STOCK MARKET AND FINANCIAL DEVELOPMENT IN NEPAL

By:

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Second Year Symbol No: 2820046

A Thesis submitted to:

OFFICE OF THE DEAN

FACULTY OF MANAGEMENT

TRIBHUVAN UNIVERSITY

In Partial Fulfilment of the Requirement for the Degree of Master of Business Studies(MBS)

Kathmandu, Nepal

August 2012

RECOMMENDATION

This is to certify that the thesis

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"STOCK MARKET AND FINANCIAL DEVELOPMENT IN NEPAL"

has been prepared as approved by this college in the prescribed format of the faculty of Management.

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VIVA-VOCE SHEET

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"STOCK MARKET AND FINANCIAL DEVELOPMENT IN NEPAL"

And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfilment of the requirement of Master of Business Studies (M.B.S.).

VIVA-VOCE Committee:

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DECLARATION

I hereby declare that the work reported in this thesis entitled **“STOCK MARKET AND FINANCIAL DEVELOPMENT IN NEPAL”** Submitted to St.Xavier's College, Tribhuvan University is my original work done in the form of partial fulfilment of the requirement of the Degree of Master of Business Studies (M.B.S) under the supervision of Prof. Shanker Thapa of St. Xavier's College

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ACKNOWLEDGEMENTS

The relationship between stock market development and economic growth has received renewed attention of academicians and policy makers in the present decade both in the developed and developing countries as a result of the emerging equity market phenomenon and of the need to provide liquidity for the developing countries has opened up many avenues for research in the relationship between financial development and economic growth, with focus on developmental role of stock markets. Evidence shows that financial development of a nation overwhelmingly affects its economic growth. In this regard, this study is a small attempt to identify the relationship of financial development and economic phenomenon.

I would like to extend thanks to my thesis supervisors Mr.Shankar Thapa and Indra Bdr. Bohara for his invaluable suggestions, co-operation, support; guidance and supervision to complete this thesis and making this research a product.

I express my grateful thank to Mr. Narayan Dhamala and Mr. Sudip Phuyal, for giving keen interest in completing this research work.

Finally, thanks are also due to all those who were always in my side with best wishes for finalizing this research successfully. I would also like to welcome any comments and suggestions which will be the special guideline to me for research work in future.

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Kathmandu Pratima Dhamala Phuyal

August 2012 (Researcher)

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ABBREVIATIONS

ADB	:	Asian Development Bank
ANNOVA	:	Analysis of Variance
DF	:	Degrees of Freedom
GDP	:	Gross Domestic Product
GDS	:	Gross Domestic Saving
MC	:	Market Capitalization
NC	:	Number of Listed Companies
NEPSE	:	Nepal Stock Exchange
NI	:	NEPSE index
NT	:	Number of Stock Traded
SEBO	:	Security Board, Nepal
ST	:	Stock Turnover
TI	:	Total Investment
V	:	Volatility
VS	:	Value of Shares Traded
VT	:	Value of stock traded
OTC	:	Over The Counter
NMB	:	Nepal Merchant Banking and Finance

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

The relationship between stock market development and economic growth has received renewed attention of academicians and policy makers in the present decade on the general theoretical background that trend and development of stock market affects and is affected by economic growth (K.C.; 2004:25). Therefore economic and stock market variables should be explored and analyzed in order to examine the associations among them. Thus this is a small attempt towards that end.

Capital market plays a crucial role in mobilization of saving and changing financial resources for expanding productive capacity of the country as well. Here, capital market is the place where securities are traded. Capital market can be classified into two ways viz. primary capital market and secondary capital market. The primary capital market is the market where the first time issued securities is traded. On the other hand, secondary capital market is market where securities are traded in second time (Kharel and Sharma; 2004:132).

The depth and breadth of capital market is very substantial and broad. Due to the efficient capital market, a vast network of intermediaries like capital market players, brokers and dealers meet together to conduct large size of transactions. Even today the sophistication has reached to do capital market transaction by Internet connection. Various capital market participants exist in every nation's capital market. At present, many financial institutions have been developed to encourage the flow of funds in capital market in our country. Capital market can further be classified into two groups: securities market and non-securities market. Stock market is major component of securities market (Shrestha and Bhandari; 2005:139).

Stock market is a medium through which corporate sector issues shares in the market to finance productive projects. Similarly stock market provides the best investment opportunity to the investors. Thus, the efficient use requires a well functioning capital market to facilitate the process.

The stock market also imparts liquidity to security holders. This offers an opportunity for investors to invest in the long-term ventures:

Market also enables them to convert their securities into liquid cash before the maturity of the project.

An organized security exchange provides a fixed place at which trading in securities is made possible. The organized security exchange is a voluntary association that endeavors to maintain a smoothly operating market place. Organized securities exchange provides not only market place for securities but at the same time; furnish facilities to the members for trading in securities. Furthermore, the organized securities exchange provides liquidity for investors to sell their holdings at the time of emergency-fund needed and render a direct service to the industries to raise capital from the market.

The history of Nepal Stock Exchange can be traced back to 1976 when the government established Securities Marketing Center 1976. It was later converted into Securities Exchange Center. In earlier years of its establishment, the center confined its activities in trading government securities. It started listing and trading corporate securities in November 1984. The center was converted into Nepal Stock Exchange in 1984 and operates under Securities Exchange Act 1983 (Shrestha and Bhandari; 2003: 113).

Within a short history, how stock market has been moving or what is the trend of stock market, whether the trend is same or different within different periods is the issued to be addressed. The issues and trend of paid-up value, turnover and capitalization etc. are to be checked to assess the future trend of stock markets and build investors' confidence towards the investment in stock. Further, securities market cannot remain alone from the different micro and macro environmental factors. Hence, it is relevant to examine how different macro economic factors affect stock market behavior in Nepalese context. Gross Domestic Product (GDP), Gross Domestic Savings (GDS), Total Investment (TI) etc. are some of the macro economic factors to be examined if these factors have any impact upon stock markets in Nepalese context. These all reveal the relationship of securities market with national economy and sensitivity of stock market with the economic level of the country.

1.2 Statement of the Problem

The stock market movement in Nepalese capital market is one of the important areas to be addressed. Information on stock-market movement provides a reasonable basis on which different participants can base their decisions.

In Nepal, the listing of shares and their trading in the stock market is a recent phenomenon. The Nepalese stock market is said to be characterized by early stage of growth and limited information available to investors. In this regard development of stock market to enhance financial market and economic growth of this nation to be analyzed and this is a small attempt toward that end. Likewise, it is the need to check how stock market affects and is affected by different macro environmental factors. Conceived in this way, following are the issues on which this study has been centered:

1. What is the trend of stock market in Nepal? Or what is the trend of paid-up value, turnover, capitalization and other stock market variables in Nepalese securities market?
2. How significant the presence of stock market is for national economy?
3. What sort of relationship exists between NEPSE Index and various macros economic indicators?
4. What is the relation of stock market to financial development and economic growth of the country?

1.3. Objective of the Study

Stock market is the most important branch of security market. In our country, it is said that, stock market is slowly developing according to needs of the economy although they are not sophisticated as in the market of the advanced countries. The equity market is taking its ride on a slow pace is affected by different economic and non-economic events. Equity market most of the time tends to be inactive due to unsatisfactory financial performance of the public limited companies. In this context, it is relevant to address the security market, stock market trends and movement. Furthermore, this research has been conducted to accomplish the objectives as follows:

1. To assess the trend of stock market and its variables
2. To identify the development of stock market and economic growth.
3. To explore the relationship of stock market indicators with different macroeconomic indicators.

1.4. Significance of the Study

Stock market movement helps to know about the real capital market situation of the nation. The policy maker from any sector can develop suitable strategies and implement them by means of action plan considering the stock market movements. Current research tries to highlight the stock market movement in Nepal. It takes some macro–economic factors such as GDP, GDS, and TI etc. The security trading is booming business in Nepal. Similarly, Nepal is moving towards the free and open market system regarding the stock market. In this manner, it is expected that this study will be more useful and helpful for the concerned parties. Current research will provide more information regarding stock market including market trend, relationship between stock market movement and related macro economic factors.

Investors can assess how market fluctuations affect their investment and return. Similarly, government can take advantage of the study to form economic and financial policy and to review its policy reforms. Likewise security broker, market maker, researcher, and other interested parties can take advantage of the study in one or another way.

1.5 Research methodology

Although many researcheswere done to find the major conclusions about stock market amd its relation with economic growth of the country,this may be one of the milestone among them.Therefore,suitable research methodology as demandedby the study is followed. SPSS software is used for the correct and reliable information to be obtained.

1.6. Limitations of the Study

Followings are some of the limitations and hindrances that occur in course of conducting research:

- Data from the year 1994 to 2010 have been included in the study.
- ***Unavailability of the data may limit the scope of the study.***
- Secondary data have extensively been used. The reliability of results depends on these data. .
- There were innumerable variables having some degree of relationship with stock market indicators but some of them like GDP, GDS, and TI etc. have only been taken into consideration.
- Only selected financial and statistical tools have been employed for analysis purpose.
- All the results of statistical test are extracted using a computer software program called SPSS.

1.7. Organization of the Study

This research has been organized in the manner below:

Chapter I: Introduction: The first chapter deals with introduction. This includes background, statement of problem, focus of study, objectives of the study, significance of the study, limitation of the study.

Chapter II: Review of Related Literature: Second chapter presents review of available literature. It includes review, book, reports, journal, previous thesis etc.

Chapter III: Research Methodology: Third chapter explains the research methodology used in the study, which includes research design, sources of data population and samples, methods of data analysis of etc.

Chapter IV: Presentation and Analysis of Data: The fourth chapter presents the data collected different sources. Based on the data analysis of stock market has been performed.

Chapter V.: Summary, Conclusion and Recommendation:

The fifth chapter summaries the main conclusions and offers suggestions for further improvement.

After completion of these five chapters, a list of literature that reviewed earlier is included alphabetically in **bibliography**. Likewise, data, information, calculation sheet etc are incorporated in **appendix**.

CHAPTER TWO
REVIEW OF LITERATURE

In this chapter, some of the basic literatures on the stock price movement are reviewed. It includes literatures regarding theories on the topic and review of the empirical evidences of previous studies.

The first section of this chapter contains a brief description of the theories of the stock price movement. It includes the technical analysis, fundamental analysis and efficient market theories. The second section provides reviews on empirical experience of previous studies.

2.1 Conceptual Framework

2.1.1 Financial System and Market

Financial market facilitates the transaction of financial assets like deposits, loan, bonds, securities, stocks, cheque, bills etc. Financial market refers to all the activities of financial institution those transact on financial assets and liabilities.

Financial market is defined as place where fund supplier and fund borrowers are brought together with the help of financial intermediaries directly or indirectly. These intermediaries channel nation's savings into most productive uses. Lenders or suppliers of funds exchange money for other financial assets that tend to provide a better future return. The net effect such a transaction is that they buy a claim against some one's money holding at some future date. In fact, they create loanable funds in the financial market (Hemming and Pigott; 1975: 11). Financial market in functional perspective is a rational system of collecting savings and allocating them efficiently to the ultimate users for investment in productive assets or current consumption (Kidwell and Peterson; 1981: 25). Like wise Mishkin (1992), Baye R. and jansen W. (1996), Mayo B. (2002) consent that financial market is the arrangement that helps to allocate resources efficiently.

Financial market can be better understood with a full fledged knowledge on their various types and categories. The lines of demarcation are not clear cut in practice. Even then for the purpose of simplification and made it understandable, financial market is classified in the following order:

- **Capital market**

Capital market is an important part of financial market. The market in which long term financial instruments, such as equities and bonds, are raised and traded is capital market (Definitions and data notes, world Development report 1989:9).

Capital market securities include such marketable debt securities with maturities of a year or more and equity securities. Most of associated markets come under the scope of capital market. In fact, capital market deals with longer term and relatively riskier securities. All those who needed longer term funds depend on capital market. Likewise, business and industries issue shares and other securities to raise funds from capital market. In the context of our own country, capital market is slowly growing as well as improving. Growth of capital market has made it possible for the public limited companies to raise the long term capital by issuing shares and other industrial bonds to the investing public. On the whole, capital market is proving very significant to enhance the country's financial sector development. It is mainly because capital market as much more diverse than those found in money market. Capital market is further classified into Stock market, Money lenders and Local Businessmen etc. Thus one can observe that stock market is the important part of capital market.

Money market

Money market is also known as short-term financial market. The financial market in which funds are borrowed for short borrowed. Generally money market trades and commercial papers, certificate to deposit, short-term bond & Government treasury bill.

The money market is founded on the large amounts of funds, which companies, banks and other financial institution wish to hold in highly liquid form to meet short-term fluctuations in their finance. Generally, the money market is divisible under two sector – organized and unorganized.

- **Primary market**

The company to trade in the capital market issues the new securities. Here the securities of large business firms issued for the first time are bought and sold. The issuer company of such securities may directly sell through private placement without underwriting to the investors. Besides, the securities may be sold after being made underwriting by the institution like investment bonding. The issuer company collects amount and invests in the productive sector to earn the profit.

- **Secondary market**

Secondary market provides the liquidity and marketability opportunity to stock market. Stocks are traded second time in the agreement of buyer and seller in the stock market. Stock market either may be OTC Market or registered market. There is the provision of secondary market. For this the secondary market can be sub divided in two parts as below.

Stock market

Stock itself represent an ownership position in a corporation (Shrestha and Bhandari; 2005:188). By purchasing a share of a corporation, a person can be a shareholder with some degree of control over the company. Hence common stockholders are the owners of a corporation, and as such, they have certain rights and privileges. Common stock provides several rights to the stockholders. Stockholders enjoy right to vote, right to dividend, and right to have right- shares etc.

Stock market is also a mechanism to bring buyer and seller together to deal on stock through the primary or secondary market (Thygerson; 1992:69).Common stock is most preferred financial instrument to finance the assets of firms, so in most of the country stock market bears large amount of total securities market.

2.2 Theories of Stock Price Movement

There are two approaches to explain share price fluctuations. Market efficiency is the basis for both approaches. Conventional approach has considered that market is inefficient, which includes technical analysis theory and fundamental analysis of theory. Contrary approach was argued the market is efficient under which there are forms of efficient market hypothesis. "Prior to the development of the efficient market theory, investors were generally divided into two groups: fundamentalists and technician" (Reilly; 1986: 347). Based on incorporation of various type of information set with spend and accuracy in pricing stock there are three forms of efficient market theories such as weakly efficient market or Random walk, semi-strongly efficient and strongly efficient market theory.

2.2.1 Technical Analysis Theory

Technical theory involves study of the past volume and price data of the stock in order to predict future price fluctuations. This approach studies various graphs and charts of the past share price and deduce from the analysis about the future price movement of seeking to interpret- past pattern on the assumption that history tends to repeat itself (Kean; 1983:11). Main assumptions of the technical theory are as follows (Levy; 1966:348):

(i) Price is determined by the interaction of demand and supply.

(ii) Demands and supplies are governed by various factors, both rational and irrational.

(iii) Series of price content trends that persist for appreciable length of time.

(iv) The changes in trend caused by shifts in demand and supply are detectible in the analysis of past price and volume data, and

(v) The patterns tend to repeat it self.

Technical analysis discerns past pattern or trend, which they believe to repeat in the future and recommended for the timely holding and disposing mechanism which is profitable or that recommended for short-term speculation based in its forecast of profitable patterns.

The technicians usually attempts to predict short-term price movements and thus makes recommendations concerning the timely of purchase and sales of either specific stocks or groups of stocks (Sharpe and Alexander; 1990:683).

2.2.2 Fundamental Analysis Theory

Fundamental analysis theory claims that at any point of time an individual stock has an intrinsic value, which is equal to present value of future cash flows from security discounted at appropriate risk, adjusted discount rate. "The value of common stock is simply the present value of all future income which the owner of share will receive"(Francis; 1986: 398). And the actual price should reflect the intrinsic value of the stock i.e. good anticipation of cash flows and capitalization rates corresponding to future time period. But in practice first, it is not known in advance what a stock's income will be in the future period, and second, it is not clear what the appropriate discount rate should be for a particular stock. So fundamentalists attempt to reach best estimate of the intrinsic value of share by studying company's sales, profit, dividends, management competency, and numerous other economic and industrial factors, which determine its future income and prospect of business opportunities. "Fundamental analysis delves into companies, earnings, petition, market conditions, and many other factors" (Francis; 1986:425).

Since in world of uncertainty, the anticipation, of values cannot be known exactly, there will be disagreement on the option about the estimation among the market participations. Then actual prices fluctuate closely around the economic value of share, because too far than true value is profitable for the participants and they do not miss to exploit the situation. Over the time, with continuous generation of new information related to company's coming prospect, the instructive value of changes. As a result, price stocks just to intrinsic value. The actual of securities therefore is considered to be function of a set of anticipation. Price changes as anticipation changes which in turn change as a result of new information (Bhalla; 1983: 283). Whenever the stocks are priced over or under the true value of stock, the recommendation of sales or purchases is called for "after extensive analysis, the investors derive an estimate of the 'intrinsic' value of security, which is then compared to its market price. If the ‘value’ exceeds the market price, the security should be acquired and vice versa. (Reilly; 1986:347) following this rule they believe, above – average return can be attained, given that market is inefficient in pricing the shares.

The two theories explained above have assumed that the pricing of the shares in the market is not efficient. Therefore, while making investment decision, technical analysis theory suggests for the right time of purchasing and selling whereas fundamental analysis theory recommends for the selection of appropriate stocks. Another approach to describe share price behavior has supposed that the market is efficient in pricing the share. The detail explanation of efficient market theory is followed in the following section.

2.2.3 Efficient Market Theories

Market efficiency may be defined in the context of number of areas for instance organizational efficiency, investment efficiency and so, on. The word "efficiency" as applied to securities market has unfortunately been used to represent a variety of logically distinct concept. In particular, it may mean as follows (Rubin stein; 1979: 812):

(a) Exchange efficiency (b) Production efficiency (c) Information efficiency

However, in this study it is concerned only with informational efficiency in pricing of stocks efficient market theory contends that in tree and perfect competitive market, stock price always reflects all available information and adjust instantaneously every influx of new information In an efficient markets, security prices "fully reflect" available information (Fama;1977: 133).

About the assumptions of the efficient market theory, Fama asserts that first it is easy to determine sufficient conditions for the capital market efficiency. For example, consider a market which (i) there is no transactions costs in trading securities (ii) all information are cost Less available to all market participants, and (iii) all agree on the implications of current information for the current prices and distribution of future prices of each security. In such a market the current price of a security obviously " fully reflects" all available information. Similarly according to Rubinstein " In a perfect and competitive economy composed of rational individual with homogenous beliefs about future prices, by any meaningful definition present security prices must fully reflect all available information about future prices (Fama;1975 :812).

The subject to market efficiency has been much concerned area of the study for the academicians and researchers in recent times. An initial and very important premise for the efficient market is that there are large numbers of knowledgeable and profit maximizing independent buyers and sellers as such new information is generated randomly and investors adjust the information rapidly (Reilly; 1986:166).

An efficient market is concerned with the pricing mechanism of securities market, it has two dimension of price adjustment one is the type of information reacting to and another is the speed and quality of security to the information. As any random infusion of information instantaneously and correctly adjusted in prices the will be no subsequent dependencies or lags that are profitable. Pricing not only should be instantaneous but should discount accuracy of information so that the prices fluctuate closing around its intrinsic value. So Kean rightly pointed out," It would be clearly an odd interpretation of efficiency if a doubling in the price of share were regarded as an efficient reaction to new information, simply because the movement was instantaneous, it the information in fact warranted a substantial reduction in the price (Kean; 1983:9).

Agreeing with the view of Kean, Francis and Taylor noted " Market efficiency refers to the ability of financial assets to quickly adjust and reflect all the information that is relevant to value in its price’’ (Francis and Taylor; 1986:12).

The efficient market theory being extreme hypothesis i.e. prices fully reflected all the information, cannot be tested in the empirical data in its precise form. However, postulating pricing mechanism with the types of information jet being impounded in the stock market. It can be done. There are three form of market hypothesis depending upon types of information set impounded into the prices. If the pricing in the stock market has absorbed, all the information will be available in the stock market. It is considered as weakly efficient and participation of the technical analysis approach in the market becomes futile. In this market past information has already been discounted in price, so excess profit cannot be derived from the investment strategy based on past information. If current prices of the stocks reflect all the publicly available information i.e. past price and volume data and all the published accounting information, the market is semi- strongly efficient. In that market, even fundamental analysis of the published accounting information has no value, because it would have been discounted by participants accurately and instantaneously when are disclosed. When stock prices fully reflected all the relevant information i.e. published and unpublished that have impact on the future prices, the strongly efficient market hypothesis is hold. In this market, insider information cannot beat the market because no single participant has monopolistic access to that kind of information.

These three levels of efficiency described above are not indifference each other but they are serially higher in degree of market efficiency. If the market is semi-strongly efficient, it must be efficient in the weak sense also because the past prices data is one form of published information, which must have been important for the price. If the market is not efficient in weak sense, past price information could be used to predict the future prices to exploit abnormal profit. It implies that information contained in past price has not been reflected fully into the current prices. Similarly, for the market to be strongly efficient it must also be efficient at the semi-strong and weak levels, otherwise prices are not reflecting all relevant information. These literatures are the brief description about the theories of stock market prices. In the following section, detail explanation of weakly efficient market or random walk theory will be explained, testing of which the prime objective of this study is so that it makes clear about the study traced in the succeeding chapter. Following factors are included in efficient market theory:

2.2.4 Theory of Weakly Efficient Market or Random Walk Hypothesis (RWH)

The weak form of efficient market hypothesis (EMH) states that current prices fully reflect in information contained in the historical price movements according to Kean "The market is efficient in the weak sense if share prices fully reflect the information implied by all prior price movements. Price movements in effects are totally independent of previous movements implying the absence of any price patterns with prophetic significance'' (Kean; 1983:10). So, the past prices have no meaningful information to predict future course of price fluctuations, which can be used to earn above average return. The movements of future prices are independent from previous prices or the series of price changes are random phenomenon. Actually, the weak form of EMH is referred to as random walk theory of share price behavior."… Weak form efficient market hypothesis is popularly known as the random walk theory" (Fischer and Pardon; 1995: 540).

Random walk theory implies the future path of price level of a security is no more predictable than the path of a series of cumulated random numbers. The series of price margins has no memory, that is past can't be used to predict the future in any meaningful way. It means that current size and direction of price changes is independent and unbiased outcome of previous price changes. The random walk models in pristine form in two main hypothesis states that (i) successive price change are independent and (ii) The price changes conform some probability distribution (Fama; 1965:35). Statistically independence means the probability of distribution for the price change during the time period't' is independent from the sequence of price changes during previous time periods. Mathematically,

$$Pr\ (x_t = x\ [x_{t-1}, x_{t-2}----) = Pr\ (x_t = x)$$

In above equation, the term on the left side of equation is the conditional probability that price change during the time will take the value x, conditional on the knowledge, the previous price changes too the values x_{t-1}, x_{t-2} etc. But the term on the right of the equality is the unconditional probability that the price change during t will take the value x. The expression means the distribution of an independent random variable are identical (Gupta; 1981:.31).

Out of two hypothesis of random walk theory, independence of successive price changes is strong and most important one to make theory valid. The second one is price change conforms to some probability distribution but its shape or form of distribution need not be specified i.e. any distribution is consistent with theory as long as it correctly characterized the process generating the price changes (Fama; 1965 :35-41). However, the parameter of the distribution should be stationary but not so strongly imposed if independence hypothesis is hold true. However, still the form of distribution if price changes are important from investment decision, academic and research point of view (Gupta; 1981:.41).

Proponents of random walk recognize that in general, perfect independence assumption doesn't exist in real world. So, they argue that for practical purposes small degree of dependence does not isolate random walk hypothesis as long as it cannot be used to forecast future to earn more than average market return. Random walk model is valid as long as knowledge of the past behavior of the series of price changes cannot be used to increase expected gains (Fama; 1965:35).

For practical purposes, independence hypothesis is accepted as long as the degree of dependence considered in the series of price changes is not sufficient to forecast the future from the historical price movements in a way it makes higher profit than they would be under the naïve by – and – hold policy.

Actually market mechanism establishes the existence of random walk theory that the successive price changes to be independent. The stock market poses steady inflow information that influences the set of anticipation of the individuals. There are some information that have whole market wide impact such as change in monetary and fiscal policy on security prices and information have an effect on industry wide impact such as change in governments tax policy on specific industry. There is information such as announcement of earnings and dividend that affect price of the particular security. The change in the set of anticipation resulted from either of the above information is unique to each individual and may be caused by psychological and other factors, which impinge them to bid on prices of the securities in the market. There are other groups of participants who estimate the intrinsic value of individual securities from the received information. As Fama advocates, "the existence of intrinsic value for individual securities is not consistent with random walk hypothesis" (Fama; 1965:36).

The intrinsic value of given securities depends on earning prospects of the company which in turn are related to economic political, industrial and company specific factors. At many point of time, there exist implicitly an intrinsic value of each share but in the world of uncertainty the intrinsic value are not known exactly. Therefore, there can be disagreement among the participants about the estimated intrinsic value of the shares and actual price differ from its intrinsic values. Over the time, the intrinsic value itself change, as new information appears that affects the prospects of company. New information may be about deregulation in the quota system on the efficiency licensing, a change in management, success in research and development and tariff imposed on the raw materials etc. it steady inflow of various types of information (i.e. pessimistic, optimistic and so on) arise independently across the time and it participants do not show dependent tendency about intrinsic value, the subsequent prices in stocks will be independent. However, in the real world, these conditions always do not hold true. True may be dependencies in the reaction of participants toward the estimation of new intrinsic value or whimsical tendency. For exchange certain individuals or institution's action on new anticipation of value may induce many other people. This behavior leads to deviate the anticipation value for below and above from the true values which result unhindered dependencies in subsequent price changes. In this situation, we can assumed that there exists many sophisticated traders of two types:(1) traders having much better capacity to predict the appearance of new information and estimation of its effects on intrinsic values than others, generally named superior intrinsic – value analysis, (2) trader having much better skill at doing statistical analysis of price behavior named technical analysis. The sophisticated traders can recognize the situation where the price of stock is beginning to run up or down from its intrinsic value because of inappropriately under or over discounting of information and its adjustment in the securities prices. This situation provides them incentive for speculation in the market because the price is expected to move eventually to its intrinsic value. Thus, the existence of profit maximization strategy of these sophisticated traders lead to neutralize the dependence in the price changes and the price changes follow to independence of successive price change.

Of course in the uncertain world, sophisticated traders cannot always estimate intrinsic value exactly and their efforts towards erasing the dependencies may not be sufficient. In this case sophisticated chartists can reinforce the neutralizing mechanism, because as long as there are important dependencies they can easily discern the 'trends' and 'patterns' and initiate value maximization strategy over the time the infusion of the new information in the market may move dependently which will tend to create dependence in the successive price changes of the security. For example, optimistic information tends to follow more often by optimistic information and pessimistic news tends to be more often followed by pessimistic news than good news. In this case also, the sophisticated traders eventually learn that it is profitable for them to estimate price changes of current new information and subsequent dependence of the same information. And through their active speculation dependence in price series and establish independence assumption of the random walk theory of stock market price behavior.

2.3 Financial markets in Nepal

The history of financial market in Nepal is not so old and it is in the growth stage. However, the development pace of share market is not completely satisfactory compare to the development and emergence of various financial and non-financial institutions.

The financial market is still in infancy in Nepal. Since, the financial market plays an important role in the efficient distribution and use of resources, It is extremely important in a poor country like Nepal.

The system of lending and borrowing in an un – organized way is prevalent in Nepal since the ancient time. Everybody substantial portion of rural credit is available from unorganized sectors. The system of providing loan through the organized sector was initiated by Tejarath Adda established in 1993 B.S. the scope of this institution which made available loans only to the government employees in the begining was limited.

The system of collecting deposit and granting loans in the organized sector has started with the establishment of Nepal bank ltd. in 1994 B.S. the mobilization of funds by selling the securities to the general public had, however, started with the establishment of Biratnagar Jute Mill in 1993 B.S.

In fact, the prosperity of a nation and her people depends much on the manner how financial market plays a role in the transfer of funds. This helps in integrating the various sectors of the economy. Taking the case from our own country, financial system is slowly bringing significant macroeconomic policy transformation effects. It is because the government role is proving vital in the growth of financial institutions as well as financial market. Consequently, by the end of mid – July 2012, altogether

267 banks and non- bank financial institutions licensed by NRB are in operation. Out of them, 32 are “A” class commercial banks, 88 “B” class development banks, 70 “C” class finance companies, 23 “D” class micro-credit development banks, 16 saving and credit co-operatives and 38 NGOs. In mid- July 2012, the commercial banks branches reached to 1215 with the total branches of all financial institutions comes to be 2219 and with the population of eleven thousand per branch(NRB; 2012).

The total networks of the financial system in the economy constitute financial institutions and countless cooperatives. These institutions differ in age, scope, size, capital base, magnitude, function, and risk- return considerations. Because of the government’s economic and financial liberalization policies, Funds

In tenth plan (2002-2007), capital market development plans, objectives, policies and programs have been already spelled out to creat sufficient enabling conditions for the sound and steady growth of capital market in the country. Despite all these developments, the gross domestic savings continue to be minimal and the ratio of total saving to income is very low. Even then, the tenth has specified the target to raise funds of Rs. 7 billion from primary issues, to generate secondary market of Rs.12 billion and raising the value of market capitalization to 15% of GDP.

There are mainly two type of financial market. First one is money market and second one is capital market. Short-term funds of firms are raised from money market & middle term funds of firms are raised from secondary market. Following are the types of financial market.

2.3.1 Money market in Nepal

The organized market in Nepalese context comprises Nepal Rastra Bank and commercial banks. It is called organized because the activities of commercial are systematically coordinated by the central bank. The unorganized market is largely made of indigenous bankers and money lenders. It is unorganized because Nepal Rastra Bank does not systematically coordinate the activities of these indigenous bankers and money lenders.

Nepalese money market is not well developed in terms of securities dealt with and institution involved in the market. Institution that dealt completely on money market instruments is absent. Similarly, many of the instruments which are in developed money market like commercial paper, banker's acceptances, have not yet entered the Nepalese money market. Therefore the institutions that operate in the money market are basically Nepal Rastra Bank and commercial banks and instruments dealt are treasury bills, commercial bills and short term bank loan.

Treasury bill market is a major component of money market in Nepal, started in the year 1961-62. Since then it has been an important source of short term fund for the government except for few years taking from 1968 to 1974. But, because of low yield and absence of active secondary market with brokers, it remained mostly at the hand of the central bank. The holding of treasury bill by commercial banks, though it was Counted for the purpose of statutory liquid ratio, was uneven in the past particularly because of low yield. The interest rate was five percent until mid November 1988.since then, the rate is determined though auction in the market. The weighted average (annualized) ratio on 91- day Treasury bill increased from 5.2 percent in 1088/89 to 10.93 percent in 1995/96 and again declined to 2.33 percent in 1998/99. It then slightly increased to 4.96 percent in 2000/01. Treasury bills are being held mostly by commercial banks(Shrestha and Bhandari; 2003 :105).

Commercial banks are major borrowers and lenders in the short term money market. Although, commercial bank have been dealing with commercial bills since long, the bill market has its position as under developed in Nepal. Only a small amount of commercial banks lending is export and domestic bills and larger amount is invested in import and LCs and the purchase of export bills. Besides treasury and commercial bills, short term credits also forms another important money market in Nepal. Though short term credit has not fully developed to encourage growth of money market in Nepal, even then it has been the convenient vehicle for lending and borrowings. This type of finance was largely the monopoly of commercial banks in the past but in recent years, NIDC and other development banks also provide such finance.

2.3.2 Capital market

Capital market is known as long-term financial market & long-term funds of firms are collected from the capital market. Hence, capital market is a long-term credit market. The meaning of capital market can be made clear from its definitions.

According to Peter S. Rose – the capital market is designed to finance long-term investments, financial instruments traded in the capital market have original matures of more than one year.

Capital is the lifeblood of any organization without the business activities. Capital structure is the combination or composition of long-term, proffered stock & common stock. An optimum capital structure decreases the cost of capital & increases the earning per share. A conscious financial analysis ever uses the low capital gearing (High percentage of equity share capital and low percentage of the debt and preferred stock capital in whole capital structure). Business finance is that business activities which is concerned with acquisition and conservation of capital fund in meeting the financial needs of capital funds in meeting the financial needs and overall objective of business enterprises. This is the thinking of company point of views.

Investors are the real owner of joint stock company they purchase the shares and establish the company to get dividend and capital gain, but who protect theirs investment and right?

Yes, securities Board Nepal (SEBO) protect and promote the interest of investors by regulating the securities market for this purpose, SEBO was established on 26th May, 1993 under the provision of securities Exchange Act, 1993 (first amendment). Besides the regulator role, it is also responsible for the development of security market in country. Nepal is developing country. For the balanced development of country, she has been adopting Planned economic development requires a steady supply of Medium and long-term capital funds. Supply of capital Market are the institution, which are engaged in mobilization of ideal saving in productive opportunity, development and expansion of capital market markets are essential for rapid economic development by mobilizing the long term (Ojha; 2001: 96).

Nepal stock exchange Ltd. (NEPSE) is the only one- license hold Mediator of securities board Nepal (SEBO). All the broker company (who has received the certificate of stock trading and become the member of (NEPSE) trade in the trading floor of NEPSE. This is the secondary market of sock which market provides the liquidity in the stock. In this respect, capital market plays a crucial role in mobilization a constant flow of saving and changing these financial resources for expanding productive capacity in the country, Stock market is a medium through which corporate sector mobilizes funds to finance productive projects by issuing share in the market, Similarly, stock market provides the best investment opportunity to the investor.

Further, many profitable projects require long-term venture capital to finance. Most investor tempts to provide risk and is reluctant to tie their saving into long term commitment liquid stock market makes the investment less risky and more attractive. It encourages savers to invest in the long term project because they can sell the securities quickly and easily, if they want get bank their saving before the project matures. At the same time, companies receive easy access to capital through new issuance of shares (Shrestha; 1996: 3).

The organized stock is recent phenomenon in Nepal. The history and securities market began with the floatation of shares by Biratnagar Jute Mill Ltd. and Nepal Bank Ltd. 1937 AD. Introduction of company act in 1951, the first issue of government bond in 1996 and the establishment of securities exchanges center in 1976, were other significant developments relating to capital markets. Securities exchange center was in 1976 with the

objective of facilitating and promoting the growth of capital markets. Before conversion in to a stock exchange it was the only capital market institution under taking the job of brokering, underwriting, managing public issues, market making for government bonds and other financial services.

Nepal Government under a progress initiated to reform capital market converted securities exchange center into Nepal stock exchange in 1993. Nepal stock exchange in short NEPSE is a non-profit organization operating under securities Exchange Act, 1983.

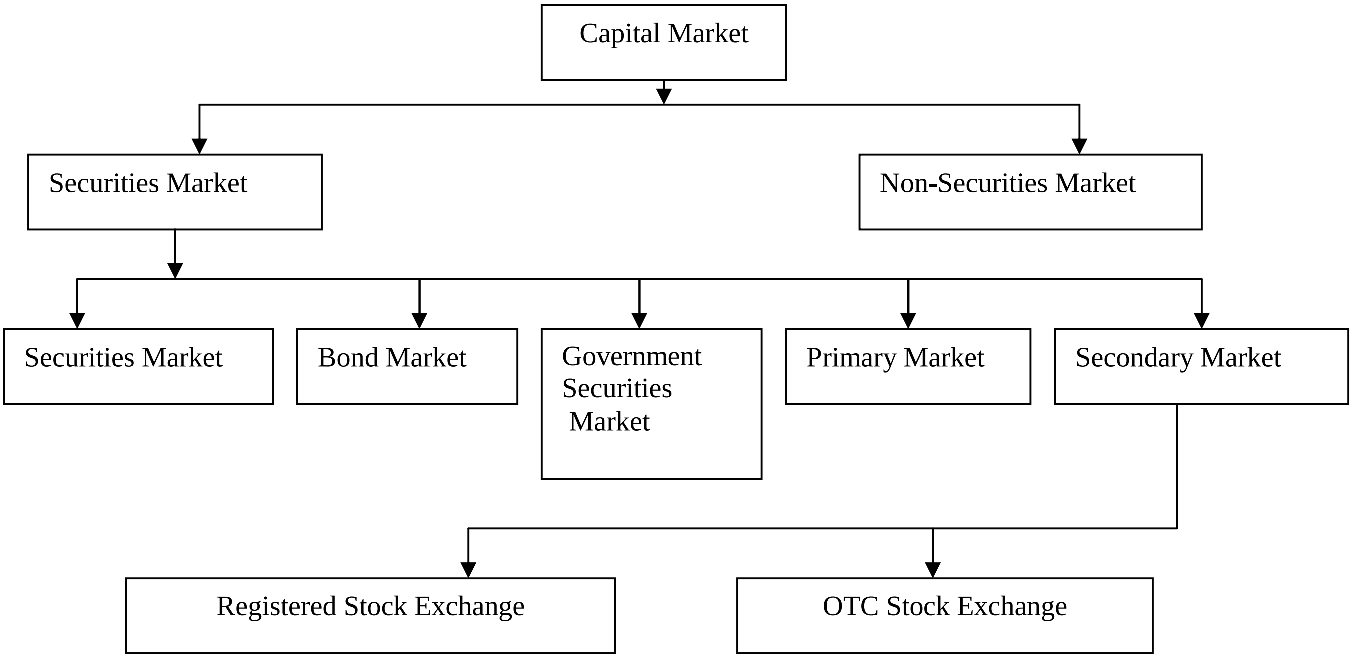
The basic objective of NEPSE is to impart free marketability and liquidity of government bond and corporate securities by facilitating transaction in its trading floor through market intermediaries, such as brokers, market makers etc.

In broad sense, capital market can be classified into two markets. First one is securities market and second one is non-securities market. Under the securities market, share, debenture bond and stocks are traded by the government and reputed organization where as under non-securities market financial institutions period the long-term loan to the industries and business. The market where securities are traded is known as capital market. The capital market is broadly categorized into two markets. They are primary capital market and secondary market.

2.3.3 Primary capital market

The company to trade in the capital market issues the new securities. Here the securities of large business firms issued for the first time bought and sold. The issuer of such securities may directly sell through private placement without underwriting to the investors. Besides, the securities may be sold after being made underwriting by the institution like investment bonding. The issuer (company) collect amount and invest in the productive sector to earn the profit.

Figure 2.1: Classification of Nepalese Capital Market



2.3.4 Secondary Capital Market

Secondary market provides the liquidity and marketability opportunity to stock market. Stocks are traded second time in the agreement of buyer and seller in the stock market. Stock market either may be OTC Market or registered market. Usually, those buying the securities for the first time went to see the securities within a short period. There is the provision of secondary market for this the secondary market can be sub divided in two parts as below.

2.4 Introduction of NEPSE

The history of securities market began with the flotation of shares by Biratnagar Jute Mills Ltd. in 1937. The first issue of government bond in 1964 and the establishment of securities Exchange center Ltd. In 1976 was significant development resulting to capital markets.

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

Nepal stock Exchange in short NEPSE, is non-profit organization operating under securities Exchange Act 1983.

The basic objective of NEPSE is to free marketability and liquidity to the government and corporate securities by facilitating transaction in its trading floor through market intermediaries such as broker, market and market maker etc. NEPSE open its trading floor on 13th January 1994 through licensed members.

His Majesty's the government, Nepal Rastra Bank, Nepal industrial development corporation and licensed members the shareholders of the NEPSE.

2.5 Review of Journals and Articles

Investors were enlightened and they stated inquiring about company's financial health and future prospect before buying or selling shares. People turned to price-earning multiples; NEPSE indexes informed trading became sort of a norm when stock market entered 1995. Many who could not cope with the system of intelligent speculation left the ground? As a result, the numbers of buyers gradually came down and so did the prices (The Kathmandu Post; May 18, 1999).

ADB experts have seen many obstacles to the growth of the capital market. This includes low level of investors' confidence, disclosure of poor and manipulated financial information, week enforcement of regulation, absence of instructional investors, lack of diversity in range of financial instruments and the scope of active participation for the various intermediaries limited by vertical barriers (The Rising Nepal, Jan 20th 2001). The current downtrend in share market is not so easy to recover unless strong regularly measures are not enforced. The honeymoon days of share market exist on more but there are still unlimited financial fortunes by sharp practices that went undetected during the period of share market boom among all, the regulation of share market to control on the unfair trade practice would be done of the strong measures to revive the share market in future. In order to curb the fraudulent practices and discourage the dissemination of misleading information in the current share market of Nepal, the regulating authorities must govern the activities in the share market. There should be immediate check on the unfair share trading practices. Wash sales should be discouraged by immediate action. Nepal Stock Exchange can from a watchdog team to investigate on the real existence of a share transaction. The present practice of share trading by mutual consent is a kind of wash sales that should be discouraged as wit creates distortion in the price determined by the market forces. Such action helps in avoidant fictions name created by several different share brokers in share transaction and also to check on the creating an illusion of rising price. Moreover, the challenge for the regulating authority is to control on the hidden establishment of share market corners and pool by some market price manipulators. Surprise inspection and secret vigilance by a professional team (without making known who are its members and advisors) can check on the functioning of the office of such price manipulators interested to corner a share market in the hope of trapping or squeezing short sellers. If found dishonest in share market dealings, action should be taken against such price manipulators by imposing heavy penalties and punishment depending upon the nature of offence.

At the same time, the concerned authority has to discourage the practice of churning by the brokers since it helps brokers to generate sales commissions regardless of benefits of such transaction to the client. Moreover, it is a right time for the concerned authorities to develop transparent guidelines to have strict vigilance and control on misuse of insiders should be debarred from leaking price sensitive information by imposing heavy penalties and punishment for breach of legal provision. The revival of the share market requires minimum fulfillment of the responsibilities and accountabilities among company management to be shareholder focused. Time has come for company management to respond to shareholders expectation of return from their investment in shares of companies. Management should make it a habit to change attitude to think what is good for shareholders is good for company as a whole.

Immediate measures lies in giving attention to shareholders' grievances like timely conduction of annual general meeting, improving the quality, standard and coverage of reporting, developing minimum return on investment strategy and index. In order the downtrend in share market, various reformative measures are urgently necessary to curb on unfair share market practices through the development of comprehensive and transparent stock exchange guidelines by the concerned authorities. The existing company management has to reorient its positive attitude towards investors and shareholders by improving the quality of timely reporting and providing the expected return to win the losing confidence of shareholders. Investors should be self-conscious in the selection of brokers for trading in securities and organize themselves to be active to protect their rights. All these will help in the revival of share market to make it more active by attracting the investing public (The Rising Nepal; Feb. 22, 2002).

Capital market is a crucial element in the national economy. Its role in reinvigorating and boosting the economic activities in the country holds significant. The strategic plan released by security board can, to a great extent, energize the investor's dealer by increasing investor interest in it. Security market experience both boom and boast soon after the beginning of securities trading through brokers' members in the stock exchange floor. Though the market started to function quickly boosting the prices of shares to an unexpected level, it could not sustained. There is an urgent need for proficient development of a market standard and information dissemination system focusing mainly on corporate financial disclosure practices and transparency, corporate accounting and auditing securities markets regulation and corporate governance. The implement the above, security Board has a great responsibility as to reviewing and developing regulatory standards to make them a relevant with the need of issuers, investors along with promoting efficient capital formation (Business age; April 1999:15).

Rating the institutions on the basis of price earning ratio or dividend has traditionally done investment in share. Hardly do investors compare current assets with current liabilities or take a look at the debt equity ratio. Unless investors begin analyzing the intricate financial details of corporate institutions before making investment decision, the market cannot develop smoothly. Share investment has traditionally been guided by the investors' returns. Most earnings of investor here have been in the form of dividends rather than capital gains, though high dividend are often seen, in corporate finance theory as a wasteful use of scares capital. With the commercial bank becoming the only potential investment destination, with other stock market participants hardly making profit, and even if they did failing to meet investor's expectations, demand for shares of commercial banks outpaced supply and their prices boomed.

Now, the latest slums in the secondary market, despite a pretty good performance by commercial banks, make it more apparent that investment in the past was done on whim. Even officials at the stock exchange and the securities board, refuting investors' allegations of the market manipulation and insiders' trading of last February, discreetly claimed that the Nepalese stock market is in a nascent stage. And that, investment are made more on an impulse, rather than through market study and credit rating. (Business age; June 2001: 25).

There are many loopholes in our Stock-Exchange Act. Investors feel insecure here. A few years back there was a company called Nimrod Pharmaceutical Company that floated in shares, but where are they now? Similarly, it has been more than a year that Bansbari Leather has allotted its shares, but why didn't the company list its shares in the market? It has been three years that Gorkhali Rubber Udhyog hasn't called for its AGM Government remained silent in all these cases. This is why the general public as well as the intuitional buyers is not felling secure in investing in stock market (Business age; Jan, 2000:25).

Share trading scandal formed the headline of major dailies of Nepal a few days ago. The news was that some of the staffs of Nepal Merchant Banking and Finance Ltd. (NMB), the share registrar of Standard Chartered Bank Nepal Ltd were involved in unauthorized sale of the shares of investors not present in the country. They were also alleged of cheating such shareholders of their dividend. As a share registrar, the company's duties were to update the shareholders' information, distribute the benefits provided by the client company to the latter's shareholders and to verify the signature of the shareholder at the time of ownership transfer of shares. But the staff forged the signatures of the company's shareholders so as to sell their shares without the knowledge of the shareholders and to claim themselves the dividend allotted to such shareholders. When the media reported this scandal, NMB blamed on of its staffs and registered a forgery case in the District Police Office, Kathmandu. The accused is still learnt to be in the police custody. As stated in the news, though some other staffs also were involved in this scandal, NBM has registered the case against only one of its staff. Another of the NMB staff accused in this scandal is reported to have escaped out of the country. If such types of scandals, whether they are reported by the media or not, are repeated frequently and no attempts ate made to rectify the flaws in the system and to punish the guilty, there is not doubt that sooner or later the capital market will lose the investors.

A close study of this case brings the deficiencies of our market to the forefront. The major deficiencies are obviously lack of professionalism among the market participants and lack of interest in compliance. The issuer company cannot escape from its responsibility simply laming the registrar. It must satisfy those investors whose shares have been stolen. The share registrars are found to be careless and a question can be raised on their professionalism and honesty. The stockbroker has also made a mistake by executing the share trading without identifying the client and thus violating the codes of conduct for stockbrokers issued by securities Board (SEBO), the regulator of the capital market in Nepal. As the code clearly states that the brokers must identify their clients, such scandal could have been avoided had the broker complied with the code. Also the regulators are equally responsible as they are not effectively monitoring the activities of securities businesspersons and taking legal action against their non-compliance under the prevailing rules and regulation. As the capital market of Nepal is still in the infant stage, the regulatory system established to systematize and regularize the securities trading still has deficiencies. This leaves scope for anyone to tame unfair benefit from the market at the cost of ordinary investors. Not only the investors are found to be irrational and concerned with short-term gains, in this scenario, we cannot expect perfect behavior from all the market participants. The major problems seen in the system are duality and ambiguities in the regulations, inadequate legal provision to control the market, lack of adequate market infrastructure, lack of clear demarcation of duties of the regulators, poor corporate culture, lack of professionalism of the market participants, poor compliance and lack of clear legal provision for taking action to address the noncompliance cases.

In its annual report for the fiscal year 2001/02, SEBO states that is has made some attempts to address the issues through issuance of guidelines, directives and disclosure formats to the market participants, codes of conduct for the stock brokers etc. It has also prepared a draft for the new securities exchange act, which was presented to the Ministry of Finance in 1998 to initiate the necessary legislative process. However, it is still to be enacted by the parliament. Even though SEBO has made attempts to solve the problems, they are still there. In cannot escape of its duty to explain the present state of the market and deficiencies existing in the system. Taking necessary support form the government is should take the required step to better coordinate the market participants to develop a healthy capital market in the country. Moreover it is important to discipline the market participants and educate them of their moral duty to make others comply with the prevailing rules and regulation. Only this can create the atmosphere where scandals like this can not be repeated (New Business Age; April 2003:44).

Investment in the capital market now has become very uncertain, sending the investors in search of avenues of more certain retains. The equity investment is considered riskier than investment in bond, preferred stock etc. The secondary market is not performing well. The NEPSE index is hovering around 208 and 215 since long. After great slump in Nepal Stock Market in fiscal year 2000/01, dissatisfaction has increased in the mind of investors. The NEPSE index on 23rd November 2000 had reached the peak of 545.82 and after that it is continuously on the decline (The Business Age; March 2004: 42).

A study conducted by Pradhan and Balampaki (2004) on the title of "**Fundamentals of Stock Return in Nepal**" has given some important insight regarding nature of stock return in Nepal.

This study deals with fundamentals of stock return. It examines if dividend yield, capital gain yield and total yield are related to earning yield, size, book to market ratio and cash flow yield. The study is based on pooled cross sectional data of 40 enterprises whose stocks are listed in Nepal Stock Exchange Limited and traded in the stock market. The study reveals that earnings yield and cash flow yield have significant impact on dividend yield. Other main findings of the study are:

Earning yield and cash flow yield have insignificant impact on book to market value whereas, size has negative impact in dividend yield In the case of earning yield and cash flow yield, cash flow yield has been found to be more informative than earnings yield.

Capital gain yield is positively influenced by earnings yield and size, whereas, the same is negatively influenced by book to market value and cash flow yield. Book to market value has been found to be statistically strong in predicting capital gain yield.

Similarly, total yield is positively determined by earning yield and size, whereas the same is negatively determined by book to market value and cash flow yield. Book to market value has been found to be more informative than other variable.

Mr. K.C (2004) has conducted a study entitled "**Development of Stock Market and Economic Growth in Nepal**" based upon the data of 10 years. The study reports that the relationship between financial development and economic growth, with focus on developmental role of stock markets, has been in debate for some time in the past. Empirical studies suggest that financial development does matter and stock markets do spur economic growth. Unfortunately, in Nepal, despite a history of about half a decade of planned economic activities to develop real sector of the country, little attention was paid the development of financial sector the past one and half decade, financial sector despite many problems has developed significantly in Nepal. However, most of developments were confined to the banking sector. Stock market has virtually remained stalled because of his priority in the government's financial reform policies.

Various measures of stock market deployments indicate that the stock market in Nepal is underdeveloped and has failed to show impact on the overall national economy. Small market size has made it vulnerable to manipulation and price rigging. Low turnover ratio and value-traded ratio to volatility, and high concentration ratio indicate that the stock market in Nepal is highly illiquid and risky. Investors tend to avoid stock market because they so not have options to it because stock market is less reliable source of raising funds for them. Due to this financial system in Nepal has remained basically bank dominated.

2.6 Review of Thesis

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

Mr. Khatiwada (1996) has conducted the report on **"Security Investment".** He has used the data from 1993 to 1996.Among different objective one to analyze the stock market performance is related to subject market about market price movement of common stock.

The researcher concludes as "living some exceptional cases aside, almost all the companies' experience their market price goes down by less than 50% in 1991. Even the banking group could not spare the share price going down more specially; the year 1995 was a decreasing period for the stock price. It is because the entire companies share price during the year was down even in some cases before the face value". Why this deep declination in price was held? The researcher did not look in this aspect.

The researcher recommended liberalization the government policy by removing capital control and berries to attract foreign portfolio flows, which is essentially for the development of stock market.

Mr.Timilsina (1997) has conducted research **“Dividend and Stock Price”.** The study was carried out by the data for 16 enterprises from 1990 to 1994.The objectives of this study were as follows:

1. To test the difference between dividends per share and stock price.
2. To determine the impact of dividend policy on stock price.
3. To identify whether it is possible to increase the market value of the stock changing dividend policy or payout ratio.

In order to explain the price behavior, the study used simultaneous equation model as developed by friend and Pocket (1964). The main findings of his study are as follows:

The difference between dividend per share and stock price is positive in the sample companies. Dividend per share affects the share affect the share prices variedly in different sectors. Changing the dividend policy or dividend per share might help to increase the market price of share. The difference between stock prices and retained earnings per share is not prominent. The difference between stock prices and lagged earnings ratio is negative. Though there were above-mentioned studies in the context of Nepal, it has overcome necessary o find out whether their findings are still valid.

Timalsena’s study was based on 45 observations. The number of companies included in the sample was only 16, which is quite low. Studies on dividends conducted in the context of Nepal are based on secondary data only. No study has been conducted on dividends by using primary data as yet. There is need to conduct a survey of financial executives in order to find out more qualitative facts on dividends which cannot be determined through the use of secondary data. This is the first attempt that studies dividends based on questionnaire survey. Moreover, the earlier studies on dividends have become old and need to be update and validated because of the rapid changes taking place in financial market of Nepal .

Mr. Bhatta (1997) has also conducted research on the topic “**Dynamics of Stock Market in Nepal”**. The objectives of the research were as follows:

- To analyze the trend of the Nepalese stock market.
- To diagnose and compare sectoral financial status of the stocks in Nepalese stock market.
- To analyze the market share prices of the Nepalese stock market.
- To find out the impact of the secondary on primary market and vice versa.

He has concluded in his research as follows:

The stock market and economic activities move in the similar direction. They influence each other. The development of the former is reflected in the latter. Thee stock market raises and mobilize the invest-able resources to finance the long-term large projects in the economy. The stock market therefore can be regarded as a heart of economy.

The investors are interested to invest their resources in the shares of corporate sector through the stock market in the Nepalese economy. It is necessary to develop the entrepreneurship and encourage the entrepreneurs to start the productive venture as soon as possible. Management capability of the entrepreneurs is a key for better performance of the firms. Government should launch programs to enhance management capability of the entrepreneurs, which may contribute to raise the return from the investment.

Development of manufacturing sector is the backbone of an economy, which in turn, assists to foster banking, finance and insurance sectors. Unfortunately, the manufacturing sector doesn't have a good performance in Nepalese economy. Almost all firms in this sector have a sustained loss.

The secondary aspect of the stock market is not also functioning well in Nepal. There is almost no liquidity in the stock market for shares except that of banking and some finance and insurance sectors.

Although it has become late to take steps to overcome such problems of the Nepalese stock market in order to make it active and supportive, the stock market has good prospect for the resource mobilization to finance the productive enterprises in Nepalese economy.

Mr. Shrestha (1999) has conducted research on "**Stock price Behavior in Nepal"**, this study aims to examine the efficiency of the stock market in Nepal.

The specific objectives of this study are as follows:

- To examine the serial correlation of the successive daily price changes of the individual stocks.
- To determine whether the sequence of price changes is consistent with changes of the series of random number of expected under the independent Bernoulli process.
- To determine the efficiency of the stock market through the theoretical model of efficient market hypothesis in the Nepalese stock market.
- To provide feedback policy input towards institutional development of efficient market.

The main findings of this study were as follows:

The serial correlations coefficients of the daily price changes for 1 and 2 lag days, and runs of the series of daily price changes lead to conclude that the successive price changes are not independent random variable fro the 30 sample stocks listed in the Nepal stock exchange Ltd. (NEPSE). Therefore, the random walk theory is not a suitable description for the stock market price behavior in Nepal.

The dependence in the series of price changes observed imply that the price changes in the future market will not be independent from the price changes of the previous days. It implies that the information of the past price changes is helpful in predicting future price changes in a way that the speculation through technical analysis can make higher expected profit than they would be under naïve buy- and – hold policy (i.e. average market return). Therefore, opportunities are available to sophisticated (both institutional and individual) investors to earn higher return in the market. The existence and participation of the sophisticated investors have not been realized form the findings of this study. It is realized tan mostly the naïve investors have dominated in the market that can cause prices to diverge significantly form intrinsic values because the very existences of the sophisticated traders cause to erase the opportunities of persistence in prices which establish independence of successive price changes.

Mr. Adhikari (1999) has also conducted a research on **''Corporate Practice in Nepal''**. The main objectives of the study were as follows:

- To explain whether companies paying larger dividends have a good financial position or not, whether the companies with higher payouts have an improved or not.
- Whether the companies with higher yield having an improved financial ratio or not.
- Whether the difference between dividends and stock prices, dividend payout affect the share prices of finance and non-finance sectors differently or not.
- The motives of paying cash and stock dividends whether dividend is a residual decision or not.
- If there is any types of company's announcements of earnings on market price of a share.
- Whether legal restriction on share repurchases should continue to prevail or not.
- Kind of dividend policy should be followed by Nepalese enterprises.

The major findings of the study were as follows:

Stocks with larger ratio of dividend per share to book value per share have higher liquidity. However, liquidity position of stocks paying higher dividends is also more variable as compared to stocks paying lower dividends. Stocks with larger ratio of dividend per share to book value per share have lower leverage ratios. It shows that companies paying higher dividends are reluctant to employ higher degree of leverage in their capital structure. Leverage ratios of stocks smaller dividends are also more variables as compared to stocks paying higher dividends.

When the difference between dividends and profitability is studied, it revealed that stocks with larger ratio of dividend per share to book value per share have higher profitability. However, these profitability ratios of stocks paying larger dividends are reluctant to employ higher degree of leverage in their capital structure. Leverage ratios of stocks smaller dividends are also more variables as compared to stocks paying higher dividends.

When the difference between dividends and profitability is studied, it revealed that stocks with larger ratio of dividend per share to book value per share have higher profitability. However, these profitability ratios of stocks paying larger dividends are also more variable as compared to stocks paying smaller dividends. Positive difference is observed between the ratio of dividend per share to book value per share also have higher turnover ratios. However, turnover ratios of stocks paying larger dividends are also more variable that of stocks paying smaller dividends.

There is also a positive difference between the ratio of dividend per share to book value per share and interest coverage. Stocks with higher ratio of dividend per share to book value pr share also have higher interest coverage. A positive difference is found between dividend payouts and current ratio where as negative difference is found between payouts and quick ratio. It may be due to more reduction of quick assets rather than current assets when more dividends are paid out. The position of current ratio of stocks paying larger dividends is also more variable as compared to stocks paying lower dividends where as the position of quick ratio of stocks paying larger dividend is less variable as compared to stocks paying lower dividends. There as a negative difference observed between dividend payouts and earnings before tax to net worth. On the other hand, there is a positive difference between dividend payouts and earning before tax to total assets. However, the return on both of total assets and net worth is more variable for stock paying higher dividends. There is a negative difference observed between dividend payouts and earnings before tax to net worth. On the other hand there is positive difference between dividend payouts and earning before tax to total assets and net worth is more variable for stock paying higher dividends.

The difference between dividends payouts and turnover ratios has been observed to be positive. Stocks with larger dividend payouts have higher turnover ratios. However, turnover ratios of stocks paying larger dividend are more variable.

Positive difference is also observed between dividend payouts and interest coverage. Stocks with higher dividend payouts also have higher interest coverage, interest coverage of stocks paying larger dividends are also have move variables.

When studied the difference between dividend per share to market price per share ratio and liquidity ratio, the study revealed that the stocks with larger ratio of dividend per share to market price per share have higher liquidity. Liquidity positions of stocks paying larger dividends are also more variable as compared to stocks paying lower dividends.

Mr. Ojha (2000) has conducted a research on "**Financial Performances and Common Stock Pricing".** The main objectives of his research were as follows:

- To study and examine the difference of financial performance and stock prices.
- To examine the relationship of dividends and stock price.
- To explore the signaling effects in on stock price.

The main findings of his study were as follows:

Nepalese stock market is in infancy stage. In general, it is very new and just started to develop. Dominance of banking sector is prevalent in the market due to other industries including finance companies, insurance and manufacturing is not encouraging. Corporate firm with long history have a relatively stable profitability parameters than the firms established after the economic liberalization of 1990. Older firms have been issuing bonus shares more times than the new one. Dividend per share is relatively more stable than the dividend payout ratio. That's why payout ratio and dividend yields have been highly fluctuating. Due to lack of proper investment opportunity most of the investors have directed their saving towards the secondary stock market. This computed by such agency. People have a misconception than the issuance of bonus shares and right shares, which actually decrease the net worth per share and resultantly ought to decrease the market price of stock also, do not decrease the price and this makes them o invest even at a too high price with the expectation of getting the same to increase their overall wealth. There is significant positive correlation between the dividends paid and stocks prices of banking and manufacturing industries. All other industries have not a perfect correlation between the dividends paid and stocks prices. There is a positive correlation between the net worth per share and stock prices of banking, airline, and hotel industries, there is no perfect correlation between the net worth per share and common stock price.

Mr Dahal (2001) has conducted the research entitled **"Stock Market Behavior of Listed Joint Stock Companies in Nepal".** Main objective of his research were as follows:

- To study and analyze the rate of listing of new companies and maintenance of listed companies In NEPSE.
- To study and examine the signaling factor on stock price with the help of Nepal Stock Exchange index.

The study concluded that signaling factor plays major role for fluctuating NEPSE index. The study was verified by taking major seven events such as Royal palace Massacre, Lease fire, September 11 attack, State of emergency, prime Minister's visit to U.S.A., Parliament's practices towards stock market and King's visit to India.

Mr. Adhikari (2002) has conducted the research "**Performance and Return to Investors"** of listed Commercial Bank in NEPSE. Major objectives of the thesis were as follows:

- To identify and mathematically present some common variables to measure the performance of the related companies listed in Nepal Stock Exchange.
- To trace the stock price movement with special refers to the performance of the study.

These objectives directed the study towards determining the representative ness of the market by the floor. Major findings of the research:

Net income of the entire bank taken under study was in good figure. EPS of banks like NBB, SBI &EBL are grouping continuously the EPS of NABIL, HBL, NEB

&NIB are not constant or in increasing order .the reason behind this is the increase in to of shares outstanding as a result of announcement of bonus shares. Earning held shows the decline trend in the banking sector. All the banks under study have downward moving earning yields. The reason is the great market exceptions, which is not in tune wit EPS. To relate to the pre-stated problems financial performance and return to investors don't have a relationship. Financial performance is not the determinants of return to investors. Share price of the commercial Bank in the stock exchange were found to be increasing. Even though some fluctuation were found out the market is inefficient in determining the accurate value. As a result of which return are abnormal. Capital appreciation has not been guided by the financial performance of the institution. Rather other fo4rces were found playing role. The information disseminated by the bank is not reflected in the share price.

Ms. Pokharel (2002) has conducted the thesis entitled **"A Study of Securities Market in Nepal"**. Main objectives of her study were as follows.

- There main purpose of this study is to examine and analyze the trend as well as the risk and return of different sectors listed in securities market. To achieve this purpose the following specific objectives have been set up.
- To find out and analyze the risk and return of different sector of securities market.
- To analyze the inter-relationship between the risk and return of each sector.
- To examine the trend of different sectors in terms of their total paid up value, annual turnover and capitalization and forecast their trend for future.

Ms. Pokhrel has pointed in her study about the risk and returns trend of the different sectors i.e. Banking, Finance, Insurance and Manufacturing and service organization. According to her "among all sectors listed in the securities market, bonding sectors the highest expected return (50-33%) followed by the finance sector with 47-36%. The sectors having the lowest expected return are the one categorized as others with just 10.3% and the trading sector with 10.65%. Ms. Pokhrel has used the different tools and technique to analyze and interpret and data to meet the concrete report about securities market but she has not centralized her study on specific subjects matter.

Mrs. Poudyal (2002) has conducted the thesis “**Share Price Behavior of Joint Venture Banks in Nepal".** Main objective of his thesis were as follows:

- To analyze the market share price behavior of the Nepalese Stock Market.
- To examine how safe or risky to invest on joint venture banks' share.
- To analyze the sensitivity of the shares in relation to the market.
- To test whether or not the shares in banking companies are blue chips in our context.
- To test whether the Nepalese Stock Market is efficient or not.

Based on the analysis of data and their interpretation the study's empirical findings in relation to the objectives set could be summarized as follows:

Nepal Stock Exchange operates in a week form of efficient market hypothesis, indicating that the market prices move randomly. The investors while deciding their investment and purchases neglect actual potential of the firm and semi professional advices are functioning at its high. The market values per share don't accommodate all the available historical information because of the in-equilibrium in the stock market is observed.

Mr. Aryal (2008) has conducted a research on **"The General Behavior of Stock Market Price".** The specific objectives of the study were as follows:

- To develop the empirical probability distribution of successive price changes of an individual common stock and a stock market as a whole.
- To examine whether the successive price change of stocks market are independent to each other or not.

The main findings of the study were as follows:

Mainly' the assumption of independence as predicted by random walk model of security (speculative) price behavior is not found consistent. Thus, the model of such kind has been refuted at least for Nepal loon context as a first approximation even on a rough way for early days of stock market operation. Here this rejection of hypothesis makes clear that this knowledge of past now becomes useful in predicting the future movements of stock market prices, than investors, on the floor of exchange for securities can make higher expected profits in the future based solely on those historical price series under certain systematic trading scheme (i.e. Market average return) Of the general market for securities. Therefore, anomaly of weak form tests of efficient market hypothesis has an important implication bearing interpreting behavior of security price variations in the past and in performing further research in this field. If broadly speaking the implications with respect to conclusions derived by the study are of two natures statistical and economic.

Statistically, the characteristic feature of stock market movement with respect to distribution of price change implies that the general shape is platykurtic character has been demonstrated previously, due to higher values of standard deviations for individual price changes. Higher standard deviations are results of frequent large price fluctuation. According to this device of measuring risk, individual stock and aggregate market can be interpreted as highly risky opportunity for investment. The economic reason for higher values of standard deviation implies that the inherent instability of market, change in economic environment. Government actions, companies developments that cause abrupt price changes, ultimately the value of standard deviations for individuals price changes has been higher consequently platykurtic character of distribution observed i.e. too few relative frequencies are contained near to mean of the price changes in the central bell and all the relative frequencies are concentrated within higher limits of standard deviations form the mean of the price changes.

Mr. Baral (2009) has conducted thesis entitled **“Stock Price Movement in the Nepalese Securities Market ".** Main objectives of this study were as follows:

- To study and analyze the stock price and volume
- To study and analyze the rate of newly listed companies and maintenance of already listed companies in NEPSE.
- To study and analyze the investors views regarding the decision on stock investment
- To study signaling factors impact on stock price with help of NEPSE index.

The major findings of this study were as follows.

Company's dividend affects the stock price. The price of bullish trend of stock price movement is suitable for Nepalese security market. Most of the investors were asked for their preference of investment sector major portion of them said that hey were attached with banking sectors for investment but national and international environment direct effects the price of stock market and other different information's about the market effects as well. In the context of Nepal investors generally decide about their investment on the basis of theirs own analysis.

Studying the annual trend analysis of Nepalese stock price market, it was found that stock price trend is decreasing from many years as smoothly but from the year 2002/03 price of stock is decreasing as rapidly. Taking the decision as long period, forecast of system wise was in decreasing trend. So from this trend analysis we can say there is no relationship of price trend between 3 successive years.

CHAPTER-III
RESEARCH METHODOLOGY

This chapter describes tools and methods that have been applied to come up with solution of the research problems describe earlier. Types of research design, population and sample and methods of data collection have briefly been described here in this chapter. This chapter also introduces tools applied in the study. Thus it is a blueprint for the collection, measurement and analysis of data and it provides where, how by what means concerning this research study.

3.1 Research Design

This study is based on secondary data only, thus can be said quantitative. The research design of this study is descriptive and analytical in its nature. Trends of stock market development, stock market size, liquidity, concentration, and impact on stock market of different phenomenon, relationship of stock market and economic indicators are the issues to be dealt here in this study. To accomplish the aforesaid objectives data are collected from different sources and are tabulated, presented and analyzed using different tools.

3.2 Nature and Sources of Data

This study has been carried out on the basis of data that are already available in published sources. These secondary data have been collected through the sources:

- Publications of government
- Business and trade journals.
- Reports and publications of SEBO, NRB and NEPSE.
- Reports and articles of research scholars.
- WebPages of SEBO, NRB, and NEPSE etc.

3.3 Population and Samples

This research study is based on the data which have been collected from various sources. NEPSE index and other stock market variables of over 12 year periods are the variable of the study. The number of observation however differs as the nature and objectives of analysis differ. To show trend of stock market development, number of observations (N) is 12 while it is 7 to check the difference in sector wise NEPSE index. Thus, number of observations varies as per the objectives in view.

3.4 Tools for Analysis of Data

Following are the tools employed to analyze and interpret the data:

3.4.1 Market Capitalization Ratio

It is the aggregate market value of the listed shares divided by gross domestic product. This ratio indicates the relative importance of stock market to the national economy.

$$\text{Market Capitalization Ratio X} \frac{Market\ Capitalization}{Gross\ Domestic\ Product}$$

3.4.2 Indicators of Market Liquidity

Liquidity allows investors to alter their investment portfolio conveniently at any time and low cost. Liquidity makes the financial assets less risky.

I) **Stock Traded to GDP Ratio**

This ratio indicates the extent of ease in trading in stock market in a country. The volume of organized trading of equities as a share of national output increase when such trading is less costly and easy.

$$\text{Stock Traded to GDP Ratio X} \frac{Value\ of\ stock\ traded}{GDP}$$

ii) Ratio of Shares Traded to Market Capitalization

This measure also known as turnover ratio, equals the value of shares traded divided by market capitalization and is indicative of the trading relative to the size of stock market.

$$\text{Value of Stock Traded to Market Capitalization Ratio X} \frac{value\ of\ stock\ traded}{market\ capitalization}$$

iii) Value Traded Ratio to Volatility

This ratio measures the ability of stock market to provide high liquidity with less price swings. High ratio indicates the ability of stock market to provide liquidity and handle risk. This is calculated by employing the equation below:

$$\text{Value traded ratio to volatility} \; X \frac{\textit{Value of} \text{ stock traded}}{\textit{Market} \text{ capitalization}} \mid \frac{1}{\textit{Stock} \text{ price volatility}}$$

3.4.3 Concentration

Market concentration ratio measures the extent of shares concentration in a stock market. Whether the trading of shares centered to certain firms, industry, and people or not is answered by this tool.

$$\text{Market concentration Ratio} \; X \frac{\textit{Value shares traded of top ten companies}}{\textit{Total value of share traded}}$$

3.4.4 Trend Analysis

The general tendency of data to increase or decrease or stagnate during a long period of time is shown by the help of trend analysis. Here stock market development is analyzed through this tool.

3.4.5 Standard Deviation (SD)

Standard deviation measures the dispersion of the outcomes from the expected value" (It is the measure of absolute dispersion of the mass of figures in a series. We can know the volatility of the outcomes by calculating the S.D. To illustrate, let's suppose that x_1 + x_2 + …………… + x_n is a set of 'n' observation then its S.D. is given by

$$\pm \; X \sqrt{\frac{(X \; Z \bar{X})^2}{n}}$$

Where,

∃ = Standard deviation

$\bar{X}$ = Arithmetic mean

n = total no. of observation

3.4.6 Arithmetic Mean:

Arithmetic mean is the average return over periods. Arithmetic mean of a given set of observation is their sum divided by the number of observations. To illustrate it, let's suppose that x_1, x_2, x_3 ………….. x_n denote return of given 'n' number of securities (here, common stock) and $\bar{X}$ is the arithmetic mean of the given observation. It is calculated by,

$$\bar{X}\ \mathrm{X}\ \frac{X_1\ \Gamma\ X_2\ \Gamma\ X_3\ \Gamma .... \Gamma\ X_n}{n}$$

Or, $\bar{X} = \frac{X}{n}$

Where,

$\bar{X}$ = Arithmetic mean return

x_1, x_2, x_3 ………….. x_n = Set of observations

n = total no. of observations

X = Sum of given observation

3.4.7 Correlation coefficient

Correlation is defined as the relationship (or association) between (or among) the one dependent variable (or factor) and one (or more than one) independent variable (S) or factor (S)" (Shrestha &Silwal; 2057: 315). It is the statistical tool which can be used to describe the degree to which one variable is linearly related to another and measures the directions of relationship between two set of figures. Correlation coefficient can be either positive or negative. More preciously, if both variables are changing in the same direction, then correlation is said to be positive. On the other hand, if both variables are changing oppositely to each other, then correlation is known as negative. Correlation can be seen between or among several variables.

3.4.8 Coefficient of Multiple determinants (R^2)

Coefficient of multiple determinations is very useful tool in interpreting the value of multiple correlation coefficients. It is denoted by 'R^2' and can be obtained by squaring the coefficient of multiple correlations. R^2 measures the degree (extent or strength) of linear association or correlation between two variables. One of which happens to be independent and other being dependent variable (s). More preciously, it measures the total variation in dependent variables, which is expressed as percentage.

3.4.9 Regression Constant

Regression constant is a value of dependent variable when other independent variables are zero. In another word, it is the intercept of the model, which indicates the average level of dependent variable when independent variable is zero. If all the variables are omitted form the model, the regression constant indicates the mean or average effect on dependent variable. It is denoted by 'a'.

3.4.10 Regression Coefficient

Regression coefficients describes how changing of independent variables affect the value of dependent variable's estimate. Alternatively, the regression coefficient of each independent variable indicates the marginal relationship between that variables and value of dependent variable holding constant the effect of all other independent variables in the regression model. They are denoted by b_1, b_2, b_3 ……….. etc.

It is to be noted that a, b_1, b_2, b_3 etc are the regression parameters of the equation or regression line whose values are to be determined. The equations for calculating these parameters have been mentioned in part

3.4.11 Regression Analysis

This tool is employed to show the relationship between dependent variable and independent variables.

Regression equation: $X_1 = a + b_1 X_2 + b_2 X_3 + b_3 X_4 + b_4 X_5$

Where,

X_1 is dependent variable,

X_2, X_3, and X_4 are independent variables,

a is regression constant, and

b_1, b_2, b_3, and b_4 are regression parameter.

Following figures show these variables more clearly.

Model 1 helps to assess the relationship of value of stock traded with stock volatility. Regression model of part two helps to identify the effect of the macro economic indicators on NEPSE index. While model 3 identifies the effect of some stock market variables on NEPSE. Last model is for a regression of GDP on Market Capitalization and Stock Turnover.

Figure3.1: Dependent & Independent variables:

1) Dependent Variable: Independent Variable:

Volume of Shares Traded → Stocks Volatility

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2) Dependent variable: Independent variables:

NEPSE Index → Gross Domestic Product (GDP)

→ Lag of GDP for 1 Year (GDP_{t-1})

→ Lag of GDP for 2 Years (GDP_{t-2})

3) Dependent variables: Independent variables:

NEPSE Index → Value of Stock Traded

→ No. of Listed Companies

→ No. of Stock Traded

4) Dependent variable: Independent variables:

GDP → Market Capitalization

→ Stock Turnover

.3.4.12 F-statistics

F-statistics is considered to be more appropriate for the test of hypothesis of equality among several sample means. It is also known as 'F-test' or 'variance ratio test'. Generally, it is applied in testing

i. the equality of population variation
ii. the equality of several population means
iii. the significance of an observed sample correlation ratio and
iv. the linearity of regression

(Shrestha & Silwal, 2057: P. 344)

In the present study, F-test has been applied to test the significance of mean value of NEPSE index among industrial sectors.

3.4.13 T-statistics

The t-statistics states that if the sample size is less than 30, then the sampling distribution of the sample mean follows t-distribution. It is also called t-test of hypothesis. It was developed by Sir William S. Gosset which is used to test the hypothesis when population variance is not known. As per this hypothesis, if the calculated t-value exceeds the table value, it can be concluded that the difference is significant at the given level of significance. On the other hand, if it is less than that of table value, the difference cannot be treated as significant. Hence, t-test is very useful tool in testing the hypothesis.

The calculations of regression and correlation analysis are obtained using spss software. It is a software for managing data and calculating a wide variety of statistics.

CHAPTER -IV
PRESENTATION AND DATA ANALYSIS

This chapter is for number of closely related operations which have been performed with the purpose of summarizing and organizing data in such a manner that they answer the research questions. At the very outset trends of stock market development have been analyzed through the data those indicate concentration, liquidity, market capitalization, turnover etc. After this regression analysis, relationship of stock market and economic behavior etc. have consecutively been analyzed.

4.1 Trend of Stock Market Development

The level of stock market and its impact on the national economy can be measured by using various indicators broadly classified into following categories:

1. **Stock market size**
2. **Liquidity**
3. **Concentration, and**
4. **Volatility**

Various practioneers in finance field have tried to conceptualize the nature of relationship of stock market and economic variables using the tools above. Same sort of analysis is performed here in Nepalese context.

4.1.1 Stock Market Size and Trend

Generally large stock market indicates developed stock market and vice versa. Stock market size can also be interpreted within the following paradigm:

4.1.1.1 Number of Listed Companies and Paid Up Value

One of the measures of stock market size is the number of companies listed with stock exchange. Size of stock increases as and when the number of listed companies increases. More the number of listed companies larger the market size and vice versa.

In Nepal the number of companies listed with NEPSE was 66 in 1993/94, which increased to 176 in 2009/10.

Table 4.1
Market Capitalization and Listed Companies (Rs. In millin)

Years	No. of listed companies	Gross domestic product	Market capitalization	Market capitalization Ratio	Paid value of listed securities
1993/94	66	191596	13872	7	2182
1994/95	79	209976	12963	6	2962
1995/96	89	239388	12295	5	3359
1996/97	95	269570	12698	5	4477
1997/98	101	289798	14289	5	4960
1998/99	107	330018	23508	7	6487
1999/00	110	366251	43123	12	7347
2000/01	115	393566	40063	10	8165
2001/02	96	404482	34704	9	9685
2002/03	108	428477	35240	8	12560
2003/04	114	472346	41425	9	13405
2004/05	125	504239	61366	12	16772
2005/06	135	603673	96764	16	19958
2006/07	135	728178	186301	26	21799
2007/08	142	815663	366248	45	29465
2008/09	159	991316	512939	52	61140
2009/10	176	1182680	376871	32	79356

***Source**: SEBO, Annual Report*

Number of listed companies has increased over the period. However, it has decreased in 2001/02 and again started to increase to level up to 176 in 2009/10. This increasing trend of number of listed companies indicates that the market size has been increasing over the periods. Similarly, the paid up value of listed securities was Rs. 2182 million in 1993/94, in 2009/10 it was Rs. 79356 million. Paid up value of listed securities has gone up continuously during the periods. These increasing trends show that stock market size has been increasing gradually. However this is not a concluding remark, this should further be checked.

4.1.1.2 Market Capitalization Ratio

Another important measure of stock market size is the market capitalization ratio. This ratio indicates the relative importance of stock market to the national economy and assumes that the stock market size is positively correlated with the ability to mobilize capital and diversify risk. As one can see from the table 4.1, the market capitalization ratio, has, on an average been around 16 percent for the period between 1993/94 to 2009/10.It is important to remember that in countries with developed stock market this ratio is greater than 100 percent. In Nepal this ratio is less than 100 percent for all the periods averaging to 16 percent. This indicates that stock market size is not yet sufficient to show its impact on the economic activities of the country. This aspect has further been analyzed later.

4.1.2 Liquidity

Sometime it is argued that stock market size as measured by number of listed companies and the market capitalization ratio is not a good measure of economic and market growth, as it does not take into account the liquidity aspect of stock market. If stocks of a country are closely held and controlled by few numbers of firms then very few shares are traded in the stock market. This can be analyzed in terms of liquidity.Liquidity in the stock market refers to the convenience in trading of securities in the market. By allowing investors to alter their investment portfolios conveniently at any time and low cost, liquidity makes the securities less risky. The trend of liquidity shows how the resources have been allocated over the periods. The Liquidity aspect in stock market can be examined with the help of following tools:

4.1.2.1 Value of Shares Traded to GDP Ratio

Although this indicator does not measure directly the cost of trading shares, it does indicate the extent of ease in trading in stock market in a country. Volume of organized trading of equities as a percentage of national output increases when such trading is less costly and easy. Generally, countries with liquid stock market tend to grow faster than countries with illiquid market.

Table 4.2
Values of Shares Traded (Rs. In million)

years	Value of shares traded	Value of shares traded to GDP	Value of shares traded to Market capitalization
1993/94	431	0.002	0.03
1994/95	1054	0.005	0.08
1995/96	209	0.001	0.02
1996/97	416	0.002	0.03
1997/98	203	0.001	0.01
1998/99	1486	0.005	0.06
1999/00	1157	0.003	0.03
2000/01	2336	0.006	0.06
2001/02	1541	0.004	0.04
2002/03	576	0.001	0.02
2003/04	2144	0.005	0.05
2004/05	4508	0.009	0.07
2005/06	3451	0.006	0.04
2006/07	8360	0.011	0.04
2007/08	22821	0.028	0.06
2008/09	21681	0.022	0.04
2009/10	11851	0.010	0.03

***Source**: SEBO, Annual Report*

It can be observed from the table 4.2 that ratio of the value of shares traded to GDP, in Nepalese case, is 0.007 in an average over the periods. The highest is 0.028 in 2007/08 and lowest is 0.001 in 1997/98. In developed countries, this ratio tends to be in and around 0.40. This low ratio of share traded to GDP in Nepal indicates that trading in equity relatively to the size of economy is very low.

4.1.2.2 Value of Shares Traded to Market Capitalization Ratio

Another tool that measures liquidity of stock market is the ratio of value of share traded to market capitalization, also known as turnover ratio equals the value of share traded divided by market capitalization and is indicative of the trading relative to the size of stock market. Easiness in trading of stock in terms of cost and time is shown by this ratio. The higher the ratio more the liquidity and vice versa. From the table it is clear that this ratio stands in the range of 0.01 to 0.08, which can be regarded as very low. This ratio is highest in 1994/95 indicating sizable amount of turnover but thereafter this has not moved upward from this figure. This, in nutshell indicates growing illiquidity in the country's stock market.

To sum up the above analysis, taken together these both the ratio indicate that the stock market in Nepal is very small relative to its economy, and stock market in Nepal is yet to make its presence in the national economy.

4.1.3 Concentration

Nature of stock market development can also be analyzed with concentration. Whether the stock market is concentrated to certain firms or dispersed throughout can be examined through concentration ratio. In a stock market which has high concentration, means that major percentage of total market value and stocks of such companies are traded more frequently than that of others. Countries with family owned, closed enterprises and limited number of listed companies have high concentration ratio.

Table 4.3
Concentration Ratio (Rs. In million)

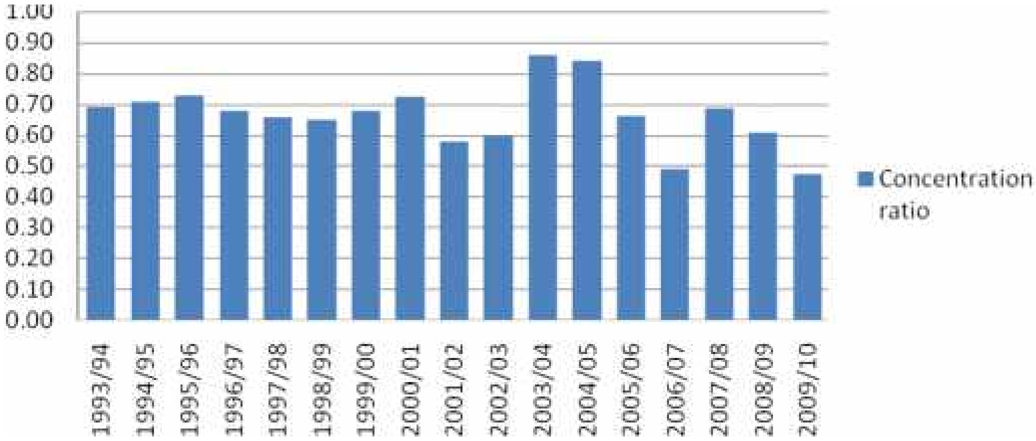
Years	Total value of share traded	Value of shares traded of top ten companies	Concentration ratio
1993/94	431	298	0.69
1994/95	1054	749	0.71
1995/96	209	153	0.73
1996/97	416	283	0.68
1997/98	203	134	0.66
1998/99	1486	966	0.65
1999/00	1157	787	0.68
2000/01	2336	1696	0.73
2001/02	1541	894	0.58
2002/03	576	345	0.60
2003/04	2144	1844	0.86
2004/05	4508	3786	0.84
2005/06	3451	2286	0.66
2006/07	8360	2295	0.49
2007/08	22821	15643	0.69

2008/09	21681	13231	0.61
2009/10	11851	5621	0.47

***Source**: NEPSE, Annual Report*

Table 4.3 gives market concentration ratio for different periods in Nepalese stock market. Concentration ratio in Nepal is averaged around 0.67 for over the 17 years period, which indicates that the stock market in Nepal is highly dominated by ten largest companies in terms of turnover. It is interesting to note that most of the ten largest companies dominating the market are commercial banks.

Figure 4.1
Concentration Ratio for Different Periods



Concentration Ratio for Different Periods

4.1.4 Stock Volatility

Stock volatility measures the riskiness in equity investment and it does not mean that higher volatility is the sign of underdeveloped stock market but higher risk must accompany with higher and fair return in order for such market to be developed. Simply it is said that higher volatility is less prefered to lower. Volatility here is measured with the help of a twelve month rolling standard deviation of average market return. Higher standard deviation means higher volatility, and more risk.

Table 4.4

Volatility in the Nepal Stock Exchange

years	Twelve month Rolling S.D.	Value traded ratio to volatility
1993/94	26.47	0.0012
1994/95	7.36	0.0111
1995/96	4.11	0.0041
1996/97	2.71	0.0121
1997/98	4.57	0.0031
1998/99	3.79	0.0167
1999/00	5.53	0.0049
2000/01	9.24	0.0063
2001/02	12.79	0.0035
2002/03	3.08	0.0053
2003/04	5.80	0.0089
2004/05	24.47	0.0030
2005/06	21.08	0.0022
2006/07	4.65	0.0045
2007/08	2.25	0.0023
2008/09	34.67	0.0056
2009/10	22.81	0.0041

Source: *SEBO journal, 2010*

Although Volatility of stock market in Nepal is high in the initial years, it has declined till 1998/99 indicating that the stock market tended to stabilize during the periods. From 1999/00 onwards stock market shows wider fluctuation and shows tendency to rise continuously to step up to 22.81 in 2009/10.

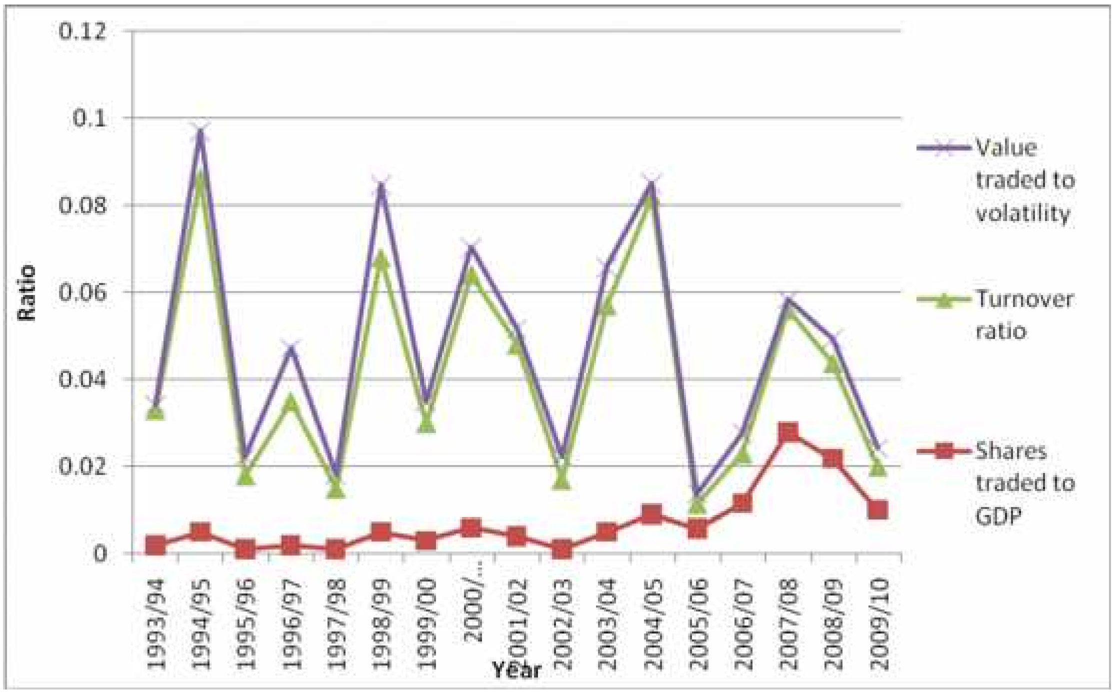
It is said that stock market should handle large volume of trading with less price swings. On the other way stock market should provide large stock trading with less volatility. If a stock market does so, value traded ratio to volatility will be more and more. On the other way high ratio is a good predictor of ability to handle risk relatively to volume of shares trading. This ratio in Nepalese case is presented in column 3 of above table. it is lower in almost all the periods, this ratios indicate inability of Nepalese stock market to handle risk relatively to volume of stock in Nepal. This issue has further been examined in next section.

4.1.5 Trend of Measure Market Indicators

Major indicators of stock market are analyzed and presented below. Here market capitalization ratio, value of shares traded to GDP, turnover ratio and value traded ratio to volatility are shown with trend line.

Figure 4.2

Trend of Major Stock Market Indicators



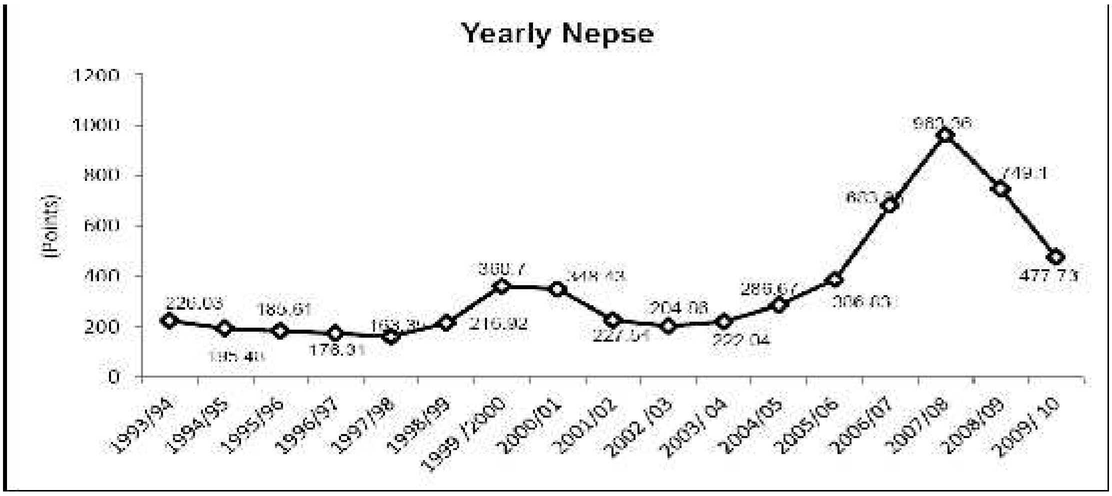
Value of share traded to GDP on the other has increased at once to its highest level in 1993/94. However this ratio decreased in 1994/95 and shows wider fluctuation over the periods and goes on increasing. Turnover ratio and value traded ratio showed wide fluctuations during the period. It is interesting to note that none of these indicators revealed a consistent trend during this periods, indicating that the development of stock market in Nepal lacks a definite direction and is not guided by clear cut policies and action, due to low volume of shares traded and wide fluctuations, the stock market in Nepal has been highly illiquid and volatile.

4.1.5.1 Trend of NEPSE Index

One of the important & suitable techniques of index analysis is annual trend analysis. This type of analysis plays the role to summarize index as a whole of year. The annual index is supposed as a closing price of last days of respective fiscal year. Graphical measures are considered for presenting and analyzing the data.

Figure 4.3

NEPSE Index from 1993/94 to 2009/10



NEPSE index has decreased gradually from 1993/94 to 1997/98 thereafter it has increased sharply to the point of 360.70 in 1999/00 . From 1999/00 onwards it has again started to decrease but from the fiscal year 2002/03 it has started to increase to go up to 963.36 in 2007/08.Thus NEPSE index shows wide fluctuation over the periods. It is, perhaps due to the inability of stock market in Nepal to handle risk relatively to volume of trading of shares.

4.1.6 Correlation Analysis

The correlations table displays Pearson correlation coefficients and significance values. Pearson correlation coefficients assume the data are normally distributed. The Pearson correlation coefficient is a measure of linear association between two variables. The positive sign of all the correlation coefficient indicates the positive direction of the relationship. The absolute value of the correlation coefficient is more than 0.714 for all pair of variables. This indicates stronger relationships. The correlation coefficients on the main diagonal are always 1.0, because each variable has a perfect positive linear relationship with itself.

Table 4.5

Correlation Results

Variables	Statistics	GDP	MC	VT	NI	NC
GDP	Pearson Correlation	1	.918**	.827**	.765**	.958**
	Sig. (2-tailed)		0	0	0	0
MC	Pearson Correlation	.918**	1	.954**	.858**	.836**
	Sig. (2-tailed)	0		0	0	0
VT	Pearson Correlation	.827**	.954**	1	.932**	.754**
	Sig. (2-tailed)	0	0		0	0
NI	Pearson Correlation	.765**	.858**	.932**	1	.714**
	Sig. (2-tailed)	0	0	0		0
NC	Pearson Correlation	.958**	.836**	.754**	.714**	1
	Sig. (2-tailed)	0	0	0	0	

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

Since correlation coefficient for all pair of variables are close to 1, this indicates that these pair are positively correlated. The significance of each correlation coefficient is also displayed in the correlation table. The significance level (or p-value) is the probability of obtaining results as extreme as the one observed. The significance level is very small i.e. close to 0 for all pair of variables so the correlation is significant and each of the two variables is linearly related.

4.6 Analysis of association of volume of share traded and volatility

In Nepalese stock market, how volatility responses to the volume of share traded is examined and analyzed here. For this purpose number of observation is 17 covering the periods between 1993/94 to 2009/10. The regression model is: $Ln(V) = a + b_1 Ln(VS)$, where V and VS are volatility and volume of shares traded and respectively and Ln denotes the natural logarithms.

Regression result of the model is presented below, it is clear that the volatility is dependent variable while the volume of shares traded is independent variable.

Table 4.6

Regression Results

Dependent Variable	Constant (a)	Regression Coefficient (b_1)	R	R^2	F-value	Sig.
Natural Log of Volatility (V)	0.55	0.201 [31.384] (0.187)	0.337	0.113	1.915	0.187

***Source**: Appendix-1*

Volatility is positively correlated with the Volume of shares traded .The coefficient of correlation is 0.337 indicating positive relationship of dependent variable (log of volatility) over independent variable (log of volume of shares traded). Value of regression coefficient (b_1) is 0.201, which indicates that for every 1 percentage change in volume of shares traded there will be 0.201 percentage change in risk or in stock market volatility. This positive relationship of risk and volume of shared traded provides a good message for the investors' confidence of buying and selling securities. Observing the test of confirmation of the results by the use of the F- test ratio, it is found that the tested value is less than tabulated value at 5 percent level significance and this shows that the model can not best explain the variation in independent variable.

It is said that stock market should handle large volume of trading with less price swings. On the other way stock market should provide large stock trading with less volatility. Very week positive relationship is observed in Nepalese stock market as indicated by regression coefficient.

4.7 Multivariate Regression Analysis

In this section, two regression models have been employed to see the relationship between selected dependent variable and independent variables. The result of these two models has been described in the following two sub-sections.

4.7.1 Regression Analysis of NEPSE Index on Number of Listed Companies and value of Stock Traded.

In this sub-section, an attempt has been made to see the impact of three independent variables viz. number of listed companies, number of stock traded and volume of stock traded. The regression result of these variables is presented in table 4.6.The regression model is: $NI = a + b_1 NC + b_2 VT$ ***. where NI, NC, NT and VT are NEPSE index, number of listed companies, and value of stock traded respectively. The regression results of this model and various subsets of independent variables are presented in table 4.5. The first three models include one of the two independent variables at a time. Models 4 to 6 include various combinations of the independent variables and model 7 include all the three independent variables simultaneously. For all the models NEPSE index is designed to be dependent variable.***

Table 4.7

Regression Result of NEPSE Index on Other Selected Variables

Models	Regression coefficient of		R	R^2	F-value	Sig*.
	NC	VT				
(1)	5.896 [3.951] 0.001**		0.714	0.51	15.611	0.001
(2)		0.030 [9.922] 0.00**	0.932	0.868	98.439	0.000
(3)	0.218 [0.179] 0.861	0.029 [6.164] 0.000**	0.932	0.868	46.059	0.000

Source: Appendix-I

Notes: 1) Figures in parenthesis [ ] are calculated t- values.

2) The signs * * indicate the level at which t-value becomes significant

3) The sign * indicates the level at which F-value is significant

Model (1) of above table is regression results of NEPSE index on number of listed companies. NEPSE index is positively correlated with the number of listed companies. The coefficient of correlation(R) is 0.714 indicating positive relationship of dependent variable (NEPSE index) over independent variable (number of listed companies).Value of regression coefficient (b_1) is 5.896, which indicates that for every 1 percentage change in number of listed companies, there will be 5.896 percentage change in NEPSE index . Observing the test of confirmation of the results by the use of the F- test ratio, it is found that the tested value is not significant at 5 percent level of significance and this shows that the model can not best explain the variation in independent variable. Observing the t-values of first model number of listed companies have been found to have greater impact upon NEPSE index. NEPSE index is also positively influenced by value of stock traded as indicated by correlation coefficients of second model which is 0.932. Coefficients of determination (R^2) of first and second models indicate that the models can explain 51 and 87 percent of total variation in NEPSE index respectively.

Last panel of the table presents the regression results of all the variables while considered simultaneously. Multiple correlation coefficient (R) of this model is 0.932 indicating that there are positive correlation between dependent variable (NEPSE index) and given set of independent variables (number of listed companies and value of stock traded).Coefficient of determination (R^2) is 0.868 indicating that out of the total variation in NEPSE number of listed companies and value of stock traded can explain 86.8 percent of such variation. However the t- values of NC are insignificant at 5 percent level of significance. Likewise F value is significant at the same level of significance which indicates that the model can best explain the variation in NEPSE index.

4.7.2 Regression Analysis of NEPSE Index (NI) On Gross Domestic Product (GDP), and Its Lag Values

It is important to identify the association of NEPSE index with major macro economic indicator i.e. GDP and its lag values for each of previous two years. Whether the stock trading in country has any significant presence upon the national economy or not are to be checked and analyzed here onwards. The regression results of this model and various subsets of independent variables are presented in table 4.8.

Table 4.8

Regression Result of NEPSE Index on GDP and Its Lag Values

Models	Intercept (a)	Regression coefficient of			R	R^2	F-value	Sig*.
		GDP	GDP_{t-1}	GDP_{t-2}				
(1)	-7.206	0.992 [5.663] 0.000**			0.712	0.689	32.066	0.000
(5)	-6.125	2.527 [1.365] 0.197	-1.632 [0.833] 0.421		0.727	0.682	16.001	0.000
(7)	-4.941	1.661 [0.912] 0.381	2.206 [0.480]	-3.082 [0.136] 0.025**	0.779	0.719	12.942	0.001

Source: Appendix-3

Note: 1) Figures in parenthesis are t- values

*2) The sign ** indicates the level of t- value being significance*

*3) The sign * indicates the level of F value being significance*

Regression model (1) of above table indicates the index elasticity of GDP is 0.992. In other words, over the period of study, a 1 percent increase in GDP led on average to about a 0.992 percent increase in the NEPSE index. From a purely statistical viewpoint, the estimated regression line fits the data quite well. Coefficient of determination (R^2) of this model is 0.689 indicates that out of the total variation in index, level of GDP can explain 68.90 percent. Thus explaining power of this model is said to be strong. Co-efficient of GDP i.e. β_1 is positive indicating the positive relationship of GDP with NEPSE index. Observing the test of confirmation by the use of F-value, the value is significant at 1 percent level of significance which means that the model can best explain the dependent variable. Likewise t value is also significant at 1 percent level of significance.

Regression model in panel B allows the lag variable of GDP to enter into the model. Coefficient of determination (R^2) of this model is 0.727 indicates that out of the total variation in GDP, credit at time t and t-1 can explain 72.70 percent. Thus explaining power of this model is good. Co-efficient of credit i.e. β_1 is positive indicating positive relationship between NEPSE and GDP. Howeve coefficient of lag of GDP for 1 year is negative.

Value of t for both of the independent variables are insignificant. However F value is singnificant

In the model of panel C all the independent variables of preceding models and one additional variable (i.e. 2 years lag value of GDP) are consider simultaneously. The model's coefficient of determination is high and f value is also significant at 1 percent level of significance. All the regression coefficients are positive except negative coefficient for GDP for 2 year lag. Which indicates positive relation of GDP and its 1 year lag value with NEPSE index. However 2 year lag of GDP has negative relation with NEPSE index.. However t value of the regression coefficients are insignificant except it is significant for 2 year lag of GDP at 5 percent level of significant.

4.7.3 Regression Analysis of Gross Domestic Product (GDP) on Market Capitalization (MC) and Stock Turnover (ST)

In this section attempts has been made to identify the relationship of stock market variables with economic indicators i.e. GDP. Following is the table that presents the regression results of different sets of independent variables.

The first two models include one of the two independent variables at a time and model 3 includes all the two independent variables simultaneously. For all the models GDP is designed to be dependent variable.

Table 4.9

Regression Result of GDP on MC and ST

Models	Regression Coefficient of		R	R^2	F-value
	MC	VT			
(1)	1.674 [8.981]*		0.918	0.843	80.656*
(2)		32.477	0.826	0.683	32.387*

		[5.691]*			
(3)	2.635 [4.497]*	-21.707 [-1.719]	0.933	0.871	47.064*

Source: Appendix-1

*Note: The sign * indicates the t- values and F ratios are significant at 5 percent level of significance.*

Model 1 of above table shows the regression results of GDP on market capitalization. Statistically significant coefficient of market capitalization with positive sign indicates that there is positive relationship of GDP over market capitalization and also suggest that GDP changes by 1.674 percent for every 1 percent change in market capitalization. F ratio as a test of confirmation supports that the explaining power of the model is very good. Cofficient of determination (R^2) of this model suggest that market capitalization can explain 84.3 percent of total variation in GDP. Regression results of Model 2 also indicate that there is positive association between GDP and stock turnover and this is too a valid result as the test statistics is significant at 5 percent level of significance.

Regression results of model 3 are presented throughout the last row of above table. This is the result of the model while all the independent variables are included simultaneously. The t- value of stock turnover is insignificant in this model so the result of stock turnover as appeared in this model is inconclusive. However the t-value of market capitalization is significant which confirms the results of model 2 that there is positive association between GDP and market capitalization.

4.8 Major Findings

This study addresses the behavior and trend of stock market and economic variables. The overall results of the study can briefly be noted out as follows:

Number of listed companies has increased over the period. However, it has decreased in 2001/02 and again started to increase to level up to 176 in 2009/10. This increasing trend of number of listed companies indicates that the market size has been increasing over the periods. Similarly, the paid up value of listed securities was Rs. 2182 million in 1993/94, in 2009/10 it was Rs. 79356 million. Paid up value of listed securities has gone up continuously during the periods. These increasing trends show that stock market size has been increasing gradually. However this is not a concluding remark, this should further be checked.

Another important measure of stock market size is the market capitalization ratio. This ratio indicates the relative importance of stock market to the national economy and assumes that the stock market size is positively correlated with the ability to mobilize capital and diversify risk. The market capitalization ratio, has, on an average been around 16 percent for the period between 1993/94 to 2009/10. It is important to remember that in countries with developed stock market this ratio is greater than 100 percent. In Nepal this ratio is less than 100 percent for all the periods averaging to 16 percent. This indicates that stock market size is not yet sufficient to show its impact on the economic activities of the country.

Ratio of the value of shares traded to GDP, in Nepalese case, is 0.007 in an average over the study periods. The highest is 0.028 in 2007/08 and lowest is 0.001 in 1997/98. In developed countries, this ratio tends to be in and around 0.40. This low ratio of share traded to GDP in Nepal indicates that trading in equity relatively to the size of economy is very low.

Another tool that measures liquidity of stock market is the ratio of value of share traded to market capitalization, also known as turnover ratio equals the value of share traded divided by market capitalization and is indicative of the trading relative to the size of stock market. Easiness in trading of stock in terms of cost and time is shown by this ratio. The higher the ratio more the liquidity and vice versa. From the analysis it is evident that this ratio stands in the range of 0.01 to 0.08, which can be regarded as very low. This ratio is highest in 1994/95 indicating sizable amount of turnover but thereafter this has not moved upward from this figure. This, in nutshell indicates growing illiquidity in the country’s stock market.

Concentration ratio in Nepal is averaged around 0.67 for over the 17 years period, which indicates that, the market value of top ten largest companies account for 67 percent of the total market value, which indicates that the stock market in Nepal is highly dominated by ten largest companies in terms of turnover. It is interesting to note that most of the ten largest companies dominating the market are commercial banks.

Although Volatility of stock market in Nepal is high in the initial years, it has declined till 1998/99 indicating that the stock market tended to stabilize during the periods. From 1999/00 onwards stock market shows wider fluctuation and shows tendency to rise continuously to step up to 22.81 in 2009/10.

It is said that stock market should handle large volume of trading with less price swings. On the other way stock market should provide large stock trading with less volatility. If a stock market does so, value traded ratio to volatility will be more and more. On the other way high ratio is a good predictor of ability to handle risk relatively to volume of shares trading. It is lower in almost all the periods; this ratio indicates inability of Nepalese stock market to handle risk relatively to volume of stock in Nepal.

Value of share traded to GDP on the other has increased at once to its highest level in 1993/94. However this ratio decreased in 1994/95 and shows wider fluctuation over the periods and goes on increasing. Turnover ratio and value traded ratio showed wide fluctuations during the period. It is interesting to note that none of these indicators revealed a consistent trend during this periods, indicating that the development of stock market in Nepal lacks a definite direction and is not guided by clear cut policies and action, due to low volume of shares traded and wide fluctuations, the stock market in Nepal has been highly illiquid and volatile.

NEPSE index has decreased gradually from 1993/94 to 1997/98 thereafter it has increased sharply to the point of 360.70 in 1999/00 . From 1999/00 onwards it has again started to decrease but from the fiscal year 2002/03 it has started to increase to go up to 963.36 in 2007/08.Thus NEPSE index shows wide fluctuation over the periods. It is, perhaps due to the inability of stock market in Nepal to handle risk relatively to volume of trading of shares.

Volatility is positively correlated with the Volume of shares traded. The coefficient of correlation is 0.337 indicating positive relationship of dependent variable (log of volatility) over independent variable (log of volume of shares traded). Value of regression coefficient (b_1) is 0.201, which indicates that for every 1 percentage change in volume of shares traded there will be 0.201 percentage change in risk or in stock market volatility. This positive relationship of risk and volume of shared traded provides a good message for the investors' confidence of buying and selling securities. Observing the test of confirmation of the results by the use of the F- test ratio, it is found that the tested value is less than tabulated value at 5 percent level significance and this shows that the model can not best explain the variation in independent variable.

It is said that stock market should handle large volume of trading with less price swings. On the other way stock market should provide large stock trading with less volatility. Very week positive relationship is observed in Nepalese stock market as indicated by regression coefficient.

NEPSE index is positively correlated with the number of listed companies. The coefficient of correlation(R) is 0.714 indicating positive relationship of dependent variable (NEPSE index) over independent variable (number of listed companies).Value of regression coefficient (b_1) is 5.896, which indicates that for every 1 percentage change in number of listed companies, there will be 5.896 percentage change in NEPSE index . Observing the test of confirmation of the results by the use of the F- test ratio, it is found that the tested value is not significant at 5 percent level of significance and this shows that the model can not best explain the variation in independent variable. Observing the t-values of first model number of listed companies have been found to have greater impact upon NEPSE index. NEPSE index is also positively influenced by value of stock traded as indicated by correlation coefficients of second model which is 0.932. Coefficients of determination (R^2) of first and second models indicate that the models can explain 51 and 87 percent of total variation in NEPSE index respectively.

Regression results of GDP on market capitalization shows a statistically significant coefficient of market capitalization with positive sign indicates that there is positive relationship of GDP over market capitalization and also suggest that GDP changes by 1.674 percent for every 1 percent change in market capitalization. F ratio as a test of confirmation supports that the explaining power of the model is very good. Cofficient of determination (R^2) of this model suggest that market capitalization can explain 84.3 percent of total variation in GDP. Regression results of Model 2 also indicate that there is positive association between GDP and stock turnover and this is too a valid result as the test statistics is significant at 5 percent level of significance.

CHAPTER-FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter attempts to summarize the whole study. After that, a conclusive and suggestive framework is built. The conclusion and suggestion would be of great help for the concerned parties. This chapter is divided into different parts namely summary, conclusion and recommendation and suggestion which are as follows:

5.1 Summary

Chapter one as an entrance step describes about background of the study, statement of problem, objectives, need, limitations and organization of the study. The main objective of this study is to assess the trend of stock market and economic development, and their interrelationship in Nepal.

In second chapter, theoretical concepts and other literatures review from journals, books, thesis and different articles are incorporated. Perusal of whole of the previous stock of literature has been made in this chapter reveals that Nepalese stock market is not in a developed form and taking its ride towards this as it is in its preliminary phase.

Third chapter includes research methodology. The research design of this study is descriptive and analytical in nature. The time coverage of data of this study differs as per the objectives and availability of data.

Fourth chapter presents all the relevant data and the data are explored and analyzed throughout the chapter. To find out the trend of stock market and economic development a number of tools is employed the results can be summarized in the following manner.

Number of listed companies has increased over the period. However, it has decreased in 2001/02 and again started to increase to level up to 176 in 2009/10. This increasing trend of number of listed companies indicates that the market size has been increasing over the periods. Similarly, the paid up value of listed securities was Rs. 2182 million in 1993/94, in 2009/10 it was Rs. 79356 million. Paid up value of listed securities has gone up continuously during the periods. These increasing trends show that stock market size has been increasing gradually. However this is not a concluding remark, this should further be checked.

Another important measure of stock market size is the market capitalization ratio. This ratio indicates the relative importance of stock market to the national economy and assumes that the stock market size is positively correlated with the ability to mobilize capital and diversify risk. The market capitalization ratio, has, on an average been around 16 percent for the period between 1993/94 to 2009/10. It is important to remember that in countries with developed stock market this ratio is greater than 100 percent. In Nepal this ratio is less than 100 percent for all the periods averaging to 16 percent. This indicates that stock market size is not yet sufficient to show its impact on the economic activities of the country.

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Another tool that measures liquidity of stock market is the ratio of value of share traded to market capitalization, also known as turnover ratio equals the value of share traded divided by market capitalization and is indicative of the trading relative to the size of stock market. Easiness in trading of stock in terms of cost and time is shown by this ratio. The higher the ratio more the liquidity and vice versa. From the analysis it is evident that this ratio stands in the range of 0.01 to 0.08, which can be regarded as very low. This ratio is highest in 1994/95 indicating sizable amount of turnover but thereafter this has not moved upward from this figure. This, in nutshell indicates growing illiquidity in the country’s stock market.

Concentration ratio in Nepal is averaged around 0.67 for over the 17 years period turnover. From this fact we came to know that stock market is highly dominated by the ten largest companies. It is interesting to note that most of the ten largest companies dominating the market are commercial banks.

Although Volatility of stock market in Nepal is high in the initial years, it has declined till 1998/99 indicating that the stock market tended to stabilize during the periods. From 1999/00 onwards stock market shows wider fluctuation and shows tendency to rise continuously to step up to 22.81 in 2009/10.

It is said that stock market should handle large volume of trading with less price swings. On the other way stock market should provide large stock trading with less volatility. If a stock market does so, value traded ratio to volatility will be more and more. On the other way high ratio is a good predictor of ability to handle risk relatively to volume of shares trading. It is lower in almost all the periods; this ratio indicates inability of Nepalese stock market to handle risk relatively to volume of stock in Nepal.

Value of share traded to GDP on the other has increased at once to its highest level in 1993/94. However this ratio decreased in 1994/95 and shows wider fluctuation over the periods and goes on increasing. Turnover ratio and value traded ratio showed wide fluctuations during the period. It is interesting to note that none of these indicators revealed a consistent trend during this periods, indicating that the development of stock market in Nepal lacks a definite direction and is not guided by clear cut policies and action, due to low volume of shares traded and wide fluctuations, the stock market in Nepal has been highly illiquid and volatile.

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5.2 Conclusion

The absolute trend of paid up value and numbers of listed companies pave the way to conclude that these values are in an increasing trend. Since the ratio of market capitalization to GDP very low for the periods, stock market size is not yet sufficient to show its impact on nation's economy. On the other, trend of turnover ratio and value of share traded to GDP ratio show that stock market in Nepal is very small relative to its economy, and stock market in Nepal is yet to make its presence felt in the national economy.

Nepalese stock market is highly dominated by the largest companies in terms of turnover as the concentration ratio is very high.

Stock volatility as measured by twelve month rolling standard deviation and stock volatility ratio give the basis to conclude the inability of Nepalese stock market to handle risk relatively to volume of stock in Nepal. It is interesting to note that none of these indicators viz. capitalization ratio, value of shares traded to GDP ratio, turnover ratio and value traded ratio to volatility ratio reveals a consistent trend during this periods, indicating that the development of stock market in Nepal lacks a definite direction and is not guided by clear cut policies and action, due to low volume of shares traded and wide fluctuations, the stock market in Nepal has been highly illiquid and volatile

The concentration ratio confirms the conclusion that Nepalese stock market is highly concentrated to one or group of the industrial sector (s). It is the banking sector at which the market is highly concentrated.

Nepalese stock market cannot handle large volume of tracings with less price swings. As there are very week positive relationship is observed in Nepalese stock market between volatility and value of shares traded.

Numbers of listed companies have been found to have greater impact upon NEPSE index than value of stock traded and number of stock traded .However NEPSE index is also positively influenced by number of stock traded and value of stock traded.

GDP, market capitalization and stock turnover have positive interrelationship. Thus Nepalese stock market is slowly taking its ride towards development. However lag variables of GDP is not likely to affect NEPSE index.

5.3 Recommendations and suggestions

- Various indicators of stock market development indicate that the stock market in Nepal is underdeveloped and it is not in a position to show significant presence in national economy. Turnover ratio, value traded ratio to volatility and concentration indicates the illiquidity and high risk in equity investment. To correct this problem acquisition and dissemination of information relating to stock market component is a must.

- Regression results shows that there are positive impact of number of listed companies on NEPSE index. Though this is the case, the companies listed in SEBO is in a limited number having only 8 sectors these also mostly dominated by banking, finance and insurance sectors. None of the companies has entered in organized stock exchange from power, information technology and construction sectors. The concerned parties should foster such an environment that encourages the sectors for organized dealing of securities. This will ultimately provide liquidity in stock market and may help to have impact upon national economy.

- The country should initiate the policies to reduce cost of mobilization of savings and to facilitate the investments as there is positive impact of GDP on NEPSE index.

- Nepalese stock market is highly dominated by banking sector. Over concentration of stock market causes the stock trading to be difficult. To correct this problem it is recommended to encourage to other sectors to get entered into organized stock exchange.

- Investors should be provided with wider variety of securities to meet their risk return preferences so that majority of the nation's population participate actively in buying and selling of securities that causes the stock market to developed which in turn develop nation's economy.

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APPENDIX-I

Regression Data and Results

Regression Data

years	No. of listed companies	Gross domestic product	Market capitalization	Stock Turnover	Volatility
1993/94	66	191596	13872	431	26.47
1994/95	79	209976	12963	1054	7.36
1995/96	89	239388	12295	209	4.11
1996/97	95	269570	12698	416	2.71
1997/98	101	289798	14289	203	4.57
1998/99	107	330018	23508	1486	3.79
1999/00	110	366251	43123	1157	5.53
2000/01	115	393566	40063	2336	9.24
2001/02	96	404482	34704	1541	12.79
2002/03	108	428477	35240	576	3.08
2003/04	114	472346	41425	2144	5.8
2004/05	125	504239	61366	4508	24.47
2005/06	135	603673	96764	3451	21.08
2006/07	135	728178	186301	8360	4.65
2007/08	142	815663	366248	22821	2.25
2008/09	159	991316	512939	21681	34.67
2009/10	176	1182680	376871	11851	22.81

Regression Results

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Lnvt[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: LnVolat

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.337[a]	.113	.054	.86498

a. Predictors: (Constant), Lnvt

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.433	1	1.433	1.915	.187[a]
	Residual	11.223	15	.748		
	Total	12.656	16			

a. Predictors: (Constant), Lnvt

b. Dependent Variable: LnVolat

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.550	1.117		.492	.630
	Lnvt	.201	.146	.337	1.384	.187

a. Dependent Variable: LnVolat

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	NC[a]	.	Enter
2	VT[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: NI

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.714[a]	.510	.477	168.52206
2	.932[b]	.868	.849	90.51074

a. Predictors: (Constant), NC

b. Predictors: (Constant), NC, VT

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	443341.662	1	443341.662	15.611	.001[a]
	Residual	425995.265	15	28399.684		
	Total	869336.927	16			
2	Regression	754646.211	2	377323.106	46.059	.000[b]
	Residual	114690.716	14	8192.194		
	Total	869336.927	16			

a. Predictors: (Constant), NC

b. Predictors: (Constant), NC, VT

c. Dependent Variable: NI

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-319.644	176.147		-1.815	.090
	NC	5.896	1.492	.714	3.951	.001
2	(Constant)	186.459	125.263		1.489	.159
	NC	.218	1.221	.026	.179	.861
	VT	.029	.005	.912	6.164	.000

a. Dependent Variable: NI

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	VT[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: NI

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.932[a]	.868	.859	87.54133

a. Predictors: (Constant), VT

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	754384.653	1	754384.653	98.439	.000[a]
	Residual	114952.274	15	7663.485		
	Total	869336.927	16			

a. Predictors: (Constant), VT

b. Dependent Variable: NI

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	208.320	26.007		8.010	.000
	VT	.030	.003	.932	9.922	.000

a. Dependent Variable: NI