COMPARATIVE ANALYSIS OF RISK AND RETURN ON COMMON STOCK INVESTMENT OF NSBIL, NABIL AND HBL

A Thesis

Submitted

By

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Certification of Authorship

I hereby certify that I am the author of this document and that any assistance I received in its preparation is fully acknowledged and disclosed in the document. I have also cited all sources from which I obtained data, ideas or words that are copied directly or paraphrased in the document. Sources are properly credited according to accepted standards for professional publications. I also certify that this research project report was prepared by me for the purpose of partial fulfillment of requirements for the MBS degree of Faculty of Management, Tribhuvan University

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Date: September, 2019

RECOMMENDATION LETTER

It is certified that thesis entitled **Comparative Analysis of Risk and Return on Common Stock Investment of NSBIL, NABIL and HBL** submitted by **Sumitra Sharma** is an original piece of research work carried out by the candidate under my supervision. Literary presentation is satisfactory and the thesis is in a form suitable for publication. Work evinces the capacity of the candidate for critical examination and independent judgement. Candidate has put in at least 60 days after registering the proposal. The thesis is forward for examination.

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APPROVAL SHEET

We, the undersigned, certify that we have carefully read the research project report submitted by **Sumitra Sharma** and conducted the viva-voce examination of the candidate. We are fully satisfied with the quality and academic standard of the research project report. The candidate has defended his research work very satisfactorily. We therefore recommend that the research project entitled "**Comparative Analysis of Risk and Return on Common Stock Investment of NSBIL, NABIL and HBL**" be accepted as partial fulfillment of the requirements for the award of the degree of **Master of Business Studies (MBS)** of Tribhuvan University.

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CHAPTER I INTRODUCTION

1.1 Background of the Study

The sustainable development of any nation depends on its economic condition. Economy is a backbone for all overall development of nation. In fact, the growth of economy is only possible when there is a well financial development. Economic growth and financial development are closely related. The interaction between them is crucial. The transfer of funds from surplus units in the deficit units and provide benefit for both the saving units and deficit units in the societies. Nepalese financial system is composed of deposit taking and contractual saving institution. The deposit taking financial institution includes commercial banks, development banks, micro credit development banks, financial companies, financial co-operatives, non-government (financial) performance limited bank activities (NRB, 2018).

Investment decision depends upon two factors i.e. Risk and Return. Risk band return cannot be avoided in financial decision making. In finance risk is defined as variability in returns. Risk refers to the probabilities that the returns expected from an asset or security may have alternative outcomes. Risk is also defined as the chance of loss. Low level of uncertainty associated with low potential returns. High level of uncertainty associated with high potential returns. And return is the difference between money received back from an investment and the money originally invested at beginning. Similarly, the return in other hand, it is reward of waiting and compensation for risk bearing. Researchers have shown that the most investors are risk averter. So, to reduce the risk and enhance return portfolio can be make. To make an investment decision its need lots of information related to assets assets situation of market, risk and return factor involve to the stocks, other opportunity available in the market, interest rate of bank, government current policies, expected change in policies tax, laws and regulation as well as attitude of investors (Francis, 2000).

Portfolio is defined as an investment in a combination of assets such as stocks, bonds and cash. It is generally accepted principle that portfolio is designed according to the investors risk tolerance, time frame and investment objectives. Based on objective criteria, portfolio analysis enables an investor to determine which of his assets are profitable and which ones are to be phased out. Formation of portfolio stabilizes the combined return, hence reduce the risk. The portfolio theory provides a normative approach to investors to make decisions to invest their wealth in assets or securities under risk. It is based after the assumption that investors are risk-averse. This implies that investors hold well diversified portfolio instead of investing their entire wealth in a single few assets (Bhalla, (2001).

In general, risk and return analysis is conducted to identify the sustainable position of any organization. Risk and return are most important concept in finance. In fact they are foundation of the modern finance theory. The relationship between risk and return is described by investors' perception about risk and their demand for compensation. No investors will like to invest in risky assets unless they are assured of adequate compensation for taking the risk. Return is the motivating force in investment process that is the reward for undertaking the investment. Risk in a stock reflects the uncertainty about the future return i.e., actual return may be less than expected return .The main source of uncertainty about future return is that, the price at which the stock can be affected by economics factors such as interest rates, economics growths, inflation liquidity, marketability, financial performance and strength of the dollar. The risk of stock can be measured by the price volatility (Bhalla, (2001).

Risk is the bitter truth of life, which is a product of future uncertainty and its magnitude depends upon the degree of variability in uncertain cash flow. Risk in fact, is an indication of chance of losing investment back. Interpretation of risk varies as per people's attitude towards it, in real; risk is any unknown unfavorable event. It real, risk is any unknown unfavorable event. It is a chance of happening some or huge unfavorable even or danger of losing some materials value (Van Horne, 1999).

Risk was defined as the variability of possible outcomes from that which was expected (Van Horne, 1999). Risk refers to the set of unique outcomes for a given even which can be assigned probabilities (Khan and Jain, 1992). Risk is like pornography, it's hard to define, but you know it when you see it (Van Horn and Wachowicz, 1986).

Return is the income received in investment. People invest their belongings with an expectation of getting some reward for leaving its liquidity. They only invest in those

opportunities where they can get higher return. Hence, investor wants favorable return to be yield by its stock. And go for those, which yield more (Upadhya, 2001). The expected rate of return for any asset is the weighted average rate of return using then probability of each rate of return as the weight (Francis, 2000).

1.1.1 Introduction of Sample Banks

a) Overview of Nepal SBI Bank Ltd

Nepal SBI Bank Ltd. (NSBL) is the first Indo-Nepal joint venture in the financial sector sponsored by three institutional promoters, namely State Bank of India (SBI), Employees Provident Fund and Agriculture Development Bank of Nepal through a Memorandum of Understanding signed on 17 July 1992. Nepal SBI Bank Ltd. (NSBL) is a subsidiary of state of India (SBI) having 55% of ownership. Employee provident Fund holds 15% equity and General Public 30%. NSBL was established in July 1993 with the paid-up capital of NRS. 388.37 crores and has emerged as one of the leading banks of Nepal.

Nepal SBI Bank Ltd is committed to its customers to provide them world class services in an affordable manner. Towards this, NSBL has been continuously upgrading its existing technological initiatives as well as introducing new technologies. NSBL holds the vision to be the most preferred bank for a transforming Nepal. The Bank's mission is to provide high quality, reliable and innovative financial solutions.

b) Overview of NABIL Bank Ltd

Nabil, the first foreign joint venture bank of Nepal, started operations in July 7, 1984 with the paid-up capital of NRS. 618.35 crores. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Nabil provides a range of commercial banking services through its 74 points of representation across the country and over 170 correspondent banks across the globe. It was earlier known as Nepal Arab Bank Ltd. It has its head office located at Nabil Center, Durbar Marg, which is also a premium location of the capital. It has the largest staff among private commercial banks of Nepal.

Nabil Bank Ltd. is the first private sector bank in Nepal. The Bank represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

c) Overview of Himalayan Bank Ltd

Himalayan Bank Limited (HBL) is one of the largest private banks of Nepal. The Bank was incorporated in 1992 by a few eminent individuals of Nepal in partnership with the Employees Provident Fund and Habib Bank Limited of Pakistan. The bank commenced its operations in January 1993 with paid-up capital of NRS. 449.91 crores. Himalayan Bank is also the first commercial bank of Nepal with most of its shares held by the private sector of Nepal. Besides commercial banking services, the bank also offers industrial and merchant banking service. Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits.

To become the Bank of first choice is the main objective of the Bank. Himalayan Bank Limited holds of a vision to become a Leading Bank of the country by providing premium products and services to the customers, thus ensuring attractive and substantial returns to the stakeholders of the Bank. The Bank's mission is to become preferred provider of quality financial services in the country. There are two components in the mission of the Bank; Preferred Provider and Quality Financial Services; therefore we at HBL believe that the mission will be accomplished only by satisfying these two important components with the Customer at focus. The Bank always strives positioning itself in the hearts and minds of the customers.

1.2 Statement of the Problems

Recent trend shows that the general people are interested to invest their small money on the common stock of financial institutions like commercial banks. But due to the lack of proper information about market status and situation and poor knowledge, market intermediaries exploit investors. Some times they think that investing in common stocks is intolerably hazardous. Due to this, many investors afraid to invest into stocks, this is the main problem that does not allow gearing up the capital market of the nation. The main problem for the individual investors are lack of proper information about market whereas the problem for financial sector to enhance the goodwill among the public due to frequent collapse of some finance companies being unable to utilize public funds properly. The investors are responsible to make rational investment decision. For this rational analytical knowledge is essential. The investor's attitude and perception also plays a vital role in rational decision regarding whether the investment should be made or not. We look in Nepal most of inventors invest their funds in a single security rather they can be benefited by investing in portfolio of securities and achieving diversification of risk. The main problem is that the general public cannot perfectly analyze the risk and return analysis of common stock of commercial banks in Nepal (Maharjan, 2016).

In this study we are trying to analyze the problem faced by individual investor due to the lack of knowledge and information at the same time we are trying to discuss the weakness of concerned people is not being able to develop the stock market properly. The main problem for the investors is lack of proper information about the investment decisions. So, to make the proper investment decision investors should analyze the risk and return of common stock. To make rational investment decision investors need analytical knowledge. In Nepal most of investors invest their fund only in single security. Rather they can be benefited by investing in common stocks or construct portfolio which helps to diversify the risk.

Investors investing practice has remained the same. Most of them still believe in the mouth publicity and friend's opinion while making an investment. They do not try to search essential information about the organization on whose stock they are going to make investment. Most Nepalese investors are investing their fund in single security rather than investing in portfolio of securities to maximize return at minimum risk level.

Common stock is regarded as risky security for the investment purpose, by using the financial tools and technique; we can reduce the associated risk. The availability for the information may develop the confidence on investors and stock could be attractive way to invest. On the other hand, the concept of portfolio helps to reduce the risk but question arises whether there is sufficient information available to the customer or not and whether investor can assess the risk and return associated with particular stock or not. Investors also hesitate to invest in long term and also afraid to in invest in securities, they suffer from great loss.

Investor may have different questions at the time of investment. The following are the research questions for the study:

- 1. What are the return and risk of common stock of selected banks?
- 2. What is the common stock's return under CAPM method?
- 3. Would construction of portfolio of selected banks be profitable?

1.3 Purposes of the Study

For any kind of research work or study, first purpose should be determined. It shows the way to achieve desired goals. The general objective of this study is to make comparative analysis of risk and return of NSBL, NABIL Bank and HBL. The main objectives of the study are as follows:

- To examine risk and return of common stock of selected banks.
- To evaluate common stock's return under CAPM method.
- To examine the portfolio risk and return of selected banks.

1.4 Significance of the Study

The study has focused in analyzing the position of risk and returns and price movement of shares of commercial banks. Therefore, the study has contributed significantly to solve the problem existing in risk and return management of commercial banks. It has provided proper guidelines to the investors for making choice of investments on the basis of risk and return. It has also been found beneficial for those who is interested to know about risk and return.

The focus of the study is on the analysis of risk and return, which will enable all the related persons to guide the investment related activities. Benefits of the study will receive primarily by potential investors. Security businesspersons, issue manager, broker and marketing managers will also be benefited by this study. . Researcher focuses only the risk and return analysis of selected commercial banks. This study will be fruitful to those interested person, researchers, students, teachers, businessmen and government for academically as well as policy perspectives.

This study provides the information about capital market of selected banks by analyzing risk and return. Study also helps to increase the analytical power of investor in capital market. In Nepalese context, very few studies are made and there are no specific magazines and articles on the topic. So, the study has been more significant for the exploring and increasing stock market. Similarly, this study may work as guide for the future research and concerned persons.

This study gives clear concrete picture about Nepalese stock market and different aspects of risk and return which may be beneficial for investors, academicians and students. This study provides information or knowledge about minimizing the risk or diversifies the risk through portfolio. From the view point of investors, the analysis of risk and return is significant decision which influences the shareholder risk and return. The risk and return analysis influence the market price of common stock by making it at an appropriate level. This study may be able to distinct the right investment among all the investment opportunities.

1.5 Limitations of the Study

Following are the limitations of the study.

- There are 7 joint venture banks of commercial banks in Nepal, among them three joint venture banks have been considered.
- This study is based on only secondary data and accuracy depends upon the data published by organization.
- The study considers only six years (from 2012/13 to 2017/18) data of selected commercial banks.

1.6 Chapter Plan

The present study is organized in five chapters. They are as follows:

Chapter I: Introduction

This chapter introduces the background of the project, which includes; background, statement of the problem, objectives of study, significance of the study, limitations of the study and organization of the study.

Chapter II: Review of Literature

This chapter devoted for the brief review of literature available. Review from books, journals (articles), thesis etc are included in this chapter. Conceptual framework about risk and return is briefly reviewed.

Chapter III: Research Methodology

This chapter deals with the research methodology used in the study, which includes; research design, population and sample, sources of data, tools for analysis and methods of presentation of analysis.

Chapter IV: Results

In this chapter, data collected from various relevant sources is presented and analyzed using various statistical and non-statistical methods.

Chapter V: Conclusions

This last chapter presents the conclusions and implications for further study. References and appendices are incorporated at the end of the study.

CHAPTER II REVIEW OF LITERATURE

The chapter review of literature includes the review of concept and finding of previous research on the some field. Books, journals and unpublished thesis are reviewed for this purpose. In this regard, basic academic course book on finance, recently published books specially related to this topic, some of the major research based journals and the related studies are reviewed. In addition, independent studies carried out by well-known Nepalese financial experts are also taken into consideration.

2.1 Conceptual Framework

Investment decisions are influenced by various motives. Some people invest in a business to acquire control and enjoy the prestige associated with it. Most investor, however, are largely guided by the pecuniary motive of earning a return on their investment. The main focus of finance is trade off between risk and return. Here, the focus is its implication in the investment of common stock.

In general, risk and return go hand in hand. For earning returns investors have to almost invariably bear some risk. While investors like returns they avoid risk. Investment decisions, therefore, involve a tradeoff between risk and return. Since, risk and return are central point while making investment decision; we must clearly understand what risk and return are and how they should be measured.

"Risk and return are most important concepts in finance. In fact, they are foundation of the modern finance theory". What is risk? How is it measured? What is return? How is it measured?, are the basic question, which needs to be answered while making an investment decision. In this chapter, an attempt is made to answer the logic of portfolio theory and the use of Capital Asset Pricing Model (CAPM) for valuing assets with a view to facilitate the investment decision" (Pandey, 1997).

2.1.1 Common Stock

"Common stock represents equity, or an ownership position in a corporation. It is a residual claim, in the sense that creditors and preferred stockholders must be paid as

scheduled before common stockholder can receive any payments. In bankruptcy common stockholders are, in principal, entitled to any value remaining after all other claims have been satisfied. The great advantage of the corporate form of organization is the limited liability of its owners. Common stocks are generally 'fully paid and non-assessable'; meaning that common stockholder may lose their initial investment but not more than that. That is if the corporation fails to meet its obligations, the stockholders cannot be forced to give the corporation the funds that are needed to pay off the obligations. However, as a result of such failure it is result of such failure it is possible that the value of a corporation's share will be negligible. This will result in the stockholders having lost an amount equal to the price previously paid to buy the shares" (Pandey, 1997).

2.1.2 Return on Common Stock

The cash payoffs to owners of common stocks are of two kinds:

- i. Cash dividend
- ii. Capital gain (loss)

As per Brealey and Myers, "If current price of a share is P0 that the expected price at the end of a year is P1 and that the expected dividend per share is Div1. The rate of return that investors expect from this share over the next year is defined as the expected dividend per share Div1 plus the expected price appreciation per share P1-P0 all divided by the price at the start of the year P0 which can be shown in the form of:

Expected return (R) =
$$\frac{D_1 + (P_t - P_{t-1})}{P_{t-1}}$$

The return from holding an investment over some period, say a year, is simply any cash payments received due to ownership, plus the change in market price divided by the beginning price. Thus, the return comes from two sources: income and price appreciation (Barely and Myers; 1994).

For common stock, we may define single-period return as:

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

Where,

R = Actual/expected return

t = Particular time period in the past (future).

 $D_t = Stocks$ price at time period t.

 $P_{t-1} =$ Stocks price at time period t-1.

The above mentioned formulae can be used to find out both actual single-period return (when based on historical data) as well as expected single period return (when based on future expected dividends and prices). (The term in the parenthesis in the numerator of above equation 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 (Barely and Myers, 1994).

Return is defined as the divided yield plus the capital gain or loss. The relationship between different levels of return on their relative frequencies is called a probability distribution. We could formulate a probability distribution for the relative frequency of a firm's 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 a probability distribution based on historical data plus the analysis for the outlook for the economy and the outlook for the industry, the outlook for the firm in its industry and another factors (Barely and Myers, 1994).

2.1.3 The Risk on Common Stock

Risk is defined in Webster's dictionary as 'a hazard: a peril: exposure to loss or injury', thus for most, risk refers to the chance that some unfavorable event will occur. If you invest in speculative stock (or, really, any stock), you are taking a risk in the hope of making an appreciable return (Weston and Brigham, 1995).

Different people interpret uncertainties and risks in different ways. For some, uncertainly is simply a lack of definite outcome; it is anything that could happen any unknown event, which may be favorable or unfavorable. To other, it is a risk, many people consider risk as a chance of happening some unfavorable event or danger or losing some value. The trouble of uncertainty are risk, people often use them interchangeably.

Risk is the unlooked for the unwanted event in the future; some one had said that risk was the sugar and salt of the life. Risk, defined most generally, is the probability of the occurrence of unfavorable outcomes. But risk has different meaning in different contexts. In our context, two measures developed from the probability distribution have been based as initial measures of return and risk. They are the mean and standard deviation of the probability distribution (Weston and Brigham, 1995).

a) Portfolio Analysis

A portfolio is a combination of investment assets. The portfolio is the holding of security and investment in financial assets i.e. bond, stock. Portfolio management is related to the efficient portfolio investment in financial assets (Francis, 2000).

Simple diversification can be defined as "not putting all the eggs in one basket or spreading the risks". The simple diversification would be able to reduce unsystematic or diversifiable risk. It is the random selection of securities that are to be added to a portfolio. It reduces a portfolio's total diversifiable risk to zero and only the undiversifiable risk remains. So this approach assumes that an investor can expect a reasonable return for a given level of risk (Francis, 2000).

b) Superfluous Diversification (Over Diversification)

If refers to the investor spreading himself in so investments on his portfolio. The investor finds it impossible to manage the assets on his portfolio because the management of a large number of assets requires knowledge of the liquidity of each investment, return; tax liability and this will become impossible without specialized knowledge. He also finds it both difficult and expensive to look after a large number of investments. If the plans to switch over investments often selling and buying assets expecting a high rate of return, he involves himself in high transaction costs and more

money will be spent in managing superfluous diversification. It will be very difficult for him to measure the return on each of his investments. All those problems may result in inadequate return.

c) Diversification across Industries

Some investment counselors advocate selecting securities from different industries to achieve better diversification. It is certainly better to follow this advice than to select all the securities in a portfolio from one industry.

d) Simply Diversification across Quality Rating Categories

Simply Diversification reduces risk within categories of stocks that all have the same quality rating.

e) Assets Allocation

Francis, Jack Clark writes, assets allocation decisions deal with attaining the optional proportions of investment from different assets categories. Portfolio manager focuses primarily on the stock-bond mix, the decision often boils down to trying to determine the best long-run stock-bond distribution.

f) Capital Asset Pricing Model (CAPM)

In the book "Investment Analysis and Portfolio Management", written by Prasanna Chandra has focused on Capital Asset Pricing Model. "The CAPM predicts the relationship between the risk of an assets and its expected return. The relationship is very useful in the ways. First, it produces a benchmark for evaluating various investments. For example, when we are analyzing a security we are interested in knowing whether the expected return from it is security we are interested in knowing whether the expected return from it is fair return as per the CAPM. Second, it helps us to make an informed guess about the return that can be expected from an asset that has not yet been traded in the market. For example, how should a firm price its initial public offering of stock? Although the empirical evidence on the CAPM is mixed, it is widely used because of the valuable insight it offers and its accuracy is deemed satisfactory for most practical applications" (Chandra, 2002).

g) Security Market Line (SML)

As per Prasanna Chandra, "There is a linear relationship between expected return and covariance of securities with the market portfolio" (Chandra, 2002).

This relationship, called the security market line (SML), is as follows:

$$E(\mathbf{r}_{i}) = \left(\frac{\mathbf{Rf} + [\mathbf{E}(\mathbf{r}_{m}) - \mathbf{R}_{f}]}{\sigma^{2}_{m}}\right) \mathbf{C}_{im}$$

Where,

E (r_i) = expected return for on security i R_f = the risk-free return E (r_m) = the expected return on market portfolio σ^2_m = Variance of return on market portfolio C_{im} = Covariance of return between security i and market portfolio In words, the SML relationship says: Expected return on security i = Risk free return + (Price per unit of risk) Risk The price per unit of risk = $\frac{E(r_m) - R_f}{\sigma^2_m}$ The measure of risk = C_{im}

In above SLM equation, the risk of a security is expressed in terms of its covariance with the market portfolio, σ im. Can we find a standardized measure of risk? Fortunately we can fin a standardized measure of systematic risk, popularly called beta (bi), by taking advantage of the relationship.

$$b_i = \frac{C_{im}}{\sigma_m^2}$$

Which reflects the slope of a linear regression relationship in which the return on security I is regressed on the return of the market portfolio. Thus, the SML is popularly expressed as:

$$\mathbf{E}\left(\mathbf{R}_{i}\right) = \mathbf{R}_{f} + \left[\mathbf{E}\left(\mathbf{R}_{m}\right) - \mathbf{R}_{f}\right]\mathbf{b}_{i}$$

In words, the SML relationship says:

Expected return on security i = Risk-free return + Market risk premium × Beta of security. Thus, we can say that the CAPM and the Security Market Line (SML) is same. It means that CAPM is also called the SML.

Figure 2.1 depicts two assets, U and O, which are not in equilibrium on the CAPM. Asset U is undervalued and, therefore, a very desirable asset to own. U's price will rise in the market as more investors purchase it. However, as U's price goes up, its return falls. When U's return falls to the return consistent with its beta on the SML, equilibrium is attained. With O, just the opposite takes place. Investors will attempt to sell O, since it is overvalued, and therefore, put downward pressure on O's price. When the return on assets O increases to the rate that is consistent with the beta risk level given by the SML, equilibrium will be achieved and downward price pressure will cease.







2.2 Review of Related Studies

2.2.1 Review of Journals and Articles

Manandhar, (1998) has published an article "A Study of Dividend Policy and Value of Firm in Small Stock Market: A Case of Nepal ", where he study in the context of Nepal. The study is aimed at identifying some of the significant variables that are

significant to the vale of the firm. The analysis, to some extent, helped to understand the dividend policy of the sample companies and their effects on market value of the firm as represented by market capitalization and this understanding helps to know the relevancy and irrelevancy of dividend policy on market capitalization in the stock market in Nepal". At the time of research, it was found the following problems in stock market and dividends practices: Most companies are underrating the expectation of investors and thereby resulting how marketability of share and trading floor of stock exchanges. Majorities of the companies are declaring dividends less than risk free rate and market risk premium. The relationship between the earnings, dividend pay out and growth of the expansion program of the companies does not match with financial needs of companies. Companies do not follow sound dividend policy. These are the main causes that are related to the low price of stock and low volume in stock market.

Zorin and Goetman, (2011) have published an article, "*Global Stock Market in 20th Century*", where they have concluded that the behavioral study of stock market plays a significant role in the development of capital market and to find out the realistic theoretical model to test the appropriate hypothesis in stock market. Considering this, various studies have been conducted about stock market behavior in development country and international prospects. These studies also have been an important note in least developed countries. The study showed that one would need a very large difference of risk aversion, largely in excess of the usual value of two to generate such a premium. This upsetting result had sparkled a flurry of theoretical research that explains alternative performance structure; including dropping the expected utility assumption and introducing habit function.

Breman and Henry, (2012), have published an article, "*International Investment Flows*", where they have stated that and constructed a portfolio between foreign as well as domestic market and find out whether the domestic investors are able to get quick information than foreign investors and take enough benefits from it. According to the study, "The article develops a model of international equity portfolio investment flow based on difference in international endowments between foreign and domestic investors. It is shown that when domestic investors possess a cumulative

information advantage over foreign investors period when the return on foreign asset is high and to sell when the return is low.

Kent and Suvrahmandam, (2013) have published an article, "*Investors' Psychology and Security Market Under and Over Reaction*", where they study about investors' psychology in stock market under react and overreact of security. To find out it, the theory was based on following two psychological bases: (1) Investors' over confidence about precise of private information. (2) Biased Self-attribution, which causes asymmetric shift in investor's confidence as a function of their investment outcomes. In brief the study described that, "This theory is based on investors' over confidence arising from biased self attribution. The premise of investors' over confidence is derived from a large body of evidence from cognitive psychological experiments and surveys which show that individual over estimate their own abilities in various contexts. The study has made some following assumptions: Investors are quasi-rational and they are optimizers except for then biased updating of this precision. The model explains the price anomalies as market inefficiencies. Investors have a priority on the precision of these private signals and use an updating rule that reflects self-attribution biases.

2.2.2 Review of Theses

The studies performed related to topic risk and return analysis' but there are less study performed in this specific topic i.e. study on portfolio analysis of investment on the share capital of joint venture banks of Nepal. However the performed studied are in some extent, related to the proposed study.

Pantha (2015) conducted study on "Stock Market and Portfolio Analysis" (With Special Reference of Six Listed Companies Including Insurance Companies and Banks i.e. Nabil Bank Ltd., Standard Chartered Bank Ltd., Nepal Bangladesh Bank Ltd., United Insurance Company and Everest Insurance Company). The study used secondary data. The major objectives of the study were: to study and analyze the existing portfolio in between banking sectors and insurance companies and to compute the risk and return of common stocks and their portfolio. The expected rate of return of the common stock of Everest Insurance Company (EIC) is highest i.e. 55% among the selected six companies and the lowest expected rate of return is 13% of United Insurance Company (UIC). The standard deviation (i.e. risk) is observed maximum in common stock of EIC i.e. 74% and minimum in common stock of Standard Chartered Bank ltd. (SCBL). All selected companies' stocks are under priced because of less required rate of return than expected rate of return so that it is better to buy these stocks. EIC's common stock has the highest excess return to beta.

Maharjan (2016) completed study on "A Study on Corporate Portfolio Management in Nepal." The study used secondary data with the objectives, to examine the portfolio management practices in Nepalese Commercial banks and to analyze portfolio attributes of Nepalese commercial banks in relation to risk and to find out strategy for optimal portfolio selection for investors. The expected return of EBL is highest i.e. 76.90% & the exp. rate of return of SBI is the lowest i.e. 13.30%. In terms of risk common stock of BOK is most risky while SCB is least risky. According to the calculation of beta co-efficient common stock of BOK is the most volatile one i.e. 6.06 & Nabil stock is the least volatile i.e. 1.44. The highest required return is 41.9% of BOK & lowest required return is 16.6% of SCB under CAMP.

Upadhaya (2017) study on, "Portfolio Analysis of Commercial Banks of Nepal" in 2017. He has taken eight banks as sample. The samples of the studies were Nepal Arab bank Ltd. (NABIL), Nepal Investment Bank Ltd. (NIBL), Standard Chartered Bank Nepal Ltd. (SCBNL, Kumari Bank Ltd. (KBL), Nepal SBI Bank Ltd. (SBI), Nepal Bangladesh Banks Ltd. (NBBL), Everest Bank Ltd. (EBL) and Kumari Limited. The study used secondary data. The objectives of the study were: to examine the portfolio management practices in Nepalese Commercial banks and to analyze portfolio attributes of Nepalese commercial banks in relation to risk and return their performance in relation with portfolio. As overall economy, Nepalese stock market is in emerging state. Its development is accelerating 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 can not analyze the securities as well as market properly. 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 construction selects the stocks that have higher return with not correlation or negatively correlation stocks. Similar stocks can not diversify risk properly.

Adhikari (2018) conducted a study on, "*Portfolio Analysis of Common Stock in Nepal* (*With Special Reference of Commercial Banks of Nepal*)" is very closely related to this study. The study used secondary data. The study has performed an analysis of Portfolio on common stock investment with special reference to banking industry. The main objectives of the study were: to study and analyze the existing portfolio of commercial banks and to compute the risk and return of common stocks and their portfolio. The study stated that, banking industry is the biggest one in terms of market capitalization and turnover. Expected return on the common stock of Nepal Bank Ltd. is maximum, (i.e. 66.99%) and common stock of Nepal SBI Bank Ltd. was found minimum. In this regard common stock of NBL is most risky and common stock of NSB is least risky. In the context of industries, expected return of finance and insurance industry is found highest. Expected return of banking industry is 60.83%". At the end of this study he has concluded that common stock of Nepal Bangladesh Bank (NBB) is the best one for investment.

Upreti (2018) conducted a study on, "Portfolio Analysis of Commercial Banks of Nepal" by using five-year data from 2012 to 2017. The study used secondary data. The specific objectives of the research were as follows: to survey the existing situation of portfolio management of joint venture banks in Nepal and to evaluate the investment and advances portfolio of joint venture banks. Among the selected banks the ratios of Everest Bank Limited are more consistent than the other four banks. SCBNL is not investing its fund on NRB bond after 2010 AD and on government securities after 2010 AD. KBL is not investing its fund on NRB bond after 2011 AD and investing very high amount of fund on government securities. NBBL is investing very high amount of its fund in government securities. EBL is not investing its fund on NRB bond after 1997 AD but is investing high amount of fund on government securities. SCBNL is providing very high amount of its loans and advances to the private sectors. It has also given the second priority to Foreign Bills Purchase and Discount. KBL is providing very high amount of its loans and advances to the private sectors in increasing trends. It has also given the second priority to Foreign Bills Purchase and Discount. NBBL is providing very high amount of its loans and advances to the private sectors. It has also given the second priority to government securities but providing very low amount of loan to Foreign Bills Purchase and Discount. EBL is providing very high amount of its loans and advances to the private

sectors and has given the second priority to Foreign Bills Purchase and Discount. It is not providing amount of loans and advances to government enterprises. Interest rate so ascertained by financial institution for the year 2010 ranges from 12% to 12.75% per annum. As it is reviewed on background of commercial banks deposits accepted on fixed term carry 8% to 9.5% p.a. Interest rate in 2011. Although, interest rate on fixed deposit is an immediate return generated through saving, the return on securities cannot be exactly predicted. Some of the companies have not even declared dividend for two/three year.

2.3 Research Gap

There are number of studies have been conducted on risk and return analysis of common stock of commercial banks in Nepal. This research is border and is aimed to analyzing their trends using statistical and financial tools. The previous researchers focused only on risk and return aspect of selected commercial banks, this research has further tried to identify the correlation among returns of the commercial banks under study plays a significant role in risk reduction by portfolio construction. Some researcher had drawn their finding and determined the risk and return of assets or securities based on limited statistical tools and techniques. Risk and return study is fundamental study for every stakeholder. Therefore, it is major concern of stakeholders to know the situation of banks.

This research has taken the six years latest financial data and used statistical tools. Three banks were taken as sample and used statistical tools and latest data of NSBII, NABIL and HBL. So, this study is differing from other research works.

So, this study will be fruitful to those interested person, scholars, students, stakeholders, civil society, businessmen and government for academically as well as policy perspective

CHAPTER III RESEARCH METHODOLOGY

The main objective of this study is to make the analysis of risk and return of joint venture banks. This chapter includes the brief description of research design, population and sample, sources of data, data collection instrument and procedures and method and tools used for analyzing the data.

3.1 Research Design

This research is based on recent historical data collected from NEPSE, Securities Board and other sources. It deals with the common stocks of selected listed companies. It covers the period of last six years i.e. from F.Y. 2012/13 to 2017/18. Discussions have been made to interpret the existing secondary information, which have been analyzed by using analytical tools and techniques. Descriptive research designs have been followed for the study.

3.2 Population and Sample

There are altogether 28 commercial banks. Among them there are seven joint venture banks. Due to time and resource factors, it is not possible to study all of them regarding the study topic. Out of them, three commercial banks have been chosen on the basis of their establishment year NABIL, NSBIL and HBL banks were all established before 1995. Another basis of selecting the sample enterprises were the major share holding by foreign investors, as these three commercial banks had a major foreign investment shares initially. So, in this study three joint venture banks were taken as sample by using convenience sampling method. This study is based on the comparative study of risk and return based on common stock investment of three joint venture commercial banks listed on NEPSE. It covers the fiscal year from 2012/2013 to 2017/2018.

3.3 Nature and Source of Data

This study is mainly based on secondary data. The data and information are be gathered from banks annual reports, balance sheet, different journals, magazines, research reports, other published and unpublished reports, previous dissertations and related websites.

3.4 Data Collection Procedures

As stated earlier, the study is mainly based on secondary data. The annual reports and other information have been obtained from sample banks for data collection. Literature review are collected from different journals, magazines and other published and unpublished reports documented by the concern authorities

3.5 Method of Analysis

3.5.1 Market price of stock (p)

Among the various major data of this study, market price of stock is the most important. There are three-price records available, namely high price, low price and closing price of each year. Therefore two approaches either average price (i.e. average of high and low price) or closing price can be used. By using average price, result may be very close to reality as it represents the price of whole year. But it is very difficult to obtain the real average. To get the real average, volume and price of each transaction in the stock and duration of time of each transaction in the whole year are essential. So, it is of course very hard and difficult to gather and include all these information and average of high and low price cannot be used for this study. Due to such difficulties, it is very difficult to use average price as market price of stock. So, the closing price issued as market price of stock, which has a specific time span of one year and the study has focused in annual basis.

3.5.2 Dividend (D)

Company pays dividend to its shareholders. If a company declares only cash dividend, then there is no problem to take the dividend amount but it is not necessary to pay dividend in the cash form. Company can pay dividend to shareholder in the form of stock i.e. bonus share. So, if company declares stock dividend, it is difficult to obtain the amount that really shareholder has gained. In such condition, shareholders get additional number of shares as dividend and simultaneously price of stock declines, as a result of increased number of outstanding stock. So, to get the real amount of dividend, there are no any models or formula developed yet.

3.5.3 Return on Common Stock Investment (R)

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

Symbolically,

$$R = \frac{D_1 + (P_t - P_{t-1})}{P_{t-1}}$$

Where,

R = Actual rate of return on common stock at time 't'.

 D_t = Cash dividend received at time 't'.

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

Standard deviation (σ j): Standard deviation is a statistical tool to measure the variability of a distribution of return around its mean. It measures the unsystematic risk on the stock investment. Standard deviation is the square root of the variance.

Symbolically,

$$\sigma_{j} = \sqrt{\frac{\sum (R_{j} - \overline{R_{j}})^{2}}{n-1}}$$

where,

 σ_j = Standard deviation of returns on stock j during the time period 'n'.

 R_j = Return on common stock 'j' investment.

 R_{j}^{-} = Expected return on common stock.

3.5.4 Expected Return of Common Stock E (R_j)

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

Symbolically,

$$\mathbf{E}\left(\mathbf{R}_{j}\right) = \mathbf{R}_{j} = \frac{\sum \mathbf{R}_{j}}{n}$$

Where,

E (R_j) = Expected rate of return on stock n = Number of years that the return is taken Σ = Sign of summation

3.5.5 Coefficient of Variation (C.V.)

It is the ration of standard deviation of returns to the distribution. It is a measure of relative risk.

Symbolically,

$$C.V. = \frac{\sigma_j}{R_j}$$

3.5.6 Beta Coefficient (β)

It is an index of systematic risk. It measures the sensitivity of a stock's return on the market portfolio.

Symbolically,

$$\beta_{j} = \frac{\text{Cov.} (R_{j}, R_{m})}{\sigma^{2}_{m}}$$
Where, β_{j} = beta coefficient of stock j.
Cov. (R_{j}, R_{m}) = Covariance between R_{j} and R_{m} and is equal to
Cov. $(R_{j}, R_{m}) = \frac{(R - R_{j}) (R_{m} - R_{m})}{n - 1}$
 σ^{2}_{m} = Variance of market return

3.5.7 Correlation coefficient (p_{ii})

Correlation is a measure of the relationship between two assets. The correlation coefficient can take on a value ranging from -1 or +1. Correlation and Covariance are related by the following equation

$$Cov_{ij} = \sigma_i \sigma_j \rho_{ij}$$

Therefore,
$$\rho_{ij} = \frac{\text{Cov.}_{ij}}{\sigma_i \sigma_j}$$

Where σi and σj are the standard deviations of returns for assets i and j, and $\rho i j$ is the correlation coefficient for assets i and j.

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

3.5.7.1 Perfect Positively Correlation ($\rho_{ij} = +1$)

Returns on two perfectly correlated stocks would move up and down together and portfolio consisting of two such stocks would be exactly as risky as the individuals stocks. Thus, diversification does nothing to reduce risk if the portfolio consists of perfectly positively correlated stock.

3.5.7.2 Perfect negatively correlation ($\rho_{ij} = -1$)

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

3.5.7.3 No relationship between return ($\rho_{ij} = 0$)

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

3.5.7.4 Intermediate risk ($\rho_{ij} = +0.5$)

Most stocks are positively correlated, but not perfectly. On average, the returns on two stocks would lie on the range of +0.4 and +0.75, under this condition, combining stocks into portfolios reduces risk but doesn't eliminated at completely.

3.5.8 Portfolio Return (R_p)

Portfolio is combination of two or more securities or assets and portfolio return is simply a weighted average of individual stock returns.

Symbolically,

$$\mathbf{R}_{\mathbf{\rho}} = \mathbf{W}_{\mathbf{A}} \, \mathbf{R}_{\mathbf{A}} + \mathbf{W}_{\mathbf{B}} \, \mathbf{R}_{\mathbf{B}}$$

Where,

R = Expected return on portfolio of stock A and stock B.

 W_A = Weight of stock A.

 W_B = Weight of stock B.

 $W_A + W_B = 1.$

3.5.9 Portfolio Risk (op)

Portfolio risk is measured by the combined standard deviation of the standard deviations of individual stock return.

Symbolically,

$$\sigma_{\rm p} = \sqrt{W_{\rm A}^2 \sigma_{\rm A}^2 + W_{\rm B}^2 \sigma_{\rm B}^2 + 2W_{\rm A}^2 W_{\rm B}^2 \text{ Cov. } (R_{\rm A}^2 R_{\rm B}^2)}$$

Where,

 σ = Standard deviation of portfolio returns of stock A and Stock B.

Cov. $(R_A R_B)$ = Equivalent representation covariance of returns between assets A and B.

3.5.10 Risk Minimizing Portfolio

It is the ratio of the two assets, which minimize the risk (σp).

Symbolically,

$$W_{A} = \frac{\sigma_{B}^{2} - Cov. (R_{A}.R_{B})}{\sigma_{A}^{2} + \sigma_{B}^{2} - 2Cov. (R_{A}.R_{B})}$$

Where,

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

 σ_A = Standard deviation of stock A.

 σ_B = Standard deviation of stock B.

CHAPTER IV

RESULTS

This chapter is the main body of study that includes presentation and analysis of collected data. In this chapter, the effort has been made to analyze risk and return analysis of leading Nepalese commercial banks, which includes detail data of market price of share and dividend of each selected commercial banks and their interpretation and analysis. With reference to the various reading and literature review in the preceding chapter effort is made to analyze the recent Nepalese stock market movement to the listed commercial banks. The analysis of data consists of organizing tabulating and assessing financial and statistical result. Different table and diagrams are used to make the result easily understandable and more effective.

4.1 Analysis of Principal Indicators of Individual Commercial Banks

According to Nepal Rastra Bank, there are thirty one commercial banks operating in Nepal. Thus study has been focused on three listed commercial banks only which are listed in NEPSE. The presentation and analysis of data has been made in the order of commercial banks published by NEPSE in the heading of "classification of the listed companies under the listing bye law.

The selected listed commercial banks to the purpose of this study are as fallows

- Nabil Bank Limited (NABIL)
- Nepal SBI Bank Limited (NSBIL)
- Himalayan Bank Limited (HBL)

4.1.1 Nabil Bank Limited (NABIL)

Following table 4.1 shows the data of NABIL bank that includes market price, dividend data, earning per share, price earnings ratio and relationship between closing price, EPS and DPS is shown in the diagram.

4.1.1.1 Tabulation of MPS, EPS, P/E Ratio and Dividend data of NABIL

Table 4.1

Fiscal	Closing	Cash DPS	Stock DPS	Total DPS	EPS	P/E
year	MPS (Rs)	(%)	(%)	(%)	(Rs)	Ratio
2012/13	1815	40	25	65	91.5	19.08
2013/14	2535	45	20	65	83.68	30.29
2014/15	1910	6.84	30	36.84	57.24	33.37
2015/16	2344	15	30	45	59.27	39.55
2016/17	1523	18	30	48	59.86	25.44
2017/18	921	22	12	34	49.51	18.60

MPS, EPS, P/E Ratio and Dividend Data of NABIL

Source: Annual Report of NABIL 2017/18

The closing market price is higher in year 2013/14 and has gradually decreased up to the year of 2014/15 and then started to increase in the year of 2015/16. The bank has distributed cash dividend ranging from Rs 6.84 to Rs 45 per share every year. NABIL has highest total dividend is in year 2013/14 of 65% and lowest is in year 2017/18 of 34% respectively. From the table above we can conclude that the P/E ratio is maximum when MPS is also maximum.

Figure 4.1

Relationship between MPS, EPS, DPS of NABIL



The earning per share is highest in the year 2013/14 and lowest in year 2017/18. The price earnings ratio is used to take the judgment of the firm's performance which is highest 2015/16. The ratio is recorded to change from 33.37 to 39.55. It reflects the investors' expectation about the growth in the firms earning. But if this ratio declines the management is also interested in the market appraisal of the firm performance and focus on it to find the causes. The price earnings ratio is in decreasing phase.

Table 4.2

Tabulation of Calculated Expected Return, Standard Deviation and C.V. of NABIL

Expected Rate of Return(Rj)	24.84%
Standard Deviation(σ)	49.05%
Co-efficient of Variation(c.v.)	197.46%

Source annex-1

According to table 4.2, the expected rate of return of NABIL is 24.84% with the standard deviation of 49.05% and co-efficient of variation of NABIL is 197.46%. This denotes that to get per unit return, the investor has to undergo with 197.46% risks.

Table 4.3

Correlation of Coefficient (r)	0.5759
Beta Co-efficient(β)	0.5167
Variance(σ^2)	24.05%
Systematic Risk(SR)	7.97%
Unsystematic Risk(USR)	16.08%
Proportion of Systematic Risk in total Risk	32.30%
Proportion of unsystematic Risk in total Risk	67.70%

Tabulation of All results of Nabil Bank Limited

Source: Annex 3

According to table 4.3, the beta coefficient of NABIL is found 0.5167 which is lesser than one (1), therefore, it is defensive type of asset. That means stock of NABIL is slightly volatile than the market. Beta is an indicator of systematic risk and is found to be maximum. So, this is less aggressive type of asset and found to be more less risky. Correlation coefficient between market and NABIL is 0.5759. This shows the positive relationship between market and NABIL stock. NABIL has 7.97% systematic risk which is non- diversifiable but it has 16.08% unsystematic risk from the total risk. The proportion of systematic risk in total risk is 32.30% whereas unsystematic risk is 67.70%.

4.1.2 Nepal SBI Bank Limited (NSBIL)

The table 4.4 shows the data of Nepal SBI Bank Limited that includes market price, dividend data, earning per share, price earnings ratio, and relationship between closing price, EPS and DPS is shown in the diagram.

4.1.2.1 Tabulation of MPS, EPS, P/E Ratio and Dividend Data of NSBIL

Table 4.4

MPS, EPS, P/E Ratio and Dividend Data of NSBIL

Fiscal	Closing	Cash DPS	Stock DPS	Total DPS	EPS	P/E
year	MPS	(%)	(Rs)	(Rs) (%)		Ratio
						(times)
	(Rs)					
2012/13	850.0	7.5	12.5	20	32.75	25.95
2013/14	1280	7.02	15.05	22.07	34.83	36.75
2014/15	887	1.42	27.0	28.42	34.48	25.73
2015/16	1875	1.48	28.05	29.53	36.78	50.98
2016/17	925	0.82	15.52	16.34	33.46	27.64
2017/18	499	10.79	5.0	15.79	25.16	19.83

Source: Annual Report of NSBIL, 2017/18

From the table 4.4, closing market price of the share is in decreasing trend up to the year of 2014/15 and started to increase in year 2015/16 and in year 2015/16 is the highest over the six years period. The bank has distributed low stock dividend in year 2017/18 and higher dividend in 2015/16. The bank is distributing cash dividend ranging from Rs 0.82 to Rs 7.02 and total dividend ranging from 15.79% to 29.53% respectively. EPS of NSBIL is found to be maximum of Rs 36.78 to minimum of Rs 25.16. The price earnings ratio which is used to judge the financial performance of the firm is 50.98% in year 2015/16 which shows the highest over the six years period. From the above table we can conclude that when MPS is higher P/E ratio is also become highest value.

Figure 4.2

Relationship between MPS, EPS, DPS of NSBIL



From the diagram 4.2 we can conclude that the closing price is higher in 2015/16 and has decreasing trend thereafter. Similarly, the EPS and DPS of NSBIL has also decreasing trend after fiscal year 2015/16 and EPS started to increase from the year 2014/15 and DPS also started to increase from the year 2014/15.

Table 4.5

Tabulation of Calculated Expected Return, Standard Deviation and C.V. of NSBIL

Expected Rate of Return(Rj)	37.37%
Standard Deviation(σ)	74.73%
Co-efficient of Variation(c.v.)	199.94%

Source annex-1

According to table 4.5, the Expected Rate of Return of NSBIL is 37.37% with the standard deviation of 74.73% and Co-efficient of variation of NSBIL is 199.94%. This denotes that to get per unit, the investor has to undergo with 199.94% risks.

Correlation of Coefficient (r)	0.5832
Beta Co-efficient(β)	0.7972
Variance(σ^2)	0.5584
Systematic Risk(SR)	18.98%
Unsystematic Risk(USR)	12.20%
Proportion of Systematic Risk in total Risk	6.35%
Proportion of unsystematic Risk in total Risk	93.65%

Tabulation of All results of Nepal SBI Bank Limited

Source: Annex 3

According to table 4.6, the Beta co-efficient of NSBIL is found 0.7972 which is less than one(1).Therefore, it is defensive type of asset i.e. it has moderately risk and return than market. That means stock of NSBIL is less volatile than the market. Correlation co-efficient between market and NSBIL is 0.5832. This shows positive relationship between market and NSBIL's stock. NSBIL has 18.98% systematic risk which is non-diversifiable but it has 12.20% unsystematic risk from the total risk. The proportion of systematic risk and unsystematic risk is 6.35% and 93.65% respectively.

4.1.3 Himalayan Bank Limited (HBL)

The table 4.7 shows the data of Himalayan Bank that includes market price, dividend data, earning per share, price earnings ratio, and relationship between closing price, EPS and DPS is shown in the diagram.

4.1.3.1 Tabulation of MPS, EPS, P/E Ratio and Dividend Data of HBL

Table 4.7

Fiscal	Closing	Cash DPS	Stock DPS	Total DPS	EPS	P/E
year	MPS	(Rs)	(Rs)	(Rs)	(Rs)	Ratio
2012/13	700	10	5	15	34.19	20.47
2013/14	941	6.05	15	21.05	33.10	28.43

MPS, EPS, P/E Ratio and Dividend Data of HBL

2014/15	813	7.11	35	42.11	33.37	24.36
2015/16	1500	1.58	30	31.58	43.03	34.86
2016/17	886	1.32	25	26.32	35.15	25.21
2017/18	551	10.79	5	15.79	23.11	23.84

Source: Annual Report of HBL, 2017/18

The closing price of share is higher in year 2015/16 and it starts decreasing up to the year 2014/15 and starts increasing from 2015/16. The bank has distributed cash dividend ranging from Rs 1.32 to Rs 10.79 respectively. The stock dividend is maximum in year 2014/15. It is increasing from year 2013/14 to year 2014/15 and it has decreased next following year and again increased in the year 2012/13. The EPS is higher in 2014/15 and minimum in year 2017/18. Similarly, P/E ratio also shows decreasing trend after 2015/16 till 2017/18. P/E ratio is maximum in year 2015/16 when MPS is also maximum.

Figure 4.3



Relationship between MPS, EPS, DPS of HBL

From the diagram 4.3 we can observe that the closing price of MPS is higher in year 2015/16 and it has decreasing trend thereafter till year 2017/18. Similarly, the EPS is increasing till year 2015/16 and it has starts to decreasing and DPS is also increasing

till year 2014/15 and it has starts to decreasing. Both EPS and DPS start increasing in the year of 2015/16.

Table 4.8

Tabulation of Calculated Expected Return, Standard Deviation and C.V. of HBL

Expected Rate of Return(Rj)	29.40%
Standard Deviation(σ)	60.11%
Co-efficient of Variation(c.v.)	204.44%

Source annex- 1

According to table 4.8, the expected rate of return of HBL is 29.40% with the standard deviation of 60.11% and co-efficient of variation of HBL is 204.44%. This denotes that to get per unit return, the investor to undergo with 204.44% risks.

Table 4.9

Tabulation of All results of Himalayan Bank Limited

Correlation of Coefficient (r)	0.5349
Beta Co-efficient(β)	0.5881
Variance(σ^2)	0.3613
Systematic Risk(SR)	10.33%
Unsystematic Risk(USR)	2.72%
Proportion of Systematic Risk in total Risk	25.61%
Proportion of unsystematic Risk in total Risk	74.39%

Source: Annex 3

According to table 4.9, the beta co-efficient of HBL is found 0.5881 which is less than one (1). Therefore, it is defensive type of assets. That means stock of HBL is less volatile than the market. Correlation coefficient between market and HBL is 0.5349. This shows positive relationship between market and HBL's stock. HBL has 10.33% systematic risk which is non-diversifiable but it has 2.72% unsystematic risk from the

total risk which can be diversifiable. The proportion of systematic and unsystematic risk is 25.61% and 74.39% respectively.

4.2 Analysis of Market Movement

Market Index (NEPSE Index)

There is only one stock exchange in Nepal on market risk and return. The program has been started by Nepal Government to return capital converted securities. The return and risk of market is average return and risk of all the securities available in the market. The market assuming the lowest risk provides the best return. The market risk and return has calculated from NEPSE index.

Table 4.10

Fiscal year	Index (in point)
2012/13	518.3
2013/14	1036.1
2014/15	961.2
2015/16	1718.2
2016/17	1582.7
2017/18	1212.4

NEPSE Index Movement

Source: Nepal Stock Exchange, 2019

NEPSE index is calculated by considering all listed share including that promoter share of all listed companies at NEPSE. NEPSE Index was in decreasing trend till year 2014/15 and starts increasing from year 2015/16.



Movement of NEPSE Index



The diagram 4.4 shows the trend line of NEPSE index movement from year 2012/13 to year 2017/18. This show the decreasing downward NEPSE index from year 2014/15 and then after, the market movement went upward and NEPSE index reach 1718.2 point.

4.2.1 Expected return, S.D. and C.V. of Market Returns

Table 4.11

Expected return, S.D. and C.V. of Market Returns

Statistical Tools							
Expected return							
Standard Deviation							
Coefficient of Variation						1.8944	
Fiscal 2012/13 2013/14 2014/15 2015/16 2016/17							
year							

Market	0.3299	0.9990	-0.0722	0.7875	-0.0788	-0.2339
return						

Source: Annex 1

Expected market return is 28.85%, standard deviation is 54.67% and C.V. is 189.44%.

4.3 Comparative Analysis of Sample Commercial Bank Based on Expected Return, Standard Deviation and C.V.

Table 4.12

Expected Rate of Return, Standard Deviation and C.V. of Sample Banks

S.N.	Banks	Expected Return	Standard Deviation	C.V.
1	NABIL	24.84%	49.05%	197.46%
2	NSBIL	37.37%	74.73%	199.94%
3	HBL	29.40%	60.11%	204.44%

Source: Annex 1

Table 4.12 shows the comparison of Expected Returns, Standard Deviation and the Co-efficient of variation between 3 commercial banks. The statistical results imply that over the study period, NSBIL has the highest expected return i.e. 37.37%. The lowest expected return is 24.84% which is observed in NABIL. Based on Standard deviation (risk) securities of sample banks, the standard deviation of the return on the share of NABIL is lowest one. Looking at the coefficient of variation, the shares of the NABIL has the lowest risk per unit of return and the highest is NSBIL. Investment in NABIL is the most desirable among three banks because for one unit of return, investor should bear only 1.9746 unit of risk.

4.4 Market Sensitivity (Beta Co-efficient Analysis)

Market sensitivity of the stock is explained by its beta co-efficient. Beta co-efficient (β) measures how much systematic risk on the assets has. It measures the responsiveness of security to movement in the market and shows the volatility of the

stock which cannot be diversifiable. Beta co-efficient of the market is always equal to one (1).

Table 4.13

S.N.	Sampled Banks	Beta (β)	Types of Stock
1	NABIL	0.5167	Defensive
2	NSBIL	0.7972	Defensive
3	HBL	0.5881	Defensive

Beta co-efficient of Three Commercial Banks

Source: Annex 3

According to table 4.13, the beta of NABIL, NSBIL and HBL are 0.5167, 0.7972 and 0.5881 respectively. Beta of NABIL lesser than 1 and NSBIL and HBL have also less than 1. Beta greater than 1 is highly sensitive with market as the beta is positive. It means if the banking sector return raises, the stock return of bank will also rises. If the banking return rises by 1%, then the stock return of NABIL will raise by about 0.5167 and vice-versa. NSBIL has the highest beta coefficient with the banking sector. That means its stock moves more sensitive than other 2 sampled bank's beta. The stock of NABIL has the lowest beta co-efficient with banking sector which means that its stocks are less sensitive than others. Thus, comparing the beta coefficient of 3 sample commercial banks, we can say that the stock of NSBIL is more risky and the stock of NABIL is less risky than other.

4.5 Analysis of Required Rate of Return under CAPM Method

Price evaluation determines the overpriced and under-priced of stock. The comparison of required rate of return and expected rate of return gives the result of overpriced, under-priced and correctly price stock. There are three conditions of price evaluation, they are as follows:

Expected rate of return >Required rate of return = under-priced

Expected rate of return = Required rate of return= Correct price

Expected rate of return < Required rate of return = Overprice

For the price evaluation, we have to calculate the required rate of return. The required rate of return can be calculated as

$$E(R_j) = Rf + [E(Rm) - Rf)] B_j$$

Where,

Rf = Risk free rate of return

E(Rm) = Expected market rate of return

In the above equation the risk free rate of return (Rf) is needed to determine. The interest rate of Treasury bill issued by Nepal Rastra Bank is taken as Rf in Nepal. As given in annual report of NRB, in F/Y 2017/18, the weighted average interest rate of 91 days treasury bills remained at 1.19% while it was 1.15% in the previous year. Hence the requirements of the equations are:

Rf = Risk free rate of return = 1.19%

E(Rm) = Expected market rate of return = 28.85%

Table 4.14

Required Rate of return, Expected Rate of Return and Price Evaluation

Banks	Beta	$\mathbf{E}(\mathbf{R}_{j}) = \mathbf{R}f + [\mathbf{E}(\mathbf{R}\mathbf{m}) - \mathbf{R}f] \mathbf{B}_{j}$	Expected	Price Evaluation
			Return	
NABIL	0.5167	15.48%	24.84%	Better to buy
				(Underpriced)
NSBIL	0.7972	23.24%	37.37%	Better to buy
				(Underpriced)
HBL	0.5881	17.45%	29.40%	Better to buy
				(Underpriced)

Source: Annex 2, 3

From the table 4.14, NSBIL, NABIL and HBL are under priced, so this bank is in demand and has investment opportunities. The investors can gain from buying the under priced stock. But the price of stocks will increase only up to the point where expected rate of return equal to required rate of return.

4.6 Analysis of Systematic Risk and Unsystematic Risk of Sampled Banks

The total risk of the sampled commercial banks can be classified into systematic risk and unsystematic risk. We can further partition the total risk which is shown in the table below in percentage basis.

Table 4.15

S.N.	Sampled Banks	Portion of SR (%)	Portion of USR (%)
1	NABIL	33.13%	66.87%
2	NSBIL	33.98%	66.02%
3	HBL	28.59%	71.41%

Partition of SR and USR in Total Risk of three Sampled Banks

Source: Annex 3

Table 4.15 shows that partition of total risk into two part i.e. systematic risk and unsystematic risk, NSBIL, NABIL and NSBIL have lowest SR and more portion USR which show their poor management capability because unsystematic risk arises from internal factor which can be eliminated. The table shows clearly that all sample banks are efficient enough to manage and diversify its internal affairs and hence their unsystematic risk is higher compared to systematic risk but because of market risk or macro-economic factors like inflation, interest rate, severe political instability etc. their systematic risk which cannot be diversified, is less. In terms of internal management capability, NSBIL is the best among three banks. Because its Unsystematic risk is the least i.e. only 66.02%.



Partition of SR and USR in Total Risk of Three Sample Banks

The diagram 4.5 shows that HBL, NABIL and NSBIL have lesser SR than USR. The unsystematic risk can be eliminated from portfolio creation at investment but systematic risk cannot be diversifiable. From the calculation NABIL has the highest SR (33.13) and the lowest USR (66.87%) and NSBIL has lowest SR (33.98%) and highest USR (66.02).

4.7 Analysis about Creating Optimal Portfolio

The portfolio is the holding of securities and investment in different financial assets i.e. bond, common stock. Portfolio management is related to efficient portfolio investment in financial assets. If portfolio is being constructed, thy can reduce unsystematic risk without losing considerable return. The portfolio analysis is performed to develop a portfolio that has the maximum return at whatever level of risk an investor thinks appropriate. Therefore, we need to extend our analysis about creating an optimal portfolio to search for the better investment. The research study takes into consideration of 3 portfolio creation between two banks separately NABIL and NSBIL, NSBIL and HBL, and NABIL and HBL for creating optimal portfolio which will minimizes the risk and maximize the return.

Table 4.16

Tabulation of Portfolio Risk and Return on Different Weight invested in NABIL and HBL

Investment	Investment	Return Portfolio	Standard
proportion in	proportion in	(R _p)	Deviation (o _p)
NABIL (Wa)	HBL (Wb)		
1	0	0.2484	0.4905
.75	.25	0.2595	0.4528
.50	.50	0.2712	0.4620
.25	.75	0.2826	0.5772
0	1	0.2940	0.6011

Source: Annex 5

According to table 4.16, we get return portfolio and standard deviation portfolio from investing different proportions in NABIL and HBL. The maximum return portfolio is 25.95%, if 75% investment is made into NABIL and minimum standard deviation is 45.28%.

Investment Proportion

Table 4.17

Return Portfolio and Standard Deviation between NABIL and NSBIL

Weight of NABIL	Weight of NSBIL	Return Portfolio (R _p)	S.D. (σ _p)
91.95%	8.05%	25.84%	48.78%

Source: Annex 6

Table 4.17 shows that the return portfolio and standard deviation portfolio of sample banks taken for the study. If 91.95% investment is made in NABIL and 8.05% in NSBIL then the portfolio return will be 25.84% and portfolio standard deviation will be 48.78%.

Investment Proportion

Table 4.18

Return Portfolio and Standard Deviation between NSBIL and HBL

Weight of NSBIL	Weight of HBL	Return Portfolio (R _p)	S.D. (σ _p)
27.15%	72.85%	31.55%	63.93%

Source: Annex 7

Table 4.18 shows that, if 27.15% invested in NSBIL and 72.85% in HBL then the return will be 31.55% and standard deviation will be 63.93%. And the last portfolio combination of the study is between NABIL and HBL.

Investment Portfolio and Standard Deviation

Table 4.19

Return Portfolio and Standard Deviation between NABIL and HBL

Weight of NABIL	Weight of HBL	Return Portfolio(R _p)	S.D.(σ _p)
34.96%	65.04%	27.80%	48.93%

Source: Annex 8

Table 4.19 shows that if investment of 34.96% is made on NABIL and 65.04% on HBL its return portfolio is 27.80% and 48.93% of standard deviation respectively. In comparison to three portfolios so created above, the best portfolio so far made is between NSBIL and HBL.

In conclusion, to be optimal portfolio, 27.15% should be invested in NSBIL and rest i.e. 72.85% should be invested in HBL having the optimal portfolio return as 31.55 with the risk 63.93% which is the optimal combination of portfolio among the three portfolio combinations.

4.8 Major Findings and Discussion

On the basis of the above analysis and presentation of data, the major findings and discussion of the study are as follows:

- 1. The study found that closing market price of NABIL is higher in year 2013/14 and has gradually decreased up to the year of 2014/15 and then started to increase in the year of 2015/16. The bank has distributed cash dividend ranging from Rs 6.84 to Rs 45 per share every year. NABIL has highest total dividend is in year 2013/14 of Rs 65 and lowest is in year 2017/18 of Rs 34 respectively.
- 2. The earning per share of NABIL is highest in the year 2013/14 and lowest in year 2017/18.
- 3. The study found that, the expected rate of return of NABIL is 24.84% with the standard deviation of 49.05% and co-efficient of variation of NABIL is 197.46%. This denotes that to get per unit return, the investor has to undergo with 197.46% risks.
- 4. The study found the beta coefficient of NABIL is found 0.3253 which is lesser than one (1), therefore, it is defensive type of asset. That means stock of NABIL is slightly volatile than the market. Beta is an indicator of systematic risk and is found to be maximum. So, this is less aggressive type of asset and found to be less risky. Correlation coefficient between market and NABIL is 0.5686 which supported by Maharjan (2016) and Upadhaya (2017)..
- 5. The study found that closing market price of the share of NSBIL is in decreasing trend up to the year of 2014/15 and started to increase in year 2015/16 and in year 2015/16 is the highest over the six years period.
- 6. The study found that the Expected Rate of Return of NSBIL is 37.37% with the standard deviation of 74.73% and Co-efficient of variation of NSBIL is 199.94%. This denotes that to get per unit, the investor has to undergo with 199.94% risks.
- 7. The study found that the Beta co-efficient of NSBIL is found 0.2859 which is less than one(1). Therefore, it is defensive type of asset i.e. it has moderately risk and return than market. That means stock of NSBIL is less volatile than the market. Correlation co-efficient between market and NSBIL is -0.2546. This shows negative relationship between market and NSBIL's stock. NSBIL has 2.75% systematic risk which is non-diversifiable but it has 39.73% unsystematic risk from the total risk.

- 8. The study found that that the closing price of MPS of HBL is higher in year 2015/16 and it has decreasing trend thereafter till year 2017/18.
- 9. The study found that the expected rate of return of HBL is 29.40% with the standard deviation of 60.11% and co-efficient of variation of HBL is 204.44%. This denotes that to get per unit return, the investor to undergo with 204.44% risks
- 10. The study found that the beta co-efficient of HBL is found 0.4296 which is less than one (1). Therefore, it is defensive type of assets. That means stock of HBL is less volatile than the market. Correlation coefficient between market and HBL is 0.5066 which was not supported by Maharjan (2016). and Upadhaya (2017)..
- 11. The study found that, the statistical results imply that over the study period, NSBIL has the highest expected return i.e. 37.37%. The lowest expected return is 24.84% which is observed in NABIL. Based on Standard deviation (risk) securities of sample banks, the standard deviation of the return on the share of NABIL is lowest one. Looking at the coefficient of variation, the shares of the NABIL has the lowest risk per unit of return and the highest is NSBIL. Investment in NABIL is the most desirable among three banks because for one unit of return, investor should bear only 1.9746 unit of risk.
- 12. The study found that the maximum return portfolio is 25.95%, if 75% investment is made into NABIL and minimum standard deviation is 45.28%.
- 13. The study found that If 91.95% investment is made in NABIL and 8.05% in NSBIL then the portfolio return will be 25.84% and portfolio standard deviation will be 48.78%. Similarly, if 27.15% invested in NSBIL and 72.85% in HBL then the return will be 31.55% and standard deviation will be 63.93%. And the last portfolio combination of the study is between NABIL and HBL. If investment of 34.96% is made on NABIL and 65.04% on HBL its return portfolio is 27.80% and 48.93% of standard deviation respectively. In comparison to three portfolios so created above, the best portfolio so far made is between NSBIL and HBL which supported by Maharjan (2016). and Upadhaya (2017)..

14. In conclusion, to be optimal portfolio, 27.15% should be invested in NSBIL and rest i.e. 72.85% should be invested in HBL having the optimal portfolio return as 31.55 with the risk 63.93% which is the optimal combination of portfolio among the three portfolio combinations which supported by Maharjan (2016). and Upadhaya (2017).

CHAPTER V

CONCLUSIONS

5.1 Conclusions

The study concluded that the closing market price of NABIL is higher in year 2013/14 and has gradually decreased up to the year of 2014/15 and then started to increase in the year of 2015/16. The bank has distributed cash dividend ranging from Rs 6.84 to Rs 45 per share every year. NABIL has highest total dividend is in year 2013/14 of Rs 65 and lowest is in year 2017/18 of Rs 34 respectively. The earning per share of NABIL is highest in the year 2013/14 and lowest in year 2017/18. The study found that, the expected rate of return of NABIL is 24.84% with the standard deviation of 49.05% and co-efficient of variation of NABIL is 197.46%. This denotes that to get per unit return, the investor has to undergo with 197.46% risks. The study concluded that beta coefficient of NABIL is found 0.3253 which is lesser than one (1), therefore, it is defensive type of asset. That means stock of NABIL is slightly volatile than the market. Beta is an indicator of systematic risk and is found to be maximum. So, this is less aggressive type of asset and found to be more less risky. Correlation coefficient between market and NABIL is 0.5686.

The study found that closing market price of the share of NSBIL is in decreasing trend up to the year of 2014/15 and started to increase in year 2015/16 and in year 2015/16 is the highest over the six years period. The study found that the Expected Rate of Return of NSBIL is 37.37% with the standard deviation of 74.73% and Coefficient of variation of NSBIL is 199.94%. This denotes that to get per unit, the investor has to undergo with 199.94% risks.

The study found that that the closing price of MPS of HBL is higher in year 2015/16 and it has decreasing trend thereafter till year 2017/18. The study found that the expected rate of return of HBL is 29.40% with the standard deviation of 60.11% and co-efficient of variation of HBL is 204.44%. This denotes that to get per unit return, the investor to undergo with 204.44% risks. The study found that the beta co-efficient

of HBL is found 0.4296 which is less than one (1). Therefore, it is defensive type of assets. That means stock of HBL is less volatile than the market. Correlation coefficient between market and HBL is 0.5066.

The study found concluded that the NSBIL has the highest expected return i.e. 37.37%. The lowest expected return is 24.84% which is observed in NABIL. Based on Standard deviation (risk) securities of sample banks, the standard deviation of the return on the share of NABIL is lowest one. Looking at the coefficient of variation, the shares of the NABIL has the lowest risk per unit of return and the highest is NSBIL. Investment in NABIL is the most desirable among three banks because for one unit of return, investor should bear only 1.9746 unit of risk.

The study found that the maximum return portfolio is 25.95%, if 75% investment is made into NABIL and minimum standard deviation is 45.28%. The study found that If 91.95% investment is made in NABIL and 8.05% in NSBIL then the portfolio return will be 25.84% and portfolio standard deviation will be 48.78%. Similarly, if 27.15% invested in NSBIL and 72.85% in HBL then the return will be 31.55% and standard deviation will be 63.93%. And the last portfolio combination of the study is between NABIL and HBL. If investment of 34.96% is made on NABIL and 65.04% on HBL its return portfolio is 27.80% and 48.93% of standard deviation respectively. In comparison to three portfolios so created above, the best portfolio so far made is between NSBIL and HBL.

In conclusion, to be optimal portfolio, 27.15% should be invested in NSBIL and rest i.e. 72.85% should be invested in HBL having the optimal portfolio return as 31.55 with the risk 63.93% which is the optimal combination of portfolio among the three portfolio combinations.

5.2 Implications

At end of this study it is recommend some of the points which is helpful for the individual investors who are going to invest their valuable capital in the market so that their wealth will be invest in right stocks. The following recommendations are prescribed on the basis of data analysis and major finding of this study.

- 1. Generally, it is believed that higher the return, higher will be risk. Investment risks are better covered through a large and diversified portfolio. Diversifying an investment is a way of reducing the risk. Here, all the risky sampled banks are recommend diversifying their investment policy in less risky securities.
- 2. Expected return recommends that banking sector's common stocks are the best options for the investment as they are providing attractive rate of return.
- 3. According to the analysis of individual asset of bank, investors should invest their money in the assets which has lowest C.V; maximum expected return and medium risk. The market sensitivity of common stocks also helps to invest the funds, so it is better to invest the shares of beta less than 1(i.e. defensive stock)
- 4. Investors must concern with the portion of systematic risk which arises from external factors which cannot be diversifiable but unsystematic risk can be diversified. This type risk arises from internal factor. Asset of NABIL has the highest systematic risk from total risk. So NABIL is recommend and HBL has the lowest systematic risk but the highest unsystematic risk that shows weakness in management to deal with internal factors which have created unsystematic risk.
- 5. Investors need to diversify their fund to reduce the risk. Proper construction of portfolio will reduce considerable potential loss, which can be defined in terms of the risk but portfolio construction is dynamic and difficult job. Thus, investors should select the stock that have higher return and negative correlation or near to zero correlation between different banks and sectors. The portfolio revision also necessary at certain interval time to get best return at lower risk.
- 6. It is recommend not to follow the general trend of buying and selling of the securities when it is going up and down because it is a risky strategy. The decision should be based on fact and figures rather use intuition and go blindly.
- 7. Last but not the least, it is recommended to all investors not to run after the financial institutions which provide maximum interest rate of return only. Some of them might be running at bad times. So, all the investors are recommended to invest in those institutions which guarantee the investor's investment though provided with low return. It is really a high time to focus

on "lower the risk, lower the return rather than higher the risk, higher the return".

5.3 Recommendation for Future Researchers

The study remains enough ground for future researchers which are listed below:

- 1. This study has taken only secondary data as sample. Academicians are suggested to take primary data as a sample for more convenient result.
- 2. The future studies can be carried out by selecting other financial institutions like development banks and finance companies to grab wider view of risk and return analysis.
- 3. This study is based on the study of commercial bank. Therefore, to incorporate wide geographical character of the study, further studies can be carried out by extending the study outside the financial institutions.
- 4. Future research may analyze different variables related to risk and return analysis using SPSS computer software.
- 5. The common stock returns of commercial banks are highly sensitive to market. They are highly positively correlated to the market. So, market should be further analyzed by the investors to balance risk and return properly.

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