

CHAPTER I

INTRODUCTION

1.1 Background of the Study

The history of securities market began with the floatation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. in 1937. Introduction of the company Act in 1964, the first issuance of Government Bond in 1964 and the establishment of Securities Exchange Centre Ltd. in 1976 were other significant development relating to capital markets. When security exchange centre converted into Nepal Stock Exchange (NEPSE) in 1993, the objectives of this institution become; to import free marketability and liquidity to the government and corporate securities by facilitating transactions in its only trading floor through market intermediaries' i.e. brokers as well as market makers. Nepal Stock Exchange, in short NEPSE, is a non-profit organization, operating under securities Exchange Act, 1983. NEPSE opened its trading floor on 13th January 1994. Members of NEPSE are permitted to act as intermediaries in buying and selling of government bonds and listed corporate securities.

At present Nepal have so many banks, insurance companies, micro finance companies performing different tasks. It shows there is perfect competition between these institutions. Commercial banks are working more effectively. It is because the banks have highly skilled personnel, modern banking services, and international network and country suited services. Besides all these, banks are performing various functions such as money creation and generation, deposit collection, credit extension, credit card issue and cheque transaction, import letter of credit, traveler cheque, export bill, issue of draft, telex transfer, RTGS etc. In the developed capital market, corporations are allowed to buy shares back for better utilization of their unused cash. However, Nepalese company acts 1997, section 47 has prohibited company from purchasing its own shares and supply loans against the security of its own shares.

Commercial banks plays a vital role in the economic resource allocation of country. They channel funds from depositors to investors continuously. They can do so, if they generate necessary income to cover their operational cost they incur in the due course.

The primary objective of commercial banks is always to earn profit by investing or generating loan and advances to people associated with trade, business, industry and so on. Good financial performance rewards the shareholders for their investment and encourages additional investment and brings about economic growth. On the other hand, poor banking performance can lead to banking failure and crisis which have negative repercussions on the economic growth.

In a country where the financial sector is dominated by commercial banks, any failure in the sector has an immense on the economic growth of the country. This is due to the fact that any bankruptcy that could happen in the sector has a contagion effect that can lead to bank runs, crisis and economic troubles. Thus, in order to take precautionary and mitigating measures, there is need to understand the fundamentals of banks and its determinants. Performance evaluation is an important approach for enterprises to give incentive and restraint to their operators and it is an important channel for enterprise stakeholders to get the performance information.

People invest their money for satisfactory and expected return. To these objectives, firms distribute the earnings to their shareholders. Earning is that amount which remains after deducting all operational and non operational expenses. Shareholders expectations may vary with their investment priorities, some invest for capital appreciation of stock and some for earning as dividend. In the capital market, all firms operate in order to generate earnings. Shareholders make investment in equity capital with the expectation of making earnings either directly in the forms of dividend or indirectly in the forms of capital gains in future.

Nepalese capital market has not efficient communication network even today. It has made capital market less efficient and efficiency in results the risk. Even though, it is hoped that Nepalese capital market will be moving towards efficiency in the days to come. In capital market all firms operate in order to generate earning, shareholders make investment in equity capital with the expectation of making earning either directly in the form of dividend or indirectly in the form of capital gains in future. The sole objective of each and every business is maximizing the shareholders wealth. Financial management is the heart of management and the numbers of decisions are made by the financial decision in order to run the company smoothly.

Capital market is the place where long term securities are traded having maturity period more than one year. The capital market mobilizes savings of individuals as investment in different securities, which are ultimately utilized for productive purposes in various sectors of the economy. Capital market can be divided into primary market and secondary market. Primary market is the market place where first issuance of securities takes place and secondary market is the place where trading of existing issued securities takes place.

The development of the capital market in Nepal started in 1976 after the establishment of Security Exchange Center with the objective of facilitating and promoting the capital market in Nepal. Security Exchange Center was converted into Stock Exchange Limited in 1993 and with this broker system for secondary market came in existence in Nepal. Its basic objective is to impart free marketability and liquidity to the government bonds and corporate securities by facilitating transactions in the trading floor through market intermediaries such as brokers, market makers and others.

A fundamental analysis is all about getting an understanding of a company, the health of its business and its future prospects. It includes reading and analyzing annual reports and financial statements to get an understanding of the company's comparative advantages, competitors and its market environment. Fundamental analysis is the examination of the underlying forces that affect the well-being of the economy, industry groups and companies. As with most analysis, the goal is to derive a forecast and profit from future price movements. At the company level, fundamental analysis may involve examination of financial data, management, business concept and competition. At the industry level, there might be an examination of supply and demand forces for the products offered.

Fundamental analysis is built on the idea that the stock market may price a company wrong from time to time. Profits can be made by finding underpriced stocks and waiting for the market to adjust the valuation of the company. By analyzing the financial reports from companies you will get an understanding of the value of different companies and understand the pricing in the stock market. After analyzing

these factors one can have a better understanding of whether the price of the stock is undervalued or overvalued at the current market price. Fundamental analysis can also be performed on a sectors basis and in the economy as a whole.

For a fundamental analyst, the market price of a stock tends to move towards its 'intrinsic value', which is the 'true value' of a company as calculated by its fundamentals. If the market value does not match the true value of the company, there is an investment opportunity. Example of this is that if the current market price of a stock is lower than the intrinsic price, the investor should purchase the stock because he expects the stock price to rise and move towards its true value. Alternatively, if the current market price is above the intrinsic price, the stock is considered overbought and the investor sells the stock because he knows that the stock price will fall and move closer to its intrinsic value. To determine the true price of the company's stock, there are some factors need to be considered.

1.2 Statement of the Study

Nepalese securities' market being inefficient, most of the investors invests without having proper information and knowledge about the market. Investors are highly influenced by the friend circles and rumors in the market. Actual position of an organization is reflected in its financial statements, but very few investors have knowledge and insight of the actual performance of companies while investing. Fundamental analysis of companies are very important so as to have the glance of true picture of the company and invest wisely but Nepalese market is highly directed by market whim and instincts of investors.

This study is directed towards analyzing chosen commercial banks to know it's fair price at present and to find whether its right time to buy or sell the security. A fundamental analysis is all about getting an understanding of a company, the health of its business and its future prospects. More specifically the study has sought answers to the following questions:

- Are the chosen commercial banks performing fundamentally well ?
- Are the stocks of chosen commercial banks priced fairly in stock market ?

1.3 Objectives of the Study

The major objective of the study is to analyze the stock price behavior of the chosen commercial banks of Nepal as against the financial valuation tools. However, the specific objectives of the study are as follows:

- To analyze the stock price movement of sample commercial banks in relation to the financial valuation tools ;and
- To compare the stock price behaviours of sample commercial banks in relation to the financial valuation tools

1.4 Significance of the Study

Banks are the most important financial intermediaries in the most economics that provide a bundle of different services. Banks are the financial intermediaries that pool scattered money through its various deposit schemes and invest it in various sectors of the economy. As financial intermediaries, banks play a crucial role in the operation of most economies. Commercial banks are key providers of funds and their stability is of paramount importance to the financial system.

As we know that investors in Nepal are investing in companies without proper study and knowledge of the stock market and company itself, this research will help investors to know about the chosen commercial banks regarding their profitability and riskiness. It will also be helpful to institutions like merchant bankers, investment bankers, portfolio managers etc. Similarly, it will also be helpful to the organization themselves as the study will provide glimpse of past financial performances and its position in stock market for better knowledge on the future prediction for investment.

This study has identified the following research questions regarding fundamentals of commercial banks with special reference to Everest Bank Limited and Nabil Bank limited.

- What is the status of present stock price of Commercial Banks?
- Are the Commercial Banks fairly priced in stock market or not?

1.5 Organization of the Study

This study has been organized into five chapters in total. Each chapter has its own importance. The report is organized in this fashion to make this study in line with simple research methodology approach. The following are the titles of the chapters:

Chapter I : Introduction

Chapter II : Literature Review and Theoretical Framework

Chapter III : Research Methodology

Chapter IV : Data Presentation and Analysis

Chapter V : Summary, Conclusions and Recommendation

The study starts with the first chapter (introduction) that includes general background followed by the statement of the problem, objectives of the study, significant of the study, and operational definitions. This chapter also looks over the major issues to be investigated and explained.

The second chapter (literature review and theoretical framework) provides the clear insights of the literature review. It includes the review of major studies, review of recent studies and review of Nepalese studies. In addition, conceptual framework - on how study has been carried out - is illustrated under this chapter. This chapter ends with the concluding remarks.

Chapter three (research methodology) cover the research design. This chapter further attempts to explain the nature and sources of data, data analysis process, models used for the data analysis and limitations of the study

Fourth chapter (data presentation and analysis) focuses on the systematic presentation and analysis of data. It consists of structure and pattern analysis, descriptive analysis..

Finally, chapter five (summary, conclusions and recommendations) includes summary, conclusion, recommendation and future scope based on major findings of the study. It also focuses on the major findings along with other empirical evidences.

1.6 Research Plan and Design

The study is based on descriptive and analytical research designs. The descriptive research design has been adopted for fact-finding and searching for adequate information about the fundamental of Nepalese commercial banks. It describes the real and actual condition, situation and facts. Hence, the research design adopted in this study is of descriptive type. The study also establishes the cause and effect relationship between selected variables and fundament of commercial banks in Nepalese context. More specifically, the study analyzes the present condition and future prediction of the Nepalese commercial banks during the time period of 2011-12 to 2015-16.

Appropriate research design will be carried to achieve the objective of the research. It is one of the very important and crucial parts in the research work. Research design is a plan structure and strategy of investigation conceived so as to obtain answer to research question and to control variances.

This study aims to analyze the fundamentals of commercial banks through assessment of their financial statements and forecasting their financial statements to find their intrinsic value to find whether they are overpriced or underpriced in the stock market. The research design followed for this study is descriptive and analytical research design.

1.7 Nature and Source of Data

This section elaborates on how data will be collected to carry out the study. The entire study will be done on the basis of secondary data available from various sources. In the study financial statements of commercial banks will be the key source for analysis. Balance sheets, income statements and principal indicators of commercial banks will be taken from annual report of commercial banks. The necessary secondary data and information will be collected from the Annual Reports of selected commercial banks, Banking and Financial Statistics and Bank Supervision Report published by Nepal Rastra Bank (NRB). Likewise some data and information will also be collected from economic journals, periodicals, bulletins, magazines and other published and unpublished reports and documents from various sources. Other required data will also be acquired from NEPSE, SEBON, NRB, MOF and company itself.

1.8 Tools used

In particulars, financial valuation tools namely, PEG from EPS growth and PEG from earning growth will be used to establish the valuation of the individual banks against the stock market price at the end of the fiscal year. Financial and statistical tools are the main tools used in the analysis of the data. The collected data from different sources are presented systematically in table, bar diagrams and figures.

1.9 Population and Sample

This study intends to analyze stock price of chosen commercial joint venture banks through the study of fundamentals from their annual reports and to know whether they are fairly priced or not in the stock market. So, the population of the study is all the listed commercial banks in NEPSE.

A sample is the collection of items from population or universe and comprises some observations selected from the population. Sampling method is the scientific procedure of selection those representative units which would provide the required elements with associated margin of uncertainty arising from examining only a part and not to the whole.

Out of that population, following two commercial banks are selected as samples for this study by using random sampling method.

- Everest Bank Limited
- Nabil Bank Limited

Above banks are taken sample on the following bases (criteria) :

- Both banks are foreign joint venture banks.
- Both banks were established before 1995.
- The size of earning per share of both banks for last five years is much similar as this study has used EPS as one of the stock price.

CHAPTER II

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Literature review is one of the essential part of the research which demonstrate the past researches related to the subject matter. It discovers what has been done and left in the past researches. Knowledge of past study provides foundation to the present study. Studying various books, journals, newspaper, magazine, old thesis, dissertation and very useful suggestion of the investigators and experts of the related field have been systematically and effectively presented in this part.

The review of literature has been divided into four sections. Section one describes about conceptual framework, the review of related study in Nepal related to this study topic has been presented in section two and the summary of literature review are presented in section three and section four contains the research gap.

2.1 Conceptual Framework

2.1.1 Review of Books and Articles

2.1.1.1 Financial Market

Financial Markets provide a forum in which suppliers of loans and investments can transact business directly. The loans and investments of institutions are made without the direct knowledge of the suppliers of funds (savers), suppliers in the financial markets know where their funds are being lent or invested. The two keys of financial markets are the money and the capital market. Transactions in short term debt instruments, or marketable securities, take place in the money market. Long term securities like bonds and stocks are traded in the capital market.

2.1.1.2 Money Market

Money market is the market for the short term securities like treasury-bills, Government bonds, certificates of deposits, banker's acceptances and commercial paper or promissory notes. It includes both primary and secondary market activities. The money market exists because certain individuals, businesses, governments and financial institutions have temporarily idle funds that they wish to place in some kind of liquid assets or short term interest earning instrument. Like this other individuals, businesses, governments and financial institutions are in need of seasonal or

temporary financing. Thus the money market provides the platform for the supplier (who have idle funds for some period) and demand makers of short-term liquid funds. In theory, we found money market different from the capital market. In practice, however in most countries with efficient financial markets, where money and capital market is combined, the merchant banks are active in both. This is because negotiable money market instrument for all practical purposes is simply a short term capital market instrument. Therefore, the techniques and facilities needed to operate money market are almost same as those needed to operate the capital market

2.1.1.3 Capital Market

Capital market is the market for the long term funds. Capital market can play vital role to mobilize the market follows capital to invest on the corporate sectors by the means of securities. The capital market is a financial relationship created by a number of institutions and arrangements that allows the supplier and demanders of long term funds (funds with maturities of more than one year) to make transactions. Included among long term funds are securities issue of business and government. The backbone of the capital market is formed by the various securities exchanges that provide a forum of debt and equity transactions. The smooth functioning of the capital market, which is enhanced through the activities of investment bankers, is important to the long-run growth of business (Gitman, 1992). The capital market is the trading center for the financial instrument. In capital market different types of financial securities such as ordinary share, preference share, treasury bills, and debenture are traded. This market can be further divided into two parts:

- i) Non-securities market
- ii) Securities market

Non-securities Market

Non-securities market is a market where financial needs of the borrower (demanders) are fulfilled for a longer period of time without issuance of any securities like shares, bonds and debenture. Financial transactions between the lending institutions such as banks, business houses, saving institutions or individuals come under this non-securities market.

Securities Market

The securities market is known as the market where all types of securities are traded. Security market is a broad term embracing a number of markets in which securities are bought and sold. Securities markets includes how an individual investor goes about the business of placing any order to buy or sell, how the order is executed, the process of setting the payment and transfer costs, and one hopes the payment of federal personal income taxes on the profits from the transaction.

Security market sets a price for the securities it trades and makes it easy for people to trade them. Securities market facilitates the sale and resale of transferable securities. The security market can be defined as the mechanism for bringing together buyer and seller of financial assets to facilitate trading. Securities market is classified into two, the market in new securities are sold is called primary market and the market in which existing securities are resold is called the secondary market. Secondary markets are created by brokers, dealers and market makers. Brokers bring buyer and seller together with themselves actually buying and selling; dealers set price at which they themselves are ready to buy and sell (bid and ask price respectively). Broker and dealer come together in organized market or in stock exchange (Gitman, 1998).

Functions Performed by Securities Market

- One of the most important functions performed by a securities market is to maintain active trading. It facilitates the immediate buying and selling of securities by the investors. It provides liquidity to the assets.
- It also facilitates the price discovery process. It is possible through the demand and supply of securities from the investors.
- It aids new financing indirectly by providing facility to resell the securities.

All securities, whether in the money or capital market are initially issued in the primary market. This is the only market in which the company or government is directly involved in the transaction and receives direct benefit from the resale of securities. Once the securities began to trade among individuals, business, government, or financial institutions, savers and investors, they become part of the

secondary market. The primary market is where "new securities are sold" and the secondary market can be viewed as a "used" or "pre owned" securities market (Bhattarai, 2006).

The securities market may also be divided into two parts:

- Primary market
- Secondary market

Primary Market

When firms need capital, they may choose to sell new securities. They sell securities in the primary market. This is typically done through a syndicate of securities dealers. The process of selling new issues to investors is called underwriting. In the case of a new stock, the sale is an initial public offering (IPO), though it can be found in the prospectus. Investment bankers which is called the primary market typically market these new issues of stocks, bonds or other securities. The issue of the securities in the primary market leads to direct transfer of money from the savers to the issuer of the securities. Thus, the primary market transfers the funds from savers to investors to make the capital available for new investments in building, equipment, stock of necessary goods. The growth of capital market open avenue for trading in the secondary market followed by primary market and it is drawing dimension of investment banking services undertaken by NIDC capital market, Citizen Investment Trust, Nepal Share Market, etc. The linkage between companies and investors has created inveigling conditions in the flow of funds both in primary and secondary market.

Characteristics of Primary market are:

- Market for new long term capital.
- The securities are sold for the first time.
- The securities are issued by the company directly to investors.
- Used by the companies for the purpose of setting up new business or for expanding or modernizing the existing business.
- Facilitates capital formation in the economy.

Secondary Market

Secondary market is the market where secondhand securities are traded. It means securities once purchased through primary market are traded in secondary market. Both the primary and secondary markets are complementary to each other. In the absence of one market another market cannot flourish. Secondary market comprises stock exchange and Over-The-Counter market, popularly known as OTC market.

Unlisted securities are not traded in stock exchange. Exchanges generally do have their own listing rules. So unlisted securities are traded in OTC market. Stock exchanges are considered as an organized market where as OTC market from earlier days considered as unorganized market. But presently, this market is also as organized as the stock exchanges. Nepal does not have OTC market. NEPSE is only the secondary market in the country.

Secondary market is also known as economy barometer of country. This is because it reflects the economic policy of the country. All other things remain the same, the rising price of stock exchange show the policy is favorable and the declining price indicates the opposite. Some of the academicians have compared the stock exchanges with Alibaba' Treasure. As in the story of 'Ali baba and Forty Thieves' the door of the cave will open when someone pronounce rightly "khuljasimsim" in the dusk, in the same way when the investors can get return if the transaction are made at the right time with right decisions (Bhattra; 2008).

2.1.1.4 The Investment Process

In his book 'Capital' Karl Marx (Marx, 1887) uses a remarkably simple equation to explain the capitalist system: M-C-M'. In words, the capitalist starts with Money (M), converts it into Capital (C) by investing it and ends up with More Money (M) – that is in essence the investment process. Investing is essential for the functioning of the capitalist system. Investors provide money to entrepreneurs that build businesses to produce goods and services demanded by society. In return for providing capital, the investor is compensated with a share of the profits of the business.

An investment can therefore be defined as the current commitment of dollars for a period of time in order to derive future payments that will compensate the investor for

- (1) the time the funds are committed,
- (2) the expected rate of inflation, and
- (3) the uncertainty of future payments or risk.

In relation to common stocks, two different methods of investing can be distinguished: modern portfolio theory and fundamental analysis.

2.1.1.5 A Brief Introduction to Nepal Stock Exchange

The story of the security markets in Nepal begins with the flotation of shares by Biratnagar Jute Mills Ltd & Nepal Bank Ltd in 1937. NEPSE is the only organized stock market in Nepal facilitating the trading of corporate securities, mainly common stocks where stock is traded through registered brokers under set of rules and regulations.

It opened its floor for the trading of corporate securities on the 13th of January 1994. NEPSE is a non profit making organization operation under security exchange act 1983. The basic objective of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transaction in its trading floor through market intermediaries such as brokers, market makers etc. NEPSE is the only Stock Exchange in Nepal introduced fully automated screen based trading since 24th August, 2007.

The NEPSE trading system is called 'NEPSE Automated Trading System '(NATS) which is a fully automated screen based trading system, which adopts the principle of an order driven market. Members of NEPSE are permitted to act as intermediaries in buying and selling of government bonds and listed corporate securities.

At present, there are 33 member brokers and 1 dealer, who operate on the trading floor as per the Securities Exchange Act, 1983, rules and by-laws. Besides this, NEPSE has also granted membership to issue and sales manager securities trader (Dealer). Issue and sales manager works as manager to the issue and underwriter for public issue of securities whereas securities trader (Dealer) works as individual portfolio manager. At present there are 11 sales and issue manager and 2 dealers (Secondary market). The tenure of the membership is one year. The license should be

renewed within 3 months after the closure of the fiscal year. If not, it can be done within another three months by paying 25 percent penalty.

Nepal Government, Nepal Rastra Bank, Nepal Industrial Development Corporation and the licensed members are the shareholders of NEPSE. It has helped to collect fund required for mega projects from small investors by means of stock investments. It has crucial role for making investment environment for the large number of middle class families and collect the scattered lifeblood for industrial development.

In this modern era, since the value maximization is regarded as superior objectives, NEPSE plays a crucial role by providing a floor for stocks trading. NEPSE has helped the listed companies to increase their share price, which are organizational as well as individual objectives.

2.1.1.6 Theories of Stock Price Movement

“The prices of securities are typically very sensitive, responsive to the events, both real and imagined that cast light into the murky future”. Though all factors give rise to the observed movement of share prices. It would be very hard to find a completely accepted price formation theory.

There are some short conceptual frameworks about the theories of stock price determination. The share price is determined in the floor by the interaction of market forces, i.e. demand and supply. The price is determined by the point of equilibrium between supply and demand, the shifting of this balance results in incessant adjusting of price in search of the ever-changing new equilibrium. Then market price moves upward and downward. There are numerous reasons that cause the share price fluctuation. Of them are

- Economic factors,
- Non-economic factors and
- Market factors.

Before describing the efficient market theory, it would be proper to explain the conventional theory which are

- a) Technical analysis theory,

- b) Fundamental analysis theory and
- c) Efficient market theory

2.1.1.6.1 Technical Analysis Theory

Technical Analysis is one of the most important theory of share price determination and interpretation of the stocks and it includes the study of past price and value of stocks to forecast future movements. Technical analysis is also based on the widely accepted premise that securities price are determined by the demand and supply of securities. A technical analysts or a technician, is a security analysts who believes it is not productive to work through all the fundamental facts about the issuing corporation the company earnings, its products, forthcoming legislation that might affect the firm. Instead technical analysts believe that these innumerable fundamental facts are summarized and presented by the market prices of the security.

Technical analysts focus most of their attention on charts of security market prices and on related summary statistics about transactions. As a result, technical analysts are sometimes called chartists. Most technical analyses prepare and study charts of various financial variables in order to make forecasts about security prices but an increasing number use quantitative rather than graphical tools. The tools of technical analysts are therefore designed to measure the certain aspects of demand and supply. Typically; technical analysts record historical financial data on charts, study these charts in search of patterns that they find meaningful and endeavor to use the patterns to predict futures, prices. These charts are useful to analyze the single security, the market index etc.

The methodology of technical analysis rests upon the assumption that history tends to repeat itself in the stock exchange. If a certain pattern of activity has in the past produced certain results nine times out of ten, one can assume a strong likelihood of the same outcome whenever this pattern appears in the future. It should be emphasized, however, that a large part of the methodology of technical analysis lacks a strictly logical expectations.

2.1.1.6.2 Fundamental Analysis Theory

Fundamental analysis is an investment approach that uses existing economic information, such as historical financial statements or different fundamental information about a company, to make investment decisions. The principles of fundamental analysis were first outlined in the book 'Security Analysis' of Graham and Dodd (Graham & Dodd, 1934). Simply, the fundamental analysis theory refers the formula and principle. According to the technical analyst, the fundamental analysis is idealist part of analysis. So it is not perfect and market principle of analysis of stock price movement.

Fundamental analysis theory also claims that at any point of time an individual stock has an intrinsic value, which is equal to the present value of the future cash flows from the security discounted at appropriate risk, adjusted discount rate. "The value of the common stock is simply the present value of all the income which the owner of the share will receive" (Fransis, 1986). 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 for a particular stock. So, fundamentalists attempt to reach best estimates of the intrinsic value of share by studying company's sales, profits, dividends management competency and numerous other economic and industrial factors which determine its future income and prospect of the business opportunities. Fundamental analysts delve into company's earnings, their management, economic outlook, firm's competition, market conditions and many other factors (Fransis, 1986).

Fundamental analysis theory also involves working to analyze different factors like as economic influences, industry factor, governmental action, firm's financial statement, its competitor and pertinent company information like product demand, earnings, dividends and management in order to calculate on intrinsic value for firm's securities. The analyst who believes on fundamental facts to determine the intrinsic value of stock is popularly known as fundamental analysts or fundamentalist. Since the world of uncertainty, the anticipation of the values cannot be known exactly, there will be disagreement on the opinion about the estimation among the market participants. Then

the actual prices fluctuate closely around the 'economic value' of share, because to far from the true value is profitable for the participants and they do not miss to exploit the situation. Over the time, with the continuous generation of new information related to company's earning prospect, the intrinsic value also changes. As a result, prices of the stock adjust to new intrinsic value. The actual price of the security therefore is considered to be a function of a set of anticipation. Price changes as anticipation changes which in turn change as a result of new information (Bhalla, 1983). Whenever the stocks are priced over or under the value of the stock, the recommendation of sales or purchase is called for, "After extensive analysis, the investor derives an estimated of the 'intrinsic' value of the security, which is then compared to its market price, if the value exceeds the market price, the security should be acquired and vice versa.

Fundamental analysis uses different models like Top-Down versus Bottom-Up forecasting, Probabilistic forecasting, econometric models, financial statement analysis etc to estimate the value of security (Sharpe, Alexander and Bailey, 2001). Therefore, the fundamental analyst reaches an investment decision on the basis of these analytical tools.

The idea behind the '*Top down*' approach is to use all information available, including macroeconomic data, to make an investment decision. In general, fundamental analysts look first at the current macroeconomic conditions, because for them the decision to invest depends mainly on what stage of the business cycle the economy is heading and which industry is expected to perform well in the forecasted economic environment. Then analysts try to find the best companies in these industries. The stock selection process is based on the idea that the stock of the selected company must outperform its peers in the industry and the industry must outperform other industries. On the basis of such a study fundamentalist project a company' future profits and earning capacity with reasonable accuracy what the price of a company's share ought to be. This projected price is termed an intrinsic value.

The intrinsic value of the stock is generally away form its present market value. Thus there is difference/gap between them. Fundamentalist reaches an investment decision by comparing this value with current market value, it is believed that price will rise. In

this situation, fundamentalist will acquire shares as this difference presents them with an opportunity to make a profit. Alternatively, if the intrinsic value is lower than the market value, the share is overpriced and is an indication to the fundamentalists to sell.

The top-down approach is widely accepted and followed on Wall-Street and well documented in investment textbooks. Investment strategies based on that approach include sector rotation (changes in the sector allocation based on changes in the economic environment) and style investing (the differentiation between value and growth stocks).

In contrast to the '*top-down*' approach, the '*Bottom-up*' approach to fundamental analysis does not attempt to forecast the economic environment. It consists mainly of estimating the value of a stock and comparing it to its current market price. If a stock is significantly undervalued, it is considered a buying candidate independent of future market or macroeconomic conditions. The proponents of this approach try to find good companies that are selling at a low price in relation to their fundamentals. Mainly because academics feel uncomfortable ignoring some important available information, the bottom-up approach is less of a focus in textbooks and empirical research and therefore also known as the practical approach to investing.

Although we know of no academic study comparing the empirical validity of the top-down and bottom-up approach to fundamental analysis, it seems that the bottom-up approach produced the most profit for its followers (Buffet, 1984). Forecasting the economy has been proven to be a very difficult task that rarely produces satisfactory investment returns. The most common mistake in the top-down approach is however that investors focus on companies rather than on stocks. Investors must recognize that a good company is not necessarily a good investment.

The stock selection process should always be based on a comparison between the intrinsic value of a stock and its current market price. Investors must thus determine whether a stock is under- or overvalued based on the fundamentals of the business. Only when value exceeds price by a high enough margin of safety should a stock be bought. The stock investment process looks considerably different depending on the

investor's belief about market efficiency. The discussion in the academic literature about whether the stock market is efficient or not is endless long and the conclusions differ.

2.1.1.6.3 Efficient Market Theory

Efficient market theory refers the optimum price of the stock in the competition market. Stock price is neither over-valued nor undervalued in the market like monopoly market. This theory involves the study of random or efficient market hypothesis. "In 1900, French mathematicians Louis Bachelier write a scientific paper suggesting that day-to-day security price fluctuation were random walk theory" (Cootner, 1962). The term efficiency also may be defined in various ways allocative efficiency, operational efficiency, and information's efficiency when the finance literature speaks of market efficiency it is generally speaking exclusively about informational efficiency in pricing the stocks. A market is said to be informational efficient if the current market price instantaneously and fully reflects all relevant available information. The market value of a particular share may be under or over-valued. An efficient market is one where shares are always correctly priced and where it is not possible to outperform the market consistently.

Thus efficient market theory contends that in a free and perfect competitive market, stock prices always reflect all the available information and adjust instantaneously every influx of new information. In an efficient market only price changes that would occur are those, which result from new information. An initial and very important premise of an efficient market is that there are large numbers of knowledgeable and profit maximizing independence buyers and sellers, new information is generated randomly and the investors adjust the information rapidly (Reilly, 1986). Therefore, if market is efficient, it uses all available information to it in setting price. The measure of efficiency evolved from the notion of perfect competition, which assumes free and instantly available information, rational investors with no taxes or transaction cost. The following are the requirements for a securities market to be an efficient market:

- Prices must be efficient so that new inventions and better products will cause a firm's securities price to rise and cause investors to want to supply to the firm (i.e; buy its stock).

- Information must be discussed freely and quickly across the national so all investors can react to new information.
- Transactions costs such as sales commissions on securities are ignored.
- Taxes are assumed to have no noticeable effect on investment policy.
- Every investor is allowed to borrow or lend at the same rate.
- Investors must be rational and able to recognize efficient assets so that they will want to invest money where it is needed most (i.e; in the assets with relatively high return, Bhalla, 1983).

This constitutes the world of the efficient market theory or more popularly the capital assets pricing model. As efficient market is concerned with the pricing mechanism of securities market it was two dimensions of price adjustment. One is the type of information reacting to and another is the speed and quality of a adjustment of security to the information. As any random infusion of information instantaneously and correctly adjusted in prices; there will be no subsequently dependencies or lags that are profitable.

Pricing not only should be instantaneous, but also should discount accuracy of information so that the prices fluctuate closely around its intrinsic value. So Keane rightly pointed out, It would be clearly on add interpretation of efficiency if a doubling in price the price of a share were regarded as an efficient reaction to new information, simply because the movement was instantaneous, if the information in fact warranted a substantial reduction in price (Kene, 1903). Agreeing with this, Francis and Tylor noted, Market efficiency refers to the ability of financial assets to quickly adjust and reflect all information that is relevant to value in its price (Francis, 1991).

Therefore it assumes that any given time, the market correctly prices all securities. The result or so the theory advocates, is that securities cannot be overpriced or under priced for a long enough period to profit there from. Although, efficient market theory is in completely at variance with the technical and fundamental analysis theory. A number of empirical researches have been done on varied set of data for different time periods to test the random walk efficient model for describing share price behaviour.

Though the subject of market efficiency has been much concerned area of the study for the academicians and researchers in recent times, 'The advocates of the efficient market theory are matched by an equally eloquent opposing camp which argues that the stock market is neither competitive nor efficient. The critics content that one or more of the following factors cast their shadow over the efficiency and competitiveness of the stock markets:

- Information inadequacy: Information is neither freely available nor rapidly transmitted to all the participants in the stock market. In addition, there is a calculated attempt to many companies to circulate "misinformation".
- Limited information processing capabilities: Human information processing capabilities are sharply limited. As Nobel Laureate Herbert Simon observed: "Every human organism lives in an environment which generates millions of new bits of information every second, but the bottleneck of perceptual apparatus certainly does not admit more than a thousand bits per second and possible much less.
- Irrational behaviours: In theory, it is generally assumed that investor rationality will ensure a close correspondence between market prices and intrinsic value. In practice this may not be true. As Keynes argued in point of fact all sorts of consideration enter into the market valuations, which are in no way relevant to the prospective yields. Gupta made a similar observation : Our findings suggest that the markets evaluation process work haphazardly almost like a blind man firing a gun. The market seems to function largely on a 'hit-or-miss' basis rather than on the basis of informed beliefs about the long-term prospects of individual enterprises.
- Monopolistic influence: In theory, the market is regarded as highly competitive. No single buyer or seller is supposed to have undue influence over price. In practice, powerful institutions and big operators wield great influence over the market. The monopolistic power enjoyed by them diminishes the competitiveness of the market.
- Finally, due to the above challenges posed by the critics of efficient market theory, there are many factors to point the finger at its reality, validity and authenticity. This appears to be truer like relatively less developed capital

market of Nepal. Nepalese capital market is get to be efficient in terms of information as well as operations.

Market Efficiency: Modern Portfolio Theory Vs. Fundamental Analysis

Based on the belief in the degree of market efficiency, two major investment theories emerged that still separate the financial community. On the one hand is fundamental analysis based on the idea of non-efficient markets and on the other hand modern portfolio theory (MPT) with a strong faith in market efficiency.

Fundamental analysis is an investment approach that uses existing economic information, such as historical financial statements or different fundamental information about a company, to make investment decisions. The principles of fundamental analysis were first outlined in the book 'Security Analysis' of Graham and Dodd (1934) where as Modern portfolio theory (MPT) is based on the idea of efficient markets. The underlying philosophy of this investment theory is that all investors in the marketplace are intelligent, profit-oriented and are trying to find mispriced stocks. The large number of informed participants will ultimately drive a stock price to its intrinsic value and hence create an efficient market. In such an environment mispriced stocks would be detected immediately, the under or overvaluation would disappear and no profit could be gained from using any form of investment analysis.

In other words, the MPT states that all stocks are priced fairly and nobody can persistently out perform the market. Consequently, followers of this method of investing will try to reduce risk by diversification and costs by minimizing transaction fees and taxes. The optimal investment strategy is the creation of an efficient portfolio based on co-variances of all the stocks in the global marketplace. In praxis however, this strategy usually means investing in index funds.

2.1.1.7 The Concept of Stock Valuation

The concept of value is at the heart of financial management. The value of any tradable item is whatever the bidder is prepared to pay. With a well-established asset market, valuation is relatively simple. So long as the market can be accepted as being reasonably efficient, then the market price can be trusted as a fair assessment of value.

Valuation is the process of determining the intrinsic value of common stocks. In order to understand valuation, two main concepts of value must be understood. First, the commonly accepted theoretical principle to value any financial asset is the discounted cash flow methodology (Reilly & Brown, 2003). An asset is worth the amount of all future cash flows to the owner of this asset discounted at an opportunity rate that reflects the risk of the investment (Pratt, 1998). This fundamental principle does not change and is valid through time and geography. A valuation model that best converts this theoretical principle into practice should be the most useful.

The process used to find the value of a security varies with the types of security. The firms are characterized as having high free cash flow, low growth opportunities and low insider ownership when compared to control firms. The fund targets are significantly undervalued compared to their industry peers and targeting likelihood is increasing significantly in the magnitude of the undervaluation. Markets recognize that the funds are able to spot undervalued firms. Similarly, the positive effects of fund on target firm in the short-run can persist in the long-run as well. Moreover, there is a correlation between long-run post-targeting performance and the post-target changes (Francis, 1991).

The theory behind most stock valuation methods is that the value of a business is equal to the sum value of all future free cash flows. All future cash flows are discounted due to the time value of money. If you objectively know all future cash flows of a company, and you have a target rate of return on your money, then you can know the exact amount of money you should pay for that company.

But stock valuation is not that easy in practice, because we can only estimate future free cash flows. This valuation approach, therefore, is a blend of art and science. Given the inputs, the outputs are factual. If we knew exactly how much cash flow is to be generated, and we have a target rate of return, we can know exactly what to pay for a dividend stock or any company with positive free cash flows regardless of whether it pays a dividend or not. But the inputs themselves are only estimates, and require a degree of skill and experience to be accurate with. Hence, stock valuation is art and science. To deal with that, we should estimate conservatively and provide ourselves with a margin of safety.

These main concepts illustrate that there are few things more complex than the valuation of common stocks. Thousands of variables affect the future cash flows of a company and thus the value of a stock. Most variables are known, but very few are understood; they are independent and related, they are measurable, but not necessarily quantitative, and they affect stock values alone and in combination.

The combination of thousands of factors with each other leads to such high numbers of possible outcomes that in the stock market every moment must be viewed as unique. This view is explicitly considered in newer theories like the chaos theory. According to this theory even a small change in an insignificant variable may lead to a complete different final outcome. It is not that the changing variable is of that great importance, but that the small change results in a different combination with other variables and thus leads to a multiplication of changes until the outcome is completely unpredictable (Mouck, 1998).

This makes every day in the stock market unique. Historical data is everything available to forecast the future, but investors should adequately consider the uniqueness of the current situation. The fact that each economic and social set of facts is unique implies that strict scientific models should not work satisfactory. Several analytical techniques are available to assist the financial manager for valuing common stock. The investor expects regular earnings in the form dividends and capital gains from the upward movement of the stock price.

Therefore, the valuation model should account for all these factors. Some of the basic valuation models used to determine the intrinsic value of the stocks are: Equity Valuation Model; the Dividend Discount Model (DDM); and Residual Income Model. These different models are discussed below:

2.1.1.7.1 Equity Valuation Model

As discussed above is equity valuation a complex and therefore diverse process. In this process, equity valuation models help specifying what is to be forecasted, directs to the information needed to make the forecast, and shows how to relate the forecasted data into an intrinsic value estimate. Three major valuation model categories can be distinguished:

1. Asset based Valuation
2. Absolute Valuation or Discounted Cash Flow models
3. Relative Valuation or Price Multiple models.

Other methods exist like the yield-based valuation method, which focuses on dividend yield when the investment priority is income, or option valuation models that explicitly consider management flexibility in the value creation process. We focus on the three main valuation techniques above as they are conceptually the most appealing, generally applicable and widely used.

Asset Based Valuation

Asset based valuation is closely associated with Value investing dating back to Benjamin Graham's book 'Security Analysis' (Graham & Dodd, 1934). After several years of confusion about the value of equity prices in the largest bear market in history, Graham researched stock prices and outlined for the first time something like a scientific approach to common stock valuation. He finds that the law of diminishing returns in a competitive economy implies that growth does not always create value and furthermore is usually not persistent.

Graham suggested therefore to value stocks based first of all on the market value of the existing tangible assets of a company. He noticed that since the book value of an asset in the balance sheet reflects its historical cost, it might deviate significantly from market value if the earning power of the asset has increased or decreased significantly since its acquisition and needs therefore to be adjusted. He proposes to adjust book value to reflect reproduction costs of the asset because these are the costs a competitor would have to incur to enter the business and consequently represent the economically best estimate of the current market value of the assets. When a company is earning excess returns in a competitive economy, new firms will enter the business driving down these excess returns. This process will go on until it costs more for a new company to reproduce the necessary assets to enter the business than the excess returns justify in terms of economic benefit. Consequently, reproduction costs reflect the fair value of a company's assets.

Increasingly, it is however not sufficient to correct reported book values to reflect

reproduction costs as certain valuable assets are not reflected in the balance sheet. The asset based valuation process requires also the re-quantification of non-monetary real assets. R&D or advertisement expenses, for example, represent a cost for new entrants that are not reflected in the balance sheet. To adjust, estimates should be made to reflect the number of years of expenses the competitor would need to invest in order to enter the business. These expenses then would be capitalized and included into the asset value. The sum of the adjusted book values of all assets would then equal the value of the company.

As these adjustments require some difficult and subjective assumptions about values, Graham favored stocks that were selling below the reproduction costs of their current assets after all liabilities have been paid. These assets do not require any adjustment. It was however easier to find such stocks during the Great Depression than it is today and since then Value investors adjusted their approach by valuing the reproduction cost of all assets as described above.

In asset based valuation, the second most reliable measure of a firm's intrinsic value is the value of the current earnings the company is able to generate with its assets. Graham calls this 'past performance value' (Graham, 1973). He assumes that the current earnings correspond to the sustainable level of distributable cash flow and that this level remains constant over the infinite future. Graham assumes though no growth in discounted earnings economy implies that growth does not always create value and furthermore is usually not persistent.

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Consequently, the third and least likely source of firm value according to Graham is the value of growth. This element is the most difficult to estimate and is accordingly highly uncertain. In a competitive environment growth creates value only when the firm is operating at a sustainable competitive advantage. The 'past-performance value' should therefore only be adjusted for growth if "the future appears reasonably

predictable” (Graham, 1973).

Absolute Valuation or Discounted Cash Flow Models

Discounted cash flow (DCF) valuation models recognize that common stock represents an ownership interest in a business and that its value must be related to the returns investors expect to receive from holding it. A business generates a stream of cash flow in its operations and as owners of the business, shareholders have a legal claim on these cash flows. The value of a stock is therefore the share of cash flow the business generates for its owners discounted at their required rate of return. This is the fundamental principle of valuation as developed in the ‘Theory of Investment Value’ by John Burr Williams in 1938 (Williams, 1938).

The value of common stocks in DCF models is determined by the stream of expected future cash flows to investors in the nominator and their required rate of return in the denominator. In the following, we take a closer look at the three most widely used versions of DCF models:

1. Dividend discount models,
2. Free cash flow discount models, and
3. Residual income models.

The models differ only in their definition of expected cash flow to investors. As we are valuing one specific company, we theoretically should obtain the same value no matter which expected cash flows are discounted, as long as the assumptions are coherent (Lundholm and O'Keefe, 2001).

Dividend Discount Models

The dividend discount model (DDM) is the theoretically most correct model for firm valuation (Miller and Modigliani, 1961). It’s a very intuitive approach as well. When investors buy a stock, they expect to receive two types of cash flows: the dividends in the period over which the stock is owned and the market price at the end of the holding period. The market price however is again determined by the dividends the new owner of the security expects to receive over his holding period. From this follows that the market price can be replaced again by a stream of dividends, until the entire value of the stock is expressed in terms of dividends. Consequently, even from

the perspective of an investor with a finite investment horizon, the value of a stock always depends on all future dividends. Also, “dividend policy affects the value of shares even in a situation in which return on investment is equal to the capitalization rate i.e. $r = K_e$. It is assumed that investors have a preference for present dividends to future capital gains under the condition of uncertainty. An increase in dividend payout ratio leads to an increase in the stock prices for the reason that investors consider that the dividend yield (d_1/p_0) is less risky than expected capital gain. The basic assumptions are as follows:

- The firm is an all equity form.
- No external financing is available so retained earnings will be used to finance any expansion.
- The internal rate of return (r) and cost of capital (k) are constant.
- The firm and its stream of earnings are perpetual.
- The corporate taxes do not exist.
- The retention ratio (b) once decided upon is constant. Thus, growth rate, $g = b \times r$ is constant.
- ' K_e ' must be greater than ' g ' to get meaningful value.

The investors value the present dividend more than the future capital gains. An increase in dividend payout ratio leads to an increase in stock prices for reason of investor's capital gain (Gordon, 1962).

Similarly, “the actual market price can only pursue a consensus estimate of any given security's intrinsic value since securities analysts' value estimates differ. Similarly, a perfectly efficient security price is in a continuous equilibrium such that the intrinsic value of the security vibrates randomly and the market price equals the fluctuating intrinsic value in every instant in time. It is the speed of security's market price adjustment process which gauges the efficiency of a price.

Even though the DDM is the theoretical correct valuation model for common stocks, it has some major weaknesses related to its practical application. The main problem is that observed dividends are not directly related to value creation within the company and therefore to future dividends. According to Miller and Modigliani (1961) currently observed dividends are not informative unless the pay-out policy is tied to

the value generation within the company. Penman (1992) describes this as the dividend conundrum: “price is based on future dividends but observed dividends do not tell us anything about price”. The missing link between value creation and value distribution leads to a problem in forecasting dividends as it is difficult to forecast pay-out ratios.

Today, share repurchases are further complicating the practical application of the DDM (Grullon&Michaley2002)document that since the mid 1980’s, many corporations have been repurchasing large amounts of shares. Repurchases transmit cash from the corporation to investors and are, in that sense, not different from dividends.

For these reasons, dividends as the relevant cash flow to investors have been more and more replaced since the 1980’s with free cash flows.

Free Cash Flow Discount Models

Although dividends are the actual cash flows paid out to stockholders, the discounted free cash flow (DFCF) models are based on the cash available for distribution but not necessarily distributed to shareholders. Common equity can be valued either directly discounting free cash flow to equity (FCFE) or indirectly by calculating the value of the firm using free cash flow to the firm (FCFF) and then subtracting the value of non-common stock capital (usually debt and preferred stock) from this value.

FCFE is the cash flow available to the company’s suppliers of equity capital after all operating expenses (including interest and taxes) and principal repayments have been paid and necessary investments into short-term assets (working capital) and long-term assets (net capital expenditures) have been made (Damodaran, 2004). It is called ‘free’ cash flow to equity to indicate that it is the amount of money free to distribute to equity investors without negatively affecting the continuation of the business.

A related approach to discounted free cash flow valuation is the use of FCFF instead of FCFE. Using this method, the value of the firm is obtained by discounting expected cash flows to the firm, i.e, the cash flows after covering all operating expenses and taxes, but prior to debt payments, at the weighted average cost of capital (WACC). Problematic in discounting FCFF is that it introduces circularity into the

valuation model. The FCF must be discounted at the WACC to calculate firm value, but in order to calculate the WACC the value of the firm is needed in the first place. Consequently, valuation becomes an iterative process.

The discounted free cash flow models were most popular after the 1980's until recently when Ohlson (Ohlson, 1995) proposed a new DCF approach that had a considerable impact on the academic valuation literature. This approach is discussed next.

Residual Income Models

Residual income (RI) is net income less a charge for investors opportunity cost in generating this net income (the cost of capital or required rate of return). Recognized by economists since 1770's, residual income is based on the premise that in order for a firm to add wealth to its owners, it must earn more on its invested capital than the total cost of that capital. A company can have positive net income but may still not be adding value in rupee terms for shareholders if it does not earn more than the rupee cost of equity capital.

Residual income models (RIM) have been referred to by a variety of names (residual income, economic profit, discounted abnormal earnings, excess profit etc). Commercial variations of the model have resulted in 'brand name' products such as Stern Stewart's EVATM, or McKinsey's Economic Profit Model. All these models are based on the concept of residual income developed by Edwards and Bell (1961) and Ohlson (1991).

In the following, the concept of the residual income model is explained shortly. All model variations mentioned above are based on the same principle but make slightly different assumptions in their implementation. The advantage of the RIM valuation approach is that it is expressed entirely in terms of accounting numbers and therefore should reduce estimation error in the application of the model. Furthermore, the assumptions made to estimate the terminal value in DFCF models are crucial. In the RI model book value, which often represents a sizable portion of firm value, is given and does not have to be estimated so that the portion of terminal value to total value is smaller.

The main advantage of the RI model is thus that investors only need to estimate the difference between firm value and book value while in DFCF models firm value itself has to be estimated. Despite its merits and the academic effort, residual income models were not widely used in valuation practices until recently (Demirakos, Strong, and Walker, 2002).

PEG Valuation Model

The PEG ratio is one of the most popular valuation tools. It takes less time to calculate and is much easier than running a discounted cash flow valuation. On average, companies with lower PEG ratios outperformed those with higher PEG ratio. Simply divide the P/E ratio by the rate at which the future estimated earnings will grow over the next few years. A PEG much higher than 1 indicates an overvalued company, and a PEG lower than 1 indicates an undervalued company. On average, stocks with a PEG between 0 and 1 performed much better than the others.

The PEG ratio is considered to be a convenient approximation. It was originally developed by Mario Farina who wrote about it in his 1969 Book, *A Beginner's Guide To Successful Investing In The Stock Market*.. It was later popularized by Peter Lynch, who wrote in his 1989 book *One Up on Wall Street* that "The P/E ratio of any company that's fairly priced will equal its growth rate", i.e., a fairly valued company will have its PEG equal to 1. A PEG ratio can also be a negative number if a stock's present income figure is negative, (negative earnings) or if future earnings are expected to drop (negative growth). PEG ratios calculated from negative present earnings are viewed with skepticism as almost meaningless, other than as an indication of high investment risk.

Finally, the PEG is very useful for small growers company, but may be misleading for large, mature companies, since sustained growth is less important to their total returns. Investors may prefer the PEG ratio because it explicitly puts a value on the expected growth in earnings of a company. The PEG ratio can offer a suggestion of whether a company's high P/E ratio reflects an excessively high stock price or is a reflection of promising growth prospects for the company.

A great feature of the PEG ratio is that by bringing future growth expectations into the mix, we can compare the relative valuations of different industries that may have very

different prevailing P/E ratios. This makes it easier to compare different industries, which tend to each have their own historical P/E ranges.

Relative Valuation or Price Multiple Models

In absolute valuation the objective is to find the intrinsic value of an asset given its cash flow, growth and risk characteristics. In relative valuation the objective is to value assets based on how similar assets are priced in the market. This model requires only an estimate of price–earnings ratio. It uses earnings rather than dividends in determining the intrinsic value of the stock.

The principle underlying relative valuation models is the law of one price - the economic theory that two similar assets should sell for similar prices. In relative valuation, we value an asset based upon how similar assets are priced in the market. A prospective house buyer decides how much to pay for a house by looking at the prices paid for similar houses in the neighborhood. A baseball card collector makes a judgment on how much to pay for a Mickey Mantle rookie card by checking transactions prices on other Mickey Mantle rookie cards. In the same vein, a potential investor in a stock tries to estimate its value by looking at the market pricing of “similar” stocks. Embedded in this description are the three essential steps in relative valuation. The first step is finding comparable assets that are priced by the market, a task that is easier to accomplish with real assets like baseball cards and houses than it is with stocks.

All too often, analysts use other companies in the same sector as comparable, comparing a software firm to other software firms or a utility to other utilities, but we will question whether this practice really yields similar companies later in this chapter. The second step is scaling the market prices to a common variable to generate standardized prices that are comparable. While this may not be necessary when comparing identical assets (Mickey Mantle rookie cards), it is necessary when comparing assets that vary in size or units. Other things remaining equal, a smaller house or apartment should trade at a lower price than a larger residence. In the context of stocks, this equalization usually requires converting the market value of equity or the firm into multiples of earnings, book value or revenues. The third and last step in

the process is adjusting for differences across assets when comparing their standardized values.

Again, using the example of a house, a newer house with more updated amenities should be priced higher than a similar sized older house that needs renovation. With stocks, differences in pricing across stocks can be attributed to all of the fundamentals that we talked about in discounted cash flow valuation. Higher growth companies, for instance, should trade at higher multiples than lower growth companies in the same sector. Many analysts adjust for these differences qualitatively, making every relative valuation a story telling experience; analysts with better and more believable stories are given credit for better valuations.

There are two steps in correctly applying relative valuation techniques. First, stock prices have to be standardized and made comparable, usually by converting them into multiples of earnings, book values or sales. In second step, similar firms have to be found to compare the standardized multiples to in order to determine their relative adequacy.

Standardized Values and Multiples

When comparing identical assets, we can compare the prices of these assets. Thus, the price of a Tiffany lamp or a Mickey Mantle rookie card can be compared to the price at which an identical item was bought or sold in the market. However, comparing assets that are not exactly similar can be a challenge. If we have to compare the prices of two buildings of different sizes in the same location, the smaller building will look cheaper unless we control for the size difference by computing the price per square foot. Things get even messier when comparing publicly traded stocks across companies. After all, the price per share of a stock is a function both of the value of the equity in a company and the number of shares outstanding in the firm. Thus, a stock split that doubles the number of units will approximately halve the stock price.

To compare the values of “similar” firms in the market, we need to standardize the values in some way by scaling them to a common variable. In general, values can be standardized relative to the earnings firms generate, to the book value or replacement value of the firms themselves, to the revenues that firms generate or to measures that

are specific to firms in a sector.

Earnings Multiples

One of the more intuitive way to think of the value of any asset is as a multiple of the earnings that asset generates. When buying a stock, it is common to look at the price paid as a multiple of the earnings per share generated by the company. This price/earnings (PE) ratio can be estimated using current earnings per share, yielding a current PE, earnings over the last 4 quarters, resulting in a trailing PE, or an expected earnings per share in the next year, providing a forward PE.

When buying a business, as opposed to just the equity in the business, it is common to examine the value of the firm as a multiple of the operating income or the earnings before interest, taxes, depreciation and amortization (EBITDA). While, as a buyer of the equity or the firm, a lower multiple is better than a higher one, these multiples will be affected by the growth potential and risk of the business being acquired.

Book Value or Replacement Value Multiples

While financial markets provide one estimate of the value of a business, accountants often provide a very different estimate of value of for the same business. The accounting estimate of book value is determined by accounting rules and is heavily influenced by the original price paid for assets and any accounting adjustments (such as depreciation) made since. Investors often look at the relationship between the price they pay for a stock and the book value of equity (or net worth) as a measure of how over- or undervalued a stock is; the price/book value ratio that emerges can vary widely across industries, depending again upon the growth potential and the quality of the investments in each. When valuing businesses, we estimate this ratio using the value of the firm and the book value of all assets or capital (rather than just the equity). For those who believe that book value is not a good measure of the true value of the assets, an alternative is to use the replacement cost of the assets; the ratio of the value of the firm to replacement cost is called Tobin's Q.

Revenue Multiples

Both earnings and book value are accounting measures and are determined by accounting rules and principles. An alternative approach, which is far less affected by

accounting choices, is to use the ratio of the value of a business to the revenues it generates. For equity investors, this ratio is the price/sales ratio (PS), where the market value of equity is divided by the revenues generated by the firm. For firm value, this ratio can be modified as the enterprise value/to sales ratio (VS), where the numerator becomes the market value of the operating assets of the firm. This ratio, again, varies widely across sectors, largely as a function of the profit margins in each. The advantage of using revenue multiples, however, is that it becomes far easier to compare firms in different markets, with different accounting systems at work, than it is to compare earnings or book value multiples.

Sector-Specific Multiples

While earnings, book value and revenue multiples are multiples that can be computed for firms in any sector and across the entire market, there are some multiples that are specific to a sector. For instance, when internet firms first appeared on the market in the later 1990s, they had negative earnings and negligible revenues and book value. Analysts looking for a multiple to value these firms divided the market value of each of these firms by the number of hits generated by that firm's web site. Firms with lower market value per customer hit were viewed as undervalued. More recently, cable companies have been judged by the market value per cable subscriber, regardless of the longevity and the profitability of having these subscribers.

While there are conditions under which sector-specific multiples can be justified, they are dangerous for two reasons. First, since they cannot be computed for other sectors or for the entire market, sector-specific multiples can result in persistent over or under valuations of sectors relative to the rest of the market. Thus, investors who would never consider paying 80 times revenues for a firm might not have the same qualms about paying Rs.2000 for every page hit (on the web site), largely because they have no sense of what high, low or average is on this measure. Second, it is far more difficult to relate sector specific multiples to fundamentals, which is an essential ingredient to using multiples well. For instance, does a visitor to a company's web site translate into higher revenues and profits? The answer will not only vary from company to company, but will also be difficult to estimate looking forward.

2.2 Review of Related Studies

A number of relevant theories associated with the purposed study have been aimed to review various books, journals; reports and publication which are believed to facilitate to carry out the purposed study. This study also review previous related thesis submitted to TU. The review of literatures are mainly concentrated on the identification of variables which affect the stock price behaviour. There are various thesis submitted to TU relating the same, which are summarized below.

Bhusal (2010) in dissertation "*An Analysis of Stock Price Volatility in Nepalese Stock Market*" has put the objective of analyzing major elements resulting the change in stock price and their relationship with NEPSE index. His examination is related with group wise overall behaviour of NEPSE index and its signaling factors impact on stock price.

The study concludes that there is a gap between the theory and practice of investment in Nepalese stock market due to the lack of proper analysis of stock market for the smooth operation of the secondary market. Stock market was not properly analyzed for smooth operation of secondary market. Moreover, it can also be concluded that the investment is made without the proper identification and analysis so that the true/fair view of the company's position cannot be reflected by its stock price.

The study further states that the market is growing day by day and the future is full of opportunity from investor point of view. However, small market size has made it vulnerable to manipulation and price rigging. Some investors tend to avoid stock market because they do not have options to invest in securities according to their risk return preference. Similarly, firms shun 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. In course of discussing with concerned with stock market it can be concluded that most of the investors are complaining that the market makers, brokers and Nepal Stock Exchange Limited staff are making coalition for fraudulent activities towards investors. And to some extent Govt. and governing authorities are also negligent for the betterment or improvement of overall market. Stock market is seeing bearish trend nowadays because during this period most of the listed companies are announcing dividend and issuing right shares also. However, it can be said from

discussion with experts that political and Govt. instability is much more responsible for this. There seem no logical reasons for the declining of NEPSE index. The study also concluded that there is hand of signaling factors to play role for fluctuating NEPSE index. Finally, the study of stock market behaviour is a very useful subject matter if properly analyzes for the development of stock market.

Dawadi (2012) conducted the study on "*Stock Market Efficiency and Stock Price Behaviour in Nepal*" defining the objective of analyzing the stock market performance and the behaviour of stock price of listed commercial banks in NEPSE (only the selected commercial banks for this study like: - Himalayan Bank, Nepal SBI Bank, Bank of Kathmandu, Nepal Industrial and Commercial Bank, Laxmi Bank, Kumari Bank, Lumbini Bank). However the other specific objectives of his study are to analyze the behaviour of stock price of listed commercial banks in NEPSE.

Dawadi computed SD and CV and his findings on the basis of that the commercial sector fluctuates more than the NEPSE index. They have perfectly positive correlation. The series of commercial banks index shows there is a dominance of its position in stock market. Hence, there should be clear pattern of index series. For this, the concerned authorities of the stock market should monitor the weakness of stock market.

The study observed the volatility indices of the sampled stocks and found have large variation in share prices. Its because investors are running blindly after the shares without having proper knowledge about share market. They are investing haphazardly without having adequate information. They should analyze the impacts of signaling factors (signaling factors means national or international events occurred during the investment period which may affect the price of the security). Thus, it is recommended that they should be extremely careful before making the investment decision. The investors should be educated on the benefits of investment in corporate securities. Besides, adequate knowledge on investment analysis should be developed among investors to make competitive and efficient stock market.

Upadhaya (2016) made a research entitled "*Determinants of Stock Price in Nepal Stock Exchange with special focus to Joint Venture Banks*" The major objectives of

the study was to identify qualitative as well as quantitative factors affecting stock price, to determine the effect of earnings and Book Value and to make appropriate recommendations/suggestions for the betterment of the stock market and so on.

To meet the desired objectives, the researcher identifies the effect of quantitative factors DPS, BPS and EPS with MPS by correlation and regression analysis of secondary data while to identify the qualitative factors affecting the share price, the researcher used questionnaire approach. Major findings of the study were as follows.

1. Adequate knowledge and information regarding the capital market is lacking in Nepalese investors.
2. Most of the listed companies do not provide sufficient and timely information to NEPSE as well as shareholders.
3. Pricing behaviour differs company to company.
4. The study concludes that the Nepalese stock market is in infant stage.

Sharma (2013) conducted a research entitled “*A study on Factors Affecting Share Price in Nepalese Share Market*”. The main objective of the study was to identify the trend of price volatility of stock market, stock market sensitivity and interrelationship between market return and return of listed companies. The conclusion of her study is as follows:

1. Nepalese Investors do not have adequate knowledge about Capital Market.
2. DPS, BPS & EPS individually do not have consistent relationship with the market price of share among the listed companies.
3. There is deficiency of proper law and policy regarding the capital market. Shareholders are feeling unsecured to invest in security market due to poor regulatory mechanism to protect shareholders interest.
4. Overall return has closed relationship with the market return which implies that return of individual company is affected by any changes in market return and vice versa.

2.3 Summary of Literature Review

This study is basically the theoretical background of different concepts like Financial Market, Money Market, Primary Market, Secondary Market, Stock Exchange, Capital

Market in Nepal, Constituents of Capital Market in Nepal, Nepal Stock Exchange Ltd., The Concept of Stock Valuation, forward P/E ratio, PEG valuation method.

In this regards the study provides theoretical background regarding the concept of relative valuation model, stock price behaviour etc. The study also focus PEG valuation model which is an important tool used to analyze whether the stock is undervalued or overvalued. In spite of that, the review of different national studies like thesis, articles, journals are also studied as a related topic in this section.

2.4 Research Gap

There has been several studies and research done before in the topic stock market and stock price behaviour. All of these thesis have many useful findings and have their own limitations as well. Most of the studies are mainly focused on secondary data and that too are not updated. With the change in time, there have been many developments in stock market.

The study is done to know the stock price behaviour in Nepalese capital market with relation to PEG valuation model. In Nepal the capital market price is mainly determined by the indicative factors like, rumor, signaling effects etc. This study helps to know the price behaviour of stock to know the concept of stock valuation, using the fundamentals elements from the annual report. In developed country the capital market is very much efficient and this model can provide the real picture of the capital market. But in Nepal to what extent this model is applied is still to see together with how much it holds truth in Nepalese securities.

There is certain gap between this research work and previous research works in terms of time, objective, population and sample and topics itself. The population and sample are also different. The previous thesis titles are limited on stock market, factors affecting share price, variables of stocks price behaviour and so on but no study has been made on stock price behaviour on basis of PEG valuation model. The objective of this research work is focused on pricing behaviour of stock through assessment of annual financial statements.

CHAPTER III

RESEARCH METHODOLOGY

Research methodology is a process of arriving to the solution of problem through planned and systematic dealing with collection, analysis and interpretation of the facts and figures. Research Methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain objective in view (Kothari,1994). Certain methods and processes are used in the entire study of this research as well. As the main objective of this study is to analyze fundamentals to study the stock price behaviour of chosen commercial banks. Focus is given to research design, sample selection and size, data collection procedure, data processing, definition of variables, meaning and definition of statistical tools used.

3.1 Research Plan and Design

Appropriate research design is required to achieve the objective of the research. It is one of the very important and crucial parts in the research work. This study aims to analyze the fundamentals of commercial banks through assessment of their financial statements and forecasting their financial statements to find their intrinsic value to know whether they are overpriced, underpriced or fairly priced in the stock market. The research design followed for this study is descriptive and analytical research design.

3.2 Population and Sample

This study intends analyze the stock price of commercial banks and know whether they are fairly priced or not in the stock market according to its fundamentals studies. So, the population of the study is all the listed commercial banks in NEPSE.

A sample is the collection of items from population or universe and comprises some observations selected from the population. Sampling method is the scientific procedure of selection those representative units which would provide the required elements with associated margin of uncertainty arising from examining only a part and no to the whole. Table no 1 shows the list of registered Commercial Banks and their year of establishment.

Table: 1

List of registered Commercial Banks and their year of establishment.

| S.N. | Name of Bank | Establishment Year (A.D.) |
|-------------|--|----------------------------------|
| 1. | Nepal Bank Limited | 1937 |
| 2. | Rastriya Banijya Bank Limited | 1966 |
| 3. | Agriculture Development Bank Limited | 1968 |
| 4. | Nabil Bank Limited | 1984 |
| 5. | Nepal Investment Bank Limited | 1986 |
| 6. | Standard Chartered Bank Nepal Limited | 1987 |
| 7. | Himalayan Bank Limited | 1993 |
| 8. | Nepal SBI Bank Limited | 1993 |
| 9. | Nepal Bangladesh Bank Limited | 1994 |
| 10. | Everest Bank Limited | 1994 |
| 11. | Kumari Bank Limited | 2001 |
| 12. | Laxmi Bank Limited | 2002 |
| 13. | Citizens Bank International Limited | 2007 |
| 14. | Prime commercial Bank Limited | 2007 |
| 15. | Sunrise Commercial Bank Limited | 2007 |
| 16. | Janata Bank Limited | 2010 |
| 17. | Mega Bank Limited | 2010 |
| 18. | Century Commercial Bank Limited | 2011 |
| 19. | Sanima Bank Limited | 2012 |
| 20. | Machhapuchhre Bank Limited | 2012 |
| 21. | NIC Asia Bank Limited | 2013 |
| 22. | Global IME Bank Limited | 2014 |
| 23. | NMB Bank Limited | 2015 |
| 24. | Prabhu Bank Limited | 2016 |
| 25. | Siddhartha Bank Limited | 2016 |
| 26. | Bank of Kathmandu Lumbini Limited | 2016 |
| 27. | Civil Bank Limited | 2016 |
| 28. | Nepal Credit & Commercial Bank Limited | 2017 |

Note :www.nrb.org.np

Out of that population, following two commercial banks are selected as samples for this study by using random sampling method.

- Nabil Bank Limited
- Everest Bank Limited

Above banks are taken sample on the following bases (criteria) :

- Both banks are foreign joint venture banks.
- Both banks were established before 1995.
- The size of earning per share (EPS) of both banks for last five years is much similar as this study has used EPS as one of the tool for stock price behaviour.

3.3 Sources of Data

The entire study is done on the basis of secondary data available from various sources. In the study financial statements of commercial banks have been the key source for analysis. Balance sheets, income statements and principal indicators of commercial banks have been taken from annual report of commercial banks. Other required data have been acquired from NEPSE, SEBON, NRB, MOF and company itself.

3.4 Instruments/Tools Used

3.4.1 Financial Tools

Financial tools are used to examine the financial strength and weakness of bank. In this study financial tools like ratio analysis has been used.

- **Net profit (NP)**

Often referred to as the bottom line, net profit is calculated by subtracting a company's total expenses from total revenue, thus showing what the bank has earned (or lost) in a given period of time (usually one fiscal year). It is also termed as net income or net earnings.

Calculated as:

$$\text{NP} = \text{Total Revenue} - \text{Total Expenses}$$

- **Earnings per Share (EPS)**

EPS is one of the important indicators of a company's profitability. The performance and achievement of a bank can be identified with the earning power of the bank. In general case, higher earning implies the strength of the bank, EPS is the widely quoted statistics in every investor's world. Every shareholder is much interested in the return on the share. It can also be defined

as the portion of a company's profit allocated to each outstanding share of common stock. Higher earning per share is preferable and vice versa.

Calculated as:

$$\text{EPS} = \frac{\text{Net Income} - \text{Dividends on preferred shares}}{\text{Average outstanding shares}}$$

- **Dividend Pay Out Ratio(DPR)**

The purpose of calculating this ratio is to know the portion of dividend distributed out of total earning. This ratio shows the relation between the returns belonging to equity shareholders and the dividend paid to them. The higher the dividend payout ratio, the lower will be the proportion of retained earning and vice versa.

Calculated as:

$$\text{Dividend Payout Ratio (DPR)} = \frac{\text{Dividend per share}}{\text{Earnings per share}}$$

- **Price-Earnings Ratio (PE Ratio)**

P/E ratio expresses the amount currently paid to each rupee currently reported by balance sheet of bank's earning per share by the market.

Two different thing could be determined from P/E ratio, first of all it helps to know the market appraisal for the bank's performance and secondly it shows the bank's performance in future growth in earning. In general, a high P/E suggests that investors are expecting higher earnings growth in the future compared to companies with a lower P/E. It helps to analyze whether the share price of a company is fairly valued, undervalued or overvalued. The price earning ratio is sometimes called as earning multiplier.

Calculated as:

$$\text{PE Ratio} = \frac{\text{Current share price}}{\text{Earnings per share}}$$

- **Return on Asset (ROA)**

This ratio is a primary indicator of managerial efficiency. It shows how profitable a company is relative to its total assets. It indicates how far the management has utilized all the asset of the bank for profit generating activities. Higher ROA indicates higher efficiency in the utilization of the total assets and vice versa.

. *Calculated as:*

$$\text{ROA} = \frac{\text{Net income}}{\text{Total Assets}}$$

- **Return on Equity (ROE)**

This ratio measures the rate of return on common shareholders's investment. Management's objective is to generate the maximum return on shareholder's investment in the firm. Return on equity is therefore the best single measure of the company's success in fulfilling its goal. Increasing ratio is favourable for a company which shows that the profit is increasing.

. *Calculated as:*

$$\text{ROE} = \frac{\text{Net income}}{\text{Common Equity}}$$

- **Net worth per share (NWPS)**

Net worth is the amount by which assets exceed liabilities. Net worth is a concept applicable to individuals and businesses as a key measure of how much an entity is worth. A consistent increase in net worth indicates good financial health; conversely, net worth may be depleted by annual operating losses or a substantial decrease in asset values relative to liabilities. In the business context, net worth is also known as book value or shareholders' equity. Net Worth Per Share is a measurement of the net worth of the company for each share of stock that has been issued. Since Stock dividends are cash the company pays out to shareholders, this value cannot be included in a company's net worth. An increasing Net Worth Per Share value is a positive

sign, as this may often be a signal that the company has reduced its liabilities. If this value is negative, this is a bad sign that the company's liabilities exceed its ability to pay them. Company's that distribute a large amount of Stock dividends may also see this ratio value suffer, as it is burdened with constant dividend disbursements.

Calculated as:

$$\text{NWPS} = \frac{\text{Total Assets} - \text{Total Liabilities} - \text{Stock dividend}}{\text{No. of shares outstanding}}$$

- **Company Growth Rate (G)**

Growth rate refers to the amount of increase that a specific variable has gained within a specific period and context of the bank. For investors, this typically represents the compounded annualized rate of growth of the bank's revenues, earnings, dividends.

Calculated as:

$$\text{G} = \text{Retention ratio (B)} * \text{Return on equity (ROE)}$$

- **Retention ratio (B)**

The retention ratio measures the fraction of corporation's total after tax earning that are retained within the firm. The retention rate is defined in terms of the corporation's total rupee values of retained earnings stated as fraction of the corporation's net income. Higher the retention ratio, lower will be the dividend payout ratio and vice versa.

Calculated as:

$$\text{B} = \frac{\text{Net Income} - \text{Total cash dividends}}{\text{Net Income}}$$

OR

$$\text{Retention rate} = 1 - \text{Dividend Payout Ratio (DPR)}$$

- **Non-Performing Loan to Total Loan**

Non-performing Loan to Total Loan ratio measures the quality of the loan portfolio of the financial institution. This financial ratio compares non-performing loans to the total loan portfolio (loans are assets for the bank), and the higher ratio means higher risk of losses for some of the loans. Non-performing loans are those loans that are late on payments (common term is 90 days but it may depend on the financial regulations in the market).

Calculated as:

$$= \frac{\text{Non-performing loans}}{\text{Total portfolio of loans}}$$

3.4.2 Financial Model

Financial models are mathematical model designed to represent the performance of a financial asset or portfolio of a business, project, or any other investment. It is the financial representation of some, or all, aspects of the firm or given security. The model is usually characterized by performing calculations, and makes recommendations based on that information. The model may also summarize particular events for the end user and provide direction regarding possible actions or alternatives. In this study Relative Valuation Model are used to find the intrinsic value of the stock. For this purpose model in excel are used.

3.4.3 Statistical Tools

Various statistical tools are used to analyze the available data, they helps to ascertain the financial performance of the firm. The statistical tools particularly, comparative percentage analysis has been used to examine the financial valuation of the banks as against their market price.

3.4.4 Relative Valuation Model

It is a valuation method that compares a firm's value to that of its competitors to determine the firm's financial worth. Relative valuation models are an alternative to absolute value models, which try to determine a company's intrinsic worth based on its estimated future free cash flows discounted to their present value. Like absolute

value models, investors may use relative valuation models when determining whether a company's stock is good to buy or not.

One of the most popular relative valuation multiples is the price-to-earnings (P/E) ratio. A company with a high P/E ratio is trading at a higher price of earnings than its peers and is considered overvalued. Likewise, a company with a low P/E ratio is trading at a lower price per dollar of EPS and is considered undervalued. This framework can be carried out with any multiple of price to gauge relative market value.

- **Forward Price to Earning Ratio (PE)**

Forward price to earnings (forward P/E) is a measure of the price-to-earnings (P/E) ratio using forecasted earnings for the P/E calculation. The Forward Price to Earnings (PE) Ratio is similar to the price to earnings ratio. While a regular P/E ratio is a current stock price over its earnings per share, a forward P/E ratio is a current stock's price over its "predicted" earnings per share. Forward P/E ratios less than the current P/E indicates expected increased earnings. While the earnings used are just an estimate and are not as reliable as current earnings data, but there is still benefit in estimated P/E analysis. The forecasted earnings used in the formula can either be for the next 12 months or for the next full-year fiscal period. When calculating the P/E ratio, analysts compare today's price against earnings for the last 12 months, or the last fiscal year, but both are based on historical prices.

Analysts use earnings estimates to determine what the relative value of the company will be at a future level of earnings. Forward PE Ratios can highlight some sentiment of a stock. If the forward Forward PE is calculated by as current stock price over the predicted next year earnings per share. P/E ratio is higher than the current P/E ratio, then it indicates decreased expected earnings.

Calculated as:

$$\text{Forward PE} = \frac{\text{Current share price}}{\text{Estimated Earnings per share}}$$

- **Price Earning Growth (PEG)**

The **PEG ratio** (price earning to growth ratio) is a valuation metric for determining the relative trade-off between the price of a stock, the earnings generated per share (EPS), and the company's expected growth. In general, the P/E ratio is higher for a company with a higher growth rate. Thus using just the P/E ratio would make high-growth companies appear overvalued relative to others. It is assumed that by dividing the P/E ratio by the earnings growth rate, the resulting ratio is better for comparing companies with different growth rates

PEG is a widely employed indicator of a stock's possible true value. Similar to PE ratios, a lower PEG means that the stock is undervalued and a higher PEG means that the stock is overvalued. It is favored by many over the price/earnings ratio because it also accounts for growth. The PEG ratio of 1 is sometimes said to represent a fair trade-off between the values of cost and the values of growth, indicating that a stock is reasonably valued given the expected growth. A crude analysis suggests that companies with PEG values between 0 and 1 may provide higher returns.

The growth rate is expressed as a percent value, and should use real growth only, to correct for inflation. A lower ratio is "better" (cheaper) and a higher ratio is "worse" (expensive).

Calculated as:

$$\text{PEG} = \frac{\text{Forward PE ratio}}{\text{Estimated EPS growth}}$$

3.5 Analysis Plan

Microsoft excel are used for the analysis and management of the data. The data has been analyzed using Excel and valuation model has also been made in excel. All the necessary tables and charts were drawn using the Microsoft excel. The valuation analysis and charts and tables were presented in this report with explanation so that conclusion can be drawn which are required to meet the research objectives.

The study analyzes the fundamentals and whether the stocks of commercial banks are fairly priced in stock market or not using those tools. The study uses the factual data from the published annual report provided by those banks. Besides, the study has minutely examined the relevance of the methodological tools in deriving the outputs and hence accordingly made interpretation. Under the mentioned constrains and opportunities, the study has fulfilled its objectives.

3.6 Limitations of the Study

Following are the limitation of this research study :

- i. Out of 28 commercial banks of Nepal only some few commercial banks are considered for the purpose of study. Some banks got merged during the study period and some banks data were not available hence, such banks are excluded from the purpose of study.
- ii. This study has taken secondary data, so the accuracy of study depends upon the availability and reliability of the data.
- iii. Forecasting of only five years will be done. Only the data from fiscal year 2011-12 to 2015-16 has been used for performance analysis.
- iv. This study is particularly done for partial fulfillment for the degree of Master of Business Studies only, so it is not a comprehensive study.
- v. The findings of this study could not be generalized to manufacturing and trading enterprises because the study is only based on the banking sector.
- vi. The price of the stock is dynamic, as it is always changing every second in the stock market, but this study has taken the static price of stock at the end of fiscal year from the annual financial report.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

This chapter is the major part of the research. In this chapter, data are presented in systematic manner. This section of the study is concerned with achieving the objectives, which have been mentioned in the first chapter, by analyzing and interpreting the data that have been collected.

This section consists presentation and analysis of secondary data related with different fundamentals elements explained in the third chapter. The sources of data are company brochure, annual reports, NEPSE website, SEBON website, journal, TU library, internet and company themselves. Those collected data are presented in systematic formats and analyzed using different appropriate tools and techniques. The analysis of data consists of organizing, tabulating and performing statistical analysis through use of models in excel.

4.1 Analysis of Financial Strength of Sample Banks

4.1.1 Analysis of Nabil Bank Limited

Nabil Bank is the first foreign joint venture bank which was established in 1984. Nabil is one of the largest and oldest bank in Nepal. Formally known as Nepal Arab Bank Limited (now **NABIL**) is the first Joint Venture Bank of Nepal which was incorporated in 1984 under the commercial bank Act 2031 (1974) and the company Act 2021 (1965). It was listed in NEPSE in 1986 (08/09/2042, B.S.). Dubai Bank Ltd (DBL) was the initial foreign joint venture partner with 50 percent of equity share of Nabil. It was incorporated with the objective of extending international standard modern banking service to various sector of the society. Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

The key ratios of Nabil Bank are shown in Table 2 .

Table: 2
Key Ratios of Nabil Bank

| RATIOS | FY 2011-12 | FY 2012-13 | FY 2013-14 | FY 2014-15 | FY 2015-16 |
|---|------------|------------|------------|-------------|-------------|
| NET PROFIT / LOSS ('000') | 1,689,392 | 2,218,762 | 2,319,557 | 2,093,814 | 2,819,334 |
| NET PROFIT/INTEREST INCOME | 56.86% | 63.11% | 62.75% | 59.38% | 65.17% |
| INTEREST INCOME ('000') | 2,971,364 | 3,515,938 | 3,696,413 | 3,526,281 | 4,325,971 |
| TOTAL ASSETS ('000') | 63,193,414 | 73,241,260 | 87,274,546 | 115,985,701 | 127,300,195 |
| TOTAL LOANS ('000') | 41,605,683 | 46,369,835 | 54,691,648 | 65,501,925 | 76,106,017 |
| TOTAL DEPOSIT ('000') | 55,023,695 | 63,609,808 | 75,388,791 | 104,237,910 | 110,267,272 |
| TOTAL SHARE CAPITAL ('000') | 2,435,723 | 3,046,052 | 3,656,602 | 4,754,950 | 6,183,540 |
| NUMBER OF SHARES OUTSTANDING | 20297694 | 24368414 | 30471684 | 36576540 | 47566696 |
| NON PERFORMING LOAN TO TOTAL LOAN | 2.33% | 2.13% | 2.23% | 1.82% | 1.14% |
| CREDIT TO DEPOSIT RATIO | 77.91% | 74.90% | 74.55% | 64.43% | 70.49% |
| MARKET VALUE PER SHARE (MPS) (inRs.) | 1355 | 1815 | 2535 | 1910 | 2344 |
| EARNING PER SHARE (EPS) | 83.23 | 91.05 | 76.12 | 57.24 | 59.27 |
| PRICE TO EARNING (P/E) RATIO (times) | 16.21 | 19.08 | 33.38 | 33.37 | 39.55 |
| DIVIDEND (INCLUDING BONUS) ON SHARE CAPITAL | 60.00% | 65.00% | 65.00% | 36.84% | 45.00% |
| CASH DIVIDEND PER SHARE | 40.00% | 40.00% | 45.00% | 6.84% | 15.00% |
| CAPITAL ADQUECY RATIO (CAR) | 11.01% | 11.59% | 11.18% | 11.57% | 11.73% |
| NET WORTH PER SHARE | 269 | 275 | 251 | 259 | 244 |
| REUTRN ON ASSETS (ROA) | 2.80% | 3.25% | 2.65% | 2.06% | 2.32% |
| RETURN ON EQUITY (ROE) | 30.25% | 32.78% | 27.91% | 22.73% | 25.61% |
| DIVIDEND PAYOUT RATIO | 71.80% | 68.32% | 85.59% | 64.36% | 75.92% |
| RETENTION RATIO (B) | 28.20% | 31.68% | 14.41% | 35.64% | 24.08% |
| ANNUAL NET PROFIT GROWTH RATE | | 31.33% | 4.54% | -9.73% | 34.65% |
| GROWTH RATE (G) (B*ROE) | 8.53% | 10.38% | 4.02% | 8.10% | 6.17% |
| NO OF BRANCHES | 52 | 51 | 51 | 55 | 55 |
| NO. OF ATMs | 78 | 81 | 85 | 89 | 90 |

Note: From Annual Reports of Nabil Bank Limited (FY 2011-12 to FY 2015-16)

One of the most important measures of a company's profitability is net income. That's because generating profits is the most important responsibility that for-profit companies have to their shareholders. Net income is a very good indicator of a company's financial health. It is the main indicator for normal layman to know about the company's progress.

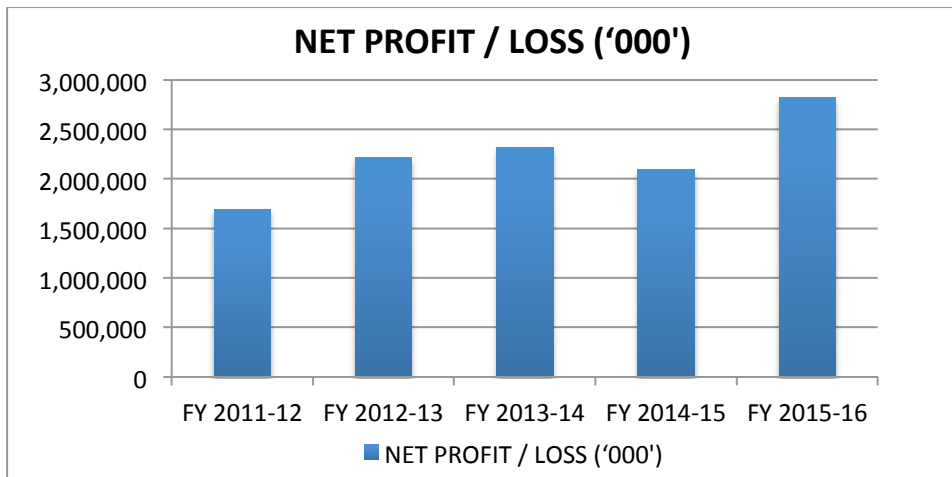


Figure 1: Net Profit/Loss of Nabil Bank

Nabil has been making good net profit over five fiscal year of the study period. It has a net for of Rs.1,689,392,000 for FY 2011-12, Rs.2,218,762,000 for FY 2012-13 , similarly Rs. 2,319,557,000 for FY 2013-14 and a slight decrease in net profit it make a profit of Rs. 2,093,814,000 for FY 2014-15 and Rs. 2,819,334,000 for FY 2015-16.

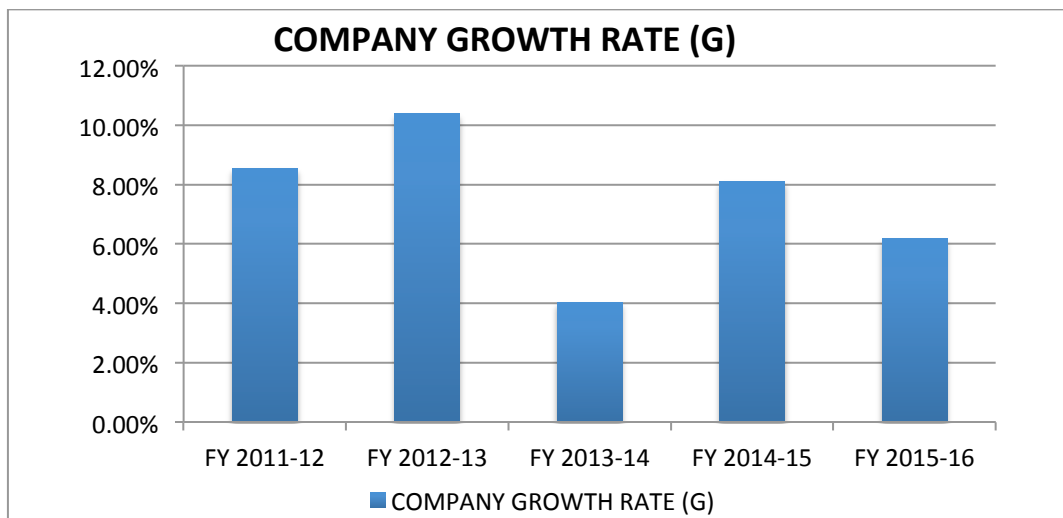


Figure 2: Growth rate of Nabil Bank

Company growth rate is another impotent factor to show whether the company has future prospects or not and whether its profitable to invest in the company or not. Nabil Bank has a fluctuating growth rate over five fiscal year of the study. It has a growth rate of 8.59 percent forFY 2011-12, 10.38 percent for FY 2012-13, a decrease of 4.02 percent for FY 2013-14 an increase of 8.10 percent for FY 2014-15 and again a decrease of 6.17 percent for FY 2015-16.

Earning per share (EPS) is one of the major factors that investors look into before investing. Earnings per share are generally considered to be the single most important variable in determining a share's price. Earning per share shows the company's capability of generating profit per share. Higher EPS indicates better performance.

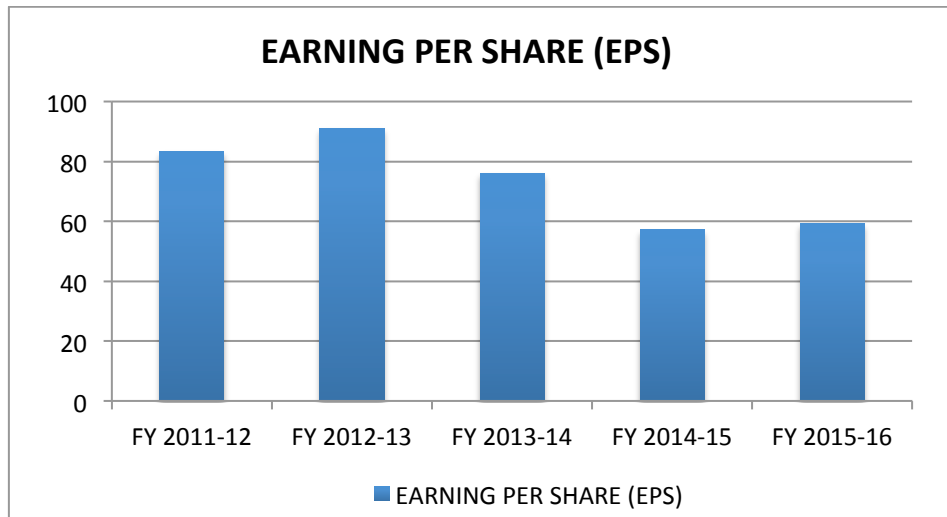


Figure 3: Earning Per Share(EPS) of Nabil Bank

Earning Per Share of Nabil Bank has fluctuated over the study period of five fiscal years. It has ranged from 57.24 to 91.05 in the taken study period of five fiscal years. Highest has been in the fiscal year 2012-13 and lowest has been in the fiscal year 2014-15.

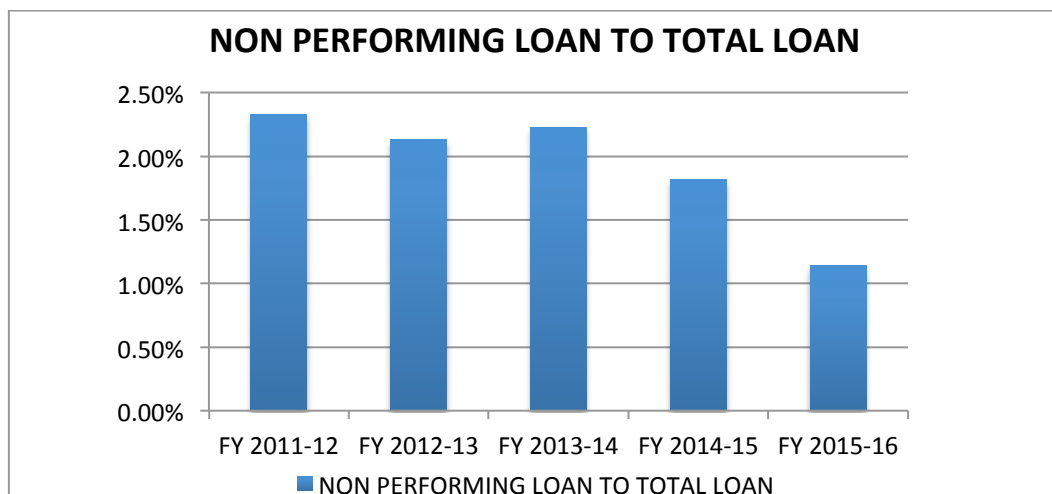


Figure 4: Non Performing Loan to Total Loan of Nabil Bank

Non-performing Loan to Total loan shows the risk factor of banks. Higher the non-performing loans to Total Loan higher are the risk for banks. It decreases the profitability of the banks.

Non-performing Loans to Total Loans of Nabil bank has been continuously decreasing over two fiscal year but it has hiked in the fiscal year 2013-14. This may be because this was the consolidation year for banks.

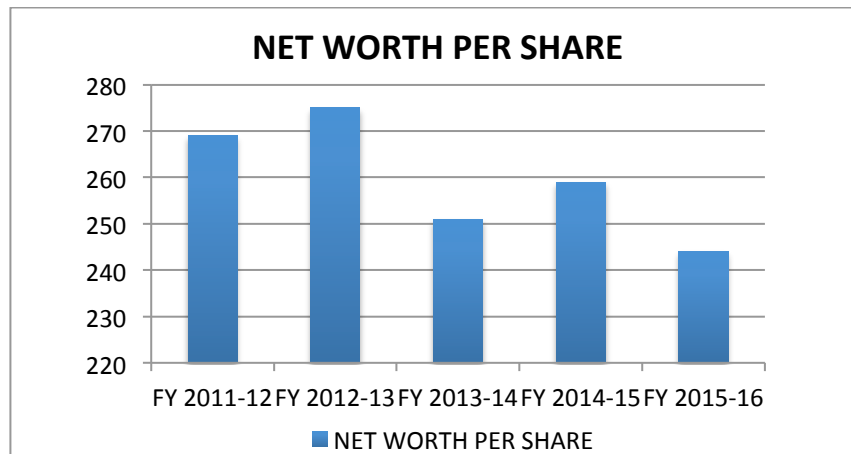


Figure 5: Net Worth Per Share of Nabil Bank

Net worth per share is also important factor that need to be considered while investing in a company. Net worth per share of Nabil Bank has ranged from 244 to 275. The highest was in fiscal year 2012-13 i.e. 275 and lowest was in the fiscal year 2015-16 i.e. 244. It seems that in the fiscal year 2015-16 it has decreased slightly from 259 to 244.

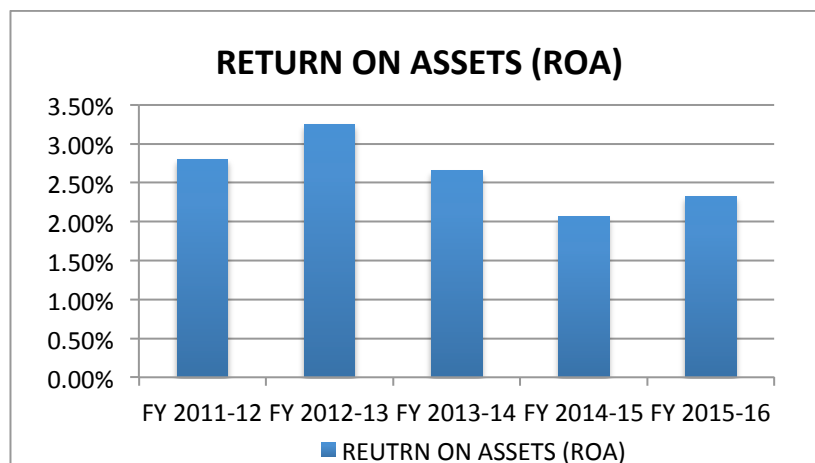


Figure 5: Return on Assets (ROA) of Nabil Bank

Return on Assets(ROA) shows the efficiency of management of a bank. Return on Assets of Nabil Bank s has increased to 3.25 percent in fiscal year 2012-13 from that of 2.80 percent in fiscal year 2011-12 which is the highest for the study period of five fiscal year. After that ROA has decreased to 2.65 percent in fiscal year 2013-14 , 2.06 percent in fiscal year 2014-15 and 2.32 percent in fiscal year 2015-16.

4.1.2.2 Valuation of Stocks Using PEG of Nabil Bank

This study has perform a valuation of past year using PEG from EPS growth of Nabil Bank as shown in Table 3.

Table: 3
PEG from EPS Growth of Nabil Bank

| Ratio | FY 2011-12 | FY 2012-13 | FY 2013-14 | FY 2014-15 | FY 2015-16 |
|------------|-------------------|------------|------------|-------------------|------------|
| EPS | 83.23 | 91.05 | 76.12 | 57.24 | 59.27 |
| EPS Growth | | 9.40 | -16.40 | -24.80 | 3.55 |
| MPS | 1355 | 1815 | 2535 | 1910 | 2344 |
| Forward PE | 14.88 | 23.84 | 44.29 | 32.23 | |
| PEG | 1.58 | -1.45 | -1.79 | 9.09 | |
| Valuation | Overvalued | | | Overvalued | |

Valuation using PEG from EPS growth for Nabil Bank shows that it has been overvalued in fiscal year 2011-12 and 2014-15. PEG in fiscal years 2011-12 and 2014-15 have been more than one which is overvalued but has been negative in the fiscal year 2012-13 and 2014-15 since EPS growth for next two years is negative.

Similarly, this study has perform a valuation of past year using PEG from earning growth of Nabil Bank as shown in Table 4.

Table: 4
PEG from Earning Growth of Nabil Bank

| Ratio | FY 2011-12 | FY 2012-13 | FY 2013-14 | FY 2014-15 | FY 2015-16 |
|------------------------|--------------------|-------------------|------------|--------------------|------------|
| Net profit /loss '000' | 1,689,392 | 2,218,762 | 2,319,557 | 2,093,814 | 2,819,334 |
| Earning Growth | | 31.33 | 4.54 | -9.73 | 34.65 |
| Forward PE | 14.88 | 23.84 | 44.29 | 32.23 | |
| PEG | 0.47 | 5.25 | -4.55 | 0.93 | |
| Valuation | Undervalued | Overvalued | | Undervalued | |

Valuation from Earning Growth shows that stocks of Nabil Bank have been undervalued in in the fiscal year 2011-12 and 2015-16 but overvalued in fiscal year 2012-13. This result is completely contradicting the result from PEG taken through EPS. The main reason behind it is the stock dividends that has been provided over the period which has increased shares outstanding and reduced EPS.

4.1.2 Analysis of Everest Bank Limited

Everest Bank Limited (EBL) was established in 1994. It is a foreign joint venture bank with Panjab National Bank of India. Table 5 shows key ratios of EBL.

Table: 5
Key Ratios of Everest Bank

| RATIOS | FY 2011-12 | FY 2012-13 | FY 2013-14 | FY 2014-15 | FY 2015-16 |
|---|------------|------------|------------|------------|-------------|
| NET PROFIT / LOSS ('000') | 1,090,564 | 1,471,117 | 1,549,699 | 1,574,352 | 1,730,207 |
| NET PROFIT/INTEREST INCOME | 52.26% | 53.34% | 53.09% | 54.68% | 53.59% |
| INTEREST INCOME ('000') | 2,086,664 | 2,757,742 | 2,918,815 | 2,879,435 | 3,228,585 |
| TOTAL ASSETS ('000') | 55,813,129 | 65,741,150 | 70,445,083 | 99,152,806 | 113,885,046 |
| TOTAL LOANS ('000') | 35,910,975 | 43,393,187 | 47,572,024 | 54,482,465 | 67,955,107 |
| TOTAL DEPOSIT ('000') | 50,006,100 | 57,720,465 | 62,108,136 | 83,093,790 | 93,735,481 |
| SHARE CAPITAL ('000') | 1,761,126 | 1,921,239 | 2,137,388 | 2,742,604 | 4,606,427 |
| NO OF SHARES OUTSTANDING | 12316357 | 16011264 | 18012391 | 20173877 | 26226041 |
| NON PERFORMING LOAN TO TOTAL LOAN | 0.84% | 0.62% | 0.97% | 0.66% | 0.38% |
| CREDIT TO DEPOSIT RATIO | 71.81% | 75.18% | 76.60% | 65.57% | 72.50% |
| MARKET VALUE PER SHARE (MPS) (inRs.) | 1033 | 1591 | 2631 | 2120 | 3385 |
| EARNING PER SHARE (EPS) | 88.55 | 91.88 | 86.04 | 78.04 | 65.97 |
| PRICE TO EARNING (P/E) RATIO(times) | 11.67 | 17.32 | 30.58 | 27.17 | 51.31 |
| DIVIDEND (INCLUDING BONUS) ON SHARE CAPITAL | 30.00% | 10.00% | 12.00% | 30.00% | 70.00% |
| CASH DIVIDEND PER SHARE | 1.58% | 50.00% | 50.00% | 5.00% | 3.74% |
| CAPITAL ADQUECY RATIO (CAR) | 11.02% | 11.59% | 11.31% | 13.33% | 12.66% |
| NET WORTH PER SHARE | 326 | 292 | 296 | 336 | 320 |
| REUTRN ON ASSETS (ROA) | 2.11% | 2.39% | 2.25% | 1.85% | 1.85% |
| RETURN ON EQUITY (ROE) | 26.10% | 30.40% | 28.40% | 23.93% | 26.30% |
| DIVIDEND PAYOUT RATIO | 2.99% | 31.80% | 41.53% | 42.23% | 4.87% |
| RETENTION RATIO (B) | 97.20% | 68.20% | 58.47% | 57.77% | 95.13% |
| ANNUAL NET PROFIT GROWTH RATE | | 34.90% | 5.34% | 1.59% | 9.90% |
| GROWTH RATE (G) (B*ROE) | 25.37% | 20.73% | 16.60% | 13.83% | 25.02% |
| NO OF BRANCHES | 47 | 50 | 52 | 53 | 61 |
| NO. OF ATMs | 63 | 65 | 70 | 80 | 86 |

Note: From Annual Reports of Everest Bank limited (FY 2011-12 to FY 2015-16)

Net income is a very good indicator of a company's financial health. Everest Bank has been able to maintain consistent growth in its net profit over the study period of five fiscal year.

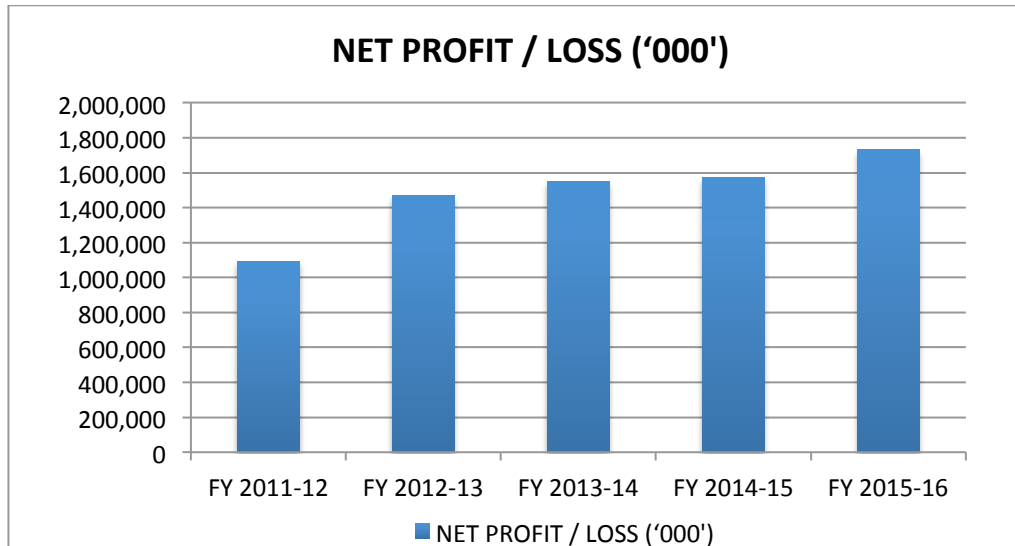


Figure 7: Net Profit/Loss of Everest Bank

Everest Bank has been able to make a profit of Rs.1,090,564,000 for fiscal year 2011-12, Rs.1,447,117,000 for fiscal year 2012-13 similarly Rs.1,549,699,000 for fiscal year 2013-14 and Rs.1,730,207,000 for fiscal year 2014-15. Trend of net profit shows that it has been able perform well over the study period.

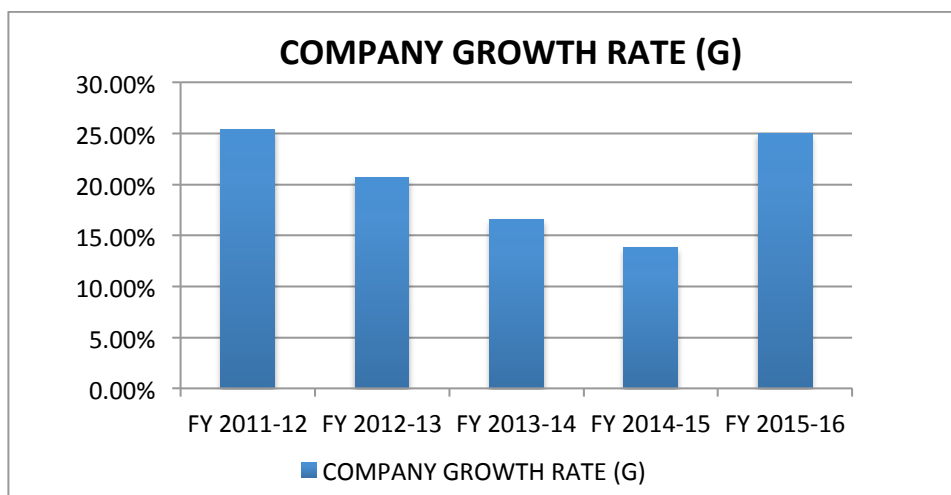


Figure 8:Growth Rate of Everest Bank

Everest Bank has been able to grow every year though in fluctuating rate. It has achieved minimum of 11.4 percent growth in the fiscal year 2010-11 and maximum of 25.4 percent in the fiscal year 2011-12. Company growth rate is an important factor to

show whether the company has future prospects or not and whether its profitable to invest in the company or not. Growth rate of Everest Bank is satisfactory and it seems that company has been doing well fundamentally.

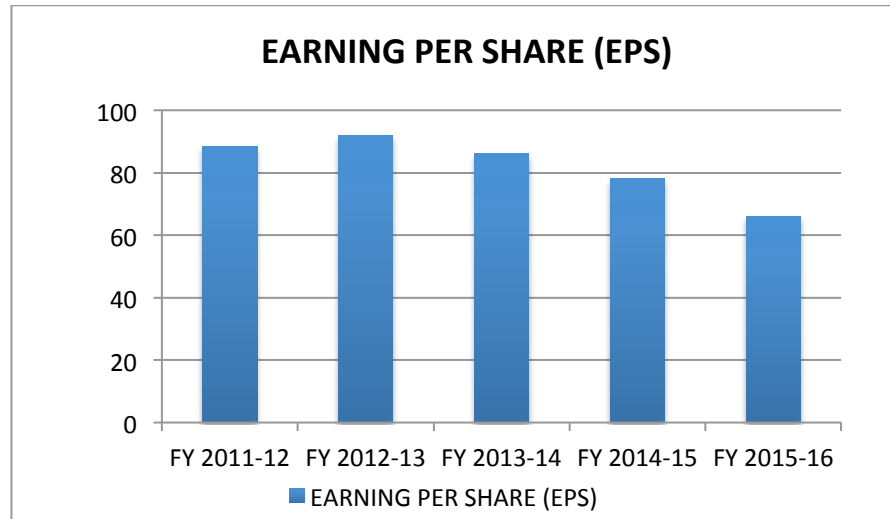


Figure 9: Earning Per Share (EPS) of Everest Bank

As Earning per Share (EPS) is one of the major factors that investors look into before investing. Earning Per Share of Everest Bank seems fair over the study period of five fiscal years. It has ranged from 65.97 to 91.88 in taken five fiscal years. Highest has been in the FY 2012-13 and lowest has been in the fiscal year 2015-16.

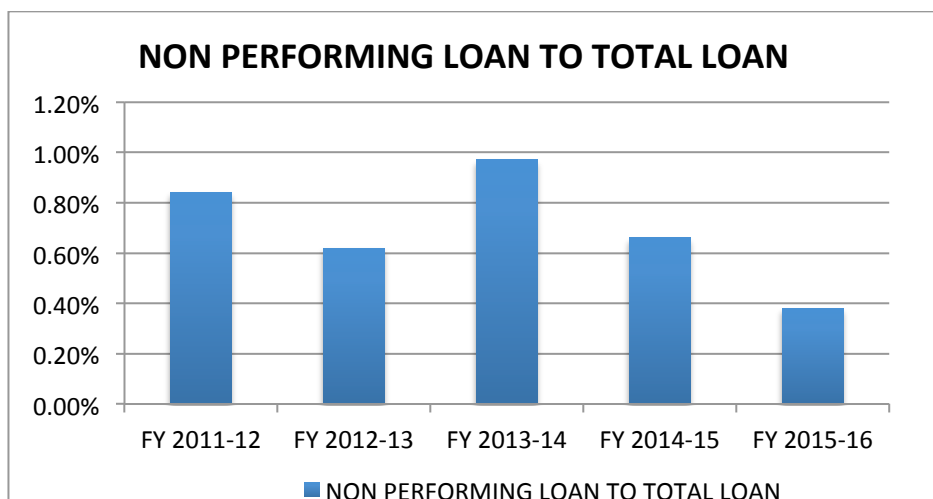


Figure 10: Non Performing Loan to Total Loan of Everest Bank

Non-performing Loan to Total loan shows the risk factor of banks. Higher the non-performing loans to Total Loan higher are the risk for banks. It decreases the profitability of the banks. Non-performing Loans to Total Loans of Everest bank has

been continuously decreasing over the study period but it has hiked in the fiscal year 2011-12. This may be because this was the consolidation year for banks.

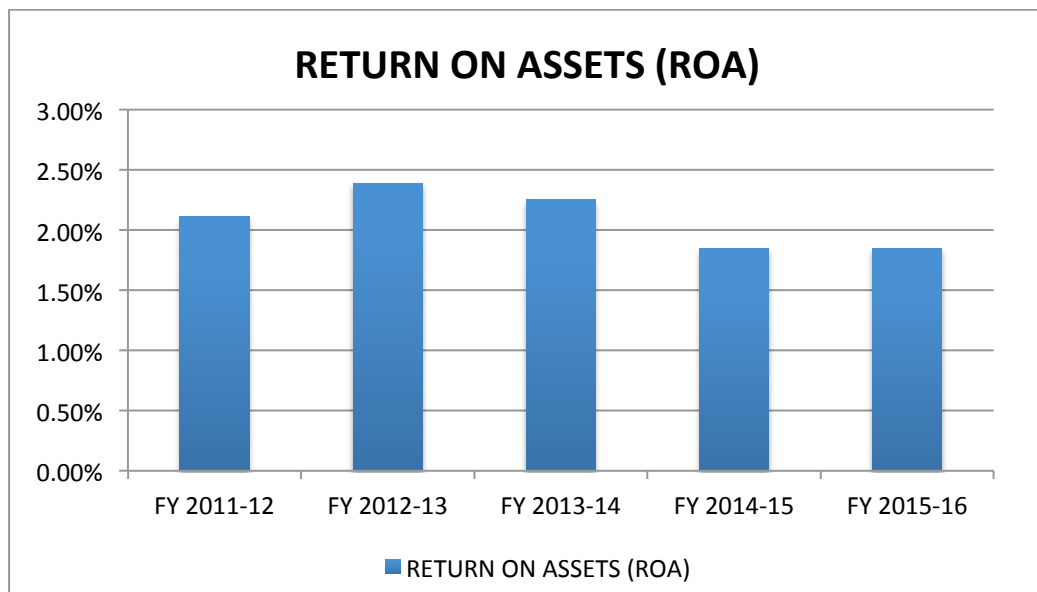


Figure 11: Return on Asset (ROA) of Everest Bank

Return on Assets (ROA) shows the efficiency of management of a bank. It is a primary indicator of managerial efficiency. It shows how profitable a company is relative to its total assets. Higher ROA indicates higher efficiency in the utilization of total assets and vice versa.

Return on Assets of Everest Bank seems to be much similar in all five years of the study period. It has ranged from 1.85 percent to 2.39 percent during the study period, which is much similar. Though quite slow but ROA of Everest Bank is in an increasing trend which is a good sign for the bank.

Net worth per share is another important factor that needs to be considered while investing in a company. Net worth is the amount by which assets exceed liabilities. A consistent increase in net worth indicates good financial health. Net worth per share of Everest Bank seems fair in comparison to other banks in the industry.

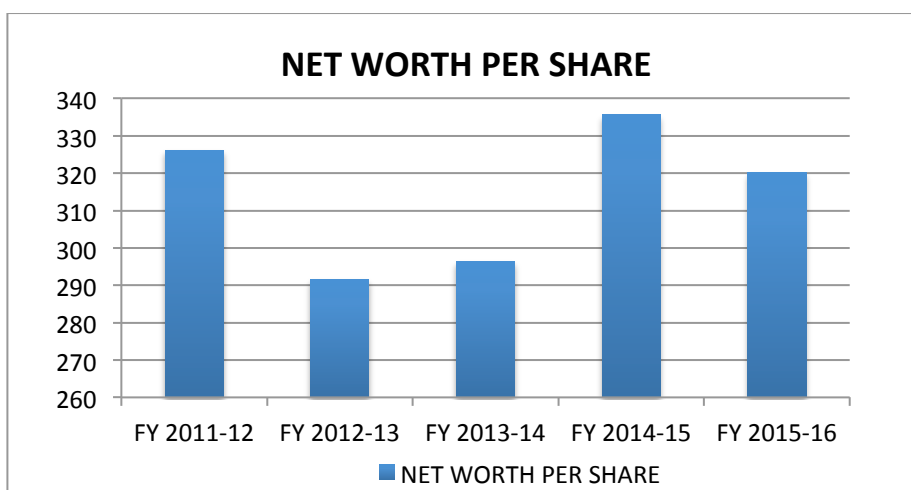


Figure 12: Net Worth Per Share of Everest Bank

Net worth per share of Everest Bank has ranged from 292 to 326. The highest was in FY 2014-15 i.e. 326 and lowest was in the FY 2012-13 i.e. 292. It is found that in the FY 2014-15 net worth per share of Everest Bank has drastically increased from 296 to 326.

4.1.1.2 Valuation of Stocks using PEG of Everest Bank

This study has performed a valuation of past year using PEG from EPS growth of Everest Bank as shown in Table 6.

Table: 6
PEG from EPS Growth of Everest Bank

| Ratio | FY 2011-12 | FY 2012-13 | FY 2013-14 | FY 2014-15 | FY 2015-16 |
|------------|-------------------|------------|------------|------------|------------|
| EPS | 88.55 | 91.88 | 86.04 | 78.04 | 65.97 |
| EPS Growth | | 3.76 | -6.36 | -9.30 | -15.47 |
| MPS | 1033 | 1591 | 2631 | 2120 | 3385 |
| Forward PE | 11.24 | 18.49 | 33.71 | 32.14 | |
| PEG | 2.99 | -2.91 | -3.63 | -2.08 | |
| Valuation | Overvalued | | | | |

Valuation using PEG from EPS growth for Everest Bank shows that it has been overvalued in fiscal year 2011-12 only. PEG in rest all fiscal years have been negative since EPS growth for rest year are negative.

Similarly, table 7 shows the PEG from Earning Growth of Everest Bank below.

Table: 7
PEG from Earning Growth of Everest Bank

| Ratio | FY 2011-12 | FY 2012-13 | FY 2013-14 | FY 2014-15 | FY 2015-16 |
|------------------------|--------------------|-------------------|-------------------|-------------------|------------|
| Net profit /loss '000' | 1,090,564 | 1,471,117 | 1,549,699 | 1,574,352 | 1,730,207 |
| Earning Growth | | 34.90 | 5.34 | 1.59 | 9.90 |
| Forward PE | 11.24 | 18.49 | 33.71 | 32.14 | |
| PEG | 0.32 | 3.46 | 21.19 | 3.25 | |
| Valuation | Undervalued | Overvalued | Overvalued | Overvalued | |

Valuation from Earning Growth shows that stocks of Everest Bank have been undervalued in in the fiscal year 2011-12 and overvalued in remainig fiscal year of the study period. This result is completely contradicting the result from PEG taken through EPS. The main reason behind it is the stock dividends that has been provided over the period which has increased shares outstanding and reduced EPS.

4.2Key Findings

Establishment of commercial banks had continued in response to the economic liberalization policies of the government. As a result, in Nepal there are 28 commercial banks at present competing with each other in their business. Commercial banks have been dominating stock market in volume as well as transaction.

Nepalese security market is in developing stage in comparison to other countries such as China, India and United Kingdom. The history of the security market proceeds with the flotation of shares of Biratnagar Jute Mill Ltd. and Nepal Bank Ltd in 1937, introduction of the company act in 1951, the first issue of government bond in 1964 and the establishment of Security Exchange Centre Ltd. in 1976. The security market flourished after the conversion of Security Exchange Centre into Nepal Stock Exchange in 1993.

This study covers two major sample listed companies in NEPSE. The first one is Nabil Bank Ltd. and the second one is Everest Bank Ltd. Both of them were established before 1995, both are foreign joint venture banks and both banks EPS is much similar. The study used PEG valuation tools to accomplish the objectives. The necessary data for this valuation process are taken from the company's annual general report.

This chapter summarizes the whole study and findings, make general conclusion based result of the analysis of data. Details of the findings are presented as below.

- Nabil Bank has been able to maintain consistent growth in its net profit except in the fiscal year 2013-14. Trend of net profit shows that it has been able perform well over the study period.
- Nabil Bank's EPS seems fluctuated over the study period of five fiscal year. It has ranged from 57.24 to 91.05. Highest has been in the fiscal year 2012-13 and lowest has been in the fiscal year 2014-15.
- Nabil Bank has a fluctuating growth rate over five fiscal year of the study. It has a growth rate of 8.59 percent for FY 2011-12, 10.38 percent for FY 2012-13, a decrease of 4.02 percent for FY 2013-14 an increase of 8.10 percent for FY 2014-15 and a decrease of 6.17 percent for FY 2015-16.
- Nabil Bank's non-performing loans have been continuously decreasing over two fiscal year but it has hiked in the fiscal year 2013-14. This may be because this was the consolidation year for banks.
- Net worth of Nabil Bank's share ranged from 244 to 275 during the study period of five fiscal year.
- ROA of Nabil Bank is in decreasing trend over the study period. It has been slightly increased in FY 2011-12 and FY2015-16.
- Valuation using PEG from EPS Growth shows that stocks of Nabil Bank have been overvalued in FY2011-12 and FY2014-15.
- Valuation using PEG from earning growth method shows that stocks of Nabil Bank has been undervalued in the FY 2011-12 and FY 2014-15 but has been overvalued in FY 2012-13.
- Everest Bank's net profit has been constantly increasing over the five year study period. Its income from other non-funded activities is comparatively low in comparison to Nabil Bank.

- Everest Bank growth rate seems to be in a decreasing trend till FY 2014-15 but it took a drastic growth rate in FY2015-16.
- Earning Per Share (EPS) of Everest Bank seems fair in comparison to the Nabil Bank. It slightly go on a decreasing trend from FY 2013-14.
- Non-performing Loans to Total Loans of Everest bank has been continuously decreasing over the study period but it has hiked in the FY 2013-14.
- ROA of Everest Bank is in a similar trend during the study period of five fiscal year in comparison to fluctuating rate of Nabil Bank.
- Net worth per share of Everest Bank seems very fluctuating during the study period in comparison to Nabil Bank. It has ranged from 292 to 326.
- Valuation using PEG from EPS growth for Everest Bank shows that it has been overvalued in FY 2011-12 and it has been negative in rest of the year because the EPS growth for remaining year are negative.
- Valuation from Earning Growth shows that stocks of Everest Bank have been undervalued in FY 2011-12 and in all the remaining year it has been overvalued.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

This research is concerned about the stock price behaviour of foreign joint venture commercial banks namely Nabil Bank limited and Everest Bank limited. This study helps to know about the stock price behaviour of the company. For the purpose of obtaining the up-to-date understanding of the subject and its significance on the past, identify the methods used in the previous researches and to find out the comparison of the research findings, a review of related studies have been done. It basically comprises of major findings, conclusions and recommendations of the previous studies relevant to the research.

This research is based on secondary source of data. The researcher used descriptive and analytical research design for Nabil Bank limited and Everest Bank limited. Descriptive research design defined the situation and analytical research design analyzed that the information are critically evaluated. The researcher also used various financial tools likes net profit, EPS, DPR, PE ratio, ROA, ROE , NWPS , Non performing loan to total loan etc. of these banks.

The researcher has analyzed and diagnosed the stock price behaviour for these banks using valuation models like PEG from EPS growth and PEG from earning growth. This study is concentrated on the analysis of chosen foreign joint venture commercial banks and their stock valuation. The main objective of this study is to analyze the stock price movement of chosen foreign joint venture commercial banks in relation to the financial valuation tools and to compare the stock price behaviours of sample commercial banks in relation to the financial valuation tools. To fulfill the objectives, an appropriate research methodology has been developed, which includes financial tools and valuation model. The necessary data are derived from the annual report for the period of 2011-12 to 2015-16.

This study is basically the theoretical background of different concepts like Financial Market, Money Market, Primary Market, Secondary Market, Stock Exchange, Capital Market in Nepal, Constituents of Capital Market in Nepal, Nepal Stock Exchange

Ltd., The Concept of Stock Valuation, forward P/E ratio, PEG valuation model etc. In this regards the study provides theoretical background regarding the concept of relative valuation model, stock price behaviour and so on. The study also focus on PEG valuation model which is an important tool used to analyze whether the stock is undervalued or overvalued. In spite of that, the review of different national studies like thesis, articles, journals were also studied as a related topic in this section.

This study aims to analyze the fundamentals of commercial banks through assessment of their financial statements and forecasting their financial statements to find their intrinsic value to find whether they are overpriced or underpriced in the stock market. The research design followed for this study is descriptive and analytical research design. In particulars, financial valuation tools namely, PEG from EPS growth and PEG from earning growth has been used to establish the valuation of the individual banks against the stock market price at the end of the fiscal year. Financial and statistical tools were the main tools used in the analysis of the data. The collected data from different sources were presented systematically in table, bar diagrams and figures.

5.2 Conclusions

A bank is a financial intermediary that accepts deposits and channels those deposits into lending activities, either directly by loaning or indirectly through capital markets. It receives money from those who want to save in the form of deposits and it lends money to those who need it. It works as a channel between borrowers and savers and plays a major role in money multiplication. Capital market is the place where long term securities are traded having maturity period more than one year. The capital market mobilizes savings of individuals as investment in different securities, which are ultimately utilized for productive purposes in various sectors of the economy.

A fundamental analysis is all about getting an understanding of a company, the health of its business and its future prospects. It includes reading and analyzing annual reports and financial statements to get an understanding of the company's comparative advantages, competitors and its market environment. Actual position of an

organization is reflected in its financials but very few investors have knowledge and insight of the actual performance of companies while investing.

Fundamental analysis of companies are very important so as to have the glance of true picture of the company and invest wisely but Nepalese market is highly directed by market whim and instincts of investors. Choosing and investing in a good company is a big challenge to investors. Still investors invest without good knowledge of fundamental elements and actual worth for what they are investing. Therefore, it is a wise idea to look for its fundamental elements and its performance while investing in any company.

The major objective of this study was to analyze the stock price behaviour of the chosen joint venture commercial banks of Nepal as against the financial valuation tools. For this financial valuation tools namely, PEG from EPS growth and PEG from earning growth has been used to establish the valuation of the individual banks against the stock market price at the end of the fiscal year

From the study done it has been found that some banks in industry has been performing consistently and some have fluctuating fundamentals. Investors need to be very careful while choosing the banks to invest. Similarly, valuation of stock price shows that prices of some chosen banks are undervalued while some are overvalued. This is due to the ratio between increase in net profit and increase in capital or outstanding shares. If there is high increment in share outstanding prices will fall and vice-versa.

Hence, it can be concluded that capital market is the place where people can invest to get good returns which is possible only through study of company's fundamental elements and its future prospects. Investors should invest to gain returns only with calculated risk. Investing hazardingly without proper knowledge about the company might be very risk.

5.3 Recommendations

Regarding the findings of the study along with the observation of the analysis carried out, following are the recommendations based on the above findings, conclusions and

analysis of data as well as information collected through secondary data from rationale investors among friends, family members and colleagues etc.

- Investor should purchase or sell securities on the basis of past trend earning per share, net income, market value of shares. Stock trading in secondary market is less risky than the initial public offering, because we already have a glance of some fundamental elements.
- Traditionally, the purchase of land, construction of building and saving on the bank had been the major area of investment for the people but their attitudes changing towards shares, debenture, and other new securities. But the government policies and programmes are not directed toward the development of domestic stock market (over the counter market) for mobilizing saving and providing equitable investment opportunities for the people of all regions.
- The PEG ratio is one of the most popular valuation tools. It takes less time to calculate and is much easier than running a discounted cash flow valuation. The PEG ratio is considered to be a convenient approximation. A great feature of the PEG ratio is that by bringing future growth expectations into the mix, we can compare the relative valuations of different industries that may have very different prevailing P/E ratios. This makes it easier to compare different industries, which tend to each have their own historical P/E ranges.

As we know that investors in Nepal are investing in companies without proper study and knowledge of the stock market and company itself, this research will help investors to know about the chosen commercial banks regarding their profitability and other important fundamental elements. It will be helpful to institutions like merchant bankers, investment bankers, portfolio managers etc. Similarly, it will also be helpful to the organization themselves as the study will provide glimpse of past financial performances and its position in stock market for better knowledge on the future prediction for investment.

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