

## **CHAPTER: I**

### **INTRODUCTION**

#### **1.1. Background of the study**

Common stockholders of a company are its ultimate owners. Collectively they own the company and it is assumed that ultimate risk is associated with ownership. So the common stock is risky security. It's hard to define, but you know it when you see it. Investor invests in common stock for higher return. But their expected return may or may not change in realities. This uncertainty is major risk to investors in stock market investment.

The return is income received on an investment, which is expressed as dividend, plus any change in market price of share and usually expressed in percent. Both market price of share and dividend are uncertain figures. So, the actual figure of return on investment in common stock may differ substantially from the expected return. The greater variability, the riskier the security is said to be. The market price of share of a company is driven both by fundamental business values and stock market sentiment. For a given business, it is always worth attempting to identify which of those is driving its share price (Shakya, 2009).

Generally investors are risk averse. They always seek higher return for more risk as risk premium. So the primary problem of investment is to identify the security, which has low risk and high return. Although, return cannot be increased substantially, risk can be reduced by diversification can eliminate the unsystematic risk, which is not explained by general market movement. Systematic risk, which is associated with change in return on the market as a whole, cannot be avoided with change in return on the market as a whole, cannot be avoided by the diversification (Manandhar, 2006).

Stock market indices are used to study the trend of growth pattern in the economy, to analyze as well as to forecast business cycles and to correlate it with economic activities. The higher index implies increase in market price of securities and he better performance of companies and vice versa. NEPSE follows the Standard and Poor's Index method for its calculation by taking the market capitalization of all listed securities based on February 12, 1994 prices as 100 (Kandel, 2018).

In Nepalese context, the institutional set up of securities market began along with the securities exchange center (now Nepal Stock Exchange Ltd.) in 1976. In spite of considerable development there are still more potentialities to be explored for the development of stock market in Nepal. Most of the potential investors and the shareholder public themselves are unknown or least understood about risk-return behavior of stock. Most of the Nepalese investors are finding to visit in single security due to lack of information and poor knowledge, market intermediates exploit investors. So, many investors are afraid to invest in stocks. People participation in securities investment and its dynamic trading plays a vital role in overall economic development. For this propose potential investors must be able to analyze risk and return of individual stock and portfolio as well. This will increase their confidence and ultimately increase stock investment and increase the degree of market efficiency, which is essential to spreading economic development of the nation (Kandel, 2018).

Investment in its simplest form means employing money to generate more money in future. It is the sacrifice of current rupees for future rupees. The sacrifice takes place in the present and is certain. But the reward comes later and is an uncertain. Return is the primary motive of investment, but it always entails some degree of risk. Buying common stocks, bonds, deposited money into bank account, buying a piece of land, gold or silver are some example of investment. All these examples involve sacrifice of current rupees in expectation of future return. Hence, they are investment. The main objective of investment is to maximize the wealth of an investor.

Investment can be made on real assets or financial asset. Investment on real assets is known as real investment and investment on financial assets is known as financial investment. Real investment means investment on real assets like land buildings, factory etc. financial investment means on financial asset like share, debentures, warrants and convertibles etc.

The term risk and return is closely associated with investment. Investment simply means sacrificing current funds for future returns, bearing certain risk. The investment may be on fixed assets like land, building or precious metals and collectibles or something else. But here as a student of finance, I have focused the term investment as sacrificing current fund on financial assets like shares, debenture, warrants, convertibles etc. for the long term return.

## 1.2 Problem statement

The key issue of this study is whether the MPS of listed commercial banks are really representing the financial indicators: Share price, EPS, P/E Ratio, Dividend Per Share.

The situation of stock market in Nepal worsened from 1995/96 onwards with the onset of political instability. Both the investment climate as well as the operational climate suffered leading to poorer results in many companies. As a result, the price at NEPSE nose-dived and it incurred heavy losses.

The period was 1997 to 1998, after which the situation improved somewhat with the commencement of operations by many finance companies, which paid out dividends. The improvement, however, was only marginal just to keep enough attentions.

The economic and political scenario became more volatile with the rise in insurgence which led to slowing down of economic activities resulting at worsening performance in many sectors like tourism and manufacturing, thus, leading to a more volatile and NEPSE. This shows that not only the economic factor but the volatility in the political factor might have the significant influence on the stock price. Therefore it is significant influence on the stock price. Therefore it is crucial to identify whether stock market get affected by the non-economic factors as well.

A very small proportion of manufacturing, trading and hospitality sectors are listed with NEPSE. More importantly, services sector which has shown tremendous growth after economic reforms, have hardly been listed except commercial banks, a few hotel and airline companies (both in the hospitality sector). The most affected are the manufacturing companies followed by trading and hospitality companies. Banks and finance companies, as compared to others are in better position. Such listed companies affect on the stock market are usually neglected while showing the factors influencing stock price in Nepal. More specifically the research questions are;

- i. What is the risk and return of common stocks of banks?
- ii. What is the existing situation of common stock financing of sample banks?
- iii. What are the comparative analysis of the risk and return on the common stocks of sample banks?

### **1.3 Objectives of the study**

The main objectives of the study are to assess the risk and return on common stock investment of listed commercial banks. The specific objectives of the study are as follows:

- i. To analyze the common stock in terms of risk and return.
- ii. To assess the existing situation of common stock financing of sample banks.
- iii. To examine the comparative analysis of the risk and return on the common stocks of sample banks.

### **1.4. Rationale of the study**

The study is to point out the risk and return position of investing shares of commercial banks in Nepal. The study is helpful for investors as well as commercial banks. It also provides proper guidelines for making choices of stocks and bonds on the basis of risk and return. It is also important to those people who are interested to know about risk and return and capital market in Nepal. It provides the consolidated basic data and information about the NEPSE and commercial banks under study. This study covers the investors' perception upon the risk and return factors while investing in common stocks of commercial banks. It provides the brief information on risk and return from the investors' perspectives.

This study is useful to several shareholders transacting in the share market. Nowadays, the number of investors investing in the share market is increasing. The outcome of the study can help them while making their transaction. The key players in the stock market like brokers, market makers can also be benefitted. They have access to the information regarding the factors influencing stock market given my research outcome. Such information is beneficial to make them alert and enable them to take sound decision. This study is also significant in the way that within the given time frame it has attempt to identify whether there is any political influence on stock market performance measured by NEPSE index. The idea is to use an approach where the analysis of the six quantitative factors influence on the stock market is identified. Following the result showing no significant influence on the stock market is identified. Following the result showing no significant influence, political factor implications is tested. Therefore, the outcome thus created may also have implications

for historical studies. Here the researchers can conduct in–depth study which can further provide the concrete result.

### **1.5 Limitations of the study**

As every research has its own limitation, the study is not free from it. Some limitations of this study are as follows:

- i. There are 27 commercial banks are listed in NEPSE. Only four banks have been taken purposively (Nepal Investment Bank Limited, Everest Bank Limited, Himalayan Bank Limited and Nabil Bank Limited) but the study does not include the entire listed commercial banks.
- ii. Only secondary data is used in this analysis.
- iii. The study is basically concerned only with the risk and return of the listed commercial banks i.e., other aspects of the banks have not been taken under the consideration.

Despite these limitations, this study has tried to provide valid result as well as in depth of risk and return of common stocks in Nepalese commercial banks.

### **1. 6 Chapter plan**

This study is organized or structured as follows:

#### **Chapter I: Introduction**

The first chapter of the research project provides basic information related to the research topic and outline of the study. It showcases background of the study, statement of problem and research questions, objectives of the study, significance of the study, limitation of the study.

#### **Chapter II: Literature review**

The second chapter is literature review. Second chapter includes some relevant literature available on the subject matter of the study; it consists of literature on emergence of concept of dividend policy from the review of books, articles and thesis related to the study field.

**Chapter III: Research methodology**

This chapter presents the research design and methodology utilized in this research. The research design and methodology includes the planned methods used while conducting the research which has helped to guide the research towards its main findings and conclusion. This chapter contains framework and procedure of the study, it deals with research methodology used to carry out the research, it includes research design, population and sample, sources and techniques of data collection, tools and techniques of data analysis.

**Chapter IV: Results**

The fourth chapter deals with the main results of the study. This chapter is heart of the study- This chapter contains presentation of data, their analysis and interpretation using financial and statistical tools such as financial indicators and variable analysis, multiple regression analysis, correlation coefficient analysis etc.

**Chapter V: Summary and conclusion**

This chapter outlines the discussion of results and suggestions for further research. This is final chapter of the research work; hence it revolves around showcasing summarized report of whole work. It focuses on concluding the work highlighting the main findings as well as making recommendations and providing guidelines for the prospective users, readers and future researchers.

## **CHAPTER: II**

### **LITERATURE REVIEW**

In the field of finance in Nepal it is very difficult to get advanced and research based journal. There are very limited numbers of journals available in the subject of management and it is also hard to find any article in the subject matter of finance. Almost no articles about the risk and return analysis on common stock investment are found. Hence some foreign well known recently published journals of finance has been reviewed here. However, it helps to build the conceptual framework on this topic.

#### **2.1 Theoretical review**

Concept of risk and return arises due to dividend policy component i.e. DPS, MPS and P/E etc. given in this section.

##### **2.1.1 Theories of stock price behavior**

There are two theories of price behavior i.e. classical approach and efficient market theory approach. Classical or conventional approach includes fundamental analysis theory and technical analysis theory. Under efficient theories, there are three forms of efficient market hypothesis. Classical approach assures market as inefficient whereas the efficient market theory investors were generally divided on to two groups, fundamentalists and technicians (Pastor & Veronesi, 2012).

##### **Classical approach**

The classical or conventional approach includes fundamental analysis and technical analysis theory. Fundamental analysis or approach forecast stock price on the basis of earning and dividend of the company. The fundamental analysis theory holds that the market value of a share is based on certain intrinsic or fundamental factors such as the earnings, dividends, growth potential, debt equity mix etc. whereas technical analysis theory talks about the stock prices on the basis of past price behaviour of the company, which suggests by the plotting the market price of shares over a period of time on a chart, that can determine certain patterns (Blanchard & Perotti, 2002). Fundamental analysis, technical analysis, random walk theory are significance theory under classical approach

**Efficient market theory**

The term efficiency may be defined in various ways. For instance: allocation efficiency, operational efficiency and informational efficiency. The word 'efficiency' in security market has unfortunately been used to represent a variety of logically distance concepts. Efficiency has different dimensions such as; exchange efficiency production efficiency and information efficiency. However, present study concerns only with information efficiency in the pricing of stocks. When the financial literature speaks on market efficiency, it exclusively speaks about information efficiency in pricing the stock. A market is said to be information efficient if, the current market price is instantaneous and fully reflects all relevant available information. The market value of a particular share may be under or overvalued. An efficient market is one where shares are always correctly priced and where it is not possible to outperform the market consistently (Blanchard & Perotti, 2002).

Efficient market theory contends that in a free and perfect competitive market, stock price always reflects all the available information and adjusts with every influx of new information instantaneously. In efficient market securities prices fully reflect available information. In efficient market, price change would only occur from new information. An initial and every important premise of an efficient market is that there are large numbers of knowledge and profit maximizing independent buyers and sellers, new information is generated randomly and investors adjust the information rapidly (Pastor & Veronesi, 2012). Therefore, if market is efficient, it uses all available information to set price. The measure of efficiency evolved from the notion of perfect competition, which assumes free and instantly available information rational investors with no taxes or transaction cost. Weak form market efficiency, Semi-strong form market efficiency and Strong form market efficiency are important theory under efficient market theory.

**Modigliani and miller's (MM) theory**

A financial theory stating that the market value of a firm is determining by its earning power and the risk of its underlying assets, and is independent of the way it chooses to finance its investments or distribute dividends. Remember, a firm can choose between three methods of financing: issuing shares, borrowing or spending profits (as opposed to dispersing them to shareholders in dividends). The theorem gets much more



complicated, but the basic idea is that, under certain assumptions, it makes no difference whether a firm finances itself with debt or equity.

This theorem states that, in the absence of taxes, bankruptcy costs, and asymmetric information, and in an efficient market, a company's value is unaffected by how it is financed, regardless of whether the company's capital consists of equities or debt, or a combination of these, or what the dividend policy is. The theorem is also known as the capital structure irrelevance principle (Pastor & Veronesi, 2012).

A number of principles underlie the theorem, which holds under the assumption of both taxation and no taxation. The two most important principles are that, first, if there are no taxes, increasing leverage brings no benefits in terms of value creation, and second, that where there are taxes, such benefits, by way of an interest tax shield, accrue when leverage is introduced and/or increased (Blanchard & Perotti, 2002).

The theorem compares two companies: one unlevered (i.e. financed purely by equity) and the other levered (i.e. financed partly by equity and partly by debt) and states that if they are identical in every other way the value of the two companies is the same.

### **2.1.2 The return of common stock**

The concept of return has different meanings to different investors. Some investors seek near-term cash flows and give less value to more distant returns. Such an investor might purchase the stock of one that pays a large cash dividend.

Return, better known or reward from an investment, includes both current income and capital gains or losses that arise by the increase or decrease of the security price. Return is the income received on an investment plus any change in market price, usually expressed as a percent of the beginning price of the investment. The overall rate of return can be decomposed into two parts: capital appreciation and dividend. Capital appreciation is the difference between ending value and beginning value of an investment. Return is defined as the dividend yield plus the gain or loss. The relationship between different levels of return on their relative frequencies is called a probability distribution. We could formulate a probability return over the previous period. But we know that history never repeats itself exactly. Hence, after analyzing relative frequencies of 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 other factors.

For investors, return is considered as the main attraction to invest in a risky security as a stock (equity share) accepting a varying degree of risk tolerance. "The return from holding an investment over some period says a year is simply and cash payments received due to ownership plus the change in market price divided by the beginning price. Thus the return comes from two source, income and price appreciation

For common stock, we can define, one period (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<sub>t</sub> = Cash dividend at the end of time period t

P<sub>t</sub> = Stock's price at the time period t.

P<sub>t-1</sub> = Stock's price at the 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 one period return (when based on expected dividends and prices). The return in the parenthesis is the " number of the above equation represents the capital gain or loss during the period. (Van Home, and Wachowicz; 1997:159)

Holding period return measures 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 investments yield. The yield calculated is present value based and this considers the time value of money.

Annualized rate of return over several periods can be calculated in two ways. The first one is simply to take the arithmetic average of the annual holding period returns over

a given period and the second one, which also takes account the compounding effects of cash receipts over different time intervals, is the geometric mean rate of return.

The simple arithmetic means:

$$\overline{\text{HPR}} = \sum_{t=1}^n \frac{\text{HPR}_t}{n}$$

The Geometric mean.

$$\overline{\text{HPR}}_g = \sum_{t=1}^n (1 + \text{HPR}_t)^{1/n} - 1$$

Where,  $\text{HPR}_t$  is the individual period return,  $n$  is the number of period and  $\sum$  represents the product (or the result of multiplying (Cheney and Moses; 1996;93).

### 2.1.3 The risk on common stock

In the most basic sense, risk is the chance of financial loss. Assets having greater chances of loss are viewed as more risky than those with lesser chances of loss. More formally, the term risk is used interchangeably with uncertainty to refer to the variability of returns associated with given asset (Gitman, & Joehnic, 1985).

Different people interpret uncertainties and risk in different ways. Uncertainties and risk are the facts of life so as to common stock holders. For some uncertainty 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 of losing some value. Risk and uncertainty are treated separately in financial analysis. The practice is to translate the uncertainty into a mathematical value, which represents the best estimate of all uncertain values. In; other words, uncertainty is taken care of by calculating the expected value of all possible uncertain outcomes. But risk is treated differently. Although magnitude of risk from uncertainty depends on the degree of variability in uncertain cash flow and it is measured in terms of standard deviation. Risk is a complicated subject and needs to be properly analyzed.

Therefore risk may define as the likelihood that the actual return from an investment will be less than the forecast returns stated differently, it is the variability of return from an investment.

Risk, defined most generally, is the probability of the occurrence of unfavorable outcomes. But risk has different in different context. In our context, two measure of return and risk. There are the mean and the standard /deviation of the probability distribution, (Weston and Brigham; 1997:93) instead of measuring risk. The probability of a number of different possible outcomes the measures of risk should somehow estimate the extent to which the actual outcomes is likely to diverge from the expected outcomes standard deviation is a measure that does this since it is an estimate of the likely divergence of actual return from an expected return." (Sharpe, Alexander and Bailey; 1995:182).

Following models are used to measure risk:

### **The range**

"The range (maximum return- minimum return) is known as one of the tradition way of measuring risk. It simply shows the difference between the possible return and the worst possible return but does not provide information about the distribution rates of return between the extremes.

i.e. The Range = Best possible rate of return - worst possible rate of return

### **Standard deviation**

This is a measurement of the dispersion of forecast returns when such returns approximate a normal probability distribution. It is a statistical concept and is widely used to measure risk from holding a single asset. This is conventional measure of the dispersion or deviation or variation. The greater the S.D, the greater the risk of the investment.

The standard deviation provides more information about the risk of asset. It measures the magnitude of the difference between best possible return and the worst possible return. Hence, it measures the degree of risk of common stock. Because we have defined risk as the variability of returns, we can measure risk by examining the tightness of the probability distribution associated with the possible outcome. Hence, the tighter the probability distribution of the expected returns the less its variability thus the small risk associated with the investment. Standard Deviation is denoted by the Symbol 'σ' (sigma). It can be expressed mathematically as:

$$\sigma = \sqrt{\sum_{i=1}^n (R_i - \bar{R})^2 P_i}$$

Where,  $R_i$  = Expected rate of return

$P_i$  = Probability

$\sigma$  = Standard Deviation

$R_i$  = Return for  $i$ th possibility

Standard Deviation is the weighted average deviation from the expected value, and it gives an idea of how far above and the actual value likely to be. It is the statistical tool for measuring risk. It measures the total risk of a security consisting both systematic and unsystematic risk. Standard deviation with lower value is acceptable.

"A Standard Deviation can some times be misleading in comparing the risk or uncertainty surrounding alternatives if they differ in size. To adjust for the size or scale, problem, the standard deviation can be divided by the expected return to compute the coefficient of variation (C.V.)

$$\text{Coefficient of variation (C.V.)} = \frac{\sigma}{\bar{R}}$$

Thus, the coefficient of variation is a measure of relative dispersion (risk) - a measure of risk per unit of expected return. The larger the C.V. the larger the relative risk of the investment. [Van Home and Wachowicz; 1997; 94] .;

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

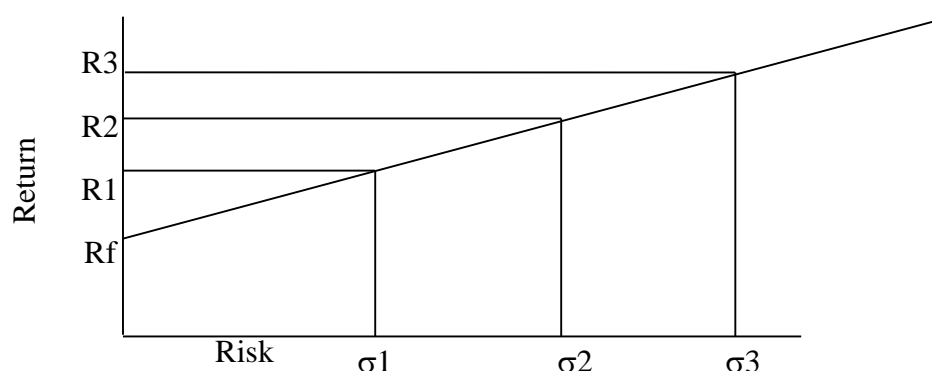
### **Subjective estimates**

A Subjective risk measure occurs when qualitative rather than quantitative estimates are used to measure dispersion. As an example an analyst may estimate that a proposal offers a 'low' level of risk. This means that, in the analyst's view- the dispersion of return will not be very wide. Similarly, a 'high' risk level will allow a company a project whose forecast return may vary a great deal.

### 2.1.4 Relationship between risk and return

The relationship between risk and return is described by investor's perception about risk and their demand for compensation. No investor will like to invest in risky asset unless he is assured of adequate compensation for the assumption of risk. Therefore, it is the investor required risk premium that establishes a link between risk and return. In a market dominated by rational investors higher risk will command by rational premium and the trade off between the two assumes a linear relationship between risk and risk premium.

Fig. No. 2.1 Relationship between Risk and Return



The figure represents higher premium for higher risk in a linear fashion indicating a premium of  $(R1-Rf)$  for  $\sigma1$  degree of risk  $(R2-Rf)$  for  $\sigma2$  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.  $Rf$  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 the markets trade-off between risk and return. Rational investors would agree that an investment required return should increase as the risk of investment increase. For all, except risk free securities, the return we expect may be different from return we receive. For risky security (common stock) the actual rate of return can be.

$$Expected\ return(R) = \bar{R} = \sum_{i=1}^n (R_i)(P_i)$$

Where

$R_i$  = Return for the  $i$ th possibility

$P_i$  = Probability of  $i$ th possibility and

$n$  = Total no. of possibility

Then the expected return is simply a weighted average of the possible return with the weights being the probabilities of 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 greater the standard deviation of returns, the greater the risk of the investment. The standard deviation ( $\sigma$ ) can be expressed mathematically as:

$$\sigma = \sqrt{\sum_{i=1}^n (R - \bar{R})^2 (P_i)}$$

Common stock returns, a continuous distribution is a more realistic assumption, my number of possible outcome ranging from a large loss to large gain are possible.

A return distribution standard deviation turns out to be rather versatile risk measures. It is serving as an absolute measure of return variability. The higher the standard deviation-the greater the uncertainty, concerning the actual outcome. In addition, we can use it to determine the likelihood that an actual outcome will be greater or less than a particular amount using following formula

$$Z = \frac{R - \bar{R}}{\sigma}$$

$R$  = the return range limit of interest

$Z$  = Z-score which tells us how many standard deviations  $R$  is from the mean

### **2.1.5 Portfolio**

Investors rarely place their entire wealth into a single asset 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 ore securities or assets is portfolio. Portfolio management is related to the efficient portfolio investments in financial assets. It has following two types of objectives.

1. Primary Objectives
  - i. To minimize risk

- ii. To maximize return
2. Secondary objectives
- i. Regular return
  - ii. Safety of investment
  - iii. Stable income
  - iv. Tax benefit
  - v. Appreciation of Capital

The expected return on the Portfolio is simply a weighted average of the expected returns of the individual securities that they are included in the portfolio. The weights are equal securities (the weight must sum to 100% or 1). The general formula for expected return of a portfolio ( $\bar{R}_p$ ) is as follows.

$$\bar{R}_p = \sum_{j=1}^n W_j \bar{R}_j$$

Where,  $W_j$  = proportion of total funds invested in Security j

$\bar{R}_j$  = Expected return for security j

n = Total no. of different securities in the portfolio

While the portfolio expected return is a straight forward weighted average of returns on the individual security where as portfolio standard deviation is not the" weighted average of the individual. Security standard deviations would be to ignore the relationship or correlation between the returns of two securities. "The Standard deviation of probability distribution of possible portfolio return is

$$\sigma_p = \sum_{j=1}^n \sum_{k=1}^n W_j \cdot W_k \cdot COV_{jk}$$

Where, n = 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.



$COV_{jk}$  = covariance between the possible return of securities j and k

The covariance of the possible returns 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 the above formula can be written as.

$$COV_{jk} = r_{jk} \cdot \sigma_j \sigma_k$$

Where,  $r_{jk}$  = correlation coefficient between possible return for security j and k

$\sigma_j$  = S.D. of the security j

$\sigma_k$  = S.D. of the security k

When  $j = k$ , the correlation coefficient is 1 as variance movements correlated perfectly with itself.

"The Correlation coefficient which is significant in portfolio construction is standardized statistical measured of the linear relationship between two variables. Its range from -1 (perfect negative correlation) to +1 (Perfect positive correlation). Lesser the correlation - higher the reduction in portfolio risks". (Van Home and Wachciwicz; 1995: 97).

The positive correlation coefficient shows that the return from the securities generally moves in the some direction. While negative correlation coefficient shows that they move in opposite direction and zero correlation coefficient shows that the returns from two securities are uncorrelated. They show no tendency to vary together in either a positive or negative in linear function.

### **2.1.6 Systematic risk and unsystematic risk**

Systematic and unsystematic risks are the terms frequently used in the portfolio context. Combining securities that are not perfect positively correlated helps to reduce the risk of a portfolio to some extent. How much risk reduction is reasonable to expect and how many different security holding in portfolio would be required? Answer to the question will be explained in following paragraphs:

In the case of single stock, the risk of a portfolio is the standard deviation of that stock. As the randomly selected stocks held in the portfolio are increased, the total

risk of the portfolio is reduced. Such a reduction is at a decreasing rate. Thus a substantial proportion of the portfolio risk can be eliminated with a relatively moderate amount of diversification.

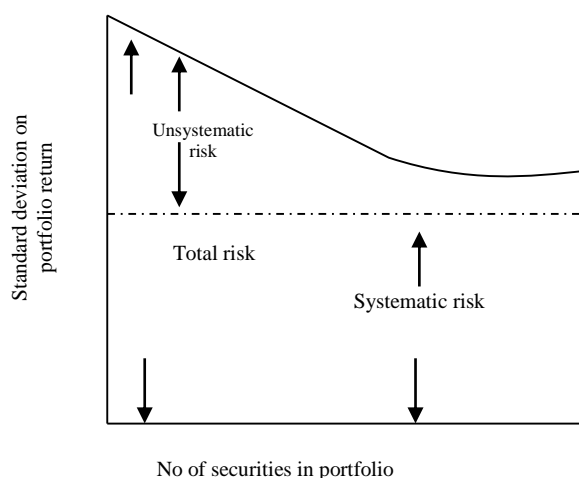
Systematic risk has its source factors that affect all the marketable assets and this cannot be diversified way. Systematic risk is due to the risk factor that affects the overall market such as changes in national economy, tax reform by the government or changes in the world energy situation. The sources of systematic risk are market pervasive. The measure of systematic risk permits an investor to evaluate an assets required rate of return relative to the systematic risk of the stock. In other words over an investor who holds a well diversified portfolio will be exposed to this type of risk.

Unsystematic risk is risk unique to a particular company or industry. It is independent of economic, political and other factor that affect all securities in systematic manner. A wild cat risk may affect only one company a new competitor may begin to produce essentially the same product or a technological break through can make a existing product absolute. "For most stocks, unsystematic risk accounts for between 60 to 70 percent of stocks total risk or standard deviation. (Van Home and Wachowicz; 1997: 91)

The relationship among systematic, unsystematic and total risk are shown below.

Total risk ( $\sigma_1$ ) = systematic risk + unsystematic risk

Fig. No. 2.2 Systematic Risk and Unsystematic Risk



Where, systematic risk =  $\sigma_j P_{jm}$  and unsystematic risk =  $\sigma_j(1-P_{jm})$ . Here  $P_{jm}$  is the correlation coefficient between the return of given stock (j)k and the return on market portfolio.

However by diversification, unsystematic risk can be reduced and ever eliminated if diversification is efficient. Therefore, not all the risk involved in holding a stock is relevant since part of their risk can be diversified away. The important risk of stocks is its unavoidable systematic risk. Investor will be compensated for bearing this systematic risk. They should not however expect the market to provide may extra compensation for bearing avoidable risk. It is the large that lies behind Capital Assets Pricing Model (CAPM)

### **2.1.7 Capital asset pricing model (CAPM)**

The Capital Asset Pricing Model provides us a means by which to estimate required rate of return on a security. This models was developed by William F. Sharpe and John Linter in the 1960's and it has had important implications for finance ever since. And on the basis of price and divided data, expected return can be calculated with comparison of these two returns investors can analyzed whether the stock is under priced or overpriced.

Based on the behaviour of the risk adverse investors, there is implied on equilibrium relationship between risk and expected return to provide a return common stock with its unavoidable risk. This is simply the risk that cannot be avoided by diversification by diversification. The great the unavoidable risk of security, the greater the return that investor will expected from the security (Van Home, 1997:64)

"CAMP is the model that describes the relationship between risk and expected return. In this model, a security's expected (required) return is the risk free rate plus a premium based on the systematic risk of the security. This model is expressed as:

$$K_j = R_f + [E(R_m) - R_f] \beta_j$$

Where,  $K_j$  = required rate of return for stocks j

$R_f$  = Risk free rate

$E(R_m)$  = Expected return for market portfolio

$\beta_j$  = an index of systematic risk of stock j (beta coefficient)

"Beta measures the sensitivity of a stock's returns to change in the returns on the market portfolio. The beta of a portfolio is simply a weighted average of the individual stock betas in the portfolio". (Van home, 1997:100)

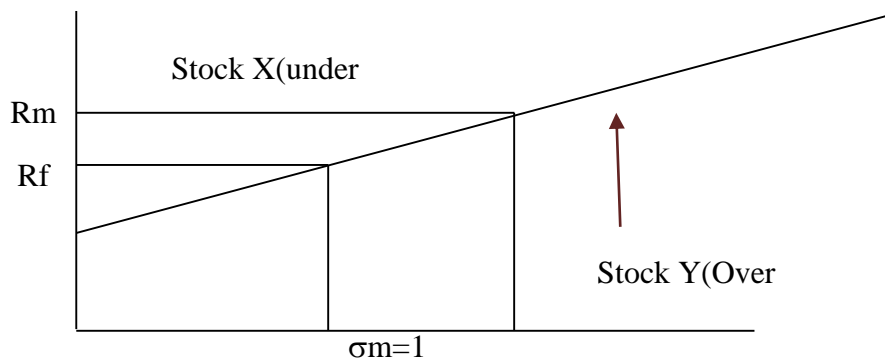
If beta is one (i.e.  $\beta = 1$ ) then the required return is simply the average return for all situation, that is the return on market portfolio, otherwise, the higher the beta, higher the risk premium and the total required return. However, a relatively high beta does not guarantee a relatively high return. The actual return depends partly on the behaviour of the market, which acts, as a prissy for general economic factor.

"The major implication of the CAPM is that the expected return of an asset will be related to a measure of risk for that asset known as beta ( $\beta$ ). The exact manner in which expected return and beta are related is specified by the CAPM. The model provides the intellectual basis for a number of the current practices in the investment industry." (Sharpe;1995:261)

The CAPM states that the expected risk premium on each investment is proportion to its beta. This means that each investment should lie on the sloping security market line connecting treasury bills and market portfolio. CAMP is the predominant model used for estimating equity risk and return. Comparison between the expected rate of return and required rate of return indicates whether the stock is under priced or overpriced. And when these two returns are equal then it is said table market equilibrium i.e. all the stocks lie on the Security Market Line (SML).

SML is, the graphical representation of the CAMP, which shows the relationship between risk and required rate of return. The SML clearly shows that returns are the increasing function, in fact at linearly increasing function of risk. Further, it is only market risk that affects return. The investor receives no added return for bearing the diversifiable risk. If stocks are under priced it lied above the SML and if they are overpriced lie below the SML. The following diagram shows the SML with over priced and the under priced stocks.

Fig. No. 2.3 Capital Asset Pricing Model (CAPM)



### Systematic risk (beta)

"Above figure clarifies that stocks X is under priced relative to the security market price while stock, Y is overpriced. As a result stock X is expected to provide a rate of return greater than that required based on its systematic risk. In contrast stock Y is expected to provide a lower return than that required to compensate for its systematic risk. Investors seeing the opportunity for the superior return by investing in stock X will rush, to buy.

This action would drive the price up and expected return comes down. It would continue until the market price was seen that the expected return would now lie on the SML. In the case of stocks Y, investors holding this stock will start to sell it, recognizing that they could obtain a higher return for some amount of systematic risk with other stocks. This selling pressure would drive market price down and its expected return goes up until the expected return matches on the SML. When the expected return for these two stocks returns to SML, market equilibrium will again prevail. (Van Home and Wachowicz; 1997: 107).

Under the CAPM, each investor holds the market portfolio and is concerned with its standard deviation because this will influence the slope of the SML and hence the magnitude of his/her investment in the market portfolio.

"The CAPM is sometimes used to estimate the required rate of return for a firm with publicly traded stock. The CAPM is based on the premise that the only important risk of firms is systematic risk, or the risk that returns from expose to general stock market movements. The CAPM is not concerned with so-called unsystematic risk,

which is specific to an individual firm, because investors can avoid that type of risk by holding diversified portfolios. (Madura; 2001:118).

Investors appear to be concerned principally with risk that they cannot eliminated by diversification. If this is not so, we find that stock prices increases. Whenever two companies merge to spread their risk, and we should find that investment companies which invest in the share of other firm are more highly valued than the shares they hold. But we do not observe either phenomenon. Mergers under taken just to spread risk don't increase stock prices and investment companies are no more highly valued them the stocks held. The CAPM model captures these ideas in simple way. That's why many financial managers find it is the most convenient for coming to the decision with the slippery motion of risk. And it is why economist often uses the APM to demonstrate important ideas in finance even when there are other ways to prove these ideas.

## **2.2 Empirical review**

Empirical review of journal, articles and thesis are given below;

### **2.2.1 Review of journals articles**

Rouwenhorst (1999) articles entitled "*Local Return factors and Turnover in Emerging Stock Markets*" by K Greet Rouwenhast. This paper examines the sources of return variation in emerging stock markets. Compared to the developed markets the correlation between most emerging market and stock market has been historically low and until recently many emerging country restricted investment by foreign investor. He attempts two set of question to answer. The first set of three questions concern the existence of expected return premiums. (i) Do the factors that explain expected return difference in developed equity markets also describe the cross section or expected returns of emerging market firms?(ii) Are the returns factors in Emerging markets primarily local or they have global components as well? (iii) How does the emerging market evidence contribute to the international evidence form developed markets that similar return factors are present in markets around the world? The set of questions of the paper include, (iv) is there a cross sectional relation between liquidity and average, returns in emerging markets? Are the return factors in emerging markets cross sectional correlated with liquidity? Total returns are calculated in the sum of the dividend return and price appreciation using prices scaled by a capital adjustment

factor, which the IFC computers to correct for price effects associated with stock splits, stock dividends and rights issues. Many emerging market have firms with multiple share assess are treated as a single value weighted portfolio of the outstanding equity securities. In this proper Roowenhorst has been made detail analysis of the data and he interprets the result in each section. Lastly, he has concluded his findings as "The first conclusion is that the return factors in emerging markets are qualitatively similar to those in developed markets: Small stocks outperform growth stocks and emerging market stocks exhibit momentums. There is no evidence that local market betas are associated with average returns. The low correlation between the country return factors suggest that the premium have a strong local character. Furthermore, global exposure cannot explain the average factor returns of merging market. This is little evidence that the correlation between the local factor portfolios have increase, which suggests that the factors responsible for the increase of emerging market country correlation are separated from those drives the difference between expected return within these markets. A Bayesian analysis of Premiums in developed and emerging markets shows that unless one has strong prior belief to the contrary. The empirical evidence favors the hypotheses that size, momentum and values strategies are compensated for in expected returns around the world. Finally, the paper documents the relationship between expected returns and share turnover and examines the turnover characteristics of the local factors portfolios. There is no evidence of relation between expected returns and turnover, in emerging markets. However, beta, size momentum and value are positively cross sectionally correlated with turnover in emerging markets. This suggests that return premium do not simply reflect a compensation for liquidity (Rouwenhorst, 1999:1462). After reviewing, an article entitled American Association of Individual Investors, Investing basis reveals importance to understand how personal circumstance affect investment decision. (If these factors make no difference we could simply publish one suggested portfolio for everyone to follow). Investment profile is the beginning of the asset allocation process, which consists of dividing portfolio among the major asset categories of stocks, bonds and cash. The asset allocation decision will have a far more effect on portfolio return.

Elton (1999) article entitled "*Expected Return, Realized Returns and Assets Pricing Tests*" by Edwin J. Elton as journal of finance in the year 1999 is relevant to this

study. In this paper he points out the fundamental issues in finance like that what the factors are that affect expected return on assets, the sensitivity of expected return to those factors, and the reward for bearing this sensitivity. There is a long history of testing in this area and it is clearly one of the most investigated areas in finance. Almost all of the testing being done is using realized returns as a process for expected returns. The use of an average realized return relies on a belief that information surprises tend to average out over the period of a study and realized returns are therefore an unbiased estimate of expected returns. However, he believes that there is ample evidence that this belief is misplaced. There are periods longer than 10 years during which stock market realized returns are on average less than the risk free rate (1973 to 1984). There are periods longer than 50 years in which risk long term bonds on average underperform the risk free rate (1927 to 1981). Having a risky asset with expected return above the risk free rate is an extremely weak condition for realized returns to be an appropriate process for expected return, and 11 and 50 years is an awful long time for such a weak condition not to be satisfied. In the recent past, the United States has had stock market returns of higher than 30% per year while Asian Markets have had negative returns. The journal of finance, published by American Finance Association for many decades is taken into account.

Yilmaz and Gulay (2006) made a study on Istanbul stock market and dividend policy keeping the major objective of examining the effects of cash dividend payments on stock returns and trading volumes in the stock market. It also investigates whether there is any difference in the investment behavior of investors with respect to the dividend payout ratio. They have used an event study methodology to assess the effect of cash payments on the prices of underlying assets. They have concluded that prices start to rise for a certain period before the cash dividend payments and on the ex dividend day, they fall less than do dividend payments, finally decreasing in the sessions following the payment. Similarly, trading volume showed considerable upward movement before the payment date and stable thereafter. Thus cash dividends influence prices and trading volume in different ways before, at and after providing greater opportunity for the investors to make some profitable active trading strategy.

Arjit et. al. (2010) make a study keeping the major objectives of examining and investigating the relative influence of the factors affecting Bombay Stock Exchange



(BSE) and thereby categorizing them. The determinants considered in this paper are Oil prices, Gold price, Cash Reserve Ratio, Food price inflation, Call money rate, Dollar price, Foreign Direct Investment (FDI), Foreign Portfolio Investment and Foreign Exchange Reserve (Forex). They have used statistical methods to do the analysis based on monthly basis database of different economical factors. They applied multiple regression model and factor analysis to identify the primary factors affecting Sensex. In conclusion they identified that the external reserve, inflation, oil price and cash reserve affect Sensex significantly.

Pastor and Veronesi (2012) made a study keeping the major objective of analyzing how changes in the government policy affect stock prices. They developed a simple asset pricing model featuring uncertainty about government policy and a government whose decisions have both economic and non-economic motives. The model makes numerous testable predictions. Like stock prices should fall at the announcement of policy change, decline in prices should be large if uncertainty about government policy is large and policy change is preceded by a short or shallow economic downturn, policy changes should increase volatilities and correlations among stocks and finally the jump risk premium associated with policy decisions should be positive, on average.

Sopipan et. al. (2012) made a study keeping major objective of forecasting the stock prices of top 50 listed companies on Stock Exchange of Thailand. They have used the multiple regressions considering high correlation (multi co linearity problem) among the explanatory variables. In order to avoid the problem they have used Principal Component Analysis (PCA). Thus they have employed principal component scores (PC) in a multiple regression analysis. They have concluded that 99.4% of the variation in the stock prices of top listed companies on Stock Exchange of Thailand can be explained by all PCAs.

Naik (2013) made a study keeping the major objective of investigating the impact of macroeconomic factors on stock market behavior considering Indian data. He applied Johansen's co-integration and vector error correction model to explore the long term equilibrium relationship between stock market index and macro economic variables. Here monthly data of five macroeconomic variables were used named industrial production index, inflation, money supply, short term interest rate, exchange rate and

stock market index of the period of 1994-2011. He concluded that the macroeconomic variables and the stock market index are co-integrated. Hence, long run equilibrium relationship exists between them.

Bhattarai (2014) studied on determinants of Share Price of Nepalese Commercial Banks. The study of the determinants of equity share prices has been a subject of great interest these days. Moreover, it is a subject of immense curiosity especially a banking sector to identify the factors that influence share prices. The shares of commercial banks offer the investment opportunities to Nepalese investors because these shares are more frequently traded in the market than as compared to others in Nepalese context. Specifically, this study examined the effects of dividend payout ratio, dividend yield, earning per share, price- earnings ratio and size on the share price of banks listed on Nepal stock exchange Limited. The findings of the study over the period 2006-2014 revealed that earning per share and price-earnings ratio have the significant positive association with share price while dividend yield showed the significant inverse association with the share price of the banks. The study concludes that dividend yield, earnings per share and price earnings ratio are the major determinants of share price of Nepalese commercial banks. he results of this study uncovered new evidence in Nepalese perspective, which are considered to be valuable to the market participants. Thus, findings of the this study seems to be particularly useful for equity investors and fund managers as they can watch out for these significant factors while estimating stock returns and predicting share prices.

Rakhal (2015) studied on determinants of Stock Market Performance The major role of the stock market in the economy is to raise capital and utilize such capital into the productive sectors and to ensure that the funds raised are utilized in the most profitable opportunities. This paper performs the necessary analysis to answer whether changes in the selected macroeconomic indicators affect the stock market performance or not and sheds light on the nexus between stock market and four key macroeconomic variables. The study has been guided by an objective to explore the relationship between selected macroeconomic indicators and stock market performance in international and Nepalese context based on the available literatures. The selected key macroeconomic indicators that have been included in the study are remittances, exchange rate, interest rate, and money supply and effect of these

indicators have been analyzed with the help of literatures and research gap has been found. Based on the literature and support of majority findings of the studies, the study draws a number of conclusions. First, the study concludes that remittance has positive effect on stock market performance. This means an increase in remittance will significantly improve the performance of stock market and it implies that a substantial percentage of remittance is invested in the stock market and hence improving stock market performance. Second, the study reveals that money supply positively affect the stock market. Meaning that when money supply growth is higher in the economy it leads to increase in investable amount among investors and hence improves the stock market performance. Third, there is a negative relationship between exchange rate and stock market index in Nepal. This can be explained by the fact that depreciation of Nepalese rupees against foreign currency would lead cost of import high for native industries and resulting poor performance and continuous depreciation currency is the sigh of worsening the economy of particular country. Finally, the study concludes that interest rate has the negative effect on stock market performance meaning that when T-bill rates rise investors tend to shift their investment in government securities resulting weak performance of stock market.

Aliu, Pavelkova, & Dehning (2017) published the articles under the title 'Portfolio risk-return analysis: The case of the automotive industry in the Czech Republic'. Portfolio management still remains as a science that does not give clear answers on the portfolio construction. Arranging a portfolio that would generate excess return on the investments, seems to be more an art than a science. The results show that the rising number of companies from 10 to 37 reduce the risk level, when we move from Portfolio A to Portfolio B. In contrast, when we move from Portfolio B (37 companies) to the Portfolio C (47 companies), risk level has increased. In spite that the number of securities augmented in Portfolio C, the average correlation coefficient went up. We can conclude that investing in Portfolio C (auto suppliers and manufacturers) delivers lower risk than investing in Portfolio A (auto manufacturers) but higher risk than in the Portfolio B (auto suppliers). Which portfolio investors would choose, it depends on their risk profile. Portfolio B offers the lowest risk and also lowest returns, but the highest risk-return tradeoff. According the results, it is clear that investments in the same sector cannot perfectly diversify risk, but there is an evidence, that it is possible to look for increasing risk-return tradeoffs creating

different portfolios. As we demonstrated, the investments to auto suppliers operating in the Czech Republic during the period of 2005-2014 could create higher wealth in comparison with investments to auto manufacturers, even returns of manufacturers in the portfolio achieved higher level. The lowest wealth in comparison with risk was achieved by investment to the portfolio of manufacturers and suppliers taken together. The world economic downturn of the financial crisis hardly affected automotive industries around the world. It is clear from our results that the Czech automotive industry was affected from the last financial crisis - returns declined rapidly. The automotive industry is very sensitive to the business cycles. Further studies might identify, if the decline of returns during and after the crisis was driven also by local factors or influenced only from the world economic distress. The stock market crash of 1987, the Asian financial crisis of 1997 and the US financial and economic downturns of 2007 demonstrated that financial markets deliver the first symptoms of the sick economy. Financial globalization reflected, through highly correlated stock markets, narrowed room for international portfolio diversification. The returns in the same industry might not be a gainful target for the investor, who tends to find securities that are negatively correlated. A systematic shocks, that might occur, will affect identically most of the assets in the portfolio.

Kandel (2018) published the articles on 'Risk and Return Analysis of Commercial Banks of Nepal (with reference to NABIL and NIBL)'. After the analysis of risk and return of sample bank and based on the past data of their last five fiscal years i.e. (FY-2012/13 to FY-2016/17), it is concluded that all the commercial banks, which are under study, are very much risky with fluctuated rate of return. From the findings of beta coefficient of each sample bank, the C.S. of NABIL is seems very much volatile than NIBL stock. The study also shows that the selected commercial banks under study, the required rate of return of both commercial banks i.e. (NABIL & NIBL) is more than expected rate of return, so both stocks are overpriced. Hence it is more profitable to take decision of short selling by investors. This study also shows that both selected bank have a high proportion of unsystematic risk i.e. NABIL (89.29%) and NIBL (93.18%) which can be minimized from internal management. Hence, it is better to have a low proportion of systematic risk and comparatively a high proportion of unsystematic risk because unsystematic risk can be reduced to zero but systematic risk cannot be even reduced as it is created from market.

### 2.2.2 Review of theses

**Manandhar (2006)** conducted a research study on "Analysis of Risk and Return analysis on Common Stock Investment" with special reference to five listed commercial banks. The main objective of the study is to examine risk and return of common stocks in Nepalese stock market, the study is focused on the common stock of commercial banks. In her findings "Banking industry is the biggest one in F/Y 060/61 in terms of market capitalization and turnover expected return of the common stock of BOKL is maximum (i.e. 1.1267) due to effect of unrealistic annual return and CS of NIBL is found minimum. In the context of industries, expected return on banking sector (i.e. 67.39) is highest and other sectors is the least (0.65%). Except NIBL, other banks common stocks are more volatile (aggressive with market stocks of all banks in the study are said to be under priced. CS of BOKL is most risky and CS of NIBL is least risky. Major findings of the study are as following. Stocks has greater volatility risk than other investment, which takes a random and unpredictable path. Stock market is risky in the short term and it is necessary to prepare the investors for it. One of the most important things to consider when choosing investment strength is the balance between risk and return that you are comfortable with. Investors should diversify their fund to reduce risk with the help of optimal portfolio concept. It is better to buy something that is going up and sell something that is going down. Investor's attitude, perception and risk handling capacity also play essential role in rational investment decision.

**Shakya (2009)** has conducted research on "Risk and Return on common stock investment of commercial Banks in Nepal" with special reference to five listed commercial banks. The major objective of this study was to promote and protect the interest of the investor by regulating the issuance sales and distribution of securities and purchases, sale or exchange of securities. He also intends to supervise and monitor the activities of the stock exchange and of other related firms carrying on securities business. In addition he tried to render contribution to the development of capital market by making securities transactions fair health, efficient and responsible.

**Adhikari (2010)** has conducted research on "Impact of Return and Risk on share". The study was based on the data collected for eight banks from mid July 2004. The main objectives of the study was to determine whether the shares of commercial

banks in Nepal are over or under priced by analyzing risk and return characteristics of the individual shares. The findings: most of the individual shares appeared to be defensive as beta coefficients were less than one low data shares were less volatile than market as a whole. Only the return of shares of bank of Kathmandu had beta coefficient of greater than one, indicating that the share was more risky than the market. Nepal Arab Bank Ltd., Nepal Indosuez Bank Ltd., Himalayan Bank Ltd. had higher expected equilibrium return than expected rate of return. And standard character Bank Ltd., Nepal SBI Bank Ltd., NB Bank Ltd., Bank of Kathmandu had lower equilibrium return than expected rate of return. From this study we get Nepal Arab Bank Ltd. Nepal Indosuez Bank Ltd. and Himalayan Bank Ltd. was overpriced and others were under prices. Following are the findings of this study. It was noticed that there is a positive correlation between risk and return character of the company. Nepalese capital market being inefficient, the price index itself is not sufficient to give the information about the prevailing market. Situation and the company proper regulation should be introduced so that there is more transparency in issuance, sales and distribution of the securities. Investors do not have/any idea about the procedures of the securities issuance. Neither company nor the stock brokers transmit any information to the investors about the current market situation and hence it becomes difficult for common investors to invest in the securities. Both government authorities and the stock exchange regulator body should try to promote healthy practices so that the stock brokers don not give false information to the investors for their personal benefit which is a common practice in Nepal. Investors should get regular information about the systematic Risk (Beta), Return on Equity and P/E ratio of various listed companies in some way; it is given in economic times for the companies listed in Nepal Stock Exchange. Security exchange Board of Nepal should make this mandates that it is easier for the investors to calculate risk and risk return of portfolio and transperence is increased.

**Budha, (2018)** has conducted research on Risk and Return Analysis of Common Stock Investment in Commerical Banks of Nepal (With Reference to Nepal Investment Bank, Everest Bank, Himalayan Bank And Nabil Bank Limited).

Major objective of the study were to analyze the common stock of selected banks in terms of risk and return, to identify whether stock of selected commercial banks are

overpriced, underpriced and equilibrium price and to analyze the proportion of diversifiable and undiversifiable risk of the selected banks.

From the study it is concluded that all the commercial banks, which are under study, are very much risky with fluctuated rate of return. From the findings of the different banks beta coefficient of EBL is riskier than the market. Similarly the beta coefficient of stock of NIBL, HBL and NABIL is less than 1, so these stocks are less riskier than the market. The study shows that HBL under study required rate of return is less than expected rate of return, so all stocks are underpriced. It shows that HBL the banks have stock with good investment opportunity and the study shows that NIBL, NABIL .HBL is greater than expected rate of return, so all stocks are overpriced. It shows all stock of these banks is better to sell in market. This study shows that HBL has high proportion of unsystematic risk i.e. 22.86% and NABIL has high proportion of systematic risk i.e. 91.87% which cannot be minimized from internal factor. NIBL, HBL, NABIL bank common stock fall under category of defensive stock because of these banks beta coefficient is less than 1.

### **2.3 Research gap**

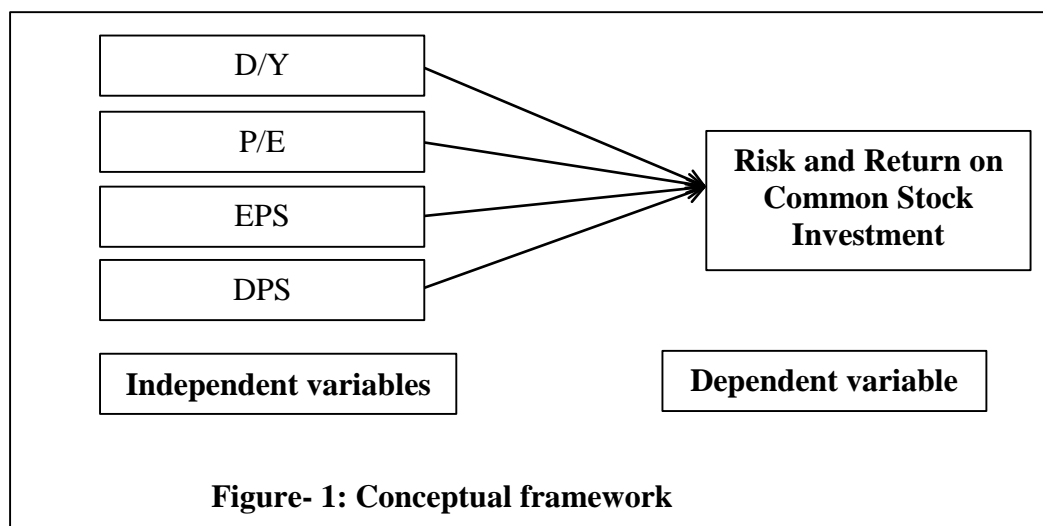
Most of the researches on share market volatility are generally focused on the macro economic factors affecting the stock market. The parameters difficult to quantify like political upheavals and temperaments of people are often ignored. In context of Nepal, the research done on the effects of non-economic and difficult to quantify parameters on the NEPSE index is almost nil. This thesis attempts to aware the research community about this apparent gap in the analysis of Nepali Stock market.

Since economic variables are available and measurable so, most of the researchers use certain variables as the key variables for identifying their influence on stock market like inflation, interest rate, exchange rate etc. due to this reason many other important aspects are neglected like technological, size and volume of transaction in stock market, number of listed securities, number of registered brokerage firm etc. therefore for the realistic outcome it is necessary that all the factors should be considered which are quantifiable and at the same time influential in the Nepalese stock market. With this regard, this study attempt to fill those gaps where the above mentioned words have not done yet or ignored.

This research work will consider to analyze the common stock in terms of risk and return, to analyze the existing situation of common stock financing of sample banks and to perform the comparative analysis of the risk and return on the common stocks of sample banks. A Study on Risk and Return Analysis on Common Stock Investment in Commercial Banks of Nepal (With reference to Nepal Investment Bank Limited, Everest Bank Limited, Himalayan Bank Limited and Nabil Bank Limited) is focal point of the study which is gap in the previous study in the recent year.

#### 2.4. Conceptual framework

The following conceptual framework is constructed based on the theoretical framework with the consultancy of different theories related to this study and literature review and the following conceptual framework is developed:



Source: LIP. Variance in return and SRG return.

EPS, DPS, P/E Ratio and D/Y are independent variables whereas Risk and Return on Common Stock investment is dependent variable



## **CHAPTER: III**

### **RESEARCH METHODOLOGY**

This chapter deals with research methodology adopted in this thesis. Moreover, methods followed in the process of collecting and analyzing the data are also outlined in this chapter. The followings are the details of research methodology applied in this study.

#### **3.1 Research design**

Design of the study refers to the overall strategy that the researcher selects to integrate the different components of the study in a coherent and logical way. It is a logical sequence in which the study is carried out, and constitutes the blue print for collection, measuring and analysis of data (Kothari, 2004). The present study is based on descriptive research design. Descriptive research design is used to describe the status of risk and return from tables, graphs, and figures with basic calculation of present collected data. Similarly mean and standard deviation also calculated to interpret the data.

#### **3.2 Population and sample**

Total population of the study is 27 commercial banks listed in NEPSE which are taken on the basis of listed years of commercial banks. The study is carried out those commercial banks which are listed before 2012 A.D. in NEPSE. For research purpose, Himalayan Bank Ltd, Everest Bank Ltd, Nabil Bank Ltd and Nepal Investment Bank Ltd are selected on the basis of purposive sampling method for study. These banks have the large volume of transactions and they also have many branches in different sectors of the country. So, the large numbers of employees are also involved in commercial banks. Therefore, the present study could not cover all the employees of selected banks. However, the researcher tried to cover as many employees as possible.

#### **3.3 Nature and sources of data**

All the data necessary for the research have been collected from secondary sources. Data related to market prices of shares (MPS), movement of NEPSE index etc. have been taken from the trading report published by NEPSE, other relevant data have been collected from individual banks, Security Board of Nepal (Thapathali) and from their web sites.

The collection procedure is summarized below: -

- i. Financial document and summary sheets provided by companies.
- ii. Trading manual published by Nepal Stock Exchange Limited.
- iii. Related URL
- iv. Materials published in Newspapers and Magazines.
- v. Other related journals, periodicals, books and booklets.
- vi. Central library OF T.U

### **3.4 Data analysis tools**

The process of data analysis has been started after the collection of raw data. Data analysis is a process, which involves editing, coding, classification, and tabulation of the collected data (Kothari, 2004). All the data are presented and analyzed to fulfill the objectives developed in the introduction chapter to illustrate the research. Worksheets and figures have been used for the data presentation to evaluate risk and returns. Categorically, the present study has used financial and statistical tools.

#### **3.4.2 Statistical tools**

The statistical tool is essential to measure the relationship of two or more variable. It is the mathematical technique used to facilitate the analysis and interpretation of the performances of the organizations. It helps to compare the performance, strengthen, weakness of the organizations. It also helps to present the data, show the relation and deviation or differences of variables of organizations, in this study, the following statistical tools are used:

#### **Arithmetic mean**

Arithmetic meant or simply a 'Mean' of a set of observation is the sum of all the observation divided by the number of observation.

It is the best value, which represent to the whole group. Mean is the arithmetic average of a variable. Arithmetic mean of a series is given by:

$$\text{Mean } \bar{X} = \frac{\sum X}{n}$$

Where,  $\sum X$  = sum of the variable 'X'

n = No of observation

### Standard deviation

Standard deviation is defined as the positive square root of the mean of square of the deviation takes from the arithmetic mean. It indicates the ranges and size of deviation n from the middle or mean. It measures the absolute dispersion. Higher the standard deviation higher will be the variability and vice versa. Dispersion measures the variation of the data from the central value. In other word, it helps to analyze the quality of data regarding its variability. It can be:

$$\text{Standard Deviation of } \sigma = \sqrt{\frac{\sum X^2}{N} - \left[\frac{\sum X}{n}\right]^2}$$

Where, n = Total No of Year

Y = Internal Debt

$\bar{Y}$  = Average Internal Debt

### Coefficient of variation (CV)

Standard deviation is the absolute measure of dispersion. It is independent of unit. So, two distributions can bitterly be compared with the help of C.V for their variability. Less the C.V, leads to more uniformity, consistency etc. and more the C.V leads to less uniformity, consistency etc. it is calculated as under:

$$\text{Coefficient of variation (CV)} = \frac{\sigma}{\bar{X}} \times 100$$

## CHAPTER: IV

### RESULTS

This chapter includes analysis of data and their presentation. The purpose of this chapter is to analyze and elucidate collected data to achieve the objective of the study following conversion of un-processed data to an understandable presentation. In this course of analysis, data gathered from various sources have been inserted in the tabular form.

The data have been analyzed by using financial and statistical tools. The results of the computation have also been summarized in appropriated tables.

#### 4.1 Analysis of risk and return of sample banks

In this section Analysis of Risk and Return of Sample Banks have been conducted as follows.

##### 4.1.1 Analysis of annual return of nepal investment bank ltd.

Analysis of Annual Return of Nepal Investment Bank Ltd. shown in following figure.

**Table 4.1 Annual return on stock of NIBL**

| Fiscal year | MPS (In Rs) | Dividend (In %) | Annual rate of return (In %) |
|-------------|-------------|-----------------|------------------------------|
| 2014/15     | 515         | 50              | 0.077016                     |
| 2015/16     | 511         | 30              | 0.382524                     |
| 2016/17     | 784         | 35              | 0.771037                     |
| 2017/18     | 960         | 40              | 0.391071                     |
| 2018/19     | 704         | 34.7            | 0.132604                     |
| Max         | 960         | 50              | 0.771037                     |
| Min         | 511         | 30              | 0.077016                     |

*Source: Annual Report of sample bank*

The table 4.1 presents the summary of the financial performance of the NIBL of the last five year (2014/15 to 2018/19). The table shows that the bank has distributed cash and stock dividend in each fiscal year the annual rates of return of the bank is positive in all year. The MPS of the bank is fluctuating and highest in year 2017/18 i.e. 960 and lowest in 2015/16 i.e. 511. The dividend paid of the bank is satisfied.

##### 4.1.2 Analysis of major financial indicator of nepal investment bank

Expected return is the amount of profit or loss an investor anticipates on an investment that has various known or expected rates of return. It is calculated by

multiplying potential outcomes by the chances of them occurring, and summing these results. A coefficient of variation (CV) is a statistical measure of the dispersion of data points in a data series around the mean. The coefficient of variation represents the ratio of the standard deviation to the mean, and it is a useful statistic for comparing the degree of variation from one data series to another, even if the means are drastically different from one another. P/E is short for the ratio of a company's share price to its per- share earnings. As the name implies, to calculate the P/E, you simply take the current stock price of a company and divide by its earnings per share.

**Table 4.2 Analysis of major financial indicator of NIBL (Amount in Rs.)**

| <b>FY</b> | <b>MPS</b> | <b>Cash dividend</b> | <b>Stock dividend (%)</b> | <b>Total dividend</b> | <b>Annual return (Rs)</b> | <b>EPS (Rs.)</b> | <b>P/E Ratio (times)</b> |
|-----------|------------|----------------------|---------------------------|-----------------------|---------------------------|------------------|--------------------------|
| 2014/15   | 515        | 25                   | 25                        | 152.75                | 0.077016                  | 39.1             | 13.2                     |
| 2015/16   | 511        | 5                    | 25                        | 201.00                | 0.382524                  | 27.6             | 18.5                     |
| 2016/17   | 784        | 25                   | 10                        | 121.00                | 0.771037                  | 46.2             | 17.0                     |
| 2017/18   | 960        | 25                   | 15                        | 130.6                 | 0.391071                  | 40.7             | 23.6                     |
| 2018/19   | 704        | 1.7                  | 33                        | 383.3                 | 0.132604                  | 30.9             | 22.8                     |

*Source: Annual Report of sample bank*

Table 4.2 shows that the NIBL is paying cash dividend and stock dividend in each fiscal year the cash dividend is in increasing trend in each fiscal year and the stock dividend is constant all year. The earning per share of the bank is fluctuating trend.

#### **4.1.3 Analysis of annual return of everest bank**

Analysis of Annual Return of Everest Bank shows following figure.

**Table 4.3 Annual return of EBL**

| <b>Fiscal year</b> | <b>MPS</b> | <b>Dividend (In %)</b> | <b>Annual rate of return (In %)</b> |
|--------------------|------------|------------------------|-------------------------------------|
| 2014/15            | 2455       | 60                     | -0.41593                            |
| 2015/16            | 1094       | 60                     | 0.135375                            |
| 2016/17            | 1033       | 30                     | 1.305789                            |
| 2017/18            | 985        | 60                     | 0.818353                            |
| 2018/19            | 883        | 35                     | 0.141201                            |
| Max                | 2455       | 60                     | 1.305789                            |
| Min                | 883        | 30                     | -0.41593                            |

*Source: Annual Report of sample bank*

The table 4.3 presents the summary of the financial performance of the Everest Bank Ltd of the last five year (2014/15 to 2018/19). The table shows that the bank has distributed cash and stock dividend in each year except F/Y 2016/17, in fiscal year 2016/17 bank distributed only stock dividend. The annual rates of return of the bank is negative in year 2014/15 and other year are positive return. The MPS of the bank are fluctuating trend and maximum in year 2014/15 and minimum in year 2018/19 i.e. 883. The bank distributed average dividend with cash and stock in every year. The data shows that the annual return of the bank is negative or downward from the neutral point and the annual return of the bank is high in year 2016/17 so this graph indicate that the annual rate of return of the bank is fluctuating trend.

#### 4.1.4 Analysis of major financial indicator of everest bank limited

Expected return is the amount of profit or loss an investor anticipates on an investment that has various known or expected rates of return. It is calculated by multiplying potential outcomes by the chances of them occurring, and summing these results. A coefficient of variation (CV) is a statistical measure of the dispersion of data points in a data series around the mean. The coefficient of variation represents the ratio of the standard deviation to the mean, and it is a useful statistic for comparing the degree of variation from one data series to another, even if the means are drastically different from one another.

P/E is short for the ratio of a company's share price to its per- share earnings. As the name implies, to calculate the P/E, you simply take the current stock price of a company and divide by its earnings per share (EPS):  $P/E \text{ Ratio} = \text{Market Value per Share} / \text{EPS}$

**Table 4.4 Analysis of major financial indicator of EBL (Amount in Rs)**

| <b>FY</b> | <b>MPS</b> | <b>Cash Div.</b> | <b>Stock Dividend (%)</b> | <b>Total Dividend</b> | <b>Annual Return</b> | <b>EPS</b> | <b>P/E Ratio (Times)</b> |
|-----------|------------|------------------|---------------------------|-----------------------|----------------------|------------|--------------------------|
| 2014/15   | 2455       | 30               | 30                        | 339.9                 | -0.41593             | 100.16     | 16.27                    |
| 2015/16   | 1094       | 50               | 10                        | 209.1                 | 0.135375             | 83.19      | 13.15                    |
| 2016/17   | 1033       | 1.58             | 30                        | 790.88                | 1.305789             | 88.55      | 11.67                    |
| 2017/18   | 985        | 50               | 10                        | 262.00                | 0.818353             | 91.88      | 17.32                    |
| 2018/19   | 883        | 5                | 30                        | 882.5                 | 0.141201             | 78.04      | 27.17                    |

*Source: Annual Report of sample bank*

Table 4.4 shows that the EBL is paying cash dividend and stock dividend in each fiscal year the cash dividend is in increasing trend in each fiscal year and the stock dividend is constant all year but it is not paid cash dividend in the fiscal year 2016/17. The highest cash dividend is paid in the year 2015/16 i.e. Rs. 50 per share. The P/E Ratio of EBL is maximum in the year 2018/19 and minimum in the year 2016/17 i. e. 27.17 times and 11.67 times respectively and the P/E ratio is in fluctuating trend over the study period. And figure shows the trend line of closing market price of EBL is fluctuating trend.

#### 4.1.5 Analysis of annual return of himalayan bank

**Table 4.5 Annual return on stock of HBL**

| Year    | MPS (In Rs) | Dividend (In %) | ARP (In %) |
|---------|-------------|-----------------|------------|
| 2014/15 | 766         | 8.44            | 0.020714   |
| 2015/16 | 742         | 7.00            | -0.06391   |
| 2016/17 | 860         | 14.74           | 0.387521   |
| 2017/18 | 836         | 34.74           | 1.550538   |
| 2018/19 | 680         | 11.00           | -0.20479   |
| Max     | 860         | 34.74           | 1.550538   |
| Min     | 680         | 7.00            | -0.20479   |

*Source: Annual Report of sample bank*

Table 4.5 presents the financial performance including market price per share, annual return % and dividend % of Himalayan bank limited. It seems that bank suffers from loss in fiscal year 2018/19. It has maximum of Rs 860 and minimum of Rs 680 MPS during this period. Similarly, 34% of maximum dividend rate and 7% of minimum dividend distributed by bank.

#### 4.1.6 Analysis of major financial indicator of himalayan bank limited

Expected return is the amount of profit or loss an investor anticipates on an investment that has various known or expected rates of return. A coefficient of variation (CV) is a statistical measure of the dispersion of data points in a data series around the mean. The coefficient of variation represents the ratio of the standard deviation to the mean, and it is a useful statistic for comparing the degree of variation from one data series to another, even if the means are drastically different from one another.

P/E is short for the ratio of a company's share price to its per-share earnings. As the name implies, to calculate the P/E, you simply take the current stock price of a company and divide by its earnings per share.

**Table 4.6 Analysis of major financial indicator of HBL (Amount in Rs.)**

| <b>FY</b> | <b>MPS<br/>(In Rs)</b> | <b>Cash<br/>Dividend<br/>(Rs)</b> | <b>Stock<br/>Dividend<br/>(%)</b> | <b>Total<br/>Dividend</b> | <b>Annual<br/>Return</b> | <b>EPS<br/>(Rs.)</b> | <b>P/E<br/>Ratio<br/>(Times)</b> |
|-----------|------------------------|-----------------------------------|-----------------------------------|---------------------------|--------------------------|----------------------|----------------------------------|
| 2014/15   | 766                    | 0.44                              | 8.00                              | 19.8                      | 0.44015                  | 15.67                | 16.98                            |
| 2015/16   | 742                    | 7.00                              | 00                                | 7.00                      | 0.31215                  | 17.18                | 14.09                            |
| 2016/17   | 860                    | 0.74                              | 14.00                             | 75.78                     | 0.37452                  | 18.17                | 14.31                            |
| 2017/18   | 836                    | 1.74                              | 33.00                             | 127.14                    | 0.145394                 | 18.69                | 28.68                            |
| 2018/19   | 680                    | 0.58                              | 11.00                             | 46.23                     | 1.051181                 | 16.24                | 23.41                            |

*Source: Annual Report of sample bank*

Table 4.6 shows that the HBL is paying lower rate of cash dividend and stock dividend in each fiscal year the cash and stock both are fluctuating trend in each fiscal year over the study period.

Likewise, the trend line of closing market price of HBL, the closing MPS of HBL is very low with comparison of other sample banks. Figure shows that highest MPS value in fiscal year 2016/17 and minimum MPS value in 2018/19.

#### **4.1.7 Analysis of annual return of nabil bank**

**Table 4.7 Annual return of NABIL stock**

| <b>Year</b> | <b>MPS (In Rs)</b> | <b>Dividend (In %)</b> | <b>ARP (In %)</b> |
|-------------|--------------------|------------------------|-------------------|
| 2014/15     | 1510               | 36.84                  | 0.440157          |
| 2015/16     | 1575               | 36.84                  | 0.312159          |
| 2016/17     | 1263               | 28.42                  | 0.374529          |
| 2017/18     | 1059               | 25.00                  | 0.145394          |
| 2018/19     | 985                | 42.11                  | 1.051181          |
| Max         | 1575               | 42.11                  | 1.051181          |
| Min         | 985                | 25.00                  | 0.145394          |

*Source: Annual Report of sample bank*



Table 4.7 shows that Market price per share (MPS), Dividend % and Annual return percentage of Nabil Bank limited. The result shows that maximum of Rs 1575 MPS, 42.11 of Dividend % and 1.051181 % of annual % return. Likewise, it has minimum of 985 MPS, 25 % Dividend and 0.145394 of annual % return.

Table indicates that all the financial indicators including MPS, Dividend % and annual % return of bank are in increasing trend. The bank has distributed cash and stock dividend in all fiscal year. The annual rates of return of the bank is lower in fiscal year 2017/18. So it can be said that MPS was increased first and at the mid of the study period it has been decreased.

#### **4.1.8 Analysis of major financial indicator of nabil bank limited (NABIL)**

Expected return is the amount of profit or loss an investor anticipates on an investment that has various known or expected rates of return. It is calculated by multiplying potential outcomes by the chances of them occurring, and summing these results.

A coefficient of variation (CV) is a statistical measure of the dispersion of data points in a data series around the mean. The coefficient of variation represents the ratio of the standard deviation to the mean, and it is a useful statistic for comparing the degree of variation from one data series to another, even if the means are drastically different from one another. P/E is short for the ratio of a company's share price to its per-share earnings. As the name implies, to calculate the P/E, you simply take the current stock price of a company and divide by its earnings per share (EPS):  $P/E \text{ Ratio} = \text{Market Value per Share}$ .

**Table 4.8 Analysis of major financial indicator of NABIL (Amount in Rs.)**

| <b>FY</b> | <b>MPS</b> | <b>Cash Dividend (Rs)</b> | <b>Stock Dividend (%)</b> | <b>Total Dividend</b> | <b>Annual Return</b> | <b>EPS (Rs.)</b> | <b>P/E Ratio (Times)</b> |
|-----------|------------|---------------------------|---------------------------|-----------------------|----------------------|------------------|--------------------------|
| 2014/15   | 1510       | 11.84                     | 25                        | 175.09                | 0.440157             | 31.80            | 25.66                    |
| 2015/16   | 1575       | 16.84                     | 20                        | 156.84                | 0.312159             | 44.66            | 12.88                    |
| 2016/17   | 1263       | 13.42                     | 15                        | 137.17                | 0.374529             | 39.94            | 16.35                    |
| 2017/18   | 1059       | 10.00                     | 15                        | 131.95                | 0.145394             | 34.19            | 20.47                    |
| 2018/19   | 985        | 7.11                      | 35                        | 437.61                | 1.051181             | 33.37            | 24.36                    |

*Source: Annual Report of sample bank*

Table 4.8 shows the trend line of Closing market price of NABIL, the closing MPS of NABIL is highest in the year 2015/16 i.e. Rs. 1575 and minimum in the year 2018/19 i.e. Rs. 985. Presentation shows that the NABIL is paying cash dividend and stock dividend in each fiscal year the cash and stock both are fluctuating trend in each fiscal year over the study period.

## 4.2 Existing situation of common stock financing of sampled banks

**Table 4.9 Total amount of common stock (Amount in millions)**

| Year    | NIBL | EBL  | HBL  | NABIL |
|---------|------|------|------|-------|
| 2014/15 | 1611 | 1231 | 1619 | 2760  |
| 2015/16 | 1854 | 1601 | 1814 | 2898  |
| 2016/17 | 2042 | 1801 | 2031 | 3333  |
| 2017/18 | 2248 | 2017 | 2437 | 4499  |
| 2018/19 | 2813 | 2622 | 4496 | 5849  |

*Source: Annual Report of Sample Commercial Banks 2014/15-2018/19*

Table 4.9 shows the portion of common stock financing on total capital of sample selected banks. The amount indicates that there is upward trend of common stock of sample banks at each year. Nepal investment bank fulfill their capital by issuing ordinary shares of Rs 1611 million in initial year 2014/15 and it goes up to 2813 million in final year 2018/19 which is more than one & half times of initial year. Likewise, it seems that Everest bank uses Rs 1231 million as a common stock out of their total capital in 2014/15 and it increases to 2622 million in 2018/19.

The amount of common stock of Himalayan bank is Rs 1619 million in initial year 2014/15 and it reaches to Rs 4496 million in final year 2018/19 which is more than twice as compared to beginning year. Finally, the portion of common stock of Nabil bank is Rs 2760 million in 2014/15 and it goes up to Rs 5849 million in 2018/19.

Similarly, the result shows that each of the bank has upward trend on issue of common stock & amount of common stock consist some portion out of their total

capital. The figure indicates that amount of common shares is below Rs 300 million for all banks in year 2014/15 & 2015/16. It goes up to 350 million in year 2016/17 and crossed Rs 500 million in fiscal year 2018/19.

Nabil bank issues more ordinary shares than that of other sample banks during this period. It seems that it has highest amount of shares outstanding on each fiscal year compared to other banks. Similarly, Everest bank has used lowered portion of common stock on each fiscal year from 2014/15 to 2018/19 than that of other sample banks. Out of the total sample banks, Nepal investment and Himalayan bank have used average similar amount of common shares in year 2014/15 to 2017/18 but, Himalayan has increased its common stock amount in 2018/19 compared to Nepal investment bank.

### **4.3 Comparative analysis of expected rate of return, risk & coefficient of variance between the sample banks**

Under this topic, the researcher is going to compare between the sample banks based on expected return, Standard deviation, coefficient of variation, covariance, correlation, risk etc.

Expected Rate of Return indicates summation at annual return of taking period and divided by the number of observation. That means which investors invest in this common stock they have returned if they holding this security taking sample period. Risk is the deviation between actual and expected return. Coefficient of variation measures per unit of per rupee risk.

**Table 4.10 Expected return, risk and CV of sample banks**

| <b>Banks</b> | <b>Expected return</b> | <b>Standard deviation</b> | <b>Coefficient of variance(%)</b> | <b>Remarks</b>                               |
|--------------|------------------------|---------------------------|-----------------------------------|--|
| NIBL         | 0.3508                 | 0.3851                    | 1.097                             | Return-medium, Risk-medium, CV- positive     |
| EBL          | 0.397                  | 0.3637                    | 2.749                             | Return-medium, Risk-medium, CV- positive     |
| NABIL        | 0.4647                 | 0.2773                    | 1.133                             | Return-medium, Risk-medium, CV- positive     |
| HBL          | 0.3380                 | 0.7565                    | 2.239                             | Return-low, Risk-slightly high, CV- positive |

Source: SPSS Software

Table 4.10 shows that Comparison of Expected Returns, Standard Deviation and the variance between the Sample Banks. The Statistical results imply that over the study period, EBL expected return i.e. 0.397, HBL expected return 0.3380 and risk is 0.7865. Based on Standard deviation (risk) securities of sample banks the standard deviation of the return on the shares of EBL is i.e. 36.37%, NIBL is 38.51%, NABIL is 27.73% and HBL is 75.65%.

#### **4.4 Findings**

This chapter seeks to find out the total quantitative structure of common stock of sample selected commercial banks of Nepal. The findings are based on the study of risk return in terms of common stock financing of Nepal Investment bank, Everest, Himalayan Bank and NABIL bank using selected financial and statistical tools. Main result showed that bank uses incremental amount of common stock for their capital formation. The major findings of the study are:

- i. The amount of market price per share of NIBL 2014/15 to 2018/19 is increasing 515, 511, 784, 960 and 704 respectively. The dividend of the NIBL from 2014/15 to 2018/19 is 50, 30, 35, 40 and 34.7 respectively, which is in fluctuation trend. The dividend is in the year 2014/15 is high and in the year 2015/16 is lowest. The Annual rate of return is in the year 2014/15 to 2018/19 is 0.077016, 0.382524, 0.771037, 0.391071 and 0.132604 respectively. The maximum MPS is 960, dividend is 30 and Annual rate of return is 0.077016 respectively.
- ii. The bank has distributed cash and stock dividend in each year except F/Y 2016/17, in fiscal year 2016/17 bank distributed only stock dividend. The annual rate of return of the bank is negative in year 2014/15 and other year is positive return. The MPS of the bank are fluctuating trend and maximum in year 2018/19 and minimum in year 2018/19 i.e. 883. The bank distributed average dividend with cash and stock in every year.
- iii. The amount of market price per share of EBL 2014/15 to 2018/19 is in fluctuation trend 2455, 1094, 1033, 985 and 883 respectively. The dividend of the NIBL from 2014/15 to 2018/19 is 60, 60, 30, 60 and 35 respectively, which is in fluctuation trend. The Annual rate of return is in the year 2014/15 to 2018/19 is -0.41593, 0.135375, 1.305789, 0.818353 and 0.141201

respectively. The maximum MPS is 2455, dividend is 60 and Annual rate of return is 1.305789 respectively.

- iv. The EBL is paying cash dividend and stock dividend in each fiscal year the cash dividend is in increasing trend in each fiscal year and the stock dividend is constant all year but it is not paid cash dividend in the fiscal year 2016/17. The highest cash dividend is paid in the year 2015/16 i.e. Rs. 50 per share.
- v. The P/E Ratio of EBL is maximum in the year 2018/19 and minimum in the year 2016/17 i. e. 27.17 times and 11.67 times respectively and the P/E ratio is in fluctuating trend over the study period. And above figure shows the trend line of closing market price of EBL is fluctuating trend.
- vi. The amount of market price per share of HBL 2014/15 to 2018/19 is in fluctuation trend 766, 742, 860, 836 and 680 respectively. The MPS is in the year 2016/17 is high and in the year 2018/19 is lowest. The dividend of the NIBL from 2014/15 to 2018/19 is 8.44, 7.00, 14.74, 34.74 and 11.00 respectively, which is in fluctuation trend. The dividend is in the year 2017/18 is high and in the year 2015/16 is lowest. The Annual rate of return is in the year 2014/15 to 2018/19 is 0.020714, -0.06391, 0.387521, 1.550538 and -0.20479 respectively. The maximum MPS is 860, dividend is 34.74 and Annual rate of return is 1.550538 respectively.
- vii. The financial performance of HBL of last five years, the bank has distributed cash and stock dividend in all fiscal year. The annual rates of return of the bank negative in fiscal year 2015/16. So it can be said that MPS was increased first and at the mid of the study period it has been decreased.
- viii. The amount of market price per share of NABIL 2014/15 to 2018/19 is in fluctuation trend 1510, 1575, 1263, 1059 and 985 respectively. The MPS is in the year 2015/16 is high and in the year 2018/19 is lowest. The dividend of the NIBL from 2014/15 to 2018/19 is 36.84, 36.84, 28.42, 25.00 and 42.11 respectively, which is in fluctuation trend. The Annual rate of return is in the year 2014/15 to 2018/19 is 0.440157, 0.312159, 0.374529, 0.145394 and 1.051181 respectively. The maximum MPS is 1575, dividend is 42.11 and Annual rate of return is 1.051181 respectively.

- ix. The financial performance of NABIL of last five years, the bank has low rate of distributed cash and stock dividend in all fiscal year. All the annual rates of return of the bank in fiscal year 2014/15 to 2018/19 are positive. Table 4.9, shows that the NABIL is paying lower rate of cash dividend and stock dividend in each fiscal year the cash and stock both are fluctuating trend in each fiscal year over the study period.
- x. Total amount used of common stock by selected sample banks. The result shows the increasing trend in utilization of common stock in the portion of total capital of sample banks.
- xi. Comparison of Expected Returns, Standard Deviation and the variance among the Sample Banks. The results shows the EBL expected return i.e. 0.397. Based on Standard deviation (risk) securities of sample banks the standard deviation of the return on the shares of EBL is i.e. 36.37%.

## **.CHAPTER: V**

### **SUMMARY AND CONCLUSION**

This study inquires the common stock financing & risk return analysis of four commercial banks of Nepal. Summary of the study has been mentioned in the First section. The Second section has been designed for the finding and conclusion drawn from the study. The implication to eliminate the weakness, drawbacks of the common stock investment observed on the basis of finding have been labeled in the third section.

#### **5.1 Summary**

Risk and return analysis is the part of the business world. If there is no risk, there is no return. Risk and return measures the performance on any corporate house. It is the key factor in the financial sector and could be a good indicator to the prospect who one to make investment on the securities of enterprises. For any investment decision, investors want to the expected rate of return from the investment and risk associated with in it. The economy is growing rapidly, which forces the change in the variable of world economy in galloping manner. No investors would like to make their investment in which holds higher risk and yield lower rate of return.

There is positive relation between risk and return. The higher level of risk, the higher will be the rate of return. Hence, from the point of view of the investor, the attitude towards risk varies from investor to investors. These investors who are risk averter don't like to bear additional risk to secure and safe investment. But risk taker investor like to bear additional risk to maximize return as extra premium as extra risk. The level of risk is not easy to measure. However, different scholars have suggested various statistical tools like standard deviation, variance, coefficient of variation, beta coefficient etc. There are different factor that affect risk and return such as market rate or return, risk –free rate of return. These factors indicate the risk and return position of investment. If investors have good vision about his factor, it is possible to take minimize risk for maximum return.

The study mainly aims to examine the common stock financing and risk, return analysis of commercial banks of Ne There is positive relation between risk and return. The higher level of risk, the higher will be the rate of return. Hence, from the point of

view of the investor, the attitude towards risk varies from investor to investors. These investors who are risk averter don't like to bear additional risk to secure and safe investment. But risk taker investor like to bear additional risk to maximize return as extra premium as extra risk. The level of risk is not easy to measure. However, different scholars have suggested various statistical tools like standard deviation, variance, coefficient of variation, beta coefficient etc. There are different factor that affect risk and return such as market rate or return, risk –free rate of return. These factors indicate the risk and return position of investment. If investors have good vision about his factor, it is possible to take minimize risk for maximum return.

The study mainly aims to examine the common stock financing and risk, return analysis of commercial banks of Nepal listed in NEPSE. The specific objectives is to examine the relationship between risk and return, to analyze comparative risk and return position of listed commercial bank, to analyze risk of these sectors these can be eliminated through diversification without any cost and to provide useful suggestions to the different sector.

The main objectives of the study are to analyze the existing situation of common stock financing of sample banks and to analyze the risk and return of common stocks in Nepalese context that's why is focused on the common stock of listed commercial banks of Nepal and gives an idea about how to create an optimal portfolio. The study has taken a sample of listed four commercial banks as reference to analyze composition of common stock financing and the risk and return in common stock investment, while analyzing the use of common stock and the risk and return, brief reviews of related studies has been performed. Tables, graphs and diagrams are used to present the results of the analysis.

Secondary data are collected from NEPSE, previous studies, NRB publications and publications of selected commercial banks journals, books and Internet. Other types of information are collected through personal visit to the executives and officers of the companies and official of security board of Nepal (SEBON) and NEPSE.

The study has adopted historical and analytical research design. The data utilized are mostly secondary in nature. Various financial tools are applied to use for analyze and present for the data. Among the 27 commercial banks listed in the NEPSE, four banks



are taken as sample for the study. Data of the last five years are used for the study. Market price per share and dividend per share of the banks are used to analyze the risk and returns of the banks together with the commercial banking index. This study has been divided into five chapters. First chapter is introduction chapter, introduction chapter include background of the study, profile of sample companies, statement of the problem, objectives of the study, focus of the study, significance of the study, limitation of the study, and organization of the study. Second chapter is review of literature. This chapter includes conceptual review, review of journal and article, review of related articles and related unpublished thesis. Third chapter is research design. This chapter include population and sample, sources of data, data collection technique and analysis tools. Fourth chapter is presentation and analysis of data, this chapter shows related table, figure and describes of the study. Fifth and last chapter is discussion, conclusion and implication and bibliography, annexed presented at the end of the study.

## **5.2 Conclusion**

Depending upon the analysis on the common stock financing and risk, return analysis of the Nepalese commercial banks, the following conclusions are drawn.

The use of common stock for financing is in increasing trend of all four sample banks and it describes about its impact at current situation for financial stability and its growth. On the dividend paying company, EBL is the highest and continuous dividend payer, while HBL is lowest dividend payer during the analysis period. Those people who are interested only in dividend, EBL is the best for invest. Risk is variability of returns which is measured in terms of standard deviation of returns. Standard deviation is only the measure of unsystematic risk which is not defined by worked. In this regard, HBL is more risky than of other bank.

The MPS of the bank are fluctuating trend and maximum in year 2018/19 and minimum in year 2015/16 i.e. 883. The bank distributed average dividend with cash and stock in every year. The P/E Ratio of EBL is maximum in the year 2018/19 and minimum in the year 2016/17 i. e. 27.17 times and 11.67 times respectively and the P/E ratio is in fluctuating trend over the study period. And above figure shows the trend line of closing market price of EBL is fluctuating trend. The financial performance of NABIL of last five years, the bank has distributed cash and stock

dividend in all fiscal year. The annual rates of return of the bank negative in fiscal year 2014/15. So it can be said that MPS is increased first and at the mid of the study period it has been decreased. NIBL is paying cash dividend and stock dividend in each fiscal year the cash dividend is in increasing trend in each fiscal year and the stock dividend is constant all year. The earning per share of the bank is fluctuating trend. The summary of the financial performance of HBL of last five years, the bank has low rate of distributed cash and stock dividend in all fiscal year. The annual rates of return of the bank is negative in fiscal year 2016/17 and 2018/19. HBL is paying lower rate of cash dividend and stock dividend in each fiscal year the cash and stock both are fluctuating trend in each fiscal year over the study period.

### **5.3 Implications**

The finding of this study might be useful for those who are concerned with the investment in common stock of commercial bank directly or indirectly. On the basis of major finding of the study the researcher thinks appropriate to recommend the concerned institutions to individual authorities as well as other in order to consider the following suggestions.

- i. Investors are recommended for the best use of common stocks for financing in various areas of business organizations.
- ii. Investors have to prefer to invest their capital in the sector which provides them a higher return at minimum risk within the short time period. Therefore, investors must be able to inform and analyze the whole component of stock market and financial condition of various banks as well as be aware of political and various other factors of the country.
- iii. The investors are recommended to receive fact information of their financial position before investing. Investors have to be clear and be aware about the financial statement of relative company, brokers' behavior and attitude, real tendency of NEPSE and rules and regulations of the government. Investors are required to boost their knowledge up regarding share (common stock) value of the company and share market to get expected return from their investment.
- iv. Investors need to diversify their fund to reduce risk. Efficient portfolio depends on market movement. For the portfolio construction investors have to

select the stock which has higher return and negative correlation or moderate positive correlation between stock of different commercial banks and sectors.

- v. The stock is under price if their expected rate of return is higher than required rate of return and the stock is over price if their expected rate of return is lower than required rate of return. Depending upon general rule regarding buy and sell, all the underpriced stock have to purchase and all the over price stock have to sell.
- vi. A tool that has been considered in this study may not be appropriate in our economy giving view to the prevailing condition in western market. This may not perform exactly as it should in condition like ours. Investors can develop different kinds of tools for analyzing.
- vii. At present individual potentials investors due to lack of their education, awareness and confidence, are hesitated to invest in common stock, so their education, awareness and confidence should be uplifted by providing related information.

## REFERENCES

- Adhikari, R. (2010). *Impact of Return and Risk on share*. An Unpublished Master Degree Thesis, Submitted to faculty of Management, TU.
- Aliu, F., Pavelkova, D., & Dehning, B. (2017). Portfolio risk-return analysis: The case of the automotive industry in the Czech Republic. *Journal of International Studies*, 10(4), 72-83. doi:10.14254/2071-8330.2017/10-4/5
- Bhalla, V.K. (1997). *Investment management*. New Delhi: Prentice Hall of India.
- Blanchard, O, & Perotti, R. (2002). An empirical characterization and determinants of share markets. *the Quarterly Journal of economics*, 116(3), 139-154.
- Budha, S. K. (2018). *Risk and Return Analysis of Common Stock Investment in Commerical Banks of Nepal (With reference to Nepal Investment Bank, Everest Bank, Himalayan Bank and Nabil Bank Limited )* An Unpublished Master Degree Thesis, Submitted to faculty of Management, TU.
- Cheney, J.M. & Moses, E.A. (1996). *Fundamentals of investments*. New York: West Publishing Company.
- Elton, Edwin J. (1999). Expected return, realized returns and pricing tests. *The Journal of Finance*.
- Gitman, F. & Joehnic, M. (1985). *Principles of Investing*. New York: Harper Collins.
- Kandel, L. R. (2018). Risk and Return Analysis of Commercial Banks of Nepal (with reference to NABIL and NIBL). *A Journal of Management*.
- Kothari, R.C. (2004). *Research methodology: Methods and techniques*. New Delhi: Wiley Eastern Limited.
- Madura, J. (2001). *Financial market and institutions*. (5<sup>th</sup> Edition). London: South Western College Publishing.
- Manandhar, M. (2006) *Analysis of Risk and Return analysis on Common Stock Investment*. An Unpublished Master Degree Thesis, Submitted to faculty of Management, TU.

- Naik, L. (2013). Impact of non-oil tax revenue on economic growth: The Nigerian perspective. *International Journal of Finance and Accounting* , 3(5): 303-309.
- Pastor, P. & Veronesi, N. (2012). Contribution of income tax and effects on revenue generation in Nepal.
- Rakhal, R. (2015). Determinants of Stock Market Performance MBM, Nepal Commerce Campus
- Rouwenhast, K G. (1999) articles entitled "*Local Return factors and Turnover in Emerging Stock Markets*" *European Research Studies Journal*, 9(3-4), 47-58.
- Shakya, A. (2009). *Impact of Return and Risk on share*. An Unpublished Master Degree Thesis, Submitted to faculty of Management, TU.
- Sharpe, W. F., Alexander G. and Bailey G.V. (1995). *Investment USA*: Prentice Hall of India.
- Sopipan, J. M., Brys, B., Heady, C., Johansson, Å. Schwellnus, C., & Vartia, L. (2012). Tax policy for economic recovery and growth. *The Economic Journal*, 121(550).
- Van Horne, J.C. & Wachowicz, J.M. (1997). *Fundamentals of financial management*. (9<sup>th</sup> Edition). New York: Prentice Hall Inc.
- Weston, J.F. & Brigham, F.F. (1997). *Managerial finance*. (7<sup>th</sup> Edition). New York; Hold Saunders International Edition.
- Weston, J.R. & Copeland, T.E. (1996). *Managerial finance*. New York: Dryden Press.
- Yilmaz, R. & Gulay, A. (2006). The main determinants of economic growth: An empirical investigation with Granger causality analysis for Greece. *European Research Studies Journal*, 9(3-4), 47-58.

## APPENDICES

### Appendix No. 1 Annual returns on stock of NIBL

| <b>Fiscal Year</b> | <b>MPS (In Rs)</b> | <b>Dividend (In %)</b> | <b>Annual rate of re</b> |
|--------------------|--------------------|------------------------|--------------------------|
| 2014/15            | 515                | 50                     | 0.077016                 |
| 2015/16            | 511                | 30                     | 0.382524                 |
| 2016/17            | 784                | 35                     | 0.771037                 |
| 2017/18            | 960                | 40                     | 0.391071                 |
| 2018/19            | 704                | 34.7                   | 0.132604                 |
| <b>Max</b>         | <b>960</b>         | <b>50</b>              | <b>0.771037</b>          |
| <b>Min</b>         | <b>511</b>         | <b>30</b>              | <b>0.077016</b>          |

### Appendix No. 2 Analysis of major financial indicator of NIBL

| <b>FY</b> | <b>MPS</b> | <b>Cash Dividend</b> | <b>Stock Dividend (%)</b> | <b>Total Dividend</b> | <b>Annual Return (Rs)</b> | <b>EPS (Rs.)</b> | <b>P/E Ratio (Times)</b> |
|-----------|------------|----------------------|---------------------------|-----------------------|---------------------------|------------------|--------------------------|
| 2014/15   | 515        | 25                   | 25                        | 152.75                | 0.077016                  | 39.1             | 13.2                     |
| 2015/16   | 511        | 5                    | 25                        | 201.00                | 0.382524                  | 27.6             | 18.5                     |
| 2016/17   | 784        | 25                   | 10                        | 121.00                | 0.771037                  | 46.2             | 17.0                     |
| 2017/18   | 960        | 25                   | 15                        | 130.6                 | 0.391071                  | 40.7             | 23.6                     |
| 2018/19   | 704        | 1.7                  | 33                        | 383.3                 | 0.132604                  | 30.9             | 22.8                     |

**Appendix No. 3 Annual returns on stock of EBL**

| <b>Fiscal Year</b> | <b>MPS</b>  | <b>Dividend (In</b> | <b>Annual rate of return (In %)</b> |
|--------------------|-------------|---------------------|-------------------------------------|
| 2014/15            | 2455        | 60                  | -0.41593                            |
| 2015/16            | 1094        | 60                  | 0.135375                            |
| 2016/17            | 1033        | 30                  | 1.305789                            |
| 2017/18            | 985         | 60                  | 0.818353                            |
| 2018/19            | 883         | 35                  | 0.141201                            |
| <b>Max</b>         | <b>2455</b> | <b>60</b>           | <b>1.305789</b>                     |
| <b>Min</b>         | <b>883</b>  | <b>30</b>           | <b>-0.41593</b>                     |

**Appendix No. 4 Analysis of major financial indicator of EBL**

| <b>FY</b> | <b>MPS</b> | <b>Cash Div.</b> | <b>Stock Dividend (%)</b> | <b>Total Dividend</b> | <b>Annual Return</b> | <b>EPS</b> | <b>P/E Ratio (Times)</b> |
|-----------|------------|------------------|---------------------------|-----------------------|----------------------|------------|--------------------------|
| 2014/15   | 2455       | 30               | 30                        | 339.9                 | -0.41593             | 100.16     | 16.27                    |
| 2015/16   | 1094       | 50               | 10                        | 209.1                 | 0.135375             | 83.19      | 13.15                    |
| 2016/17   | 1033       | 1.58             | 30                        | 790.88                | 1.305789             | 88.55      | 11.67                    |
| 2017/18   | 985        | 50               | 10                        | 262.00                | 0.818353             | 91.88      | 17.32                    |
| 2018/19   | 883        | 5                | 30                        | 882.5                 | 0.141201             | 78.04      | 27.17                    |

**Appendix No. 5 Annual returns on stock of HBL**

| <b>Year</b> | <b>MPS (In Rs)</b> | <b>Dividend (In %)</b> | <b>ARP (In %)</b> |
|-------------|--------------------|------------------------|-------------------|
| 2014/15     | 766                | 8.44                   | 0.020714          |
| 2015/16     | 742                | 7.00                   | -0.06391          |
| 2016/17     | 860                | 14.74                  | 0.387521          |
| 2017/18     | 836                | 34.74                  | 1.550538          |
| 2018/19     | 680                | 11.00                  | -0.20479          |
| <b>Max</b>  | <b>860</b>         | <b>34.74</b>           | <b>1.550538</b>   |
| <b>Min</b>  | <b>680</b>         | <b>7.00</b>            | <b>-0.06391</b>   |

**Appendix No. 6 Analysis of major financial indicator of HBL**

| <b>FY</b> | <b>MPS (In Rs)</b> | <b>Cash Dividend (Rs)</b> | <b>Stock Dividend (%)</b> | <b>Total Dividend</b> | <b>Annual Return</b> | <b>EPS (Rs.)</b> | <b>P/E Ratio (Times)</b> |
|-----------|--------------------|---------------------------|---------------------------|-----------------------|----------------------|------------------|--------------------------|
| 2014/15   | 766                | 0.44                      | 8.00                      | 19.8                  | 0.44015              | 15.67            | 16.98                    |
| 2015/16   | 742                | 7.00                      | 00                        | 7.00                  | 0.31215              | 17.18            | 14.09                    |
| 2016/17   | 860                | 0.74                      | 14.00                     | 75.78                 | 0.37452              | 18.17            | 14.31                    |
| 2017/18   | 836                | 1.74                      | 33.00                     | 127.14                | 0.145394             | 18.69            | 28.68                    |
| 2018/19   | 680                | 0.58                      | 11.00                     | 46.23                 | 1.051181             | 16.24            | 23.41                    |



**Appendix No. 7 Annual returns on stock of NABIL**

| <b>Year</b> | <b>MPS (In Rs)</b> | <b>Dividend (In %)</b> | <b>ARP (In %)</b> |
|-------------|--------------------|------------------------|-------------------|
| 2014/15     | 1510               | 36.84                  | 0.440157          |
| 2015/16     | 1575               | 36.84                  | 0.312159          |
| 2016/17     | 1263               | 28.42                  | 0.374529          |
| 2017/18     | 1059               | 25.00                  | 0.145394          |
| 2018/19     | 985                | 42.11                  | 1.051181          |
| <b>Max</b>  | <b>1575</b>        | <b>42.11</b>           | <b>1.051181</b>   |
| <b>Min</b>  | <b>985</b>         | <b>25.00</b>           | <b>0.145394</b>   |

**Appendix No. 8 Analysis of major financial indicator of NAIBL**

| <b>FY</b> | <b>MPS</b> | <b>Cash Dividend (Rs)</b> | <b>Stock Dividend (%)</b> | <b>Total Dividend</b> | <b>Annual Return</b> | <b>EPS (Rs.)</b> | <b>P/E Ratio (Times)</b> |
|-----------|------------|---------------------------|---------------------------|-----------------------|----------------------|------------------|--------------------------|
| 2014/15   | 1510       | 11.84                     | 25                        | 175.09                | 0.440157             | 31.80            | 25.66                    |
| 2015/16   | 1575       | 16.84                     | 20                        | 156.84                | 0.312159             | 44.66            | 12.88                    |
| 2016/17   | 1263       | 13.42                     | 15                        | 137.17                | 0.374529             | 39.94            | 16.35                    |
| 2017/18   | 1059       | 10.00                     | 15                        | 131.95                | 0.145394             | 34.19            | 20.47                    |
| 2018/19   | 985        | 7.11                      | 35                        | 437.61                | 1.051181             | 33.37            | 24.36                    |