of SEBON and NEPSE as well as broker and specialists of the capital market.

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

3.5. Nature and Sources of Data

Data have been collected from Primary as well as secondary sources. The primary data are collected from questionnaires and individual visits and the secondary data are collected from the various publications such as journals, books, bulletins, unpublished thesis reports and available articles. The main source of secondary data is the annual and trading reports of NEPSE and SEBON. In addition, supportive data and information are collected from different articles, newspapers and internet websites of the concerned organizations as well.

3.6. Data Analysis Tools

The importance and effectiveness of the data lies in their proper analysis and interpretation. Analysis gives sense to data and makes them speak and gives the study a logical conclusion. So, for the analysis of data different statistical tools as well as financial equations, propositions, models are used as per the requirement. 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 are been used. The statistical tools consist of simple mean, median, standard deviation, percentage frequencies, correlation etc.

3.6.1. Financial Tools:

Rate of Return

The rate of return on each stock is calculated by dividing the increment on the market price per share by the value of previous market price per share 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:

$$\frac{MPS_1 - MPS_0 + D_1}{MPS_0}$$

Value Traded 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 uncertainty associated with the 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. Therefore, 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 it is 0.1.

Market Capitalization Ratio

The market capitalization ratio equals to the value of listed shares divided by GDP. The market capitalization ratio can be used as a measure of market size. Many observations use this 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 is greater than 1.

$$\frac{\text{Market capitalization}}{\text{GDP}}$$

Turnover Ratio

The turnover ratio equals to the value of total shares traded divided by market capitalization. Though, it is not direct measure of theoretical defilation of liquidity, high turnover is often used as indicator of low transaction cost. The turnover ratio complements 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.

Market Price of Stock

One of the most important data of the 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 is 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 is used as market price of stock, which had a specific time spam of one year and the study is focused in annual basis.

3.6.2. Statistical tools:

Mean

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

$$\bar{X}\ \mathrm{X}\frac{X}{N}$$

Variance of stock

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

$$\frac{\{ R_j - E(R_j)\}^2}{N-1}$$

Here,

R_j = Return from security j

$E(R_j)$ = Expected return from security j

N = Number of observations

Standard Deviation (S.D)

Standard deviation is the quantitative measures 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 the returns can be summarized into a single easily calculated number. The standard deviation is the square root of the variance of returns around mean.

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum R_j \, Z E(R_j)^{2*}}{N \, Z 1}}$$

Coefficient of Variation (C.V)

The risk per unit of the expected returns can be measured by the coefficient of variation which is computed as follows:

$$\text{C.V} = \frac{S.D \mid 100}{Mean}$$

Correlation

The correlation coefficient is defined as the covariance between the dependent and independent variable, divided by the product of their standard deviations. It refers to the tool used in measuring the closeness of the relationship between variables. The term correlation indicates the relationship between two such variables in which with changes in the values of one variable, the values of the other variables also changes. If two or more quantities vary in sympathy so that the movements in the one tend to be accompanied by corresponding movements in the other they are said to be correlated. Correlation also means that between two series or group of data there exist some casual correction. The correlation analysis attempts to determine the degree if relationship between variables, when the relationship is of quantitative nature, the appropriate statistical tool for discovering and measuring the relationship is known as correlation. When assets have zero correlation with each other, they are not related at least have zero variance. Positive correlation implies positive covariance.

$$\text{Correlation } (P_{jm}) = \frac{COV \int R_j . R_m A}{\pm_{Rj} . \pm_{Rm}}$$

The correlation coefficient always remains between +1 and -1. A value of +1 shows a perfect positive correlation and value -1 shows a perfect negative correlation whereas zero represents no correlation.

Percentage

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

Regression Analysis

Regression analysis is 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 terms of the original units of the data. In regression analysis, there are two types of variables i.e. dependent and independent 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.

Line of Regression of Y on X

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

$$Y = a + bX$$

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

$$Y = na + b\sum X$$
$$\sum XY = a\sum X + b\sum X^2$$

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 the other words; it represents the rate of change. The convenient way to calculate the value of 'b' is as:

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

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 x and y, usually denoted by r(x,y) or rxy or simply 'r' can be obtained as:

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

Here, the value of correlation r lies between -1 to 1 i.e. $-1 \leq r \geq 1$.

if r = 1, there is perfect positive relationship

if r = -1, there is perfect negative relationship

if r = 0, there is no correlation at all

Interpretation of Correlation Coefficient (r)

When r = 1, there is positively perfect correlation between the two variables.
When r = -1, there is negatively perfect correlation between the two variables.
When r = 0, the variables are uncorrelated.

Nearer the value of r to +1, closer will be the relationship between two variables and nearer the value of r to 0, lesser will be the relationship.

One very convenient and useful way of interpreting the value of coefficient of correlation between two variables is to use square of coefficient of correlation, which is called coefficient of determination. The coefficient of determination thus equals r^2. If the value of r = 0.90, r^2 will be 0.81 and this would mean that 81% of the variation in the dependent variable has been explained by the independent variable. It is much easier to understand the meaning of r^2 than r and therefore, the coefficient of determination should be preferred in presenting the result of correlation analysis.

Probable Error of Correlation Coefficient (P.E.):

Probable error of the correlation coefficient denoted by P.E. is the measure of testing the reliability of the compound value of the correlation coefficient "r". It is applicable for the measurement of reliability of the computed value of the correlation coefficient, 'r'. The probable error (P.E.) is defined by:

$$\text{P.E.} = 0.6745 \mid \frac{1Zr^2}{\sqrt{n}}$$

Again,

$$\text{Standard Error of Correlation Coefficient (S.E.)} = \frac{1Zr^2}{\sqrt{n}}$$

…P.E. = 0.675 | S.E.

Interpretation Probable Error of Correlation Coefficient (P.E.):

i) If r < 6 | P.E., the value of 'r' is not significant no matter how high 'r' value is i.e. there is no evidence of correlation between the variables.

ii) If r > 6 | P.E. the value of 'r' is significant i.e. correlation is significant.

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 observations from bivariate normal population. The steps for testing of significance of an observed sample correlation are as follows:

H_O: 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.

H_1: 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:

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

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 made by comparing the calculated value of t with tabulated value of t. If calculated value of t < the tabulated value of t, it is not significant and H_0 is accepted. Otherwise, it is rejected. (Sharma and Chaudhary).

3.7. Definition of Key Terms

In this part, an attempt has been made to define the important terms used in the study. Since the formats of presenting the financial statements and their analysis methods are some what different among Nepalese companies, it important to define the major terms to avoid misunderstanding. The following indicators were used in this study.

Market price per share (MPS): MPS is the price at which the shares are traded in stock market. It is price of the shares determined in the market. The trading of the share takes place in the market of stock exchange. It is the most important attribute of the stock market. MPS reflects the functional status of the concerned firm. It will be high if the financial status of the firm is good and vice versa.

Earning price per share (EPS): EPS is the ratio of net profit (profit after tax) to the number of equity outstanding. i.e. total earning divided by number of outstanding share. It shows the profitability of the firm on a per share basis. EPS is the most important financial indicator of the stock market. It has direct impact on the return ability of the investment as well as MPS and the liquidity in the stock market.

Dividend per share (DPS): Dividend refers to portion of the company's earning distributed to common shareholders. It is the percentage of capital divided by the number of equity outstanding. DPS is primarily function of EPS though it may depend to some extent on the dividend policy of the firm. If the EPS is low then the company can not declare the high dividend.

Net worth: Net worth refers to owner's equity in the company. It consists of equity capital; retain earnings, reserves and surplus. It is the ratio of book value (net worth) to the number of equity outstanding.

CHAPTER-4

DATA PRESENTATION AND ANALYSIS

In this chapter, the relevant and required data of the sampled companies are taken for the study. Only secondary data does not satisfy the objective of the research so some primary data are also used. For the primary information, questions are asked to the brokers, investors and staffs of NEPSE and SEBON using questionnaire. For the convenience of the calculation, different financial and statistical tools are used. And for the collection of the secondary data, annual report of NEPSE, financial report of different companies and other published and unpublished sources are used. In this chapter, Section 1 analyzes the primary data collected, Section 2 analyzes the recent stock market performance, Section 3 analyzes the factor affecting price formation and liquidity of NEPSE. Likewise, section 4 is devoted to determine the price behavior of NEPSE by using t test and regression coefficient of the selected companies.

4.1. Analysis of Primary Data

The questions were asked to brokers, randomly selected people and NEPSE/ SEBO staffs to get the information regarding the security market. From the available data, it was found that brokers are involved in share trading activities from 6-14 years and the average involvement is 10.43 years. In the same way, the investors are involved in the share transaction from 1-14 years and their average is 5.47 years. Likewise, the staffs of both NEPSE and SEBO have been working there from 3-12 years averaging 6.87 years. The analysis of primary data mainly focuses on giving the answer of the first objective about analyzing the brokerage service and its role in price formation.

4.1.1. Investment in the shares

The first question was asked to the randomly selected people regarding the investment they have made on the security market. The answer of the respondents has been shown below for analysis.

Table 4.1

Investment in Security

Response	Respondents	Percentage (%)
Yes	42	84
No	8	16
Total	**50**	**100**

Source: Field study

From the study made among the randomly selected people 84% responded that they have investment in the security and the remaining 16% answered that they haven't. It shows that the interest in investment in the security market is rising rapidly.

4.1.2. Number of shares owned

The question about the number of companies people are owning shares of, shows whether the participants of the research are regular investors or not.

Table 4.2

Number of shares owned

Response	Respondents	Percentage (%)
1 – 3	12	29
4 – 7	23	55
8 – 11	4	9
More than 11	3	7
Total	**42**	**100**

Source: Field study

Out of the total number of respondents 55 percent said that they have invested in the shares of 4 to 7 companies. Whereas, only seven percent of them have investment in the share of more than 11 companies. The percentage of people owning the shares of 1 to 3 companies stood second with 29 percent.

4.1.3. Preferable investment sector

The question about the preferable investment sector in the view of the investor gives the researcher idea about the likeliness sector of the investor.

Table 4.3

Preferable investment sector

Investment sector	Respondents	Percentage (%)
Banks	34	81
Finance Companies	4	9
Insurance Companies	2	5
Others	2	5
Total	**42**	**100**

Source: Field study

The survey on the most preferable investment sector among the investors is clearly dominated by Banking Sector carrying 81 percent of the votes. Rest of the sectors comes close to each other but the most preferred and prolific sector in the view of the investors is banking sector.

4.1.4. Secondary preferable sector

The question about the secondary preferable sector shows the investment priority of the Nepalese investors other than investment in the shares.

Table 4.4

Secondary preferable sector

Investment Sector	Respondents	Percentage (%)
Fixed Assets	18	43
Fixed Deposit	9	21
Money Lending	8	19
Others	7	17
Total	**42**	**100**

Source: Field study

The survey on the most preferable sector in the view of the investors apart from investment in shares shows that the most preferable investment sector second to share investment is fixed assets banking around 43 percent of the view of total investors. Other sectors are almost equally liked by the investors.

4.1.5. Investment in Initial Public Offering

The question about the investment in public offering shows the interest of the investors upon the public issue of the shares.

Table 4.5

Investment in IPO

Response	Respondents	Percentage (%)
Yes	30	71
No	12	29
Total	**42**	**100**

Source: Field study

The query upon the investment in the Initial Public Offering (IPO) of the shares shows that majority of investors (71 percent) invest in Initial public offering regardless of the fact that the share may or may not be allotted to them.

4.1.6. Factors regarded important while investing

This question shows the factor people take as an important thing while making the investment.

Table 4.6

Important factors while investing

Factors	Respondents	Percentage (%)
Dividend Payment	12	29
Profit\Loss of the Company	7	21
Growth of the Company	9	17
Others	14	33
Total	**42**	**100**

Source: Field study

When asked about the factors investors keep on mind before investing, the investors were found hugely depended upon the dividend payment and other factors like; expectation of growth in share price, regardless of the reason, carrying 29 and 33 percent of weight respectively. While it came to know that least of the respondents (17 percent) think about the growth of the company they are investing in.

4.1.7. Key factors for Price Formation in Security Market

This question seeks the answer regarding the most debatable factor price formation and the factor for the formation prevailing in the view of the investors.

Table 4.7

Key factors for price formation in security market

Factors	Respondents	Percentage (%)
Market Rumors	10	24
Investor Awareness	8	19
Brokers	16	38
Annual General Meeting	8	19
Total	**42**	**100**

Source: Field study

The key factor for the formation of price in security market in the view of the respondents of the questionnaire is brokers, 14 percent ahead of the second key factor market rumors. The least effective factor in price formation is investor awareness and annual general meeting both with 19 percent each.

4.1.8. Sufficiency of Investor Awareness Effort of SEBO

Investor awareness is most necessary when investing in the security market and this question seeks for the answer for the sufficiency of the awareness effort of Security Board.

Table 4.8

Sufficiency of Investor awareness effort of SEBO

Response	Respondents	Percentage (%)
It is good, but need more effort	36	86
It is sufficient	6	14
No need of it	0	0
Total	**42**	**100**

Source: Field study

When asked about the sufficiency of Investor awareness effort of SEBO 86 percent of the people think that it is good but insufficient, none of them think that it is not needed and very few think it is sufficient.

4.1.9. Most used valuation method

It is important to know the value of the security one is investing in, for this different valuation techniques can be used. This question asks the investors whether they use the valuation method before investing or not and if they use it then which model do they use.

Table 4.9

Most used valuation method

Method	Respondents	Percentage (%)
Net Asset Value Model	**5**	**12**
Earning Valuation Model	**12**	**29**
Dividend Valuation Model	**9**	**21**
Do not use any	**16**	**38**
Total	**42**	**100**

Source: Field study

The question about the method people use for the valuation of the share before purchase gave the idea about the condition of the investors of the Nepalese share market. The survey shows that majority of the investors (38 percent) do not use any method for the valuation of the share they are about to invest in. While, 29

percent of the people focus on earning valuation and the least of the people are interested in net asset valuation covering around 12 percent of the voting.

4.1.10. View about listing procedure prevailing

This question looks for the view of the investors towards the listing procedure in practice in Nepal. It seeks the answer regarding what the investors think about the procedure security board is using.

Table 4.10

View about listing procedure prevailing

Response	Respondents	Percentage (%)
Good and Sufficient	12	29
Need to be amended	24	57
Other	6	14
Total	**42**	**100**

Source: Field study

Out of the total respondents, only 29 percent think that the listing procedure prevailing is good and sufficient. Whereas, more than half of them think that it need to be amended and around 14 percent of the people took neither of the view.

4.1.11. Service from the brokers

This question is related to the brokers and the service they provide. The question was asked about the service brokers are providing to the investors and the answers we get were**:**

Table 4.11

Service from the brokers

Response	Respondents	Percentage (%)
Trading Service Only	13	31
Information Service Only	0	-
Trading and Information Service	29	69
Total	42	100

Source: Field study

For the query about the type of service brokers are providing to the investors we found that majority of respondents (69 percent) are getting the trading and information service from the brokers they deal with, none of the investors get only information service and rest of them are getting the trading service only.

4.1.12.Satisfaction regarding the information provided by the companies

The question was asked to investors whether they are satisfied with the information the companies provide to the public or not and the reply we get are:

Table 4.12

Satisfaction regarding the information provided by the companies

Response	Respondents	Percentage (%)
Yes	32	76
No	10	24
Total	**42**	**100**

Source: Field study

The question was asked about the sufficiency of the information public is getting from the companies while investing and the response the question get is that more than one third (76 percent to be specific) of the investors find that the information and data companies are making public is not sufficient and reliable. Only 24 percent of the people think that it is sufficient.

4.1.13.Satisfaction regarding the service provided by the brokers

The question was asked to the investors regarding the satisfaction they get by the service provided by the brokers or how near the broker service is towards the satisfaction of the investors.

Table 4.13

Satisfaction regarding the service provided by the brokers

Response	Respondents	Percentage (%)
Yes	20	48
No	22	52
Total	**42**	**100**

Source: Field study

The survey shows that almost equal proportion of people are satisfied or dissatisfied by the service provided by the brokers. Here 52 percent of the investors are unsatisfied by the service provided by the brokers in some way or another and remaining 48 percent of the people are satisfied with the service provided.

4.1.14. Sufficiency in the number of brokers

The question about the sufficiency of the number of the brokers working in the trading floor answers the rising issue about the sufficiency in the number of brokers providing the service in the trading floor.

Table 4.14

Sufficiency in the number of brokers

Response	Respondents	Percentage (%)
Yes	14	33
No	28	67
Total	**42**	**100**

Source: Field study

Out of the total number of respondents more than one third think that the number of brokers trading in the floor is not sufficient and remaining one third think that they are sufficient. This shows that investors are facing some problems by the limited number of brokers in the service.

4.1.15. Getting the expected return

The question regarding the meeting of the investors expected return shows the satisfaction level of the investors while investing in the security market.

Table 4.15

Getting the expected return

Response	Respondents	Percentage (%)
Yes	30	71
No	12	29
Total	**42**	**100**

Source: Field study

Around 71 percent of the investors are getting the return they have expected from the share trading. And at the same time remaining 29 percent of the investors are not getting as per their expectation.

4.2. Market Performance

This section present the current facts and figure concerned to number of listed firms, number of transaction, annual turnover and other relevant facts for the second and third objective of this study, the current situation of listed companies in NEPSE and also the behavior of NEPSE index. The following is the short glimpse of NEPSE stock market.

4.2.1. Number of Listed Companies in NEPSE

The table below shows the number of listed companies in NEPSE from fiscal year 1998/99 to 2007/08.

Table 4.16

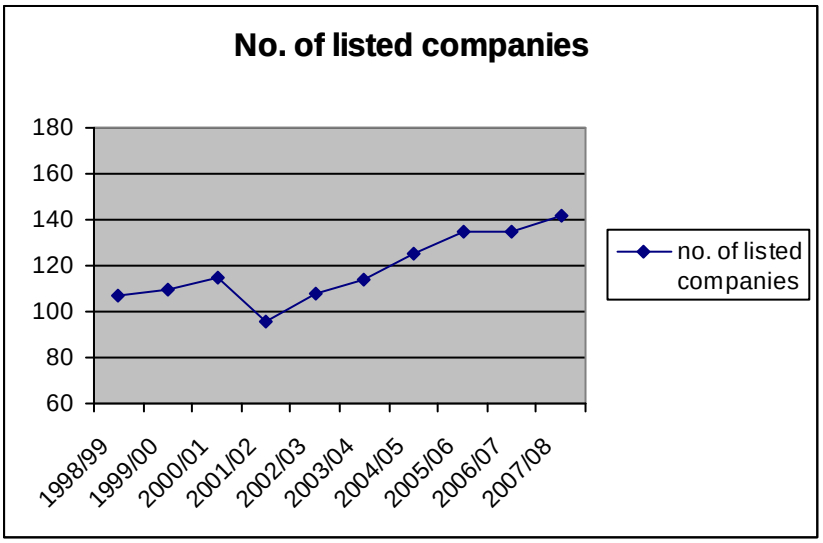
Listed Companies under NEPSE

Fiscal Year	No. of listed Companies	Percentage increase/ decrease
1998/99	107	-
1999/00	110	2.80
2000/01	115	4.55
2001/02	96	(16.52)
2002/03	108	12.5
2003/04	114	5.55
2004/05	125	9.65
2005/06	135	8.00
2006/07	135	0.00
2007/08	142	5.19

Source: SEBON Annual Report (2007/08)

The following graph figure is used to show the number of listed companies from the fiscal year 1998/99 to 2007/08.

Figure 4.1



Source: SEBON Annual Report (2007/08)

From the above table and figure, it is clear that the numbers of listing companies are in increasing trend. From the FY 1998/99 to 2000/01 the percentage increased is 4.55 while it showed a dramatic decrease of 16.52 percent in the FY 2001/02 because of delisting. After that in 2002/03 the numbers of listed companies showed good recovery with an increase of 12.5 percent, it keep its increasing trend there after till FY2005/06. It remained same in FY 2006/07 i.e. 135 only. The increasing trends till FY2005/06 seem to be progressive but in FY2006/07 the trend of listed companies are not so satisfactory. But by the FY 2007/08 it again showed a slight increment by 5.19 percent reaching the total number of listed companies 142.

4.2.2. Number of Listed Companies under different sectors on Stock Exchange

Table 4.17

Listing summary of the Companies

S.N	Sector	Number	Percentage
1	Commercial Bank Group	17	11.97
2	Development Bank Group	23	16.2
3	Insurance Group	17	11.97
4	Finance Group	55	38.73
5	Manufacturing and Processing Group	18	12.67
6	Hotel Group	4	2.82
7	Trading Group	4	2.82
8	Other Group	1	0.7
9	Hydropower Group	3	2.11
Total		**142**	**100**

Source: SEBON Annual report of 2007/08

The following pie-chart presents the number of listed companies under different sectors by the end of FY 2007/08.

Figure 4.2

Listing Summary of Company

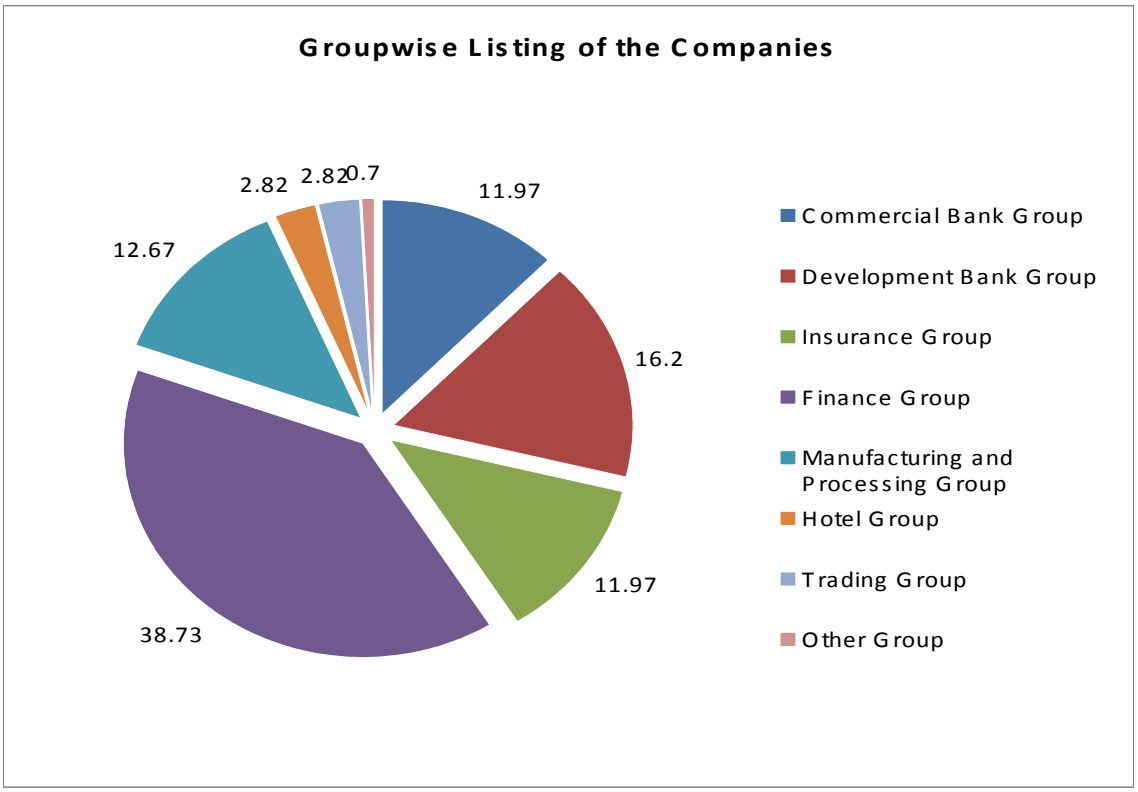


Fig: Groupwise Listing of the companies

From the above table and pie chart, we can clearly see the number of listed companies under different sector in stock exchange by the end of the FY 2007/08 which was 142. It shows the different portion occupied by different sectors. Here the highest portion is occupied by Finance company which is 38.73 percent. Likewise, 12.67 percent by Manufacturing companies, 11.97 percent by Insurance and Development Banks each, 12.67 percent by Commercial Banks, 2.82 percent by Trading companies and Hotels group and finally lowest portion is occupied by the group categorized as Others which is 0.7 percent only. By the above table and chart it is very easy to understand the present condition of listing companies of different sectors. It shows the highest and the lowest portion occupied by different sectors. Therefore, it helps us to know which sector is lacking behind in listing of their companies in NEPSE.

4.2.3 Delisting companies from NEPSE

According to Stock Exchange Act 1983, there is a provision of delisting a company from the NEPSE, if a company fails to disclose the documents regarding annual general meeting, audit report and unable to pay the annual fee of listing in the NEPSE up to two years. Due to these provisions NEPSE recently had deleted some companies from its list. Probably because of the weak performance of the companies NEPSE started such activities for the first time in its history. In fiscal year 2001/02, 25 companies were de-listed from the list. Among them 10 were from manufacturing group, 14 were from trading group and one was from other. After that till FY 2005/06 none of the company was de-listed. However the number of listed companies at the end of the FY 2006/07 remained same 135 as of previous years with the delisting of 12 companies on 5 March 2007. The total number of listed companies in FY 2006/07 was 147 with listing of 12 new companies which were de-listed from NEPSE and that was for the second time in the history of NEPSE (Annual report of SEBON 2006/07).

De-listed companies have been either already closed, or have not held Annual General Meetings or have no audited results for more than two years. The annual report of SEBON, Nepal stated that the reason behind such delisting the companies were due to non disclosure of companies annual reports and financial statement for last 2 years and non-payment of annual listing fees. Now companies are aware from it so they are following the rules of NEPSE for listing.

4.2.4. Annual Turnover

The table below shows the stock performance of the NEPSE for the year of 1998/99 to 2007/08 including the annual turnover, Market Capitalization, Nepse Index and the number of shares traded in the above mentioned years. The following figures will give the more effective and easy look for the data included.

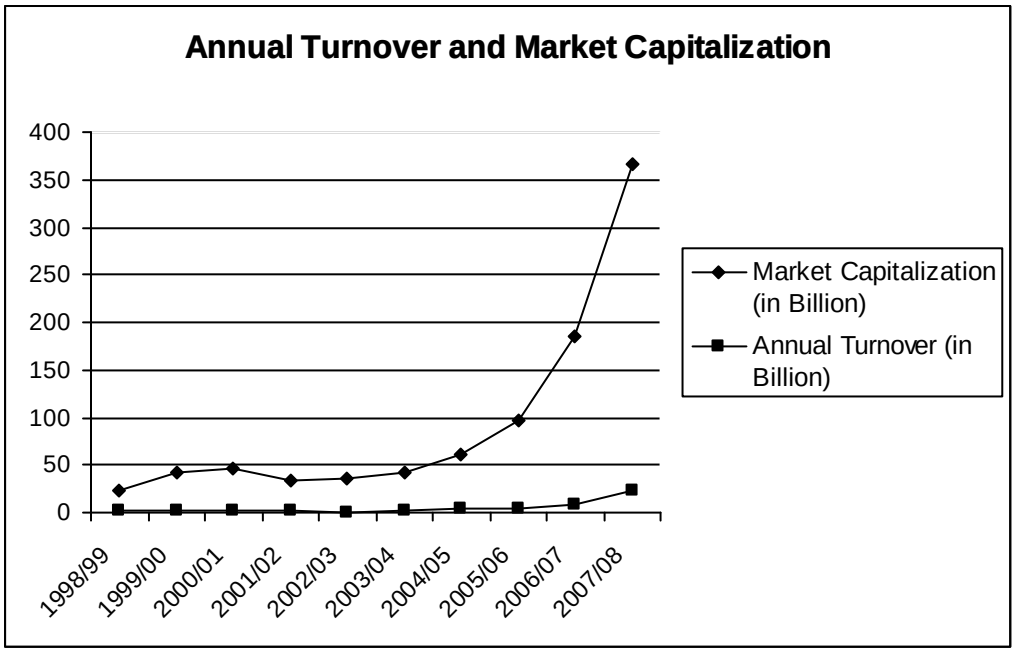
Table 4.18

Stock market performance

Year	Annual Turnover (in million)	Market Capitalization (in billion)	NEPSE index	No. of share traded (in 000)
1998/99	1500	23.50	216.92	4857
1999/00	1157	43.12	360.70	7674
2000/01	2344.16	46.35	348.43	4989
2001/02	1540.63	34.71	227.54	6005
2002/03	575.80	35.24	204.86	2428
2003/04	2144.27	41.42	222.04	6468
2004/05	4507.68	61.37	286.67	18434
2005/06	3451.43	96.76	386.83	12222
2006/07	8360.07	186.30	683.95	18147
2007/08	22820.8	366.30	963.4	28599

Source: Annual Trading Report of NEPSE

Figure 4.3

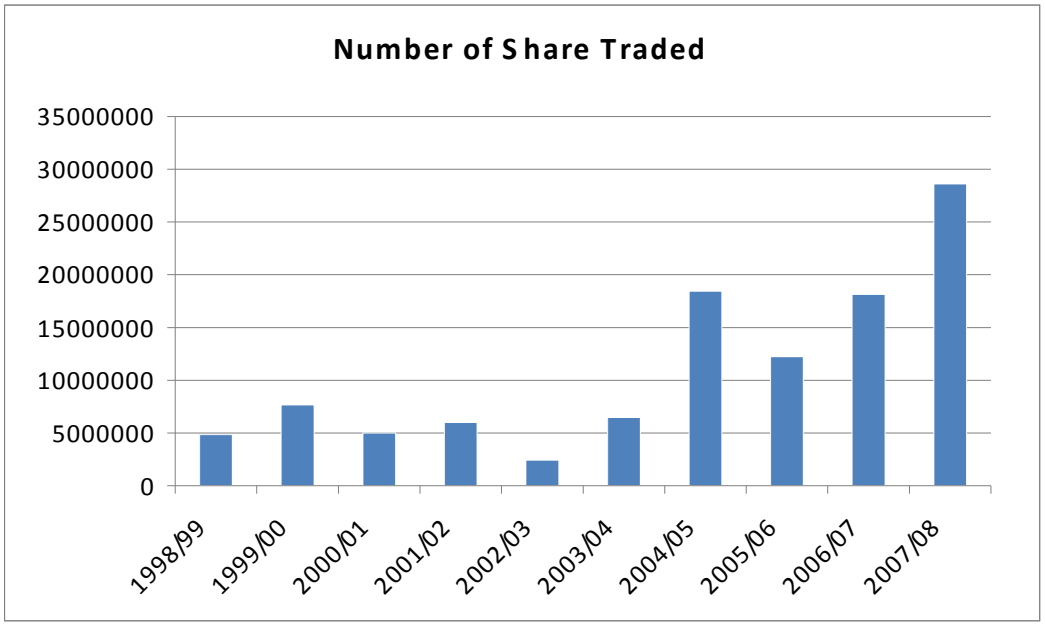


Source: Annual Trading Report of NEPSE

According to the above table and figure it is very easy to know the present condition of stock market performance. The above table shows the Annual Turnover, Market Capitalization, NEPSE Index and the Number of share traded under NEPSE from FY 1997/98 to 2007/08. Here the highest turnover is 22820.8 in the FY 2007/08 and the lowest turnover is 575.80 in the FY 2002/03. We can see the turnover in different years is fluctuating; it is not in the same trend. Whereas we can see that the FY 2007/08 have shown the steep upward trend. Overall it shows the progressive trend in the annual turnover.

Likewise, the above table and figure also shows that annual turnover is very low in comparison to the market capitalization. The highest market capital was 366.3 in billion figures in the FY 2007/08 and the lowest one was 23.5 billion in the FY 1998/99. The trend of market capitalization is increasing but decreased in FY 2001/02 by 11.64 billion in comparison to the previous year. Thereafter it started increasing almost in the same ratio and at the FY 2007/08 it shows the 100 percent increase in comparison to the FY 2007/08. So we can say that the market capitalization of stock market is good and progressive.

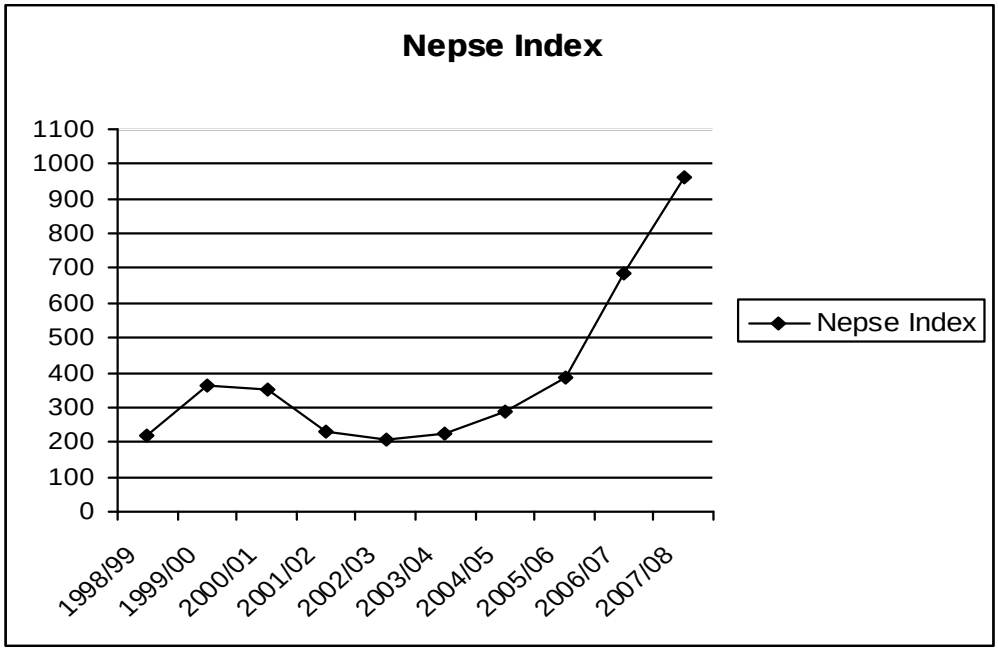
Figure 4.4



Source: Annual Trading Report of NEPSE

Similarly, from the above bar diagram it can be seen that number of share traded under NEPSE is more volatile throughout year to year. The highest number of shares traded was 28599 in the FY 2007/08 and the lowest was 2428 in the FY 2002/03. Therefore, the number of share traded in NEPSE is very much fluctuating. It is not in increasing trend as the market capitalization and turnover. But after the FY 2005/06 it is showing the continuous increasing trend and in the FY 2007/08 we can see that the share trading has shown a dramatic increase to a new high.

Figure 4.5



Source: Annual Trading Report of NEPSE

According to the above figure of NEPSE Index, we can see the lowest index at beginning year i.e. 1998/99 which is 216.92 and started fluctuating and again decreased to 204.86 in the FY 2002/03. But thereafter, it started increasing trend till FY 2007/08 is 963.4 which is the highest one. The above figure clearly shows the satisfactory and progressive trend of NEPSE index

4.3. Liquidity Position of NEPSE

In this part, we have presented the liquidity related calculation with analysis.

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 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 4.19

Number of listed company traded and listed securities:

Year	Listed Company	Traded Company	Traded Ratio	% of Traded Company	Listed Securities (000)
1998/99	107	69	0.6448	64.48	105632
1999/00	110	69	0.6273	62.73	114057
2000/01	115	67	0.5826	58.26	121224
2001/02	96	69	0.7187	71.28	122685
2002/03	108	81	0.7500	75.00	159958
2003/04	114	92	0.8070	80.70	161141
2004/05	125	102	0.8160	81.60	194673
2005/06	135	110	0.8148	81.48	226540
2006/07	135	116	0.8592	85.92	243504
2007/08	142	136	0.9577	95.77	321131
Average	**119**	**91**	**0.7572**	**75.72**	**177055**

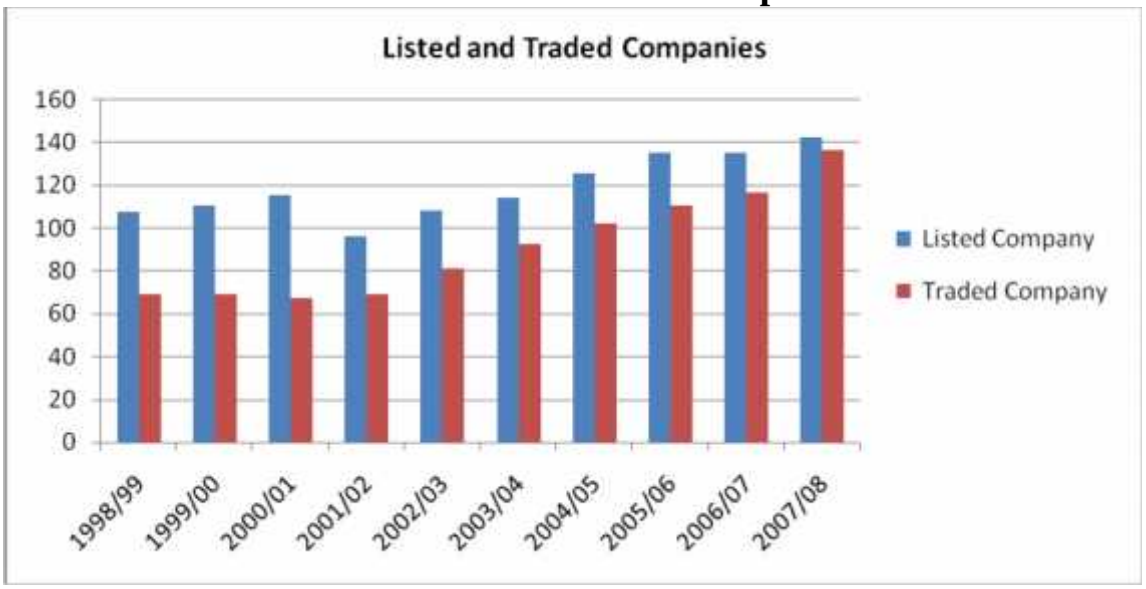
Source: Trading Report of SEBON

The above table shows that the position of listed companies, trading companies, its ratio and number of listed securities in NEPSE.

Here the lowest traded ratio is 0.5826 in FY 2000/01 and the highest ratio is 0.9577 in FY 2007/08 and its average percent of trading is 75.72 percent which indicates the progressive trend of trading companies in NEPSE. Similarly, the highest number of securities is 321131 in FY 2007/08 and lowest is 105632 in FY 1998/99.

Figure 4.6

Listed and Traded Companies



Source: Trading Report of SEBON

From the above bar diagram and the table we can see that comparatively lower number of shares of the Listed companies were traded in the market. In the FY 2000/01 there was the highest difference in the number of the listed companies and the number of share traded of them. Whereas, the gap is lowering each coming year after the FY 2001/02. At the time of FY 2007/08 the gap was lowest i.e; 6. which shows that the trading of the shares of more and more companies are taking place these days.

The highest company listed is 142 in FY 2007/08. Likewise the lowest listed companies are 96 in FY 2001/02 due to delisting of companies by NEPSE. Thereafter, the number of listed companies started increasing till FY 2005/06 which shows that the new companies are serious about the listing provision and

knows the importance of listing. So, the increasing trend of listed company is satisfactory.

Likewise the highest number of trading companies were 136 in the FY 2007/08 and lowest is 67 in FY 2000/01. After that it is in increasing trend. Here, we can see the average number of listed companies is 119 and the same time the average number of traded companies is 91. We can clearly see the increasing trend in the number of listed securities which is satisfactory indicator toward stock market movement.

Market Capitalization Ratio

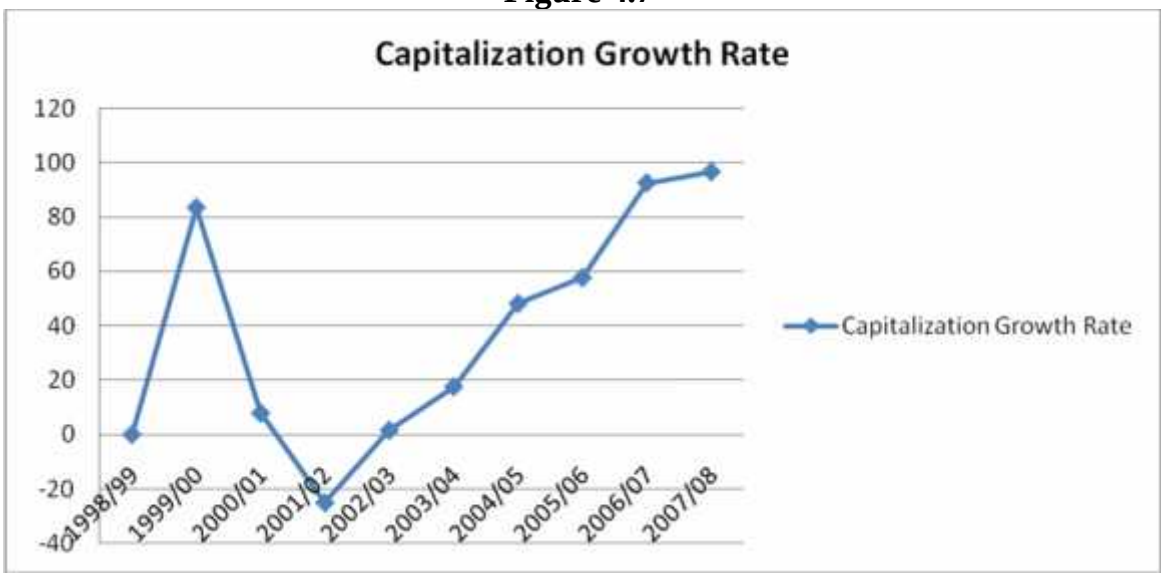
Table 4.20

Market Capitalization Ratio

Year	GDP (in millions)	Market Capital (in millions)	Market Capitalization Ratio	Capitalization growth rate %
1998/99	330018	23508	7.12	-
1999/00	366251	43123	11.77	83.44
2000/01	394052	46349.4	11.76	7.84
2001/02	406138	34703.9	8.54	(25.13)
2002/03	437546	35240.4	8.05	1.55
2003/04	414129	41424.3	10.0	17.55
2004/05	548485	61365.9	11.19	48.14
2005/06	654055	96763.74	16.03	57.68
2006/07	727089	186301.28	27.78	92.53
2007/08	820814(RE)	366247.6	44.62	96.6
Total	**5098577**	**935027.52**	**154.67**	**380.20**
Average	**509857.7**	**93502.752**	**15.467**	**38.02**

Source: Annual Reports of SEBON

Figure 4.7



Source: Annual Reports of SEBON

The market capitalization ratio is the ratio between market capitalization and Gross Domestic Product (GDP). Here, from the above table we can see that the highest GDP is 820814 in FY 2007/08 and lowest is 330018 in FY 1998/99. The trend of GDP seems to be progressive but it decreased at 414129 in FY2003/04 in comparison 437546 of the FY 2002/03. Similarly the highest market capital is 366247.6 in the FY 2007/08 and lowest is 23508 in FY 1998/99. So the highest capitalization ratio is 44.62 in the FY 2007/08 and lowest one is 7.12 in the FY 1998/99.

Likewise, from the above table and the figure it can be seen that the highest rate of growth in capitalization is 96.6 percent and the lowest is 1.55 percent in FY 2002/03. We can see that the percent of growth rate is very much fluctuating; it decreased by 25.13 percent in the FY 2001/02 and after that the market capitalization has shown the steady growth throughout the study period. Market capitalization growth rate is one of the major indicators of market development. Here, the average growth rate is 38.02 percent so we can say the capitalization growth is in increasing trend which is satisfactory growth.

Value Traded Ratio

Value traded ratio is the ratio of value to nominal GDP. It is the complementary of the market capitalization ratio. Market capitalization ratio is the only indicator of the market liquidity. Value traded ratio also indicates the liquidity of the market. To know the liquidity of the market we have to compare value traded of the share to the GDP. Therefore, the table shown below attempts to calculate the value traded ratio.

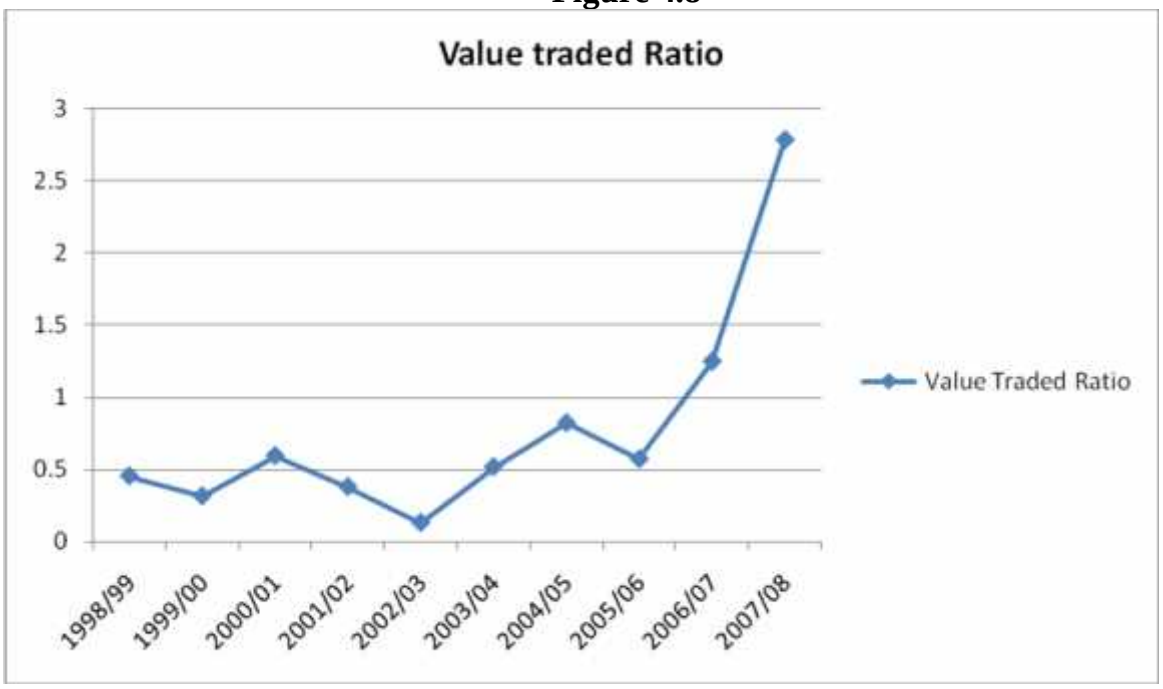
Table 4.21

Value Traded Ratio

Year	GDP (in million)	Value Traded (in million)	Value Traded Ratio %
1998/99	330018	1500.0	0.4545
1999/00	366251	1157.0	0.3159
2000/01	394052	2344.2	0.5945
2001/02	406138	1540.6	0.3793
2002/03	437546	575.8	0.1316
2003/04	414129	2144.3	0.5178
2004/05	548485	4507.7	0.8218
2005/06	654055	3451.4	0.5717
2006/07	727089	8360.07	1.2467
2007/08	820814(RE)	22820.8	2.78
Total	**5098577**	**48401.87**	**7.8138**
Average	**509857.7**	**4840.187**	**0.7814**

Source: Annual Reports of SEBON

Figure 4.8



Source: Annual Reports of SEBON

Here the highest ratio of value traded is 2.78 percent in the FY 2007/08 and lowest one is 0.1316 percent in the FY 2002/03. After the FY 2005/06 value traded ratio have shown steep raise by the FY 2007/08. The average value traded ratio is 0.7814 in the Stock market. Generally, the value traded in developed country is 0.4 and in developing country is 0.1. Based on this comparison it is sensible to conclude that the value of traded share in Nepalese stock market meets the liquidity standard of common norms of international standard.

Turnover Ratio

Turn over ratio is the ratio used to calculate the activeness of the stock market. It also helps to know the liquidity of the stock market. This ratio calculates trading related to the size of the stock market. In the large market, high capitalization ratio may occur but in small market, it may not. Turnover ratio shows the condition of liquidity of the market.

Table 4.22

Turnover Ratio

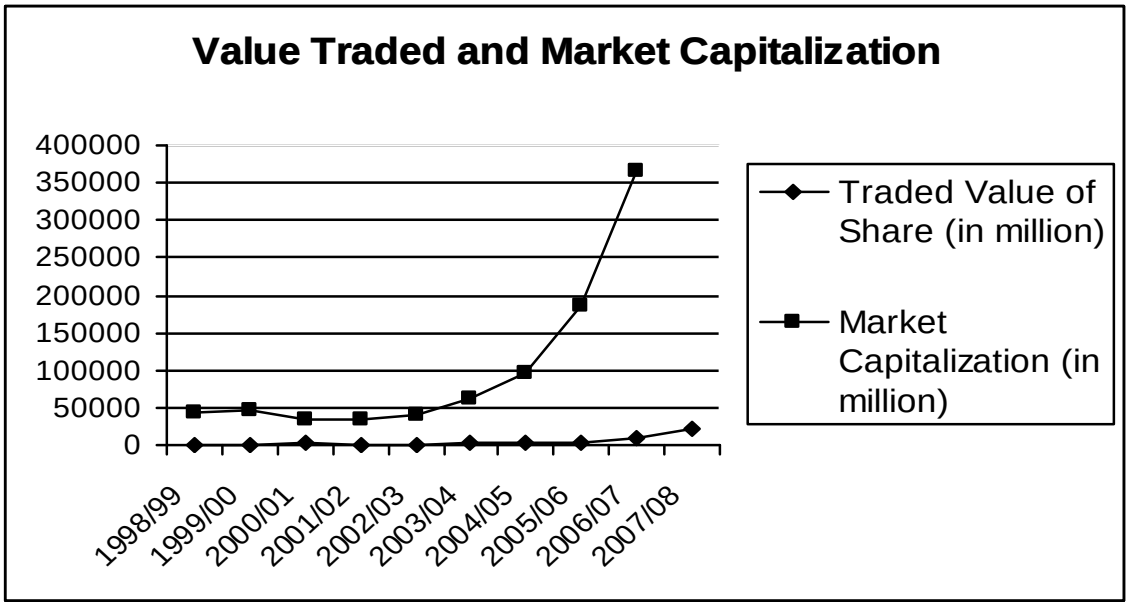
Year	Traded value of share (in million)	Market capitalization (in million)	Turnover Ratio%
1998/99	1500.0	23508	6.3808
1999/00	1157.0	43123	2.6830
2000/01	2344.2	46349.4	5.0576
2001/02	1540.6	34703.9	4.4393
2002/03	575.8	35240.4	1.6339
2003/04	2144.3	41424.3	5.1764
2004/05	4507.7	61365.9	7.3456
2005/06	3451.4	96763.74	3.5668
2006/07	8360.07	186301.28	4.4874
2007/08	22820.8	366247.6	6.231
Total	**48401.87**	**935027.52**	**47.0018**
Average	**4840.187**	**93502.752**	**4.70018**

Source: Annual Reports of SEBON

Turnover ratio is used to measure the liquidity ratio of NEPSE as our stock market is small compared to others. Higher the turnover ratio higher the liquidity of stock market and vice-versa.

The graph lines presented below will give the better look at the value traded, market capitalization and turnover ratio of NEPSE.

Figure 4.9

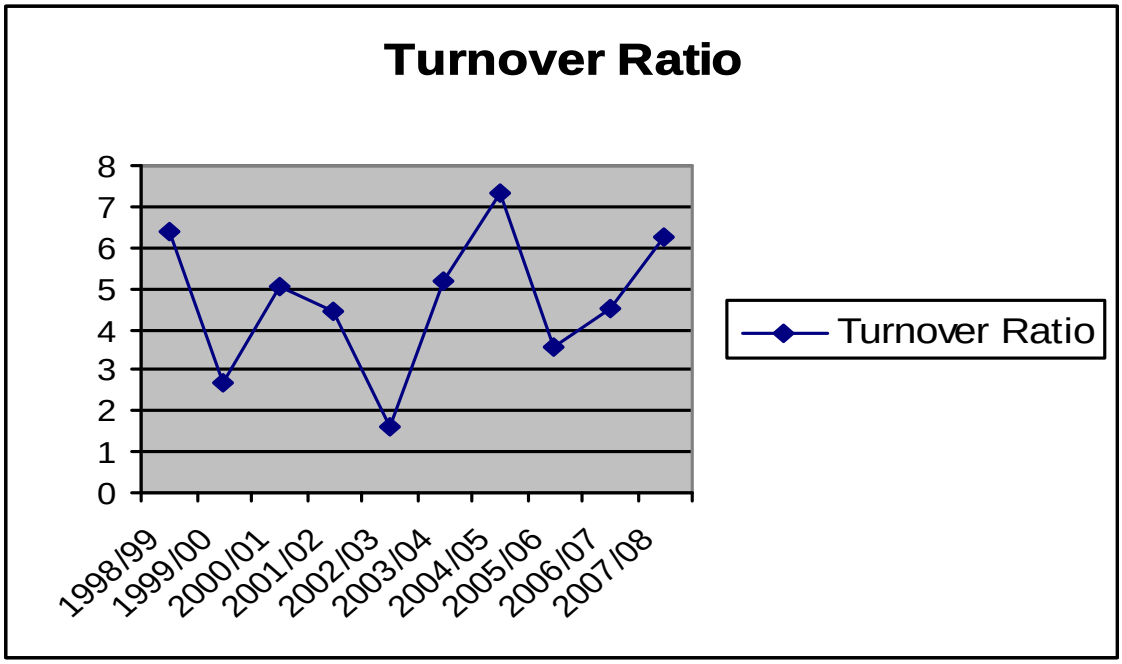


Source: Annual Reports of SEBON

The table (table no.28) and the graph line (figure no.10) stated above shows that market capitalization ratio was quite fluctuating from the FY 1999/00 to 2003/04. Whereas, it took the progressive course from the FY 2002/03 onwards leapfrogging in the average of 20 million per year. From the FY 2004/05 the graph line showed the steep progress in the sector of market capitalization reaching the record high level of 366247.6 in the FY 2007/08. The average market capitalization is 93502.752 in the study period.

Likewise, it can be seen that the traded value of the share is also quite fluctuating throughout the period of FY 1998/99 to FY 20023/04. But after the deepest fall to the level of 575.8 the value traded show a good improvement of 5.1764 percent in the FY 2003/04 and after that it has maintained the increasing trend to the highest point of 22820.8 in the FY 20076/08 with the average of 4840.187 in the study period.

Figure 4.10



Source: Annual Reports of SEBON

In the above table (table no.28) and graph line (figure no.11) it can be seen that the highest ratio is 7.3456 percent in FY 2004/05 and the lowest is 1.42 percent in FY 1997/98. Here the trend of turnover ratio is very fluctuating which indicates that the liquidity position of stock market is also not stable. The average ratio is 4.219 percent that shows the weak position of liquidity in NEPSE and in the figure we can see value traded in comparison to market capitalization is very low. So the market capitalization seems to be high in NEPSE.

4.4. Correlation Coefficient Analysis

Correlation Coefficient analysis is a very powerful tool in the field of statistical analysis in predicting the value of one variable, given the value of another variable, when these two variables are related to each other. Correlation analysis enables us to measure the strength of the association between these variables. So, these calculations have been made to examine the share price behavior of the listed companies selected and also to evaluate the factors affecting the share price formation in Nepal. So, here one variable is market price and

another one is EPS and DPS of the selected companies. Therefore, following analysis has been made to see how they are related.

Correlation Coefficient analysis between Market Price and Earning Per Share

The table presented below shows the relation and the significance between the Market Price and Earning per Share of the companies selected.

Table 4.23

Correlation Coefficient analysis between MP and EPS

No.	Name of Company	Correlation Coefficient (r)	Probable Error (6 × P.E.)	Significance
1.	BOK	0.8707	0.4378	Significant
2.	EBL	0.9786	0.0765	Significant
3.	HBL	- 0.548	1.877	Insignificant
4.	LBL	0.995	0.0181	Significant
5.	LUBL	- 0.05778	1.804	Insignificant
6.	MBL	0.1236	1.782	Insignificant
7.	NABIL	0.6815	0.9694	Insignificant
8.	NIB	0.743	0.8108	Insignificant
9.	NICB	0.7525	0.7849	Insignificant
10.	SBL	0.5928	1.174	Significant
11.	SCBL	0.132	1.778	Insignificant

(Source: Appendix xxiii)

We know if the independent variables (EPS) increase then it causes to increase dependent variable (MVPS) by 100% and vice- versa in case of positive correlation. Again, if independent variable (EPS) decreases then it causes to

decrease dependent variable (MVPS) by 100% and vice versa in case of negative correlation.

We can see that there is negative correlation coefficient between the market price and earning per share of two companies HBL and LUBL with r valued at – 0.548 and – 0.05778 respectively. This reveals that if EPS of these companies increase by 54.8% and 5.78% then these companies looses the market value per share by the margin of 100%. Likewise rest of the nine companies selected has positive correlation coefficient. Which shows that of the positively correlated companies BOK, EBL, LBL, MBL, NABIL, NIB, NICB, SBL and SCBL if the EPS increases by 87, 97, 99, 12, 68, 74, 75, 59 and 13 percent respectively then the MVPS of these companies will increase by 100 percent.

When the correlation coefficient was tested through probable error it was found that majority of the results are insignificant regarding the market price and earning per share of the sample companies. The result is significant in the companies like; BOK, EBL, LBL, and SBL because of the greater value of r than 6 times value of P.E. of these companies. Likewise, the results of HBL, LUBL, MBL, NABIL, NIB, NICB and SCBL show the insignificant relation between the market price and earning per share of the companies because of the greater value of 6 × P.E than r.

Correlation Coefficient analysis between Market Price and Dividend Per Share

The table presented below shows the relation and the significance between the Market Price and Dividend per Share of the companies selected.

Table 4.24

Correlation Coefficient analysis between MP and DPS

No.	Name of Company	Correlation Coefficient (r)	Probable Error (6 × P.E.)	Significance
1.	BOK	- 0.01633	1.529	Insignificant
2.	EBL	0.2578	1.428	Insignificant
3.	HBL	0.0513	1.5256	Insignificant
4.	LBL	0	1.529	Insignificant
5.	LUBL	0	1.529	Insignificant
6.	MBL	0.7346	0.7042	Significant
7.	NABIL	0.568	1.536	Insignificant
8.	NIB	- 0.262	1.4246	Insignificant
9.	NICB	- 0.3629	1.328	Insignificant
10.	SBL	0.9351	0.192	Significant
11.	SCBL	- 0.653	0.8774	Insignificant

(Source: Appendix xxiii)

The above table clearly states that there is negative correlation coefficient in the four companies i.e. BOK, NIB, NICB and SCBL each with the negative r value of 0.01633, 0.262, 0.3629 and 0.653 respectively which shows that if the DPS of these companies increase by 1.63, 26.2, 36.29 and 65.3 percent respectively then the companies will lose the MVPS by the margin of 100%. Likewise the value of r of two companies LBL and LUBL is 0 resulting with no correlation between the MP and DPS of the companies. There is high degree of correlation in MBL and SBL. NABIL have moderate degree of correlation and EBL and HBL have low degree of correlation. Likewise, SCBL have moderate degree of negative correlation and NICB, NIB and BOK have low degree of negative correlation.

When tested with the probable error, it was found that majority of the value is insignificant and only the value of two companies SBL and MBL is significant with a negative probable error of 0.9805 and 3.853 respectively. The higher rate of insignificance shows that there is very few or no relation between the market price and dividend per share in the market.

t- test analysis

Table 4.25

Regression equation of Market Price on EPS

SN	Company	Regression Coefficient		r	r^2	T (Calculated)	T(Table) :~ = 0.05 d.f = 6	Significance
		Constant (a)	Slop (b)					
1.	BOK	15.04	0.0207	0.8707	0.7581	3.959	2.571	Significant
2.	EBL	22.01	0.0222	0.9786	0.9577	10.639	2.571	Significant
3.	HBL	76.78	-0.025	- 0.548	0.3003	- 1.465	2.571	Insignificant
4.	LBL	0.534	0.0143	0.995	0.99	22.249	2.571	Significant
5.	LUBL	-27.57	-0.0154	- 0.0578	0.0033	- 0.129	2.571	Insignificant
6.	MBL	7.59	0.00432	0.1236	0.0152	0.279	2.571	Insignificant
7.	NABIL	79.42	0.0095	0.6815	0.4644	2.082	2.571	Insignificant
8.	NIB	32.36	0.0135	0.743	0.552	2.482	2.571	Insignificant
9.	NICB	6.31	0.0171	0.7525	0.5663	2.555	2.571	Insignificant
10	SBL	3.49	0.015	0.5928	0.3514	1.646	2.571	Insignificant
11	SCBL	147.06	0.00096	0.132	0.0174	0.2978	2.571	Insignificant

(Source: Appendix xxiii)

The above table, table no. 31, shows that the simple regression analysis is used to see the relationship between the market price and EPS of the eleven

different companies selected. The regression coefficient (b) of the selected companies BOK, EBL, LBL, MBL, NABIL, NIB, NICB, SBL and SCBL are positive which indicates that there exists positive relationship between market price and earning per share. If market price increases then it heads to increase earning per share by 100% and vice versa. But, since the value of b is negative in the likes of HBL and LUBL there exists negative relationship between market price and earning per share which demonstrate that if EPS (independent variable) decrease then it leads to increase market price per share by 100% and vice – versa. In case of slope if one variable increases then other variable decreases.

By using the t-test we can see that the calculated value of t is less than tabulated value of t in case of HBL, LUBL, MBL, NABIL, NIB, NICB, SBL and SCBL which shows that the relationship is not statistically significant of t at 0.05 level of significance and their H_0 is accepted. The acceptance of Null Hypothesis shows that MV and EPS are not significantly correlated such a situation is not a healthy indicator for the share market and the country as whole.

An exceptional case is recorded in the case of BOK, EBL and LBL where the calculated value of t is greater than the tabulated value at 0.05 level of significance and their H_1 (Alternative Hypothesis) is accepted in this case. It shows that EPS and MV are significantly correlated which is a very positive indicator for the financial industry.

Table 4.26

Regression equation of Market Price on DPS

SN	Company	Regression Coefficient		R	r^2	T(Calculated)	T(Table) :~ = 0.05 d.f = 6	Significance
		Constant (a)	Slop (b)					
1.	BOK	12.56	-0.00136	0.8707	0.7581	- 0.0365	2.571	Insignificant
2.	EBL	10.21	0.0025	0.9786	0.9577	0.5966	2.571	Insignificant
3.	HBL	13.47	0.00135	- 0.548	0.3003	0.1149	2.571	Insignificant
4.	LBL	0	0	0.995	0.99	0	2.571	Insignificant
5.	LUBL	0	0	- 0.0578	0.0033	0	2.571	Insignificant
6.	MBL	-0.031	0.00076	0.1236	0.0152	2.4208	2.571	Insignificant
7.	NABIL	50.28	0.00653	0.6815	0.4644	1.543	2.571	Insignificant
8.	NIB	15.36	-0.00315	0.743	0.552	- 0.607	2.571	Insignificant
9.	NICB	5.65	-0.00449	0.7525	0.5663	- 0.8708	2.571	Insignificant
10	SBL	-0.029	0.0008	0.5928	0.3514	5.9	2.571	Significant
11	SCBL	123.65	-0.0057	0.132	0.0174	- 1.928	2.571	Insignificant

(Source: Appendix xxiii)

In the above table 32, simple regression analysis is used to see the relationship between the Market Price (MP) and DPS of the eleven different companies selected. The regression coefficient (b) of the selected companies EBL, HBL, MBL, NABIL and SBL are positive which indicates that there exists positive relationship between market price and dividend per share of these companies. But, since the value of b is negative in the likes of BOK, NICB, NIB and SCB there exists negative relationship between market price and dividend per share which demonstrate that if DPS (independent variable) decrease then it leads to increase market price per share by 100% and vice – versa. Likewise, the 0 value of b in the likes of LBL and LUBL shows that there is no relationship between market price and dividend per share of these companies.

By using the t-test we can see that the calculated value of t is less than tabulated value of t in all of the cases except the case of SBL. Which shows that the relationship of t is not statistically significant at 0.05 level of significance and their H_0 is accepted. The acceptance of Null Hypothesis shows that MV and DPS are not significantly correlated such a situation is not a healthy indicator for the share market and the country as whole.

In the case of SBL where the calculated value of t is greater than the tabulated value at 0.05 level of significance and their H_1 (Alternative Hypothesis) is accepted in this case. It shows that DPS and MV are significantly correlated which is a very positive indicator.

4.5. Findings of the Study

1. From the study of primary data, it is found that the shares of the commercial banks are most liked by the investors, people are interested initial offering, the factors other than dividend, profit or loss and growth of the companies are considered important by the investors.

2. The investors are getting both trading and information service from the brokers, investors are almost equally divided regarding the satisfaction upon the service brokers are providing and majority of the people think that the number of the brokers servicing in the trading floor is not sufficient.

3. The number of companies listing in NEPSE is increasing but its percentage is fluctuating. The percentages of listing of finance companies are found to be the highest one, development bank group appears second, manufacturing companies are third, commercial bank and insurance group are in fourth position. Likewise, hotel and trading companies are in fifth, hydropower in sixth and lastly others are in seventh position.

4. NEPSE is seem to be very strict in the listing provision as it has de-listed 25 companies in FY 2001/02 and 12 companies in FY 2006/07 who did not fulfill the stated criteria.

5. Annual turnover and market capitalization is in increasing trend. Likewise, NEPSE index and number of shares traded are also in progressive trend this proves that the stock market performance is satisfactory.

6. The company trading ratio is found to be 75.72 percent on an average which indicates the satisfactory growth of traded companies and number of listed securities is also increasing.

7. The contribution of market capitalization to GDP during the period is on an average of 38.02 percent which indicates the securities market have significant contribution to the economy.

8. Similarly, the contribution of value traded to GDP is 0.78 percent in an average which also shows the satisfactory liquidity position in Nepal stock market.

9. The average turnover ratio is 4.7 percent which indicates that the liquidity level of the market is very low.

10. When correlation coefficient between MP and EPS was analyzed by using PE it was found that most of the results of the sample companies show the insignificant relationship between MP and EPS.

11. When tested between MP and DPS it was found that all except two companies show the insignificant relation between MP and DPS. Which shows that there very few influence of DPS in the market value of the shares.

12. In the findings of the simple regression analysis between the market price and EPS of the companies selected. The regression coefficient (b) of the selected companies BOK, EBL, LBL, MBL, NABIL, NIB, SBL and SCBL are positive which indicates that there exists positive relationship between market price and

earning per share. Which mean that the change in the EPS can bring change in the market price. But when tested by using the t-test we can see that the relationship of EPS and market price in HBL, LUBL, MBL, NABIL, NIB, NICB, SBL and SCBL are statistically not significant whereas in the case of BOK, EBL and LBL it indicates that the market price and the EPS of these companies are statistically significant.

13. Likewise in the simple regression analysis between the market price and DPS of the different selected companies. The regression coefficient (b) of all the selected companies EBL, HBL, MBL, NABIL and SBL indicates that one rupee increase in DPS increases the value of market price. But in the case of BOK, NICB, NIB and SCBL the value of 'b' is negative which shows one rupee increase in DPS decreases market price. Likewise correlation coefficient (r) of market price and DPS of all the companies except HBL and LUBL positively related. The coefficient determination (r^2) of BOK, EBL, HBL, LBL, LUBL, LBL, MBL, NABIL, NIB, NICB, SBL and SCBL indicates that 75.81%, 95.77%, 30.03%, 99%, 0.33%, 1.52%, 46.44%, 55.20%, 56.63%, 35.14% and 1.74% of the total variation in the values of the market price is effected by DPS and rest percentage is effected by other factors. Similarly, by t-test we can see that the relationship of the market price and DPS of SCBL is statistically significant and of other companies calculated it is statistically not significant. It shows that DPS doesn't play vital role in the change of market price.

14. The study finds that the relationship of EPS and market price is more effect full rather than the relationship between DPS and market price in most of the companies. The change in market price is due to EPS rather than DPS.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary and Conclusions

Securities market occupies an important place in the economic development and financial management of the country. It helps to enhance the marketability of the securities, rational allocation of investable funds; facilitate economic growth, wealth generation, liquidity and diversification to the investment. The main objective of the capital market is to create an opportunity for maximum number of people to get benefits through the mobilization of long term investments. Therefore, it is a moving wheel of financial development. It channelizes the saving of general public towards the productive investments. Most investors tend to avoid the risk and liquid market makes investment less risky and more attractive because in liquid market investors can easily buy or sell their securities. It is seen Listing helps to make security liquid and liquid security helps in effective price formation. And the brokers help to sell out the securities as per the need of the investors. Therefore, listing and price formation are inter-related. Along with the brokering service these are the important part of stock market.

History of securities market in Nepal is not that old. It is small in size as compared to developed securities markets. Its competitive position in global market is very poor. One of the prominent reasons behind the slow growth is the lack of research and development. Pertinent studies on Nepalese securities market are still lacking. The policy making body has been suffering the lack of informational inputs. The effect of modernization and globalization can be observed in Nepalese stock market.

This study mainly aims to examine the current status of Price formation mechanism, listing, and brokering services in NEPSE. The specified objective is to study the situation of listed companies, price behavior of the listed companies in

NEPSE, to analyze the brokering services prevailing and to analyze the behavior of NEPSE index. Therefore, this study is focused on studying the listing, price formation and brokering service of stock market.

The study period is taken from the FY 2001/02 to FY 2007/08 to analyze and to make the concept clear. Primary as well as secondary data are used in the study. Primary data are collected from the medium of questionnaire, field visit and secondary data are collected from the annual and trading report of SEBON, the website of SEBON (www.sebonp.com), NEPSE (www.nepalstock.com), different books of national and international writers. Other sources of data are the various publications of SEBON and NEPSE. Review of national and international studies, books, journals and unpublished thesis of master degree are discussed to make the study effective and fruitful.

Both the analytical and descriptive research design is adopted to carry out the study effectively. The stock market performance is examined by analyzing the number of listed companies in NEPSE. Trading ratio, capitalization ratio, turnover ratio etc are used to see the liquidity position of NEPSE. Simple regression equation is used to see the relationship of market price with EPS and DPS and t-test and Probable Error is applied to measure the significance of relationship. The statistical results are tested at five percent level of significance. So that, the appropriate conclusion can be derive.

By the above study and analysis we can know about the importance of stock market in a developing country. It also shows the position of stock market in our country. It is like a soul of a body without which survival is impossible. Likewise, the growth and development of economy of a country is impossible without a development of stock market. So, NEPSE plays a vital role in the development of securities market and supports in the growth of economy of our country as it is a sole trading organization of secondary market. In our country, the growth of securities market in comparison to national economy is satisfactory.

Listing is the major part of stock market. It is like a stair for the development so companies must understand the value and importance of listing. Therefore, in our study we can see the number of listed companies is increasing. But the requirement of listing is not that much easy and some of the companies are de-listed by NEPSE which are not able to fulfill the stated criteria with in the given period.

Likewise to see the price behavior of NEPSE regression analysis and t-test has been used. Eleven different commercial banks were taken as a sample for the test. Similarly, simple regression is used to see the relationship between market price with EPS and market price with DPS. The regression analysis between market price and EPS of the selected companies is found to be good i.e. positive in all of the sample companies except HBL and LUBL which in overall means change in EPS can change in the market price. The significance of the relationship is measured by t-test which states that in case of HBL, LUBL, MBL,NIB, NABIL, NICB, SBL and SCBL the relationship of market price and EPS are statistically insignificant. Likewise, in other companies it is statistically significant. So the independent variable EPS explain the variation in market price.

The regression analysis of market price and DPS shows positive relation in the selected companies except in HBL and LUBL as the correlation coefficient (r) is negative which means the increase in DPS leads to decrease in market price of the company. Like that, the significance of the relationship is measured by t-test which shows that the relationship is found to be insignificant in all the selected companies except SBL of which the relation of market price and DPS is statistically significant.

So, lastly we can conclude that EPS effect more in the market rather than DPS which means according to our study EPS plays slightly important role in the change of market price of a company.

5.2. Recommendations

From the above study, some recommendations can be given which are as follows:

1. Lack of education and sufficient information is the main weakness of the investors. They should seek their right towards accurate and timely information. The investors should be alert to exploit the opportunities through short term speculations. So, they are suggested to raise their voice and complain about the misconduct of relevant companies. They are encouraged to enrich their level of knowledge and make the investment opportunities fruitful.

2. Listed companies are requested to avail the accurate and timely information to concerned authorities as well as the investors. They should conduct timely AGM and fulfill the requirement of the concerned authorities. They should not provide grimmicks to attract the potential investors.

3. Investors must be aware of listing provision before listing their companies. They should know the listing criteria and must fulfill them to list their company in NEPSE because NEPSE can deny listing if the stated criteria are not fulfilled. Therefore, NEPSE listing requirements should be revised and make them enough to ensure full disclosure. Price sensitive information must always be disclosed in time to support the investment decision of investors.

4. Listed companies should be benefited so that new companies would be motivated for listing. Benefits such as no tax incentives, financial benefits to listed companies can be provided. Therefore, the necessary measure is to be initiated to provide such benefits to the listed companies.

5. Brokerage companies must provide good counseling service as regard to stock investment which will help small investors to participate in active stock trading to make the best investment.

6. The Brokers should provide reliable and adequate information regarding the transaction and other aspects so that maximum number of investors can participate in the stock trading.

7. The brokers should act as an important and responsible sector for the development if the securities market and should avoid involving themselves in to the stock market disorders

8. Without favorable or suitable environment no one can proceed further for development in any sectors. In current political situation Nepalese capital market cannot function well. So, the stable economic policy and proper rules and regulations in capital market are the prime necessity for the development of the stock market and economy of our country.

9. As there are only the limited number of brokers in the trading floor the number of the brokers should be increased so that more and more investors can take their service without facing hassles.

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APPENDICES

Annex 1

Market price on EPS of BOK

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	254	2	508	64516	4
2002/03	198	17.72	3508.56	39204	313.9984
2003/04	295	27.4	8083	87025	750.76
2004/05	430	30.1	12943	184900	906.01
2005/06	850	43.67	37119.5	722500	1880.95
2006/07	1375	43.50	59812.5	1890625	1892.25
2007/08	2350	59.94	140859	5522500	3592.804
Total	**5752**	**224.33**	**262833.6**	**8511270**	**9336.772**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 262833.6 - 224.33 \times 5752}{7 \times 8511270 - (5752)^2}$$

$$= \frac{549489.04}{26493386}$$

$\therefore b = 0.0207$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$\therefore r = 0.8707$

Again,

$a = \bar{Y} - b\bar{X}$

$= 32.05 - 0.0207 \times 821.71$

$= 15.04$

$\therefore a = 15.04$

Annex 2

Market price on EPS of EBL

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	430	32.91	14151.3	184900	1083.068
2002/03	445	29.9	13305.5	198025	894.01
2003/04	680	45.58	30994.4	462400	2077.536
2004/05	870	37.54	32659.8	756900	1409.252
2005/06	1379	45.81	63171.99	1901641	2098.556
2006/07	2430	78.41	190536.3	5904900	6148.128
2007/08	3132	91.82	287580.2	9809424	8430.912
Total	**9366**	**361.97**	**632399.5**	**19218190**	**22141.46**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 632399.5 - 361.97 \times 9366}{7 \times 19218190 - (9366)^2}$$

$$= \frac{1036585.48}{46805374}$$

$\therefore b = 0.0222$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$= 0.9786$

Again,

$$a = \bar{Y} - b\bar{X}$$
$$= 51.71 - 0.0222 \times 1338$$
$$= 22.01$$
$\therefore a = 22.01$

Annex 3

Market price on EPS of HBL

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	1000	60.26	60260	1000000	3631.268
2002/03	836	49.45	41340.2	698896	2445.303
2003/04	840	49.05	41202	705600	2405.903
2004/05	920	47.91	44077.2	846400	2295.368
2005/06	1100	59.24	65164	1210000	3509.378
2006/07	1760	60.66	106761.6	3097600	3679.636
2007/08	1980	NA	1980	3920400	-
Total	**8436**	**326.57**	**360785**	**11478896**	**17966.86**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{7 \times 360785 - 326.57 \times 8436}{7 \times 11478896 - (8436)^2}$$

$$= \frac{-229449.52}{9186176}$$

$\therefore b = -0.025$

$r = -0.548$

Again,

$$a = \bar{Y} - b\bar{X}$$
$$= 46.65 - (-0.025) \times 1205.14$$
$$= 76.78$$
$\therefore a = 76.78$

Annex 4

Market Price on EPS of LBL

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	-	1.53	1.53	-	2.3409
2002/03	-	0.31	0.31	-	0.0961
2003/04	156	1.9	296.4	24336	3.61
2004/05	285	4.34	1236.9	81225	18.8356
2005/06	368	5.8	2134.4	135424	33.64
2006/07	690	10.75	7417.5	476100	115.5625
2007/08	1113	16.45	18308.85	1238769	270.6025
Total	**2612**	**41.08**	**29395.89**	**1955854**	**444.6876**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 29395.89 - 41.08 \times 2612}{7 \times 1955854 - (2612)^2}$$

$$= \frac{98470.27}{6868434}$$

$\therefore b = 0.0143$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$= 0.995$

Again,

$a = \bar{Y} - b\bar{X}$

$= 5.87 - 0.0143 \times 373.14$

$= 0.534$

$\therefore a = 0.534$

Annex 5

Market Price on EPS of LUBL

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	-	-10.32	-10.32	-	106.5024
2002/03	-	-27.99	-27.99	-	783.4401
2003/04	-	25.47	25.47	-	648.7209
2004/05	-	5.33	5.33	-	28.4089
2005/06	180	-39.35	-7083	32400	1548.4225
2006/07	172	-161.21	-27728.1	29584	25988.664
2007/08	631	NA	631	398161	-
Total	**983**	**-208.1**	**-34187.6**	**460145**	**29104.159**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{7 \times (-34187.6) - (-208.1) \times 983}{7 \times 460145 - (983)^2}$$

$$= \frac{-34750.9}{2254726}$$

$\therefore b = -0.0154$

Again,

$$a = \bar{Y} - b\bar{X}$$
$$= -29.73 - (-0.0154) \times 140.43$$
$$= -27.57$$
$\therefore a = -27.57$

Annex 6

Market Price on EPS of MBL

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	-	-	-	-	-
2002/03	100	2.81	281	10000	7.8961
2003/04	125	8.49	1061.25	15625	72.0801
2004/05	256	15.43	3950.08	65536	238.085
2005/06	320	18.74	5996.8	102400	351.188
2006/07	620	9.02	5592.4	384400	81.3604
2007/08	1285	10.35	13299.8	1651225	107.123
Total	**2706**	**64.84**	**30181.3**	**2229186**	**857.732**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 30181.3 - 64.84 \times 2706}{7 \times 2229186 - (2706)^2}$$

$$= \frac{35812.06}{8281866}$$

$\therefore b = 0.00432$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= 0.1236$$

Again,

$$a = \bar{Y} - b\bar{X}$$
$$= 9.263 - 0.00432 \times 386.57$$
$$= 7.59$$
$\therefore a = 7.59$

Annex 7

Market price on EPS of NABIL

Year	MP(Y)	EPS(X)	XY	X^2	Y^2
2001/02	700	55.25	38675	490000	3052.5625
2002/03	740	84.66	62648.4	547600	7167.3156
2003/04	1000	92.61	92610	1000000	8576.6121
2004/05	1505	105.49	158762.45	2265025	11128.1401
2005/06	2240	129.21	289430.4	5017600	16695.2241
2006/07	5050	137.08	692254	25502500	18790.9264
2007/08	5275	108.31	571335.25	27825625	11731.0561
Total	**16510**	**712.61**	**1905715.5**	**62648350**	**77141.8369**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{7 \times 1905715.5 - 712.61 \times 16510}{7 \times 62648350 - (16510)^2}$$

$$= \frac{1574817.4}{165958350}$$

$\therefore b = 0.0095$

$= 0.6815$

Again,

$a = \bar{Y} - b\bar{X}$

$= 101.8 - 0.0095 \times 2358.57$

$= 79.42$

$\therefore a = 79.42$

Annex 8

Market price on EPS of NIB

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	760	33.6	25536	577600	1128.96
2002/03	795	39.56	31450.2	632025	1564.994
2003/04	940	51.7	76798	883600	6674.89
2004/05	800	39.5	31448	640000	1545.276
2005/06	1260	59.35	74781	1587600	3522.423
2006/07	1729	62.57	108183.5	2989441	3915.005
2007/08	2450	57.87	141781.5	6002500	3348.9369
Total	**8734**	**344.15**	**461930.2**	**13312766**	**17713.46**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 461930.2 - 344.15 \times 8734}{7 \times 13312766 - (8734)^2}$$

$$= \frac{227705.3}{16906606}$$

$\therefore b = 0.0135$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$= 0.743$

Again,

$$a = \bar{Y} - b\bar{X}$$

$= 49.16 - 0.0135 \times 1247.71$

$= 32.36$

$\therefore a = 32.36$

Annex 9

Market Price on EPS of NICB

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	245	1.36	333.2	60025	1.8496
2002/03	220	5.19	1141.8	48400	26.9361
2003/04	218	13.65	2975.7	47524	186.3225
2004/05	366	22.75	8326.5	133956	517.5625
2005/06	496	16.1	7985.6	246016	259.21
2006/07	950	24.01	22810	902500	576.4801
2007/08	1284	25.75	33063	1648656	663.0625
Total	**3779**	**108.81**	**76635**	**3087077**	**2231.423**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{7 \times 76635 - 108.81 \times 3779}{7 \times 3087077 - (3779)^2}$$

$$= \frac{125252.01}{7328698}$$

$\therefore b = 0.0171$

$= 0.7525$

Again,

$$a = \bar{Y} - b\bar{X}$$

$$= 15.54 - 0.0171 \times 539.86$$

$$= 6.31$$

$\therefore a = 6.31$

Annex 10

Market Price on EPS of SBL

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	-	-	-	-	-
2002/03	-	-0.37	-0.37	-	0.1369
2003/04	-	-8.89	-8.89	-	79.0321
2004/05	-	20.08	20.08	-	403.2064
2005/06	360	13.05	4698	129600	170.3025
2006/07	778	15.88	12354.6	605284	252.1744
2007/08	1090	17.29	18846.1	1188100	298.9441
Total	**2228**	**57.04**	**35909.6**	**1922984**	**1203.796**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 35909.6 - 57.04 \times 2228}{7 \times 1922984 - (2228)^2}$$

$$= \frac{124282.08}{8496904}$$

$\therefore b = 0.015$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$= 0.5928$

Again,

$a = \bar{Y} - b\bar{X}$

$= 8.149 - 0.015 \times 318.29$

$= 3.49$

$\therefore a = 3.49$

Annex 11

Market price on EPS of SCBL

Year	MP(X)	EPS(Y)	XY	X^2	Y^2
2001/02	1550	141.13	218751.5	2402500	19917.68
2002/03	1640	149.3	244852	2689600	22290.49
2003/04	1745	143.55	250494.8	3045025	20606.6
2004/05	2345	143.14	335663.3	5499025	20489.0596
2005/06	3775	175.84	663796	14250625	30919.7056
2006/07	5900	167.37	987483	34810000	28012.72
2007/08	6830	131.92	901013.6	46648900	17402.8864
Total	**23785**	**1052.25**	**3602054**	**109345675**	**159639.142**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{7 \times 3602054 - 1052.25 \times 23785}{7 \times 109345675 - (23875)^2}$$

$$= \frac{186611.75}{195404100}$$

$\therefore b = 0.00096$

$= 0.132$

Again,

$$a = \bar{Y} - b\bar{X}$$

$$= 150.32 - 0.00096 \times 3397.86$$

$$= 147.06$$

$\therefore a = 147.06$

Annex 12

Market price on DPS of BOK

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	254	10	2540	64516	100
2002/03	198	5	990	39204	25
2003/04	295	10	2950	87025	100
2004/05	430	15	6450	184900	225
2005/06	850	18	15300	722500	324
2006/07	1375	20	27500	1890625	400
2007/08	2350	2.11	4958.5	5522500	4.4521
Total	**5752**	**80.11**	**60688.5**	**8511270**	**1178.4521**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{7 \times 60688.5 - 80.11 \times 5752}{7 \times 8511270 - (5752)^2}$$

$$= \frac{-35973.22}{26493386}$$

$\therefore b = -0.00136$

$r = -0.01633$

Again,

$a = \bar{Y} - b\bar{X}$

$= 11.44 - (-0.00136) \times 821.71$

$= 12.56$

$\therefore a = 12.56$

Annex 13

Market price on DPS of EBL

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	430	0	0	184900	0
2002/03	445	20	8900	198025	400
2003/04	680	20	13600	462400	400
2004/05	870	0	0	756900	0
2005/06	1379	25	34475	1901641	625
2006/07	2430	10	24300	5904900	100
2007/08	3132	20	62640	9809424	400
Total	**9366**	**95**	**143915**	**19218190**	**1925**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 143915 - 95 \times 9366}{7 \times 19218190 - (9366)^2}$$

$$= \frac{117635}{46805374}$$

$\therefore b = 0.0025$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= 0.2578$$

Again,

$$a = \bar{Y} - b\bar{X}$$

$$= 13.57 - 0.0025 \times 1338$$

$$= 10.21$$

$\therefore a = 10.21$

Annex 14

Market price on DPS of HBL

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	1000	25	25000	1000000	625
2002/03	836	1.32	1103.52	698896	1.7424
2003/04	840	0	0	705600	0
2004/05	920	11.58	10653.6	846400	134.0964
2005/06	1100	30	33000	1210000	900
2006/07	1760	15	26400	3097600	225
2007/08	1980	NA	1980	3920400	-
Total	**8436**	**82.9**	**98137.12**	**11478896**	**1885.84**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{7 \times 98137.12 - 82.9 \times 8436}{7 \times 11478896 - (8436)^2}$$

$$= \frac{-12384.56}{9186176}$$

$\therefore b = -0.00135$

$= -0.0513$

Again,

$a = \bar{Y} - b\bar{X}$

$= 11.84 - (-0.00135) \times 1205.14$

$= 13.47$

$\therefore a = 13.47$

Annex 15

Market price on DPS of LBL

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	-	0	0	-	0
2002/03	-	0	0	-	0
2003/04	156	0	0	24336	0
2004/05	285	0	0	81225	0
2005/06	368	0	0	135424	0
2006/07	690	0	0	476100	0
2007/08	1113	0	0	1238769	0
Total	**2612**	**0**	**0**	**1955854**	**0**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 0 - 0 \times 2612}{7 \times 1955854 - (2612)^2}$$

$\ldots b = 0$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

Again,

$a = \bar{Y} - b\bar{X}$

$= 0 - 0 \times 373.14$

$= 0$

$\ldots a = 0$

Annex 16

Market price on DPS of LUBL

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	-	-	-	-	-
2002/03	-	-	-	-	-
2003/04	-	0	0	-	0
2004/05	-	0	0	-	0
2005/06	180	0	0	32400	0
2006/07	172	0	0	29584	0
2007/08	631	0	0	398161	0
Total	**983**	**0**	**0**	**460145**	**0**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n\sum XY - \sum X \sum Y}{n\sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 0 - 0 \times 983}{7 \times 460145 - (983)^2}$$

$\ldots b = 0$

we have,

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

Again,

$a = \bar{Y} - b\bar{X}$

$= 0 - 0 \times 140.43$

$= 0$

$\ldots a = 0$

Annex 17

Market price on DPS of MBL

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	-	-	-	-	-
2002/03	100	0	0	10000	0
2003/04	125	0	0	15625	0
2004/05	256	0	0	65536	0
2005/06	320	0.79	252.8	102400	0.6241
2006/07	620	0	0	384400	0
2007/08	1285	1.05	1349.3	1651225	1.1025
Total	**2706**	**1.84**	**1602.1**	**2229186**	**1.7266**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 1602.1 - 1.84 \times 2706}{7 \times 2229186 - (2706)^2}$$

$$= \frac{6235.66}{8281866}$$

$\therefore b = 0.00076$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= 0.7346$$

Again,

$$a = \bar{Y} - b\bar{X}$$

$$= 0.263 - 0.00076 \times 386.57$$

$$= -0.031$$

$\therefore a = -0.031$

Annex 18

Market price on DPS of NABIL

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	735	30	22050	540225	900
2002/03	735	50	36750	540225	2500
2003/04	1000	65	65000	1000000	4225
2004/05	1505	70	105350	2265025	4900
2005/06	2240	85	190400	5017600	7225
2006/07	5050	100	505000	25502500	10000
2007/08	5275	60	316500	27825625	3600
Total	**16540**	**460**	**1241050**	**62691200**	**33350**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 1241050 - 460 \times 16540}{7 \times 62691200 - (16540)^2}$$

$$= \frac{1078950}{165266800}$$

$\therefore b = 0.00653$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= 0.568$$

Again,

$$a = \bar{Y} - b\bar{X}$$

$$= 65.71 - 0.00653 \times 2362.86$$

$$= 50.28$$

$\therefore a = 50.28$

Annex 19

Market price on DPS of NIB

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	760	0	0	577600	0
2002/03	795	20	15900	632025	400
2003/04	940	15	14100	883600	225
2004/05	800	12.5	10000	640000	156.25
2005/06	1260	20	25200	1587600	400
2006/07	1729	5	8645	2989441	25
2007/08	2450	7.5	18375	6002500	56.25
Total	**8734**	**80**	**92220**	**13312766**	**1262.5**

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 92220 - 80 \times 8734}{7 \times 13312766 - (8734)^2}$$

$$= \frac{-53180}{16906606}$$

$\therefore b = -0.00315$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$r = -0.262$

Again,

$a = \bar{Y} - b\bar{X}$

$= 11.43 - (-0.00315) \times 1247.71$

$= 15.36$

$\therefore a = 15.36$

Annex 20

Market price on DPS of NICB

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	245	10	2450	60025	100
2002/03	220	0	0	48400	0
2003/04	218	0	0	47524	0
2004/05	366	10	3360	133956	100
2005/06	496	0.53	262.88	246016	0.2809
2006/07	950	1.05	997.5	902500	1.1025
2007/08	1284	1.05	1348.2	1448656	1.1025
Total	3779	22.63	8418.58	2887077	202.486

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 8418.58 - 22.63 \times 3779}{7 \times 2887077 - (3779)^2}$$

$$= \frac{-26588.71}{5928698}$$

$\therefore b = -0.00449$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$= -0.3629$

Again,

$a = \bar{Y} - b\bar{X}$

$= 3.23 - (-0.00449) \times 539.86$

$= 5.65$

$\therefore a = 5.65$

Annex 21

Market price on DPS of SBL

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	-	-	-	-	-
2002/03	-	-	-	-	-
2003/04	-	-	-	-	-
2004/05	-	-	-	-	-
2005/06	360	0	0	129600	0
2006/07	778	0.79	614.62	605284	0.6241
2007/08	1090	0.79	861.1	1188100	0.6241
Total	2228	1.58	1475.72	1922984	1.2482

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 1475.72 - 1.58 \times 2228}{7 \times 1922984 - (2228)^2}$$

$$= \frac{6809.8}{8496904}$$

$\therefore b = 0.0008$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$= 0.9351$

Again,

$a = \bar{Y} - b\bar{X}$

$= 0.226 - 0.0008 \times 318.29$

$= -0.029$

$\therefore a = -0.029$

Annex 22

Market price on DPS of SCBL

Year	MP(X)	DPS(Y)	XY	X^2	Y^2
2001/02	1550	100	155000	2402500	10000
2002/03	1640	110	180400	2689600	12100
2003/04	1745	110	191950	3045025	12100
2004/05	2345	120	281400	5499025	14400
2005/06	3775	130	490750	14250625	16900
2006/07	5900	80	472000	34810000	6400
2007/08	6830	80	546400	46648900	6400
Total	23785	730	2317900	109345675	78300

Source: Annual Reports of SEBON

we know,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

we have,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{7 \times 2317900 - 730 \times 23785}{7 \times 109345675 - (23785)^2}$$

$$= \frac{-1137750}{199693500}$$

$\therefore b = -0.0057$

$= -0.653$

Again,

$a = \bar{Y} - b\bar{X}$

$= 104.29 - (-0.0057) \times 3397.86$

$= 123.65$

$\therefore a = 123.65$

Annex 23

Calculation of Coefficient of Determination (r^2), Probable error of Correlation Coefficient (P.E.), and T- test

We know,

$$\text{P.E.} = 0.6745 \ | \frac{1 Z r^2}{\sqrt{n}} \qquad\qquad t \ X \frac{r}{\sqrt{1 Z r^2}} \sqrt{n Z 2}$$

Market Price on EPS

No.	Name	r	r^2	T	P.E.	6 × P.E.
1.	BOK	0.8707	0.7581	3.959	0.073	0.4378
2.	EBL	0.9786	0.9577	10.639	0.0128	0.0765
3.	HBL	- 0.548	0.3003	- 1.465	0.313	1.877
4.	LBL	0.995	0.99	22.249	0.003	0.0181
5.	LUBL	- 0.05778	0.00334	- 0.129	0.3006	1.804
6.	MBL	0.1236	0.0152	0.279	0.2971	1.782
7.	NABIL	0.6815	0.4644	2.082	0.1616	0.9694
8.	NIB	0.743	0.552	2.482	0.1351	0.8108
9.	NICB	0.7525	0.5663	2.555	0.1308	0.7849
10.	SBL	0.5928	0.3514	1.646	0.1956	1.174
11.	SCBL	0.132	0.0174	0.2978	0.2964	1.778

Source: Appendix i - xxii

Annex 24

Calculation of Coefficient of Determination (r^2), Probable error of Correlation Coefficient (P.E.), and T- test

We know,

$$\text{P.E.} = 0.6745 \left| \frac{1 - r^2}{\sqrt{n}} \right| \qquad t = \frac{r}{\sqrt{1 - r^2}} \sqrt{n - 2}$$

Market Price on DPS

No.	Name	r	r^2	T	P.E.	6 × P.E.
1.	BOK	- 0.01633	0.00027	- 0.0365	0.2548	1.529
2.	EBL	0.2578	0.0665	0.5966	0.238	1.428
3.	HBL	0.0513	0.0026	0.1149	0.2543	1.5256
4.	LBL	0	0	0	0.2549	1.529
5.	LUBL	0	0	0	0.2549	1.529
6.	MBL	0.7346	0.5396	2.4208	0.1174	0.7042
7.	NABIL	0.568	0.3226	1.543	0.256	1.536
8.	NIB	- 0.262	0.0686	- 0.607	0.2374	1.4246
9.	NICB	- 0.3629	0.1317	- 0.8708	0.2214	1.328
10.	SBL	0.9351	0.8744	5.9	0.032	0.192
11.	SCBL	- 0.653	0.4264	- 1.928	0.1462	0.8774

Source: Appendix i - xxii

Questionnaire for Research Study

This questionnaire have been prepared to collect the primary data for the preparation of the thesis entitled "**Price Formation, Listing and Brokering Services in NEPSE"** as per the requirement for the partial fulfillment of the degree of Masters in Business Studies (MBS). Correspondents are requested to provide the data honestly, because the reliability of this study much depends on the data collected. This is the effort of the researcher to find some facts along with the feelings of different persons from various sectors regarding the security market in Nepal.

1. Do you have investment in the shares?

   Yes No

2. How many company's shares do you presently own?

   1-3 4-7

   8-11 others

3. Which sector do you prefer to invest in?

   Banks Finance Companies

   Insurance Companies Others

4. Where do you prefer to invest apart to investing in the shares?

   Fixed Assets Fixed Deposits

   Money Lending

   If others please specify……..

5. Do you invest in initial public offerings?

   Yes No

6. What are the factors you keep on mind while investing in the shares?

   Dividend Payment Growth of the Company

   Profit/Loss of the Company

   If others please specify…….

7. What do you think are the key factors of price formation in security market?

   Market rumors Investor awareness

   Brokers Annual General meeting

8. What do you think of the investor awareness effort of SEBO?

It is good, but need more effort No need of it
It is sufficient

9. Which valuation model do you prefer the most in valuing the share before making the transaction?

Net Asset Value Model Dividend Valuation Model
Earning Valuation Model Do not use any

10. What do you think of present listing procedure in practice of our country?

It is good and sufficient Need to be amended

Other

11. What type of service are you getting from the broker presently?

Trading Service only information service only

Trading and information service

12. Are you satisfied by the information provided by the listed companies?

Yes No

13. Are you satisfied with the services provided by the brokers?

Yes No

14. Do you think the number of brokers operating in the trading floor is sufficient?

Yes No

15. Are you getting the return you have expected from security trading?

Yes No

16. Which profession are you in?

Investor Analyst
Broker Other

17. Do you have any experience or comment to share regarding the price formation, listing and brokering services pertaining?

- Thank you -