

CHAPTER - I

INTRODUCTION

1.1 General Background

Nepal is a landlocked and least developed country in the world. In another word economic condition of Nepalese people is very poor. Most of Nepalese people are still much below the poverty line. Their per capita income is around \$260. In this condition Nepalese people always focus their all activities to fulfill their basic needs saving after fulfillment.

Their requirement is beyond their earning to invest in different areas of the productive sectors. Most people like to save a little money when they have a change because they can use it in the urgent need in the future. Saving money will be a great support to fulfill those needs.

Investment is defined simply to be the sacrifice of current consumption for future consumption whose main objective is to maximization of wealth. Investment decision is affected to different elements i.e. time, return and risk.

Commercial bank plays a vital role in the economic development of the country. It is an important institution in the economy and essential business in thousand of cities. It provides capital for the development of industry, trade, business and other resources deficit sector by investing the saving collected as deposits, beside this, commercial banks provide numerous services to their customers in view of facilitating their economic and social life. The other services performed by banks are payment of subscription, purchase and sale of securities, remittance of money, advisory services and assistance in foreign trade etc. hence, the banks are playing the changing role in the modern economy and their principle competitors like finance companies, insurance companies, brokerage firms, cooperative institutions etc.

Financial management is a basic element that underlines for successful operation of every industry and organization. Management of money directs, determines and enhances the health and productivity of total financial sector hence reciprocating its

performance directly to the growth of economy. So, financial development of country largely depends upon effective mobilization of its resources and investment upon good return. But it is often unreasonable to predict and realize the normal return on business investment due to the competitive market and other environment constraints which may serve sometime as opportunity and other times threat. Changing nature of competition and increasing pressure of globalization on today's business world, investments managements has become the most critical determinants of the economy. The most important facts of international business operation is continuous change in economic, political and social dimensions. These changes are beyond the control of international concern. In recent years international investors are attracted towards the financial market of developing countries. As a result many joints ventures and multinational companies are being established in the country.

1.2 Commercial Banks.

Commercial bank is an institution, which accepts deposits, makes business loans, and offer related services. It raises funds by collecting deposits from businesses and consumers via checkable deposits, saving deposit, and time or term deposit. It buys corporate bonds and government bonds. Its primary liabilities are deposits and primary assets are loans and bonds.

It also allow for a variety of deposit accounts, such as checking, saving and time deposit. These institutions are to make a profit and owned by a group of individuals or institutions. Commercial banks are these institutions which offer services to individual; they are primarily concerned with receiving deposits and lending to businesses. Commercial banks can be contrasted with investment banking firms, such as brokerage firms, which are involved in arranging for the sale of corporate or municipal securities.

According to Nepal commercial bank act 2031 "A commercial bank refers to such type of bank other than specified bank related to cooperative, agriculture, industrial and other which deals in money exchange, accepting deposits and advancing loans etc. (Commercial Bank Act: 2031)

Commercial banks are those financial institutions that mobilize monetary resources from savers to users. They provide working capital needs of trade, industries and even to agricultural sectors. They also provide technical and administrative assistance etc industries, trade and business enterprises. Commercial bank works as a pool together the saving of the community and arranges them for the productive use.

Commercial bank is a cooperation, which accepts demand deposits subject to check and makes short-term loans to business enterprises, regardless of the scope of its other service. Commercial banks are the heart of the financial system. They make fund available through their lending and investing activities to borrower, individuals, business firms and services for producer to customers and financial activities of the government. In other words commercial banks are those financial institutions, which collects loan against proper securities for their productive purpose.

1.2.1 Role of commercial bank in Nepal

Commercial banks are fundamental to a developed economy, and are unintentional agents of monetary policy. Commercial banks must be able to forecast the effects of government policy on overall economic activity, interest rates and risk in order to manage their depositor's money.

With the introduction of "financial sector reform" in the year 1980, Nepal allowed the entry of foreign banks as joint ventures with up to maximum 50% equity participation. A meaningful step towards financial liberalization was undertaken in the fiscal year 1987/88, with the objective of expediting the process of economic development under structural adjustment program and major reforms including liberalization of interest rate strengthening of banking operation of a shift from direct to indirect monetary control instruments.

The establishment of new commercial banks has brought an environment of healthy competition in front of the existing commercial banks. The increased competition forces the existing banks to improve their quality and extend their services by simplifying procedures and by training, motivating their own staff to responds to the new challenges. Thus, these banks have contributed towards introducing new technology, new banking systems and efficient service delivery in the country.

The various roles of commercial banks being performed in Nepal can be classified as below.

-) Healthy competition.
-) Foreign investment.
-) New banking technique.
-) Contribution to national economy.

1.2.2 Functions of commercial banks

The principal and primary function of bank is to serve as intermediaries in the making of payments. In so doing they transform inactive money into active, that is, into capital yielding a profit; they collect all kinds of money revenues and earn profit by lending it on mainly in business organization, industrial and agricultural sectors and investing in government bonds.

There are many function performed by commercial bank. The following are the main functions performed by the commercial banks.

I. Accepting Deposits:

Commercial banks accept deposits in three forms current, saving and fixed deposit.

a) Current Deposit: Current deposit is also known as demand deposit whereby banker incurs the obligation of paying money on demand. The bank does not pay any interest on such deposit.

b) Saving Deposits: It is the deposit that is collected from general savers, small depositors and low-income depositors. The bank usually pays small interest to the depositors against their deposits.

c) Fixed Deposits: Fixed deposit is the one in which a customer is required to keep a fixed amount with bank for specified period. It is deposited by those who do not need money higher rate of interest on such deposits.

II. Advancing loans:

Commercial banks mobilize funds by accepting all kinds of deposits and then providing money to those who are in need of it by granting overdraft discounting bills of exchange or promissory notes in the form of loans and advances.

III. Agency Services:

A Commercial bank provides a range of agency services. It undertakes the payment of subscriptions premiums, rent etc. it also collects checks, bills, promissory notes, dividends, and interest etc behalf of its customers.

IV. Credit creation

It is one of the most important functions of the commercial bank. It accepts deposits and advances loan, it opens an account to draw the money by cheque according to the borrowers need. By creates credit on deposit.

V. Other functions:

- a. Assist in foreign Trade
- b. Other security Brokerage services
- c. Financial advising

1.3 Concept of Risk and Return analysis

It is common problem of investment manager how to maximize the expected return of the portfolio subject to some target level of volatility. This is investment is made to have best performance for an expected level of standard deviation. The targeted standard deviation is determined by the investor's tolerance for risk. Expected returns depend upon the firm's life cycle and return of major (mature) firm's with those of growth of mature firm than of growth firms. Effective risk and return management strategy should be applied in order to manage portfolio risk and return.

1.4 Brief introduction of sampled commercial banks

a. Nabil Bank Limited (NABIL)

Nabil bank limited is the first commercial bank established in joint venture investment in Nepal. This bank was established in 2041 B.S. under the commercial bank Act, 2021. Dubai Bank Limited was initial foreign joint venture partner with 50% equity

investment the shares owned by Dubai. Later on Emirates Banks International Limited sold its entire stock to national bank limited are held by National Bank Limited Bangladesh and out of another 50% shares; financial institutions has taken 20% and remaining 30% were issued to general public in Nepal. Authorized capital and paid up capital of Nabil Bank Limited are Rs. 500 million and Rs. 491.6544 million. The numbers of shareholders of this bank are 5076 with par value of Rs. 100 each.

b. Everest Bank Limited (EBL)

Everest Bank Limited (EBL) started its operation in 1994 A.D. with a view and objective of extending professionalized and efficient banking services to various segments of the society. In the beginning of its establishment, it was managed by United Bank of India Limited later on EBL joined hands with Punjab National Bank (PNB). India is its joint venture partner since 1997 A.D.

The shareholders of Everest bank Limited is consisted of three different investors namely the Nepalese Promoters 50% Punjab National bank 20% and General publish 30%. Initially at the time of establishment, the bank had an authorized capital of Rs. 752 million and paid up capital of Rs. 455 million. The numbers of shareholders are 24,222 with par value of Rs. 100 per share.

c. Himalayan bank Ltd. (HBL)

Himalayan Bank Ltd. was incorporated in 1992 A.D. by the distinguished business personalities of Nepal in partnership with employee's provident fund and Habib Bank Ltd. One of the largest Commercial bank of Pakistan. Banks Operation was commenced from 18-01-1993 AD. It is the first commercial bank of Nepal with maximum share holding by the Nepalese private sector. Besides commercial activities, the bank also offers industrial and merchant banking.

The Himalayan Bank Ltd. (HBL) was established with an authorized shares capital of 24 corers. Its issued capital was Rs. 12 corers with a paid up capital of Rs. 6 corers. Out of total issued capital, the bank promoters hold 51%, the employee's provident funds 14% the HABIB bank ltd., Pakistan holds 20%, and the remaining 15% shares are hold by general public.

The bank at present has six branches in Katmandu valley and it has nine branches outside Katmandu. The bank has a very aggressive plan of establishing more branches in different parts of country in near future.

1.5 Statement of the Problems

Capital market investment in this present context plays the major role in the socio economic development of the country. Having the sensitive nature, economic, social and political interference would directly affect on it. The stage of development of capital market in any country and its effective growth is depended upon the aggregate economic condition, saving and investment opportunity etc. Although there are various institutions involved in capital market, they have not been able to show good performances according to the fact that investors are responsible for not having self-control, self-judgment in the choice of securities for investment. Thus having lack of adequate knowledge about the securities of certain in companies, investors are haphazardly investing in shares.

“Fundamental analysis theory argues that at any point of time there exists an intrinsic value of stocks, which helps to selects the right stocks at a time.

On the other hand, efficient market theory argues that market is efficient in pricing the shares. In a situation where stock prices movement follows random works and at every point in time actual prices represent good estimate of its intrinsic values general investors tend to select any security randomly to from his/her optimum portfolio.” (Fama; 1965:40) As the best investment strategy in such market will be random selection of securities the investment decision is easier.

In an efficient market condition, stock price is equal to the intrinsic value of stock. When required rate of return are not equal, then intrinsic value and market value of stock will not be equal. It is also assumed that all stock remain in security market line and if the case is not so the strive towards this line. But theoretical and practical knowledge may not always each other. Therefore it needs courage and at the same time faith to invest in common stock. In most of the time which can be generated through proper evaluation with giving view to the prevailing market atmosphere. But

what are the criteria for evaluation that the stock they are holding will give them favorable return? What should be the compensation they have to receive for bearing risk? How can investors make higher return through lower risk?

Some research problems are as follows. They are:

- a. How far have commercial banks been able to transfer monetary resources from saver to user?
- b. How can one make higher return assuming lower risk?
- c. How do they know the scale and intensity of risk?
- d. What is the trend of investment in different assets by commercial banks?
- e. In what extent, the investors should be compensated for taking a certain degree of risk and more return?

1.6 Objective of the Study

The important objectives of the study are as follows:

- 1) To present the status of risk and return associated with common stock of selected commercial banks individually.
- 2) To analyze the portfolio risk and return between these institutions.
- 3) To collect and analyze investor's opinion regarding company's dividend and return.
- 4) To compare the risk and return on investment of the selected commercial bank.
- 5) To find out the liquidity, profitability and shareholder's risk and returns.
- 6) To suggest and recommend some measure on the basis of analyzing data and findings.

1.7 Significance of Study

Traditional investment analysis emphasizes the projection of prices and dividends that is, the potential price of a firm's common stock and the future dividend stream are forecast and then discounted back to the present. This intrinsic value is then compared with securities current market price. If the current market price is above below the intrinsic value, a purchase is recommended conversely, if the current market price is above this intrinsic value, a sale is recommended.

Modern security analysis emphasizes the risk and return estimates rather more price and individual estimates. The risk and return estimates, of course, are dependent on the share price and the accompanying dividend stream.

The focus of the study is on the analysis of risk, return and portfolio, which will enable investors to guide the investments activities. Security business persons, issue managers, brokers marketing managers and general investor will be the valuable assets for the further research works.

1.8 Limitation of the Study

This study is conducted for partial fulfillment of the requirements for the degree of Masters in Business Studies. It is fully dependent on the data provided by different sources. Because of limited secondary data, sample techniques are used to analyze the data. Therefore, it possesses some limitations, which are as follows:

- a. The study is made for partial fulfillment of the requirement of master of business study in short of time therefore, following banks are taken this study:
 1. Nabil Bank Ltd.
 2. Everest Bank Ltd.
 3. Himalayan Bank Ltd.
- b. This study covers only 5 years period. Data of fiscal year 2008/2009 to 20012/2013 of NABIL, EBL, and HBL are used for the study.
- c. The study is based on secondary data consequently the result depends on the reliability of secondary data.
- d. This study is basically concerned with risk and return of commercial bank.

It does not consider other financial analysis of the banks.

1.9 Organization of the Study

The whole study has been divided into five chapters as follows:

Chapter 1: Introduction

Chapter 2: Review of Literature

Chapter 3: Research Methodology

Chapter 4: Presentation and Analysis of data

Chapter 5: Summary of Findings, Conclusion and Recommendation

The rationale behind this kind of organization is to follow a simple research methodology approach. The contents of each chapter of this study are briefly mentioned below:

Chapter 1: Introduction

The first chapter is an introduction, which includes general background, statement of problem, objective of the study, significance of the study and organization of the study.

Chapter 2: Review of Literature

This chapter is directed towards the review of literature on related studies, which contains conceptual framework and review of related studies in general review of the theories of the concerned topic, review of books, review of related articles and review of legislation related to commercial banks.

Chapter 3: Research Methodology:

This chapter describes the research methodology employed in the study. It includes research design, nature and source of data, population and sample, method of data analysis, various statistical and financial tools, and definition of key terms.

Chapter 4: Presentation and analysis of data:

This chapter is devoted to presentation, analysis, interpretation and scoring of the empirical findings from the study through a definite course of research methodology. It consists of investment operations of commercial banks, trend analysis, ratio analysis of risk and return on investment.

Chapter 5: Summary of findings, conclusion and recommendation

This chapter contains a summary, conclusion and recommendation of the study. This chapter presents the major findings. It also offers recommendations and several directions for future research.

CHAPTER – II

REVIEW OF LITERATURE

2.1 Conceptual Framework

In this chapter theoretical aspect of risk and return has been explored. The role of risk on financial management and financial decision-making is great. In this chapter some academic course book, journals and other related studies have also been review. In addition, independent studies carried out by well-known Nepalese financial exports and others are also taken in to consideration.

This chapter has been divided into two main sections. First section deals with conceptual & theoretical framework and second section deals with reviews of empirical studies under taken in Nepal.

2.1.1 Common Stock

“The main elements of the capital structures are ordinary shares, preference share and debenture. Among them, the most important form is equity share, ordinary share or common stock. Common stock is the first security of a corporation to be issued and in case of bankruptcy, the last to retired, common stock represents on ownership share in the firm. So, they have the power to elect the board of directors. The common stock stockholders invest on the firm with the expectation of return in the future they have the lowest priority claim on earning and assets of all getting anything back form a bankrupt firm is minimal. But common stock has unlimited potential for dividend payments and price appreciation. When investors buy common stock, they can obtain certificates as proof of their parts as owners of the firm. Stock certificate sate the number of share purchased, the owner and the number of share bought are noted in the stock purchased their par value and usually the transfer agent, when stock is record book the transfer agent.” (Clark: 1991:50)

“Equity capital represents ownership capital as equity shareholders collectively own the company. They enjoy the rewards as well as bear the risk of ownership. However, their liability, unlike the liability of the owner in a proprietary firm and the partners in a partnership concern, is limited to their capital contribution.” (Chandra; 1994:521)

“The common stock holders of a company are its ultimate owners collectively, may own the company and assume the ultimate risk associated with ownership. Their liability however is restricted to the amount of their investment. In the company, after the claims of all creditors and preferred stock holders are settled in full common stock, like preferred stock, has no maturity date.” (Van Horne; 1996: 560)

“Common equity in a corporation or partnership or proprietorship interest in an unincorporated firm constitutes the first source of funds to a new business an dbase of support for borrowing by existing Arms.” (Weston and Copeland; 1996:931)

2.1.2 Risk

Risk and return are the determinant for the valuation of securities. However, risk means that we do not know what is going to happen even through. We occasionally have a good idea of the range of possibilities that we face. In the other words, when the firms should recognize that the forecast return may not be achieved. This is the elements of risks in the decision making process.

“Therefore, risk may be defines as the likelihood the actual return from an investment will be less than the forecast returns. Stared differently, is the variability of return from an investment.” (Hampton; 1996:65)

“Risk is defined in Webster’s Dictionary as “a hazard: exposure to loss or injury.” Thus, risk refers to the chance that some unfavorable event will cover. If any body engage in skydiving, such people is making chance with his life skydiving, such people is taking chance with his life skydiving is risky.” (Bringham, Gapenshi and Ehrhardt; 2001:160)

2.1.2.1 Models of Risk used to measurement (Van Horn; 1998: 205)

(I) Beta Coefficient:

This is a mathematical value that measure the risk of one asset in term of its effects on risk of a group of assets called a portfolio. It is concerned solely with market related risk, as would be the concern for an investor holding stocks and bonds. It is derived mathematically so that a high beta indicates a high level of risk, whereas a low beta represents a low level or risk, mathematically, “bi” denotes it.

(II) Standard Deviation:

This is a measurement of the dispersion of forecast returns when such return approximate a normal probability distribution. It is a statistical concept and is widely used to measure risk from holding a single asset. The standard deviation is derived so that a high standard deviation represents a large dispersion of return and is a high risk. On the other hand, a low standard deviation is small dispersion and represents low risk mathematically: it is denoted by (Ξ)

(III) Subjective Estimate:

A subjective risk measure occurs when qualitative rather than quantitative estimates are used to measure dispersion. An example; an analyst may estimate that an offers a “low” level of risk. This means that, in the analyst view the dispersion of return will not be vary wide. Similarly, a “high” risk level will accompany a project whose forecast return may very a great deal.

2.1.2.2 Component of risk**(I) Business Risk**

Business risk may be defined as the chance that the firm will not have ability to compete successfully with the assets that it purchases. For an example; the firm may acquire a machine that may not operate properly, that may not produce stable products or that may face other operating or market difficulties that cause losses. Any operational problems are grouped as business risk.

(II) Financial Risk:

This is the chance that an investment will not generate sufficient cash flows either to cover interest payment on money borrowed to finance it principal repayments on debt or to provide profits to the firm.

2.1.2.3 Fundamentals of Risk Management (Van Horne 1996: 228)

Risk management by defining some commonly used term that describes different risks; some of these risks can be changed.

I. Pure Risk:

It is such type of risk that offers only the prospects of a loss example include the risk that a plant will be destroyed by fire.

II. Speculative Risk:

Speculative risks are situations that offer a chance of gain but might result in a loss. Thus, investment in new projects and marketable securities evolved speculative risks.

III. Demand Risk:

Demand risks are associated with the demand for a firm's product or services. Because sales are essential to all business, demand risk is one of the most significant risks that a firm faces.

IV. Financial Risks:

Financial risks are those that result from financial transactions if firms plan to issue new bonds, they face the risks that interest rates will rise before the bonds can be bought on the market.

V. Property Risk:

Property risks are associated with the destruction of productive assets. Thus, the threat of fire, floods, and riots imposes property risk on a firm.

VI. Personal Risk:

Personal risk is that risk that results from an employee's action.

VII. Environmental Risk:

Environmental risk includes risk associated with polluting the environment, public awareness in recent years, coupled with the huge cost of environmental cleanup, has increased the importance of the risk.

2.1.2.4 The Risk on Common Stock

Having briefly discussed about the procedure of qualifying the return following paragraph will explore on risk and shows how it is perceived by uncertainties and

risks indifferent ways for some uncertainty is simply a lack of definite outcomes; it is any thing that could happen and unknown event which may be favorable or unfavorable. To other, it is risk, many people consider risk as a chance of happening some unfavorable event or anger of losing some value. The trouble of uncertainty and risk, people after use them interchangeably.

Although it is not quite clear what precisely these two terms mean, authorities in the field of finance and proper concern about finance do agree that the risk is the product of uncertainty. If we interpret as future outcome which is one hundred percent sure to happen, uncertainty is then just the opposite of certainty that refers to all possible future outcomes none of which is known for sure to happen. Risk, in the other hand is the product of all potential outcomes terms of the degree of variability in the probability distribution of such outcomes uncertainty and risk are treated separately in financial analysis. The practice is to translate the uncertainty in all mathematical value which represents the best estimate of all uncertainty values. In other words uncertainty is taken care of by calculation the expected value of all possible uncertain outcomes. But risk is treated differently. Although risk rises from uncertainty its magnitude depends upon the degree of variability in uncertain cash flow, and it is an indication of chance of losing investment value. The word chance here refers to the probability of loss in the investment project. In other words, project risk indicated the probability of return being less than the expected value-higher the probability of such loss and less returns, higher the project risk.

2.1.3 Return

The concept of return has different meaning to different investors. Some investor seek near term cash inflows and gives less value to more distant return such an investor might purchase the stock of other firm that pays large cash dividends. Other investors are concerned primarily with growth. They would seek projects that offer the promise of long term, higher than average growth of sales, earning and capital appreciation.

“An investor is ready to sacrifice his present consumption for the future return or reward. Investment can be made in various securities. Therefore motivation for the investment is the return. The return is difference between the terminal wealth (what an investor received) and initial wealth (what an investor invest). The invested wealth of

investor may be increase or decrease or remains the same in the future. If the terminal wealth is greater than initial wealth there is positive return from the investment. If terminal wealth is less than initial wealth there is negative return from the investment if terminal wealth is equal to initial wealth there is zero return. Investor always wants to higher return other things being the same.” (Manandhar; 2063:42)

With most investments, individual or business money today with the expectation of earning even more money in the future. Thus, the concept of return provides investors with a convenient way of expressing the financial performance of an investment.

One way of expressing an investment returns terms. The return is simply the total rupees received from investment fewer amounts invested.

2.1.3.1 The Return on Common Stock

The cash payoff to owners of common stocks comes in two forms;

1. Cash Dividend
2. Capital Gain or Losses

To make it clearer, example derived from the book of Beary and Myers (Page 63) is taken where writers have added, “If current price of a share is P_0 that the expected price at the end of a year is P_1 and that the expected dividend per share is Div_1 . The rate of return that investors expect from this share over the next year is defined as the expected dividend per share Div_1 plus the expected price appreciation per share $p_1 - p_0$ all divide by the price at the start of the year p_0 . This can show in the form of;

$$\text{Expected Return}(r) = \frac{Div_1 + P_1 - P_0}{P_0}$$

The return from holding an investment over some period say a year is simply any each payments received due to ownership, plus change in market price divided by the beginning price. Thus the return comes from two sources; income and price appreciation. For example stock we can define one-period return as;

$$HPR(r) = \frac{Div_1 + P_1 - P_0}{P_0}$$

Where,

r = Actual Expected Return

t = Particular time period in the past future

P_t = Stock price at time, period t

P_{t-1} = Stock price at time, period $t - 1$

Above formula can be used to determine both actual one period return (when based on historical figure) as well as expected on period return (when based on future expected dividends and prices). The term in the parenthesis in the numerator of an above question represents the capital gain or loss during the period.

“Holding period return measure mentioned above is useful with an investment horizon of one year or less. For longer periods, it is better to calculate rate of return as an investment yield. The yield calculation is presented value based and this considers the time value of money.” (Van Horne and Wachowicz; 1997:90)

“Return is defined as the dividend yield plus the capital gain or loss. The relationship between different levels of return or their relative frequencies is called a probability distribution. We could formulate a probability distribution for the relative frequency of a firm annual return by analyzing its historical return over the previous year. But we know that history never repeats itself exactly. Hence, after analyzing relative frequencies of historical return for the individual company. We can form probability distribution based on historical data plus the analysis for the outlook for the firm in its industry and another factors.” (Van Horne and Wachowicz: 197:90)

2.1.4 Relationship between Risk and Return

Risk is a complicated subject and need to be properly analyzed. The relationship between risk and return is described by investor perception about risk and their demand for compensation. No investor will like to invest in risky assets unless he/she is assured of adequate compensation for the assumption of risk. Therefore, it is the investor's require risk premium that establishes a link between risk and return. In a market dominated by rational investor's higher risk will command by rational premium and the trade off between the two assume a liner relationship between risk and risk premium. The observe difference in both.

“The levels and variability of the rates of return across securities are indicative of the underlying risk return relation in the market.” (Loric, Dodd and Kimpton: 1983:3)

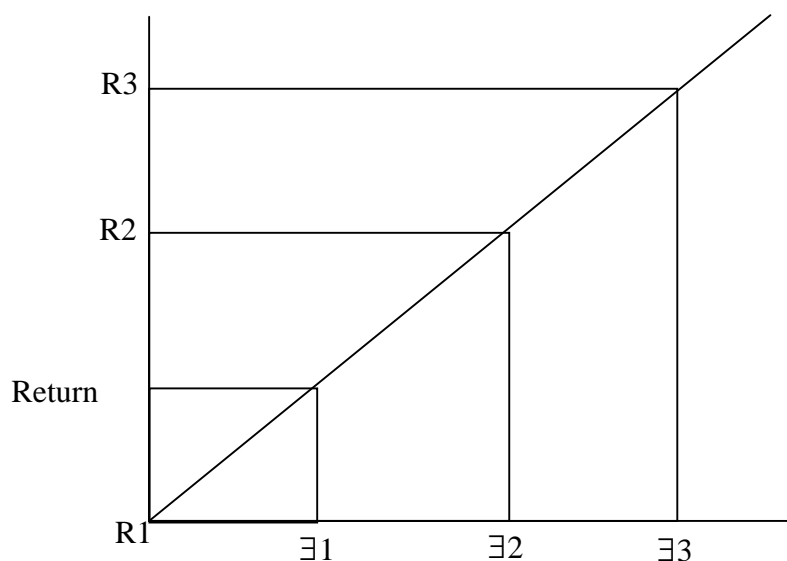


Figure 2.1 : Relation between Risk and Return

The figure represents higher premium for higher risk in linear indicating a premium of $(R_1 - R_F)$ for E_1 , Degree of risk $(R_2 - R_F)$ for E_2 degree of risk and soon.

The assumption of linear relationship states the risk premium increase or decrease in proportion to a change in level of risk. R_F stands for return on risk free security. The partial interest is the difference in rates of return across securities, since they provide valuable clues to market's trade-off between risk and return.

“Scientific progress in any field depends on occur measurements many measurements are interesting in them, by their most important scientific rate is to test the validity to theory. Since most financial theory is focused on an explanation of the level, structure and behavior of rules of rates of return, their accurate measurement is essential if the theory is to be tested and improved.” (Loric, Dodd and Kimpton; 1983:3)

Rational investor would agree that investments required return should increase as the risk of investment increase. Most investors would also agree how the expected rate of return should be calculated. For all expect risk-free securities, the return we expected may be different from return we receive. For risky securities, the return we expected

may be different from return we receive. For risky security (Common Stock) the actual rate of return can be viewed as a random variable subject to a probability distribution.

The expected return $(R) = \sum (R_j) (P_i)$

Where,

R_j = Return for the j^{th} Possibility

P_i = Probability of i^{th} Possibility

Then the expected return is simply a weighted average rate of the return with the weights being the probabilities or occurrence.

Another parameter of return distribution is a measure of dispersion of variability around expected return. The conventional measure of dispersion is the standard deviation. The standard deviation (σ) can be expressed mathematically as;

$$\sigma = \sqrt{\sum (R_i - R)^2 (P_i)}$$

Operationally, we generally first calculate dispersion variance or the weighted average of square deviations of possible occurrence. The square root of the figures will provide standard deviation.

A standard deviation can sometimes be misleading in comparing the risk or uncertainty surrounding alternatives if they differ in size. To adjust for the size or scale, or scale problem, the standard deviation can be divided by the expected return to compute the coefficient of variance (CV).

$$\text{Coefficient of variance (CV)} = \frac{\sigma}{R}$$

Thus, the coefficient of variance is a measure of relative dispersion (risk) measure of risk “per unit of expected return.” The larger the C.V. the larger the relative risk of the investment.

C.V. = the ratio of the standard deviation of a distribution to the mean of that distribution which is the measure of relative risk.

While consulting the different book it is found that one assumption (generally accepted view) is made, that is the investors are by and large risk averse and in other words investors that have been studied are characteristically those who demands a higher expected return for the assumption higher risk. This implies that risky investment must higher expected return then less risky investment for investors to by and holds them. In short, there is no free touch when it comes to investment. Any claims for higher return produced by low-risk investments should be viewed skeptically.

Investors rarely place their entire wealth in to a single assets or investment. Rather they construct a portfolio or group of investments. Therefore, it is needed to extend analysis of risk and return to include portfolio A combination of two or more securities or assets is a portfolio.

The expected return of weights are equal security (the weight must be sum to 100 percent). The general formula for expected return of a portfolio, R_p is as follows;

$$R_p = \sum_{j=1}^n W_j R_j$$

Where,

W_j = Proportion or weight of total funds invested in security j.

R_j = Expected return for security j.

While the portfolio of return on the individual security, where as portfolio standard deviation is not the weighted averaged of individual security. To take a weighted average of individual security standard deviation would be to ignore the relationship or correlation between the returns of the two securities. This correlation however has no effect on the portfolio expected return. Correlation between security return complicated the calculation of portfolio, standard deviation by forcing to calculate the covariance between return for the possible pair wise combination of securities in the portfolio. The mathematical complication contains a silver correlation between securities provide the possibility of elimination some risk out reducing potential return.

The standard deviation of probability distribution of possible portfolio return,

$$\sigma_P = \sqrt{\sum_{j=1}^M \sum_{k=1}^M w_j w_k \rho_{jk} \sigma_j \sigma_k}$$

Where,

M = total no of different securities in the portfolio

w_j = proportion of total funds invested in security j

w_k = proportion of total funds invested in security k

ρ_{jk} = covariance between possible returns for securities j and k

The covariance of the possible return of two securities is a measure of the extent to which they are expected to vary together rather than independently of each other. The covariance term in above formula can be written as below;

$$\text{Cov } \rho_{jk} = r_{jk} \sigma_j \sigma_k$$

Where,

r_{jk} = The expected correlation coefficient between possible returns for securities j and k

σ_j = standard deviation for security j , and

σ_k = standard deviation for security k ,

When, $j = k$ coefficient is 1.0 variables movement correlate perfectly with itself, and r_{jk}, σ_j , becomes σ_j^2 once of again it will be seen that our concern along the dialogue of matrix is with each security own variable.

This correlation coefficient always lies in the range from -1.0 to +1.0. A positive correlation coefficient indicates that the returns from two securities generally move in the same direction while a negative correlation coefficient implies that generally move in positive direction. The stronger the relationship, the closer the correlation is to one of the two extreme values. A 0 (zero) correlation coefficient implies that the returns from two securities are un-correlated; they show no tendency to vary together in either a positive or negative in linear fashion.

Most stock return tends to move together but not perfectly. Therefore the correlation coefficient between two stock is generally positive, but less than 1.0. The important principle to grasp is that as long as the correlation coefficient between two securities is less than 1.0, the standard deviation of the two portfolios will be less than the weighted average of the two individual standard deviation. Hence, everything, else being the investors may want to diversify their holding to include securities that have less than perfect, positive correlation ($r_{jk} < 1$) among themselves. To do otherwise would be to expose one self to needless risk.

Meaningful diversification involves combining securities in away that will reduce risk. Risk reduction occurs as long as the securities combined are not perfectly positively correlated.

Systematic and unsystematic risks are the terms frequently used in portfolio context combining securities tat are not perfectly positively correlated help to lesson the risk of the portfolio to some extent. How much risk reduction is reasonable to expect and how different security holding in portfolio would be required? Answer to the question will be explained as follows:

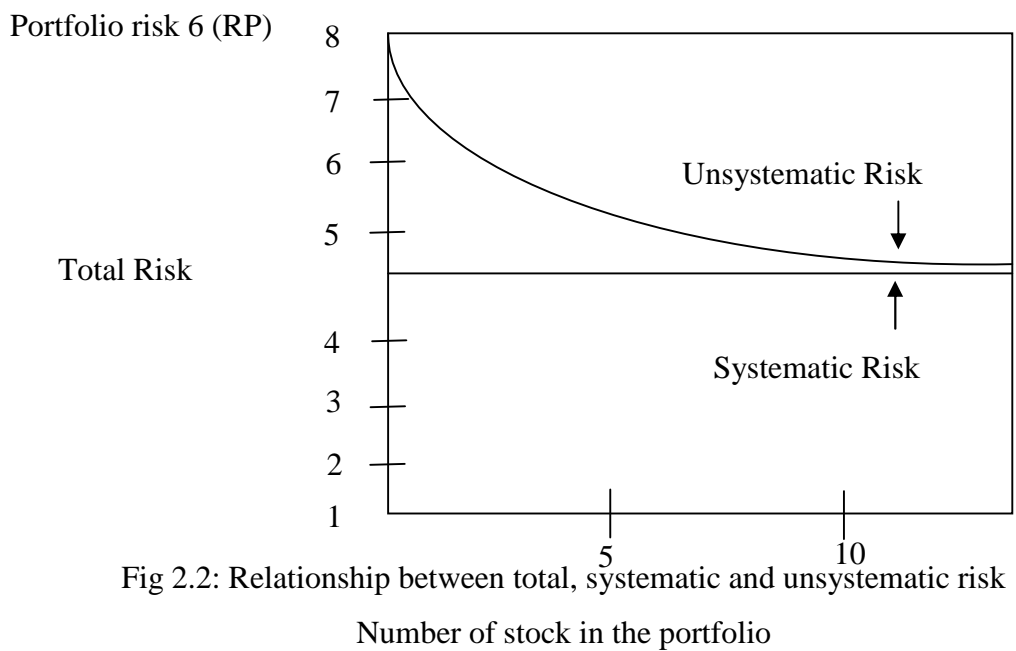


Fig 2.2: Relationship between total, systematic and unsystematic risk

In the case of single stock, the risk of portfolios the standard deviation of that stock. As the randomly selected stock held in the portfolio is increased, the total risk of the portfolios reduced. Such a reduction is at decreasing rate. Thus a substantial

proportion of the portfolio risk can be eliminated with a relatively moderate amount of diversification.

Total risk = systematic risk + unsystematic risk

The first part, systematic risk is due to risk factors that affect the overall market such as changes in national economy, tax reform by the government or changes in the world's energy situation. There are risks that affects securities overall and consequently, can not be diversified away. In other words over an investors who holds a well diversified portfolio will be expected to this type of risk.

The second component, unsystematic risk is risk unique to a particular company or industry. It is independent of economic, potential and other factors that affect all securities in a systematic manner. A wild cast risk may affect only one company a new competitor may begin to produce essentials the same product or a technological break through can make a existing product absolute. For most stocks, unsystematic risk account for between 60 to 70 percent of stocks total risk or standard deviation.

However by diversification, this kind of risk can be reduced and ever eliminated if diversification is efficient. Therefore, not all the risk involved in holding a stock is relevant since past of their risk can diversify away. The important risk of stock is its unavoidable of systematic risk. Investor will be compensated for bearing this systematic risk. They should not, however expect the market to provide any extra compensation for bearing avoidable risk. It is that lies behind capital assets pricing model (CAPM).

2.1.5 Investment

“An investment is a commitment of funds made in the expectation of some positive rate of return. If the investment is property undertaken, the return will be commensurate with the risk the investor assumers.” (Fisher and Jordan; 2002:2)

Investment generally involves real assets of financial assets. Real assets are tangible, material things such as building, automobile and text books. Financial assets are pieces of paper representing an indirect claim to real assets held by someone else.

These pieces of paper represent debt or equity commitments in the form of bond or stock certificates.

Among the many properties that distinguish real form financial assets, one of special interest investors is liquidities. Liquidity refers to ease of converting an asset into money quickly, conveniently and at little exchange cost. Real assets are more heterogeneous, often peculiarly adapted to a specific use, and yield benefits only in cooperation with other production factors. In addition, returns on real assets are frequently more difficult to measure accurately, owing to the absence of broad, ready, and active markets.

An investment involves the sacrifice of current rupees for future rupees. The sacrifice takes place in the present and certain but the reward comes later and is generally uncertain. Return, risk and time are generally involved in the investment.

Investors may buy and sell financial asset in order to earn return on them. The return better known as reward from investments includes both current income capital gains and losses that arise by increase or decrease of the security price. Return is the income received on investment. People invest their wealth 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 to be yielded by its stock, and goes for those, which yield more.

Risk is inseparable from return. Risk in fact an indication of chance of losing investment values. Different people interpret risks in different ways. To some, it is simply a lack of definite outcome, which can be any unknown event, which may be unfavorable. It is chance of happening some unfavorable event or danger or losing some material value. Risk in holding securities is generally associated with the possibility that realized will be less than the returns that were expected. The source of such disappointment is failure of dividends (interest) and / or securities realized as expected. The investment process must be considered in terms of both aspects risk and return.

Another important factor in investment is the time, which offers several different case of action. Time, period depends on the attitude of the investor who follows a “buy and hold” policy. As time moves on, analysts believe that conditions changes and investors reevaluate, expected return and risk for each investment.

“The investment process describes now an investor should go about making decisions with regard to what marketable securities to invest in, how extensive the investment should be, and when the investment should b made. A five step procedure for making decisions forms the basis if investment process.” (Sharpe, Alexander and Bailey: 1996:10)

2.1.5.1 Set Investment Policy

The first step of investment process is to the investment policy which involves determining the investor’s objective and the amount of invest able wealth. Investor objective should be stated be in terms of both risk and return. This step involves the identification of potential categories of financial assets for consideration in the ultimate portfolio. This identification is based on the investment’s objectives, amount of invest able wealth and tax status of investor.

2.1.5.2 Securities Analysis

The second step in the investment process is to perform security analysis, involves examining a number of individual securities (or group of securities) with in the board categories of financial assets. The purpose of conducting such examination is to identify those securities that correctly appear to be misruled. There are two main approaches to study analysis. They are:

a) Technical Analysis:

Technical analysis involves the study of stock market price in an attempt to predict future price movements for the common stock of a particular firm. First, past prices are examined in order to identify recurring trends or patterns in price movements. Then more recent stock prices are analyzed in order to identify. Emerging trends or patterns that is similar to past ones.

b) Fundamental Analysis:

Fundamental analysis begins with intrinsic value of any financial asset equals to present value of all cash flows that the owner of the asset expects to receive. Once the

intrinsic value of the common stock of a particular firm has been determined, it is compared with the security's current market price of the common stock. If the current market price of the common stock is below the intrinsic value, a purchase is recommended. Conversely, if the current market price is above this intrinsic value, a sale is recommended.

2.1.5.3 Portfolio Construction

The third step of the investment process is construction process is construction of portfolio. Construction of portfolio involves identification of specific securities in which to invest, along with the proportion of invest able wealth to be put into each security. Hence, selectivity, timing and diversification need to be addressed by the investors.

2.1.5.4 Portfolio Revision

The four step of investment process is portfolio revision which involves both realizing that the currently held portfolio is not optimal and specifying another portfolio to hold with superior risk-return characteristics. The investor must balance the costs of moving to the new portfolio against the benefits of revision.

2.1.5.5 Portfolio Performance Evaluation

The fifth step in the investment process, portfolio performance evaluation, involves determining periodically how the portfolio performed. In terms of risk and return, and compares the performance with that of an opportunity "benchmark" portfolio.

2.1.6 Portfolio

A portfolio is a combination of investment assets. The portfolio is the holding of securities and investment in a financial assets i.e. bond, stock, individual securities have risk-return characteristics of their own. Portfolios may or may not take on the aggregate characteristics of their individual part. Portfolio analysis thus takes the ingredients of effects of combining securities. Tradition approach and modern approach characterize the portfolio management.

In traditional approach, portfolio planning called for the selective of those securities that best fit personal needs and desires for the investors. For example, a young, an

aggressive, single adult would be advised to buy stocks in newer dynamic rapidly growing firms. A retired would be advised to purchase stocks and bonds in old-line, established, stable companies, such as utilities.

Modern approach suggest that the traditional approach to portfolio analysis, selection and management may well yield less than optimal results that a more scientific approach is needed, based on estimates of risk and return of the portfolio and the attitudes of the investor toward a risk in trade-off streaming from the analysis of the individual securities.

The return of the portfolio is nothing more than the weighted average of the return of the individual stocks. The weights are based on the percentage composition of the portfolio. The total risk of the portfolio is more complex. Here we need only point out that securities when combined may have a greater or lesser risk than the sum of their component risks. This fact arises from the degree to which the returns of individual securities move together or interact.

2.1.7 Security Market

Security market exists in order to bring together buyers and seller of securities. It means the market where the securities are treated. In such market, buyers and sellers are mechanisms created to facilitate the exchange of financial assets.

(i) New Issue Market (NIM)

Securities available for the first time are offered through the primary securities market. The issuer may be a brand new company or one that has been in business for many years. The key is that securities absorb new funds for the coffers of the issuer. It is also know as New Issue Market (NIM).

(ii) Secondary Market

“The secondary market is not keeping pace with the growth of the primary market. This is mainly due to lack of the needed efforts on the concerned authority to advise suitable package of measure do encourage the growth of broker’s networks in the country’s growing exchange.” (Shrestha; 1992:18)

(iii) Money Market

Money Market is also called short term financial market which is the set of supplying short term debt or working capital needed for industries, business or incorporated etc.

(v) Capital Market

Capital Market is the market where the transaction of long term finance is made. The funds collected in the market are raised and trade by long-term financial instruments such as equities and bonds.

2.2 Review of Relevant

2.2.1 Review of Independent Studies

Pradhan (1993) carried out a study on “Stock Market Behavior on Small Capital Market; a case in Nepal.” The study was based on the data collected for seventeen enterprises from 1990. The major objectives of this study were to assess the stock market behaviour in Nepal. HE derived the findings that dividend per share and market price per share was positively correlated and higher the earning on stocks, larger the ratio of dividends per share to market price per share likewise, he got positive relationship between dividend payout and liquidity.

Bhatta (1995) has conducted a study on “Assessment of the performance of listed Companies.” The study was based on 10 listed companies with data from 1990 to 1995. In this study, he has focused on the performance of listed companies in terms of I) company’s performance in market. Dividend yield, liquidity, leverage and profitability. II) Risk and return in term of expected rate of return and internal rate of return, systematic risk and diversification of risk through portfolio. He has analyzed the companies; performance in relation to the market of shares. He found that highly significant positive correlation between risk and return characters of the company.

Shrestha (1997) carried out the study on “Shareholders Democracy Annual General Meeting (AGM) feedback.” This study critically analyzed the situation of common stock investors and found that the situation is not improved significantly till that time, though, the size of the shareholders population in Nepal has been growing constantly the government seems to have not taken any initiation in formulating the separate the investors interest.” The encouraging and growing confidence of shareholders over

their investments seek a independent inquiry of disclosed contents of prospectus. This helps to satisfy a minimum standard of faith on investment in share through relying on pros and cons of prospectus, which could reasonably influence the mind of the prudent investors. Various annual general meeting held by different public limited companies reveal a greater gap between disclosures made in prospectus and the actual results, which were reported. In this context in prospectus need to be reconciled to check and growing problems in the development of the capital market in Nepal.

Shrestha (1998) in her article, “Lending Operation of Commercial Banks of Nepal and its impact on GDP” has presented with the objective to make an analysis of contribution of commercial bank’s lending to the gross domestic product (GDP) of Nepal. Thus, in conclusion she has accepted the hypothesis i.e. there has been positive impact by the lending of commercial banks in various sectors of economy, except service sector investments.

Ojha (2000) in his research, “Financial Performance and Common stock pricing” has concluded that an investment in common stock of a corporate firm neither ensures annual return nor ensures the return of principle. Therefore, investment in common stock is very sensitive on the ground of the risk. Dividend to common stockholders is paid only if the firm makes an operating profit after tax and preference dividend.

Poudel (2004) has carried out study, “Investing in Shares of Commercial Banks in Nepal” an assessment of return and risk elements. He has concluded that, larger standard deviation seem to be able to produce higher rate 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 beta coefficient of variation, is less than that of the market as a whole for all the individual shares. Most of the shares falls under the category of defensive stocks (having beta coefficient less than 1) , except the shares of Bank of Kathmandu Ltd. return on shares of Nepal Arab Bank Ltd. is negative correlated with the return on the market portfolio and, therefore, it has negative beta coefficient. From the analysis it appears that none of the shares are correctly priced. Theoretically, the market price of overpriced shares (under priced) will fall (raise) in order to increase the expected return such that the expected return equals the required return. Therefore, shares of Nepal Arab Bank Ltd., Nepal Indosuez Bank Ltd. and

Himalayan Bank Ltd. which are overpriced relative to equilibrium thus market focus, will decline. The remaining shares appear to be under-priced indicating a possible positive long term price trends.

Poudel and Koirala (2006) carried out the study on, "Application of Markowitz and Sharpe models in Nepalese Stock Market" Concludes that as securities are added to a portfolio, the expected return and standard deviation change in very specific ways, based on the way. In which the added securities co-vary with the other securities in the portfolio. According to the Markowitz model, an investor who can live with a lot of risk might choose portfolio B. One of the major insights to the Markowitz model is that is a security's expected return, coupled with how it added to investor portfolios. Markowitz primary contribution consisted of developing a rigorously formulated, operational theory for portfolio selection under uncertainty. Due to the possibility of reducing the risk through diversification, the risk of the portfolio, measured as its variance, will depend not only on the individual variances of the return of different assets but also on the pair wise covariance of all assets. Hence, the essential aspect pertaining to the risk of an asset is not the risk of each asset in isolation but the contribution of each asset to the risk of the aggregate portfolio. However, the law of large numbers is not wholly because the returns on different assets are correlated in practice. Thus, in general, risk cannot be eliminated, regardless assets are correlated in practice. Thus, in general, risk cannot be eliminated, regardless of how many types of securities represented in a portfolio.

2.2.2 Review of Previous Thesis

Pramina Pandey (2000) comments a study in the title of "Risk and Return Analysis of common stock investment." In her study she has taken 7 listed companies data from 2049 to 2056 B.S.

She focused on following objectives:-

- a) To understanding and identify problems faced by an individual investor and insurance company.
- b) To calculate the risk and return of common stocks and their portfolio.
- c) To analyze the volatility of different stock of insurance companies and other variables that should be considered while deciding investment in stock.

She has used study design, population & sample and secondary data collection techniques as the methodology.

Her research findings are:

- (i) Based on market capitalization, size of NIC is the biggest one. Expected return on the common stock of NLGI is maximum (i.e. 65.39%). This high rate of return is due to unrealistic annual return in 2050/051 B.S. Expected return on common stock of HGL and ECL is lowest with negative value. In overall industrial sector, expected return of finance and industrial sector is highest. Overall, market expected return is 50%. Annualized return is unexpectedly high FY 2051/52 B.S. and then declines in the preceding years. This is all about return.
- (ii) When risk and return compared to different industries, finance and insurance is best as per highest expected return with higher degree of risk whereas trading industry has minimum return and risk.

In Nepal, however, in terms of the volume of transaction the situation of the capital market, according to NEPSE source has reminded quite optimistic, in aggregate, commercial banks occupy large percentage of traded amount whereas insurance sector is being low responsive towards its trading. Though it is difficult to estimate the exact volume of business potential in insurance, one can have a rough idea by looking at the insurance depth compared to the potentials in the business, the figure is too low, which is also agreed by both the insurance board and insurance companies they accuse government for not doing enough to realize the potentials. Premium collection per capital of population is quite less not even a dollar.

Mishra (2002) in his thesis paper, "Risk and Return on Common Stock investment of Commercial Bank in Nepal" has concluded that the relationship between risk and return is described by investor's perception about risk and their demand for compensation for the acceptance of risk. Hence, risk plays a central role in analysis of investment. Risk and return is getting considerable attention in financial field. Financial relation have been used for centuries as rule of thumb to aid in understanding trade of between risk and return but they only scratch the surface.

This study had analyzed that “High Risk High Return” because in this study it has found common stock of NGBL is most risky and Nepal SBI is least risky. Common stock of Everest Bank is most volatile. Common stock of Nepal Indosuez Bank is the least volatile and common stock of all the commercial banks is overpriced. Mr. Upadhaya has recommended for the portfolio construction, to select the stocks that have higher return with not correlated or negatively correlated stocks otherwise stock can not diversify risk properly.”

Bhatta (2002) in his master’s thesis, “Assessment of the Performance of listed Companies in Nepal” studied performances of listed companies is based on 10 listed companies data from 1990 to 1995.

The objective of his research is “To analyze the performance of listed companies in terms of risk and return i.e. expected rate of return, systematic risk and diversification of risk through portfolio context.”

Bhatta Addressed the following findings in risk return behaviour from the analysis of different stocks. The returns on these companies is not satisfactory but carry high risk. This company doesn’t maintain proper portfolio management for diversification of risk.

CHAPTER – III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a way for systematically solving the research problem. It indicates the method and process employed in the entire aspects of the study. It includes research design, sources of data, analytical tools, and procedures of collection and analysis of data. Research is systematic and organizational 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, analyzing and interpreting the data with the purpose of finding answer to the problems. This research is on the basis of historical data using both financial and a statistical tool performs detail analysis of different variables. Results are presented in simple way. Details research methods are described in following headings.

3.2 Research Design

Research design is necessary to fulfill the objectives of well set research. Research design is the arrangement of condition for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure the research design the conceptual structure with in which research is conducted. It may be defines as framework, plan and structure for collecting analyzing and evaluating data. It is a procedure and techniques, which provide ways for research viability. This research is belongs to risk and return analysis so that this research is based on recent historical data, which covers the five years period data from the fiscal year 2008/2009 to 2012/2013. It deals with the common stocks of commercial banks on the basis of available information. As title of the study suggests, it is more analytical and empirical but less descriptive. For the analytical purpose reports of different agencies and sample institutions were collected.

3.3 Nature and sources of data

The study is mainly based on secondary data. The secondary data are as follow:

- a) Annual report of selected banks.
- b) Annual report of securities board of Nepal.

- c) Previous research studies, dissertation and articles on the subject.
- d) Website of NEPSE www.nepalstock.com and periodicals articles of NEPSE.

Data related to the market prices of stocks, market capitalization, movement of NEPSE index etc.

3.4 Population & Sample

The total of 119 Nepalese enterprises is listed in stock exchange. Among of them are altogether 22 commercial banks. Among of them only three commercial banks are taken as a sample banks for the study. There are:

- 1) Nabil Bank Limited.
- 2) Everest Bank Limited
- 3) Himalayan Bank Limited

3.5 Data Collection Procedure

The study uses three commercial banks for the study from the leading enterprise and they seem to have representative of Nepalese commercial banks as a whole to analyze the market prices of stock from the published annual report, annual general meeting, unpublished office records, journals, newspaper, government and university publication & relation internet sites have been sources of secondary information. In process of completion of data processing, the data were processed in computer through Ms excel, SPSS program and then classified and tabulation was done according to need of the study.

3.6 Method of Analysis

To achieve the objectives of research, this study has used various financial and statistical tools that are necessary to find out the results. The following tools shall analyze the data resented in the study.

3.6.1 Financial Tools

3.6.1.1 Return on Common stock investments (R)

It is known as realized rate of return or single period rate of return, denoted R is simply the total return on investor would receive during investment period or holding period stated as a percentage of the investment's price at the start of the holding period. It includes the cash dividend paid during the y ear together with an

appreciation in market price or capital gain, realized at the end of the year. More formally the one period rate of return is:

$$R = \frac{(\text{Ending Price} - \text{Beginning Price}) + \text{Dividend}}{\text{Beginning Price}}$$

Symbolically,

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

Where,

- R = Actual rate of return on common stock
- D_t = Cash dividend received at time t
- P_t = Price of stock at time t
- P_{t-1} = Market price at the end of period t-1

3.6.1.2 Expected Rate of Return on Common Stock E (R_j)

One of the major aims to find out the expected return on the investment in common stock.

Usually this rate is obtained arithmetic mean of the past years return. Symbolically R_j can be expressed as follows:

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

Where,

- E (R_j) = Expected rate of return on stock j
- R_j = Return on stock j
- N = Number of years that the return is taken
- ∑ = Sign of summation

3.6.1.3 Return on Market

It is the percentage increase in NEPSE index. Market return is the average return of the market as a whole. It is calculated as,

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

Where,

- R_m = Return on market

NI_t = NEPSE index at time t

NI_{t-1} = NEPSE index at the end of the period t-1

3.6.1.4 Expected Return on Market E (Rm)

It is the average return of future expectation. It is calculated by summing up the past return and dividing by the number of sample periods.

$$E(R_m) = \frac{\sum R_m}{n}$$

Where,

$E(R_m)$ = Expected return on Market

N = Number of sample Periods

ϕ = Sign of Summation

3.6.1.5 Standard Deviation (SD)

The concept of standard deviation was first introduced by Karl Pearson in 1883. It is the most usual measure of dispersion and it represents the square root of the variance of a group of numbers i.e. the square root of the sum of the squared difference between a group and their arithmetic mean. The S.D. measures the absolute dispersion or variability of distribution, the greater the amount of dispersion or variability the greater the standard deviation for the greater will be the magnitude of the deviations of the values from their mean. Finally, we can say that it is the square root of the variance and measure the unsystematic risk of stock investment. Higher S.D represents high risk and vice-versa. Generally it is denoted by small Greek letter σ (read as sigma) and is obtained as,

(i) If data given as time series,

$$\sigma = \sqrt{\frac{\sum [R_j - E(R_j)]^2}{n}}$$

(ii) If data probability distribution,

$$\sigma = \sqrt{\sum [R_j - E(R_j)]^2 P_j}$$

Where,

- \exists_j = Standard Deviation of return stock j during the time period n.
- P_j = Probability Distribution of the observation
- R_j = Single Period rate of return on stock j.
- $E(R_j)$ = Expected rate of return on stock j.
- n = Number of years that the returns are taken.

3.6.1.6 Coefficient of Variation (C.V)

Karl Pearson developed this measurement to measure the relative dispersion. It is used in such problems where we want to compare the variability of two or more series. The series (or group) for which the coefficient of variation is greater is said to be more variable conversely less consistent, less uniform, less stable or less homogenous. It is denoted by (c.v.) & denoted by ration of standard of return to the mean of that distribution.

$$C.V \times \frac{\dagger_j}{E(R_j)}$$

Where,

- C.V = Coefficient of variation.
- \exists_j = Standard deviation of return on stock j.
- $E(R_j)$ = Expected return on stock j.

3.6.1.7 Beta Coefficient (S)

Beta coefficient shows the market sensitivity of stock. Higher the beta, grater the sensitivity and reaction to the market movement. Beta coefficient of a particular stock will be less than equal or more than I, but the beta for market will be always 1. Stock can be classified as aggressive or defensive or average depending on the value of beta coefficients.

Beta (β)	Stock Classification	Degree of Risk
Exactly 1	Average Stock	Equally risky as market
Greater than 1	Aggressive stock	More risky than the market
Less than 1	Defensive stock	Less risky than the market

Beta Coefficient can be expressed as follows:

$$S_j \times \frac{Cov(R_j R_m)}{\dagger_m^2}$$

Where,

- $\text{Cov}(R_j, R_m)$ = Covariance of the return on stock j and market return
- σ_m^2 = Variance of the return on the market portfolio
- R_m = Required rate of return on the market portfolio of securities.

3.6.1.8 Portfolio Return E (RP)

Portfolio is a combination of two or more than two securities. The rate of return on a portfolio is a weighted average of the returns for securities making up that portfolio the weights are equal to the proportion of total funds invested in each security.

$$E(R_p) = \sum_{j=1}^n W_j R_j$$

Where,

- $E(R_p)$ = Expected return on portfolio
- W_j = the proportion of total funds invested in security j
- R_j = the expected return on security j
- n = Total number of securities in the portfolio

3.6.1.9 Portfolio Risk (σ_p)

The risk of a portfolio is a simple weighted average of standard deviation of the individual securities. Portfolio risk depends not only on the riskiness of the securities. Constituting the portfolio but also on the relationship among those securities. The symbolically in case two assets, portfolio can be expressed as follows:

$$\sigma_p = \sqrt{W_A^2 \sigma_A^2 + W_B^2 \sigma_B^2 + 2W_A W_B \sigma_A \sigma_B \rho_{AB}}$$

Where,

- σ_p = Portfolio risk
- W_A = Proportion of stock A held in the portfolio
- W_B = Proportion of stock B held in the portfolio
- ρ_{AB} = Correlation between Stocks

3.6.1.10 Risk Minimizing Portfolio

It is the portion of stock that will minimize the possible unsystematic risk. Symbolically Risk Minimizing Portfolio can be expressed as follows:

$$W_A = \frac{\sigma_B^2 \text{Cov}(X_A, X_B)}{\sigma_A^2 \sigma_B^2 + \text{Cov}(X_A, X_B)^2}$$

Where,

W_A = Weight or proportion of assets A that minimize risk of portfolio of stock A and B

σ_A = Standard deviation of Assets A

σ_B = Standard deviation of assets B

$\text{Cov}(\hat{r}_A, \hat{r}_B)$ = Covariance between return of A and B

3.6.1.11 Required Rate of Return (K_j)

Required rate of return is minimum expected rate of return needed to induce on invest his/her fund. It is always more than less rate of return. Normally, when an individual investment is giving higher rate of return this type of investment is known as under-priced investment. Such under priced assets should be purchased. On the other hand, if the realized rate of return is less than required rate of return of particular assets. It is said to be overpriced assets. Such assets should not be purchased, instead if one is holding such it should be sold immediately. Symbolically required rate of return can be expressed as follows:

$$K_j = R_f + (R_m - R_f) b_i$$

Where,

K_j = Required rate of return on security j

R_m = Expected Return on market return

R_f = Risk free rate of return

B_i = Beta Coefficient

3.6.1.12 Portfolio Beta (bp)

The beta of a portfolio can be easily estimated using the beta of the individual assets it includes. Symbolically, portfolio beta coefficient can be expressed as follows:

$$\text{Portfolio beta (bp)} = \sum W_j b_i$$

Where,

W_j = Proportion of portfolio's total rupees value represented by assets j

B_i = Beta Coefficient of assets j

B_p = Portfolio beta coefficient

Portfolio betas are interpreted in the same way as individual assets betas. They indicate the degree of responsiveness of portfolio's return to changes in the market return.

3.6.2 Statistical Tools

3.6.2.1 Correlation Coefficient

According to I. Levin (2001:125) correlation analysis is the statistical tools that we can use to describe the degree to which one variable is linearly related to another. The correlation analysis refers to techniques used in measuring the closeness of the relationship between the variables. It helps us in determining the degree of relationship between two or more variable. It does not tell us anything about cause and effect relationship. It describes not only the magnitude of correlation but also its direction. The correlation coefficient is a number, which indicates to what extent two variables are related to what extent variations is one go with the variations in the other. The value of correlation coefficient obtained and always lies between $\{-1, 1\}$. A value of -1 indicating a perfect negative relationship between the variables, +1 indicating positive relationship and zero indicating no relationship. The zero correlation coefficient means the variables are uncorrelated. Similarly, a high correlation coefficient reveals the two variables move together but does not indicate cause and effect. In other words, the closer is to +1 or -1 the closer the relationship between the variables and closer r is to zero (0), the less close relationship between two variables, whether direct or inverse, while the numerical value of the coefficient is concerned with the strength or closeness of the relationship between two variables. The correlation coefficient denoted by,

$$r_{xy} = \frac{\text{Cov}(x, y)}{\sigma_x \sigma_y}$$

3.7 Limitation of Study

Every research has its own limitation and this study will conduct within the following limitation and constraints.

- i. The study has taken into consideration the data of only five years (2005 to 2010) and three commercial banks. They are as follows:

- (1) Nabil Bank Ltd.
- (2) Everest Bank Ltd.
- (3) Himalayan Bank Ltd.
- ii. The research will be based upon the data provided by Nepal stock Exchange and concerned banks, their published reports and website of related organizations. The data will not be verified.
- iii. The study would limit only listed commercial banks in NEPSE and stock market in Nepal.

3.8 Definition of Key Terms:

3.8.1 Dividend (D)

Dividend is reward to the shareholders is the part of earning that is distributed to the shareholders as a part of their investment. It represents the percentage of earning that firm pays in cash and some time in stock. If the company declares the dividend in cash there is no problem while taking the exact amount of dividend. When it declares in stock dividend the shareholders will receive extra number of shares. Which indicates noting more than recapitalization of the company; stock holders proportional ownership remained unchanged due to the declaration of stock dividend price of stock declines because of increasing the number of share in total. For the calculation of following model can be used.

If price of stock declines, at this condition,

$$\text{Total dividend amount} = \text{cash dividend} + \text{Stock Dividend\%} \mid \text{Next years MPS}$$

Sometimes the company issued right shares at par. In this situation we can calculate total dividend amount by this model

$$\text{Total dividend amount} = \text{cash dividend} + \text{right share \% (Next year MPS - Price of right share)}$$

3.8.2 Earning Per Share (EPS)

Earning per share simply shows the profitability of the banks on a per share basis. EPS is computed to know the earning capacity and to make comparison between

concerned banks. The ratio can be computed by dividing the earning available to common stock holders by total number of common stock outstanding of banks thus,

$$\text{EPS} = \frac{\text{Earning available to common stock holders}}{\text{No. of common stock outstanding}}$$

3.8.3 Market Price of stock (MPS)

Market price of stock is one of major variables of this study among high, low and closing price of each year are available. This is one of the major data of this study. Each year closing price has been taken as market price of the stock, which has specific time span of one year and the study, has in annual basis. Closing price is used as market price of stock. Due to the variance in price within a year. It is difficult to predict the market price. Although average price could be used as market price. It is also so complex to collect the day's price of five-year period. On the other hand average of high and low price is assumed not to be reliable and representative information. Therefore, it is appropriate to use closing price as a market price.

CHAPTER – IV

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with data presentation analysis and interpretation following research methodology detail in the third chapter. In this chapter gather data are presented, compared and analyzed with the help of different tools i.e. financial and statistical tools. The results of computation have also been summarized in appropriate tables.

4.1 Analysis of Individual Commercial Bank

As the study has taken commercial bank as reference common stock of listed commercial banks are analyzed here individually. Among seventeen commercial banks operating in Nepal, only thirteen of them are listed in NEPSE, among those study has taken five sample commercial banks. Each five commercial bank and their common stocks risk and returns are analyzed here.

4.1.1 Nabil Bank Ltd.

Market price, dividend paid and EPS of common stock of NABIL Bank Ltd are shown in table 4.1 and year and price and EPS movement shown in figure 4.1.

Table 4.1: MPS, Dividend and EPS data of NABIL Bank Ltd.

Year	Closing MPS	Total Dividend	EPS
2008	430	30	-
2009	700	50	67.84
2010	1400	55	83.79
2011	1500	40	59.26
2012	735	30	55.25
2013	735	50	84.66

Source: web page NEPSE (www.nepalstock.com)

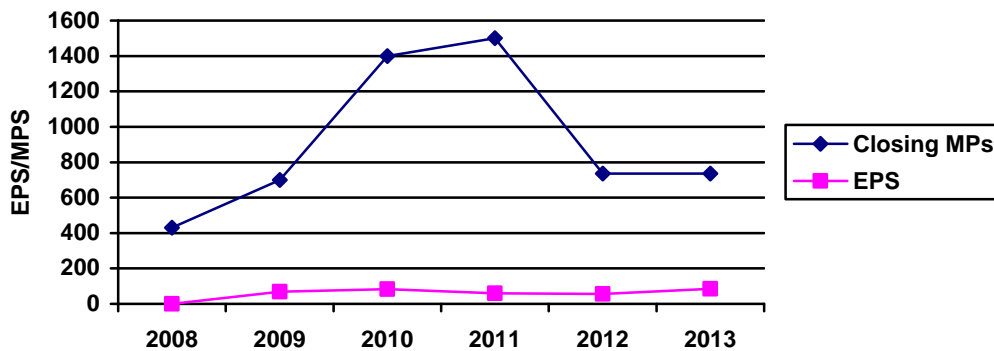


Figure: 4.1: Year End Price and EPS movement of NABIL Bank Ltd.

From table 4.1 and figure 4.1 the closing M.P.S is highest in year 2008 and lowest in year 2005 E.P.S is higher in 2003 and lowest in 2003.

4.1.2 Himalayan Bank Ltd

Market price, dividend paid and EPS of common stock of Himalayan Bank Ltd are shown in table 4.2 and year and price and EPS movement shown in figure 4.2

Table 4.2: MPS, Dividend and EPS data of Himalayan Bank Ltd

Year	Closing MPS	Total Dividend	EPS
2008	755	50	-
2009	1000	50	68.85
2010	1700	50	83.08
2011	1500	50	93.57
2012	1000	50	60.26
2013	836	2527.50	49.45

Source: web page NEPSE (www.nepalstock.com)

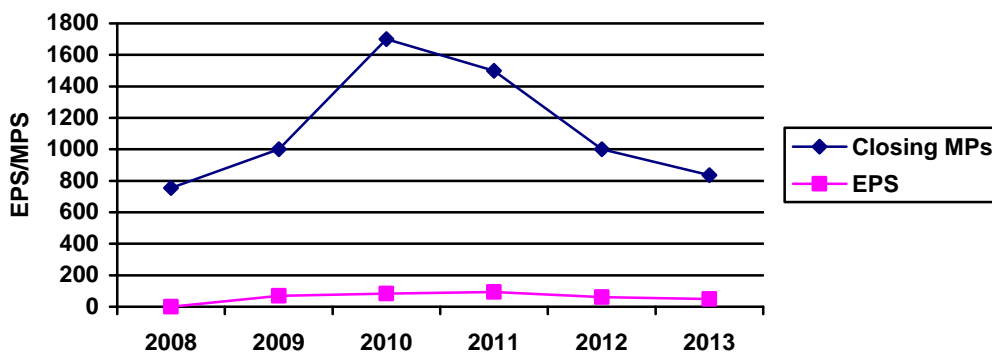


Figure: 4.2: Year End Price and EPS movement of Himalayan Bank Ltd.

From table 4.2 and figure 4.2 M.P.S is highest in year 2007 and lowest in year 2007 and lowest in year 2005. E.P.S is highest in 2008 and lowest in 2010.

4.1.3 Everest Bank Ltd

Market price, dividend paid and EPS of common stock of Everest Bank Ltd. are shown in table 4.3 and year and price and EPS movement shown in figure 4.3.

Table 4.3: MPS, Dividend and EPS data of Himalayan Bank Ltd

Year	Closing MPS	Total Dividend	EPS
2008	184	0	-
2009	407	15	21.03
2010	980	0	34.85
2011	750	0	14.65
2012	430	0	32.91
2013	445	20	29.90

Source: web page NEPSE (www.nepalstock.com)

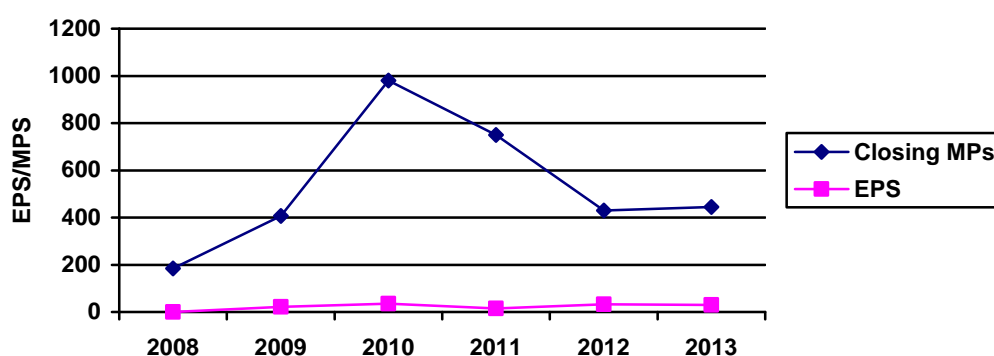


Figure: 4.3: Year End Price and EPS movement of Everest Bank Ltd.

From table 4.3 and figure 4.3 the closing M.P.S. is highest in year 2007 and lowest in year 2005 E.P.S. is highest in 2009 and lowest in 2008.

4.2 Expected return on Market (R_m)

NEPSE index represented the over all movement of market. Market return on the market portfolio of all traded securities.

Table 4.4: Expected return of market Portfolio

Year	NEPSE Index	Market Return (Rm)	Return in %	(Rm-Rm _{avg})	(Rm-Rm _{avg}) ²
2008	163.35	-	-	-	-
2009	216.92	0.3279	32.79	22.59	510.31
2010	360.70	0.6628	66.28	56.08	3144.97
2011	348.43	-0.0340	-3.40	-13.602	185.01
2012	227.54	-0.3470	-34.70	-44.90	2016.01
2013	204.86	-0.0996	-09.96	-20.16	406.43
Total			51.01		6262.73
Average			10.202		

(i) Average market return (R_m) $\times \frac{NEPSE_{T_{\Gamma 1}} \sum NEPSE_T}{NEPSE_T} \times 10.202.$

(ii) S.D. of market Return ($\uparrow m$) $\times \frac{\phi(R_m \sum R_m)}{n} \times 35.39$

(iii) Coefficient of variation (c.v.) = $\uparrow m / R_m \times \frac{35.39}{10.202} \times 3.46$

(iv) Variance of return on the market portfolio ($\exists m$)² = (.2888)² = 0.0834

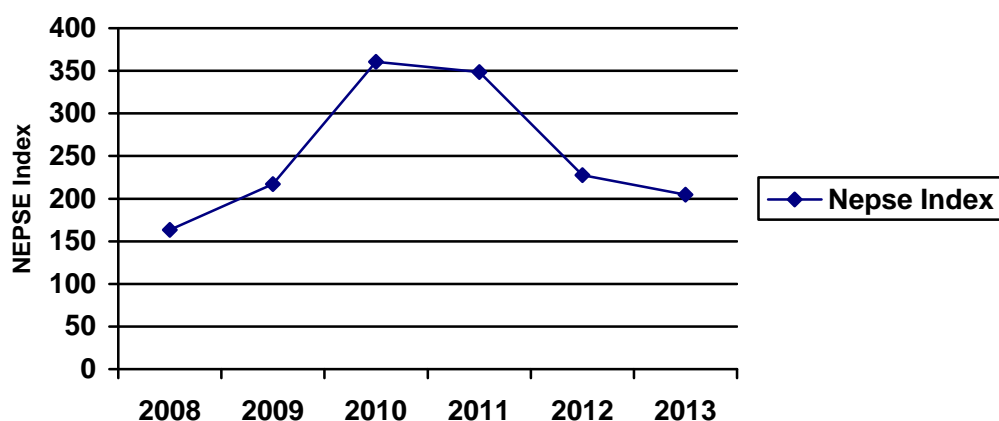


Figure: 4.4: NEPSE index movement

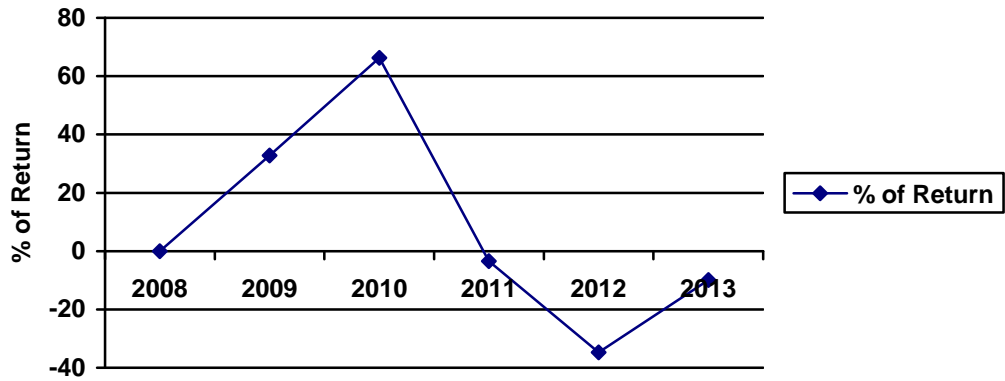


Figure: 4.5: Market Return Movement

Figure 4.4 shows that expected return on market touches its highest point in and after that decreasing year by year. Average return on market portfolio is 10.202, total risk on market standard deviation is 35.39 and coefficient of variation which measures risk per unit of return on market , is 3.46.

4.3 Risk and Return Analysis

Risk and Return are two crucial phenomenon's in world of investment. There is always linear relationship between risk and return. As the return goes in increase, the risk also increase. Hence, a rational investor has to consider the various aspects relating to risk and return associated with investment while taking an investment decision. In following section, various aspects of risk and return have been briefly explained in response to the five sampled companies.

Table 4.5: summary of Risk and Return Analysis

Particulars	NABIL	HBL	EBL
E (R)	30.016	11.970	42.430
ΣR	55.160	39.240	77.450
C.V.	183.770	327.820	182.540
σ	1.540	1.100	2.060
ρ	0.989	0.990	0.940
ρ^2	0.634	0.895	0.430
1- ρ^2	0.366	0.105	0.570
K_j	13.540	10.820	16.750
Remark	E(R) > K_j	E(R) > K_j	E(R) > K_j
	Under Priced	Under Priced	Under Priced
<i>Mkt Retrtn (R_m) =10.202, Total (σ_m)=35.39, Risk free rate (R_f) = 4.024, C.V.=28.83, Beta coeff. (S_m)=1</i>			

Annex: i to iii

4.3.1 Risk

4.3.1.1 Total risk/standard deviation (σ_R)

Standard deviation is a strong statistical device to measure the total risk involved in an investment that consists of both market risk and diversifiable risk. It denotes the volatility of the rate of return that is required. Regarding to this less standard deviation indicates less risk and vice versa. The total risks of sampled banks are 55.16%, 39.24% & 77.45% respectively. The risk associates in EBL stock observed maximum of 77.45% and minimum of 39.24% in HBL stock. In case of HBL it has less return among samples and has less risk. Similarly EBL position found well because of having more risk. It notices that stocks having less risk have less return and vice versa. The standard deviation of EBL is 77.45% means there is 77.45% of variability of possible to achieve 42.33% of return in case of EBL stock. But it is not solely the yardstick to taking decision which banks have less risk.

For six years of study, there is 10.202% of the average market rate of return, where as the risk free rate of return has remained only 4.024 percent on average. The standard deviation of market return is 35.39%, which denotes that the market rate of return, 10.202% can be deviated by 35.39%. This is an average percentage if individual company's standard deviation is considered. Hence, there exist an average volatility or risk level in the market return than in the individual common stock investment.

4.3.1.2 Coefficient of Variation (CV)

The coefficient of variation is used to standardize the risk per unit of return. As regards the coefficients of variation of the sampled companies, the highest is 327.82% and the lowest of 182.54% in the case of HBL and EBL respectively. This implies that there exists the highest 327.82% risk per unit of return for HBL where as it is lowest 182.54% for EBL.

4.3.1.3 Beta Coefficient (β_j)

Standard deviation measures the total risk of an investment, whereas the beta coefficient measures only the market sensitivity or systematic risk of an investment. Analysis of market sensitivity means analysis of beta coefficient, which gives a very useful insight in the analysis and the selection procedure of the common stock in the

secondary market. In this beta coefficient of individual stock is computed and compared with average market as a whole and the similar companies in the same industry. An average stock is defined as one that tends to move up and down in step with general market as measured by some index, which is only available by NEPSE index in Nepalese context. The analysis of beta coefficient explains the sensitivity of market where the stock is categorized into aggressive and defensive. It defines that one percent variation in the market rate of return leads variation or not in an individual stock. If the beta coefficient is less than one the such types of stock is categorized in to defensive stock i.e. less volatile than the market and otherwise categorized into aggressive stocks i.e. more volatile than the market. Beta is a measurement of systematic risk, which can't be diversifiable and directly associated with market phenomenon.

According to the table, it is observed that the beta coefficients are 1.54, 1.10 & 2.06 respectively of sampled banks. The all stock of sampled banks can be categorized as aggressive stocks because of having more than market beta coefficient. The beta coefficient of EBL is 2.06 that indicate highly sensitive in the market and implies that one percent variation in the market rate of return leads to 2.06% of variation in its 42.43% of expected rate of return. From the investors point of view it should be evaluated while taking decision to hold stocks or to make portfolio, higher the expected return with less CV and with beta coefficient having near value to one.

4.3.1.4 Correlation (†)

The correlation coefficient, denoting the relationship between the market rate of return and rate of return on individual stock investment are 0.9894, 0.9 & 0.94 respectively. This shows that there exists a positive relationship between market return and common stock investment return of all sampled companies. Moreover it seems there is highest positive relationship between market return and HBL return and is the lowest positive relationship between market return and EBL return. That indicates they move toward same direction, it means while market return increases that leads to an increase in their return in common stock of sampled banks.

4.3.1.5 Systematic Risk (\uparrow^2)

The percentage of risk that is correlated with the market is said to be the systematic portion of risk. As market changes guide this portion of risk, it is difficult to get under control, so it is also known as an un-diversifiable risk. So far as the systematic portion of risk is concerned, the coefficients of determination for the sampled companies are 0.634, 0.8947 & 0.43 respectively. This indicates that out of the total risk consisted in an individual stock investment of NABIL, HBL & EBL 63, 89 & 43% of risk are directly related to market respectively. Here the stock of HBL has maximum portion of systematic risk (89%) whereas lowest systematic risk consists in the stock of EBL (43%). So while in job of taking decision regarding to this, lowest of the systematic risk has been preferable due to un-diversifiable nature of risk.

4.3.1.6 Un-Systematic Risk ($1-\uparrow^2$)

It is that portion of risk, which is concerned with the internal factors of individual firm or industry not concerned with the ups and downs taken place in the market. It arises due to internal weakness or inefficiencies so it can be minimized or eliminated with effective management. Out of the total risk associates with common stock investment of sampled companies 0.366, 0.105 & 0.57% of risk are unsystematic or diversifiable respectively. Here EBL stocks consist of highest 57% of such risks, where as HBL common stock lowest 10.5%.

4.3.2 Return

4.3.2.1 Required Rate of Return (K j)

The required rate of return is the minimum expected rate of return needed to induce an investor to invest his/her fund. It is always more than risk less rate of return. Normally, when an individual investment is giving higher return, i.e. the expected rate of return is higher than its required rate of return, this type of investment is known as under priced investment (assets). Such under priced assets should be purchased. On the other hand, if the realized rate of return is lesser than the required rate of return of a particular asset, it is said to be overpriced assets. Such asset should not be purchased; instead, if one is holding such asset, it should be sold immediately.

Hence the required rates of return for the sampled banks are 13.54, 10.82 & 16.75% respectively. All sampled banks expected rate of return is greater than their required rate

of return, these companies' common stocks are worth purchasing as they are realizing a greater rate of return than needed. The common stock of EBL is the highest at 16.77% among the sampled banks and HBL's required rate of return is the lowest at only 10.82%.

4.3.2.2 Expected Rate of Return E (r)

It is 30.016%, 11.97% & 42.33% for NABIL, HBL & EBL respectively. It is obvious from the above figure that EBL's common stock is realizing the highest percent of return (42.33%) whereas it is the lowest in the case of HBL's stock (11.97%). In relation to other banks, EBL, NABIL and HBL have 42.33%, 30.016% & 11.97% respectively. The investors who seek for value maximization prefer the stock of EBL which indicates that the shareholders of EBL get 42.33% possible return over the five-year holding period.

4.4 Major Finding of the Study

- a) Under Book Value to market value ratio of NABIL is categorized as value stocks whereas HBL and EBL as growth stocks.
- b) The price sequences of MPS of each sample bank are not randomly moving that imply the movement of stock price is dependent on historical prices.
- c) Return on common stock of EBL is the highest at 42.43%, whereas the lowest return is 11.97% in the case of HBL.
- d) From the side of risk concept, the stock of EBL consists the highest level of total risk at 77.45% whereas the stock of HBL consists the lowest level of risk at 39.24% and remaining banks have a portion of total risk in accordance with their rank of return.
- e) As a result of CV, the involvement of total risk in per unit return is less in the stock of EBL comparatively, whereas more in the stock of NABIL & HBL.
- f) EBL is more aggressive to market changes as revealed by the highest beta coefficient of 2.06 and this is followed by NABIL and HBL respectively.
- g) All the sampled banks show positive correlation between the market rate of return and the return of individual stock, among them the strong relationship exists between HBL, NABIL and EBL.
- h) HBL has the maximum portion of systematic risk and in opposition EBL has the lowest systematic risk.
- i) The stocks of all sampled banks are underpriced since their expected rate of return is higher than their respective required rate of return.

CHAPTER -V

SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Summary

Investment planning is almost impossible without a through understanding of risk. There is a risk/return trade off. That is the greater risk accepted, the greater must be the potential return as reward for committing one's funds to an uncertain outcome. Generally, as the level of risk rise, the rate of return should also rise and vice versa.

In economics in general and investment in particular the standard assumption is that investors are rational. Rational investor prefers certainty to uncertainty. It is easy to say that investors dislike risk, but more precisely, we should say that investors are risk averse. A risk-averse investor is one who will not assume risk simply for its own sake and will not incur any given level of risk unless there is an expectation of adequate compensation for having done so.

The study regards only to common stock investment, which is most risky security and lifeblood of stock market. As overall economy Nepalese stock market is in emerging state. After restoration of democracy in 1990 its developing is acceleration. But the stock market shows the diminishing trend of NEPSE index. Capital market facilitates risk sharing among those who demand risk avoidance and those who supply it. There is a market price of risk just as there is a market price for anything else. In other words, it can be said that the rate of return on investment is a function of many factors including the real cost of money, inflation, risk etc. The investors willingly offer more capital at higher rate of return where as user of capital always show their readiness to use more capital at lower rate. Common stock is a source of capital, which is considered to be riskier. The investment in common stock is very sensitive on the ground of the risk dividends to common stockholders are paid only if the firm makes an operating profit after tax and preference dividend.

The company can return the principal in case of its liquidation only to the extent of the residual assets after satisfying to all of its creditors and preferential shareholders. Besides this, the investors have to sacrifice the return on their investment in common

stocks, which could be earned investing elsewhere. A present C.S. has attracted more investors in Nepal. Rush in the primary market during primary issue is one of the examples. Private C.S. holders are passive owners of the company. But private investor plays a vital role in economic development of the nation by mobilizing the dispersed capital remained in different form in the society.

The main objective of the study is to analyze the risk and return of the common stocks in Nepalese stock market. The study is focused on the common stock of commercial banks. Thus listed three commercial 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. And tables graph and diagrams are used to present the data and results. Secondary data are collected from the NEPSE, NRB and other related books. Other subjective types of information are collected through personal interviews.

5.2 Conclusions

In general, most people see stock market investment as a black art that they know little about. Many people have unrealistically optimistic or pessimistic expectations about stock market investment or perhaps a fear of the unknown.

This study enables investor to put the returns they can expect and the risk they ay take into better perspective.

Nepalese stock market is in emerging state. Its development is acceleration since the political change in 1990 in effect of openness and liberalization in national economy. But due to the lack of information and poor knowledge, Nepalese individual investors cannot analyze the security as well as market properly.

The stocks were yielding unusually high return with respect to the amount of the systematic risk they bear during the study period. So the high return makes the stock undervalued and in future the demand for those stocks will increase and the price of the stock will further increase for the equilibrium state.

Most of the Nepalese private investors invest in single security. Some of the investor uses their fund in two or more securities. But it is found that they don't make any

analysis of portfolio before selecting. They invest their found in different securities on the basis of expectation and assumption of individual security rather than analysis of the effect of portfolio.

Diversification of fund by making a portfolio can reduce unsystematic risk of the individual security significant if investor selects the appropriate securities for investment, which have highly negative correlation of returns, they can eliminate the unsystematic risk totally. If the correlation between the returns of two stocks is highly positive, risk reduction is not so significant. So, the portfolio between the C.S. of same industry cannot reduce risk properly.

The point should be noted here is although there is a decrease in S.D., which may be favorable for highly risk averse investor but the return that one can get, has also been decreased by huge margin. Before constructing portfolio giving the view only on risk and ignoring return will be ridiculous. Because investor will lose huge return he would have earned. Hence, balancing between these two terms, with giving and to make an investment decision will be beneficial.

At Nepalese investors do not seem so professionalism in respect of trading of shares, they are holding the shares for dividend and further price appreciation and only few investors are seeking for price on regular basis. Further, Nepalese investors are getting the less return from their investment however this much is higher than other sectors. The involvement of trading activities in stock market seems increasing in trend now a day.

5.3 Recommendation and Suggestions

Basically this study has focused on individual investors. Moreover other components of stock market are also considered to some extent. Based on the analysis of data and major findings of this research following recommendations and suggestions are prescribed.

- a) It is possible to conquer the stock market. But proper analysis of individual security. Industry and overall market is always needed. General knowledge about economic political and technological trend will be advantageous. To win the

market, hold share when the market is rising and hold safer investment when it is falling and hold shares, which will perform better than the market.

- b) Investment should be done to make money, not to cover up losses. It is possible to beat the stock market. Investment should be done. With clear objectives and better to investigate before investing.
- c) One of the most important things to consider when choosing investment strength is the balance between risk and return that you are comfortable with.
- d) Investment in common stock is a risky job, as they do not guarantee the return to initial investment. Although there is a chance of more return than that is expected, there is also a chance of heavy loss. The stock market is indubitably risky in the short term and investor needs to be prepared for it investors should try and work out their attitude towards the riskiness of various investment strategies.
- e) Investors need to diversity their fund to reduce risk. Proper construction of portfolio will reduce considerable potential loss, which can be defined in terms of risk. But portfolio construction is a dynamic job, because efficient portfolio depends on market movement or sociopolitical change. For the portfolio construction select the stocks that have higher return with not correlated or negatively correlated stocks. Similar stocks cannot diversity risk properly.
- f) On seeing the investment priority of investors, majority of investors were found for banking and finance companies sector. So, taking action towards the unproductive manufacturing, trading, service, insurance and others should do diversification of investment in other sector. The company which is not performing their activities, should be removed from the list of the NEPSE. So, that the unproductive sector gives the productive result by running efficient way.
- g) Before making an investment decision in stock market assessment of personal risk attitude, needs and requirements will always be helpful. To make several discussions with stockbroker before reaching at the decision on the basis or reliable information rather than rumor and imagination will ultimately favor the investor. Investor should make their investment decisions based on financial parameters of the company. They should not rush over the rumors.
- h) Investment clubs are a good way to exchange investment ideas. In Nepal there are no any such types of club. Collective investment e.g. mutual fund is worth while for people with little interest investment. In addition it allows investors with

limited resources to obtain reasonable diversification. So sharing experience, ideas and taking view of expert will be of greater help.

- i) In this age of digital technology NEPSE is follow “open cry System” of trading. It needs to be modernized. It needs to develop efficient and effective information channel and to provide up to date data.
- j) NEPSE needs to initiate to develop different programs for private investors such as investor’s meetings and seminars in different subject matters like “Trading rule, and Regulations”, key factors that should be considered in stock investment etc.
- k) Some companies don’t renew their license of registration at NEPSE. NEPSE should take action on such companies.
- l) NEPSE should hire capable candidate so that they can analyze the economic pulse of the market and public easily belief listed companies.
- m) NEPSE should initiate promotional activities time to time. It should publish up to date data so that further research will be easy.
- n) The corporate firms should communicate the real financial statements. Value of assets and liabilities should not be manipulated to report the under or over profitability. Every decision of the corporation should be made to maximize the value of the firm and value per share.
- o) Investors should be provided with investment guidelines from news and media on periodically basis.
- p) Government needs to amend the rules and regulation regarding stock market in time to time and to make the policy that protects the individual investor right. And also need to follow up the implementation of rules and regulations and to make sure the objective is achieved. On that regard Government of Nepal needs to monitor and to make active all the components of stock market properly.

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ANNEX - I

For EBL Bank

Year	MPPS	Total Div/Share	Real Rate of Return (R)	Return in %	R-R avg	(R-R avg) 2	(R-R avg) (Rm-Rmavg)
2008	184	0	-	-	-	-	-
2009	407	15	1.29	129.35	86.92	7555.09	1963.52
2010	980	0	1.4	140.79	98.36	9674.69	5516.03
2011	750	0	-0.2346	-3.47	-65.9	4342.81	896.37
2012	430	0	-0.4267	-42.67	-85.1	7242.01	3820.99
2013	445	20	0.0814	8.1395	-34.29	1175.84	691.29
Total				212.1395		29990.44	12888.2
Average				42.4279			

$$\text{Expected Rate of Ret. Avg. Return } E(R) = \frac{\sum R}{n} = 42.43\%$$

$$\text{S.D. of Return} = \sqrt{\frac{\sum (R - \bar{R})^2}{n}} = 77.45\%$$

$$\text{Covariance } (R, R_m) = \frac{\sum (R - \bar{R})(R_m - \bar{R}_m)}{n} = 2577.64$$

$$\text{Correlation} = \frac{\text{Cov}(R, R_m)}{\sigma_R \sigma_{R_m}} = 0.94$$

$$\text{Beta Coefficient} = \frac{\text{Cov}(R, R_m)}{\sigma_{R_m}^2} = 2.06$$

$$\text{Systematic Risk} = \beta^2 \sigma_{R_m}^2 = 0.43$$

$$\text{Unsystematic Risk} = 1 - \beta^2 = 0.57$$

$$\text{Required Rate of Return} = R_f + \beta(R_m - R_f) = 16.75\%$$

ANNEX - II

For HBL Bank

Year	MPPS	Total Div/Share	Real Rate of Return (R)	Return in %	R-R avg	(R-R avg) 2	(R-R avg) (Rm-Rmavg)
2008	755	50	-	-	-	-	-
2009	1000	50	0.3907	39.07	27.1	734.41	612.19
2010	170	50	0.75	75	63.03	3972.78	3534.72
2011	1500	50	-0.0882	-8.82	-20.794	432.39	282.84
2012	1000	27.5	-0.315	-31.5	-43.47	1889.64	1951.8
2013	836	25	-0.139	-13.9	-25.87	669.26	521.54
Total				59.85		7698.48	6903.09
Average				11.97			

$$\text{Expected Rate of Ret. Avg. Return } E(R) = \frac{\sum R}{n} = 11.97\%$$

$$\text{S.D. of Return} = \sqrt{\frac{\sum (R - \bar{R})^2}{n}} = 39.24\%$$

$$\text{Covariance } (R, R_m) = \frac{\sum (R - \bar{R})(R_m - \bar{R}_m)}{n} = 1380.62$$

$$\text{Correlation} = \frac{\text{Cov}(R, R_m)}{s_r \cdot s_m} = 0.99$$

$$\text{Beta Coefficient} = \frac{\text{Cov}(R, R_m)}{s_r \cdot s_m} = 1.10$$

$$\text{Systematic Risk} = \beta^2 \cdot \frac{s_m^2}{s_r^2} = 0.8947$$

$$\text{Unsystematic Risk} = 1 - \beta^2 = 0.105$$

$$\text{Required Rate of Return} = K_j = R_f + \beta(R_m - R_f) = 10.82\%$$

ANNEX - III

For NABIL Bank

Year	MPPS	Total Div/Share	Real Rate of Return (R)	Return in %	R-R avg	(R-R avg) 2	(R-R avg) (Rm-Rmavg)
2008	430	30	-	-	-	-	-
2009	700	50	0.7442	74.42	44.4	1971.36	1003
2010	1400	55	1.0786	107.86	77.84	6059.07	4365.27
2011	1500	40	0.1	10	-20.02	400.8	272.31
2012	735	30	-0.49	-49	-79.02	6244.16	3547.99
2013	735	50	0.068	6.8	-23.22	539.17	468.12
Total				150.08		15214.56	9656.69
Average				30.016			

$$\text{Expected Rate of Ret. Avg. Return } E(R) = \frac{\sum R}{n} = 30.016$$

$$\text{S.D. of Return} = \sqrt{\frac{\sum (R - \bar{R})^2}{n}} = 55.16$$

$$\text{Covariance } (R, R_m) = \frac{\sum (R - \bar{R})(R_m - \bar{R}_m)}{n} = 1380.62$$

$$\text{Correlation} = \frac{\text{Cov}(R, R_m)}{s_r \cdot s_m} = 0.9894$$

$$\text{Beta Coefficient} = \frac{\text{Cov}(R, R_m)}{s_r \cdot s_m} = 1.54$$

$$\text{Systematic Risk} = \beta^2 \cdot \frac{s_m^2}{s_r^2} = 0.634$$

$$\text{Unsystematic Risk} = 1 - \beta^2 = 0.366$$

$$\text{Required Rate of Return} = K_j = R_f + \beta(R_m - R_f) = 13.54\%$$