RISK AND RETURN ANALYSIS OF LISTED COMMERCIAL BANKS OF NEPAL

(With References to NABIL, SCBNL, EBL, SBI and BOK)

By

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RECOMMENDATION

This is to certify that the Thesis

Submitted by:

BISHNU PRASAD MARAHATTA

Entitled:

RISK AND RETURN ANALYSIS OF LISTED COMMERCIAL BANKS OF NEPAL

(With References to NABIL, SCBNL, EBL, SBI and BOK)

Has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

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VIVA-VOCE SHEET

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RISK AND RETURN ANALYSIS OF THE LISTED COMMERCIAL BANKS OF NEPAL
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*And found the thesis to be the original work of the student and written
According to the prescribed format. We recommend the thesis to
be accepted as partial fulfillment of the requirement for the*

Degree of Master's in Business Studies (M.B.S.)

Viva-Voce Committee

Head, Research Department …………………..………

Member (Thesis Supervisor) …..……………………..

Member (External Expert) …..………………………..

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Faculty of Management

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DECLARATION

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I hereby declare that the work reported in this thesis entitled **"RISK AND RETURN ANALYSIS OF LISTED COMMERCIAL BANKS OF NEPAL (With References to NABIL, SCBNL, EBL, SBI and BOK)"** submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the Masters Degree in Business Study (M.B.S.) under the supervision of **Shree Bhadra Neupane** of Shanker dev Campus.

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ACKNOWLEDGEMENT

This report on **Risk and Return Analysis of Listed Commercial Banks of Nepal** has been prepared, as per the course of Master of Business Studies, second year. This report has attempted to explore the risks and returns of some of the major joint-venture commercial banks and try to compare them with the risk and return of the commercial banking sector and also with that of the market risk and return before reaching into some deciding conclusions.

In this effort of preparing the report, I am especially grateful to, my teacher, who has given me fruitful suggestions and guidance to frame out this report. I am also thankful to the officers and staffs of NEPSE together with staffs of various commercial banks for making me available different resource materials and data. Similarly, I also want to remember the help that I have received from the library staffs of various campuses, especially staffs of Shankar Dev Campus and Central Libraries, T.U.

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BISHNU PRASAD MARAHATTTA
Researcher

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ABBREVIATIONS

AD -   Anno – Domini
AGM -   Annual General Meeting
BI -   Banking Index
BOK -   Bank of Kathmandu Limited
CAPM-   Capital Assets Pricing Mdel
CB -   Commercial Bank
Co. -   Company
CS -   Common Stock
CV -   Coefficient of Variance
DPS -   Dividend per Share
EBL -   Everest Bank Limited
EPS -   Earning Per Share
FY -   Fiscal Year
Jr. -   Junior
Ltd -   Limited
MPS-   Market Price per Share
Mr. -   Mister
NABIL -   Nabil Bank Limited
NEPSE -   Nepal Stock Exchange.
NI -   Nepse Index
OI -   Others Sector Index
P/pp –   Page
R -   Expected Return
R -   Realized Rate of Return
RFR -   Real-Risk Free Rate
Rs –   Rupees
SBI-   Nepal SBI Bank Limited
SCBNL -   Standard Chartered Bank Nepal Limited
SD -   Standard Deviation
TU -   Tribhuvan University
USA -   United States of America
% -   Percent
& -   And

CHAPTER- I
INTRODUCTION

1.1 General Background

Nepal is a landlocked country with agro-based economy. The country is divided into Mountain, Hills and Terai region with its geographical nature. Economic status of our country is growing very slowly and Nepal is known as a very poor country all over the world. Development of different institution is essential for the rapid economic development of the country. Although, being an agricultural dependent country, the non-agricultural sectors should be given priority. This will help not only to solve the problem of employment but also in the economic development of the nation. Only the establishment of industry is not sufficient but successful operation is also necessary. For successful operation, every industry and organization needs finance. The success and failure of business and industries widely depends on the crucial decision made by the top management team relating to the management of fund. Capital structure decision is one of the most crucial complex areas of financial decision making area relating to the management of fund, due to its interrelationship with other financial decision variables.

Each and every managerial decision making is based on financial analysis. Its covers the acquisition, utilization, control and administration of funds "Managerial finance is an exciting and dynamic area of study and its importance to the long run success of today's business is unquestioned". *(Gittman; 1985:15).*

Virtually all individuals and organization earns or raise money and invest money. Finance is concerned with the processes of institution markets and instrument involved in the transfer of money among and between individual business organization and governments. The field of finance is broad and dynamic. Finance has become an important branch of any economy, of which share market is a leading sector. In short

period, the field of finance has developed considerably. Issue of securities to raise funds from the capital market certainly helps to expand the national economy.

Return is the main objective of investment and a certain degree of risk is also associated with it. Finance mostly deals on the monetary risk and return, which is the most affecting subject matter for an individual to large corporations. Return is the income received in investment. People invest their belongings with an expectation of getting some reward for leaving its liquidity. They only invest in those opportunities where they can get higher return. Hence, investor wants favorable return from their investment and goes for those, which yield more.

To some, it is simply a lack of definite outcome, which can be any unknown unfavorable events. It is a chance of happening some unfavorable event or danger of losing some material value. What is a risk? It is difficult to define the term risk. "Risk is like pornography. It is hard to define, but you know it when your see it". *(Van Horme and Wachowic; 1985:126)*

A stock reflects the uncertainty about future returns, such that the actual return may be less the than expected return. The main source of uncertainty is the price at which the stock will be sold. Dividends tends to be much more than stock prices which contributes to the return immediately received by investors and at the same time reduces the amount of earnings reinvested by the firm, which limits its potential growth. And the stock prices can be affected by economic factors such as interest such as specific policies enacted by the particular firm that will affect future earnings. The risk of a stock can be measured by its price volatility.

Investors have varying perceptions towards risk and enterprising ability. Investor will want their investment to yield favorable return and they invest in those opportunities, which have greater expected return. Investors sacrifice their current clash in securities in

anticipation of higher future benefits then in risk free sector. An investor seeking common stock investment usually pays the price of stock based on his estimation about future dividends and growth in stock price. Although in case of imperfect capital market, so many financial and non-financial factors play a great role price determination.

In Nepalese contest, the institutional setup of securities market began along with the "Security Exchange Center" (Now Nepal Stock Exchange Limited) in 1976 A.D. Through after considerable developments, there still exists some problem in the development of stock markets in Nepal. Most of the shareholders and investors are least familiar with the risk and return. "Most of the Nepalese investors are founded to invest in single security" *(Bhatt; 1996:2)*.

Due to the lack of information and poor knowledge, market intermediaries exploit investor. So many investors afraid of invest in stock. People's participation in security investment and its dynamic trading play a vital role in overall economic development. For this purpose potential investors must be able to analyze risk and return of individual stock and portfolio as well. Which will increase market efficiency, consequently speed up the economic development.

Listing is primarily determined by the wishes of economy, the size of the company and the trading activity of the stock. Stock exchange means anybody of the individuals, whether incorporated or not, constituted for the purpose of regulating or controlling the business of buying, selling or dealing in securities.

Security markets exist in order to bring together buyers and sellers of securities meaning their mechanism are created to facilitate the exchange of financial assets. There are different types of securities as treasury bills long term government bonds, long-term corporate bonds, common stocks etc. Among these securities this study concerns with common stocks. Common stock represents a commitment on the part of a corporation to

pay periodically whatever its board of directors deems appropriate as a cash dividend. Common stock is known as a risky security.

Common stock holders of a company are its ultimate owners. Collectively they own the company assuming that ultimate risk is associated with ownership. Investors invest in common stock expecting higher return. But their expected return may not change into realities. This uncertainty is a major risk to investors is stock market investment.

Banking sector is the most dynamic part of economy, which collects unused funds and mobilizes it in needs sectors. It is the heart of trade, commerce and industry. In Nepalese context, commercial banks have comparatively good performance among the public limited companies.

In Nepal foreign joints venture banks perform better than Nepalese ones because of their management efficiency and capacity of proper risk management. Specially, Nepalese banks have a high degree of internal (firm-specific) risk. On the other hand, they have to bear more social obligation and government intervention than foreign banks. However Nepalese banks have high potentialities to increase their attitude and improving their internal management.

The concept of banking system was introduced in Nepal with the establishment of Nepal Bank Ltd. In year 1937.Later, in1955, the first central bank, named as Nepal Rastra Bank was established with an objective of supervising, protecting and directing the functions of commercial banking activities. Rastra Banijya Bank, the commercial bank fully owned by HMG was established in 1966. The financial scenario has changed with the introduction of joint ventures banks in 1984. The numbers of commercial banks has been increasing so the investment volume and opportunity in various sectors such as agriculture, industry, commercial and social sectors are also increasing gradually. Among all the banks, 24 commercial banks are listed Nepal Stock Exchange, which claims the highest contribution on market capitalization as compared to other sectors. And these also

are found better in terms of earning per share. As financial intermediary, the commercial banks also play as important role as fiscal policy implementing body of central bank. The monetary structure involves analysis of behavior of banking system. The variation in the size and composition of the assets play important role in transmitting the influence the monetary policy to the economy.

1.2 Introductions of Commercial Banks:

There are only 28 commercial banks on till January 2010. Out of this there are 24 commercial banks listed in NEPSE. Out of this we only took five joint venture banks taken from sample of this study.

1.2.1 Nepal Arab Bank Limited:

Nepal Arab Bank Ltd. is the first joint venture commercial bank established in 1984 A.D.(2041B.S.) and listed in NEPSE in year 1986A.D. (08/9/2042B.S). Initially, Dubai Bank Ltd.(DBL) invested 50% of equity share of NABIL. The share owned by DBL were transferred to Emirates Bank International Ltd.(EBIL), Dubai, latter on EBIL sold its entire 50% equity holding to National Bank Ltd. Thirty eight branches of the bank are in operation across the country. Now the bank has Rs.1600, 000,000 authorized and RS. 965,747,000 paid up capital.

1.2.2 Standard Chartered Bank Limited Nepal:

SCBNL was established in 1985 as a second joint venture bank under the company Act-1964. Standard charted bank England is managing the bank under joint venture and technical services agreement signed between bank and Nepalese promoters. This bank was listed in NEPSE in B.S.03/21/045.its central office is new Baneshwor Kathmandu. There are twelve branches in all over county now.

1.2.3 Everest Bank Limited:

Everest Bank Limited was established in1992 under the Company Act as one of the Joint-venture banks. Earlier, its foreign joint-venture partner was United Bank of India Limited but from December 1996 onwards, its management was taken over by Punjab National Bank Limited of India that holds 20% of equity on the bank's share capital. There are thirty four branches in all over country. The bank has Rs. 838,821,000 paid up capital.

1.2.4 SBI Bank Limited Nepal:

Nepal SBI bank limited is another joint venture bank established under the company Act of Nepal. the bank was incorporated in 1993 A.D. it is managed by the state bank of India under joint venture and technical services agreement signed between it and Nepalese promoters. State bank of India is holding its 50% of equity shares. This bank was listed in NEPSE in 1994. SBI bank has Rs. 200, 0000,000 authorized capital and Rs. 1653,600,000 paid up capital

1.2.5 Bank of Kathmandu:

BOK was established in 2050 B.S. in collaboration with the SIAM Commercial Banks, PCC, and Thailand under the company act with the objective to simulate the Nepalese economy and take it to newer height, Out of 50% of share holding. The SIAM commercial banks diluted its 25% if holding to the Nepalese citizen in 1998. Now there are 37 branches among the country in Nepal. Which authorized capital is Rs. 1000,000,000 and issued/paid up capital is Rs.844, 397,900.it head office in kamaladi Kathmandu

1.3 Statement of the Problems:

Due to the lack of information and poor knowledge, individual investors are manipulated or exploited by the financial institutions or the other market intermediaries top such as extent that investing in common stock is intolerably hazardous. Investor's attitude and perception plays a vital role in national decision, which is influenced by the knowledge and access to the data required for analysis. Most of Nepalese investors invest their fund

in single security because of less knowledge about risk return behavior of the securities. So, main problem is the lack of information to analyze the risk and return on common stock investment. People feel more risk in stock investment then as its real risk. Not only general public, but also the university graduates and post graduates cannot analyze risk and return while making stock investment decision.

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Further theory says that the stock price in market is guided by the intrinsic value which is calculated by aid of company's result of financial performance such as dividend, required rate of return and growth. In an efficient market condition stock price is equal to the intrinsic value since the buyer and the seller are fully aware of the facts and figure of the company. Hence one can say that market price and financial performance are positively correlated.

In Nepal, major weakness on the implementation of stock market efficiency is due to lack of education, knowledge, resources and technology that hinders to analyze risk and return of individual and portfolio stock.

The major problems of these stories are:

- It has been more than a decade since the establishment of Nepal Stock Exchange. The number of companies being listed has been increased tremendously.

- People's interest in investing on shares has also been growing. But the pour of money on stocks has been much guided by the mere interest rate than the very concept of the investment.

- General people who invest in shares have less or even no reason on why they have invested in the particular shares.

- When people invest in more than one share and create a portfolio, they don't have

Any answer on why they are investing in the shares of particular companies. Market rumors and influence of friends used to be major reasons of many people's investment in many a case.

1.4 Objectives of the study:

The general objective of this study is to assess the risk and return on common stock investment of the listed commercial banks. The other specific objectives of this study are as follows.

- To see the position of risk and return of the sampled commercial banks and also analyze their coefficient of variance.

- To see how sensitive the stock price of the selected commercial banks are.

1.5 Significance of the study:

In the context of Nepal, the capital market is growing very slowly. The market is not efficient, there are very few magazines or articles related to capital market and very few studies are made on the topics "Risk and Return". Because of all things some of investing on the capital market without any proper knowledge and information.

This study will give information about Nepalese Capital Market by analyzing risk and return and will definitely contribute to increase the analytical power of the investor in capital market. The study will be beneficial for all the persons who are directly related to the Nepalese Capital Market.

Investor's feeling towards risk and return is on the surface level only. They feel more risk than that exist. As a result, there are fair of laps of investment in common stock. So, the study will be more significant for exploring and increasing stock investment. It will also provide little contribution to Nepalese stock market development.

This study is not only to fulfill M.B.S. Level course of T.U., but also to provide some knowledge about the Nepalese stock market developments along with providing ideas to minimize the risk on stock investment.

The analysis of risk and return is a significant managerial decision from the viewpoint of investors. It influences the shareholders risk and return. Consequently the risk and return analysis influences the market price of the stock, by making it at an appropriate level. Apart from this, study will be a matter of interest for academicians, students, researches, teachers or persons practicing in the field of finance.

1.6 Limitations of the study:

As every research has its own limitation, this study is not free from it. So it has some limitations which are as follows:

a) The study covers the relevant data and information only for five years i.e. fiscal years 2005 to 2009.

b) Variation in data published from different sources e.g. figure published by NEPSE and company differ to some degree.

c) Analysis is mostly based on the tools developed in the context of an efficient market condition.

d) The study is based on five listed commercial banks only.

e) The study is basically concerned only with the risk and return of the listed commercial banks i.e., other aspects of the banks have not been taken under consideration

1.7 Organization of the Study

The study has presented the systematic presentation of the research design, analysis, Presentation and findings of the study. It has divided into five chapters.

Chapter -I: Introduction

The first chapter of the study is introduction, which highlighted the basic information of the research area, various problems, objectives, importance, limitations and organization of the study.

Chapter - II: Review of Literature:

The second chapter of the study assures readers that they are familiar with important Research that has been carried out in similar areas by earlier scholars in related areas. It also establishes that the study as link in a chain of research that is developing and Emerging knowledge about concerned field.

Chapter - III: Research Methodology

The third chapter refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. It describes the various researches methods (i.e. research design, source of data, data collection techniques, data collection methods).

Chapter - IV: Data Presentation and Analysis

The developed information has finished in required form in fourth chapter. Information is presented and analyzed (i.e. both primaries as well as secondary source) by using various Financial and statistical tools that specified stated objective of study.

Chapter - V: Summary, Conclusion and Recommendations

On the basis of the results from data analysis, the researcher concluded about the research Work. Besides, it also gives important suggestions to the concerned organization for Better improvement.

CHAPTER –II
REVIEW OF LITERATURE

Review of literature is the chapter where a researcher reviews the book, journal, magazine or any other type of studies, which are related to his fields of the study. Research is a continuous process it never ends. The procedures and the finding may change but research continues. So for analyzing the date and to find something's new a researcher must review and know if there are any studies ahead or not. The purpose of reviewing the literature is to develop some expertise in ones area, to see what new contributions can be made, and to receive some ideas for devolving a research design .thus , the previous studies cannot be ignored because they provides the foundation to the present study. In other word, there has to be continuity in research. This continuity in research is ensured by linking the present study with past research studies.

In this chapter relevant and recent literature, which are related to the topic risk and return, is reviewed. Topics from basic academic courses books and different studies published in magazine, thesis of seniors and journals related to the study are reviewed below:

2.1 Conceptual Frameworks:

2.1.1 Investment:

Analyzing risk and return shows the relation or tradeoff between risk and return on my kind of investment.

Investment, risk and return are the financial terms. Which are heavily associated with each other? Investment simply means sacrificing current funds for future cash inflows. Here the future cash inflows are the "Returns". The future is uncertain and uncertainty obviously points out risk.

"Investment in its broadest sense means the sacrifice of dollars for future dollars. Two different attributes are generally involved times and risk. The sacrifice takes place in

present and is certain. The reward comes later. If at all and the magnitude is generally uncertain". *(Van Horme; 1980: 125)*

Investment can be made on real assets or financials assets. Investment or real assets is known as real investment and on financial and on financial assets is known as financial investment. Real investment means investment on real assets like lands, buildings, factory etc. financial investment means the investment on financial assets like shares, debentures, warrants, convertibles etc.

Real investments generally involve some kind of tangible assets such as land, machinery or factories. A financial investment involves contracts written on pieces of paper such as common stocks and bonds. In the primitive economics most investments is of the real variety, where as in a modern economy much investments is of the financial variety.

The term risk and return is closely associated with investments. An investment simply means sacrificing current for future returns, bearings certain risk. The investments may be on fixed assets like land, buildings, vehicles, etc or on precious metals and collectibles or something else's. But concerned with finance the study has focused the term investments as sacrificing currents fund on financial assets like shares, debentures, warrants, convertibles etc. for the long –term return.

Investors invest their fund on the securities or certain companies for the long run future returns. The return is defined as the reward for beating the risk. Return is the most important outcome from an investment. It measures the investors rate of wealth accumulation i.e. increase or decrease per period. Return can be different way, like holding period return, return from speculation or from short sell, capital gain, dividend gain yield on investment, yield to maturity etc. these all types of return are the rewards to the investors for bearing the risk. Risk is defined as the occurrence of unfavorable outcomes, which is ever harmful for the business.

Return to investors is ever followed by risk. Risk ever creates uncertainty some of the factors that create investments uncertainties are interest rate risk, purchasing power risk, bull-bear market risk, management risk and so on, and risk can be diversifiable or undiversifiable. The level of risk depends on the condition of the market. If the market is efficient there is low risk, but if it is inefficient, definitely there will be higher risk. An efficient market is that market, where the securities prices reflect all available information about the economy, about the financial market and about specific company involved. In efficient market, the price of stock reflects its value.

The investors can invest either in primary or in secondary market, by purchasing the securities of different companies. There are many more financial securities like a common share, preference shares, debenture, warrants, convertibles etc for the investors to invest. But in our country, common share, preference share, debenture and convertibles (only by Shree ram sugar mills) are in practice.

2.1.1.1 Investments on Securities:

The investment environment encompasses the kinds or marketable securities that exist and where and how they are bought and sold. Securities are normally the shares, debentures, preferred stocks, warrant, convertibles or any other financial certificates issued by the companies to general public. These certificates are issued at certain price called par value and are transferable from one person to another. in simple way securities can be understand as the promissory paper that company gives to the investors after receives certain rupees as loan or share.

When someone borrows money from a pawnbroker he or she must leave some item of value as security. Failure to repay the loan (plus interest) means that the pawnbroker can sell the pawned item to recover the amount of loan and perhaps make a profit. The terms

of the agreement to buy a car, the lender usually holds formal title to the car until the loan is repaid. In the event of default, the lender can repossess the car and sell it to recover his/her costs. In this case the official certificate of title is issued by the state serves as securities for the loan.

An investor can invest on any kind of the securities for the longer –term return. He or she can make investment on shares, debentures or any other financial assets. But a rational investor must think about the risk and return on his/her investment. Before making any type of investment rational investors must analyze risk and return. Normally almost the investors are risk averters so risk return analysis is very important for investment. Investment on bonds of preferred stocks are less risky because of their nature of fixed investment and fixed return, but the investment on common shares are the most risky because of their certain investment but uncertain returns.

There are many more varieties of securities available for investment. Some of them are common stock, preferred stock, bond, warrants, convertibles, and treasury –bill etc.

2.1.1.2 Capital Market:
In any market, there are both the demanders and the suppliers capital market is the place, which bring both the financial demanders and supplies directly or indirectly in touch. Commercial banks, financial institutions, investment companies, and industrial sectors are the demanders. This demand and supply is carried out in capital market.

Capital market is the market where longer-term financial instruments like equities and bonds are raised and traded.

Capital markets are one of the organs or the securities markets, securities markets are the mechanism that allows supplier and demands of funds to make transactions. Their market plays a key role in purchase and sales of investors.

According to the nature of capital market it can be classified into primary and secondary market.

2.1.1.3 Primary Market:

The primary capital market denotes the markets for the original sale of securities by underwriter to publish. The use of the words original sale may be somewhat misleading the public several years ago and has now decided to issue additional shares of common stock these additional shares will be sold in the market and once the sale is completed. The new shares will be indistinguishable from the shares sold in the initial publics offering.

The issuer receiver's cash that may then invest in the productive assets or the net proceeds from the sale may be used for other purpose. The public receives the newly issued securities for the cash invested since in the primary market stocks are traded at par there is no problem of price. In context of our country NIDC capital market is the authorized agent of most of the companies for initial public offerings.

2.1.1.4 Secondary Market:

After securities have been purchased from the primary market, they can be traded in the secondary market. The secondary market comprises the organized securities exchanges and a specialist facilities the transaction. The major of all capital market transactions occur in the secondary markets. The proceeds from sale of securities in the secondary markets do not go to the organization issuer instead to the initial owners (sellers) of the securities. Different factors in secondary market are explained as follows.

A. Trading of Stocks:

In Nepalese practice, the trading of securities government bonds and listed corporate securities is done through Nepal stock exchange ltd (NEPSE) which is nonprofit organization, operating under the securities exchange act, 1983. The basic objective of NEPASE is to impart free marketability and liquidity to the government bonds and corporate securities. By facilitating transactions in its trading floor through market intermediaries such as broker, market makers.

Member of NEPSE are permitted to act as intermediaries in buying and selling of government bonds and listed corporate securities. At presents there are 27 member brokers ant two market makers , who operate trading floor as per the securities exchange Act , 1983 rules and by laws of the exchange . Beside this, NEPSE has also licensed two dealers.

B. Primary Market Dealer and Secondary Market Dealer:

Primary market dealer operates as a manager and underwriter regarding the issue while, the secondary market dealer operates as a profile manager. A corporate firm has to fulfill certain to list its securities in the NEPSE for stock trading.

2.1.1.5 Efficient Financial Market:

Efficient market is that market where the market prices of securities represent the markets consensus estimate of the value of securities. It means in an efficient market price valuable than the current market prices. Other who does not purchase the security think the value is less than current prices.

An efficient market exists when securities prices reflects all available public information about the economy, about financial market and about the specific company involved. The implication is that market prices of individual securities adjust very rapidly to new information. As a result, securities prices are said to be fluctuating randomly about their

intrinsic values. New information can result in a change in the intrinsic value of securities values. New information can result in a change in the intrinsic value of securities, but subsequent securities prices movement will follow what is known as random walk (change in prices will not follow any patter).

In efficient market the future trend is not predicted by observing past trends. The future is represented by present because all the information is available there. No one has to fear of any unnecessary outcomes.

2.1.2 Risk

2.1.2.1 Risk Defined:

Risk is defined as the possibility of meeting danger or suffering harm or loss. Risk in terms of investment means unexpected and unwanted outcomes, which are harmful for the business. In investment there is a change of suffering loss it is the risk. Risk can also be defined as the chance that some unfavorable event will occur.

Risk is defined in Webster's as a hazard a peril, exposure to loss or injury. Thus risk refers to the chance that some unfavorable event will occur. If you engaged in skydiving you are taking a chance with your life sky diving in risky. If you bet on the horses, you are risking your money. If you invest in speculative stocks or any stocks you are taking a risk in hope of making an appreciable return. The greater the chance of loss or negative returns the riskier the investment.

Investment risk is related to the probability of earning a return less than the expected return. The greater the chance of low or negative returns and the riskier the investment return. However, risk can be defined more precisely, and it is useful to do so.

2.1.2.2 Types or Sources of Investment Risk:

The risk is the total risk that arises in the business. Any type of business, whether that may be of large or small scale suffers risk because investment is a part of economics and the economical cycle changes frequently. When the market is bullish there is low risk and when it starts declining i.e. bearish there may be high risk. The risk that is talked May by systematic risk or unsystematic risk associated with investment. Hence the risk can be classified as diversifiable and undiversifiable risk.

Diversifiable risk is also known as unsystematic risk and undiversifiable risk is the systematic risk which is neither avoidable nor can be quit. The combination of these two risks is the total risk. "Diversified risk is firm-specific risk which is not related to the general market, it can be eliminated by a well-diversified portfolio."(*Pradhan; 2006:107)*

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Figure: 2.1

Types of Risk

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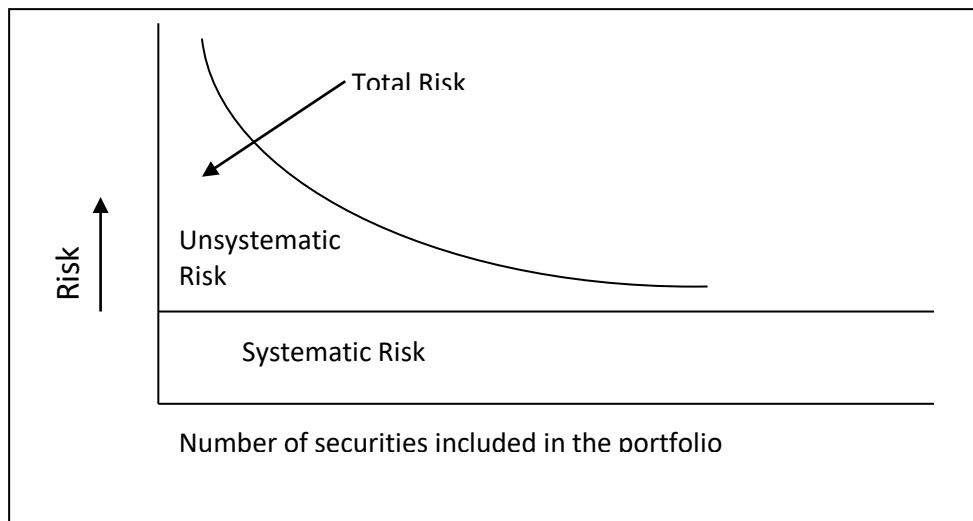
(Source: Bhattrai; 2066B.S:72)

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Systematic risk is also known as nod diversifiable risk. This risk is arises due to the changes in the economics state, or due to the change made by government in fiscal or monetary policies. Some examples of systematic risk are change in interest rate policy by government, increase in corporate tax, interest in inflation rate etc.

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Unsystematic risk arises due to the many more reasons, like labor strike, entry of formidable competitor in the marker, loss or big contract bid, company not being able or manage or obtains adequate raw materials on time etc. these types or risk are normally minor one and can be handled by the management . That's why this type of risk is called diversifiable risk. Risk can be measured by using different tools. The most tools in practice are the standard deviation (S.D.).

The standard deviation denoted by σ is known as specific firms risk and is unsystematic risk, which can be minimized totally by well diversification. But the S.D. sometimes can mislead for the proper measurement. So coefficient of variation (C.V.) is also used to measure risk. Coefficient of variation is the unitary risk measure that predicts how much risk is to bear for earning 1 extra unit or return. As standard deviation is used to find out unsystematic risk, beta is used for the analysis of systematic risk. Logically the systematic risk is the covariance between the return of individual assets or portfolio and the return of market portfolio, which is represented by beta.

2.1.3 Return:

Return is the reward to the investors for bearing certain risk. It is main target of investments. It can be defined as the tax increases in the value of the investments.

2.1.3.1 Holding Period Return:

If an investor purchase a stock of any companies holds it for certain period, she/he can get return in two ways. One is increase in the value of that stock as compared to initial one. Another is direct cash payment. The increase in value is called capital gain and direct cans payment is called dividend gain.

 The return from holding an investment over some period is simply a cash payment received due to ownership, plus the change in market price, derived by the beginning price. For common stock we can defined on e period return.

$$R = \frac{D_t + (P_t - P_{t-1})}{P_{t-1}}$$

Where R is the actual return when it refers to a particular times period in the past (future).

D1 is the cash dividend at the end of time period t.

P_t is the stocks prices at the time period t, and pt-1.

Notice that this formula can be used to determine both actual one period returns (when based on historical figures) as well as expected one period returns (when based on expected dividend and prices).

Above explanation is based on the ex-post (historical) data to predict the future result. The return can also be defined on the basis of probability distribution.

In financial market, May outcomes are possible. The dominant influence on financial events is the general state of the economy. For illustration reading the annual reports if business, we well often find statements such as the general state of the economy was depressed last years, causing our companies earning to decline.

The relationship between the expected future state of the economy and the performance of individual firms enable a relationship to be set forth between the state of different levels of returns and their relative frequently is called probability distribution. We could formula a probability distribution for the relative frequently of a firm's annual return by analyzing its historical returns over previous years. But we know that history never repeats itself exactly. Hence, after analyzing relative frequently of historical returns for the individual company we can form a probability distribution based on historical data plus our analysis for the economy, the outlook for the firm in its industry and any other factors we deem relevant as inputs for our judgment.

2.1.3.2 Required Rate of Return:

Required rate of return is the minimum return that an investor expects at least not to suffer from loss. If an investor gets below required rate he definitely suffers from loss." While suffering from loss of return an investor must consider the real rate of return expected inflation and risk. Because consumption is forgone today, the investor is entitled to a rate of return that compensates for this deferred consumption. Since the investor expects to receive an increase in that real goods purchased later and assuming for the moment zero expects to receive inflation and risk, the required rate could equal the real rate of return, in which case it would represent the pure time value of money.

For examples if an investor plans to lend $500 today in exchange for consumption at some later date (Assuming no Inflation and Risk), then the lender may expect to receive $515 at expected time of consumption. The $15 return on the investment of $500 or 3 percent represents the pure time value of money. The real return paid to compensate the investors deferred consumption.

The required rare or return is the function of real rate of return and risk. It is the minimum rate of return an investor will accept. The required rate of the return for an assets or portfolio of assets can be estimated using the equation for the SML suggested by the CAPM model.

2.1.3.3 Expected Rate of Return:

The return that an investor expects from his investments in the forthcoming future is called expected rate of return. An investor normally estimates his expected rate of return by analysis the trend of return of previous period (years).

If an investment is to be made, the expected rate of return or the expected holding return should be equal or greater than the required rate of return for those investments. The expected rate of return is based upon the expected cash receipts (e.g. Dividend or interest)

over the holding period and the expected ending or selling price. The expected rate of return is an ex-ante or unknown future return. Unless the real rate return is guaranteed, must investor recognizes this possible rate or return into a single number called the expected rate of return.

The expected rate of return or holding period rate of return is based upon the expected cash receipts over the holding period and the expected ending or selling price. Depending upon the assumption made about cash receipts and ending prices a number of expected rates of return are possible. These possible rates estimated by the investors are summarized in an exp acted rate of return. The expected rate of return must be grater or equal to the rate of return on order for the investor to find the investment acceptable. Portfolio theory: best way of investments for rational investor:

Normally almost the investors are risk averse. They need high or satisfactory level of return bearing risk as low as possible. Portfolio theory gives the concept of investment in a very good way that "never keeps all the eggs in a single basket." i.e. never invest your entire amount in a single asset. Investment on more than one security means diversification or minimizing risk.

In 1952 Harry M. Markowitz proposed the concept of the portfolio theory. He gave a very new concept on investment on more than single assets to minimize risk and maximize return.
 The portfolio theory developed by Markowitz is based on following assumption.
- The expected return from an asset is the mean value of a probability distribution of future returns over some holding period.
- The risk of an individual assets or portfolio is based on the variability of returns (i.e. standard deviation or variance)

2.1.4 Markowitz Efficient Frontier:

The efficient frontier is the combination of all portfolios called the attainable set of investment opportunities. The efficient frontier is the locus of investment graphed in risk return space which has the maximum expected rate of return in their risk class or the minimum risk at whatever rate of return is selected. An investor can give gain higher level of return at any given of risk. According to Markowitz an investor should seek a portfolio of securities that lies on the efficient frontier set.

A portfolio is not efficient if there is another portfolio with a higher expected return and the same standard deviation. If your portfolio is not efficient you can increase the expected return without increasing the risk, decreased the risk without decreasing the expected return or some combination of increased expected return and decreasing the risk by switching to a portfolio on the efficient frontier.

2.1.5 Capital Assets Pricing Model (CAPM) Relating Beta with Required Return:

As portfolio deals with the selection of optimal portfolio, capital market theory deals with an equilibrium model of assets prices. Especially capital market theory postulates the ex-ante risk return relationship of individual assets as well as portfolio under equilibrium conditions.

The measure systematic risk permits investors to evaluate an assets required rate of return to the systematic risk of the assets. In general, the CAPM indicates that assets required should be related to the risk free rate of return plus a risk premium based on the beta of the assets.

CAPM is a model that describes the relationship between risk and required return. In this model a securities expected return is the risk free rate plus a premium based on the systematic risk on the systematic risk of the securities. The model is:

$R_j = R_f + (R_m - R_f) \beta_j$

Where,

R_j=required rate of return on stock j

R_f=the nominal risk free rate of return (the real risk free rate of return plus risk premium for inflation)

R_m=the expected rate of return on the market portfolio

$\beta_j=$ Beta coefficient of risk J

Here beta is the index of systematic risk. It measure the securities the sensitivity of a socks return to change in return on the market portfolio. The beta of portfolio is simply a weighted average of the individual stock beta in the portfolio.

The CAPM model uses the theory of securities market line (SML) to show the relationship between required return and beta. "The SML equation shows the relationship between securities risk and rates of return. The return required for any securities J is equal to the risk free rate plus market risk premium times the securities beta.

2.2 Review of Different Studies:

This topic is again sub-dividend into the review from journal and from the thesis. The studies related to the topic are reviewed here.

2.2.1 Review of Journals and Articles:

Goetzman (1999) has published an article, "*Principles of Managerial finance*" where he has explained that:

The investor return is a measure of growth in wealth resulting from that investment. This growth measure is expressed in % forms to make it comparable across large and small investors. Stock returns may be riskier or more volatile. But this concept is a difficult one to express simply. To do so, we borrow a concept from statistics, called standard

deviation it is a single measure, allowing quantifying asset returns by risk, and it also provides the basis for investor's decisions about portfolio choice. *(Goetzman, 1999: 15)*

Elton (1999) has published an article entitled "*Expected Return, Realized Returns and Assets Pricing Tests*" Where he has explained that:
Fundamental issues in finance like what the factors are that affect expected return on assets, the sensitivity of expected return to those factors and the reward for bearing this sensitivity.

All of the testing being aware of using realized returns as a process for expected returns. The sue of a average realized relies on a belief that information surprises tent to out over the period of a study and realized returns are therefore an unbiased estimate of expected returns. However he believes that there is ample evidence that this belief is misplaced.. Having a risky asset with expected return above the risk less rate is an extremely weak condition for realized returns. *(Elton, 1999)*.

Panta, (2001) has published an article "*A Study of Commercial Banks Deposit and its Utilization*" where he explored that the percentage of the total credit supplied by commercial banks is more or less same while in the collection of deposits. The percentage has increased too much. Thus the increasing gap between collection and utilization shows economic Requirement and to contribute the economic enlistment of the country, Commercial bank should a fair sector wise and planned policy. Some Commercial banks utilization their deposit on non profitable sectors where there are more risk and this sum amount can be far away from their business.

Poudel (2002) has published articles "*Investing in Shares of Commercial Banks of Nepal*" where he explored that:
 Shares with larger standard deviations seem to be able to produce higher rates of return. The portion of unsystematic risk is very high with the shares having negative beta

coefficient. The risk per unit of return, as measured by the coefficient of variation, is less than that of the market as a whole for all the individual shares. Most of the shares fall under the category of defensive stocks (having beta coefficients less than 1).

Akhigbe and Whyte (2004) published a research "*The Gram-Leach-Billey Act* of 1999"
The major finding of the study is that:

Evidence of a significant decline in systematic risk for the banks securities firm and insurance companies but a significant increase in total and unsystematic risk for the banks and insurance companies are less risk than other securities business. If security wants to decline in risk, security firm can be explained by their ability to diversify into less risky banking and insurance activities. The research paper result suggests that regulators should carefully monitor and supervise banking activities in new era of financial modernization to mitigate effects from the increase in risk even bank expansion into banking activities can affects that permitted only limited entry banks in to non banking activities.

Subba (2006) has published an articles "*How the Commercial Banks Has Managed Different Types of Risk in This Competitive Nepalese Banking Industry*". Where he explained that:

In commercial banks, minimizing the Risk is the major challenge. Gap analysis of both types of asset and liabilities (i.e. Rate Sensitive and Fixed Rate) is required for the interest rate risk management. Besides, analysis of cost of fund, yield on loan & spread is made continuously in these banks to ensure that banks have competitive interest rate, which is profitable for the banks. In regard to operational risk, the major steps banks are taking to reduce it are preparing and implementing the different operational guidelines and policies & frequently monitoring their compliance. Most of these policies are prepared as per NRB guidelines. Similarly, employees' training is also the major tools for minimizing the operation risk in these banks. For minimizing the loss arising due to occurrence of the above risks, capital and reserve have been maintained by these banks

within the standard prescribed by NRB. However, the trend of Capital Adequacy ratio of these banks suggest that both the banks need to increase their capital fund, which is possible mainly by issuing shares, debentures or preference share. The major gap in this study is the focus on the credit risk. This research has been made on the study on different types of risk including market risk and operational risk.

Ghimire (2007) published an article "*Commercial Banks Dominated other Financial Institution*" where he explained that:

The share transaction in NEPSE is mostly dominated by commercial banks followed by the finance companies in terms of number of share traded and transaction amount. The faith of the investors in the shares of commercial banks is growing. As the commercial banks are more and more diverse in their services, and with the new explore of investment areas, the banks are earning more profit each year. This has positively affected the investment of the investors. However the investors seemed to have less willingness to find the long term consequences of the banks' current investment. They also, do not understand the reason behind the banks' growing profit amount. Without any proper analysis of risk and return of these commercial banks, it's possible that the investor's faith may collapse as the house of card in the days ahead.

2.2.2 Review of Thesis:

However, risk and return is not a new concept for financial analysts, in context of Nepal and its very slow growing capital market, very little studies are made regarding this topic. Some studies are made as a thesis for the partial fulfillment of master degree in T.U. which is reviewed here.

Kharel (2004) conducted a thesis e **"*Risk and Return Analysis of Common Stock of Finance Companies in Nepal***". He uses Seven years data from FY1996/97 to 2002/03 of eight finance companies with the following objective:

- To analyzed the Holding Period Return (HPR) and risk.

- To assessed the volatility of individual stocks I. e. Market sensitivity of the stocks.

- To assessed systematic and unsystematic risk of the stocks.

- To identified, whether the stock price of the companies are correctly priced or not.

After the analysis of secondary data, his analysis that:

Considering the overall market return and risk, the shares of all the finance companies are attractive for the investment. However, the common stocks of MFC seem the most attractive among all considering risk per unit of return. Considering the risk characteristics of the common stock of all the finance companies, the common stock of NFC is more attractive than others.

The major finding of this thesis:

The unsystematic risk of all the companies is high in comparison to total risk. It seems that the variability of returns of the common stocks of most of the companies is company specific. The company specific risk can be diversified away with a well – diversified portfolio. Hence, by creating a well – diversified portfolio consisting of any one of the finance companies and other stocks with negative or low positive correlation can diversify the unsystematic risk significantly he stocks of all the finance companies are under priced in the market since their required rates of return are less than their average rates of return. Hence, active strategy cannot work effectively in Nepalese market. Long position on common stock can work effectively.

Gautam (2004) conducted a thesis **"*Risk and Return Analysis of Common Stock Investment of Finance Companies in Nepal with Special Reference to Ten Finance Companies*"** with the following objective :

- To examine risk and return on common stock of finance companies

- To evaluate the stocks of selected companies whether they are overpriced, under priced or correctly priced.

Mr. Gautam summarized his analysis:

The expected rate of return of the common stock of Narayani Finance Ltd. is highest among the selected finance companies.

Expected rate of return is found lowest on common stock of Peoples Finance Company Ltd. Total risk measured by standard deviation is observed maximum in common stock of Narayani Finance Company Ltd. and minimum in common stock of National Company Ltd. Common Stock of citizen investment Trust (CIT) has highest excess return to Beta.

Finlay he concluded that:

Stocks of all selected finance companies are under priced indicating attractive for purchase.

Shrestha (2004) in his thesis "*Risk and Return Analysis on Common Stock Investment of Banking Sector in Nepal*" is conducted by taking eight-listed Commercial bank as sample and data using six years from 1996 to 2001 is based in descriptive and analytical research design. The main objective of the study:

- To analyze the volatility of common stock and other relative variables
- To identify whether stocks of the samples companies equilibrium priced or not
- To study returns associated with common stock investment of bank.

Major analysis:

he has used various scientific analytical tools such as calculation expected and realized rate of return, coefficient of Variation of sampled banks, risk measuring tools such as standard deviation and beta coefficient and systematic and unsystematic risk of the sampled Banks as well. Detailed analysis of the risk and return associated with the sampled banks has made the findings more reliable and applicable.

The major findings of his study are that NBBL's common stock is yielding the highest realized rate of return whereas it is the lowest in case of NIBL. Similarly BOKL's common stock has the highest total risk, whereas HB Ltd's common stock has the least risky. The C.V is considered the best tool for relative measurement of risk per unit of return. BOKL seems to be the riskiest one for investment, whereas the lowest risky is of SCBL. According to beta coefficient NBBL, EBL, BOKL and NBL fall in aggressive investment category because of beta coefficient is higher than 1 that is and the rest defensive except NSBI, bank whose beta coefficient is negative. All of the sampled companies realized rate of return are positively correlated except SBI bank whose realized rate of return is negatively correlated. NBLS stock consist the highest of the systematic risk, whereas it is lowest in the case of NSBI. Similarly, all the commercial banks common stocks are under priced. Among them SCBL seems to be in the best position and BOKL is in the worst position.

Bolakhe (2004) conducted a thesis on the topic of **"*Risk and Return on Common Stock Investment of Listed Finance Companies in Nepal*"**
With the following objectives were:

- To measure and analyze the risk and return associated with the common stock of selected finance companies
- To analyze the relation between risk and return of selected finance companies
- To determined the effects of the portfolio of risk and return.

Major analysis:
He used six years data of 10 listed companies from F/Y 1997/98 to 2002/03 and analyzed the data using various financial as well as statistical tools. After the analysis of secondary data, he finds that:
All the finance companies have positive return.

- There is positive relationship between risk & return of the common stock of finance companies.

- Majority of finance companies have positive relationship with other finance companies.
- The portfolio of finance companies have reduced the risk up to some extent & increased the return but some cases it has also increased the risk level & decreased the return up to negative level also.

Shrestha (2005) on "*A study of none performing Loan & loan loss provision of Commercial Bank, A case study of NABIL, SCB and NBL*" has made study about a part of credit risk associated with those banks. The main objectives of her study were:

To find out the proportion of non-performing loan in the selected commercial banks

To find out the factors leading to accumulation of nonperforming loan in commercial banks

To find out the relationship between loan and loan loss provision in the selected commercial bank.

Both Study and impact of loan losses provision on the profitability of the commercial banks.

The major finding in her study was:

NBL has the highest portion of the loan in total asset followed by NABIL and SCBNL. She concludes that the SCBL shows the risk-averse attitude. Likewise the non-performing loan to total loan is found highest in NBL, NABIL and SCBNL. Likewise the Loan Loss Provision is also highest in NBL where as the SCBL has the least Loan Loss Provision. Likewise, the NBL has the highest portion of Loss loan followed by NABIL and SCBL. This study is more concentrated on non-performing loans; however, there exist lots of areas in credit risk management where further research is called for. In context of credit risk, collateral risk, concentration risk, organization risk management system can be studied.

Shrestha (2007) is made a study on "*Analysis of Risk and Return on Commercial Banks of Nepal.*"

The objective of this study is:

- To measured systematic and unsystematic risk of the individual bank.
- To found out that the relationship between EPS and MPS of the commercial banks.

His major analysis:

- Here he saw risk and return analysis of different commercial banks HBL, NABL, SCBNL, NBBL.
- Here he used data from F/Y 1996-2005 and analyzed the data using various financial as well as statistical tools.
- After the analysis of secondary data
- Expected return is higher of NBBL because expected return being so high the effect of unrealistic annual rate of return in year1999/2000.

He finds that:

Risk is variability of return, which is measured in terms of standard deviation of Returns

S. D is the only measure of unsystematic risk, which is not defined by market.

Similarly the correlation between return of individual Banks and market portfolio have positive correlation which represents that if market return increases then the return of the sampled Banks also increases or vice versa.

Expected return is higher of NBBL because expected return being so high the effect of unrealistic annual rate of return in year1999/2000.

He also says that it is not true that riskier asset will pay a higher average rate of return.

CAPM is model that describes the relationship between risk and required rate of return.

Shakya (2009) conducted a thesis "*Risk and Return Analysis the Commercial Banks*" with the following objective:

To performed the comparative of risk and return analysis on the common stocks of the selected banks.

To find out how sensitive the stock price of the selected commercial banks and the banking sector as a whole with that of the NEPSE.

To measure risk and return in six commercial banks and evaluate the stocks companies whether they are overpriced and or correctly priced.

His study was based on the common stock data six listed commercial banks for the period of six year starting fiscal year 2057 to 2063 and used different tools to finding return and risk.

After available data and information using various financial and statistical tools he summarized his findings as:

Most of the Nepalese investors still invest on different securities on the basis of expectation and assumption of individual security rather than analysis of effect of portfolio.

The commercial banking sectors have positive return together with market sector.
The covariance and beta-coefficient of the commercial banking sector with that of the market are also good enough for the general investors to invest in this sector.

2.3 Research Gap
In Nepalese stock market, there are 100 numbers of researches that have been undertaken in the field of risk and return analysis of common stock of finance companies. Though the stocks of finance companies are traded heavily in the stock market, only few studies have covered them. Furthermore, there should be up to date studies in a regular interval

in order to assess the return and risk associated with the common stock investment. In this aspect, this study will provide up to date insights regarding the risk and return characteristics of the common stock of finance companies. Overall, in terms of time period, samples, to some extent tools of analysis , this study is different and new from previous studies which will provide updated information regarding the risk and return on common stock investment of listed finance companies that will help the investors make more rational investment decisions.

CHAPTER -III
RESEARCH METHODOLOGY

The research methodology is the systematic way of solving research problems. Research methodology refers to the overall research processes, which a researcher conducts during his/her study. It includes all the procedures from theoretical foundation to the collection and analysis of data. As most of the data are quantitative the research is based on the scientific models. It is composed of both parts of technical aspects and logical aspects, on the basis of historical data. Research is systematic and organization effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering, recording and analyzing and interpreting the data with the purpose of finding answer to the problem. Hence, the entire process by which we attempt to solve the problem is called research.

Research can be conducted on the basis of primary and secondary data. In this study, all the data are secondary and those data are analyzed using appropriate financial as well as statistical tools. Outcomes are presented in simple way in this study, the research design; data collection procedure and analysis are described serially.

3.1 Research Design:

The research is based on the recent historical data, so simply it is a historical research. It covers the data from the facial year 2005 to 2009. It deals with the common stocks of commercial banks on the basis of available information. For the portfolio analysis, other company's common stocks are also taken into account. As the title of the study suggest, it is more analytical and empirical and less descriptive. Mostly secondary data is used the research design that are taken from their sources.

3.2 Population and Sample:

There are 28 commercial banks till date 2010 and number of listed are 24 commercial banks, Out of which, only five joint venture commercial banks are taken as sample for this study, Which consists 21% of listed commercial banks.

The selected bank is taken for studies:

Standard Charted Bank Limited

Nepal Arab Bank Limited

Everest Bank Limited

SBI Bank Limited

Bank of Kathmandu

3.3 Data Collection Procedure:

Most of the necessary data for the research is collected from the secondary sources. However, during the study, informal opinion survey has also been taken with the individual investors, bank official, security Board of Nepal, Nepal Stock Exchange Ltd staffs and other related personalities. Data related to the market prices of stocks, market capitalization, movement of NEPSE index etc. is taken from the Trading report published by NEPSE. Financial statements of commercial banks and their annual reports are also collected.

The collection procedure is summarized below:

- Financial documents provided by the companies.
- Trading report published by Nepal Stock Exchange Limited.
- Related website.
- Materials published in papers and magazines.
- Telephone requires.
- Other related books and booklets.
- Other primary data also help for the research that are taken from direct visited the different banks and can take data from their staff mouthing.

3.4 Data Analysis Tools:

For the analysis of data all the tools are as appropriate as possible. The related tools and terms are described below.

3.4.1 Market Price of Stock (p):

One of the major data of this study is market price of stock. As we follow the market price of shares of companies we can get three types of prices high, low and closing. Among high, low and closing price has been taken as the market price of the stocks which has specific time of span of one year and the study has focused in annual basis. To get the real average, volume and price of each transaction in the stock and duration of time of each transaction in the whole year are essential. This is tedious and impossible too, considering the data availability and maintenance. Hence, the closing price is used as the market price of stock, which has a specific time span of one year and the study has focused in annual basis.

3.4.2 Dividend (D):

Dividend is relevant during the computation of rate of return, which is a reward to the shareholder for their investment. If a company declares only the cash dividend, there are no problems to take the dividend amount. But if the company declares stock dividend (Bonus Share), it is difficult to obtain the amount that really shareholders has gained. In this case they get extra number of share as dividend and simultaneously price of stock declines as a result of increased number of stokes. To get a real amount of dividend there are no any model (Formula). So the model have been developed considering practical as theoretical aspect.

These models are developed after several discussions with teachers, NEPSE staffs &investors.

The model is:

In case of stock dividend,

Total dividend = cash dividend + stock dividend %x next year's MPS.

Where, MPS = Market price per share.

Return of common stock investment

Return is the income received in an investment plus any change in market price, usually expressed as a percent of the beginning market price of the investment.

Symbolically,

$$R = \frac{D_t + (P_t - P_{t-1})}{P_{t-1}}$$

Where,

R = Actual Rate of Return of common stock at time t.

D_t = Cash divided received at time t

P_t = Price of stock at time t

P_{t-1} = Price of stock at time (t-1)

Expected rate of return of common stock ($\bar{R}_j$):

One of the major aims of the study is to determine the expected return on the investment in common stock. Generally, this rate is obtained by the arithmetic mean of the past years returns.

Symbolically,

$$\bar{R}_J = E(R_j) = \frac{\sum R_j}{n}$$

Where,

$\bar{R}_j$ = E (R_j) = Expected rate of return on stock j.

n = Number of years that the return is taken.

$\sum$ = Sign of summation

R_j = Return on stock j.

3.4.3 Standard Deviation (S.D.):

It is a statistical measure of the variability of a distribution of return around its mean. It is the square root of the returns. S.D. is the measure of the total risk of the asset i.e. it means the dispersion of returns around the mean return. S.D. can be calculated using following formula, when time series data is given,

$$(\sigma_j) = \sqrt{\frac{\Sigma(R_j - \bar{R}_j)^2}{n}}$$

Where

$\sigma_{j=}$ S.D. of returns of stock j during the time period n.

When the probability distribution is given,

$$S.D.(\sigma_j) = \sqrt{\Sigma P_j (R_j - \bar{R}_J)^2}$$

Where,

P_j = probability distribution of the observation (returns)

R_j = Holding period returns on stock j

$\bar{R}_J$ = Expected return on stock j.

3.4.4 Coefficient of Variation (C.V.):

It is applicable to calculate the risk per unit of the expected return. It is the ratio of standard deviation of returns to the mean of that distribution. It is the measure of relative risk. The formula to calculate coefficient of variation is,

C.V. $_j = \frac{\sigma}{\bar{R}_J}$

Where, C.V. $_j$ = Coefficient of variation of stock j.

C.V. is the unitary risk measure. It gives the result regarding the unit of risk to bear for earning 1 unit of return.

3.4.5 Beta Coefficient (β):

Market sensitivity of stock is explained in terms of beta coefficient. Higher the beta, greater the sensitivity and they are reacted to the market movement. Logically, the systematic risk is the covariance between the returns of an individual asset or portfolio and the returns of the market portfolio. The measure of systematic risk is represented by beta. It is an index of systematic risk, which cannot be eliminated through the means of diversification. Beta measures the sensitivity of a stock's return on market portfolio. The formula for the calculation of beta is given by

$$\beta_j = \frac{COV(R_1 R_m)^2}{\sigma_m^2}$$

Where, β_1= Beta coefficient of stock j

COV (R_j, R_m) Covariance between returns on stocks j i.e. (R_j)

Return of market i.e. (R_m) and is calculated as,

$$COV (R_j R_m) = \frac{\sum_{j=1}^{n}\left(R_j - \overline{R_J}\right)(R_m - \overline{R}_m)}{n-1}$$

$\sigma^2{}_m$ = Variance of market return.

Market beta serves as a benchmark or a measuring scale for the evaluation of risk of individual stocks. For an individual stock, the beta could be less than, equal to or more than 1 depending upon the volatility of that stocks return relative to market returns.

An asset or a portfolio with a beta greater than 1 is considered to be aggressive (more risky than the market). An asset or portfolio with a beta less than 1 is considered to be defensive (Less risky than the market). Beta coefficient of market is always equal to 1.

Correlation coefficient (p_{ij}):

The correlation is also a measure of the relationship between two assets. The correlation coefficient can be taken on a value from -1 to +1.

Correlation coefficient and covariance are related by the following equation,

$$COV_{ij} = \sigma_i \sigma_j p_{ij}$$

$$P_{ij} = \frac{COV_{ij}}{\sigma_l \sigma_j}$$

Where,

σ_i and σ_j are the standard deviations of returns for assets i and j and p_{ij} is the correlation coefficient for assets I and j.

There are various cases of correlation and risk condition which are presented below.

1. Perfectly positive correlation ($p_{ij} = +1$)

   Return on two perfectly positive correlated stocks would move up and down together and a portfolio of two such stocks would be exactly at risky as the individual stocks. Thus diversification cannot reduce risk if the portfolio consists of perfectly positive correlated stocks.

2. Perfectly negative correlation ($p_{ij} = -1$)

   Returns on two perfectly negative correlated stocks would move perfectly together but in exactly opposite in directions. In this condition, risk can be completely eliminated. Perfect negative correlation almost never found if the real world.

3. No relation between returns ($p_{ij} = 0$)

When the correlation between two stocks is exactly zero there is no relationship between the returns they are independent of each other. If this condition, some risk can be reduced.

4. Intermediate risk ($p_{ij} = +0.5$)

Most of the stocks are positively correlated but not perfectly. On average the returns on two stocks would lie on the range of +0.4 and -0.7 under this condition combining stocks into portfolios reduces risk but not eliminate it completely.

3.4.6 Portfolio Risk and Return:

A portfolio is a collection of investment securities. Portfolio theory deals with the selection of optimal portfolios, i.e. portfolios that provide the highest possible returns for any specified degree of risk or the lowest risk for any specified rate of return. Calculating and analyzing portfolio risk is not straight forward as calculating portfolios expected returns. We have to follow the long process for its calculation and analysis.

Portfolio Risk:

It is the measure of combined standard deviation of stocks held in the portfolio, with reference to individual stocks corresponding correlation contribution. The formula for the calculation of portfolio risk for two assets case is given by,

$$\sigma p = \sqrt{\sigma^2_A w^2_A + \sigma^2_B w^2_B - 2W_A W_B COV(A, B)}$$

Where,

σ_p = Standard deviation of portfolio A and B.

σ^2_A = Variance of asset A, i.e. risk of asset A.

σ^2_B = Variance of asset B, i.e. risk of asset B.

W_A = Weight of asset A.

W_B = Weight of asset B.

COV (A, B) = Covariance between the returns of assets A and B.

The formula for n-asset case is given by,

$$\sigma^2_p = \sum_{l=1}^{n} \sum_{j=1}^{n} W_i W_j \sigma_{ij}$$

Portfolio Return:

While the portfolio expected return is straightforward weighted average of return on the individual securities, the portfolio standard deviation is not the weighted average of individual security's standard deviation. To take a weighted average of individual security standard deviations would be to ignore the relationship or correlation between the returns of the two securities. This correlation however as no effect on the portfolios expected returns. Correlation between securities returns complicates our calculation of portfolio standard deviation by forcing us to calculate the covariance between returns for every possible pair wise combination of securities in the portfolio.

But his dark could of mathematics complication contain a silver lining-correlation between securities provides for the possible of eliminating some risk without reducing potential returns.

Portfolio is the combination of two or more securities or asset and portfolio return is simply a weighted average of individual stock returns. The returns on the portfolio, in case of only two assets portfolio is given by,

$$\overline{R}p = W_A \overline{R}_A + W_B \overline{R}_B$$

Where,

$\overline{R}p$ = Expected returns on portfolio of stocks A and B

W_A = Weight of investment on stock A

W_B = Weight of investment on stock B

$W_A + W_B = 1(100\%)$ Always

Risk minimizing portfolio:

It is the proportion of stock that minimizes the possible (unsystematic) risk.

Symbolically,

$$W_A = \frac{\sigma_B^2 - COV(R_A R_B)}{\sigma_A^2 + \sigma_B^2 - 2COV(R_A R_B)}$$

Where,

W_A = Weight of stock A that minimize the portfolio risk of stock A and stock B.

σ_A = Standard deviation of stock A.

σ_B = Standard deviation of stock B.

COV ($R_A R_B$) = covariance of returns between stocks A and B.

Market Returns (R_m):

Market return is the return is overall market portfolio, which can be obtained by taking difference between the market indexes (i.e. NEPSE index). Here market dividend is ignored.

$$R_m = \frac{NI_t - NI_{t-1}}{NI_{t-1}}$$

Where,

NI_t = NEPSE index at time t.

NI_{t-1} = NEPSE index at time t-1

R_m = Return on market.

3.5 Method of Analysis and Presentation:

All the method of analysis and presentation are applied as simple as possible. Proper financial and statistical tools are used and result are presented in tables and also shown in diagram. Interpretation is made in very simple way. Details of calculation, which cannot

be shown in the main body part, are presented in Appendices, at the end. Summary, conclusion and recommendation are presented finally.

CHAPTER - IV

ANALYSIS AND PRESENTATION OF DATA

This chapter included analysis of data collected and their presentation. In this chapter the effort has been made to analyzed "Risk and Return on Common stock Investment of Commercial Banks". Details data MPS and dividend of each bank and NEPSE index of each sector and market is presented and their interpretation and analysis is done. With reference to the various reading and literature review in the proceeding chapter, effort is made to analyze and diagnose the recent Nepalese common stock market movement, with a special reference to the listed commercial banks. The analysis of data consists of organizing, tabulating and assessing financial and statistical result. Different tables and diagrams are drawn to make the result more simple and understandable.

4.1 Analysis of Individual Commercial Banks.

As the study has taken a special reference to listed commercial banks, common stock o listed commercial banks is analyzed here separately. There are twenty seven banks in operation up to 2009. But only twenty five are listed in NEPSE. Among them study has focused on the five commercial banks. Although data coverage for some on banks is less than five years, each bank is introduced and their common stocks risk and return are analyze here.

4.1.1 Nepal Arab Bank Ltd. (NABIL)

4.1.1.1 Data

Market price, dividend records, realized return[R], standard deviation $[\sigma]$ Expected returns$\overline{[R_J]}$ Year-end price and divided amounts are used to calculate realized rate of returns for each. Table 4.2 shows the calculation of yearly-realized return, expected return and standard deviation of return

4.1.1.2 Analysis of Total Dividend:

Table: 4.1

MPS, Dividend, EPS and P/E Ration of NABIL

year	Closing market price(Rs)	Cash dividend(Rs)	Stock dividend (%)	Total dividend	Earnings per share(Rs)	P/E Ratio
2005	1505	70	-	70	105.49	14.27
2006	2240	85	-	85	129.21	17.34
2007	5050	100	40%	2210	137.08	36.84
2008	5275	60	40%	2019.6	108.31	48.70
2009	4899	35	50%	971	106.76	45.89

(Data source: Annual Report of NABIL)

According to Table 1, NABIL is paying cash dividend every year but stock dividend paid only in year 2007, 2008 and 2009. Highest total dividend is paid in the 2007 i.e. 2210. P/E ratio of NABIL is maximum in the year 2008 i.e. 48.70 and minimum in the year 2005 i.e. 14.27.

Table: 4.2

Risk and Return of NABIL

year	Closing Market price in RS	Total Dividend in Rs(D_t)	Return $R = D_t + (P_t+P_{t-1})/P_{t-1}$	$(R-\bar{R_J})$	$(R-\bar{R_J})^2$
2005	1505	70			
2006	2240	85	0.366071429	-0.110728571	0.01226082
2007	5050	2210	0.994059406	0.517259406	0.26755729
2008	5275	2019.6	0.425516588	-0.051283412	0.00262999
2009	4899	971	0.121453358	-0.355346642	0.12627124
Total			1.90710078		0.40871933

(Sources: Annual Report of NABIL, schedule 34)

The calculation of Total Dividend is Annex 1.

According to Table 4.2 there is different timing closing price of NABIL. There are also given total dividend [cash and stock dividend] in different year. The closing MPS of NABIL has maximum on the year 2008. From the total market price and dividend we can found return and risk.

We have

$$(\bar{R_J}) = \frac{\sum R}{n} = \frac{1.9071}{4} = 0.48 \text{ or } 48\%$$

Standard Deviation $(\sigma) = \sqrt{\frac{\sum(R - \bar{R_J})^2}{n-1}} = \sqrt{\frac{0.40871}{3}} = 0.3741$

C.V $= \frac{\sigma}{\bar{R}} = \frac{0.3741}{0.48} = 0.78$

Figure: 4.1
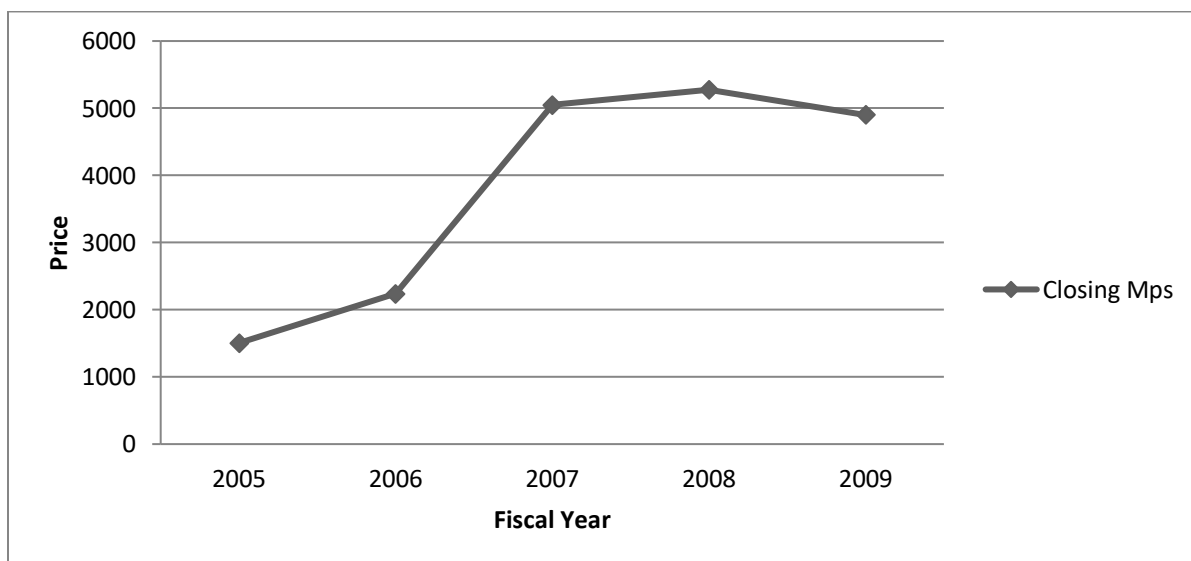
Year end price movement of NABIL

Figure 4.1 shows the trend line of market price in several year of NABIL. It can be seen that there is fluctuation of market price from year 2005 till 2009 and the trend line show rapid grow after year 2006. There is maximum price in year 2008 i.e. Rs 5275.the closing market price denotes the trend values.

Figure: 4.2

Annual rate of return of NABIL
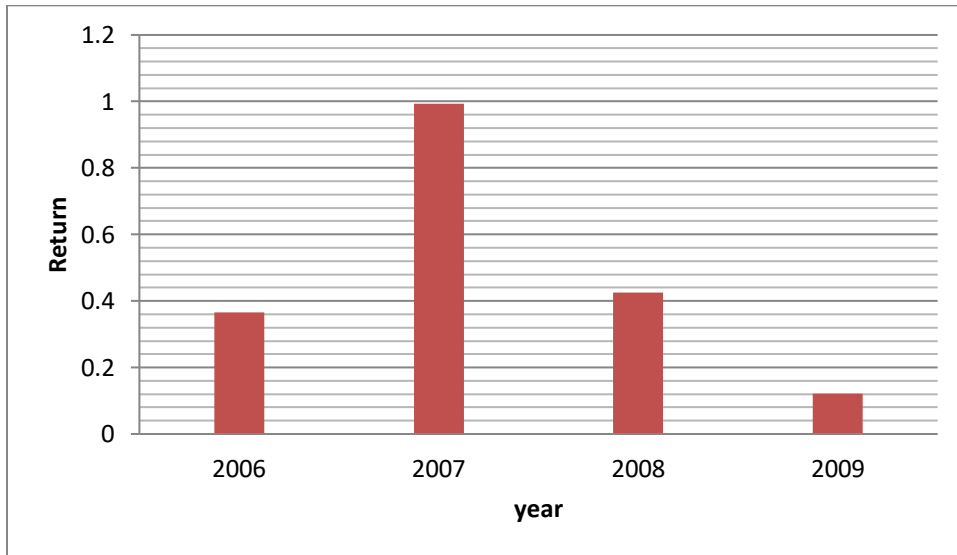
The figure 4.2 shows the annual rate of return of NABIL for the several years. There are highest rate of return in the year 2007 i.e. 0.9947 .the lower expected return in the year 2009 that is 0.12.

4.1.2 Standard Chartered Bank Nepal Ltd. (SCBNL)

4.1.2.1 Data

Market price, dividend records, realized return[R], standard deviation $[\sigma]$ Expected returns$\overline{[R_J]}$ Year-end price and divided amounts are used to calculate realized rate of returns for each. Table 4.3 shows the calculation of yearly-realized return, expected return and standard deviation of return.

4.1.2.2 Analysis of Dividend

Table: 4.3

MPS, Dividend, Earning Price and P/E Ration on SCBNL

year	Closing market price(Rs)	Cash dividend (Rs)	Stock dividend (%)	Total dividend	Earnings per share(Rs)	P/E Ratio
2005	2345	120	-	120	143.14	16.38
2006	3775	130	10	720	175.84	21.47
2007	5900	80	50	3495	167.37	35.25
2008	6830	80	50	3085	131.92	51.77
2009	6010	50	50	1377.5	109.99	54.64

(Source: Annual report of SCBNL 2065/2066)

The calculation of Total Dividend is Annex2.

According to Table 3, SCBNL is paying cash dividend every year and also stock dividend paid only in year 2006, 2007, 2008 and 2009. Highest total dividend is paid in the 2007 i.e. 3495.

P/E ratio of SCBNL is maximum in the year 2009 i.e. 54.64 and minimum in the year 2005 i.e. 16.38.

Table: 4.4

Risk and Return of SCBNL

Years	Closing Market price in Rs	Total Dividend in Rs	Return (R)= $\frac{D_t + (P_t - P_{t-1})}{P_{t-1}}$	$(R-R_j)$	$(R-R_j)^2$
2005	2345	120	-	-	-
2006	3775	720	0.569536424	0.019536424	0.00038167
2007	5900	3495	0.952542373	0.402542373	0.16204036
2008	6830	3085	0.587847731	0.037847731	0.00143245
2009	6010	1377.5	0.092762063	(0.457237937)	0.20906653
Total			2.202688591		0.37292102

(Sources: Annual Report of SCBNL)

According to the Table 4.4 there are shows different market price of SCBNL in different year and total dividend [Cash and Stock]. The maximum market price in the year 2008 and they gives dividend more than Rs 100.

Where

$$\sum R_j = 2.2026/4 = 0.55 = 55.00\%$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(R - \overline{R_j})^2}{n-1}} = \sqrt{\frac{0.3729}{3}} = \sqrt{0.92} = 0.3464 = 34.64$$

$$\text{C.V} = \frac{\sigma}{\overline{R}} = \frac{0.3464}{0.55} * 100 = 0.63$$

Figure: 4.3

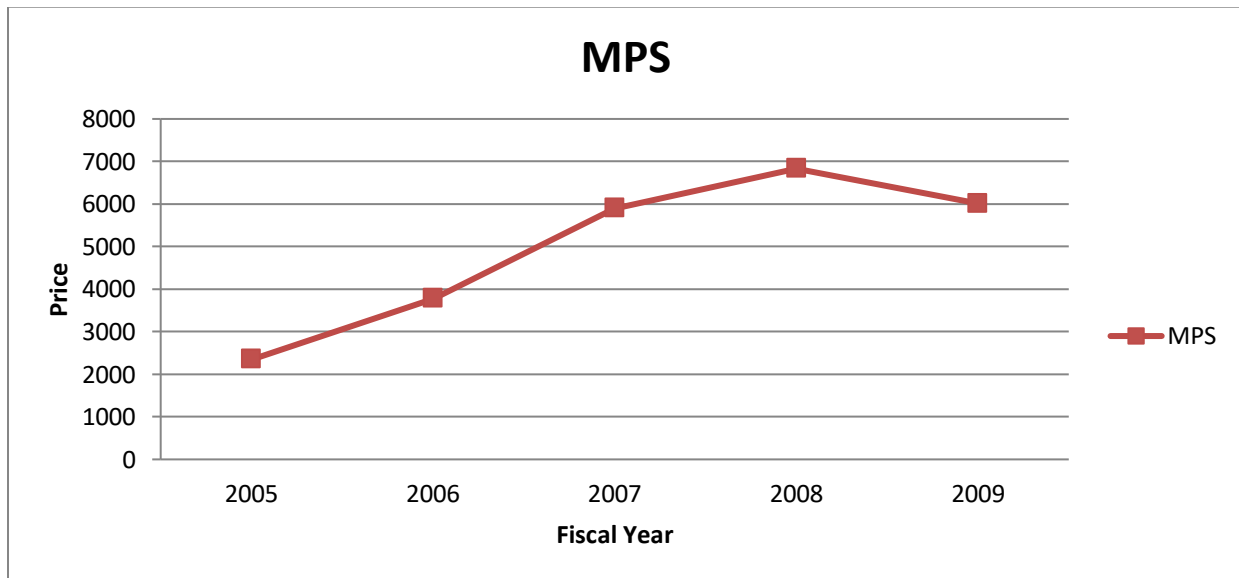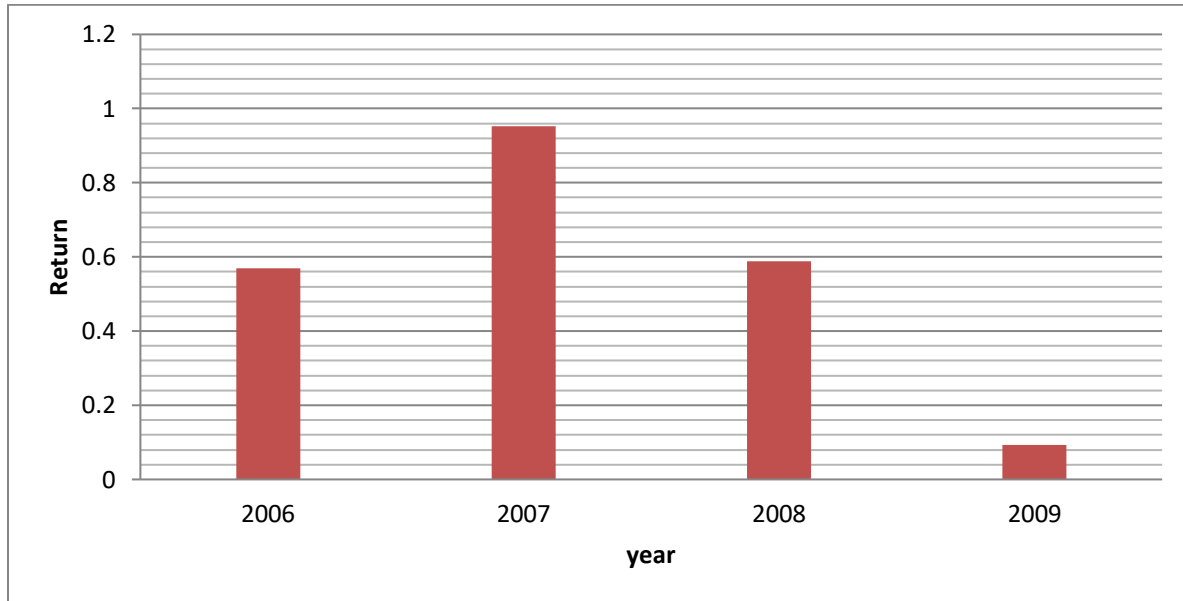**Year-End Price Movement of the Common Stock of SCBNL**

Figure 4.3 shows the trend line of market price in several year of SCBNL. It can be seen that there is fluctuation of market price from year 2005 till 2009 and the trend line show rapid grow after year 2006. There is maximum price in year 2008 i.e. Rs 6830

Figure: 4.4

Annual Rate of Return of SCBNL

The figure 4.4 shows the annual rate of return of SCBNL in several years. The rate of return is negative in the year 2009. There are highest rate of return in the year 2006 i.e. 0.6695 and negative rate of return in the year 2009 i.e.-0.1051.

4.1.3 Everest Bank Limited:

4.1.3.1 Data:

Market price, dividend records, realized return[R], standard deviation $[\sigma]$ Expected returns$[\overline{R_j}]$ Year-end price and divided amounts are used to calculate realized rate of returns for each. Table 4.5 shows the calculation of yearly-realized return, expected return and standard deviation of return

4.1.3.2 Analysis of Dividend

Table: 4.5

MPS, Dividend Earning price and P/E Ration on EBL

year	Closing market price	Cash dividend	Stock dividend	Total dividend	Earnings per share	P/E Ratio
2005	870	20	-	275.8	54.22	16.05
2006	1379	-	25	25	62.78	21.97
2007	2430	30	10	949.6	78.42	30.99
2008	3132	30	20	756.5	91.82	34.11
2009	2455	30	30	464.1	99.99	24.55

(Source: Annual report of EBL 2065/2066)

The calculation of Total Dividend is Annex 3.

According to Table 4.5, EBL is paying cash dividend every year without 2006 but stock dividend paid only in year 2006, 2007, 2008 and 2009. Highest total dividend is paid in the 2007 i.e. 949.6.

P/E ratio of EBL is maximum in the year 2008 i.e. 34.11 and minimum in the year 2005 i.e. 16.05.

Table: 4.6

Risk and Return of EBL

Year	Closing MPS	Total Dividend Rs	Return (R)	$(R-R_j)$	$(R-R_j)^2$
2005	870	275.8	0		
2006	1379	25	0.39	-0.012762872	0.00016289
2007	2430	949.6	0.82	0.423292181	0.17917627
2008	3132	756.5	0.47	0.065676884	0.00431345
2009	2455	464.1	-0.09	-0.486720978	0.23689731
Total			1.589485216		0.42054992

(Sources: Annual Report of EBL)

Table 4.6 shows the different market price in several years and also given total dividend including cash and stock dividend. Here dividend not paying in year 2006. Market price of EBL is higher in year 2008 i.e. Rs 3132.

Where,

$$R = \frac{D_t + (P_t - P_{t-1})}{P_{t-1}}$$

$$R_j = \frac{1.589485}{4} = 0.40 \quad S.D = \sqrt{\frac{\Sigma r - \overline{rj})^2}{n-1}} = \sqrt{\frac{0.42054}{3}} = 0.3741$$

$$C.V = \frac{\sigma}{\overline{R}} = \frac{0.3741}{0.40} = 0.94$$

Figure: 4.5

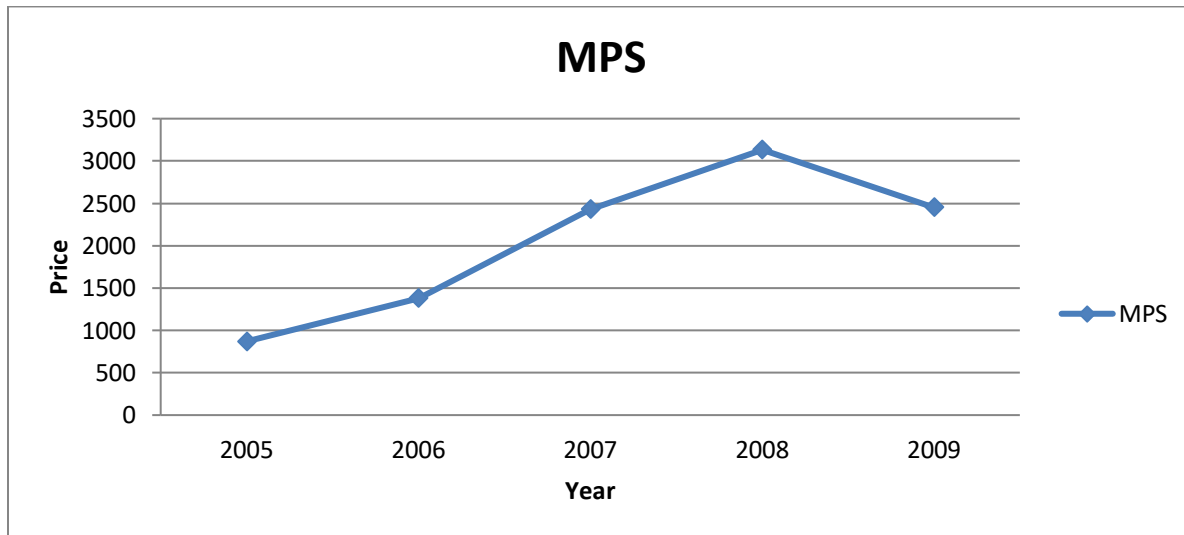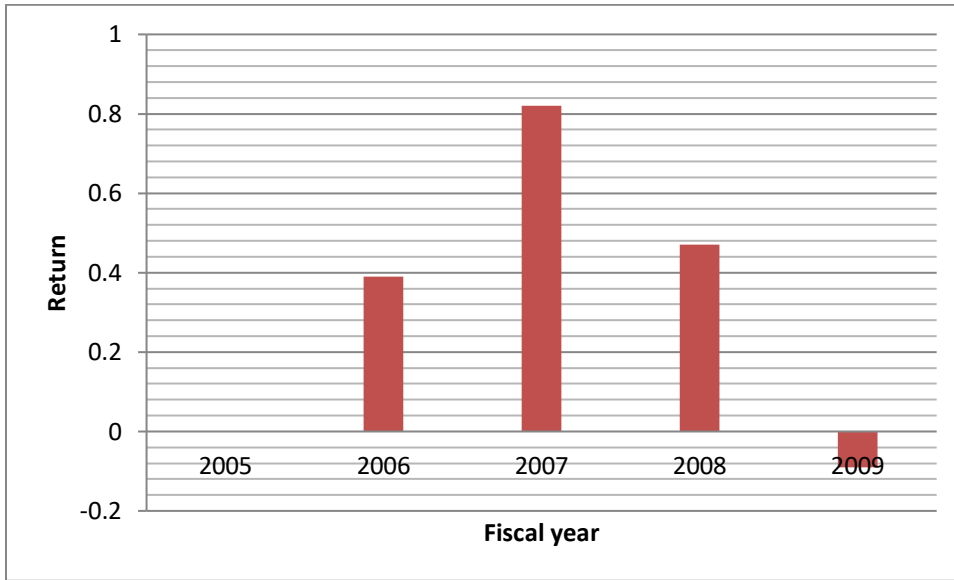**Year-End Price Movement of the Common Stock of EBL**

Figure 4.5 shows the trend line of several year of EBL .it can be seen that there is fluctuation of the market price from the year 2005 till 2009.and the trend line show rapid grows after the year 2006. There is minimum price year 2005 Rs 870 and maximum price in the year 2008 Rs 3132.

Figure: 4.6

Annual Rate of Return of EBL

The figure 4.6 shows that annual rate of return of EBL in several years. The rate of return is negative in the year2009 and positive in following year. There is highest return in the year 2007 i.e. 0.8193 and lowest return in the year 2009 i.e. -0.09

4.1.4: Nepal SBI Bank Limited:

4.4.4.1 Data:

Market price, dividend records, realized return[R], standard deviation $[\sigma]$ Expected returns$[\overline{R_J}]$ Year-end price and divided amounts are used to calculate realized rate of returns for each. Table 4.7 shows the calculation of yearly-realized return, expected return and standard deviation of return.

4.4.4.2 Analysis of Dividend

<div align="center">

Table: 4.7

MPS, Dividend, Price Earning and EPS of SBI

</div>

year	Closing market price	Cash dividend	Stock dividend	Total dividend	Earnings per share	P/E Ratio
2005	335		-	0	13.29	25.21
2006	612	5		5	18.27	33.5
2007	1176	12.59	35	541.44	39.35	29.89
2008	1511			0	28.33	53.34
2009	1900	2.11	40	264.11	36.18	52.52

(Sources: Annual Report of SBI 2065/2066)

The calculation of Total Dividend is Annex 4.

According to Table 7, SBI is paying cash dividend in the year 2006, 2007 and 2009 but stock dividend paid only in year 2007 and 2009. Highest total dividend is paid in the 2007 i.e. 541.44.

P/E ratio of SBI is maximum in the year 2008 i.e. 53.34 and minimum in the year 2005 i.e. 25.21.

<div align="center">

Table: 4.8

Risk and Return of SBI

</div>

Year	Market price	Dividend	Return(R)	$[R-R_j]$	$(R-R_j)2$
2005	335	0			
2006	612	5	0.46	-0.003	0.001
2007	1176	541.44	0.94	0.45	0.203
2008	1511	0	0.22	(0.270)	0.073
2009	1900	264.11	0.34	(0.150)	0.023
Total			1.9636		0.300

Table 4.8 shows that the market price of several year in SBI bank and cash dividend including cash and stock dividend. SBI not paying cash dividend in the year 2005 and 2008.the closing price of SBI maximum in the year 2009 I.e. Rs 1900 and minimum in the year 2005 i.e. Rs 335.

Where,

$$R = \frac{D_t + (P_t - P_{t-1})}{P_{t-1}}$$

$$R_j = \frac{1.9636}{4} = 0.49 \quad S.D = \sqrt{\frac{\sum(r - \overline{rj})^2}{n-1}} = \sqrt{\frac{0.300}{3}} = 0.31$$

$$C.V = \frac{\sigma}{\overline{R}} = \frac{0.31}{0.49} = 0.645$$

Figure: 4.7

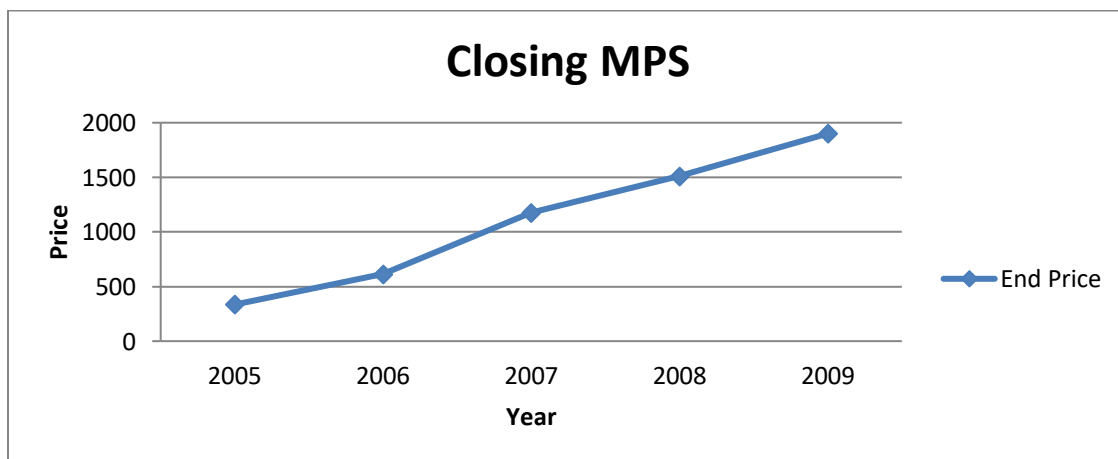**Year-End Price Movement of the Common Stock of SBI**

Figure 4.7 shows the trend line of market price several year of SBI. It can be seen that there is up growing of market price from 2005 till 2009. And trend line shows rapid growth. There is maximum price in the year 2009 i.e. Rs 1900 and minimum price in the year 2005 i.e. Rs 335.

Figure: 4.8
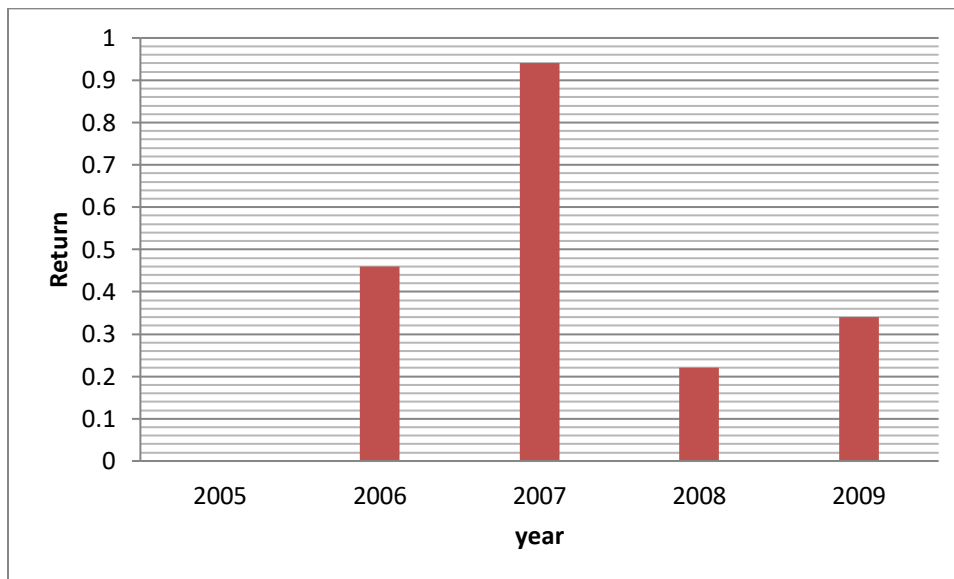
Annual Rate of Return of SBI

Figure 4.8 shows that the annual rate of return of SBI in several years. The rate of return is positive in the all years. There is higher return in the year 2007 I.e. 0.9993 and minimum return in the year 2008 i.e. 0.2847.

4.1.5 Bank of Kathmandu:

4.1.5.1 Data:

Market price, dividend records, realized return[R], standard deviation $[\sigma]$ Expected returns$[\overline{R_j}]$ Year-end price and divided amounts are used to calculate realized rate of returns for each. Table 4.9 shows the calculation of yearly-realized return, expected return and standard deviation of return

4.1.5.2 Analysis of Dividend

Table: 4.9

MPS, EPS, Dividend and P/ E Ratio on BOK

year	Closing market price	Cash dividend	Stock dividend	Total dividend	Earnings per share	P/E Ratio
2005	430	15	-	15	30.10	14.29
2006	850	18	30	430.5	43.678	19.46
2007	1375	20		20	43.5	31.67
2008	2350	2.11	40	732.11	59.94	39.21
2009	1825	7.37	40	279.37	54.68	33.38

(Source: Annual report of BOK 2065/2066)

The calculation of Total Dividend is Annex 5.

According to Table 9, BOK is paying cash dividend in the year 2006, 2007, 2008 and 2009 but stock dividend paid only in year 2006, 2008 and 2009. Highest total dividend is paid in the 2008 i.e. 732.11.

P/E ratio of BOK is maximum in the year 2008 i.e. 39.21 and minimum in the year 2005 i.e. 14.29.

Table: 4.10

Risk and Return of BOK

Year	Closing MPS	Total Dividend in Rs	Return(R)	[R-R$_j$]	(R-R$_j$)2
2005	430	15	-	-	-
2006	850	430.5	1.001	0.511	0.261
2007	1375	20	0.396	-0.094	0.009
2008	2350	732.11	0.726	0.236	0.056
2009	1825	279.37	(0.134523404)	(0.625)	0.391
Total			1.987		0.717

(Sources: Annual Report of BOK).

Table 4.10 shows the market price and total dividend [including cash and stock] of BOK for the several years. BOK is not paying cash and stock dividend in the year 2006 and 2007.higher market price in the year 2008 i.e. Rs 2350.

Where,

$$R = \frac{D_t + (P_t - P_{t-1})}{P_{t-1}}$$

$$R_j = \frac{1.9876}{4} = 0.49 \quad S\,D = \sqrt{\frac{\sum R - Rj)^2}{N-1}} = \sqrt{\frac{0.717}{3}} = 0.4888$$

$$C.V = \frac{\sigma}{\bar{R}} = \frac{0.4888}{0.49} = 0.99$$

Figure: 4.9

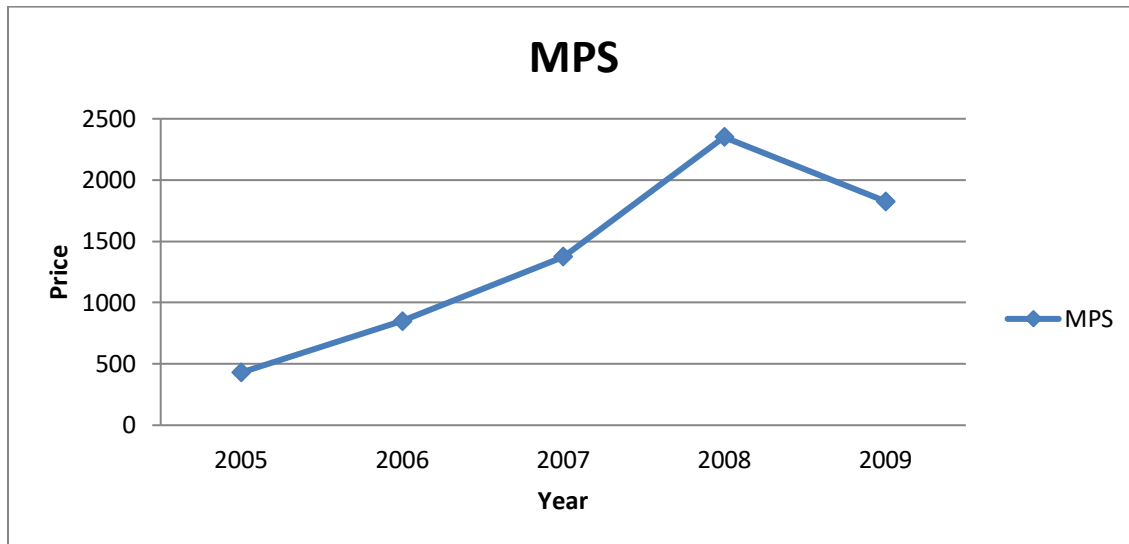**Year-End Price Movement of the Common Stock of BOK**

Figure 4.9 shows the trend line of market price in several years of BOK. It can be seen that there is fluctuation of market price from the year 2005 till 2009.the trend line shows the rapid growth from the year 2005.there is maximum price in the year 2008 i.e. Rs 2350 and the market price decrease from the year 2008.

Figure: 4.10

Annual Rate of Return of BOK
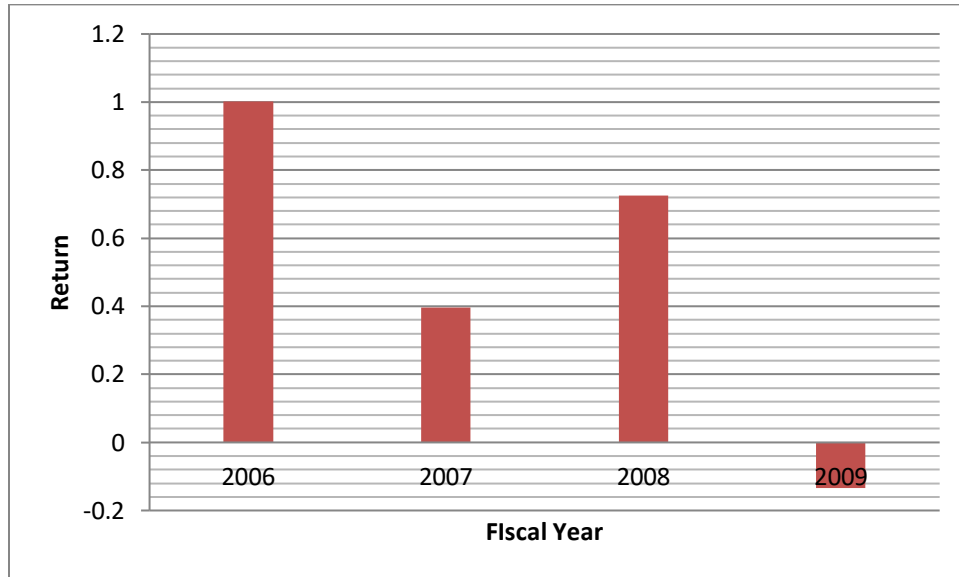
The figure 4.10 shows the annual rate of return of BOK for the several years. The rate of return is negative in the year 2009 and positive other several years. There is highest return in the year 2006 i.e.0.99 and negative in the year 2009 i.e. -0.1032.

4.2 Interbank comparison

According to the result from the section 4.1, a comparative analysis of return and risk performed here. Expected return and risk performed here. Expected return, standard deviation of returns, coefficient of variation of each bank for the bank of year 2005 to 2009 are given bellow

Table: 4.11

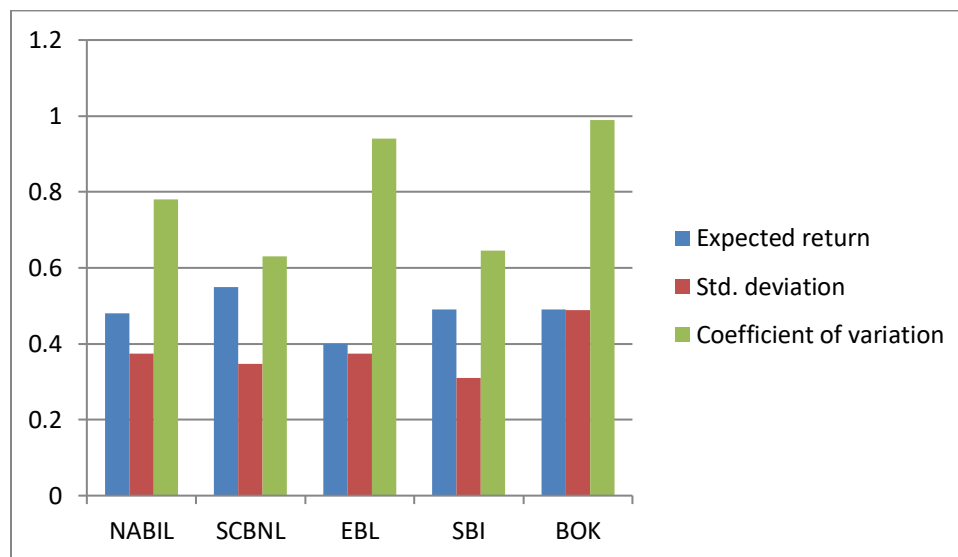**Expected Return, S.D. and Coefficient of Variation of Sampled Bank**

Banks	Expected return	Std. deviation	Coefficient of variation	Remarks
NABIL	0.48	0.3741	0.78	
SCBNL	0.55	0.3464	0.63	Higher Return
EBL	0.40	0.3741	0.94	Lower Return
SBI	0.49	0.31	0.645	Lower S.D.
BOK	0.49	0.4888	0.99	Higher Return

(Sources: From the Table 4.2, 4, 6,8and 4.10)

Investor can get higher return from invest in the common stock of SCBNL and lowest return from investment in the common stocks of EBL .BOK has a higher s.d. and SBI has lowest S.D. On the risk per unit return (i.e. C.V.) BOK is more profitable than SCBNL, EBL, NABIL and BOK.

Figure: 4.11

Return, Risk and Coefficient Variation of Those Five Commercial Banks:

By observing the figure 4.11, the comparison of the sample bank in the terms of risk and return can be clearly seen. It clarifies the expected return, standard deviation and coefficient of variance of each individual bank.

4.3 Markets Capitalizing of the Sampled Commercial Banks:

Table: 4.12

Market Capitalization of Listed Banks at April 16 2010

Bank	Market capitalization	Parentage[%]
NABIL	28185461800	29.86511
SCBNL	38696041212	41.00204
SBI	7735209160	8.196171
BOK	8298742842	8.793287
EBL	11460434940	12.14339
Total	94375889954	100

(Sources: www.NEPSE.com)

Table 4.12 shows the total market capitalizing covered by the sampled commercial banks .SCBNL covered 41% market share out of five sampled banks and SBI covered by only 8%.

Market Capitalizing Pie Chart
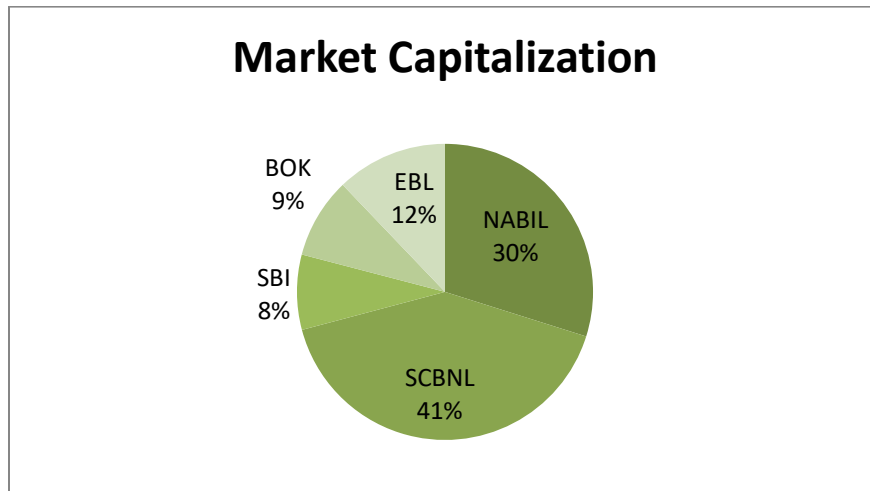

Market Capitalization

Figure 4.12 shows the market capitalizing sectors for the five commercial banks where SCBNL covers 41% market capitalizing and SBI consists only 8% among the five commercial banks.

4.4 Inter Industry Comparison:

We can observe that the banking industries have majority value of total market share i.e. 55% as compared to other sectors.

Table: 4.13

Sector Wise Market Capitalization

Industries	Market Capitalization [in Million]	Percentage
banking	207928.32	54.16041035
Manufacturing and processing	7761.86	2.02178098
Hotel	4839.58	1.260596145
Trading	1468.35	0.382470452
Hydropower	18213.59	4.744209487
finance	35187.81	9.165592397
other	108512.5	28.26494019
Total	383912.01	100

(Sources: www.NEPSE.com Feb 11-2010)

Table 4.8 shows the market capitalizing of different parts of business sector. Out of 100% market capital Banking and finance sector covered 64% as a whole market. It shows that 50% of Nepalese business market covered by banking sector. That effect of whole economy of country. And there are only few 0.3% covered by trading sector.

Figure: 4.13

Total Market Capitalizing of Business Sectors
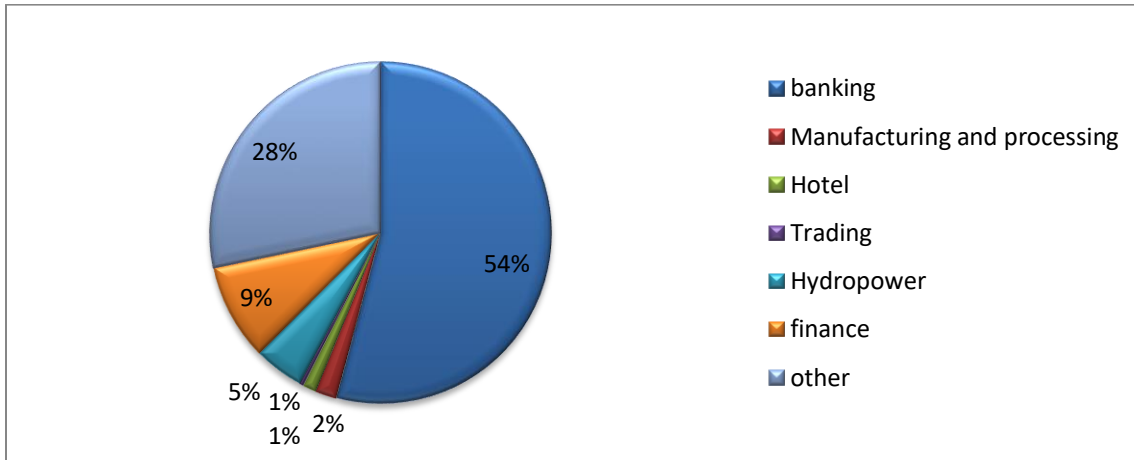
In this diagram market capitalization is mostly covered by banking factor. That means banking industries has majority value of total market share.

4.5 Comparison with market

4.5.1 Market Risk and Return:

In Nepal there is only one stock market, NEPSE. Overall market movement is represented by market index [i.e. NEPSE Index]. The market return, its S.D. and C.V. is calculated here:

Table: 4.14

Calculation of Market Expected Return, S.D and C.V of Market Index

| year	Closing price NEPSE	Market return(R_m)	(R_m– R_m)	(R_m – R_m)^2
2005	238.32	-	-	-
2006	303.26	0.2725	-0.1807	0.03265
2007	512.72	0.6907	0.2375	0.05640
2008	659.	0.2853	-0.1679	0.02819
2009	696.21	0.5646	0.114	0.012996
Total		1.8131		0.130236

(Sources: NEPSE Annual Report 2005, 2006, 2007, 2008, 2009)

Table 4.14 shows the year end price of NEPSE in different years where the market price is higher in the year 2009 and the lowest market price in the year 2005 that says the market closing price in every year is increasing.

$$\sum R_M = 1.8131/4 = 0.4532 = 45.32\% \qquad S.D = \sqrt{\frac{\sum(R-RM)^2}{N-1}} = \sqrt{\frac{0.130236}{3}} = 0.2083$$

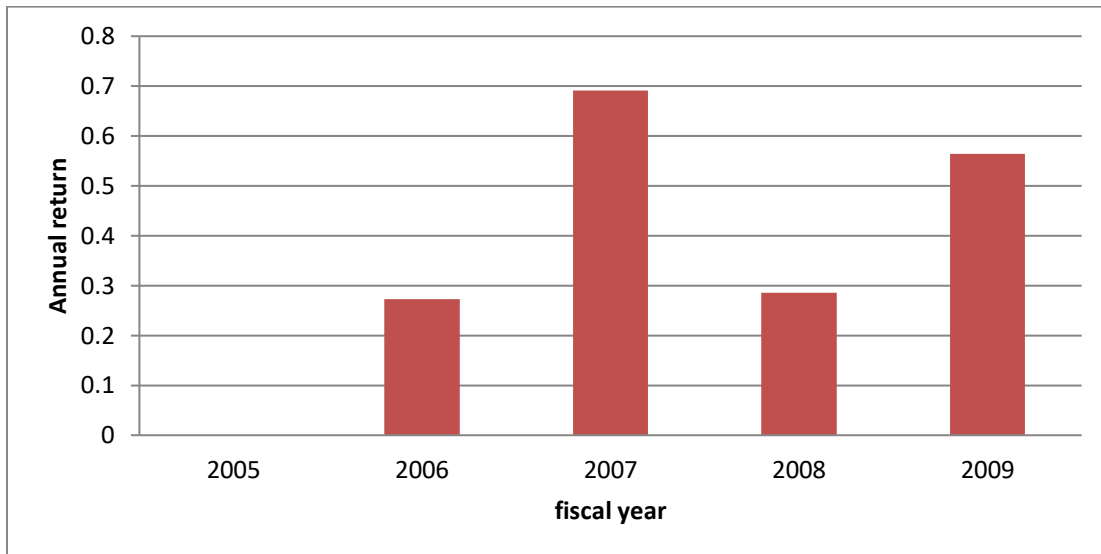$$C.V = \frac{\sigma}{\overline{M}} = \frac{0.2083}{0.4532} = 0.4596$$

Figure: 4.14

NEPSE Index Movement
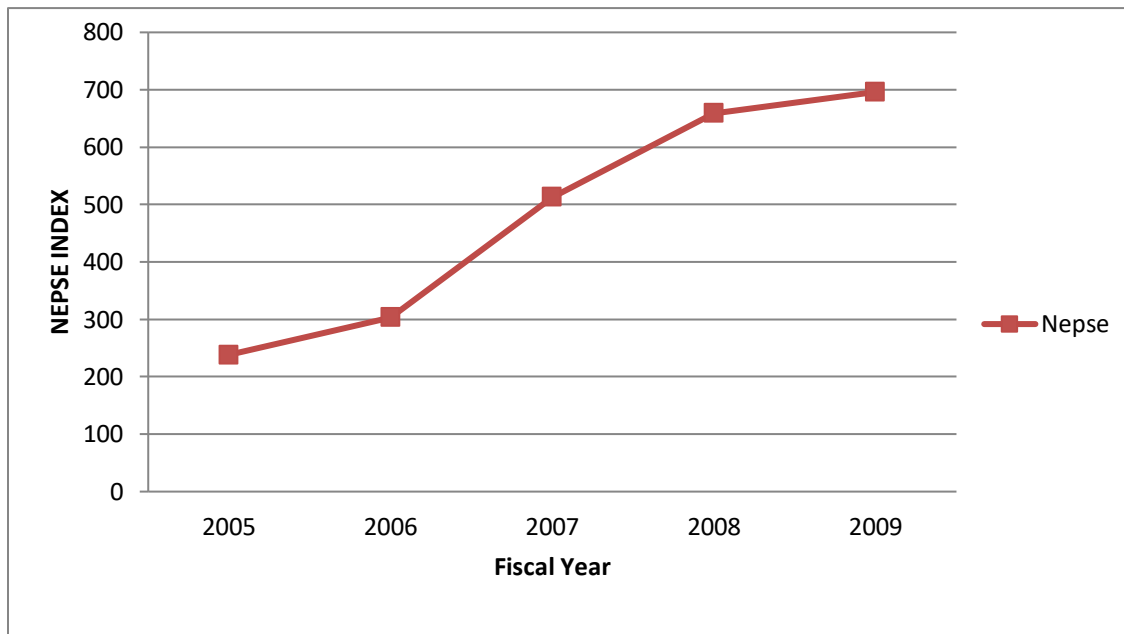
The above diagram shows that the movement of NEPSE index is in increasing in each year from year 2005 to year 2009. That means at this time the market is boom up.

Markets Return Movement of NEPSE

The diagram shows that the market return is positive in the each fiscal year. Market return maximum positive in fiscal year 2007.

4.4.2 Sensitivity of NEPSE.

The sensitivity of NEPSE and stock price of selected commercial banks are bellow:

Table: 4.15

Beta Portfolio of Selected Banks

Selected Banks	Beta Portfolio(β)	Remarks
NABIL	0.853	
SCBNL	0.254	
EBL	0.277	
SBI	1.083	Higher Beta
BOK	-1.729	Negative Beta

(Source: Calculate from Annex 6,7,8,9 and 10)

Systematic risk is measure by the market that measured by beta coefficient. Table 4.15 show the clear picture of beta. Where, beta of SBI is higher than other selected banks that are higher risk. And the beta of BOK is negative.

4.6 Major finding of the study:

This study enables investors to keep the returns they can expect and the risk they may take into better perspective. Nepalese stock market is in effect of openness and liberalization in national economy. But Nepalese individual investors cannot analyze the securities as well as market properly because of the lack of information and poor knowledge about the analysis of securities for investment.

4.6.1 See Position of Risk and Return:

The return is the income received on a stock investment, which is usually expressed in percentage. Expected return on common stock of SCBNL is maximum (55%).

Similarly expected return of, NABIL, EBL, SBI and BOK are 48.00%, 40.00%, 49% and 49.00% respectively.

Risk is the variability of returns which is measured in terms of standard deviation.

On the basis of standard deviation, common stock of BOK is most risky since it has high S.D i.e. 0.4888. Common stock of SBI has least risk because of its low S.D of 0.31.

On the other hand we know that C.V is more rational basis of investment decision, which measures the risk per unit of return. On the basis of CV, common stock of BOK is best among all other banks. SBI has 0.645 unit of risk per 1 unit of return.

4.6.2 Compare from NEPSE

The beta coefficient of SBI has higher i.e. 1.083 that means the beta measured that risk with the market is lower beta for the bank of BOK is -1.729.

CHAPTER V

SUMMARY, FINDING AND RECOMMENDATIONS

5.1 Summary

Risk and return is getting considerable attention in financial management central focus of finance is tradeoff between risk and return and major part stock market had greatest glamour, not only for the professional or institutional investors but also for the individual or private investor. Development in the field of finance has led to the application of many new concepts and models to deal with various issues related to financial management.

The relationship between risk and return is described by investor's perception about risk and their demand for compensation. No investors will like to invest in risky and their demand for compensation. No investors will like to invest in risky assets unless he/she assured of adequate compensation for the acceptance of risk. Hence, risk plays a central role in the analysis of investment. Investors often ask about an investment and like to know if the risk will command higher premium and the tradeoff between the two assumes a liner relationship between risk and premium.

Common stock is the most risky security and life blood of stock market. Because of higher expected return an investment in common stock of a corporate firm neither ensures an annual return nor ensures the return of principal. Therefore investment in the common stock is very sensitive on the ground of risk. Dividend to common stock holders are paid only if the firm makes an operative profit after tax and preference dividend. Common stock has attracted more investors in Nepal. Rush in the primary market during the primary issue is one of the examples. Private C.S. holders are the passive owners of

the company .but private investor plays a vital role in economic development of the nation by mobilizing the dispersed capital in different from in the society.

The main objective of the study is to analyze the risk and return in common stock investment of Nepalese stock market. The study is focused on the common stock of listed commercial banks. Hence, listed banks are taken as reference to analyze the risk and return in common stock investment. While analyzing the risk and return, brief review of related studies has been performed. Scientific methods are used in data analysis. Tables, graphs and diagram are used to present the data and results more clearly. Both quantitative and qualitative analysis has performed by using statistical tools as well as personal judgment. Secondary data are collected from the NEPSE, NRB, SEBO and other related banks. Other subjective types of information are collected through the decision with private investors, financial executives companies and officials of NRB, SEBO and NEPSE. Finding of analysis are summarized and conclusion are drawn as follows.

5.2 Conclusion

Most of people considered stock market investment as a black are that they have unrealistically optimistic expectations about stock market investment or perhaps a fear of the unknown. This study enables investors to put the return they can expect and the risks they may take into better perspective. We know that Nepalese stock market is in effect of openness and liberalization in national economy. But Nepalese individual investors cannot analyze the securities as well as market properly because of the lack of information and poor knowledge about the analysis of securities for investment.

The return is the income received on a stock investment, which is usually expressed in percentage. Expected return on the common stock of BOK is maximum 94.00% which is very high rate of return in reality this rate exists only due to effect on unrealistic annual return because of the issue on bonus share and increase in share price. Similarly expected return of the C.S. of EBL is found minimum 40%.

Risk is the variability of returns. Which is measured in the terms of standard deviation .On the basis of S.D. common stock of SBI most risky since it has high S.D. and C.S. of NABIL & EBL is least risky because of its lowest S.D. on the other hand, we know that of C.V. is more rational basis of investment decision. Which measure the risk per unit of return. On the basis of C.V. common stock SBI is the best among all banks. BOK has 1.0 unit risks per return.

Standard deviation is only the measure of unsystematic risk, which is not defined by the market. Another major aspect of the risk is systematic risk, which is defined by the market and measured by beta coefficient (β). Beta coefficient explains the sensitivity or volatility of the stock with market. Higher the beta, greater the volatility in this contest, common stock on SBI has 3.568 beta which is greatest then others bank's beta. So SBI's beta is most volatile. This is presented in Annex No. 9

SCBNL is the highest position 38696,041,212 and SBI is in lowest position 7735,209,160 according to their interbank market capitalization comparison. The inter industry comparison has placed the banking industry in top position (Rs 20, 7928.32 million) and other industries in the bottom position (108512.5 million).

On the main significant of beta is in Capital Asset Pricing Model (CAPM).CAPM is the model that describes the relationship between risk and required rate of return. Where risk free rate plus a premium based on the systematic risk of the security is required rate of return of the stock. Comparison between expected rate of return and required rate of return identify whether the stock is overpriced and underpriced. If required rate of return is lower than expected rate of return. Stock is known as under priced and if the required rate of return is greater than expected rate of return the stock is overpriced. This study shows that all the stocks of commercial banks which are analyzed are under priced. This

means that their stock value will be increased in near future. All the stocks are in demand. So, investor can buy the common stock of any bank.

Diversification of fund by making a portfolio can reduce unsystematic risk of individual security significantly. If investors select the securities for investment, which have highly negative correlation of returns, the risk can be reduced totally. If the correlation between the returns of two stocks is highly positive risk reduction is not so significant. So, portfolio between the C.S. of same industry cannot reduce risk properly. The portfolio construction of the common stocks of these banks will not reduce any risk, which is not favorable as portfolio construction is concerned.

Most of the investors invest only keeping the return in the mind but they are found unable to calculate the risk factor of the security. Most of the Nepalese private investors use their fund in two or more securities. But it is found that they don't make any analysis of portfolio before selecting securities. They invest their fund in different securities on the basic of expectation and assumption of individual securities rather than analysis of the effect of portfolio. It seems that they don't have knowledge of the risk diversification by using portfolio of their investment.

The main concept finding here the market price of any commercial banks is boom at the stage of year 2006 its means this time there are a lot of piece full political environment the struggle is stop there between government and moist with their demand fulfill so there are a lot of market opportunity and also NEPSE index in grow up at this time. The return also boom up at this stage. So many investors invest at any sector at this time.

5.3 Recommendations

Mainly this study is focused on individual investors. Other related components of stock market are also taken into account to some extent. The following recommendation and suggestion are prescribed on the basis of data analysis and major findings of this research.

Proper analysis of individual security, industry and overall market is always essential to make possible to conquer the stock market. General knowledge about economic, political as well as technological trend will be advantageous. Which is proved by the present political situation of Nepal, it caused a great deterioration in share prices. To win the market, sell share when the market is rising and buy share when market falling and hold share, which will perform better than market.

Different financial and statistical tools are considered to analyze the data in this study. Coefficient of variation (C.V.) suggest that Financial and Insurance industry is the best for investment similarly, while analyzing individual security SBI seems to undoubtedly the best for investment with considering the full time horizon of the study. C.S. of SBI may be best investment opportunity for the investors.

Analysis of personal risk attitude, needs and requirements will be helpful before making an investment decision in stock market. Investors should make several discussions with stockbroker before reaching at the decision. Investors should make their decision on the basis of reliable information rather than the imagination and rumors.

Investment clubs are good way to exchange and share investment ideas. In Nepal there is no any such type of clubs. Mutual fund is worthwhile for people with little interest in investment. So sharing experience, ideas and taking view of expert will be of greater help.

NEPSE needs to initiate to develop different programs for private investors such as investor's meeting and seminars in different subject matters like " Trading Rules and Regulations" etc. On the other hand NEPSE is following "Open cry system" of trading even in the age of digital technology. It should be modernized. It needs to develop efficient and effective information channel and to provide up to data.

Government needs to amend the rules and a regulation regarding stock market in time to time and to make the policy that protects the individual investor's right. And also need to follow up the implementation of rules and regulation and to make sure the objectives are achieved. On that regard, HMG needs to monitors and to make active all the implements the rules and regulation strictly otherwise it will be meaningless. The political problem of the country is another burning issue. This affects the economy of the nation adversely. At present the industry and share market is in declining trend and it will be completely finish if the present political problem will not solve soon.

The corporate firms should communicate the real financial statements. Values of assets and liabilities should not be manipulated to report the under or over profitability. Every decision of the corporate should be made to maximize the value of the firm and value per share.

The political environment of country must be silent for the growing up industrial sector. Investors can invest freely with their wishes and their growing market for business.

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