CHAPTER: 01

1.Introduction

1.1. Background of the study

Economic development is considered as the most important factor for any nation. The two facets of acquiring economic development and growth are: first the development of entrepreneurial skill of the nationals; and second the easy availability of capital funds.

Specifically, although many profitable investments require a long-run commitment of capital, savers do not like to relinquish control of their savings for long periods. Liquid equity markets ease this tension by providing an asset to savers so that they can quickly and inexpensively sell. Simultaneously, firms have permanent access to capital raised through equity issues. Moreover, Kyle (1984) and Holmstrom and Tirole (1995) argue that liquid stock markets can increase incentives to get information about firms and improve corporate governance. Finally, Obstfeld (1994) shows that international risk sharing through internationally integrated stock markets improves resource allocation and can accelerate the rate of economic growth. Theory suggests that stock market size, liquidity, and integration with world capital markets may affect economic growth.

A burgeoning theoretical literature suggests that the functioning of equity markets affects

(a) Liquidity,

(b) Risk diversification,

(c) Information acquisition about firms,

(d) Corporate control and

(e) Savings mobilization.

By altering the quality of these services, the functioning of stock markets can alter the rate of economic growth. Debate exists, however, over the sign of this effect. Specifically, some models suggest that stock market development slows growth, while other models predict a positive relationship between stock market development and economic growth.

One way stock markets may affect economic activity is through their liquidity. Many high-return projects require a long-run commitment of capital. Investors, however, are generally reluctant to relinquish control of their savings for long-periods. Without liquid markets or other financial arrangements that promote liquidity, therefore, less investment may occur in the high return projects. As shown by Levine (1991) and Bencivenga, Smith, Starr (1996), stock markets may arise to provide liquidity: savers have liquid assets - like equities - while firms have permanent use of the capital raised by issuing equities. Specifically, liquid stock markets reduce the downside risk and costs of investing in projects that do not pay off for a long time: with a liquid equity market, the initial investors do not lose access to their savings for the duration of the investment project because they can quickly, cheaply, and confidently sell their stake in the company. Thus, more liquid stock markets ease investment in long-run, potentially more profitable projects, thereby improving the allocation of capital and enhancing prospects for long term growth. Theory is unclear, however about the growth effects of greater liquidity.

Bencivenga and Smith (1991) show that by reducing uncertainty, greater liquidity may reduce saving rates enough so that growth slows.

Risk diversification through internationally integrated stock markets is a second vehicle through which stock market development may influence economic growth. Saint-Paul (1992), Devereux and Smith (1994), and Obstfeld (1994) demonstrate that stock markets provide a vehicle for diversifying risk. These models also show that greater risk diversification can influence growth by shifting investment into higher-return projects. Intuitively, since highexpected- return projects also tend to be comparatively risky, better risk diversification through internationally integrated stock markets will foster investment in higher return projects. Again, however, theory suggests circumstances when greater risk sharing slows growth. Devereux and Smith (1994) and Obstfeld (1994) show that reduced risk through internationally integrated stock markets can depress saving rates, slow growth, and reduce economic welfare.

In terms of raising capital, Greenwood and Smith (1996) show that large, liquid, and efficient stock markets can ease savings mobilization. By agglomerating savings, stock markets enlarge the set of feasible investment projects. Since some worthy projects require large capital injections and some enjoy economies of scale, stock markets that ease resource mobilization can boost economic efficiency and accelerate long-run growth. Disagreement exists, however, over the importance of stock markets for raising capital. Mayer (1988), for example, argues that new equity issues account for a very small fraction of corporate investment. Thus, some theories provide a conceptual basis for believing that larger, more liquid, more efficient stock markets boost economic growth. Other theoretical models, however, have a more pessimistic opinion about the importance of stock markets. Given these dissenting views, this paper examines the empirical relationship between stock market development and growth.

This research specifically focuses on the coverage, development and performance of the Nepalese stock market at present scenario. Moreover, it tries to locate the major problems and find the best solutions.

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

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

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

Nepal Stock Exchange, in short NEPSE, is a non-profit organization, operating under Securities Exchange Act, 1983.

The basic objective of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transactions in its trading floor through member, market intermediaries, such as broker, market makers etc.

NEPSE opened its trading floor on 13th January 1994.

Government of Nepal, Nepal Rastra Bank, Nepal Industrial Development Corporation and members are the shareholders of the NEPSE.

The Board of Directors of NEPSE consists 9 (Nine) directors in accordance with Securities Exchange Act, 1983. Six directors are nominated by Government of Nepal and different institutional investors. Two from the licensed members and the General Manager of the NEPSE is the Ex-Officio Director of the Board.

NEPSE has adopted an "open out-cry" trading system. It means transaction of securities is conducted on the open auction principle on the trading floor. It has fixed trading days and hours during which the members are allowed to enter the floor and make transactions.

In spite of the above discussed developments Nepalese stock market hasn't yet become success to cover sufficient portion of investment. People are investing their savings on unproductive assets such as land, gold, silver and other valuables and on the other side corporations are experiencing lack of funds for expansions and growth.

Yet entrepreneurs show less interest and confidence on raising capital funds through issuance of securities in stock market. That’s why even today the market lists very few numbers of corporate securities as compared to their presence.

Besides, the market sometimes has shown unreasonable price fluctuations of securities. The consequences of such fluctuations are paid up by the investors. Such fluctuations in the market have reduced the confidence of investors in capital assets and market.

Moreover the stock market of Nepal is highly concentrated. More than 60% of the market supply is obtained by the top ten companies. Surprisingly among these ten companies nine are the commercial banks. Similarly it is

highly concentrated from demand side too. Some of the major investors hold most of the of the market demand. It lacks coverage over the general savings of the nationals. This makes the market susceptible of price stipulations from the investors. Such sequence makes the confidence of the small and general investors low on the stock market and its instruments and puts the market on the hands of some big investors making the market unable for expansion and growth. People in such circumstances prefer investment on land, gold and other valuables rather than stock market instruments.
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1.2. <u>Statement of the problem</u>

The history of Nepalese organized stock market is even older than 68 years, as in 1937, for the first time, shares were floated in the market in the history of Nepal. It is felt that the stock market is not working as per the expectations. Stock market of some other Asian countries having similar history and economic background as of Nepal, have experienced a tremendous growth and development.

Government has made much effort to grow the stock market for the achievement of the economic growth and development, but still the results are to be felt. The major problems of the stock market, addressed through this research are:

1. The stock market has become stagnant with too slow growth and expansion.

2. The market seems to be susceptible of the price manipulations.

3. Especially the market has failed to cover most part of the general savings and capitals.

4. Many times the stock market prices show unreasonable fluctuations.

5. Highly concentrated ownership pattern check the supply side of the market.

6. The market shows comparatively small increment in volume of trade in response of high proportionate price change in stock.

7. The growth in demand side of the market is growing much faster than the supply side; bringing in the chances of demand side inflation.

8. The issuer of the securities lack balance as there is no. of issuer from the tertiary sectors, i.e. Banks, insurance companies, finance companies etc. while issuer of primary and secondary sector such as agricultural industries, manufacturing industries etc. lacks.

1.3. Objectives of the study

This research attempts to address the problems and the prospects of Nepalese stock market. It specially focuses on the coverage, development and performance of the market. The following are the prime objectives of the research:

1. To study the size, coverage and contribution of the stock market in National economy.

2. To interpret and analyze the development and growth of the stock market.

3. To study the performance of the stock market.

4. And to suggest and recommend on the basis of the major findings.

1.4. Scope and Significance

This research covers both primary as well as secondary market of Nepal. It employs secondary data made available by Nepal stock exchange, security exchange board of Nepal, Nepal Rastra bank, ministry of finance and other concerned sectors. The published and unpublished tribunals, journals, financial statements, web site of the capital market and stock exchanges are the major sources of data for this research.

The effort of this research is significant because it tries to address the felt problems of the Nepalese stock market to overcome the political and security shocked depression. It is obvious that stock market could be the best alternative to reform and rehabilitate the economy. The significance of this research could be expressed more concisely through the following points.

1. The true problems for the development of stock market are located.

2. Identifies the appropriate time and way for expansion.

3. Identifies the technical hurdles and obstacles for the development and growth.

4. Assesses the performance.

5. Suggests suitable strategies for the solution of the problems and betterment of the sector.

1.5.Organization of the study

This research applies both the descriptive as well as empirical statistical and mathematical approach of analysis. The whole body of the research is divided in to five chapters. The chapters are as followings:

Chapter 1: Introduction.

Chapter 2: Review of the literatures.

Chapter 3: Research Methodologies.

Chapter 4: Presentation of the data.

Chapter 5: Summary, conclusions, Recommendation and suggestions.

The contents of each of the chapters are briefly explained as following:

The first chapter – Introduction gives the general ideas about the study: it includes introduction, statement of the problem, objective of the study, and organization of the study.

The second chapter – Review of literature is a discussion on the conceptual framework and review of related books, journals previous research works.

The third chapter describes the research methodologies employed in the study. To achieve the objectives of the study the research has employed an empirical and analytical research design to probe both primary as well as secondary market. The major sources of the data are SEBON, NEPSE, Journals, and other published and unpublished data of the governmental agencies. The data are presented in analytical tabular form or other statistical format as required by the study. Analysis of the data is mostly made through the statistical tools such as average, standard deviation, correlation, mode etc. Further subjective analysis is also an indispensable part of the research; those economic theories are employed to find out the causes and the possible remedies of the problems.

The fourth chapter deals with the presentation and analysis of the secondary data to indicate the quantitative factors on capital market.

The fifth chapter states summary and conclusions of the study. This chapter presents the major findings and provides recommendation and suggestions on the basis of the findings. It also offers an avenue for further research.

CHAPTER: 2

2.REVIEW OF LITERATURE

2.1Theoretical framework and motivation

Too much up and down in Nepalese stock market along with many unanswered complications and immaturity have arisen many questions in the field of financial research and study. The performance, development and growth of the Nepalese stock market have been studied rarely. Most of the research is in the field of stock market behavior, stock prices, risk and return, dividend policy etc.

The main motivation behind this research is the article “Development of stock market and Economic growth in Nepal”, K.C. Dr. Bijay. The analysis of the market performance on the basis of stock market size, Liquidity, concentration and volatility is an extension of the article.

Further another article “Secondary market: limited opportunity”, Agrawal Jagdish is also a source of motivation for this research.

The analysis of stock market size, performance and growth on the basis of the ratio establishing relationship between stock market variables and macro economic indicators have been as followed from the Xuejing Xing(2004), Fabio Panetta (2002), Anete Pajuste (2002) and Ross Levine and Sara Zervos(1996).

Further the empirical test of stock market performance in the forms of return and liquidity has been made as in Ross Levine and Sara Zervos (1996).

2.2 Review of Literature

Stock market performance and development has been a topic with numerous researches e.g., Papaioannou & Duke (1993), Diamond and Verrecchia (1982), Jensen and Murphy (1990), Greenwood and Smith (1997), Enrico C. Perotti (1999), Anete Pajuste (2002), Ross Levine and Sara Zervos (1996), Prabirjit Sarkar (2006). The mechanism of the stock market, such as market volatility, market concentration, market coverage and size, market liquidity etc. has been studied widely for different stock markets e.g., Demirguc-Kunt and Levine (1996), G. William Schwert (1997), John J. Binder and Matthias J. Merges (2000), Sonali Jain Chandra (2002), Xuejing Xing(2004). Further the relationship of the macro economic indicators such as GDP, NI, National savings, etc has been studied in the international parlance e.g., Fabio Panetta (2002).

The four stage development of the stock market in emerging nations; development of equity market in any country requires political and economic stability and growth-oriented policies as pre-conditions. At the second stage, equity prices rise and the investors gradually gain confidence in equity market. They accept equity as an alternative to traditional bank deposits and government securities. At the second stage, equity market gain credibility and market liquidity increases. Investors long for rise in risk adjusted return and demand a wide variety of securities to match their risk preferences. Rules and regulations are refined and the equity market starts functioning on the basis of self-discipline. Equity market at this stage gradually gets integrated to the international market and attracts foreign investors. At the third stage, equity market becomes an integral part of the overall financial system. Investors get higher, less volatile, return and easily absorb the new issues of stock and bonds. The volume of trading increases as the equity market becomes more liquid and firms go for initial public offerings to replace their debts. At this stage a mechanism for risk transfer develops, creating market for equity and currency hedging instruments such as derivatives and index products. At the final stage the equity market gets highly integrated with the global market and the equity risk premiums match with the international competitive levels. Equity market at this stage achieves stable growth and attains a matured state (Papaioannou and Duke, 1993, Page 36-39).

Stock markets help expansion of economic activity by providing liquidity to financial assets traded in them. Investment in real assets require long-term commitment of capital, however, investors are reluctant to commit their savings for long period. Liquid stock market makes investment less risky because it allows savers to buy and sell financial assets they hold; cheaply and quickly and restructure their portfolios any time according to their risk-return preferences. At the same time, firms enjoy permanent access to long term capital through equity issues. By making assets less risky and providing easy access to permanent source of capital, liquid stock market improve allocation of resources, boost investment and enhance long term economic growth. Very liquid stock market may sometime deter economic growth by encouraging investor myopia. However, empirical studies suggest that greater stock market liquidity boosts and in many cases precede economic growth (Diamond and Verrecchia 1982, p.n. 282-287, Jensen and Murphy 1990, p.n. 260-264, Greenwood and Smith 1997, p.n. 292-294).

The level of stock market development and its impact on the national economy can be measured by using various indicators broadly classified into stock market size, Liquidity, Concentration and Volatility (Demirguc-Kunt and Levine, 1996, 224-227).

G. William Shwart (1997) found that Circuit breakers, collars and side cars can have different impact on market volatility depending upon the perception of the investors and their rationality:

If investors value the ability to transact quickly, however prohibition of trading reduces the perceived and actual liquidity of security market and could increase volatility. It may also have the effect of lowering the prices of securities that have now less liquidity.

On the other hand, if some investors value liquidity highly and they fear that a trading halt will occur because they see prices starting to approach known limits they will hurry to sell now to assure their ability to trade. Such behavior would speed-up price declines and could lead over reaction. It could lead to increased volatility.

Further this work relates many market crashes to higher market volatility:

The 1987 crash of U. K., German, Australia and Canada were followed by high volatility and the volatility returned to the normal level after the crash.

FTSE volatility was very high before 1987 crash and after the crash by early 1988 it fell back to normal level.

Of course, the periods during and after World War 1 and 2 were dramatic for the volatility of German stocks. Volatility has not been abnormally high in Germany since the 1987 crash.

As with other countries stock volatility returned to pre-crash level, quickly; after the 1987-crash. However, the subsequent crash in the Japanese stock market in early 1990 that did not occur in other major countries has also been associated with increased volatility.

High volatility are associated with the first year of stock trading 1875-76, the great depression in 1930, the OPEC oil crisis in 1973-75, and 1987 crisis. As with the other countries, Australian stock volatility returned to normal levels following the 1987 crash and has been relatively low since.

The 1987 crash was associated with an increase in volatility to levels similar to great depression in the 1930 and the OPEC oil crisis 1973-75. Canada also experienced episodes of high stock volatility in 1980 and 1982 as with other countries, Canada stock volatility fell after the 1987 crash and has been low since.

Enrico C. Perotti (1999) expresses the mode of privatization can play a large role in development of stock market of the nation. In case the privatization sale is made through offering in stock market the capitalization and liquidity of the market expands and grows.

Anete Pajuste (1994-2001) argues that the stock market of small and poor countries is small and poorly regulated with few numbers of listed companies and small market capitalization.

On the other hand, ownership concentration may prove a big limitation for the development of the stock market with few listed companies.
The corporate owners in small market choose to concentrate their power:

To enjoy the private benefits of control at the expense of minority shareholders, gaps in the regulatory framework and poor enforcement mechanism in many cases may lead to a “winner take all” situation. This situation may bring stock market price manipulation to take advantage from their heavily owned stocks.

Henry (2000) argues a large no. of emerging markets have embarked on a series of reforms in recent years, including liberalization of the national stock market. Stock market liberalization refers to country’s decision to allow foreigners to purchase shares in country’s stock market.

Sonali jain Chandra (2002), Levine and Zervos (1998) found: stock market liberalization has been seen increasing liquidity and efficiency of the market.

Ross Levine and Sara Zervos (1996) empirically evaluated the relationship between stock market development and long-run growth. The data suggest that stock market development is positively associated with economic growth. Moreover, the instrumental variables procedures indicate a strong connection between the predetermined component of stock market development and long-run economic growth. These cross-country growth regressions imply a strong link between stock market development and economic growth.

Pribirjit Sarkar (2006), Time series analysis of individual country cases shows that in the majority of cases (including India) there exist no meaningful relationship between stock market capitalization as a percentage of GDP and growth of gross fixed capital formation. Thus both of our studies discount the importance of stock market development in promoting industrial growth through capital accumulation in less developed countries such as India.

In Nepalese context;

K. C. and Snowden (1997) expresses despite the history of more than 25 years, the equity market in Nepal has barely entered the first stage of development. Due to political and economic instability, absence of growth-oriented policies and weak regulatory framework of stock market has failed to gain investors' confidence. Unavailability of timely information and weak supervision and monitoring has made the stock market highly risky for general investors. Investors have not yet accepted investment in stock as an alternative to bank deposits and government securities except in case of stocks of some commercial banks.

Sharma Nilam Kumar (1999), the important roles of the stock market for a developing economy like Nepal are:

- Saving Mobilization.
- Increase in investment.
- Capital formation and economic growth.
- Helpful to government.

The tenth plan of the government too has emphasized the importance of capital market for development of the economy and has taken the following policy measures to take the new challenges of this sector:

- To inspire organized institutions along with banks and other financial institutions to mobilize internal and external capital.

- To adopt different approach to enhance the faith of the general public in the security market to effectively utilize the saving of the investors.

- As per the feasibility, attempt to be made to establish at least facility of one stock exchange in the entire five development region.

- To attract the foreigners (both individuals and institutions) and non residents Nepalese to invest in Nepalese securities, through the stock exchange.

- To arrange for an effective promotion, monitoring, supervising and regulating system for mutual funds, pension funds, life insurance funds, citizen investment trust and to use their financial resources effectively to develop and expand the infrastructure sector such as fuel, communication, transportation, railways and other big and middle sized projects.

- To develop awareness in the sector of insurance and to establish an effective promotion, monitoring and supervision system to lessen the losses of the life and properties of the people.

Pramod Bhattrai (The Nepalese financial system) identifies the following problems of the secondary market:

- Institutional problem: The current laws and institutions, under which the capital market is operating is not enough conducive to the development of the capital market. It restricts the members and the investors’ activities in the market, to many point the provisions are contradictory. Further regulatory actions of the concerned parts some time adds to the problem. Such shortcomings need to be addressed effectively for a smooth operation and development of the capital market.

- Trading Mechanism: NEPSE has adopted open cry out system of trading. It is traditional method. It is time consuming and fails to facilitate greater volume of transactions. Further, some time it suffers from serious errors. In this issue, NEPSE needs to install and develop electronic system to facilitate quick, efficient and large transactions.

- Netting: Here, NEPSE has adopted the paper versus payment system. As the volume of transactions goes on increasing, it creates more jobs to the NEPSE people. In this situation, there are the possibilities of being fraud and errors and delay in making payments. This short of problem can be minimized by netting and automation.

- Capital gain tax: The government has started taxing the earning made through price appreciation of the securities. Such tax is imposed on the earned capital at source. In this situation, any capital loss cannot be adjusted. Beside this, NEPSE does not have appropriate system to tax the investors.

- Central depository system: The provision of company act 2053 restricts the use of central depository system in NEPSE. It asks the companies to maintain books of account of each and every shareholder. Further it makes the transfer of the ownership of the securities a long and tedious process, which consumes too much time, in which the investor could have made advantage of the price fluctuations.

- Availability of investment opportunities: Nepalese capital market transaction has very narrow spectrum, having too few instruments of the investment. The market is dominated by the transaction of corporate common stock; availability of other instruments such as bonds, debentures, preference shares, government bonds are negligible. Further, the nation has stock exchange only at Kathmandu. This restricts the scope of the capital market. Stock exchanges needs to be established on other potential parts of the nation.

- Further, lack of institutional investors, foreign investors, adequate manpower, law and provisions, accounting standard and co-operation between SEBON and NEPSE are the other major limitations of the Nepalese capital market.

Vaidya Shakespeare, (1999), "*Banking Management*" writes that the capital market of Nepal can be classified in to four segments, according to its characteristics, the liberal interaction of those segments, develops the market satisfactorily:

- Demand for long term funds: According to this, demand for long term fund is created by the corporate sector through issue of corporate securities, term loans, and public deposits.

- Supply of long term funds: The supply of long term funds are generated from household's savings, corporate savings, foreign capitals, institutional investors, etc.
- Financial intermediaries: Financial intermediaries are those who plays catalytic role in the capital market to link up the supplier and the borrower of the long term funds such as merchant banks, issues houses, market makers, underwriting houses etc.

- Government policies affecting the above three components of the capital market are like Company act, Securities act, Income tax act etc.

According to him the major factors affecting capital market of Nepal are:

- Government's fiscal and industrial policy;

- General economic condition of the country with reference to the industrial production and profitability;

- Thrust in the money and capital markets with reference to prices and saving situations;

- Demand for capital from the public and private sector for development expenditure etc.

- Habit of investor's preference for liquidity and return in the context of prices in secondary market.

He says; the capital market in Nepal was ill developed because of the following reasons:

1. Agriculture is the main occupation, and hence does not lend itself to the floatation of securities.

2. The development of capital market is highly based on the foreign enterprises operating in the country. During closed economy such was restricted to a large extent. As a result, the capital market was always less prioritized;

3. The investment habit of the individuals and the restrictions confined the capital market. The institutional investors were motivated to invest in government securities.

4. The investors have less confidence on the instruments of capital market rather than the money market due to lack of professionalism in the business enterprises.

5. The lack of sufficient no of players of capital market was another reason for the slow pace of capital market in Nepal which was never assumed as the contributor for national economic development during the closed economy.

6. The fiscal and industrial policy of the government was so narrow that the development of capital market can not be imagined.

7. The investment climate of Nepal was also unfavorable because of infrastructure bottlenecks, bureaucratic risk, political risk, economic risk etc. This has dampened the capital market to a large extent for long period.

8. Prior to the recent economic reforms, entrepreneurs are also interested to earn money from short term investment rather than investing for long term.

So far many studies have been conducted to assess the performance, development and growth of stock markets in international parlance, but in context of Nepal only a few textual discussions are found. In spite some research in the field of liquidity, price index, dividend and its impact on stock price have been made. But those studies specially lack:

To, address relationship between stock market liquidity and variables like market concentration, volatility and size.

Assess the market dimensions such as; volatility, size and volume, liquidity, concentration, growth and development.

Define the role and importance and contributions of the stock market in national economy.

This research is totally intended to assess the situation and find the impact of different variables on the performance, development and growth of the stock market.

In another Nepalese context Narayan Krishna Joshi and Ram Chandra Bhattrai **(**Date posted**:** December 13, 2006 **;** Last revised**:** April 07, 2007) studied Nepalese stock market and cited their conclusions as:" In this paper we extend the research on the relationship between economically neutral behavioural variables and stock returns documented in Saunders (1993), Hirshleifer and Shumway (2003), Cao and Wei (2004, 2005) and Kamstra, Kramer and Levi (2003) by examining a stock market of a single small developing country (Nepal), Nepal Stock Exchange (NEPSE), that have received little attention in the literature. In particular we focus on three mood proxy variables, all continuous: two are the weather variables (cloud cover and temperature) and third one is a biorhythm variable (SAD). The results of our study showed that there is significant relationship (positive) between stock returns and economically neutral behavioural variable represented by the cloud cover. This finding is inconsistent to that reported by Saunders (1993) and Hirshleifer and Shumway (2003) who observed significant negative relationship between stock returns and Cloud cover. With respect to temperature and SAD variable we do not observe such significant relationship. These results are also inconsistent to the findings documented in Cao and Wei (2004, 2005) and Kamstra et al (2003) who reported the significantly negative relationship between stock returns and temperature and positive and significant relationship between stock returns and SAD variable respectively. Interestingly, our findings are however consistent for subperiod (the exception is first sample period) and for one of the industrial index, we examine. The overall results lead to the conclusion that Nepalese stock market is not efficient in the weak form of efficiency."

Again Narayan Krishna Joshi with Fatta Bahadur KC examined the Nepalese stock market and gave the following abstract: After describing the various forms of efficiency and calendar anomalies observed in many developed and emerging markets according to the existing literature, the present study examines this phenomenon empirically in the Nepalese stock market for daily data of Nepal Stock Exchange Index from February 1, 1995 to December 31, 2004 covering approximately ten years. Using regression model with dummies, we find persistent evidence of day-of-the-week anomaly but disappearing holiday effect, turn-of-the-month effect and time-of-the-month effect. We also document no evidence of month-of-the-year anomaly and half-month effect. Our result for the month-of-the-year anomaly is consistent to the finding observed for the Jordanian stock market and that for the day-of-the-week anomaly to the Greek stock market. In addition, our finding regarding half-month effect is consistent with the US market. For the rest, we find inconsistent results with that in the international markets. Our results indicate that the Nepalese stock market is not efficient in weak form with regard to the day-of-the-week anomaly but weakly efficient with respect to the other anomalies.

In yet another attempt to analyze stock market of Nepal, Gurung (1999) found the role of security market and its performance. Securities market plays a pivotal role in mobilizing savings and channeling them inproductive purposes and many more like providing liquidity on securities so that one can minimize the risk and maximize the returns. The study on the securities market performance reveals that there is no synchronization among different securities market performance indicators, but it is true that they almost have depicted an erratic trend during the observed period. This indicates the unstable and poor performance of securities market. Relative to the overall economy, the size of securities market is very small and the liquidity of securities also is poor. These facts suggest that the Nepalese capital market now is passing through a bearish situation. The growth and performance of Nepalese securities market, even after the introduction of new mechanism in 1993/94, are not satisfactory though it is improving gradually.

CHAPTER: 3

3. RESEARCH METHODOLOGY

3.1 Research design

This is mainly a comprehensive and descriptive research focusing on the analysis of the performance, coverage and growth of the stock market. Basically this study employs descriptive design to analyze the performance, coverage, and growth of the Nepalese stock market. Different relevant tools and ratio have been used for each analysis as shown by the table below:

Table 01: Area and instruments of analysis

S.N.	OBJECTIVES	AREA OF ANALYSIS	INSTRUMENTS
01	Performance	NEPSE Index, stock market size, liquidity, concentration and volatility of the market.	NEPSE Index, Market capitalization to paid-up value, Market capitalization ratio, Value of shares traded to GDP, Value of shares traded to market capitalization, Market concentration ratio, Value traded ratio to volatility.
02	Coverage	Coverage	Market capitalization to GDP, Stock investment to National Investment, Stock investment to gross national savings, stock investment to deposit with commercial banks, stock investment to loan lend by commercial banks, sector wise segregation of market capitalization.
03	Growth	Growth	Trends of NEPSE in aggregate and sector-wise, No. of listed companies, Market capitalization in aggregate and sector-wise, Volume of transaction in aggregate and sector-wise.

It further employs empirical design for performance and development analysis of the stock market. The study attempts to examine the relationship of market size, liquidity, volatility, concentration and market return.

Size: To measure the size of the stock market, the ratio of market capitalization divided by Gross Domestic Product (GDP) has been used. Market capitalization equals the total value of all listed shares. The assumption underlying the use of this variable as an indicator of stock market development is that the size of the stock market is positively correlated with the ability to mobilize capital and diversify risk.

Liquidity: To measure the liquidity of the stock market, two measures have been used. First, we compute the ratio of total value of trades on the major stock exchanges divided by GDP. This measures the value of equity transactions relative to the size of the economy. This liquidity measure complements the measure of stock market size since markets may be large but inactive.

Second measure of liquidity equals the ratio of the total value of trades on the stock exchanges divided by market capitalization and is frequently called the turnover ratio. This measures the value of equity transactions relative to the size of the equity market. The turnover ratio also complements the measure of stock market size since markets may be large but inactive. Turnover also complements the first liquidity measure - the total value of equity transactions divided by GDP - since markets may be small (compared with the whole economy) but liquid.

Market concentration: Market concentration may be measured in two modes; the ownership concentration and the industry concentration. Though ownership concentration would have appropriate for the research the industry concentration has been utilized in the research. It is because the unavailability of the data regarding the ownership of equities of the companies. The market industry concentration has been measured as a ratio of the capitalization of ten bigger companies on the basis of market capitalization to the total market capitalization.

This ratio has been used to assess the performance and development of the stock market on the assumption that the higher concentration may cause the dump and pump strategy by the investors and so may cause higher volatility along with low liquidity in the stock market.

Volatility: it is measured as a ratio of value traded ratio to the volatility (12 months standard deviation of the NEPSE index). It represents the trade clicked by each additional change in the price of the stock.

This ratio has been used to assess and analyze the performance and development of the stock market on the assumption that the volatility increases risk factor in the market and may result in to low liquidity. It has been experienced that small and immature stock market suffers with high volatility and low liquidity.

Returns: Returns have been measured in terms of NEPSE index for years 2002/03 to 2006/07 taking the index for the opening of each consecutive year. It has been computed as:

$\text{Return}_t = (\text{NEPSE index}_{t+1} - \text{NEPSE index}_t) / \text{NEPSE index}_t$

3.2 Nature and Sources of data

Data employed in this research are mostly of secondary and published nature. Especially data employed in descriptive and empirical analysis for performance, coverage and growth analysis are secondary.

Annual reports of security exchange board, Nepal stock exchange, Nepal Rastra bank, Ten year plan, and the publications of Nepal ministry of finance, such as; economic surveys, financial target and planning, budget reports etc; have been the sources for the secondary data used immensely in this research.

3.3 Population and Samples

Being a comprehensive research it is a census based research rather than a sample based. It covers all the companies listed with the Nepal stock exchange for the period being studied. Basically data for the financial year 2002/2003 to 2006/2007 has been employed.

Table 02: Companies listed in NEPSE until Jan 2009

S.N.	Companies Name	Listed Shares	Paid up Value	Total Paid up Value
	Commercial Banks			
1	Nabil Bank Ltd.	9,657,470	100	965,747,000
2	Nepal Investment Bank Ltd.	16,060,651	100	1,606,065,100
3	Standard Chartered Bank Ltd.	9,319,664	100	931,966,400
4	Himalayan Bank Ltd.	12,162,150	100	1,216,215,000
5	Nepal SBI Bank Limited	8,734,791	100	873,479,100
6	Nepal Bangladesh Bank Ltd.	7,442,000	100	744,200,000
7	Everest Bank Ltd	4,914,000	100	491,400,000
8	Bank of Kathmandu	6,031,413	100	603,141,300
9	Nepal Industrial & Co.Bank	9,504,000	100	950,400,000
10	Machhachapuchhre Bank Ltd	13,146,420	100	1,314,642,000
11	Laxmi Bank Limited	10,980,861	100	1,098,086,100
12	Kumari Bank Ltd	10,782,720	100	1,078,272,000
13	Lumbini Bank Ltd.	9,995,000	100	999,500,000
14	Nepal Credit & Com. Bank	13,908,900	100	1,390,890,000
15	Siddhartha Bank Limited	8,280,000	100	828,000,000
16	NMB Bank Ltd.	10,000,000	100	1,000,000,000
17	Development Credit Bank Ltd.	11,074,560	100	1,107,456,000
	Total	171,994,600	1,700	17,199,460,000

Finance Companies

18	Nepal Finance and Saving Co.Ltd.	300,000	100	30,000,000
19	NIDC Capital Markets Ltd.	1,012,500	100	101,250,000
20	National Finance Co. Ltd.	1,568,818	100	156,881,800
21	Nepal Share Markets Ltd.	4,320,000	100	432,000,000
22	Annapurna Finance Company Limited	2,016,000	100	201,600,000
23	Kathmandu Finance Limited.	759,000	100	75,900,000
24	Peoples Finance Limited.	840,000	100	84,000,000
25	Union Finance Co. Ltd.	750,000	100	75,000,000
26	Citizen Investment Trust	600,000	100	60,000,000
27	Nepal Aawas Bikas Beeta Co. Ltd.	1,382,195	100	138,219,500
28	Narayani Finance Limited	2,136,517	100	213,651,700

29	Yeti Finance Company Ltd.	312,500	100	31,250,000
30	Gorkha Finance Ltd.	300,000	100	30,000,000
31	Samjhana Finance Co. Ltd.	225,000	100	22,500,000
32	Universal Finance Ltd.	602,184	100	60,218,400
33	Nepal Housing & Merchant Fin.	804,402	100	80,440,200
34	General Finance Ltd.	242,434	100	24,243,400
35	Maha Laxmi Finance Ltd.	800,000	100	80,000,000
36	Lalitpur Finance Ltd.	759,375	100	75,937,500
37	Goodwill Finance Co. Ltd.	1,050,000	100	105,000,000
38	Paschimanchal Finance Co. Ltd	556,600	100	55,660,000
39	Pokhara Finance Ltd.	800,000	100	80,000,000
40	Lumbini Finance Ltd.	900,000	100	90,000,000
41	Siddhartha Finance Limited	520,000	100	52,000,000
42	Alpic Everest Finance Company Limited	780,000	100	78,000,000
43	Nepal Bangladesh fin. & Leasing	500,480	100	50,048,000
44	United Finance Ltd	1,500,000	100	150,000,000
45	International Leasing & Fin. Co.	6,480,000	100	648,000,000
46	Shree Investment Finance Co. Ltd	1,008,000	100	100,800,000
47	Central Finance Co. Ltd.	780,000	100	78,000,000
48	Nepal Shree Lanka Merchant Bank	1,000,000	100	100,000,000
49	Premier Finance Co. Ltd	475,200	100	47,520,000
50	Nava Durga Finance Co.Ltd.	455,948	100	45,594,800
51	Butwal Finance Ltd	696,721	100	69,672,100
52	Janaki Finance Ltd.	400,000	100	40,000,000
53	Standard Finance Ltd.	1,452,000	100	145,200,000
54	Om Finance Ltd.	700,000	100	70,000,000
55	Cosmic Mer.Bank & Fin.	750,510	100	75,051,000
56	Fewa Finance Co. Ltd.	700,000	100	70,000,000
57	KIST Merchant Banking & Finance Limited	20,000,000	100	2,000,000,000
58	World Merchant Bank Ltd	720,000	100	72,000,000
59	Birgunj Finance Ltd	726,000	100	72,600,000
60	Capital Mer. Bamk & Fin	3,461,500	100	346,150,000
61	Everest Finance Ltd,	200,000	100	20,000,000
62	Prudential Bittiya Sans	1,000,000	100	100,000,000
63	Shrijana Finance(Bittiya Sa	140,000	100	14,000,000
64	Royal Mer. Bank.& Fin	1,219,964	100	121,996,400

65	Guheyshwori Mer. Bank. Fin	986,901	100	98,690,100
66	IME Financial Institution	1,250,000	100	125,000,000
67	Bhajuratna Fin.& Sav. Co. Ltd.	385,000	100	38,500,000
68	Patan Finance Ltd.	500,000	100	50,000,000
69	Imperial Financial Inst. Ltd.	500,000	100	50,000,000
70	Civil Merchant bittya sanstha	500,000	100	50,000,000
71	ICFC Bittya Sanstha Ltd.	2,997,416	100	299,741,600
72	Lord Buddha Financial Institutional Limited	750,000	100	75,000,000
73	Sagarmatha Merchant Banking & Finance Limited	500,000	100	50,000,000
74	Kaski Finance Limited	500,000	100	50,000,000
75	Nepal Express Finance Limited	800,000	100	80,000,000
76	Kuber Merchant Bittiya Sanstha Limited	500,000	100	50,000,000
77	Prabhu Finance Company Limited	1,600,000	100	160,000,000
	Total	80,473,165	6,000	8,047,316,500

Hotels

78	Yak and Yeti Hotel Ltd.(Ord.)	2,209,208	100	220,920,800
79	Soaltee Hotel Ltd.	8,697,187	10	86,971,870
80	Taragaon Regency Hotel	7,449,875	100	744,987,500
81	Oriental Hotel Ltd.	5,000,000	100	500,000,000
	Total	23,356,270	310	1,552,880,170

Manufacturing & Processing

82	Bottlers Nepal Ltd.(Balaju)	1,948,887	100	194,888,700
83	Nepal Lube Oil Ltd.	203,936	100	20,393,600
84	Nepal Vanaspati Ghee Udhyog Ltd	101,250	100	10,125,000
85	Raghupati Jute Mills Ltd.	1,806,966	100	180,696,600
86	Butwal Spinning Mills Ltd.	1,306,693	100	130,669,300
87	Gorakhakali Rubber Udhyog Ltd.	3,833,400	75	287,505,000
88	Jyoti Spinning Mills Ltd (ord.)	1,270,288	100	127,028,800
89	Arun Vanaspati Udhyog Limited	550,343	100	55,034,300
90	Bottlers Nepal (Terai)Ltd.	1,210,000	100	121,000,000
91	Harisiddhi Brick and Tile Fac.Ltd.	18,650,000	10	186,500,000
92	Birat Shoe Ltd.(Ord.)	165,000	100	16,500,000
93	Uniliver Nepal Ltd.	920,700	100	92,070,000

94	Nepal Khadya Udhyog Ltd.	90,000	100	9,000,000
95	Shree Bhrikuti Pulp& Paper Ltd	3,500,000	100	350,000,000
96	Fluer Himalayan Limited	262,102	75	19,657,650
97	Shree Ram Sugar Mills Ltd	3,045,990	100	304,599,000
98	Nepal Bitumin and Barrel Udyog	210,680	100	21,068,000
99	Himalayan Distillery Ltd.	4,130,000	100	413,000,000
	Total	43,206,235	1,660	2,539,735,950

Others

100	Nepal Film Dev.Co. Ltd.	491,285	100	49,128,500
101	Nepal Doorsanchar Company Limited	150,000,000	100	15,000,000,000
	Total	150,491,285	200	15,049,128,500

Hydropower

102	National Hydro Power Co.	7,000,000	100	700,000,000
103	Butwal Power Co. Ltd.	8,390,577	100	839,057,700
104	Chilime Hydro power Co.	7,296,000	100	729,600,000
	Total	22,686,577	300	2,268,657,700

Trading

105	Salt Trading Corporation	247,777	100	24,777,700
106	Bishal Bazar Co. Ltd.	491,400	100	49,140,000
107	Nepal Trading Ltd.	50,000	50	2,500,000
108	Nepal Welfare Company Ltd.	41,000	50	2,050,000
	Taotal	830,177	300	78,467,700

Insurance

109	Nepal Insurance Co.Ltd.	1,026,984	100	102,698,400
110	Rastriya Beema Sansthan	995,138	100	99,513,800
111	National LifeInsu. Co.Ltd.	300,000	100	30,000,000
112	Himalayan Gen.Insu. Co.Ltd.	1,008,000	100	100,800,000
113	United Insurance Co.(Nepal)Ltd.	600,000	100	60,000,000
114	Everest Insurance Co. Ltd.	900,000	100	90,000,000
115	Premier Insurance co. Ltd.	300,000	100	30,000,000
116	Neco Insurance Co.	550,000	100	55,000,000
117	Alliance Insurance Company Limited	599,862	100	59,986,200
118	Sagarmatha Insurance Co.Ltd	785,400	100	78,540,000

119	NB Insurance Co. Ltd.	1,000,000	100	100,000,000
120	Nepal Life Insurance Co. Ltd.	3,000,000	100	300,000,000
121	Life Insurance Co. Nepal	2,500,000	100	250,000,000
122	Prudential Insurance Co.	1,000,000	100	100,000,000
123	Lumbini General Insurance	1,250,000	100	125,000,000
124	Shikhar Insurance Co. Ltd.	1,250,000	100	125,000,000
125	Siddhartha Insurance Limited	1,000,000	100	100,000,000
	Total	18,065,384	1,700	1,806,538,400

Development Banks

126	Nepal Industrial Dev. Corp.	2,978,784	100	297,878,400
127	Nepal Development Bank	3,200,000	100	320,000,000
128	Nirdhan Utthan Bank Ltd.	790,721	100	79,072,100
129	Chhimek Vikash Bank Ltd.	510,000	100	51,000,000
130	Paschimanchal Bikash Bank	1,000,000	100	100,000,000
131	Infrastructure Development Bank Limited	800,000	100	80,000,000
132	Diprox Development Bank	226,200	100	22,620,000
133	Gandaki Dev. Fin. Inst.	500,000	100	50,000,000
134	Business Development Bank Ltd.	2,100,000	100	210,000,000
135	Bhrikuti Vikash Bank Limited	587,559	100	58,755,900
136	Sanima Vikash Bank Ltd.	3,840,000	100	384,000,000
137	Narayani Development Bank Ltd.	200,000	100	20,000,000
138	Bageshowori Dev.Bank	330,000	100	33,000,000
139	Sahayogi Vikas Bank	200,000	100	20,000,000
140	Gurkha Development Bank	4,800,000	100	480,000,000
141	Annapurna Bikash Bank Limited	1,919,750	100	191,975,000
142	Swabalamwan Bikash Bank	250,000	100	25,000,000
143	Ace Development Bank Limited	4,160,000	100	416,000,000
144	Himchuli Bikash Bank Ltd.	900,000	100	90,000,000
145	Malika Bikash Bank Limited	500,000	100	50,000,000
146	Siddhartha Development Bank Limited	1,075,725	100	107,572,500
147	Biratlaxmi Bikash Bank Limited	500,000	100	50,000,000
148	Excel Development Bank Ltd.	200,000	100	20,000,000
149	Nepal Development & Employment Promotion Bank Limited	3,200,000	100	320,000,000
150	Subhechha Bikas Bank Limited	400,000	100	40,000,000

Total	35,168,739	2,500	3,516,873,900
Grand Total	546,272,432	14,670	52,059,058,820

SOURCE: nepalstock.com

Further, the ten largest companies termed in liquidity and concentration analysis refers to the ten largest companies declared by the stock exchange on the basis of the volume of trade they have made in a particular year.

3.4 Methods of analysis

A. Descriptive study:

Descriptive analysis of the market size and coverage, market performance and market growth have been made on the grounds of different relevant ratio.

Market size and coverage analysis has employed Market capitalization to GDP, Stock investment to National Investment, Stock investment to gross national savings, stock investment to deposit with commercial banks, stock investment to loan lend by commercial banks, sector wise segregation of market capitalization.

Market performance and development analysis has employed NEPSE Index, Market capitalization to paid-up value, Market capitalization ratio, Value of shares traded to GDP, Value of shares traded to market capitalization, Market concentration ratio, Value traded ratio to volatility.

Market growth analysis has employed Trends of NEPSE in aggregate and sector-wise, No. of listed companies, Market capitalization in aggregate and sector-wise, Volume of transaction in aggregate and sector-wise.

Diagrammatic and graphical tools have been widely employed to analyze the facts of the market size, performance and growth.

B. Empirical study:

Regression and correlation model has been utilized in empirical analysis examining the relationship of market performance to the volatility and market concentration and size.

Empirically this research analyzes the performance and development of the stock market on following grounds:

This research analyses the market performance and development through liquidity and return analysis of the market. The liquidity and the return analysis are made on the basis of the relationship analysis of return and liquidity with the market volatility, market concentration and size.

The theoretical statement of the model is that the stock market performance is the (P) may be regarded as subject to constraints of market size (MS) and concentration (M Con.) and market volatility (M Vol.). The theoretical statement may be framed as under:

P = f (MS, M Con., M Vol.)

The equation to be estimated has, therefore been specified separately for both market liquidity and market return as under:
the relationship of market return with market size, market concentration and market volatility is assessed; the theoretical statement is; the return of the market (MR) is constrained to the market size (MS), market concentration (M Con.) and market volatility (M Vol.). The equation to be estimated therefore, is:

$$MR = a + b_1 (MS) + b_2 (M\ Con.) + b_3 (M\ Vol.) + U_i$$

Where, dependent variable (MR) market return chosen for the study has been measured by the difference of the NEPSE index over time.

The independent variables are specified as under:

MS = the size of the market measured by the ratio of market capitalization to the GDP.

M Con. = the industry concentration of the market measured by the ratio of ten largest companies capitalization to the total capitalization of the market.

M Vol. = is the market index volatility measured by the standard deviation of the NEPSE Index.

U_i = disturbances or error term.

Again the relationship of market liquidity with market size, market concentration and market volatility is assessed; the theoretical statement is; the liquidity of the market (M Liq.) is constrained to the market size (MS), market concentration (M Con.) and market volatility (M Vol.). The equation to be estimated therefore, is:

M Liq. = a + b_1 (MS) + b_2 (M Con.) +b_3 (M Vol.)+ U_i

Where, dependent variable M liq. is liquidity of the market measured by the total value of stock traded to the market capitalization.

MS = the size of the market is the independent variable measured by the ratio of market capitalization to the GDP.

M Con. = the industry concentration of the market is the independent variable measured by the ratio of ten largest companies capitalization to the total capitalization of the market.

M Vol. = the independent variable measured by the ratio of value traded ratio to the volatility of the market in terms of twelve months standard deviation of the NEPSE index.

Ui = the disturbances or the error term.

A bi-variate correlation chart analysis of the above discussed variables has also been employed to study the relationship between those variables.

3.5 Limitation of the study

This research is basically descriptive and it is empirical on analyzing the relationship of market performance with the variables such as market liquidity, volatility and market concentration. The fact that the variables such as liquidity, volatility and market concentration are interdependent to each other limits the findings of the research. In other hands, the return and liquidity is taken as the representative performance indicator, whenever this indicator may not represents all dimension of the performance of the stock market.

The descriptive analysis has been made on the basis of some ratio and other statistics computed on the basis of the secondary data obtained from the various published sources. The relevance of those data is questioned even in those sources, so, the analysis and results may not apply exactly.

This research is not an absolute conclusion of the facts rather it is a step toward the absolute conclusion.

CHAPTER: 04

4. PRESENTATION AND ANALYSIS OF THE DATA

4.1 Descriptive analysis

4.1.1 PERFORMANCE OF THE STOCK MARKET

The level of stock market performance and its impact in the national economy can be measured by employing various indicators; among them following are considered to be the most representative:

Market Index

Market capitalization to paid-up value

Stock Market size

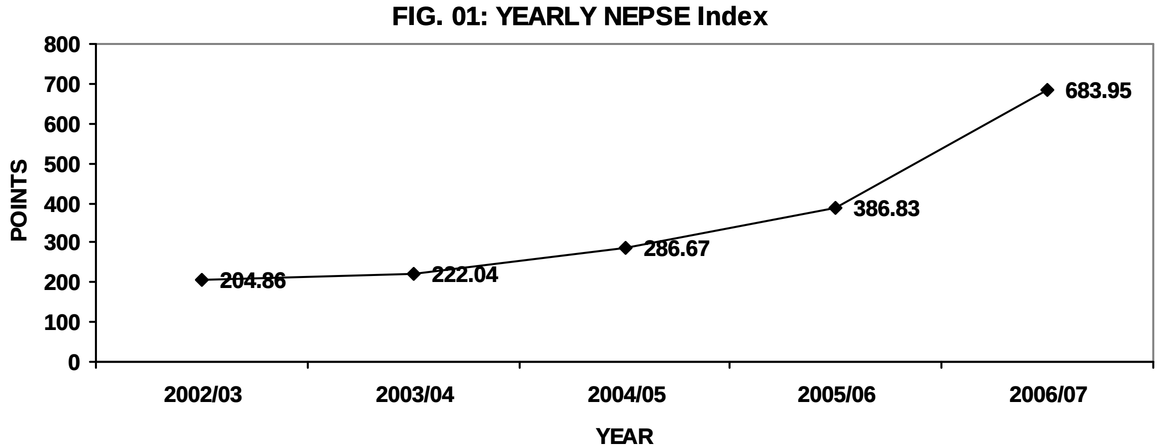
Liquidity

Concentration, and

Volatility

A. MARKET INDEX

Market index is assumed to be a primary and good indicator of the performance and development of the stock market. In Nepal it is popularly known as NEPSE. This index shows the overall performance of the stock price of the listed companies. A steadily growing index is assumed to be good for both investors and suppliers of the stock and for the economy of the nation too. During last decades Nepal has experienced too many socio-political disturbances and those have made their impact on the economy and stock market as well. Closing points for the index for the last five years are shown as in below.

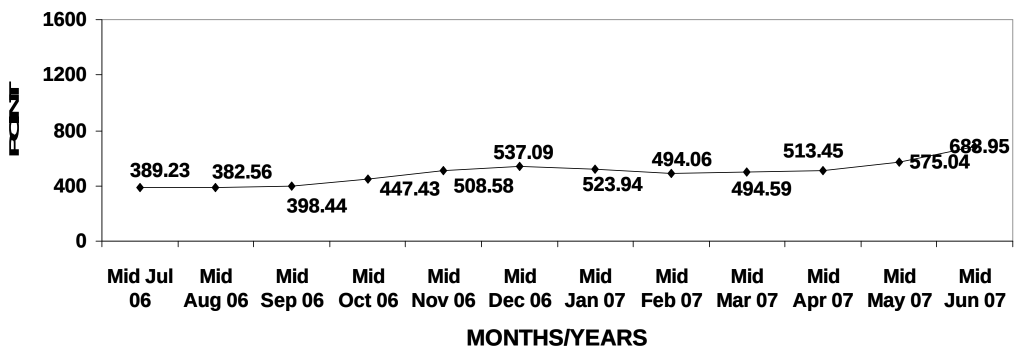


From above figure it can be seen that NEPSE index slightly raised in 2004/05 with 286.67 points is not resulted from the profit earning efficiency of the companies or the growth of economy. It was due to the new investment in the nation became almost impossible and risky which made the savers and investors to think about the liquid investment as the stock investment to earn return from their fund which might have been idle otherwise. This increased the demand for the stock and the supply was almost stagnant, so it gave rise to demand pull price increase of the stocks with result of a sudden surge in the NEPSE index. Moreover the marginal trading as facilitated by some of the commercial bank also contributed the mechanism. The large size of the trade accounted for the commercial banks and other financial institutions rather other sectors such as manufacturing, hotel, trading declined in the period. So the increase in NEPSE is good but could not be taken satisfactorily for the financial market of the country. However it is delighting many of the speculators as in 2005/06 it has touched a point 386.83.

After 2005/06, there can be seen a continuous surge in the index. It rose to attain a 683.96 point in 2006/07.

Considering the NEPSE index for the period of end of the July 2006 to 10th of April 2007, as depicted by the following figure it becomes clear that the index has gone a tremendous increase in the period. It has jumped to points of 487.01 from 378.76 at the end of the July 2006.Due to some investment friendly environment and the increment in the people's habit for saving and investment and also due to the introduction of Hydropower sector, there was improvement in the capital market.

FIG. 02: MONTHLY NEPSE INDEX



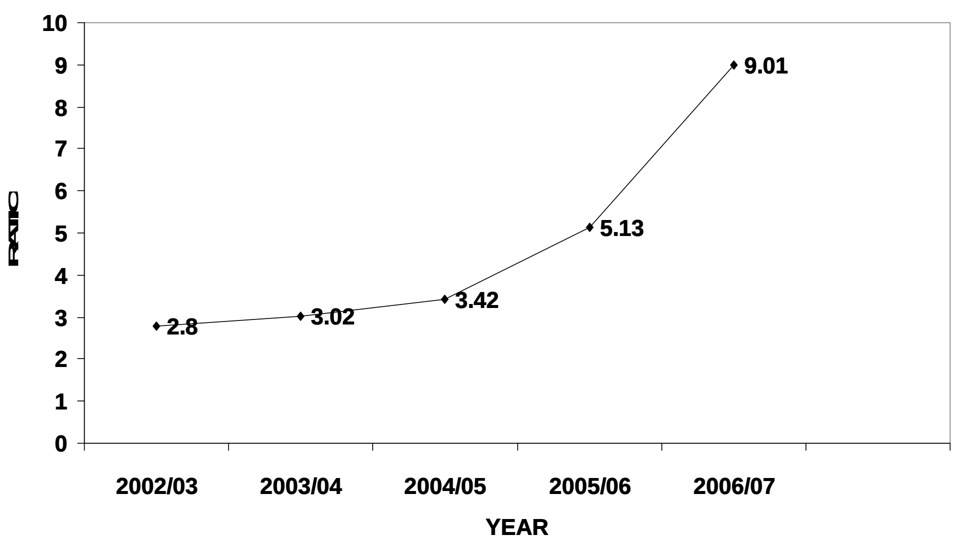
Above figure clearly shows that the last ten months have been a good period in which the NEPSE index has shown a good growth. At mid of Dec 2006 it was at 537.09 and it can be seen dropping to the level of 494.59 in the mid of March 2007.After this there was a slight elevation in it and attained the maximum level of 683.95 points at the mid of Jun 2007.

Above analysis of the NEPSE Index conveys that in aggregate the stock market performed well in spite of the many political and social disturbances. It shows a steady growth and development of the index referring an aggregate price appreciation of the stock listed. Though this steady growth is yielded by the expansions of the banking, insurance and finance sector while other sectors like hotels, manufacturing and trading shows an underperformance for the same period. The next reason why the stock market still grew while the economy was declining is the negligible coverage of the stock market. Even in time of economic problem the market could grow only because it had covered almost a negligible portion of the economy and even in time of economic underperformance it has too much space to grow. At the same time the next reason can be counted as the power of the stock market to provide liquid investment. In the time of risk the investors invested their fund with this market as they found it better option than the long term business investments. This added the demand side of the stocks in the market and helped the price either to stabilize or to grow. It is obvious that the new issues in sector other than banks; insurance and finance companies were relatively low than the expected during the last five year period.

B. MARKET CAPITALISATION TO PAID-UP VALUE

Market capitalization to paid-up value of the stock market indicates the return of the primary market investors in aggregate. A higher return is favorable as it gives confidence to invest in the stock market and keeps the increase the demand side. This ratio for the last five years is given in the following figure:

FIG. 03: Market capitalization to paid up value

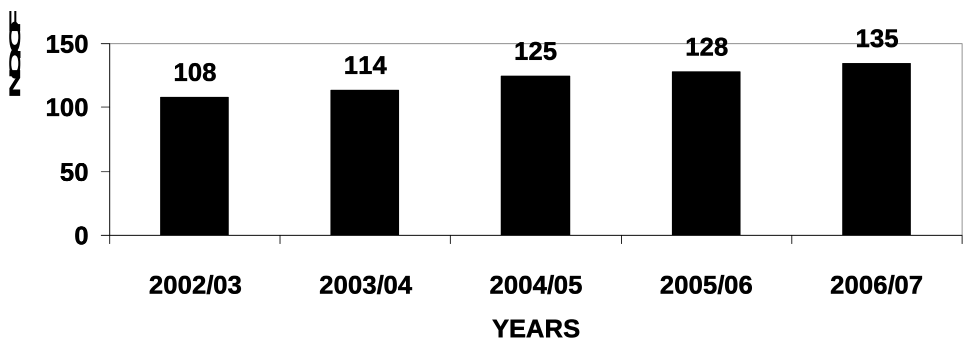


From above figure it becomes clear that the market capitalization to paid-up value of the stock in NEPSE has always been to a good figure. It shows a tremendous growth in year 2005/06 achieving a figure of 5.13 times from 3.42 times at the beginning of the year and in the adjacent year it attained a really great multiple that is 9.01 times. That up-going curve refers that the primary market investor has made wealth and advantage of their investment form the NEPSE. And in aggregate the price of the stocks listed with NEPSE has grown.

C. STOCK MARKET SIZE

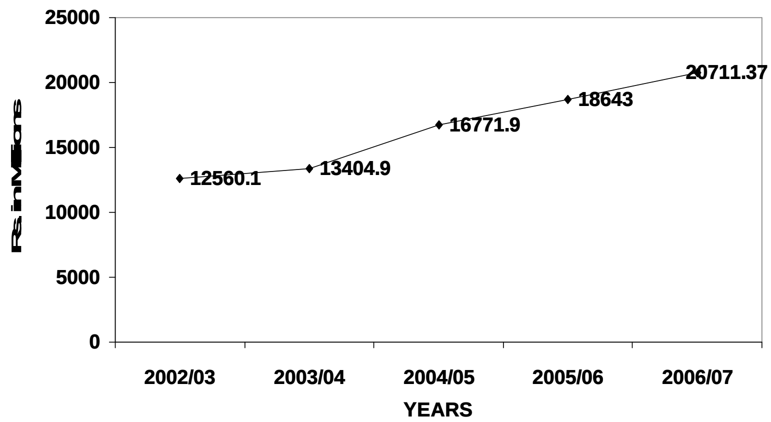
Generally large stock markets are considered to be the developed stock market. One of the measures of stock market size is the no. of companies listed with the stock exchange.

FIG. 04: No. of companies listed



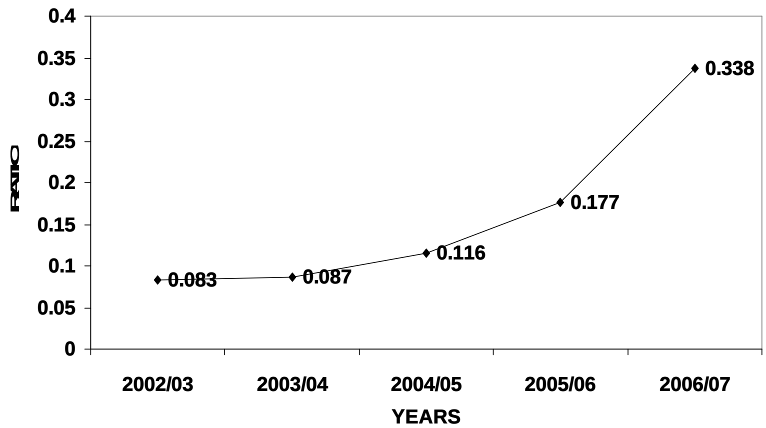
In Nepal the no of companies listed with the NEPSE was 108 in 2002/2003, which increased to 135 in 2006/2007. It is however surprising that despite the increase in the no of companies listed with NEPSE and increase in the paid up value of the issues only about 10% of the companies registered with company registrar as public limited is listed with the NEPSE. Again most of the companies that are listed with the exchange belong to bank, finance and insurance sectors. While only few companies from trading, hotel, manufacture, aviation and power. In the year 2007/08,there was the introduction of Hydropower sector. On the other hands sectors like information technology and construction are lacking which are booming around the globe. This indicates the fact that either firms are not large enough to enter the stock market and/or entrepreneurs are afraid of expansion due to some reasons. Significant increase in the no of companies registered as private limited in comparison to those registered as public limited justify the view. This has adversely affected the liquidity and supply of securities in the stock market.

FIG. 05: Paid-up value of NEPSE



When the No. of companies listed with the NEPSE along with the paid up value of the stocks listed is analyzed it can be seen that the surge of the paid-up value from 12560.1 million to 20711.37 million in the above assessed five years are more contributed from bonus and right shares rather than new issuance. So the above surge of the paid up value of the NEPSE can't be absolutely taken as the increase in the size of the market, the stock exchange seems to be unable to draw interest of the entrepreneurs. This restricts the supply side of the stock market Though demand side of the stock market shows an ample level with a grow.

FIG. 06: Market capitalization ratio

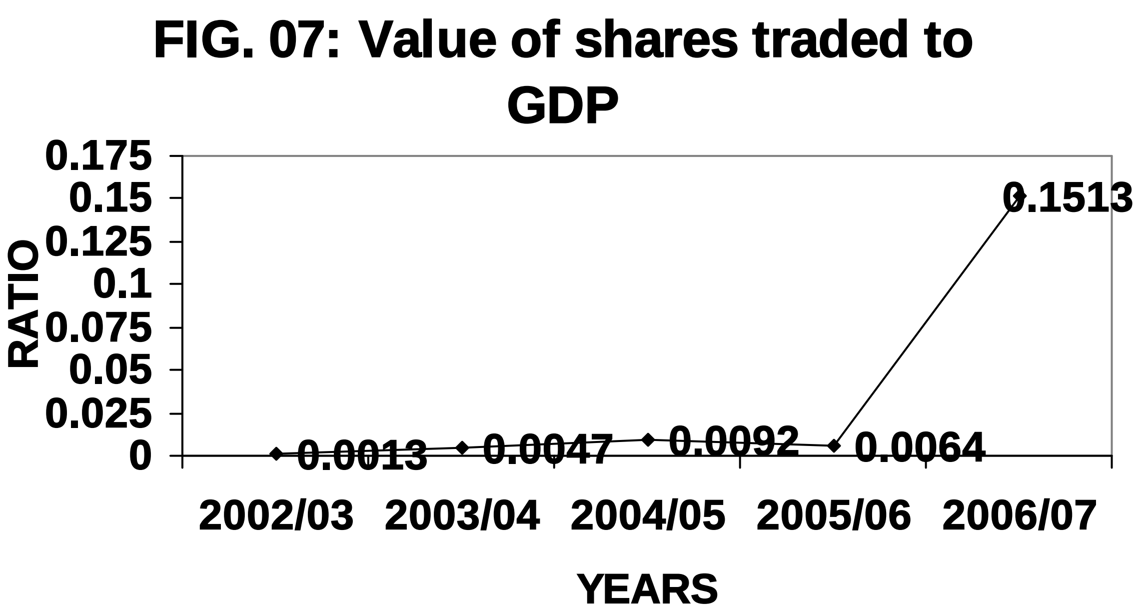


Another important measure of stock market size is the market capitalization ratio, which is aggregate market value of the listed shares divided by the gross domestic product. This ratio indicates the relative importance of stock market to the national economy and assumes the stock market size is positively correlated with the ability to mobilize capital and diversify risk. In the countries with developed stock market this ration is even more than one and many developing countries it ranges between 0.2 and 0.4. It can be seen from the table that this ration is 0.338 in Nepal. It is to be noted that the total market capitalization of the stock market is still more than 30% of the fiscal years GDP.This market capitalization ration in Nepal indicates that stock market is showing its impact on the economic activities of the country.

D. LIQUIDITY

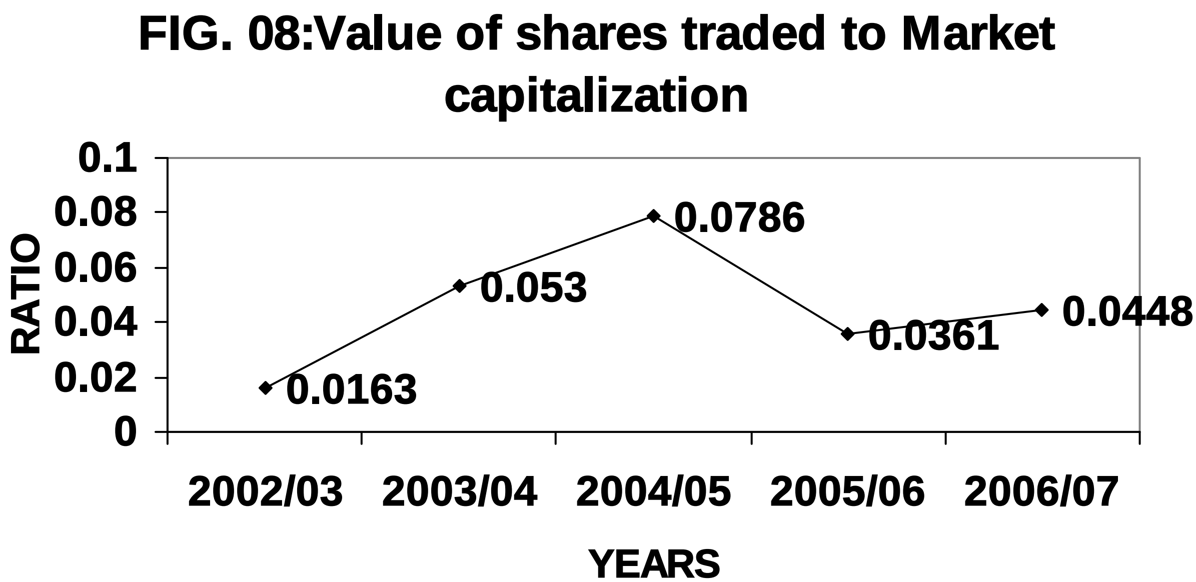
Sometime it is argued that the stock market size as measured by the number of listed companies and the market capitalization ratio is not good predictor of the economic growth and performance of the capital market because it does not take in to account the liquidity aspect of the stock market. It is often seen that in countries where firms are closely held and family controlled, very few shares are actually traded in stock market. In such case market capitalization does not bear significant relationship with the performance of the stock market and economic activity of the country.

Liquidity in the parlance of stock market refers to the convenience and ease in buying and selling securities in the market. By allowing investors to alter their investment portfolio conveniently at any time and low cost, liquidity makes the financial assets less risky. There are two main indicators of market liquidity. One of them is the total value of shares traded in the stock market as a percentage of Gross domestic products. Although this indicator does not measure the cost of trading of shares, it does indicate the extent of ease in trading in stock market in a country. It is expected that the volume of organized trading of the equities as a share of national output increase when such trading is less costly and easy. Evidence shows that countries with relatively liquid stock market tend to grow much faster than countries with illiquid markets.



From this figure and others too, it is seen that in the year 2006/07 there is a huge development in Nepal's capital market. During this period the value of shares traded accounted, on an average, only for about 0.034 of gross domestic product. In countries with developed stock market this ratio is as high as 0.40 and in many developing countries the values of shares traded varies in range of 0.01 to 0.10 of gross domestic product. So it can be a good indicator for the economic development of our developing country Nepal.

This ratio of value of the shares traded to gross domestic product indicates that trading to the equity related to the size of the economy is developing in Nepal. Moreover it implies that the stock market has important role played to provide liquidity to the national economy.



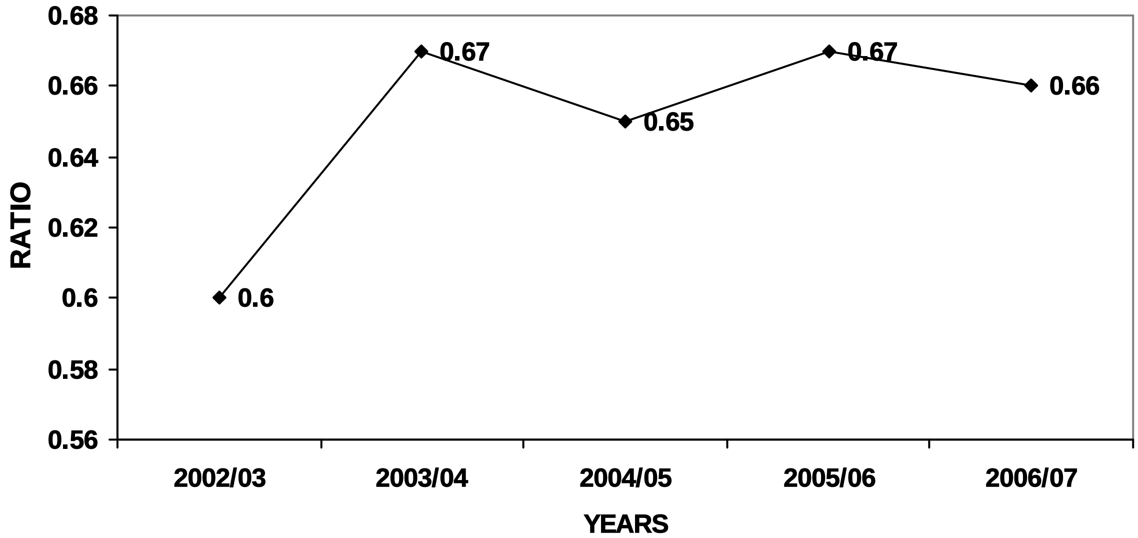
Another measure of liquidity of stock market is the ratio of value of shares traded to market capitalization. This measure, also known as turnover ratio, equals the value of shares traded divided by market capitalization and indicative to the trading relative to the size of stock market. A high turnover ratio may indicate low transaction cost and relative ease of buying and selling of shares. Experience shows that countries with higher turnover ratio develop faster than countries with lower turnover ratio. Countries with small stock market, as measured by the market capitalization ratio, may have a turnover ratio and grow fast. In developed countries this ratio is even more than or very near to one whereas in many developing countries this ratio stands in the range of 0.15 to 0.30. In Nepal the turnover ratio has remained very low during the five year period. As shown by the above figure this ratio was highest with 7.86% in 2004/05, indicating sizable turnover of shares. As shown by the table the value of shares traded to both gross domestic product and market capitalization is on decline since 2004/05, indicating growing illiquidity in the country’s stock market.

Taken together these ratio i.e. market capitalization, value of shares traded to gross domestic product, and turnover, indicate that the stock market in Nepal is very small relative to economy, and highly illiquid. This illiquidity of the stock market can be attributed to the small size of the market and most probably the high concentration of the ownership of the stock. When major no of stocks are held by few no of investors in the stock market it is termed as high concentration. High concentration restricts supply of the stock in the market and thus the liquidity of the market may suffer. At the same time if the market is small with few investors and listed companies; this may too add the illiquidity of the stock market.

E. CONCENTRATION

A country's stock market is considered highly concentrated if few large companies dominate it. In other words, in a stock market which has high concentration shares of few companies account for major percentage of total market value and are traded most frequently relative to stock of other companies. High concentration is not desirable as it adversely affect liquidity of the stock market. Concentration of a stock market is measured by computing the shares of ten largest stocks to total market value of shares. Countries with family owned, closed enterprises and limited number of listed companies have high concentration ratio. Following figure depicts the market concentration ratio calculated on the basis of market capitalization of the stock market in Nepal.

FIG. 09: Market concentraion ratio of NEPSE



Countries with developed stock market has concentration ratio of or below 0.20 whereas in countries with underdeveloped stock market this ratio is found out to be as high as 0.90. In Nepal; as shown by the above figure, the ratio was on an average around 0.65 over the past five years, which indicate that, the market value of shares of ten largest companies account for 65 percent of the total market value. The concentration ratio is even higher when computed on the basis of turnover. This indicates that the stock market in Nepal is highly dominated by the largest ten companies in terms of either market capitalization or turnover. It is interesting to note that of the ten largest companies dominating the market in 2006 nine were commercial banks. High concentration has adversely affected liquidity and significance of the stock market in the national economy.

It is to be noted that a high concentration means the supply of the stocks clusters with some major industries thus the market becomes less efficient to diversify the risk and is exposed to industry risk factors.

As sometime seen in the Nepalese stock market that the demand for some specific stock increases without a serious reason and price gets increased followed with some heavy transactions by the major investors. This has been the reason NEPSE is seen using circuit breakers on the transactions of some specific stocks.

Applying a circuit breaker is never a true solution of the problem. It rather proves the inability of the authority to penalize the offensive act of manipulating stock price in the market. But lack of such provisions and practice, very weak specialists' activities in the stock market has left a vulnerable stock market with threats of price manipulations.

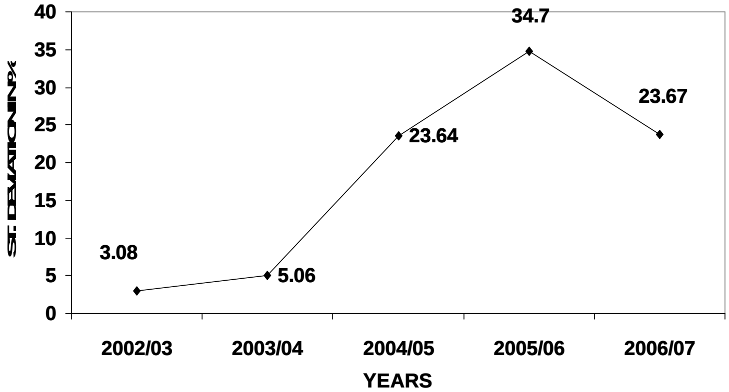
The concentration of the stock market could be diluted by imposing some regulations which compel the companies to sell large part of their equity to the general public.

Next, the activities of the specialists can check such price manipulation as those institutions are to purchase and sell the stocks of the companies on their own account. Doing so they absorb the extra pressure exerted to the demand or supply side of the market by any manipulator.

F. VOLATILITY

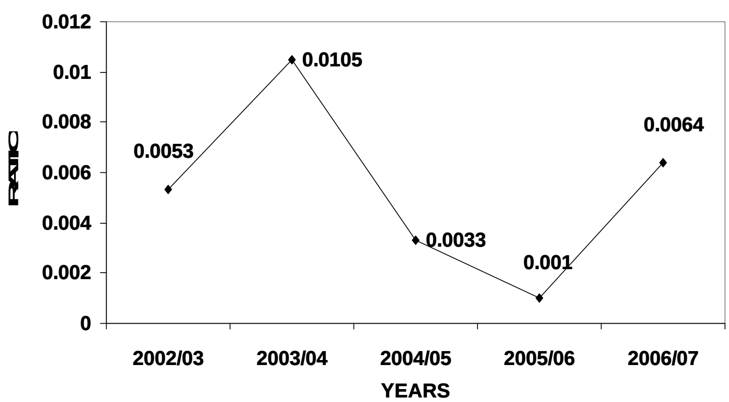
Volatility is one of the important indicator of development and performance of the country's stock market. Although high volatility in the stock market denotes risk in equity investment, it does not necessarily imply undeveloped stock market. It is generally expected that developed stock market absorb risks in financial assets and offer higher return with less volatility. Put simply, it means that as an indicator of a country's stock market development less volatility is preferred. Volatility may be measured as a 12 months standard deviation of the stock market index. Higher standard deviation means higher volatility and more risk.

FIG. 10: volatility of the Nepse



The above figure depicts the 12 months standard deviation of the NEPSE index for year 2002/03 to 2006/07. As shown in the figure year 2002/03 with SD 3.08% and 2003/04 with SD 5.06% are found to be the year with price stability in the stock market. But after 2003/04 the volatility of the market seems to be soaring as the SD has increased by about 5 times of that of 2003/04. It is 34.70% in year 2005/06 .But after that it was retarded and rested at 23.67% in the year 2006/07. More volume of trade with less price fluctuations are preferred over the low volume of trade with large price fluctuations. Since year 2004/05 the price fluctuations are getting larger than the volume of trade.

FIG. 11: Value traded ratio to volatility



Although volatility in stock market in Nepal was high during the initial years, it was in decline till 2003/04; indicating that the equity prices in stock market tended to stabilize during the period. But again the volatility is in increasing trend as it has achieved the st. deviation of 34.70% in year 2005/06, indicating too much price fluctuations. Again as shown by the above figure the value traded ratio to volatility shows an optimal position in year 2003/04 which was characterized with volume of transaction with little price fluctuations. But since then the ratio has taken a declination again showing too much price fluctuations in the recent years.

Analyst argues that developed stock market should not only provide high liquidity but also handle large volume of trading with less price swings. In other words a liquid market should allow large volume of trading with less price swing. In other words a liquid market should allow large volume of trading with less volatility. One of the indicators to measure this is the ratio of value traded ratio to volatility. A high ratio indicates the ability of the stock market to provide liquidity and handle risk. Empirical evidences show that this ratio is a good predictor of economic growth and countries with high ratio has grown much faster than countries with low ratio. These ratios for the stock market in Nepal are presented in above figure. These ratios indicate inability of stock market in Nepal to handle risk relative to the volume of trading of shares.

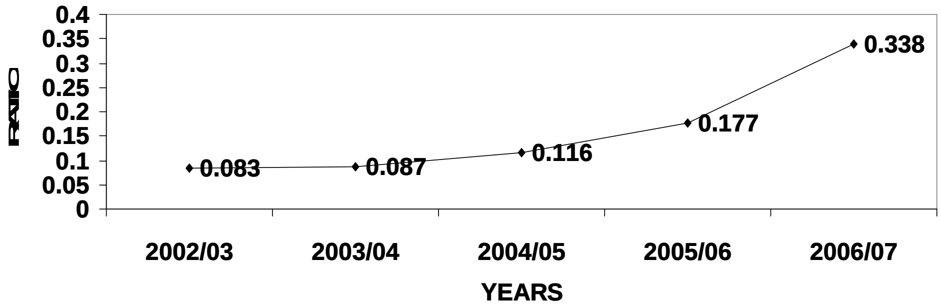
4.1.2 COVERAGE

The term coverage could be defined as the proportion of the total economic activities of the nation taken by the stock market. Nepalese stock market seems to be very thin as it covers very small proportion of transaction as compared to the total GDP of the nation. Moreover, this research employs the instruments indicating the coverage of the stock market as market capitalization to GDP and number of companies' listed, stock investment to total investment, stock investment to saving, segregation of the market sector wise.

A. Market capitalization to GDP

Market capitalization to GDP is a good indicator of the coverage of stock market. It measures the proportionate contribution of the stock market to the national income. A higher ratio is preferable and indicates a large contribution of the stock market in national income. It could be even more than one as it is total capitalization of the stock market to one year national income.

FIG. 12: Market capitalization ratio

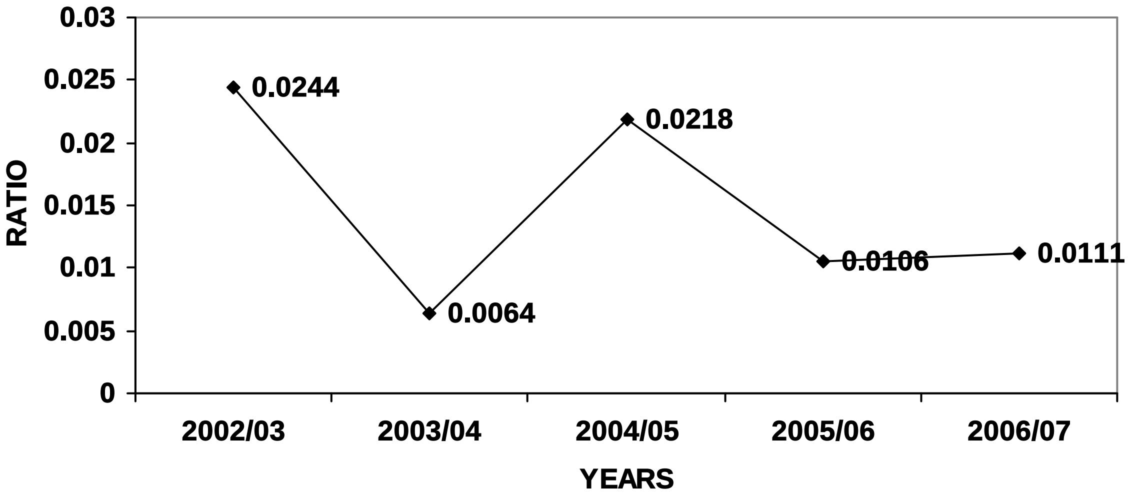


The above figure shows that market capitalization to GDP remained less than even 10% up to year 2003/2004. It clearly speaks of the weakness of the stock market and its failure to cover the economy. However with the increase in the number of listed companies the ratio has increased and reached to 0.338 that is 33.80% in 2006/07. This is a vast development in the capital market. It tells us that the 33.8% of the GDP is covered through the capital market.But it is still not satisfactory because till now the market capitalization of the stock market could not equate GDP of one year that means even today our stock market is weak and unable to develop and expand. Its share in national income is not large and so it occupies less importance. Some research workers argue that this indicator does not give a true picture as cumulative market capitalization is compared to one year national income.

B. Stock investment to total investment

Investment through stock market to total national investment indicates the efficiency of the stock market as a channel of investment. A higher proportion is preferable as it speaks higher efficiency of the stock market to the investment. And the lower proportion speaks the inefficiency of the stock market as a channel of investment. In a developed economy this figure may be as high as 50% or even more. And in developing economy it is in increasing trend.

FIG. 13: Stock investment to National investment ratio

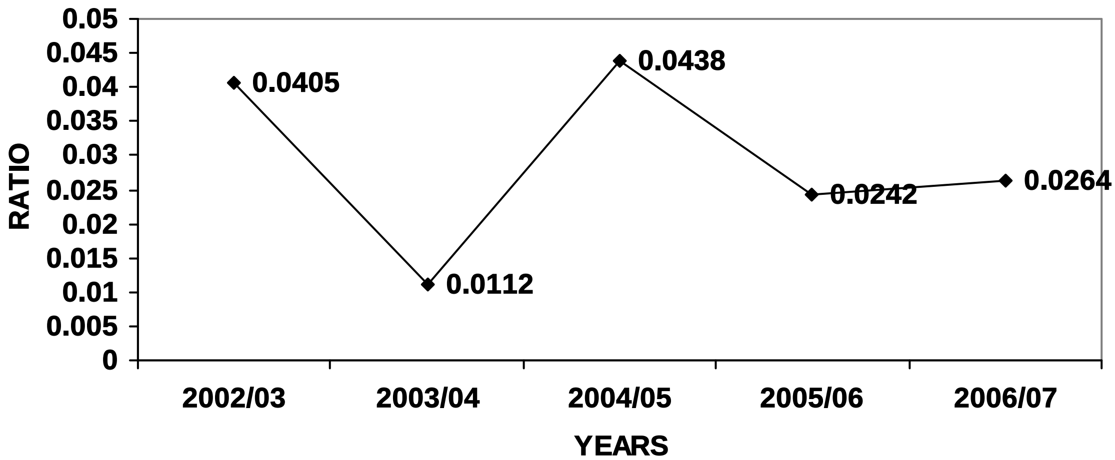


Above figure shows a non definable trend of stock investment to national investment. It fluctuated with a range of less than 1% to 2.44%. And these figures relate to the time when national investments were retarded due to political reasons. And the thing to be worried is that the investment through stock market is almost negligible averaging 1.56% which is far under even 5%. This justifies the inability of the stock market to work efficiently as a channel of investment.

C. Stock investment to gross national savings

This ratio shows the proportion of the national savings invested through the channel of stock market. A higher ratio means a wider coverage of stock market and lower ratio shows the weak coverage of the stock market.

FIG. 14: Stock investment to gross national savings



The above figure shows the proportion of stock investment to gross national savings of five consecutive years. The ratio shows an indefinable fluctuation. Rather it is very small averaging only 2.83% which is negligible. This refers to very weak coverage of the stock market on national economy and may raise question mark on the role play of such stock market on the economic development of the nation which is prime objective of establishing such market.

D. Stock investment to total deposit at commercial bank

Stock investment to total bank deposit is considered as other tool to check the coverage of stock market. Actually banks work as a bridging agent between the entrepreneurs and depositors. In case the market is primitive with very ignorance about the stock market and / or people don't want to assume the risk of the stock market, in such case the ratio will be small showing low interest of the savers in the stock market. In case it is high it speaks the good confidence of the people in the market. So, developed stock market covers a large portion of the people savings.

Table 03: <u>Stock Investment to total commercial Banks' Deposit</u>

(Rs. In millions)

Year	Invest through stock market (Rs.)	Total deposit at commercial bank (Rs.)	Stock investment to Total deposit at commercial bank
2002/03	2875.00	202734.00	0.0142
2003/04	844.90	232576.00	0.0036
2004/05	3367.00	238230.00	0.0141
2005/06	1871.10	269611.00	0.0069
2006/07	2068.37	312480.00	0.0066

SOURCE: Economic Surveys and Tenth Five Year Plan

The above table lists the stock investment to total deposit at commercial banks for the last five fiscal years. The ratio looks pretty small and negligible. It is almost below 1% for the fiscal years 2003/04, 2005/06 and 2006/07. It shows the low confidence of people in stock investment and they rather prefer to keep there money deposited with banks. Again the trends of the ratio too is not well defined as it increased to 1.42% in 2002/03 and again declined to .036% which is the five yr least figure. Again it got increase in 2004/05 with a decline up to 2006/07.

E. Stock investment to loan lend from commercial banks

Stock investment to loan lend by banks also gives some insight of the truth about the coverage of stock market. If we assume the loan lend by the commercial bank were mainly to the corporate sectors, then we can see, if the ratio stands large it refers even being a good opportunity stock market option is not attracting the investors. And if it stands high it refers the stock market investment is wide and rich with good confidence of people on the market.

Table 04: <u>Stock Investment to Loan lend by Commercial Banks.</u>

(Rs. In millions)

Year	Invest through stock market (Rs.)	Loan lend by the commercial banks (Rs.)	Stock investment to Loan lend by commercial banks
2002/03	2875.00	168693.00	0.0170
2003/04	844.90	193270.00	0.0044
2004/05	3367.00	189158.00	0.0177
2005/06	1871.10	212885.00	0.0088
2006/07	2068.37	247585.00	0.0084

SOURCE: Economic Surveys and Tenth Five Year Plan

The above table shows the stock investment to the loan lend by the commercial banks for the last five years. This ratio is never up to even 2%. It refers companies get the required funds mainly through bank loans. The collection of capital or debt through the stock market is negligible. Banking lending takes the major parts of the creation of long term debt and capital of the companies.

F. Sector-wise Segregation of market capitalization.

Sector-wise segregation of the total market capitalization gives an important insight of the composition and structure of the stock market. Actually Nepal stock exchange has segregated the companies listed with it in 8 sectors as followings:

1. Commercial banks
2. Finance
3. Insurance
4. Manufacturing and Processing
5. Hotel
6. Trading
7. Development banks
8. Others

A market with well diversified sectors and large number of listing is considered to be strong and stable. A market with poorly diversified sectors is always susceptible of higher concentration and price stipulation.

Following table lists the market capitalization of different sectors of Nepalese stock market of last three years.

Table 05: <u>Sector-wise Market Capitalization of NEPSE.</u>

(Rs. In millions)

Sectors	2002/03	2003/04	2004/05	2005/06	2006/07
Commercial Banks	19523.54	27958.88	38547.10	68841.24	138086.43
Finance	2056.38	2942.27	3471.50	4930.63	11491.41
Insurance	1894.25	2549.30	3659.86	4852.19	7959.78
Manufacturing and Processing	3857.60	4472.75	4585.66	4619.20	3760.28
Hotel	554.23	1065.86	1016.45	2393.61	1935.59
Trading	525.48	603.53	802.04	737.39	787.40
Development Banks	658.37	796.85	1049.07	1227.49	5980.8
Others	47.25	65.35	4187.73	8012.20	16503.02
Total	29117.10	40454.79	57319.41	95613.95	186504.71

SOURCE: nepalstock.com.

Above table clearly shows the high dominance of the banking sector in the Nepalese stock market. And more to be considered is its trend which is increasing rather than being stabilized or decreased. The capitalization of the commercial bank only covers more than 60% of the total capitalization of the stock market. This might be a main reason, why Nepalese stock market is highly concentrated. Again among the eight sectors four sectors are related to the financial activities. And all the growth and transactions are being absorbed by them outperforming the other sectors.

The volume covered by hotel sector is about or even less than 2%. It is far below than it should be. Till before some year's hotel industries were booming and they were leader in the stock market.

Talking on the manufacturing and processing, this sector has a large coverage in Nepal but the structure of the industries under it is private and partnership organization rather than public companies. So only few numbers of manufacturing companies are able to float stocks and list in stock market. It covers around 10% of the total market capitalization and its share of the total capitalization is in decreasing trend.

Trading companies too have same story as that of manufacturing and processing industries. This sector is not large enough to be established as a public company; therefore most of the trading companies are small and operate under sole trading or partnership structure remaining out of the stock market coverage. Rather they cover a negligible part of the total market capitalization.

Sectors like finance, insurance and development bank has experienced large growth in the stock market. The capitalization of the finance, insurance and development bank sector has almost doubled in the three years period.

Others sector as shown in the table shows a high growth in market capitalization from 47.25 millions in 2002/03 to 16503.02 millions in 2006/07. The listing of Butawal power company and Chilime hydropower brought this much growth in this sector.

4.1.3 GROWTH

Stock market is mostly taken as the economic mirror of the nation in capitalistic economies. Even in mixed economy the importance of the stock market for the economic development and industrialization is tremendous. A growing stock market refers the increasing investment and growing capital which are the pre-requisites for the development of a nation. The stock market of India, South Korea, Japan, China, Thailand etc. has been playing a great role for the economic development of those nations.

The stock market of Nepal is largely represented by the only stock exchange called Nepal stock exchange. In spite of more than a decade of its establishment it is still waiting to experience a true growth and expansion. Though the indices of the market seem to have grown with some expansion too, those growth and expansion prove to be negligible to help the country fairly for economic growth and development. This research has employed following tools to assess the growth of the stock market of Nepal.

Trends of the NEPSE Index

Number of listed companies

Market capitalization

Volume of transactions

A. Trends of the NEPSE Index

NEPSE Index refers to the overall index of the Nepal stock exchange. It represents the performance and growth of the stocks of the listed companies. The following table lists the NEPSE Index of the stock exchange from 17 Jan 2005 to 15 July 2008 both in aggregate and sector-wise.

Table 06: NEPSE Index Sector-wise.

SECTOR	17 JAN 2005	17 JULY 2005	17 JAN 2006	16 JULY 2006	16 JAN 2007	17 JUL 2007
Commercial Banks	255.39	306.52	329.58	437.49	603.43	804.26
Finance	207.65	228.54	245.99	261.37	391.93	471.79
Insurance	238.89	319.95	330.37	381.25	542.89	616.26
Manufacturing and Processing	273.97	276.50	274.42	301.11	322.36	348.63
Hotel	173.97	178.00	179.92	180.77	190.25	251.47
Trading	98.87	123.20	142.83	148.11	148.51	162.19
Development Banks	202.46	241.85	228.82	294.40	550.60	543.58
Others	142.39	347.65	354.12	410.00	688.02	818.12
Hydropower						886.81

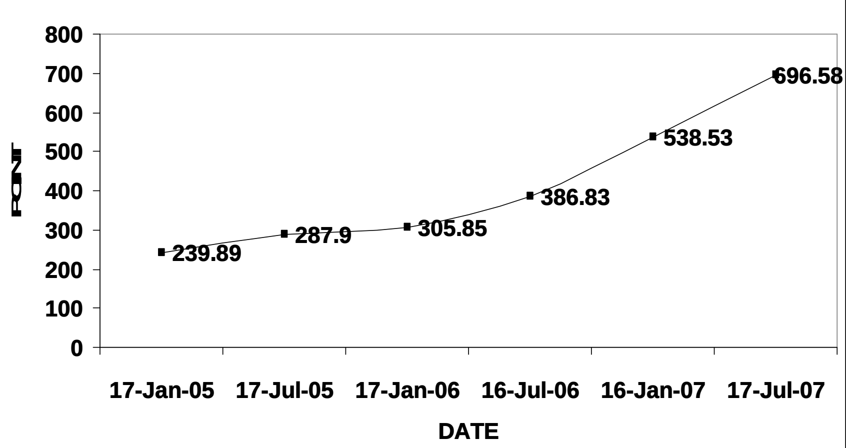
Aggregate	239.89	287.90	305.85	386.83	538.53	696.58

SOURCE: nepalstock.com.

a. AGGREGATE NEPSE INDEX

The aggregate NEPSE Index covers the performance and growth of every stocks listed under it. It indicates the performance and growth of the prices of the stock for the given period. It changes daily on the basis of the prices of the stocks transacted on the floor. The figure below depicts the NEPSE Index for the period between mid of Jan 2005 to mid of July 2007.

FIG. 15: NEPSE Index in Aggregate

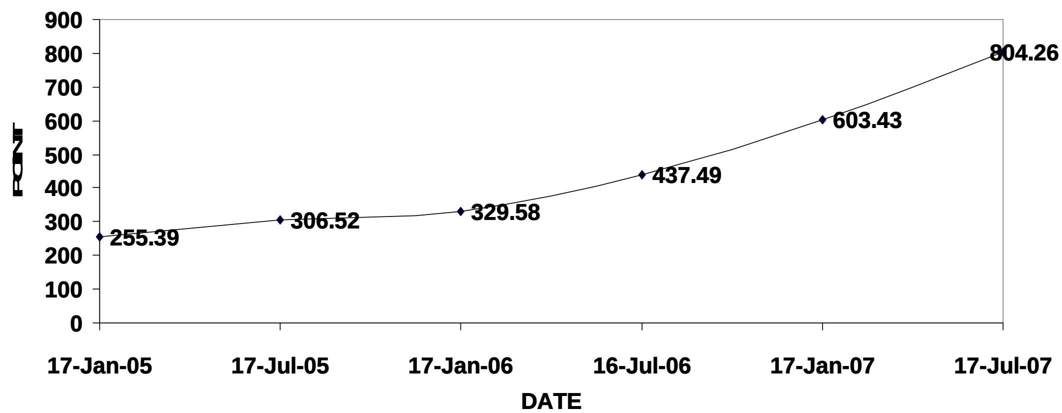


The aggregate NEPSE Index shows the growth of the stock market. It could be seen from the above figure that the NEPSE Index has grown from 239.89 points to 696.58 points. This is an increase by more than 400 points. In absolute, this increase could be taken as a good sign with a steady and growing index. From the figure it becomes clear that the minimum point of NEPSE during the period is 239.89 and it is at the very beginning that is at July 2005 and January 2006 afterward the market took speed and it steadily grew to 696.58 points. Once the NEPSE started to grow from 239.89 onwards it never declined below this point. It all refers that the investors of Nepal stock Exchange have never lost big.

b. COMMERCIAL BANK INDEX

NEPSE Index for commercial bank sector represent the price achievements of the stocks of the commercial banks listed under Nepal stock exchange. After the restoration of democracy and the adoption of open economy system by the government this sector got a lot of foreign investments. This sector largely dominates the NEPSE and it is growing steadily and strongly. The figure below depicts the Index of the commercial bank sector from mid Jan 2005 to mid July 2007.

FIG. 16: NEPSE Index for Commercial Banks

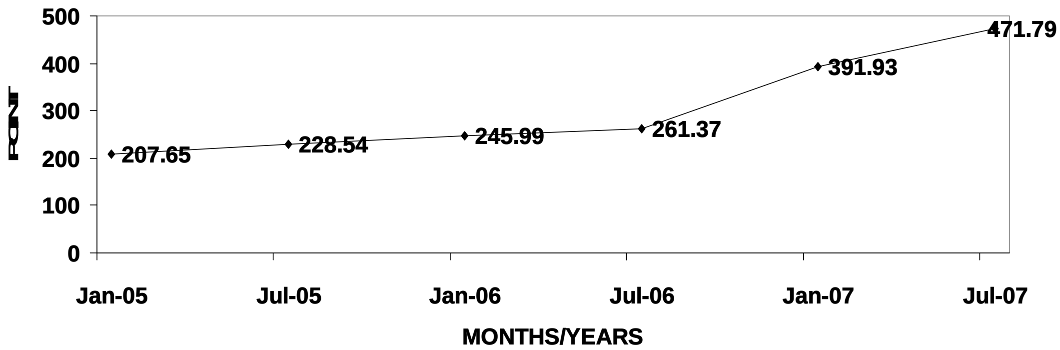


The above figure clearly shows that once the index started from the point 255.39 in mid Jan 2005 it increased continuously up to 804.26 till the mid of July 2007. This is to be noticed that this index never took a down turn. It refers that investors of Commercial bank sector always won they never lost in the market except for Nepal credit and commerce bank. The growth is tremendous for the period of January 2006 to July 2007.

c. FINANCE INDEX

This Index is all related with the price movement of the stock price of the finance sector of NEPSE. This sector mainly includes the Finance companies. Finance companies of Nepal find their business in meeting the mid term and short term loans of the entrepreneurs which are left over or couldn’t be served my the commercial banks because of the small size. And during the past this sector has shown a good consistency and it is appreciable that even during worst socioeconomic condition this sector succeeded to sustain its development. The below figure depicts the index of the financial sector from mid Jan 2005 to mid July 2007.

FIG. 17: NEPSE Index for Finance Sector

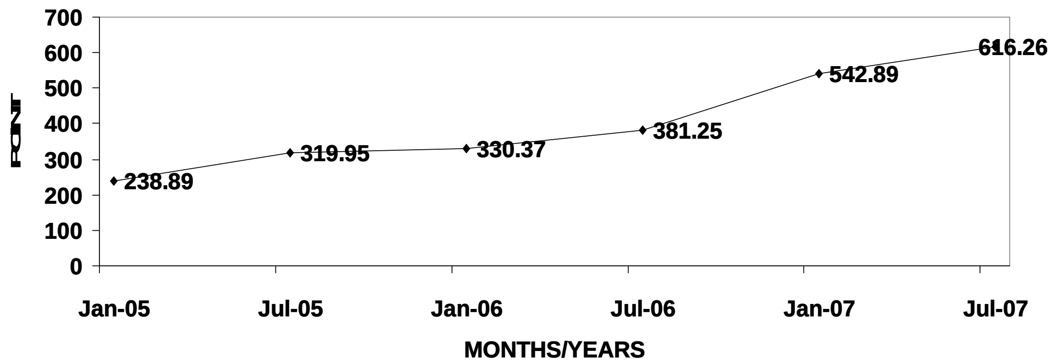


As shown in the above figure the Index grew very slowly from 207.65 at Jan 2005 to 261.37 points at July 2006 then after it got slight acceleration up to July 2007 to attain 471.79 points.

d. NEPSE INDEX FOR INSURANCE SECTOR

This industry was initiated by the establishment of national Insurance Corporation from the side of the government. It remained underperformed for years. After the government opened the sector for private investment, some joint venture insurance companies were established in the nation. During last decade Insurance industry emerged as an important industry in economic periphery of Nepal. The socio-political crisis some how helped it to get market. But this industry too got disturbed by too much socio political violence in the nation. The below figure depicts the index for the insurance sector of the NEPSE for period between Jan 2005 to July 2007.

FIG. 18: NEPSE Index for Insurance sector

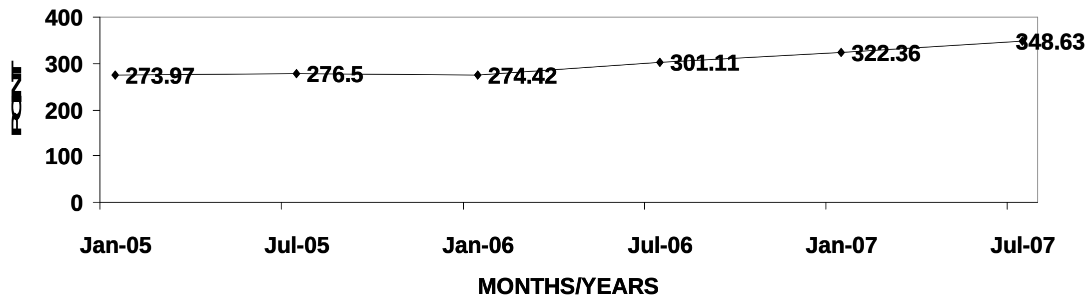


This sector was always at increasing trend during two and a half years period from January 2005 to July 2007 rising to a point of 616.26 at July 2007. Especially the rise took a rapid speed from July 2006 and reached to 616.26 points only in one year period.

e. NEPSE Index for Manufacturing and processing sector

NEPSE covers small number of manufacturing firms operating in the nation. It is because of the national manufacturer are left with high competition and small market. Moreover they are characterized with lack of capital, technology, skilled manpower Entrepreneurship and management and only a few manufacturers dare to invest large fund in the business. So most of the firms are of small or middle scale and they are not appropriate for joint stock form. During the socio and political crisis period this sector was a main sufferer and it is still suffering from many strikes out and political disputes. The figure below depicts the index of manufacturing sector of NEPSE for the period from Jan 2005 to Jul 2007.

FIG. 19: NEPSE Index for MFG and processing sector

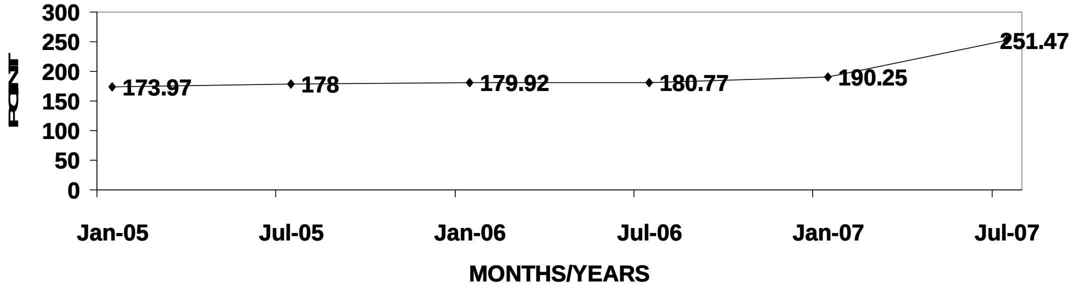


This sector shows that it was able to maintain its position in the stock market even during the period of political and social crisis and it has started to grow with an upturn from January 2006 where it was at 274.42 points up to July 2007 where it touched a point of 348.63.

f. NEPSE Index for Hotel sector

Till before some year's hotel and tourism industry was a best alternative to invest in. But the political and social crisis of the nation ruined this industry and has brought it on the bottom. Till today this industry has not been able to relax because of those too many strikes and political violence. The hotel industry of Nepal was mostly targeted to the tourists. The arrival of tourists decreased tremendously during the last five years because of those political and social violence's. Many states declared Nepal as a non secured place and appealed their citizens to not visit Nepal. This delivered a strong blow on the face of tourism business in Nepal and so for the hotel industry. The figure below depicts the NEPSE Index for hotel sector from mid Jan 2005 to mid July 2007.

FIG. 20: NEPSE Index for hotel sector

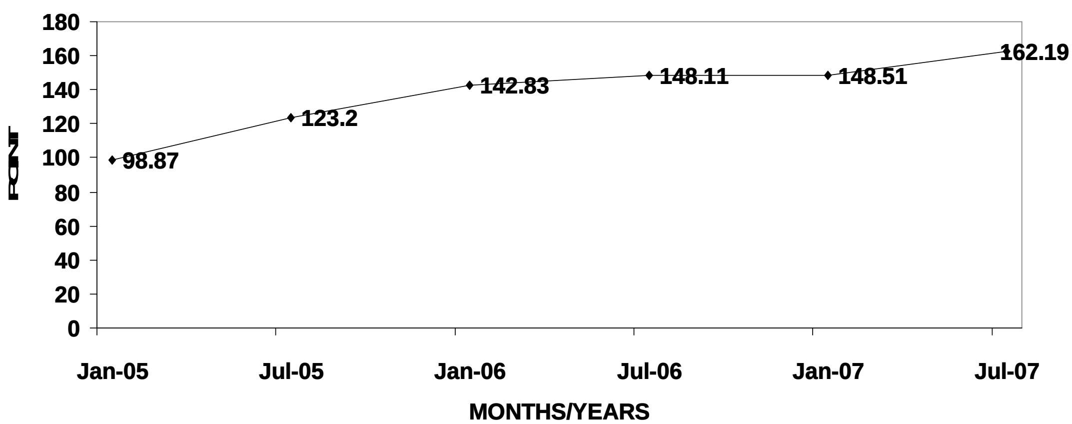


The index in Jan 2005 was at 173.97 points. Here it needs to be noted that this period was bad period for the industry. This is the sector with many downturns in last decade. Though it started to revive from there and has reached to a point of 251.47 in July 2007.

g. NEPSE Index for trading sector

This sector too has same story that of the manufacturing and processing sector. Even up to 16 July 2006 only eight companies were listed with NEPSE despite of the large volume of transactions. This sector also suffered due to the political and social violence. The NEPSE Index for the sector from mid January 2005 to mid July 2007 is depicted below.

FIG. 21: NEPSE Index for trading sector

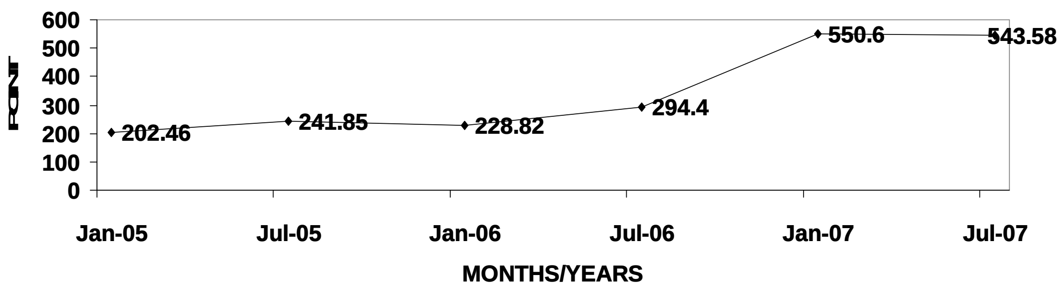


This sector too shows a slow but steady growth. It has grown to 162.19 points in mid July 2007 while in mid Jan 2005 it accounted only for 98.87 points. It shows a moderate growth up to mid January 2007 from mid Jan 2005. And the period thereafter seems to be growing for this sector. This sector has a lot more potential to bounce back provided the climate and opportunities.

h. NEPSE Index for development bank sector

Government initiated some regional development bank for micro-financing the development projects for poverty alleviation. They performed well and independently. So some private sector too invested in the sector. And this sector too has become a good stock investment opportunity for the investors. The figure below depicts the NEPSE Index for this sector for the period of mid Jan 2005 to mid July 2007.

FIG. 22: NEPSE Index for development bank sector

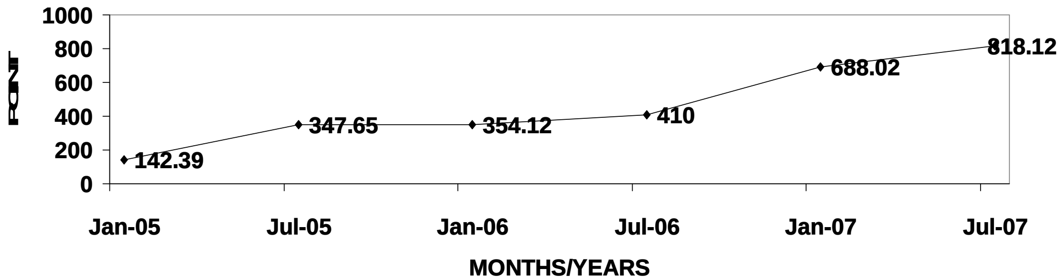


This sector had moderate growth up to the mid of July 2006 and reached to attain 294.4 points. It started to grow rapidly thereafter and reached to a point of 550.6 in Jan 2007.Of the all the growth from July 2006 to January 2007 looks massive. It shows a consistent tends with good upturn but never a drastic downturn.

i. NEPSE Index for other sector

The firms not covered by any of the above explained sector are listed under this sector by stock exchange. Up till July 2006 only 6 companies were listed under this sector. The new entrants being butawal power company and chilime hydropower. But in 2007 these were put in another new sector i.e. Hydropower sector. Those both have potential to grow itself as a different sector. The figure below lists the NEPSE Index of the sector for the period of mid Jan 2005 to mid July 2007.

FIG. 23: NEPSE Index for other sector



From Jan 2005 to July 2006, moderate growth is seen in the index. After that point, it grew from 410 points to 818.12 points within six months time frame. Most of the upturns are associated with the entrance of the big company such as Butawal power company and Chilime hydropower.

B. Number and composition of listed companies

Till 16 July 2007 NEPSE has listed 135 companies. The following table lists the number of companies listed with NEPSE for the period of 2002/03 to2006/07.

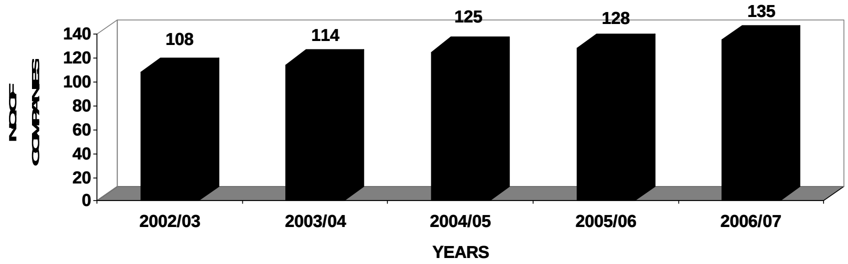
Table 07: Total No. of Companies Listed in NEPSE.

Year	No. of companies listed
2002/03	108
2003/04	114
2004/05	125
2005/06	128
2006/07	135

SOURCE: nepalstock.com.

The growth in the number of companies listed is nominal and is not satisfactory. But considering the political and social crisis and violence it could be taken as positive. Considering the above table and figure below maximum number of companies that is 11 was listed in 2004/05.

FIG. 24: Number of listed companies under NEPSE



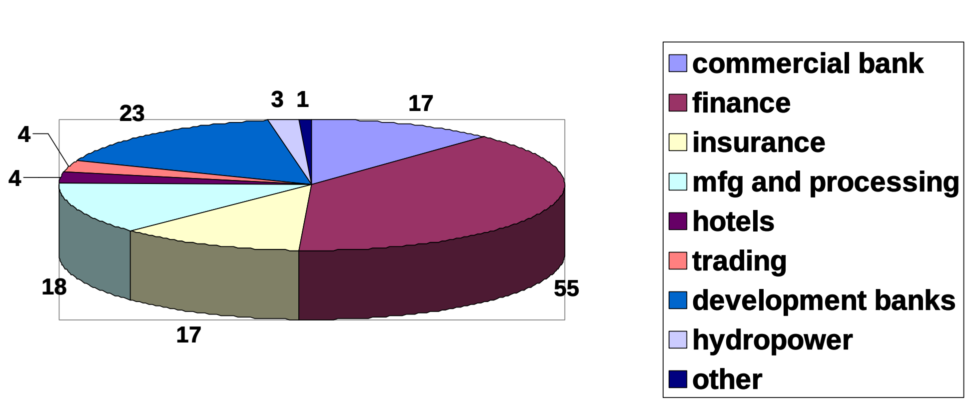
Till 2007/08 142 companies were listed under NEPSE .These are as listed in the table below.

Table 08: <u>No. of Companies listed in NEPSE Sector-wise till 2007/08</u>

Sectors	Number of firms listed
Commercial banks	17
Finance	55
Insurance	17
Manufacturing and processing	18
Hotels	4
Trading	4
Development banks	23
Hydropower	3
Others	1
Total	142

SOURCE: nepalstock.com.

FIG. 25: Number of the companies listed sector-wise



The above table shows that the finance sector is highest in number of listing while other sector is least with only the Nepal Film Development company. Hydropower sector is new with three companies while hotel & trading sectors have four companies each. Manufacturing and processing and trading are well below expectation. Commercial banks, insurance and development bank seems to be satisfactory.

C. Market capitalization

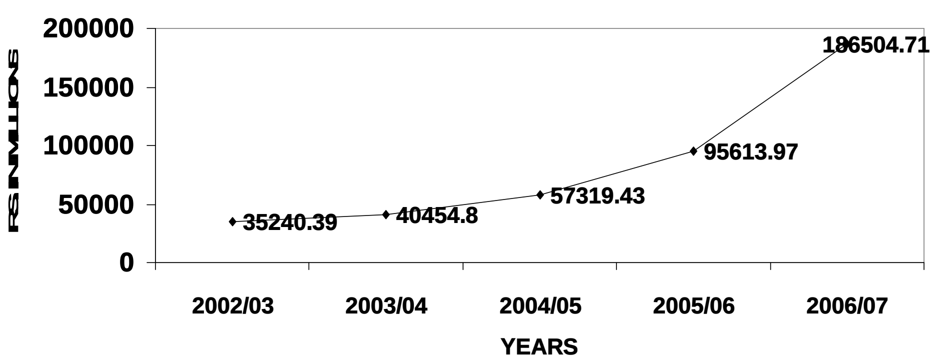
Market capitalization accounts both stock price growths of the listed companies as well as new issues. This makes the market capitalization a good index for assessing the growth of the stock market. Total market capitalization of the companies listed under NEPSE is given as in the following table from 2002/03 to 2006/07.

Table 09: Yearly Market Capitalization.

Year	Market capitalization in millions (Rs.)
2002/03	35240.39
2003/04	40454.80
2004/05	57319.43
2005/06	95613.97
2006/07	186504.71

SOURCE: nepalstock.com.

FIG. 26: Market capitalization in million

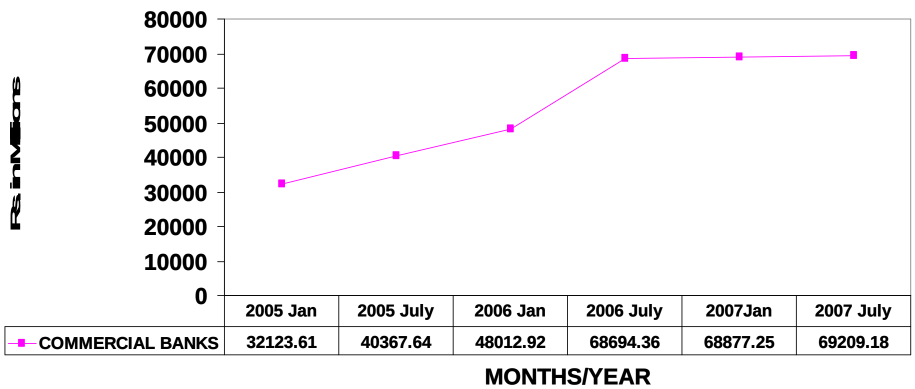


From the above figure it becomes clear that market capitalization of NEPSE has been growing since 2002/03. Firstly the growth was slow and grew to

Rs. 95613.97 millions in 2005/06 from Rs. 35240.9 millions in 2002/03.But it was boosted vigorously to reach up to Rs. 186504.71 millions within a year with the number of new listed companies giving different result. The growth of capitalization for the period of 2003/04 to 2004/05 can be attributed to the new listing because in this year 11 new companies were listed with the stock exchange. But the tremendous growth of the capitalization for the period 2005/06 to 2006/07 is due to a rapid growth of the market price of the stock rather than new issue. It is because in this period only 7 new companies were listed with the exchange.

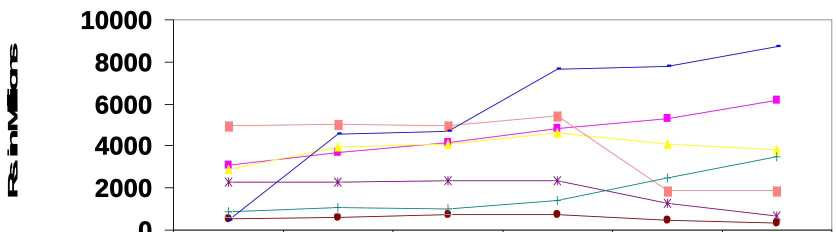
The following figure depicts the market capitalization of the NEPSE sector-wise for the period of mid Jan 2005 to mid July

FIG. 27: Market capitalization of Nepse for Commercial banks Sector



2007.

FIG. 28: Market capitalization of Nepse sector-wise



	2005 Jan	2005 July	2006 Jan	2006 July	2007 Jan	2007 July
Finance	3075.43	3668.57	4168.7	4852.58	5328.67	6162.74
Insurance	2876.62	3962.5	4091.52	4649.73	4125.37	3834.41
Mfg. & Processing	4978.75	5024.83	4987.04	5405.74	1849.15	1911.13
Hotel	2256.09	2308.38	2333.17	2319.21	1258.74	676.85
Trading	510.3	635.88	737.17	746.44	442.25	345.45
Dev. Bank	848.95	1067.67	1021.39	1438.65	2457.61	3523.19
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MONTHS/YEARS

The vast difference between the market capitalization of commercial banks sector and other sectors made it necessary to draw the capitalization graph differently for the commercial bank sector. Above figure depicts that the most grown sector has been commercial bank sector for the whole period. With only 15 listed commercial banks it dominates all other sector and leads the stock market. It counts more than 60% of the whole capitalization of the market and even more. Next finance and insurance sector show a good growth. The both sector has succeed to grow double in the above assessed 3.5 year period. Other sector as shown above started from least and has succeeded to get the second level after commercial bank. This is because the sector was listed with two new and strong companies i.e. Butawal power company and Chilime hydropower which made this sector to grow tremendously. Trading and manufacturing sector shows a less than expected growth which might be because of the political and social crisis. Hotel sector shows a declination as it has declined to a capitalization of 2319.21 million from 2550.61 million in the above assessed period. Development bank has grown too; but the growth has been less than the expected.

D.Volume of transaction

The transaction volume is also a good indicator of the market growth. In aggregate it represents the growth of the stock market, especially that of the secondary market. When it is segregated to the different sectors; it shows the sector with highest growth rate that is transaction and that with the least transaction. It is assumed that the transaction of the growing sector shows growing trends. The following table lists the number and volume of the transactions of Nepal stock exchange sector-wise as well the figures depict the transactions of the market.

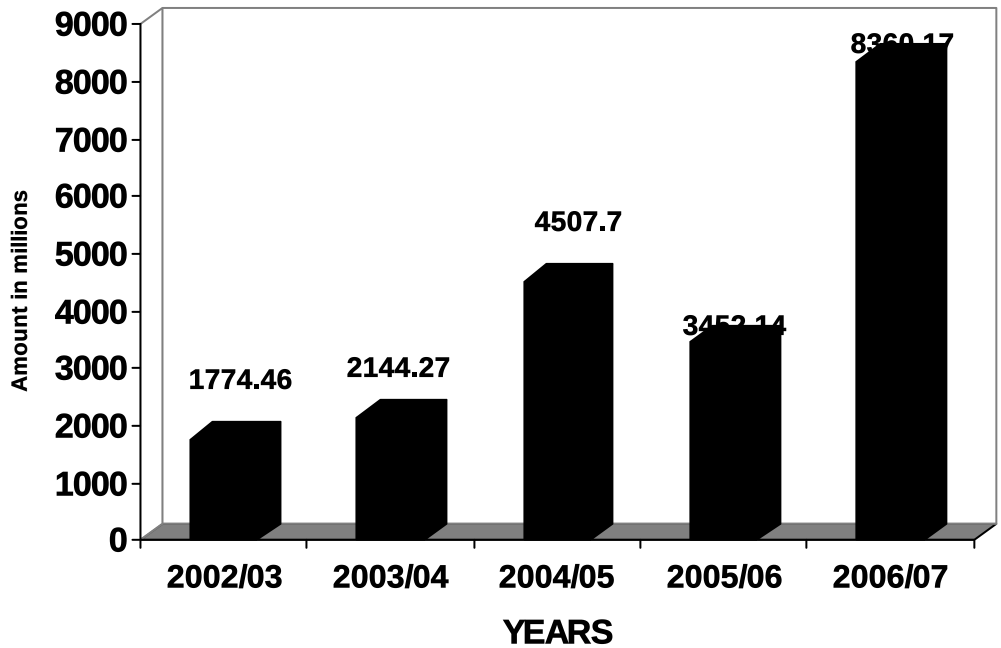
Table 10: <u>Volume of Transactions for year 2002/03 to 2006/07.</u>

In millions

	2002/03		2003/04		2004/05		2005/06		2006/07	
Sectors	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Comm. Bank	18754	625.41	26000	863.41	64966	4021.85	45886	2696.28	8700000	5563.49
Finance	35214	112.20	47920	165.09	27576	216.37	28875	305.85	2534190	713.57
Insurance	6524	28.65	8689	36.86	7340	67.62	6187	129.90	627640	204.97
Mfg. & Processing	152	995.26	163	1031.62	252	114.90	233	17.90	82920	24.27
Hotels	478	2.50	549	2.84	671	4.48	510	19.77	81700	7.14
Trading	53	12.64	51	11.83	49	7.99	66	15.80	11470	10.42
Dev. Banks	1748	26.11	2073	32.33	4836	22.01	4740	82.76	1360480	577.55
Others	60	.34	88	0.29	556	52.48	513	183.88	4748650	1258.76
Total	62983	1774.46	85533	2144.27	106246	4507.70	87010	3452.14	18147050	8360.17

SOURCE: nepalstock.com.

FIG. 29: Transaction Volume of NEPSE



As from the above figure it becomes clear that the transactions of NEPSE increased tremendously in the year 2004/05 with 4507.70 millions; a more than a double figure of that in 2003/04; but in year 2005/06 it again declined with a transaction volume of 3452.14 millions. But again it increased greatly to 8360.17 millions in 2006/07. When those transactions are distributed as per the sectors they belong; as depicted by the following figure:

FIG. 30: TRADE VOLUME OF NEPSE FOR COMMERCIAL BANKS SECTOR

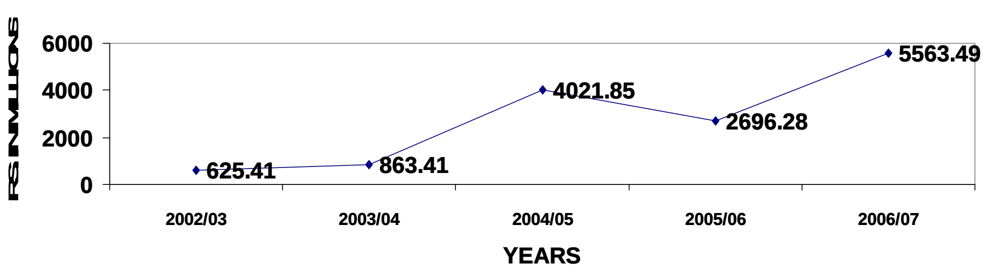
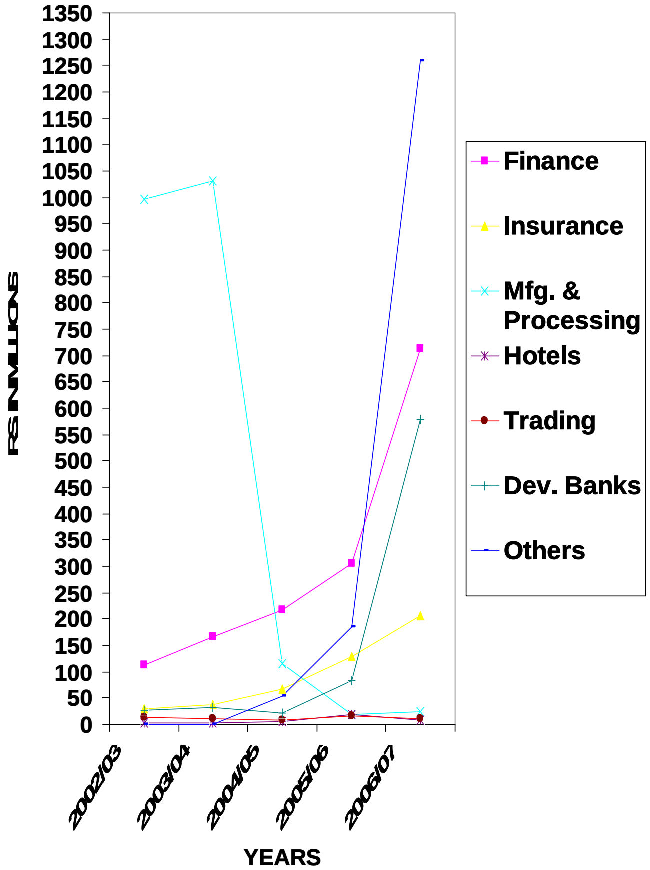


FIG. 31: TRADE VOLUME OF NEPSE FOR OTHER THAN COMMERCIAL BANKS SECTOR



It becomes very clear that most of the NEPSE transactions are made for the commercial bank sector. Commercial bank sector alone covers more than 70% of the NEPSE transaction in average. The fluctuation of the total transaction volume of NEPSE when compared with that of the commercial bank sector clearly shows how this sector drives the total market trend. In the year 2004/05 among the total transaction volume of the NEPSE of 4507.70 millions 4021.85 million transaction volume is obtained by this sector. This sector shows a great growth in year 2004/05 but again it has declined in year 2005/06. Next, finance, insurance and development bank sector shows a steady growth. Other sector also shows a fair growth rate even more than that of insurance and development bank sector. Hotel and manufacturing sector shows a negative growth which justifies their problems due to the political and social crisis. The growth of trading is also somewhat similar to that of manufacture sector. Manufacture sector shows a big declination till the 2005/06 and then it seems to be at the same level in the year 2006/07. The declination of 2004/05 is associated with the bulk transaction of the stock of bottlers Nepal in year 2003/04 which accounted for 1025.60 million volumes unless the transaction of this sector is very small. Similarly the next declination of the year 2005/06 is associated with the transaction of the stock of Himalayan distillery in year 2004/05 which accounted for 93.58 Millions.

4.2 Empirical analysis

The performance analysis has been conducted taking return and liquidity as dependent and representative performance indicator and market size, concentration and volatility as independent variables.

The study has been made on the basis of pooled monthly data of 2005 mid Jan to 2007 mid June, where;

Market return is represented by the percentage change in the NEPSE Index.

Market liquidity is represented by the value of share traded to the total market capitalization.

Market size is represented by the ratio
of total market capitalization to gross domestic product.

Market concentration is represented by the ratio of the capitalization of ten largest companies' capitalization to the total market capitalization.

Market volatility is represented by the standard deviation of the NEPSE index.

4.2.1 Return analysis

When regression of the market return was analyzed with the following model:

$MR = a + b_1\ MS + b_2 MCon. + b_3 MVol. + S.\ E.$

Where;
MR is market return,
a is equation constant,
b_1 is the coefficient of the market size
MS is the market size,
b_2 is the coefficient of the market concentration,
MCon. is market concentration,
b_3 is the coefficient of the market volatility,
MVol is the market volatility,
And S.E. is the standard error.

Table 11: Beta Coefficients(a)

Model		Coefficients B	t	Sig.
2	(Constant)	3.296	.464	.646
	MS	-.135	-.588	.561
	MCon.	-.043	-.338	.737
	MVol.	.875**	3.731**	.001**

Dependent Variable: MARKET RETURN

The above result shows very weak relationship between return and market size with a small valued negative coefficient of -0.135 with no significance while tested with t value.

Again the relationship between market return and market concentration is also negative and small insignificant with a coefficient of -0.043.

But the relationship of market return with market volatility is significant at 1% significance level with a coefficient of 0.875. It implies that the volatility of the Nepalese stock market has contributed to the return of the market.

4.2.2 Liquidity analysis

When regression of the market liquidity was analyzed with the following model:

$MLiq. = a + b_1 MS + b_2 MCon. + b_3 MVol. + S.E.$

Where;
MLiq. is market liquidity,
a is equation constant,
b_1 is the coefficient of the market size
MS is the market size,
b_2 is the coefficient of the market concentration,
MCon. is market concentration,
b_3 is the coefficient of the market volatility,
MVol is the market volatility,
And S.E. is the standard error.

Table 12: <u>Beta Coefficients(a)</u>

Model		Coefficients B	t	Sig.
1	(Constant)	-.175	-.461	.648
	MS	-.819*	1.971	.048*
	MCon.	.004	.571	.572
	MVol.	.009	.701	.489

Dependent Variable: MARKET LIQUIDITY

The above result shows significant relationship between market liquidity and market size with a coefficient of -0.819 significant at 5% significance level.

Again the relationship between market liquidity and market concentration is also small and insignificant with a coefficient of 0.004.

The relationship of market liquidity with market volatility is insignificant with a coefficient of 0.009.

It implies that the market concentration and volatility have no effect over the liquidity of the market. But market size influences the liquidity of the market considerably. Again it also implies that market size has negative relationship with liquidity that is small sized market are more vulnerable of market low liquidity.

4.2.3 Correlation analysis

Correlation analysis yields the results as summarized by the following table:

Table 13: Bi-variate Correlations Chart.

		MR	MLiq	MS	MCon	MVol
MR	Pearson Correlation	1	.174	.257	.029	.476(**)
	Sig. (2-tailed)	.	.316	.137	.871	.004
	N	35	35	35	35	35
MLiq	Pearson Correlation	.174	1	.438(**)	.284	.300
	Sig. (2-tailed)	.316	.	.008	.098	.080
	N	35	35	35	35	35
MS	Pearson Correlation	.257	.438(**)	1	-.492(**)	-.478(**)
	Sig. (2-tailed)	.137	.008	.	.003	.004
	N	35	35	35	35	35
MCon	Pearson Correlation	.029	.284	-.492(**)	1	.159
	Sig. (2-tailed)	.871	.098	.003	.	.363
	N	35	35	35	35	35
MVol	Pearson Correlation	.476(**)	.300	-.478(**)	.159	1
	Sig. (2-tailed)	.004	.080	.004	.363	.
	N	35	35	35	35	35

** Correlation is significant at the 0.01 level (2-tailed).

Market return has positive and significance relationship with market volatility with a coefficient of + 0.476 significant at 1% significance level.

Market liquidity has positive and significant relationship with market concentration with a coefficient of + 0.438 significant at 1% significance level.

Market size has a positive relationship with market liquidity with a coefficient of + 0.438 significant at 1% significance level, positive relationship with market concentration with a coefficient of +0.492 significant at 1% significance level and again a positive relationship with market volatility with a coefficient of +0.478 significant at 1% significance level.

Market concentration has a significant relationship only with market size with a positive coefficient of +0.492.

And market volatility has significant positive relationship with market return and market size with coefficients of 0.476 and 0.478 respectively.

Analyzing the above result carefully, it can be seen that market size has played the key role to determine the liquidity and return of the market. Or in other words, market size is the prime determinant of the market performance for the Nepalese stock market. The size of the market is the main determinant of the market concentration and volatility and again those factors affect the liquidity of the market. As shown by the above result the return is highly influenced by the volatility of the market.

4.3 Major findings

The major findings of this study from each analysis are as following:

Performance

Assessing the performance of the stock market on the basis **of descriptive analysis**; NEPSE Index of the market has grown fairly on the four year period as assessed by this research. The index has achieved a height of 696.58 in the year 2006/07 while it was only 222.04 in year 2003/04. Observing the index closely reveals that during year 2003/04 to 2005/046 the market had a very slow growth due to political and social crisis of the nation. On the 9th of December 2007, it crossed one thousand points. This is a huge surge in the capital market of Nepal. But at present, due to the worldwide recession, it has fallen drastically downwards. Also due to the unstable political environment developed in the country, long term strikes, protests etc. the capital market has been affected in recent days.

Market capitalization to paid-up value of the stock looks quite impressive for the last five years. It never happens to be less than 3 times and got 9.01 times till the end of 2006/07. The massive increment has happened in the year 2006/07.This figure clearly speaks that the primary and long term investors have earned from the stock market. That might be one of the reasons that the market has never a problem of demand.

The size of the stock market looks too small with only 135 listed companies, 186504.71 millions of market capitalization, 20711.37 millions of paid-up value of the listed stock, and 33.80% of market capitalization to GDP ratio; till the end of the year 2006/07. The number of listed companies was 96 till the end of the year 2001/02 and in six year period the no. is increased only by 46. This is not a satisfactory performance. The market capitalization has reached 186504.71 millions at the end of year 2006/07 which was 35240.39 million till the end of year 2002/03. but it still lacks a considerable proportion on national GDP; as market capitalization ratio is only 33.80% of the total GDP of the year 2006/07. Though it has grown to 33.80% from 17.70% till the end of year 2005/06, this is still not satisfactory. It needs to be noted that here the market capitalization is being compared with a single year GDP. Some of the developed stock market bears a market capitalization ratio even greater than one. Further paid-up value of the listed stock has grown to 20711.37 millions till the end of 2005/06 which was only 12560 millions till the end of 2002/03. So this is more than 50% increase. Despite those increase the stock market still looks small and needs to be expand for a better performance.

The stock market looks illiquid for the last five years. The value of shares traded for the year end 2006/07 is 0.1513% of the GDP and 4.48% of the total market capitalization. Even the trends do not look better as the value of the shares traded for the year 2004/05 with a proportion of 0.92% on GDP and 7.86% of the total market capitalization. So it can be clearly seen that the trend may be in decline and the condition is not going to improve on itself. It needs to be addressed by the authorized sector.

The Nepalese stock market is highly concentrated as market concentration ratio when computed on the basis of market capitalization of top ten companies to the total capitalization of the market; is found to be never less than 50% for the last five years. For the year 2006/07 it is 66% which is an alarming figure. The condition and trends even look worse; as the market concentration ratio is in increasing trend. Such a high concentration is disfiguring the demand and supply of the stock in the market. The supply of the stock is under control of some big investors or promoters. This may give them power to control the market and price by creating fake demand in the market. Such actions were recently seen in the market as the prices of some of the stocks were hiking without a reason. The stock exchange timely imposed the circuit breaker to check the ill practice off. But imposing a circuit breaker is neither a long term nor a fair solution of the problem. The market needs to be diluted for a smooth and fair operation. Generally small stock market faces such problem of the high concentration. And the best long term solution of the problem is to expand the market with increasing number of listed companies and stocks. Second the authority may impose compulsory rules to issue more proportion of the equity to the general public. Currently the companies are supposed to issue 30% of their equity to the general public.

The volatility of the market as assessed by the 12 months NEPSE Index standard deviation has been too much since last three years. For the year 2002/03 it was only 3.08%; it got to 5.06% in the year 2003/04 but in year 2004/05 it inclined to 23.64% and for the year 2005/06 it is as maximum as 34.70% and then decreased to a level of 23.67% in the year 2006/07.A high and increasing volatility refers the increasing uncertainty in the stock market and make the market risky for the investment. So a high volatility can harm the performance of the market. Further value of shares traded to volatility ratio always looks negligible. It is never more than 1.05% for the period 2002/03 to 2006/07. This ratio assesses the trade made per unit volatility in the market. The market with high trade for the small volatility is supposed to be good. So this ratio is better with large figure. For the year 2005/06 the ratio is 0.0010 with a volatility of 34.70% which is alarming. Again the value traded ratio of 0.0064 with 23.67% volatility conveys that the market made few trades with too many fluctuations in prices in year 2006/07. When volatility increases with few trades it means the market and price is being influenced by some big investors or promoters.

When the performance of the market is assessed on the basis of the empirical study; taking market return and liquidity as representative index of the performance; the return is found to be associated with market volatility with a beta coefficient of 0.875 significant at 1% of significance level. Market volatility is found to be influenced by the market size with a correlation coefficient of +0.478.

On the other hands, the market liquidity is found to be strongly influenced by the market size with a beta coefficient of -0.819 significant at 5% significance level.

It is found that the market concentration and volatility have no effect over the liquidity of the market. But market size influences the liquidity of the market considerably. Again it also implies that market size has negative relationship with liquidity that is small sized market are more vulnerable of market low liquidity.

Market size has significant correlation with all market concentration, liquidity and market volatility except market return. It has a correlation coefficient of +0.438 with market liquidity, -0.492 with market concentration and -0.478 with market volatility.

Coverage

Assessing the coverage of the market reveals that the stock market of Nepal with 135 number of the companies listed, market capitalization of Rs.186504.71 millions having 33.80% of the years' GDP for the end of

2006/07 though looks better in term of capitalization as its growth has been smooth with Rs. 57319.43 till the end of year 2004/05 and Rs.35240.39 till the end of 2002/03 the no. of listed companies shows a slow increase as for the five year period of 2002/03 to 2006/07 it grows only to 135 from 108. Again the proportion of market capitalization to national GDP of the particular year though growing but it remained as low as 33.80% till the year end of 2005/06 while till year 2003/04 it shows a proportion of only 8.70%.

The coverage of stock market is proved to be low when assessed through the proportion of Stock investment to total national investment; it shows negligible figures for the assessed period of 2002/03 to 2006/07. It is maximum with 2.44% in year 2002/03 and minimum in year 2003/04 with a figure of 0.64%. It is not even 5% of the national investment. On the other hand only 2.84% of the gross national savings are invested through the stock market which is too low of the capacity of stock market. The proportion of stock investment to the deposits at the commercial banks shows an average figure of 0.94%. It refers that either market is not liquid that’s why people don’t take risk by investing in stocks or the proximity and inadequate supply in the stock market may be responsible. Actually our socio cultural background with low professionalism and unawareness about the stock market along with semi developed complicated system depress the proximity of the general public to the stock market. Especially that who resides outside of the Kathmandu valley has very little chance of investing in stock market. The fact that we have only one stock exchange in Kathmandu and again all the stock brokers reside and works in Kathmandu. No stock brokers, dealers, or exchange could be found and imagined out of the valley in present scenario. So how public of those parts will have proximity in the stock market. That’s a major reason why people are happy with those bank deposits and why don’t they invest in the stock market.

Stock investment to total loan lends by the commercial banks averages 1.16% for the last five year period of 2002/03 to 2006/07.
Low financial professionalism among the entrepreneurs, the complicated system and the operating structure of the firms decrease their proximity in the stock market. Rather they find easier to borrow from the bank. This is the reason behind inadequate supply of the stock market.

Growth

The stock market of Nepal looks growing in aggregate. The no. of listed companies has grown to 135 till the end of 2006/07 whenever it was only 108 till the year 2002/03; till Nov 2008 this no. has reached to 150. Looking at the present small coverage of the stock market in national economy, the increase in no. of company listed is not satisfactory yet.

The NEPSE Index shows a great growth in price. In aggregate it has grown to a point of 696.58 till mid July 2007 while it was only 204.41 till mid July 2003. But it needs to be clearly understood that a growing market index may not convey a growing stock market too. Actually a growing market index is the sign of growing stock prices. Though growing prices help the market in its growth; sometimes it may curtail the balance and performance of the market when it is fake and imbalanced. Almost every sector of the stock market shows a growth in its index except the hotel sector. The sector whose index has grown most are other sector whose index grew to point 688.02 till mid Jan 2007 from 48.56 till the mid July 2003; Butwol power company and Melamchi hydropower have contributed much for the growth of this sector. Next, the commercial bank sector has grown to 985.65 till mid Jan 2008 from 199.33 till the mid July 2003. The sectors finance, insurance and development banks too show a fair growth in the market index. Manufacturing and processing and trading sector show somewhat slow growth as compared to the other sectors. Hotel sector has grown to 370.88 till mid Jan 2008 from 196.68 till mid July 2003.

Increasing market index mean increasing stock prices and hence growing market capitalization. The market capitalization has grown to 186504.71 millions till the end of year 2006/07 while it was 35240.39 millions till the end of year 2002/03. The market capitalization of commercial bank sector with 138086.43 millions was nearly $3/4^{th}$ of the total market capitalization.

Looking at the transaction of the NEPSE, in quantity it looks fluctuating and flat as the total no. of transactions made was 85533 for the year 2003/04 and it was 18147050 for the year 2006/07. The value of the transaction shows a little bit increase. The value of transaction was 2144.27 millions for the year 2003/04 then it was 4507.70 millions for the year 2004/05 and for 2006/07 it was 8360.07 millions. So it is fluctuating and shows a positive trends but it looks rather flat in long term. The commercial bank sector shows high turnover with 5563.49 millions of transaction volume. It is almost 67% of the total transactions. Sectors like hotels, manufacturing and processing, trading show very small amount of transactions and perhaps those are the symptoms of being illiquid and highly concentrated. Other sector also accounts for 15% of the total transaction. Finance, development bank & insurance sectors also shows good transactions but those are too small as compared to the commercial bank sector.

<u>Findings sector-wise</u>

The findings of this study about various sectors of the stock market are expressed as followings:

A. Commercial banks sector:

This sector has a capitalization of 138086.43 millions out of total market capitalization of 186504.71 millions of the NEPSE. It makes even more than 74%. This volume proves the industry concentration of Nepal stock market.

The price index for the sector has grown from 199.32 points on 17th July 2003 to 804.26 points on 17th July 2007. It shows a massive and sustained growth till the date. This is why the investors prefer to invest in commercial banks' stock rather than others.

Trading volume of this sector was 5563.49 millions in 2006/07 which is 4.03% of the market capitalization of this sector. This figure looks small and suggests low liquidity of the sector but it makes 67% of the total traded volume of the NEPSE.

Dominance of this sector in NEPSE could further increase; as more number of commercial banks is preparing to operate in the market. The main threats for this sector lie with the increasing competition and limited available business opportunities in the market.

B. Finance companies sector:

This sector has a small market capitalization of 11491.41 millions which makes only about 6.16% of the total market capitalization. It is because of the fact that those finance companies operates in the niche market with small capital; where commercial banks doesn't have access.

The price index for this sector shows huge growth which reached to 471.79 points on 17th Jul 2007 from 207.93 on 17th July 2003.

Trading volume of this sector is 713.57 millions for the year 2006/07. It makes about 6% of its capitalization and 8.53% of the total trade volume of NEPSE for the year. Considering those facts this sector shows a better liquidity than the commercial bank sector but it lacks a considerable proportion in the market.

C. Insurance companies sector:

Market capitalization for this sector is 7959.78 millions on 17th July 2007.

The price index for this sector has grown fairly from 240.64 points on 17th July 2003 to 616.26 points on 17th July 2007. The trade volume of this sector is 204.97 millions for the year 2006/07, it may look small but it needs to be considered that this sector is in its introductory period.

This sector has potential to grow given supportive environment is provided and maintained.

D. Manufacturing and processing sector:

Having a vast scope; manufacturing and processing sector is struggling in NEPSE with only 18 companies listed till 16th July 2006 whereas there were 29 in 2005/06. It has capitalization of 3760.28 millions on year 2005/06; it was 4472.75 millions in year 2003/04.

The price index shows a slow growth as it reached 423.66 points on 2005/06 from 250.13 in 2003/04. The trade volume for this sector with a small amount of 24.27 millions in 2006/07 suggests a high concentration of ownership and hence a controlled supply.

This sector has all the potential to grow in the stock market but small market size with small and medium scale of production makes it inadequate for joint stock structure of company. This might be one of the reason the stock market has low coverage on manufacturing and processing sector. Further, lack of effective policy and weak implementation along with the extended adverse socio-political condition of the nation are responsible for the hindrance of this sector.

E. Hotel sector:

Hotel industry in Nepal is largely affected by the arrival of tourists. It is because this industry got almost shattered by the worse socio-political condition and violence when it was just introducing in the stock market. Drastic decrease in the arrival of tourists turned the industry a bad investment option. After the beginning of peace process, it is doing progress but in a crawling manner. The price index of this sector was 196.68 on 17th July 2003 and increased to 251.47 in July 2007. In fact it was the leading industry earning foreign currency before the political conflicts.

The initiation of peace keeping process has shown some result for this sector as the capitalization of the sector has risen from 1065.86 millions in 2003/04 to 2393.61 millions in 2005/06 but decreased to 1935.59 in 2006/07 and the trade volume also shows growth from 2.84 millions in 2003/04 to 7.04 millions in 2006/07. Once the peace is stabilized this sector has all the potentials to grow and contribute largely to the nation's economy.

F. Trading sector:

Market capitalization of this sector is 787.40 millions. It is because of the small market size, lack of opportunities and entrepreneurial skill along with the weak government policy.

The price index of this sector shows a meek growth to 162.19 points on 17th July 2007 from 94.56 points in 17th July 2003/04. The trade volume is 11.83 millions in the year 2003/04 and has decreased to 10.42 millions in the year 2006/07. This sector too seems to have concentrated ownership hence, controlled supply in the stock market.

G. Development Bank sector:

Development banks were introduced in Nepal with the purpose of supporting the nation's development programs. Some of those are working well in the area of micro-financing and poverty alleviation.

The price index for the sector shows a rapid growth to 543.58 points on 17th July 2007 while it was 247.49 points on 17th July 2003. The capitalization has grown to 5980.8 millions in 2005/06 from 796.85 millions in 2003/04.

Trading volume of this sector has also grown to 1258.76 millions from 32.33 millions.

It is clear that this sector has developed the most. But in long term, these development banks turn them into commercial banks by increment of capital and hence the leadership of the commercial banks can not be challenged by any other sector.

H. Others sector:

Companies from other industrial sectors have been listed with other sector in NEPSE. This sector had market capitalization of 16503.02 millions till 17th July 2007.

Price index for this sector has grown from 48.56 points in 17th July 2003 to 818.12 points 17th July 2007. Market capitalization also shows a tremendous growth to 16503.02 millions in 16th July 2007 from 48.56 millions in 17th July 2003. Trade volume is also grown from 0.29 millions for the year 2003/04 to 1258.76 millions in 2006/07. The fluctuation of the different parameters of this sector is due to listing and delisting of companies. The hydropower companies were initially included in this group but they were again grouped in new Hydropower sector and in 2008 Nepal Telecom was included in this sector. Therefore, such deviation has been experienced.

CHAPTER: 05

5. Summary, conclusions, suggestions and recommendations

Summary

Considering those indicators, NEPSE Index with a fairly growth and at the end of 2006/07 at 696.58with a small market capitalization of only 33.80% of one year GDP again with as high as 66% concentration ratio and a volatility of 23.67 % with 0.0064 shares traded to volatility ratio make clear that the market being small is highly concentrated and some of the big investors might have control over the supply side of the market and they may be able to distort the market price of the stock for their own interest with fake generated demand. High concentration ratio and low liquidity justifies the view that the major part of the equity still clusters on the hands of some big investors. Again the high volatility with small trade volume conveys that some big investors may be influencing the market. It becomes clear that the performance of the Nepalese stock market though seems better with increasing capitalization and growing NEPSE Index; but still the inadequate liquidity, high concentration, high volatility and small volume of market capitalization is messing of the performance of the stock market. Those weaknesses need to be addressed effectively to make the market healthy and strong for better performance. Making attempt to improve the performance without solving those problems can prove trivial.

On the basis of the findings of the empirical analysis it could be concluded that the small market size of the Nepalese stock market is the main reason behind the high concentration, low liquidity and high volatility. Thus, increasing the size and coverage of the stock market shall improve the performance. This conclusion is in accordance with the descriptive analysis.

The coverage of the stock market on different sectors as divided by it looks better in sectors like commercial banks, development banks, finance companies, hydropower companies and insurance companies. The growth of the Development Bank sector and the finance sector are mind-blowing. In two adjacent years, these sectors have established themselves on the capital market. The coverage of stock market on sectors like manufacturing and trading looks fragile. The manufacturing sector of the nation has vast scope but lack of the entrepreneurial skill, size of operation, and somewhat uneasy period of political and social transformation of the nation is disturbing this sector. Once the problem of this sector is solved, it has got every potential to make the national economy. Other important sector hotel and tourism too has not been covered well by the stock market though it is because the sector got disturbed in its midway of development. It too has every potential to contribute to the stock market and national economy once the piece is stabilized and sustained. It needs to be considered that this sector has already played the leader role in the stock market and national economy. Hydropower is a major sector on the stock exchange. Recently the initiation of the government and some foreign private company has already signaled that this sector is going to be an important contributor in the economy. Some small and medium sized hydropower projects like chilime hydropower, National hydropower etc have been established with the Nepalese capital and listed with stock exchange. Big project too could be established with Nepalese capital if investors are attracted toward the sector and stock market could be the most appropriate place. The transformation of the Nepal telecom corporation in to a public limited company can open another sector in the market. Large company like Nepal telecom can help the market to capitalize and increase supply and decrease the concentration and illiquidity. Further transport and aviation, agriculture and herbs, apparels and garment are some of the sectors which could be developed and established to stand as a sector in the stock market and help the development of the nation.

So till now the stock market coverage looks weak on various sectors. Good policy, investment reforms, and pampering those sectors may help them to stand and develop strong in the stock market. Further some of the sectors are already on their way to develop as an important sector in the stock market; those are the communication and hydropower sectors. We can hope that with the establishment and containment of the piece the sectors like manufacturing, hotels and tourism, aviation are going to improve and this all can take the stock market out of the problem and expand to contribute in the national economy.

5.2 Conclusion

This research evolves with the following conclusions about the performance, coverage and growth of the Nepalese stock market.

A. Performance:

1. The growth in NEPSE market index and market capitalization sends a good message about the performance of the stock market to the investors.
2. Investors; in aggregate, have earned from the stock investment in the last five year period with an average of 3 times of the paid up value for the market capitalization / paid up value of stock is about three times in an average for the period.
3. The stock market of Nepal is really small with only 142 listed companies and 186504.71 millions of market capitalization till the end of year 2006/07. This amount is even below 35% of a years' national GDP. It is expected that only about 7% of the public participate in the stock market. And this small in size is adversely affecting the performance of the stock market by increasing the concentration and volatility and decreasing the liquidity of the market.
4. The market is highly concentrated with about 70% of the market capitalization covered by ten largest companies. Banking sectors dominate the whole market from the view point of the transactions and capitalization both. That's why even today the big investors of those big companies hold a control over the supply of the stock in the market.
5. The high concentration has made the market illiquid. Only 4.48% of the market capitalization was traded during the year 2006/07.
6. The market is highly volatile with unreasonable fluctuations in the price of the stocks followed by few transactions. This leads to the concern that the demand of the market might be influenced by some big investors for fulfilling their interest.

B. Coverage:

1. The stock market has an excellent coverage over sectors like commercial banks, insurance companies, finance companies and development banks. It shows weak coverage in sectors like trading, manufacturing and processing, hotels, hydropower, and aviation.
2. The coverage of the stock market is rather narrow in Nepal.
3. Still many industries like communications, herbal products, agriculture, construction, tourism, IT is to be explored.
4. General companies fulfill their capital fund requirement by borrowing from commercial banks or other financial institutions. Only few of them are able to think about garnering capital by selling stock market instruments.
5. Lack of financial knowledge, inadequate structure of the business, small and medium scale of operation, and lack of entrepreneurial skill are the factors which prohibits Nepalese entrepreneur from collecting the capital from stock market.
6. On the other hands establishment and operation of many commercial banks, insurance companies, development banks, finance companies along with pouring no. of individual investors has been evaporating the demand for liquid assets and thus expanding the demand side of the stock market.
7. Thus the supply side of the stock market is inadequate as compared to the demand side. As a result the stock prices and price index is inflating more than it should be.
8. The present problems and limitations of the stock market are largely connected with the narrow base and coverage of the stock market.

C. Growth:

1. The growth in NEPSE price index and market capitalization is more than fair during the last five year period and this has evaporated the demand in the stock market. But the no. of companies listed with the stock exchange is growing rather slow, making the supply side inadequate.
2. Some sectors of the stock market such as commercial banks, development banks, insurance companies and finance companies have

shown a handsome growth both in no. of listings and market capitalization along with the price index.

3. Among them the growth of the commercial bank sectors is tremendous which is alone capable to lead the market growth. The emergence and growth of development banks and insurance companies are also handy in the stock market. Finance companies have shown a sustained steady growth with few fluctuations.
4. Other sectors such as manufacturing and processing, trading and hotels are almost stagnant with very little growth. Price index for those sectors except of hotel has grown but there was no new listing and issues. The hotel sector has rather declined due to the socio-political crisis of the nation.
5. Sectors like hydropower and communication can lead the growth of the stock market in near future. The listing of Butwal Power Company and Melamchi hydropower has already accounted in the growth of "other sector". The conversion of Nepal telecom in to public company limited and its listing in the stock exchange may prove a mile stone in the growth of the stock market.
6. However at present the real growth of the stock market is concerned with the expansion of the coverage of the market in national economy.

5.3 Suggestions and recommendations

It's the right time to address the problems of the stock market before it is too late. It is seen worldwide that stock market can play a vital role in the development of the nation. So government and other concerned authorities of those nations focus on the operation and growth of the stock market. It fulfills the objective of the government for creating employment opportunities with establishment of industrial units which contribute material to the GDP and economic development of the nation.

With the decision of the government to privatize some of the big public corporations; it becomes clear that the government has adopted a strategy of seeking industrialization with participation of the private sectors. For that purpose a well established smooth and strong stock market becomes necessary. NEPSE has a history of more than decade but till it suffers from some serious limitations such as; low coverage, high concentration, inadequate supply, high illiquidity, high volatility and rather slow growth. Those are the maximum drawbacks a stock market could ever have and are sufficient to make the market failure. Those identified problems along with the reasons of their existence are as listed in the following table:

Table 14: <u>Problems of Nepalese Stock Market with their Reasons.</u>

S.N.	PROBLEMS	REASONS
01	Low coverage	Low entrepreneurial skill, inadequate structure of business, size of operation, lack of financial skill and knowledge, etc.
02	Inadequate supply	Low coverage and high concentration along with low growth rate.
03	High concentration	Small sized market
04	High illiquidity	High concentration
05	High volatility	High concentrations with inadequate supply causes demand pull inflation. In short term the absence of specialists' activities in stock market.
06	Low and imbalanced growth	The stagnant economy along with poor government policy and strategy.

It becomes very clear from the above table that the problems of the stock market of Nepal are connected to each other. But the basic problem lies with the low coverage, small size and thus slow growth of the market. Those problems have basically has been creating inadequacy in supply.

The problem of lower coverage of the stock market lies with the structure and level of industrial development and economy of the nation. The sectors like commercial banks, insurance companies, finance companies, and development banks have experienced good growth with adequate level of operation and those are almost fully covered by the stock market. The hotel and tourism sectors experienced a bad period during the last decade with almost decline due to the socio-political crisis of the nation. Their poor performance in the business due to deteriorating environment made the sector a bad investment even in the stock market. On the other hand the sector was just starting to capitalize the opportunity of the stock market while the crisis took place. Manufacturing and processing industries mostly operate with small or middle scale. The lack sufficient demand for the product, lack of competitive benefits along with lack of technology and entrepreneurial skill prohibit the sector to grow and expand. Though some big manufacturing companies are running in the nation but those too are running under private limited. The industries like cement, vegetable ghee, steel, sugar, herbal products, medicines, etc are some industries the stock market hasn't covered. Trade sector too have more or less similar story and the inadequacy of the level of operation make them fall outside of the stock market coverage. But in recent days the establishment of departmental stores and their good performance has brought the hope of this sector to grow. Industries like communication and hydropower which are more likely to enter in the stock market in near future can help the market to expand. Moreover many upcoming hydropower projects could be covered by the stock market. However, the growth of the stock market could be analyzed in two folds; the overall economic performance of the nation to be smooth with a handsome growth. After restoration of the piece, the government needs to capitalize the opportunities of economic development through stock market. Government needs to work with long term plan to enhance the economic activities through capital creation using the stock market. At this situation, stock market is the best option for the government to work with to increase the investment and create capital for overall economic development of the nation. Reforms need to be given for the companies selling equities in the stock market, this will attract the companies to get listed with the stock exchange and help the stock market to increase its coverage. Stock market needs to be presented as a place where resident and non-resident Nepalese along with foreign investors can invest. Primarily reforms may be given on such investment to attract the investors. Government need to enhance the entrepreneurial skills of the Nepalese promoters; establish research units on trade and industrial development, reforms need to be given to those Nepalese industries so that they can compete with the foreign product in term of price as well as technology.

The market still seems to be in the primary stage with high concentration. This high concentration makes the market susceptible of price manipulation. This can be addressed in two ways in short term, one the smooth and strong activity and operation of specialists can absorb the additional demand and supply of stocks in the market and keeps the price stable; and other the provision making compulsion to the companies to sale at minimum 30% of there equity to the general public can be raised. This will dilute the market and help to solve the problem of concentration. In long term the solution could be found by expansion of the coverage of the market with more no. of companies and equities in the market. The increasing size of the market decreases the concentration. It is seen that the bigger stock markets have low concentration than that of the smaller stock market.

The problem of high illiquidity has its root in high concentration and some what lengthy transaction procedures of the stock market. Though the lengthy procedure is secondary matter in the issue and with the recent establishment of automated system replacing the old open cry out transaction method along with increase in the no. of transaction brokers will sure solve the problem. But the original problem of illiquidity lies with the higher concentration and small size of the stock market. So expansion of the market will be the best solution of the problem.

The problem of high volatility does exist in the market because of the inadequate supply with increasing demand of the stock market has created a demand pull like inflation in the stock market. However such inflation is experienced by the sectors which fall within the good investments in expectations of the majority of the stock investors. Those sectors are commercial banks, finance companies, development banks and insurance companies. Moreover the factors like higher concentration and absence of specialists' activities are contributing the problem. In addition to those factors fast changing and liquid socio political environment of the nation makes the market more volatile. However the volatility problem of the market could be addressed in short term by ensuring a strong and smooth activities of the specialists in the market. And in long term the expansion of the market can bring adequacy in the supply side solving the problem for ever.

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ANNEX

TABLE – 01
NEPSE INDEX FROM 2002/03 TO 2006/07
RELATED TO FIG. 01

Year	NEPSE Index
2002/03	204.86
2003/04	222.04
2004/05	286.67
2005/06	386.83
2006/07	696.58

SOURCE: nepalstock.com

TABLE-02
NEPSE INDEX FOR THE YEAR 2006/07:
RELATED TO FIG 02

Months	NEPSE Index
2006 Mid-July	389.23
2006 Mid-August	382.56
2006 Mid-September	398.44
2006 Mid-October	447.43
2006 Mid-November	508.58
2006 Mid-December	537.09
2007 Mid-January	523.94
2007 Mid-February	494.06
2007 Mid-March	494.59
2007 Mid-April	513.45
2007 Mid-May	575.04
2007 Mid-June	683.95

SOURCE: nepalstock.com

TABLE-03
MARKET CAPITALIZATION TO PAID-UP VALUE
RELATED TO FIG. 03

Year	Market capitalization (Rs. In millions)	Total paid value of the listed stocks (Rs. In millions)	market capitalization to paid-up value
2002/03	35240.39	12560.00	2.80
2003/04	40454.80	13404.90	3.02
2004/05	57319.43	16771.90	3.42
2005/06	95613.97	18643.00	5.13
2006/07	186504.71	20711.37	9.01

SOURCE: nepalstock.com

Table-04
Market capitalization and No. of companies listed with NEPSE
RELATED TO FIG. 04, 05 AND 06 (Rs. In million)

Year	Market capitalization (Rs.)	Gross domestic product at factor cost (Rs.)	Market capitalization ratio	No. of companies listed	Paid up value of listed securities (Rs.)
2002/03	35240.39	423635.00	0.083	108	12560.00
2003/04	40454.80	459784.00	0.087	114	13404.90
2004/05	57319.43	491624.00	0.116	125	16771.90
2005/06	95613.97	539106.00	0.177	128	18643.00
2006/07	186504.71	552583.65	0.338	135	20711.37

SOURCE: nepalstock.com and Economic Surveys

Table-05
Measures of market liquidity of NEPSE
RELATED TO FIG. 07 AND 08 **(Rs. In million)**

Years	Values of shares traded (Rs.)	Gross domestic product at factor cost (Rs.)	Value of shares traded to GDP	Market capitalization (Rs.)	Value of shares traded to market capitalization
2002/03	575.80	423635.00	0.0013	35240.39	0.0163
2003/04	2144.30	459784.00	0.0047	40454.80	0.0530
2004/05	4507.70	491624.00	0.0092	57319.43	0.0786
2005/06	3451.43	539106.00	0.0064	95613.97	0.0361
2006/07	8360.17	552583.65	0.1513	186504.71	0.0448

SOURCE: nepalstock.com and Economic Surveys

Table-06
Market Concentration ratio in NEPSE
RELATED TO FIG. 09
(Rs. In million)

Years	M.V. of shares of ten largest stock	Total M.V. of shares	Market concentration ratio
2002/03	21144.23	35240.39	0.60
2003/04	27331.61	40454.80	0.67
2004/05	37583.42	57319.43	0.65
2005/06	64619.48	95613.97	0.67

2006/07	123918.51	186504.71	0.66

SOURCE: nepalstock.com

Table-07
Volatility in NEPSE
RELATED TO FIG. 10 AND 11

Years	12 months NEPSE st. deviation	Value traded ratio to volatility
2002/03	3.08	0.0053
2003/04	5.06	0.0105
2004/05	23.64	0.0033
2005/06	34.70	0.0010
2006/07	23.67	0.0064

SOURCE: nepalstock.com

Table-08
MARKET CAPITALIZATION TO GDP
RELATED TO FIG. 12

(Rs. In million)

Year	Market capitalization (Rs.)	Gross domestic product at factor cost (Rs.)	Market capitalization ratio	No. of companies listed
2002/03	35240.39	423635.00	0.083	108
2003/04	40454.80	459784.00	0.087	114
2004/05	57319.43	491624.00	0.116	125
2005/06	95613.97	539106.00	0.177	128
2006/07	186504.71	552583.65	0.338	135

SOURCE: nepalstock.com and Economic Surveys

Table-09
STOCK INVESTMENT TO NATIONAL INVESTMENT
RELATED TO FIG. 13

(Rs. In million)

Year	Invest through stock market (Rs.)	Total national investment (Rs.)	Stock investment to Total national investment
2002/03	2875.00	118020.00	0.0244
2003/04	844.90	130993.00	0.0064
2004/05	3367.00	154132.00	0.0218
2005/06	1871.10	176483.00	0.0106
2006/07	2068.37	185764.00	0.0111

SOURCE: nepalstock.com and Economic Surveys and Tenth Five Year Plan.

Table-10
STOCK INVESTMENT TO GROSS NATIONAL SAVINGS
RELATED TO FIG. 14

(Rs. In million)

Year	Invest through stock market (Rs.)	Gross national savings (Rs.)	Stock investment to Gross national savings
2002/03	2875.00	70972.00	0.0405
2003/04	844.90	75341.00	0.0112
2004/05	3367.00	76700.00	0.0438
2005/06	1871.10	77438.00	0.0242
2006/07	2068.37	78466.00	0.0264

SOURCE: Economic Surveys and Tenth Five Year Plan.