Investment promotes economic growth finance essay

Finance

CHAPTER-I

1. Introduction

1. 1 Background

Today's world economy has been more competitive & complicated due to the competition & globalization. The most important fact of international business operation is continuous change in economic, political & social dimension. These chances are beyond the control of international business concern. Nowadays international investors are attracted towards the financial markets of developing countries. As a result, many joint ventures & multinational companies are being established in the country which plays vital role in economic development of the country. Investment promotes economic growth and contributes to a nation's wealth when people deposit money in saving account in the banks. For example, the bank may invest by lending the funds of various business companies. These firms in return may invest the money in new factories and equipment to increase their production. In addition to borrowing from the banks most companies issue stocks and bonds that they sell to investors to raise capital needed for business expansion. Government also issue bonds to obtain funds to invest in such projects as the construction of dams, roads, building and schools. All such investment by individuals, business and government involves a present sacrifice of income to get an expected future benefits. As a result, investment raises a nation's standard of living." Investment in its broadest sense means the sacrifice of current dollars for future dollars. Two different attributes are generally involves time risk. The sacrifice takes place in present and is certain. The reward comes later if at all, and the magnitude is

generally uncertain" An investor gets innumerable opportunities or alternatives for investment in the sound investment environment. Capital market is also one of the places where investors can make their investment. Capital market consists of securities and non-securities market. Securities market implies mobilization of the fund through issuance of the securities shares, bonds and debentures by the corporate sectors and bonds, bill and debentures by government. Non securities market refers to the mobilization of the financial resource by the financial institutions in the form of deposits and loans. Economic growth of the nation depends on the availability, mobilization and utilization of the financial resource. Financial institutions play the major role for economic development of any country. Financial sector primarily indicates the banking sector. So, there is a very much dependence on the banking sector for the overall economic development of any nation.

1. 2 Development of Commercial Bank in Nepal

Bank is financial institutions whose operation is to accept deposit from public and to lend money to the entrepreneurs. Generally, a word of bank is indicates to the commercial bank. Commercial banks are one of the major financial intermediates whose primary function is the transfer of monetary resource from saver to the user. Authors have defined in various aspects about bank. A modern bank performs number of functions; it has become very difficult to give a precise definition of a bank. Some of the important and commonly used definitions of a bank are given below:-" A commercial bank is one which exchange money, deposit money, accepts deposit, grant loans and performs commercial banking functions and which is not bank

meant for co-operative, agriculture, industry or for specific purpose."" A commercial banker is a dealer in money and substitutes for money, such as checks or bill of exchange. It also provides a variety of financial service." The development of banking system in our country is not very old. The concept of financial institutions in Nepal was introduced when the 1st commercial bank, Nepal Bank ltd, as a semi- government organization was established in 1983 A. D. it was established under special banking Act 1936 having elementary functions of a commercial bank. It becomes public limited company in 1953 A. D. Later in 1957 A. D. The first central bank named as " Nepal Rastra Bank (NRB0" was established with an objectives of supervising, protecting and directing the functions of commercial banking activities in Nepal. Another commercial bank fully owned by the government named as" Rastriya Banijay Bank (RBB)" was established in 1966 A. D. And the course of time different commercial bank Act and company Act have been formulated and implemented to further enhance the financial activities more effectively and efficiently. After the reinstatement of multiparty democracy several in the country several joint venture banks were also established. In way, the no. of commercial bank is increasing during these days which are as follows:-

Table 1. 1 the Commercial banks in Nepal:-

S. NName of Bankoperation date(A. D.)1Nepal bank Limited1937-11-152Rastriya Banijay Bank1966-01-233Agriculture Development Bank1968-01-024NABIL Bank Limited1984-07-165Nepal Investment Bank Limited1986-02-226Standard Chartered Bank Nepal Limited1987-01-307Himalayan Bank Limited1993-01-188Nepal SBI Bank Limited1993-07-079Nepal Bangladesh Bank Limited1993-06-0510Everest Bank Limited1994-10-1811Bank Of

Kathmandu Limited1995-03-1212Nepal Commerce And Credit Bank Limited1996-10-1413Lumbini Bank Limited1998-07-1714l Nepal Industrial And Commercial Bank Limited 1998- 07-2115Machapuchare Bank Limited2001-10-0316Kumari Bank Limited2001-04-0317Laxmi Bank Limited2002-04-0318Siddhartha Bank Limited2002-12-2419Global Bank Limited2007-01-0220Citizens Bank International Limited2007-06-2121Prime Bank Limited2007-09-2422Sunrise Bank Limited2007-10-1223Bank of Asia Nepal Limited2007-10-12

Evaluation of Joint Venture Banks (JVBs) In Nepal

Joint venture is a partnership among nations and also between various groups of industries and trader to achieve mutual exchange of goods and services for sharing comparatives advantage. We can define a joint venture as a force between two or more enterprises for the purpose of carrying out the specific operation. After the announcement of new policy in 1982-83 A. D. the first joint venture bank, Nepal Arab Bank was established in 1984 A. D. (2014 B. S.) Nabil bank was established under the collaboration with Dubai bank of United Arab Emirates. The second Joint venture Bank was Nepal Indosuez Bank which was established in 1985(2042 B. S.) under the joint venture with Indosuez bank of France. Similarly, in 1986 A. D. (2043 B. S.) Nepal Grindlays bank was established under the collaboration between Nepal and Grindlays bank London and Himalayan Bank Limited as a joint venture with Habib bank limited, Pakistan. Then in upcoming years the number of commercial bank dramatically. A study conducted by Dr. Manohar Krishna Shrestha, professor of Central Department Of management (Tribhuvan University) in has article" Commercial banks comparative evaluation"

clarifies that joint venture banks (JVBs) are new and comparative more efficient in operation and they have superior performance while comparing with local banks. They are performing better due to their sophisticate technology, modern banking and skill in comparison to local banks. Their better performance is also due to burden the local banks are facing due to government branching policy in rural areas and financing public enterprises. Local banks are efficient in rural sector. But having number of deficiencies, they have to face growing constraints of socio-economic and political system on one hand spectrum and that of issue and challenges of JVBs commanding significant banking in other spectrum. Therefore, the joint venture between foreign bank and Nepalese bank should be encouraging in Nepal, specially, in merchant and investment banking. We hope foreign bank will bring healthy competition in the financial environment, which will improve work efficiency and Quality of product and services of Nepalese bank too.

Growth of capital Market in Nepal

Capital market refers to the market for long term debt and equity shares. It can be further dividend into primary market and secondary market. Primary market is the market where the shares are offered to general public for the first time and the in the secondary market is those market which have already been purchase securities by the public in primary market are traded again and again. Lord Keynes was the first person to express stock market as' a game of professional investment'. The main purpose is to win or to make lots of money. Success comes to those; who treat it as a game to be played not for profit but also for enjoyment and sports. Stock market provides opportunities and threatens. Opportunities for the well informed

people having better knowledge of market realities and danger for the unknown people. In the context of Nepal, capital market is very new concept with compare to the other capital market in the world. " It is still in nascent stage though it began with the flotation of shares by NBL and Biratnagar Jute Mills Limited in 1973 under the Company Act 1936. At that time, the participation on the ownership structure of the corporate sector was restricted mostly to the Rana Family. Consequently, the expansion of the capital market to the desired level had been restricted. No signification attempts had been made in four" Five –year plans" to reform the capital market". The capital market was development by the established of security Exchange Center in 1976 A. D.(2033 B. S.) the no. of listed companies and their trading was very negligible until the government of Nepal had made economic refers along with broad financial policy in the process of economic liberalization. The privatization of public entities have been started various finance and insurance companies in the private sector are being established with local and foreign investments. Those companies have to issue some of their share of the general public. In 1992, the finance company Act was amended. These enabled finance companies to be established to function in various areas such as leasing, housing finance and hire purchase. These institutions were also allowed to perform capital market functions such as share issue, portfolio management, market making and custodial services. Stock market in Nepal has been growing gradually both in terms of turnover as well as the capital investment. No. of listed companies in NEPSE grew from 16 in 1986 to144 at the end of the FY 2007/08. The listed companies as

well as their sector wise their market capitalizations are shows in table below:-

Listed Companies by the end of the FY 2007/08 & also including seven month data of mid- February 2009:-

S. N

Sector

No. of listed Company

1Banks & Bank and Financial institutions and (including insurance)1182Production & Processing industries183Hotels44Business entities45Hydropower36Other group2Total149(Source: Nepal Rastra Bank 2008/09)Till the total companies of listed NEPSE in 149 in mid-febuarary. 2009. The total paid up capital of the listed companies at Rs. 51. 36 billion mid-February 2009. An increased by 110. 9 percent over the period of one years. The year- to- Year market capitalization increased by 53. 5% to Rs. 399. 81 billion in mid feb. 2009.

1. 4 Brief Profile of Standard Chartered Bank Limited:-

Standard Chartered Bank Nepal Limited (SCBNL) has been in operation in Nepal since 1987 A. D. when it was initially registered as a joint venture operation. Today the Bank is an integral part of Standard Chartered Group who has 75% ownership in the company with 25% share owned by the Nepalese public. The bank enjoys the status of the largest international bank currently operating in Nepal. SCBL, subsidiary of Standard Chartered Group currently operating inn Nepal, enjoys an impeccable reputation of leading financial institution in the country. With 16 points of representation and 17

ATMs across the kingdom and employs over 350 local staff; Standard Chartered Bank Nepal Ltd. Is in a position to service its customers through a large domestic network. In addition to which the global network of Standard Chartered Group gives the Bank the unique opportunity to provide truly international banking in Nepal. SCBL, whose head office is situated in new baneshwor, Kathmandu has Rs. 1000 millions registered or authorized capital. It has issued shares of Rs. 1000millions to run its operation smoothly. And the bank has succeeded to collect the paid up capital about Rs. 620. 7840 millions till at the end of Fiscal Year 2007/08. It was listed in NEPSE on 4th July 1988.

Brief Profile of Nepal Investment Bank Limited:-

Nepal Investment Bank Limited (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL was Credit Agricole Indosuez, a subsidiary of one large banking group in the world. With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professional, industrialists and businessman, has acquired on April 2002 at the 50% shareholding of Credit Indosuez in Nepal Indosuez Bank Ltd. The name of bank has been changed to Nepal Investment Bank Ltd. Upon approval of banks Annual General meeting, Nepal Rastra Bank and Company Registered office with the following shareholding structure. A group of companies holding 50% of the capitalRastriya Banijya Bank holding 15% of the CapitalRastriya Beema Sansthan holding the same percentage. The remaining 20% being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange.)

Brief Profile of Nepal Stocks Exchange Limited:-

The market where outstanding securities are traded is referred as secondary market, more popularly known as the stock market. There is only one stock exchange in Nepal called Nepal Stock Exchange Limited (NEPSE), where government and corporate sector securities are traded. Securities Exchange Centre was established with an objective of facilitating and promoting the growth of capital market. Before conversion into stock exchange it was only the capital market institution undertaking the job of brokering, under writing, managing public issue, market making for government bonds and other financial services. His Majesty's Government, under program initiate to reform capital market, converted Securities Exchange Centre into Nepal Stock Exchange in 1933. Nepal Stock Exchange, in short NEPSE is a non-profit making organization, operating under Securities Exchange act 1983. The basic objectives of NEPSE is to impact free marketability and liquidity to the government and corporate securities by facilitating in its trading floor through market intermediaries such as broker, market maker etc. His Majesty's Government of Nepal Rastra Bank, Nepal Industrial Development Corporation and Licensed members are the shareholders of the NEPSE. NEPSE opened its trading floor on January 13th 1994 through licensed members. The authorized and issued capital of exchange is Rs. 50 million. Of this Rs. 30. 41 million is subscribed by HMG/N, Nepal Rastra Bank, Nepal Industrial Development Corporation and licensed members.

1. 7 Statement of Problems

Investor has the autonomy over the selection of any investment alternatives. They have the freedom of choice over the selecting of instruments. Different

investor prefers different investment alternatives. Generally, return, liquidity and safety of investment are basic concerned of the general investors. Therefore, investors considering these factors make investment decision and select either fixed rate yielding securities or risky instrument like share. Some want fixed income (fixed regular income), some want growth of their money (capital gain) whereas some want safety (guaranteed return of principle. So, the investor can be classified into three categories based on risk and return. First type of investor is risk lover investors who become ready to face high risk in the hope of high return. The second type of investors are risk avoider who try to avoid facing high risk and became ready to be satisfied in low return. Third types of investors come along in between these two investors. They are ready to bear medium risk and have medium return. The study has examined whether these investors are aware about the risk and return analysis of the institutions they are investing or not. Investor must be able to analyze risk and return of individual stocks and portfolio as well. This will increases their confidence and ultimately increases the efficiency of the market which certainly will help the development of the capital market of the nation. It is the responsibility of the investors to make the rational decision. However, in Nepalese context, most of the investors appear to be least familiar with the financial activities. Very few people analyzed the risk & return. Awareness regarding the financial activities, investment policy, making portfolio etc. is very little. After the established of Nepal Stock Exchange, the capital has rapidly grown but most of people have not aware in making investment in the securities market. Investors are not well informed and aware of features of different financial instruments. Most

of them have never gone thoroughly while applying for the shares. The investors are more attracted towards the stocks of banking sector rather rest other. Investors who take risk in investing do not have enough information. In such an immature stage of capital market and surrounding, the researcher aims to study on the stocks of commercial banks from risk and return perspectives. Therefore, this study particularly deals on following research questions:-What are risk and return of the selected commercial banks? How risk and return are correlated? How earning per share and market per share are correlated with the dividend payout ratio/How is the systematic risk and unsystematic risk of these banks? What is the co-variance between the returns of the selected banks? What is risk and return of the market NEPSE?

1. 8 Objectives of the Study:-

The overall objectives of the study is to analyze the risk, return and other relevant variables that help in making decision about investment on securities of the listed commercial banks. The specific objectives are as follows:-To measure systematic and unsystematic risk of the selected banks. To study the risk return of the selected banks. To find out the relationship between earning per share and market per share of the commercial banks. To find out the correlation co-efficient between selected banks. To find out risk and return of market NEPSE. To find out the co-variance between selected banks.

1. 9 Significance of the study

In the context of Nepal, the capital market is growing very slowly. The market is not so efficient. Most of the investors are investing on the capital

market without any proper knowledge or information about the market. Investment of capital market is just like shooting in the dark. Therefore, this study will give the information of capital market by analyzing risk and return of commercial banks. It will provide the basic concept and the situation of risk and return of Nepalese investment. It will be helpful to potential investor who wants to invest in security. The study will create awareness about utilization of investor's scare resource and help to identify the risk return trade off their investment. This research will be help to clarify about risk and return to the investors as well as concern companies which will be beneficial to the investors and companies for taking right investment decision and improving strategy and management.

1. 10 Limitations of the study

The limitations of study are as follows:-Only two listed commercial banks are taken as sample. This study was complete within the limited time so it covers only 7 years. Secondary data are used for the analysis and the interpretation which are taken from the SEBO, NRB annual report of concern banks and websites so the result may not be accuracyThe study is basically focus on risk and return on common stock of the commercial banks and analyzed the yearly data. Analysis is base on the limited financial and statistical tools which are mention as methodology. Average return of the individual bank is taken as expected return.

1. 11 Ethical Consideration

I would be enduring by all rules and regulations set forth by Coventry and Oceana International Business School while doing my research. As the

research include collection of data from secondary sources, I will be using valuable, reliable and would not plagiarize work of other researchers or authors. I am also aware of the potential impact of plagiarism and make full use of the Harvard Referencing System and guidelines to ensure that my work is compliant. When I use information from other sources, I will acknowledge the relevant contribution by providing appropriate in-text citation and a list of references at the end of the dissertation. I promise this dissertation is my own work

Chapter II

Literature

2. Review of Literature:-

Many of the study on commercial bank by Mayne in Illinois, Fulme in South Carolina, and Gilbert and Peterson, They found that a national level contend that profitability is relatively lower for member versus non-member banks and on the other hand, some of the studied which was found by Phaup studied hanks in the Fourth Federal Reserve District and Rose, Fraser, and Schugart told bank in Texas, those studies says that there was not difference between non-member and member banks. In each of these prior studies, profitability was considered three years before was measured over a relatively short time period. At most, profitability was considered three years before and after the year in which the membership change occurred. Furthermore, previous research focused only on the level of profitability and ignored variability implications that might be important to the membership issue. As is well known, banks make money in one of two ways: providing services to customers and taking risks. Theoretically, if a bank takes more

risk it can expect to make more money. However, empirical findings regarding the risk–return relationship are controversial and it has posed a long-standing problem in the research field. In particular, while certain empirical studies (e. g. Bradley, Jarrell, & Kim, 1984; Brewer & Lee, 1986; Hassan & Bashir, 2003; Jahankhani & Lynge, 1980; Karels, Prakash, & Roussakis, 1989; Kim, 1978; Pettway, 1976; Schneller, 1980) show a positive risk–return relationship, some studies, such as Bourke (1989), Molyneux and Thornton (1992), Cantor and Johnson (1992), Berger (1995), Golin (2001) and Goddard, Molyneux and Wilson (2004) indicate a negative relationship between risk and bank performance. This investigation departs from the more conventional research in the way that the parameters of the risk–return regression are modelled and proposes a new approach to questions regarding the relationship dynamics between the risk and bank performance. In particular, this study examines whether the risk–return relationship in the banking industry is consistent with different levels of the bank profitability quintile. It must be noted that the quintile is a statistical term describing a division of observations into certain defined intervals based upon the values of the data and the profitability quartile of a specific bank could show the relative magnitude of its profitability in comparison with the entire set of bank observationsThe review of literature is done regarding the topic of the study is concerned. Review of literature is based on academic books, topic of study related publications, journals and researches done by the ex- students of the Bachelor or Degree as well as Master Degree. Very few studies are found during the research period on the topic " Risk and Return" in Nepal. So, most of the materials for the study are used from foreign publications.

However, some independent studies are also carried out by well- known Nepalese finance experts are taken into consideration.

2. 1 Conceptual Review:-

Conceptual review is done from the books on the finance and through websites/internet.

2. 2. Meaning of Investment

Fund used to get additional income is called investment. It is done to increase the value of property or to extra income. Investors never become satisfied with the present income or present amount of money in hand, so with a hope of getting enlarged sum in the future, they save it, scarifies the present expenditure and invest it. Investment generally involves real assets or financial assets. Real asset are tangible material things as building, automobiles, machinery, factories and text books. Financial asset are price of paper representing an indirect claim to real assets held by someone. These pieces of paper represent debt or equity stock certificates." Investment may be defined as the purchase by an individual or institutions investor or real asset that produces a return proportional to the risk assumed over future investment" An investment is a commitment of money that is expected to generate additional money. The increases amount that one gets from the investment, as its return, is termed as profit. The profit is always characterized by the uncertainty and this uncertainty of returns termed as risk. Every investment entails some degree of risk; it requires a present certain sacrifice for a future uncertain benefit. Risk prevails not only in profit but also for the return of principal. Return and risk are, therefore, the two

basic components of the investment. It is said if there is no risk, there is no gain, so return is taken as the compensation of that uncertainty or risk.

2. 3. Common Stock

The shares / stock, which is issued to get dividend in the remaining portion of profit after paying to debentures, bonds preferred stock is called ordinary share. The ordinary shareholders are the real owner of the company. Equity shares are the important source of the long term capital. It pays an important role in the capital structure. These types of capital are called equity capital. Common stock does not get any special right but it has voting right. Common stockholder are the main risk bearer of the company." Common stock represents an ownership position. The holders of common stock are the owners of the firm, have the voting power that, among the things, elect the board of directors and have a right to the earnings of the firm after all expenses and obligations have been paid; but they also run the risk of receiving nothing if earnings are insufficient to over all obligations." Common stockholders are the real owners of the company. They have voting right. Shareholders can elect board of directors. Common stock is more risky as compared to bonds and preferred stocks issued by the same company. Cash payoff to the common stock comes in terms of cash dividend or capital gain. Features of common stock are as follows: Common stockholder gets a stock certificate having stockholder's name and address. Common stockholders are the owner of the company. They have voting right and they have right to elect board of directors from themselves. Common stockholders have secondary right to asset and profit. The common stockholders get dividend and assets after paying creditors and preferred

stockholders. Common stockholders have the primitive right to purchase any new issue of their company's stock. Common stock does not mature till bankruptcy of the company. Common stock has right risk and uncertainty of return rather than bonds preferred stocks.

2. 4 Meaning of Return

Return is the main aim of investment, which has associated a certain degree of risk. Return is a reward from investment. The concept of return has different meaning to different investor. However, the major purpose of investment is to get more return or incomes on the funds invest. Some investor seek near term cash inflows and give less value to more distant return such a investor might purchase the stock of other firm that pays a large cash dividends. Other investors are concerned primarily with growth. They would seek projects that offer the promise of long term, higher than average growth of sale, earning and capital yield. Most of investors invest the money at present for getting more expectation of return in the future. Return is the motivating force and it is the key method available to investors in comparing alternatives investments. Realized returns and expected returns are two terms, which is often, used in the language of investment. Realized return is after the fact return, return that was earned or it is history. Expected return is the return from an asset that investor will earn over some future period. It is a predicted return, which may or may not occur. In common stock, there are two types of return or in other words, common stock holder could get cash payoff in two forms. They are: Capital gain or lossCash dividend gain" In general, the return on any security can be viewed

as the cash the security holders receives (including liquidation at the end of the period) dividend by the initial investment"

2. 4. 1 Rate of return

The rate of 5return is important because it measures the speed at which the investor's wealth increases. It is imply the total return an investor would receive during the specific period or holding period. Symbolically, HPRj = Pt+1-Pt+Dt+1Pt'OR'HPRj = Pt-Po+D1PoWhere, Pt+1 or pt = the ice of the investment at the end of the period on stock j. Pt or Po = the price of the investment at the beggining of the period on stock j. Dt+1or D1= cash received during the period on stock j.

2. 4. 2 Expected rate return

" The expected rate of return of holding period return is based upon the expected cash receipts over the holding period and the expected ending or selling price. Depending upon the assumption made about cash receipts and ending price, a number of expected rates of return are possible. These possible rates of return estimated by the investor are summarized in an expected rate of return. The expected rate of return must be greater or equal to the required rate of return in order for the investor to find the investment acceptable."" The expected rate of return is calculated by summing the products of the rates of the rate of return and their respective probabilities." It can be denoted as follows:-∑HPRjHPRj = nWhere, HPRj = Mean rate of return of stock j. n = Number of years that the return is taken.∑HPRj = Sum of rate of return of stock j.

2. 5 Meaning of Risk

Risk is creation by the cause of the future uncertainty. Investment decision depends upon two factor i. e. risk and returns. Risk is the fluctuation of actual return and expected return. Risk refers to the chance that sine unfavorable event will occur. Risk and uncertainty are an integral part of an investment decision. Risk is the unlooked for the unwanted event in the future. Someone had said that risk was the sugar and salt of the life. Therefore, everyone encounters risk and uncertainty in everyday life." Risk defined most generally, is the probability of the occurrence of unfavorable outcomes but risk has different meanings in different contexts. In our context, two measures developed from the probability distribution have been used as initial measures of return and risk. They are the mean and standard deviation of the probability distribution."" Risk is defined as Webster's as " a hazard; exposure to loss or injury." Thus, risk refers to the chance that some unfavorable event will occur. It anybody engage in skydiving, such people are taking chance with his life skydiving is risky."" In the most basic sense, risk is the chance of financial loss. Assets having greater chance 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 a given asset."" Risk in holding securities is generally associated with the possibility that realized returns will be less than the returns that were expected. The source of such disappointment is the failure of dividends (interest) and / or the security's price to materialize as expected."

2. 5. 1 Total risk – systematic risk and unsystematic risk

Total variation of the total risk of return for individual security is measured by the standard deviation of the rate of return. Van Horne had dividend the total risk into two main parts: Systematic riskUnsystematic risk. Similarly, Butters, et all had also expressed that security's total risk can be divided into " that portion which is peculiar to a specific firm and can be diversified away (called unsystematic risk) and that portion which is market related and non diversifiable (called systematic risk)Thus, Total risk = unsystematic risk + systematic risk(Diversifiable risk, (non-diversifiableFirm specific) market related)According to CAPM total risk is divided into two parts. They are systematic and unsystematic risk.

2. 5. 2 Systematic Risk

The market risk is known as the systematic risk. It related to the market as a whole and arises from the tendency of stock returns to fluctuate with the market returns. Systematic risk is that portion of total variability in return caused by market factors that simultaneously affected the prices of all securities. It cannot be diversifiable away. Thus, it is also called non-diversifiable risk or unavoidable risk or beta risk. Changes in economic, political and sociological environment that affects securities market which systematically affected all firms. The measure of systematic risk promise investors to evaluate an assets required rate or return relative to the systematic risk of the stock. Diversifiable risk or unsystematic risk of a security is unique to the firm that issued the securities. Events such as emergence of a new competitor, plant, breakdown, lawsuit, non- availability of raw materials, management errors, advertising campaigns, etc cause

unsystematic variability in the value of a market asset. These types of risk primarily affect a specific firm and not all firms in general. " Hence risk arising from them can be diversified away by including several securities in a portfolio."

2. 5. 3 Unsystematic Risk

Unsystematic risk is those portions of total risk which can be reduce through diversification away. Unsystematic risk is risk unique to a particular company of industry. It is independent of economic manner. It is caused by events particulars to the particular firm such as labor strikes, management errors, inventions, advertising campaigns shift in consumer required etc. So, these types of risk can be eliminating through sound management. It is also called non- market risk or avoidable risk or company specific risk or diversifiable risk." Non-diversifiable risk is systematic risk is that portion of total variability in return caused by market factors that simultaneous affect the prices of all securities." Economic factors like money supply, inflation, level of government spending, industrial policy as well as political and sociological changes are source of systematic risk. These types of factors affect return on all firms and investors cannot avoid the risk arising from them. However, diversification can avoid these risk but," put differently such risk cannot be diversified away." The relationships among total risk, systematic risk and unsystematic risk are show below: Total risk (j) = Systematic risk + Unsystematic riskWhere, Systematic risk = (j) (Pjm) and Unsystematic risk = (j) (1-Pjm)In the equation Pjm is the correlation coefficient between the returns of a given stock j and the return on market portfolio.

2. 5. 4 Standard deviation

" First the variance of an assets rate of return or the weighted average rate of standard deviation of possible occurrences is calculated from the mean value of the distribution, with the weight being the probabilities of occurrences. The square root of the figures or variance of rate of return provides standard deviation. Standard deviation is often denoted by (j) and Variance by 2."

2. 5. 5 Beta Coefficient

Market sensitivity of stock is explained in terms of beta. Higher the beta greater will be the sensitivity and reaction to the market movement. Beta is a systematic risk, which cannot be eliminated through the means of diversification. An investor can use the beta measure to assess the risk level of an asset or portfolio." Beta measure non-diversifiable risk. Beta shows how the price of a security responds to market forces. In affect, the more responsive the price of security is to changes in the market, the higher will be its beta. Beta is calculated by relating the returns on security with the returns for the market. Beta can be positive or negative. But nearly all betas are positive.

2. 1 Relationship between Risk and Return

YR1returnR2R3X0 1 2 3RiskFigure 2. 1 Relationships between Risk and ReturnThe figure represents higher premium for higher risk in a linear fashion indicating premium of (R1-Rf) for 1 degree of risk (R2 – Rf) for 2 degree of risk and so on. The assumption of linear relationship states the risk premium increases or decreases in proportion to 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. Scientific progress in any field depends on occur measurement. Many measurements are interesting in themselves by their most important scientific role is to test the validity of theory. Since most financial theory is focused on an explanation of the level, structure and behavior of rates of return, their accurate measurement is essential if the theory is to be tested and improved."

RESEARCH METHODOLOGY

3. 1 Introduction

Research methodology is systematic way to solve the research problem. Research methodology describes the methods and process applied in the entire aspect of the study. It includes all the procedures from theoretical foundation to the collection and analysis of data." Research Methodology refers to the various sequential steps (along with a rational of each step) to be adopted by a research in studying a problem with certain object/objects in view"" Research is essential a systematic inquiry seeking facts through objectives verifiable methods in order to discover the relationship among them and to deduce form them broad principles or laws. It is really a method of critical thinking by defining and redefining problems, formulating hypothesis or suggested solution, collecting, organizing and evaluating data, making deductions and making conclusions to determine whether they fit the formulated hypothesis. Thus, the term" Research" refers to a critical, careful and exhaustive investigation or inquiry or examination or experimentation having as its aim the reversion of accepted conclusions, in

the light of newly discovered facts. There are as many definitions of research as there are researchers.

3. 2 Research Design

" Research design is a plan for the collecting and analysis of data. It presents a series of guide posts to enable the researcher to progress in the right direction in order to achieve the goal. The design may be specific presentation of the various steps in the research process. These steps include the selection of a research problem, presentation of the problem, formulation of hypothesis, conceptual clarity, Methodology, survey of literature and documentation, bibliography, data collection, testing of the hypothesis, interpretation, presentation & report writing." The research is based on recent historical data of last 7 years. The end of fiscal year is taken from Mid July 2001 to Mid July 2008. The research is mainly focused on risk and return of two commercial banks which are listed in NEPSE. It will be based on secondary data which is published by the commercial bank NEPSE, SEBON and NRB. Various types of financial, Statistical tools and hypothesis have been used for analysis and interpretation. The graphs, charts and table are used to analyze and interpret the finding of the study and draw out necessary suggestions and conclusion. The study evaluates the risk and return of the two selected commercial banks of Nepal i. e. SCBNL an NIBL.

3. 3 Sources of Data

The more reliable and accurate the data is the more accurate will be the study. The method of data collection's main objectives is to collect the reliable and accurate data. To collect the reliable and informative data all the

source as far possible are being searched. The data are collected from secondary source they are as follows:-Financial Statements, Annual Reports and Newsletter of related banks from the FY 2001/02 to FY 2007/08. Websites of the related banks www. Standardchartered. com of SCBL and www. nibl. com. np of NIBL. Annual reports of Security Board of Nepal (SEBON) and its website www. Sebonp. com. Bulletins, Reports and periodically published by NEPSE and its websites www. nepalstock. com. Various Reports published By NRB and its website www. nrg. org. Other published materials such as newspaper, journals, magazine, text books and related thesis/ reports. Besides personal visits to the related banks and NEPSE have been done for the purpose of DATA collection and enquiries with respective authorized personnel of the banks and NEPSE has been accomplished for the clarification of their product and services and acquired data.

3. 4 Data Processing Procedure

Collected data are arranged and presented in a systematic way to yield meaningful information. It is further verified and simplified for analysis. Moreover, data and information, so gathered are to be checked, edited and tabulated in such ways that provide convenience for computation and interpretation. Relevant are presented in tables. Only the data that are relevant to the study have been presented in tabular and chart forms in the simple way and unnecessary data are excluded.

3. 5. Data Analysis Tools

After collecting the data from secondary sources, they were analyzed and separate into its concerned topics. Financial as well as statistical tools are used to analyze the collected data to assess the risk and return. Following statistical tools are used for analyzing and interpretation of data:-

Financial Tools:-

Market Price of Stock (Po or Vo):-

There are three price records available. High, Low and Closing price. So, two approaches either average price (of high and low0 or closing price can be used. Closing price is used as market price of stock which has specific time span of one year and the study has focused in annual basis while average price represents the price of whole year. Hence, it is very difficult to get reliable and representative information.

Earning per share (EPS):-

Earning refers to the net income after tax of the company. Earnings per share (EPS) is the results of net income after tax dividend by the outstanding number of common shares. It can express as: Net Income after TaxEPS = No. of Equity Share

Dividend (D):-

Dividend is reward to the shareholders for their investment. It can be given in the form of cash or shares. If a company declares only the cash dividend, there is no problem to take dividend amount. But if company declare stock dividend(bonus share), it is difficult to obtain the amount that really shareholder has gained. In case of stock dividend the formula for total

dividend amount is considered as follow: Total Dividend amount = cash dividend + (stock dividend % * Next Year's MPS)Where, MPS= market value per share.

Price Earning Ratio (P/E Ration):-

This ratio is closely related to the earning to the Yield/earning price ratio. This is computed by dividing the market price of share by the EPS. P/E Ratio = MPSEPSWhere, MPS = Market value per share. EPS = Earnings per share.

Holding Period Return:-

Common way to measure security return is the holding period return (HPR). The HPR measures the total return from an investment over a specific period of time. The formula for Finding the HPR on investment J during the period t, HPRj is defined as follows:-Symbolically, HPRj = Pt+1-Pt+Dt+1Pt'OR'HPRj = Pt-Po+D1PoWhere, Pt+1 or (Pt) = the price of the investment at the end of the period on stock j. Pt or (Po) = the price of the investment at the beginning of the period on stock j. Dt+1 or D1 = cash dividend received during the period on stock j.

Mean Rate of Return:-

Mean rate of return is obtained by computing the arithmetic mean of the return:-Symbolically, HPRj = ∑ HPRjN'OR'HPRj = ∑RNWhere,

⬜ ⬜

HPRj = Mean rate of return of stock j. N = Number of years that the return is taken.∑HPR or ∑R = Sum of rate of return of stock j.

Standard Deviation:-

Standard deviation is a statistical tool which is widely used to measure the total risk of the asset. The standard deviation " " can be denoted by $j = \sum (HPR_j - \overline{HPR_j})^2 N$ Where, j = Standard deviation for stock j. HPR_j = Holding period Return for stock j. N = no. of the years. $\overline{HPR_j}$ = Mean rate of return of stock j.

Co-efficient of Variation:-

If absolute risk is measured by the standard deviation then risk per unit of expected return can be measured by the co-efficient of variation (C. V.). It is depicted as follows: Symbolically, $jC. V. j = \overline{HPR_j}$ Where,

j = Standard deviation of stock j.

HPR_j = Mean return of stock j. C. V. j = Co-efficient of variation of stock j.

Beta Co-efficient:-

Beta measures market sensitivity of stock. Higher beta indicates high sensitivity with the market movement and situation. Beta is a systematic risk which can't be eliminated through the means of diversification. Symbolically, $COV_{j. m.} ß_j = _m2$ Where, $ß_j$ = Beta Co-efficient or systematic risk of stock j. $COV_{j. m.}$ = Covariance of individual j asset's return with the market return. $_m2$ = Variance of market return.

Co-variance:-

Co-variance is a measure that combines the volatility of stock's returns with the tendency of those returns to move up or down at the same time stocks returns move up or down. Co-variance can be measured as follows:-

Symbolically,$\sum$ (HPRj-HPRj) (Rm-Rm)COVj. m = NWhere, COV j. m = Co-variance of stock j and stock m. HPRj = Rate of return of stock R j. HPRj = Average rate of return of stock j. Rm = Market return. Rm = Average market returnN = no. of. Period.

3. 5. 2 Statistical Tools:-

Correlation Co-efficient (Pj. m):-

Correlation Co-efficient calculates the relationship between two shares. The range of correlation co-efficient is from -1 to +1. Correlation co-efficient can be denoted as follows:-Symbolically, COVj. mPj. m = m jWhere, Pj. m. = Correlation Co-efficient between stock j and market return m = Market risk.. j = Risk of stock j. COV j. m = Co-variance of return of asset j with the market. There are various cases of correlation and risk condition, which are presented as below. Perfect positively correlation (P j. m = +1)Return on two perfectly correlated stocks would move up and down together and a portfolio consisting of two such stocks would be exactly as risky as the individual stocks. Thus diversification does nothing to reduce risk if the portfolio consists of perfectly positively correlated stock. Perfectly negatively correlation (P j. m = -1)Return on two perfectly negatively correlated stocks would move perfectly together but in exactly opposite directions. In this condition, risk can be eliminated. Perfected negative correlation almost never found in the real world. No relationship between returns (Pj. m = 0)When the correlation between two stocks is exactly zero, there is no relationship between the returns, they are independent of each other, in this condition, and some risk can be reduced. Intermediate risk (p j. m = +0. 5)Most stocks are positively correlated, but not perfectly. On average the

returns on two stocks would lie on the range of +0. 4 and+0. 75 under this condition combining stocks into portfolios reduce risk but does not eliminated at completely.

Chapter IV

Data presentation and Analysis

This chapter contains presentation, interpretation and analysis of the collected data. Details data of closing market value per share (MPS), earning per share (EPS), and dividend of each bank and relevant data of NEPSE indices is presented and their interpretation and analysis is done. With reference of various reading and literature review in the proceeding chapter, the effort has been made to analyze and established the relationship between risk and return of stock investment with special reference to selected listed commercial bank. This chapter also analyzed that systematic and unsystematic risk of each commercial bank. Different tables and diagrams are prepared to interpret band analyze the collected data in meaningful way.

4. 1 Financial Analysis of Selected Listed Commercial banks

Among 23 commercial banks operating in Nepal, only 18 are listed in NEPSE till F/y 2007/08. Among those, the study has only taken two commercial banks listed in NEPSE. Which was already mentioned in the research methodology? Data collection is being done of seven years from 15th July 2001 to 15th July2008. Details analysis based on risk, return DPS, EPS etc. are shown as follows:-

4. 1. 1 Standard Chartered Bank Nepal Limited (SCBNL):-

4. 1. 1. 1 Periodical closing MPS, EPS and Total Dividend of SCBNL:-

Closing market price of share, total dividend records and EPS of common stock of the bank are shown in table below. This analysis is based on the year ended MPS and EPS which shows the relationship between MPS and EPS with dividend payout ratio. The total dividend is calculated as the method mentioned in the research methodology in chapter 1.

Table. 4. 1 periodical closing MPS, EPS and Total Dividend Data of SCBNL:-

Fiscal year

Closing MPS

Cash Dividend

Stock Dividend

Total Dividend

EPS
2001/021575100

–

100141. 132002/03164011020 percent459149. 302003/04174511010 percent344. 5143. 552004/05234512020 percent875143. 142005/06377513040 percent2490175. 842006/0759008030 percent2129167. 372007/0868308030 percent80131. 92(Source:-NEPSE and SCBNL annual report 2007/08)According to the above table, it shows that the highest closing MPS of the common stock is 6830 in the FY 2007/08 and the

highest EPS is 175. 84 in the FY 2005/06. Similarly, the lowest MPS is 1575 in the FY 2001/02 and lowest EPS is 131. 92 in the FY 2007/08 respectively. After the year 2001/02 the banks Mps are increasing gradually. The movement of the MPS and EPs is presented graphically in the following diagram:-

Figure 4. 1 Movement of MPS and EPS of SCBL

4. 1. 1. 2 Calculation of Annual Rate of Return/ Holding Period Return (HPR) of SCBL:-

Closing MPS and total dividend including Cash and stock dividend of the bank are used to calculate the Holding Period Return of the bank for each year. And the closing MPS and Cash Dividend of the bank are adjusted accordingly.

Table4. 2 Calculation of Annual Rate of Return of SCBNl:-

Fiscal Year

Closing MPS

Cash Dividend

Annual returns of SCBNL(HPR SCBNL)2001/021575100

–

2002/0316404590. 33272003/041745344. 50. 27412004/0523458750. 84532005/06377524901. 67162006/07590021291. 12692007/086830800. 1712The Annual Rate of Return of each year is calculated as follows:-Annual Rate of Return of SCBNL in the F/Y 2007/08P1-Po+D1(HPR SCBNL) = Po6830-5900+80= 5900= 0. 1712The Annual Rate of Returns of SCBNL is graphically shown in the following figure;-

Figure4. 2 Annual Rate of Return of SCBNL

Table 4. 3 Calculation of Mean Rate of Return, Standard Deviation and Co-efficient of Variation of SCBNL:-

Here, the Calculation of Mean Rate of Return, Standard Deviation and Correlation Coefficient ofSCBNL are calculated. The Annual Return Is derived from above table:-

Fiscal Year

Annual Return(HPRSCBNL)(HPRSCBNL-HPRSCBNL)(HPRSCBNL-HPRSCBNL)22001/02

-

-

-

2002/030. 3327-0. 40430. 16352003/040. 2741-0. 46290. 21432004/050. 84530. 10830. 01172005/061. 67160. 93460. 87352006/071. 12690. 38990. 15202007/080. 1712-0. 56580. 3201∑HPRSCBNL= 4. 4218∑(HPRSCBNL-HPRSCBNL)2 = 1. 7351∑HPRSCBNL 4. 4218Mean rate of return (HPRSCBNL) = = = 0. 7370n 6Standard Deviation (SCBNL) = ∑ (HPRSCBNL-HPRSCBNL) 2 1. 7351= = 0. 5378n 6 SCBNL 0. 5378Co-efficient of Variation (CVSCBNL) = = = 0. 7297HPRSCBNL 0. 7370Mean rate of return of SCBNL is 0. 7370 and Standard Deviation and Co-efficient of Variation of SCBNL is 0. 5378 and 0. 7297 respectively. Mean rate of return of SCBNL is greater than Standard Deviation of SCBNL. In this situation investment is favorable in SCBNL's Stock.

4. 1. 2Nepal Investment Bank limited (NIBL):-

4. 1. 2. 1 Periodical Closing MPS, EPS and Total Dividend of NIBL:-

Closing market price of share, total dividend records and EPS of common

stock of the bank are shown in table below. This analysis is based on the

year ended MPS and EPS which shows the relationship between MPS and EPS

with the dividend payout ratio. The total dividend is calculated as the

method mentioned in the research methodology in chapter I.

Table 4. 4 Periodical Closing MPS, EPS and Total Dividend Data of NIBL;-

Fiscal Year

Closing MPS

Cash Dividend

Stock Dividend

Total Dividend

EPS

2001/02760

-

30 percent238. 533. 592002/037952020 percent20839. 562003/049401515

percent13551. 702004/0580012. 512. 5 percent17039. 502005/0612602055.

46 percent978. 9059. 352006/071729530 percent74062. 572007/0824507.

540. 83 percent7. 5057. 87(Source: - NEPSE and NIBL annual report

2007/08)In this above, it shows that the highest closing MPS and EPs of the

common Stock are 2450 in FY 2007/08 and the highest EPS is 62. 57 in

FY2006/07. Similarly, the lowest MPS and EPS are 760 and 33. 59

respectively in the FY2001/02. After the year 2001/02 the bank's MPS are

increasing gradually. The movement of the MPS and EPS is presented

graphically in the following diagram:-

Figure 4. 3 Movement of MPS and EPS of NIBL

4. 1. 2. 2 Calculation of Annual Rate of Return/ Holding period Return (HPR) of NIBL:-

Closing MPS and total dividend including Cash and stock dividend of the bank

are used to calculate the Holding Period return of the bank for each. And the

closing MPS and cash Dividend of the bank are adjusted accordingly:-

Table 4. 5 Calculation of Annual Rate of Return of NIBL:-

Fiscal Year

Closing MPS

Cash Dividend

Annual Return of NIBL (HPRNIBL)2001/027602138. 5

-

2002/037952080. 31972003/049401350. 35222004/058001700.

03192005/061260978. 901. 79862006/0717297400. 95952007/0824507. 50.

4213(Source: - Annual Report of NIBL)The Holding Period Return of NIBL each

year is calculated as follows:-Holding Period Return of NIBL in the FY

2007/08P1-Po+D1(HPR NIBL) = po2450-1729+7. 5= 1729 = 0. 4213The

above calculated Annual Rate of Return of NIBL is depicted in the following

Figure:-

Figure4. 4 Annual Rate of Return of NIBL

4. 1. 2. 3 Calculation of Mean Rate of Return, Standard Deviation and Co-efficient of Variation of NIBL:-

Here the Calculation of Mean Rate of Return, Standard Deviation and correlation Co-efficient oNIBL are calculated. The Annual Return Is derived from Above table.

Table4. 6 Calculation of Mean Rate of Return, Standard Deviation and Co-efficient of Variation of NIBL:-

Fiscal Year

Annual Return (HPRNIBL)(HPRNIBL-HPRNIBL)(HPRNIBL-HPRNIBL)22001/02

-

-

-

2002/030. 3197-0. 32750. 10732003/040. 3522-0. 2950. 08702004/050. 0319-0. 61530. 37862005/061. 79861. 15141. 32572006/070. 95950. 31230. 09752007/080. 4213-0. 22590. 0510∑(HPRNIBL)= 3. 8832∑(HPRNIBL-HPRNIBL)2 == 2. 0472∑ (HPRNIBL) 3. 882Men Rate of Return (HPRNIBL) = = = 0. 6472n 6∑ (HPRNIBL-HPRNIBL) 2 2. 04Standard Deviation (NIBL) = = = 0. 5841n 6 NIBL 0. 5841Coefficient Variation (CVNIBL) = = = 0. 9025HPRNIBL 0. 6472Mean rate of return of NIBL is 0. 6472 and Standard Deviation and Co-efficient of Variation of NIBL 0. 5841 and 0. 9025 respectively. Mean rate of return of NIBL greater than Standard deviation of NIBL. In situation investment is favorable in NIBL's stock.

4. 2 Inter Firm Comparison

In this part, comparison between SCBNL and NIBL on behalf Mean rate of return, Standard Deviation, Co-efficient of Variation and Beta Coefficient has been presented.

Table4. 7 Comparative Analysis between SCBNL and NIBL:-

BankMean Rate of ReturnStandard DeviationCo-efficient of VariationRemarksReturn SD CVSCBNL0. 73700. 53780. 7297Highest Lowest LowestNIBL0. 64780. 58410. 9025Lowest Highest HighestFrom the above table, it can be seen that stock of SCBNL has higher mean of return i. e. 0. 7370 than that of NIBL i. e. 0. 6478. Also the risk is high in the stock of NIBL i. e. 0. 5841 than of SCBNL i. e. 0. 5378. Coefficient of Variation gives the best result for choosing the investment to the investor. If the common stock has low the co-efficient of Variation, it will be lower risk. Thus, the investor must be chosen which stock that has the lower coefficient of variation. The comparison can be also shown with the help diagram below:-

Figure 4. 5 Comparative Analysis of the selected Banks

Table 4. 8 Comparative Analysis of EPS of selected Banks:-

Comparing the Average EPS, the EPS of the SCBNL is the highest. It has more than Rs. 100 EPS each year. NIBL's Average EPS is the lowest than SCBNL.

Fiscal Year

SCBNL(Rs.)

NIBL(Rs.)

2001/02141. 1333. 592002/03149. 3039. 562003/04143. 5551.

702004/05143. 1439. 502005/06175. 8459. 352006/07167. 3762.

572007/08131. 9257. 87Total1052. 25344. 14Average EPS150. 3249. 16

Table 4. 9 Comparative Analysis of Closing MPS of selected Banks:-

Fiscal Year

SCBNL (Rs)

NIBL(Rs.)

2001/0215757602002/0316407952003/0417459402004/0523458002005/06

377512602006/07590017292007/0868302450Total238108734Average

MPS3401. 431247. 71According to the above table, the average MPS of

SCBNL is highest. It has the greater MPS of Rs. 3401. 43 which is the highest

Closing MPS compare to NIBL. The average MPS of NIBL is lower than SCBNL.

Table 4. 10 Comparative Analysis of Total DPS of selected Banks:-

Fiscal Year

SCBNL(Rs.)

NIBL(Rs.)

2001/02100238. 52002/034592082003/04344.

51352004/058751702005/062490978. 902006/078052007/08807.

5Total4428. 51742. 9Average DPS632. 64248. 99After looking at the above table, we can find that Average DPS of SCBNL is the highest Comparing to NIBL which is 632. 64 while the NIBL is 248. 99

Table4. 11 Comparative Analysis of P/E Ratio selected Banks:-

Banks

MPS

P/E Ratio = EPS

Remarks

SCBNL22. 63LowestNIBL25. 38HighestAccording to the P/E Ratio table, NIBL has the highest P/E Ratio i. e. 25. 38 times while SCBNL has lowest i. e. 22. 63 times. In indicates that NIBL bank has a bright Future.

4. 3 Comparison with Market

There is only stock exchange in Nepal where stocks are traded. Nepal Stock Exchange (NEPSE) is a non-profit organization operating under securities exchange act 1983. Overall market movement is represented by market index. Following is the calculation of market return, its standard deviation and coefficient of variation of NEPSE from 2001/02 to 2007/08.

Calculation of Annual Rate of Return/ Holding Period Return of NEPSE:-

Table 4. 12 Calculation of Annual Rate of Return of NEPSE

Fiscal Year

NEPSE Index (Rs.)

Annual Return of NEPSE (Rm)

2001/02227. 54

-

2002/03204. 86-0. 09972003/04222. 040. 08392004/05286. 670. 29112005/06386. 830. 34942006/07683. 980. 76812007/08963. 360. 4085∑Rm = 1. 8013(Source: Periodic Trading Reports of NEPSE)The annual rate of return of beach year is calculated as follows:-P1-Po+D1 963. 36-683. 95+0Return of NEPSE in the FY 2007/08 = = = 0. 4085Po 683. 95NEPSE index is the highest in the FY 2007/08, which is Rs. 963. 36. The lowest index is Rs. 204. 86 in the FY 2002/03. NEPSE's returns are negative in the FY2002/03 which is -0. 0997 respectively. On the contrary, there are positive returns of 0. 0839, 0. 2911, 0. 3494, 0. 7681 and 0. 4085 in the FY 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 respectively. Total return of NEPSE (2001/02 to 2007/08) is 1. 8013. Returns are clearly shown in the table ahead. NEPSE's indices trend is decreased in the FY2002/03 trend due ton political disturbance, instability and lack of peace. For increasing NEPSE index government should make peace and political stability in the country.

Figure4. 6 Annual rate of return of NEPSE

4. 3. 2. Calculation of Mean Rate of Return, Standard Deviation and Coefficient of Variation of NEPSE:-

Here, the calculation of Mean Rate of Return, Standard Deviation and Correlation Coefficients of NEPSE are calculated. The Annual Return is derived from Above table.