## CHAPTER -I

## INTRODUCTION

### 1.1. Background of the study

Nepal is a mountainous country lies between two giant nations India and China. It has the population of more than 23 million. Per capita income of Nepali is US $\$ 310$ of the Nepalese are under absolute poverty. Today, the Nepal's economy is one of the poorest economies in the world. The reason behind this is not only due to lack of resources but also due to improper utilization of the available resources inefficient way. For proper and efficient utilization of resources proper plan and strategy development is needed and for plan and strategy development huge amount of capital investment is required. The huge need of investment cannot be covered only by past projects and surplus of individual's investors only. Furthermore, some members of the society undertake additional activities of investing requiring more funds.

An investment is a commitment of money that is expected to generate additional money. Every investment entails some degree of risk; it requires a present certain sacrifice for future uncertain benefits. ${ }^{1}$

Risk is the facts of life, which is a product of uncertain cash flows. Risk in fact is an indication of chance of losing investment back. Different people interpret risks in different ways. To come, it is simply a lack of definite outcome, which can be any unknown, unfavorable event. It is a chance of happening some unfavorable event or danger of losing some material value. Thus, the risk is related to future and future is uncertain. There is positive relationship between

[^0]expected rate of return and risk, which indicates that an investor can usually attain more risk. While it is not always true that the riskier assets will pay a higher rate of return, it is usually true. Investor's are risk averse in nature; as a result high asset must offer high return to investors for their riskier investment.

Capital market plays a vital role in developing the nation's economy. The trading of shares of stocks takes place in the stock market .In the context of Nepalese capital market it is in institutional arrangement with in which a number of institutional bodies like securities Board

Securities Exchange Board of Nepal (SEBO\N), Nepal Stock Exchange (NEPSE), Shareholders Association Nepal (SAN), Register of Company (ROC) and listed companies are inexistence. In Nepalese Capital Market twenty-seven brokers, ten markets intermediaries and one organized stock exchange center are currently in operation. Only few listed companies listed to Nepalese and most of the listed companies are inactive and rarely their share is traded on the floor.

In modern era, where the new business organizations are growing day by day in public sector as well as private, the words finance becomes very important. For the proper management and investment of fund it is important that one should have clear knowledge of the financial concept. There are mainly two sources of financing the productive enterprises the internal and external sources. The internal financing has the limited scope because the limited resources and risk associated with the investment. So nowadays, the external financing, the method of financing an enterprises through the financial market, has become the most important and popular sources of financing for fostering the productive activities in the economy. Now, all economic units including the households and government have to really external financing. Thus, the stock market, the most important components of the financial market (market for financial assets), is a most for the development of an economy. The stock market and economic activities move in similar cyclical patterns. In the Nepalese economy, the demand and supply of funds for investment in productive enterprises is low due
to absence of mechanism for transferring risk which, in turn may be attributed to the absence of well developed stock market

Investors are those people who invest their savings in the securities to take the risk and return. Thus, the role of investors can be understood as a backbone of capital market. Capital market is an institution where quoted investment (stocks and shares) may be exchanged between buyers and sellers.

The most common type of security practiced in formation of capital by different companies is common stock. Common stock represents an ownership positioning a company. Common stock is the investment of its holder. They have certain rights, limited liability, residual right and preemptive right on income and distribution of additional equity.
"Common stock certificates are legal documents that evidences ownership or equity in a company that is organized as a corporation; they are also marketable financial instruments" ${ }^{2}$
"The fourth and final type of security is common stocks, which represents a commitment on the part of a corporation to pay periodically what ever its board of directors deems appropriate as a cash dividend. Although the amount of cash dividends to be paid during the next year is subject to some uncertainty, it is generally relatively easy to accurately predict". ${ }^{3}$

[^1]Common stock is the recipient of the residual income of the corporation. Through the right to vote, holders of common stocks have legal control of the corporation. An element of risk is also involved in equity ownership due to its low priority of claims at liquidation. Commons stockholders have limited liability. Common equity provides a cushion for creditors if losses occur on dissolutions. The equity to total assets ratio is an indication of the degree by which the amounts realized on the liquidation may decline from stated book values before creditors suffers losses. Common stockholders of a company are its ultimate owners. Collectively they own the company and ultimate risk also associated with ownership. Thus, common stock is known as risky security.

Risk can be understood as the possibility of meeting danger or of suffering harm or loss, "Risk is like pornography. It is hard to define but you know where you see." ${ }^{4}$
"The rational investor should follow a systematic investment process. The investment process describes how an investor makes decision about what securities to invest in how extensive these investments should be, and when they should be made. The investment process involves five steps- PACRE ( $\mathrm{P}=$ Policy; $\mathrm{A}=$ Analysis; $\mathrm{C}=$ Construction of portfolio; $\mathrm{R}=$ Return; $\mathrm{E}=$ Evaluation) ${ }^{5}$

There are many factors that should be considered while taking investment decision in the securities market. Some of these are the book value of stock, risk-return trade off, company's future prospects, government rules and regulation, the

[^2]direction of Rastra Bank and SEBON But because of the poor corporate governance and lack of timely information the investors depend upon some available experts for the analysis of stock price.

Beside individual investors dominate the market whose speculative behavior make the price fluctuate. This makes the potential investors depends on whim and rumors in the stock trading. So, this research study will try to evaluate the investor's awareness and the ways to be more effectively aware regarding the stock exchange.

### 1.1.1 Securities Market in Nepal

The history of capital market in Nepal dates back to the era of Rana Prime Minister Juddha Samsher when Gunjaman Singh the first secretary at Nepalese Embassy in England returned back to Kathmandu and set up the Industrial Council. The council drafted the company Act and Nepal Bank Act for the first time in 1936. Biratnagar jute mills limited in 1937 initiated the first public flotation of shares in the securities market institutional development of securities market in Nepal started from the year 1976. Securities Exchange Center (SEC) was establishment of the centre was to mobilize public savings and encourage the people to participate in the ownership of industries and business enterprises.

Before the establishment of the Securities Exchange Centre (SEC) there was not any institutional arrangement to undertake new issues manage the sales of the shares and debentures of the corporate bodies. Public limited companies could make public offering according to the provision of the company Act 1964. When SEC came to existence, it started managing new issues of shares and debentures according to the guidelines for new issues and sales management (2043) 1986. The corporate bodies were required to list their shares and debentures in the SEC in order to qualify for the trading. However, the government bonds issued under the National Debt Act were exempted from such compulsory listing obligation.

In 1993, with a view to reform the capital market, HMG converted the Securities Exchange Centre into Nepal Stock Exchange Board. It is a non-profit organization operating under Securities Exchange Act 1983, brokers and market makers operate on the trading floor as per Securities Exchange Act, rules and by lays of NEPSE. NEPSE started its trading operation on 13 January 1994, through its licensed member.

The securities board (SEBO) was constituted in 1993 under sec-1 of the Securities Exchange Act 1983, with the objective to provide essential policy direction for the systematic and regular exchange of securities and developed competitive stock exchange market by protecting and promoting the interest of investors. ${ }^{6}$

### 1.1.2 Regulatory Activities of NEPSE

The stock exchange has two important functions: it ensures their liquidity and allocates capital among firms by determining process that reflects the true investment value of a company's stock. It provides an important allocate function by canalizing the funds to those who can make the best use of them -presumably, the most productively. In fact the primary function of a capital market is to allocate resources optimally. A securities market is to allocate resources optimally. A securities market with this characteristic is said to be allocatively efficient. An operationally efficient market, on the other hand, is one with the lowest possible prices for transactions services.

The stock exchange provides an auction market in which members of the stock exchange participate to ensure continuity of price and liquidity to investors. The good performance and outlook for equities in the stock exchange

[^3]imparts buoyancy to the new issue market. The basic function of stock market is the creation of a continuous market where securities are traded in volumes with little variation in current market price as trades succeed one another.

The major function of stock market is to provide ready and continuous market for the trading of the securities at a competing market for the trading of the securities at a competing price. Among all the economical and financial market, the stock market is pivotal institution in the financial system of a country the role played by the stock market in any country's economy is to finance long-term capital for the corporate place for making investment and contributing to an efficient management of the economy.NEPSE perform several types of regulatory activities including market surveillance and the on-going supervision of brokerage firms. Some of the functions of NEPSE are: ${ }^{7}$

* Trading
* Listing
* Clearing and settlement
* Market Surveillance


### 1.2. Focus of the Study

Investment decision is very difficult for general people. Where there is investment, there exist risk; therefore doing any investment decision investor should calculate the risk and return. Investing in shares is more risky and return would be comparatively high. In Nepalese context, stock market definitely drags the attention of everybody. Stock market is

[^4]familiar in society but not popular. People think investing in shares is ever winning game without knowing any reality. Investment in share is risky, so an investor must think about the risk and before making investment decision.

It is also heard that most of the decision of the investors are taken mainly based on whim, rumor and intuition. The investor should make the investment strategy based on technical analysis which would be more profitable than simply buy and hold policy. The investors should also be a ware of analyzing published financial statements before they make the investment in shares of a given company in a stock market.

This study is focused mainly on the investor's preference on the investment on the common stock which is listed in the NEPSE among various securities like treasury bills, long term government bonds, long term corporate bonds, preferred stock, etc. Because, return in investment on commons stock is defined by various variable factors and is uncertain, it is regarded as susceptible investment compared to the other investments.

The portfolio analysis begins where the security analysis ends and this fact has important consequences for investors. Therefore, this study is focused on the analysis of risk and return and how an investor should take investment decision in shares of different sectors in Nepal. Analysis has focused investors awareness towards the stock trading, preference towards the stock investment, risk and return associated with them and risk and return on portfolio.

### 1.3. Statement of the problem

1. Stock market is not able to attract the investors towards the investment in the stock effectively.
2. Stock market could not provide sufficient communication to the investor's to invest in securities.
3. Analysis and evaluation of risk and return of common stock of selected companies is still complicated.
4. Price of the stock in NEPSE is not determined comparatively on the market forces.
5. Lack of the institutes that provides general public about the investment strategy.

Thus, the main problem for investors is to known whether their investment is right or not, the return is or not, how to know the magnitude of risk, and how to reduce the level of risk without violating return. These are the main issues dealt in the present study.

### 1.4 Objectives of the Study

The main objectives of the study are to dig-out the major factor that effect the investor's investment decision-making regarding stock trading. Besides, it also aims to find out whether the investors are aware or not in the stock market in Nepal. The specifics objectives of the study are as follows:

1. To know the stock transaction system in Nepalese stock market at present.
2. To assess the awareness of the investor's towards the stock trading.
3. To analysis and evaluate the risk and return of common stock of selected companies.
4. To suggest the investors how they can reduce risk by making portfolio in their investment.
5. To provide the feedback to the related individuals policy maker and institutions on the basis of findings.

### 1.5 Significance of the study

Investment practice and procedure in Nepal under the organized stock exchange are in a primitive stage of deployment. Investment in stock market plays a crucial role in financial sector of a nation. Stock market being one of the potential investor's is the biggest assets. Hence this study targets about the valuation of the stock and to explore the investor's awareness in stock market of Nepal. As it is known that investor's repel to invest by imaginary unreal
risk. This study is conducted to provide some information about the present level of investor's towards the stock and awareness in the stock market of Nepal.

In Nepal, there has still been a huge amount of unutilized saving funds with general public as there is a lack of investment opportunities which provide attractive rate of return. Now a days, investor are attracted to invest in joint venture banks due to the increasing trend of Market Price of Shares (MPS) of public companies they are investing their savings in expectation of capital gain in the future. Even though, investors are now investing their savings, most of the public investors existing and potential are not well acquainted with the real financial strengths and weakness of the public companies in which they are investing or going to invest their funds. Further more, they are not able to analysis and interpret the real financial position of the company form the available data and information, making it difficult to make a right decision to invest in most profitable securities.

This study no doubt will have important to all the parties involved in the stock market of Nepal. It is helpful to the stock investment consultants and the market makers of the stock market of Nepal. Study may help investors to think about restructuring the investment portfolio to make maximum return from their investment. The study provides literature to the further researchers in this area about the valuation and awareness in stock market of Nepal.

### 1.6 Limitations of the study

To perform any thesis, we should concentrate to the subject matter of surround by the boundary. Similarly, these thesis have also same permanent boundary, besides the boundary the topic concentration is not diversified. These boundaries are called limitations of the study. This study is done for the partial fulfillment for M.B.S. degree in Management. So, this study has certain limitation and constraints. They are as follows:

1. This study is based on the secondary sources of data as well as primary data are acquired mostly by using the questionnaire and personal interviews from three sources viz investors, brokers and staff of NEPSE and SEBON.
2. The study is based on the last five years data beginning from 2003/04 to 2007/08 including the base year data of 2001/03.
3. The study is fully based on the student's financial resources and is to be completed within the limited time. Further, this study is not a final study on the subject.
4. The study is based on the published data of only eight different companies listed under NEPSE.
5. This research study is limited on common stocks trading on the primary and secondary market.

### 1.7 Organization of the Study

This study has been organized into five chapters. They are:
Chapter 1: Introduction
Chapter 2: Review of Literature
Chapter 3: Research Methodology
Chapter 4: Data Presentation and Analysis
Chapter 5: Summary, Conclusion and Recommendation

The introduction chapter covers background of the study, focus of the study, statement of the problem, objectives of the study, research hypothesis, significance of the study, limitations of the study and organization of the study.

The second chapter is the 'Review of Literature' with conceptual frame work of the study. Hence the previous study done by different persons both individually and institutionally are reviewed with their findings and recommendations on the related field. Similarly, different articles, book, journals and periodicals are also to be reviewed.

The third chapter deals with research methodology to be adopted for the study consisting research design, source of data, data gathering procedure, population and sample, research variables and data processing procedure.

Chapter four is the main body of the study that includes data presentation, interpretation and analysis. The chapter analyses the primary data collected from individual investor to adjudge their awareness on different aspects of stock market. The secondary data are analyzed in terms of risk and return, risk diversification and portfolio construction.

In the last chapter, the statements of all four preceding chapters have been summarized and the study is concluded with major findings. The suggestion with package of recommendations to improve efficiency of the investors and stock market has been presented.

## Chapter- II

## REVIEW OF LITERATURE

An investors as a decision maker must be aware about the dimensions of investment. Investing environment provides challenging opportunity to an investor. The investor who is well informed and aware about the stock market can always be rewarded. For making successful investment decision, an investor himself, should be a judge in their own business.

This chapter deals with the review of related studies and different aspects of the topic "Investor awareness in the stock market of Nepal" in more detail and descriptive manner. For this study various books, journal, published and unpublished documents such as: articles, some research report, previous thesis, company prospectus, articles and memorandum of the particular selected listed companies are consulted and reviewed.

### 2.1. Conceptual/ Theoretical Review

The success of every investment decision matters more than the investment itself. Making sound investment decision require both knowledge and sound Skill is needed to evaluate risk and return associated with an investment decision. Knowledge is required regarding the complex investment alternatives available in the economic environment.

The important aspect of evaluating an investment opportunity is how the economic potential of the opportunity relates to the amount of money to be invested and the risk associated with the investment. The investors must never loose sighs of the fact that he must evaluate the opportunity relative to the total amount in all probability have to choose whether to reinvest or suffer significant dilution. The investor will have to invest his time, and energy as well as his money.

The investor must be clear in his own mind about what his interest in a company means to him and how much he wised to be involved in the affairs of that company. The investor must not confuse about his objectives. The risk factor must be carefully examined by the investors. Having accepted the risk levels involved investment, the investor should than compare expected return form venture with those from another investment of equal risk.

Currently most of the investment sectors are influencing from the world wide globalization and liberalization. The incident in order of the world brings the changes in the whole world. The individual investors are always searching for better investment alternatives that can maximize their wealth and ensure their better financial futures. The investors are in expectation of financial freedom in their life. Financial market with its wide range of security provides investors investment alternatives that can make their cash flow secure and build string financial base. Investor invests in stock on the basis of public information that should provide every details of company. Investing is not at all a race or gambling but it is a planned phenomenon of assuming certain risk on behalf of issuer.

The most important means for ensuring investors awareness is the requirement of full disclosure of information material for investor's right decision. Investors invest in stock on the basis of public information that should provide every details of company. Safeguarding investor wealth and their interest from unfair share trading practices should be the aim to enhance the awareness level of the investors in the stock market.

### 2.1.1 Investment

"Investment, in its broadest sense means the sacrifice of current dollars for future dollars. Two different attributes are generally involved: time and risk. The sacrifice takes place in the present and certain. The reward comes later, if at all, and the magnitude is generally uncertain". ${ }^{8}$

Investment is the employment of funds with the aim of achieving additional income or growth in value. It involves the commitment of resources that have been saved or put away from current consumption in the hope that some benefit will produce in future. Investment involves long term commitment and waiting for a reward. An investment involves the sacrifice of current rupees for future rupees. The sacrifices take place in the present and certain. But the reward comes later, which is uncertain. General investors are risk averse. They always want higher return for more risk as risk premium. But it is not a gambling rather than it is systematic and scientific way of using excess fund from income to gain expected return with acceptable level of risk.

The excess earning over their consumption should be invested for their secure future as rational, progressive person. The preferences of their choice vary from one to another. Some like to invest in the real asset while other may attracted on tangible assets such as vehicles, building, machineries, and jewelries and of course the ultimate one is investing in financial assets. Investing in financial assets is more attractive as it has various products such as common stock, preferred stock, bond debenture, treasure bills, and warrants and so on. One may choose any of the security based on their desire to take various level of risk as his personal preference. ${ }^{9}$

## Forms of Investment

[^5]"There are two categories of assets viz- financial assets and real assets. Accordingly, there are two forms of investment."
Financial Investment
Real Investment

## a. Financial Investment:

Investment in financial assets like common stocks, bonds etc are called financial investment. A financial asset represents a financial claim. It is an asset that is usually documented by some forms of legal representation. Although financial assets are typically represented by tangible certificates of ownership, the financial asset itself is intangible. They are also called securities. Financial assets itself does not directly possess productive capacity. Financial asset can be viewed as claims to the income generated by real assets. In this context, the values of financial assets are derived from the value of underlying real assets. Financial assets are also called 'paper assets'.

## b. Real Investment:

A real asset represents an actual tangible asset that may be seen; felt held or collected e.g. real estate, gold etc. Investments in such tangible assets have productive capacity. The capital formation is the direct outcomes of this productive investment. However, it is noteworthy that, the real investment and financial investment are complementary to each other. For instance, a company issues shares of common stock to finance the plant and machinery. Here, the purchase of plant and machinery is real investment by the firm and on the other hand, investment in common stock by the investor is the financial investment. Because of the divisibility, marketability and information, financial investment is getting much popular.

### 2.1.2 The investment Environment

"An environment is the context on which firms operate and which impact of firms' operation. Investment environment refers to the financial structure in which investors operate. It consist all kinds of marketable securities available for purchase or sale and how and where these securities are bought and sold. To state differently, investment environment refers to all the internal as well as external forces that have a berating on the functioning of investment decisions." ${ }^{10}$

Investment environment encompasses securities, security market and intermediaries. The following section includes a brief description of each of these elements.

## Securities

Simply stated a security is a legal document that shows on ownership interest. In other words, security is a price of paper evidencing the investors' right to the asset. It is the legal representation of the right to receive prospective future benefits under stated condition and acquire or sell ownership interest. Share, bond, preferred stock, Treasury bill, commercial paper etc are the examples of securities.

## Security Markets

Security market is a mechanism designed of facilities the exchange of financial assets or securities by bringing buyers and sellers of securities together. Precisely speaking, security market allows supplies and demanders of fund of make transactions.

[^6]There are various types of categorization of security markets. The following classification is predominant.

## a. Classification on the basis of lifespan of the securities traded

Money market
Capital market

## Money market and Capital Market

This categorization is made on the basis of life span (maturity) of securities. Money market refers to that financial market in which securities with a short term (One year or less) and highly liquid debt securities are traded. Thus money market comprises the securities that have short maturity period (life span), easily marketable, liquid and even lower risk in comparisons to the securities.

In contrast to money market, capital market refers to the financial market in which long term securities are traded. Specially speaking, securities have life spans of more then one year is traded in the capital market. Long term financial instruments such as stocks issued by corporation are basically traded in capital market.
b. Classification on the basis of economic function

Primary market
Secondary market
Primary market and secondary market

On the basis of the economics function, the capital market can be categorized into primary and secondary market. The market through which the fund is transferred from saves to investors is called primary market. Hence, the transaction of securities issued for the first time takes place in the primary market. The institutions that perform the role of an expert in issuing new securities are called investment bankers. These bankers make available advice to the business firms regarding the nature of security, maturity, interest rate and underwrite the issue of securities.

Some times the business firm can make the direct sale of securities to the buyers without underwriting. Such direct sale is called direct placement of securities.

The market where the existing and pre-developed securities are bought and sold is called secondary market. Secondary market provided liquidity to the purchases of the securities. High liquidity of the secondary market can be regarded as the center to convert stocks, bonds and other securities into cash immediately.
"Nepal Stock Exchange (NEPSE) is the only a secondary market in Nepal. It is noteworthy that the firms whose securities are traded in the secondary market is not involved in the security market transaction and thus does not receive any funds from such transaction. Simply, one investor (seller) receives the fund from another investor (buyer)." ${ }^{11}$

## Financial Intermediaries

[^7]Financial intermediaries or institutions are the organizations that channel the savings of government, businesses, and individuals into loans or investments. Thus financial intermediaries position themselves between providers and users of funds. The role of the financial intermediaries is to accumulate funds from various savers and lend those funds to borrowers and thus they actively participate in the money market and the capital market. Savings and loan associations, banks, mutual fund, pension funds, credit unions, life insurance companies etc are the examples of financial intermediaries.

### 2.1.3 Importance of Financial Market

"The importance of financial market needs no exaggeration at all in today's world of economic liberalization and free market economy where even the financial superpowers like United States of America and Europe are desperately trying each other for attracting the much needed capital and foreign investment regarded as the life blood of any business venture." ${ }^{12}$

It acts as the catalyst in the economic development of any country by ensuring capital formation whenever and whenever such a need is arise. The existence of an organized financial market if considered to be a pre-requisite for capitalist economy as well as a mixed economy where the private sector has a large role to play. Business firms need tremendous amounts of capital to finance their operations and productive activities. For the growth, development expansion of their business, they must invest capital in amounts beyond their capacity to save in any reasonable period of time. It is the financial market from which the business firms can raise the needed capital. Business enterprises, especially public limited companies cannot expand beyond their limited capacity or their pace of development is likely to be exhausted or handicapped without an organization financial market. It acts as a powerful incentive for the prospective investors to save by offering them a wide range of chooses to invest in securities like

[^8]common stocks, preferred stocks, debentures, bonds and mutual fund units etc. Capital formation through the issue of new securities, whether by existing companies or by new ones, would stand little chance of attracting investors in the absence of a well organized financial market, which provides easy marketability and liquidity to them. Likewise, government must borrow large amounts of money to provide the goods, services and development infrastructures demanded of them by their people. The financial market provides forums or means for governments to raise the needed fund by issuing and selling securities like treasury bills and bonds. On the other hand, it provides golden opportunities for the investors to invest in these securities and earn a return thereby enhancing their prospects of wealth maximization. This is how the financial markets serve to channel the funds from the savers to borrowers, from investors to entrepreneurs and surplus units to deficit units of an economy.

Thus the financial market helps to collect the scattered saving and scarce resources from different sectors of the country's economy and channel these funds into the productive sectors like industries and agriculture that engage in capital formation. This is how it mobilizes the domestic financial resources and plays a crucial role for the economic growth and development of a country. On one hand, it provides lifeblood (capital) and dynamism to the country's economy while on the other hand; it provides liquidity and free marketability for the investors to convert the securities into cash at a fair price whenever such need arise. Otherwise, as explained earlier, savers would be reluctant to invest their hard earned money in the securities of they had to hold these securities to maturity like the fixed deposit of a bank or incur a large search costs in finding a broker to sell them. Furthermore, security holders can obtain secured loans form commercial banks against these financial assets as collaterals if the banks are convinced in their project appraisal and their creditworthiness.

The importance of financial market is also highlighted by the fact that investing in financial assets has become a way of life in today's dynamic world of global economy. The reason is simple: people wish to earn a return on their money
by way of investment cash has an opportunity cost: by holding cash, one misses the opportunity to earn return on that cash. Furthermore, in an inflationary economic environment, the purchasing power of cash diminishes, with high rates of inflation causing a rapid decline in its purchasing power.

From above, it is quite clear as far the question of "why do people invest?" is concerned. But another important question arises. Within the spectrum of various financial assets, why do some people buy as risky financial assets as common stocks instead of safely depositing their money by buying common stock, but they expect to earn greater return albeit taking the risk. Investors have a wide range of securities or financial assets from which to choose to invest. They invest in an attempt to maximize the expected returns form these investment opportunities available to them, but they face the constraints, the most pervasive of which is the risk. The basic element of all investment is the trade-off between the expected return and associated risk.
"Investment as the commitment of funds to one or more assets, which will be held over some future period people invest in order to improve their welfare, defined here as monitory wealth. Basically, investment is concerned with the management of an investor's wealth, which is the sum of current income and present value (P.V) of all future income." ${ }^{13}$

### 2.1.4 Investment Decision

Gross investment is determined by two main factors: the real interest rate and expected profit rate. The higher the expected profits rate on capital, the greater is the amount of investment, other things remaining the same. To decide whether to undertake an investment, a firm compares the expected profit rate with the opportunity costs of funds. This

[^9]opportunity cost is the real interest rate. The lower the interest rate, the greater is the amount of investment undertaken other things remaining the same.

To make investment decision, it needs lots of information related to financial assets. Situation of market, risk and return factors involved to the stocks other opportunities available in the market, interest rate of bank, government current policies, tax laws regulations as well as attitudes of investors are the determinant of whether the investment be made.

### 2.1.5 Investment Process

A discussion of an investment process deals with:
How to make investment decision?
What marketable securities to invest in?
When to invest?
Therefore, the investment process includes how an investor makes decision about what securities to invest in, how extensive the investment should be, and when they should be made.

The investment procedure for making these decision forms the basis of the investment process:
i) Setting investment Policy:

The initial step in setting an investment policy involves determining the investment objectives and the amount of one's invest able wealth. Investment is always related with risks and return. Making money alone cannot be an appropriate
objective. It is appropriate to state that the objective is to make lot of money by recognizing the possible losses. It also involves the identification of the potential categories of financial assets for consideration in the ultimate portfolio. The identification of assets depends upon many things, such as investment objectives, inevitable wealth, tax consideration etc.
ii) Performing Security Analysis:

It is the second stage of an investment process which involves the analysis of securities, which are identified in the previous stage of process. The main purpose of analyzing securities is to find out the mix-priced securities. There are many approaches that can be used to analysis the securities. Technical analysis involves the study of market price in an attempt to predict the future price movement. By examining the past prices, the pattern of price movements is studied and thus expected future price is forecasted. Sometimes, technical analysis is called chartists.
iii) Portfolio Constructions:

It is the third step of our investment process. At this stage, we identify assets in which to invest, as well as determining the proportion of the investor's wealth to put in each one. While constructing a portfolio, the selectivity, timing and diversification need to be addressed by the investor.
iv) Portfolio Revision

Portfolio revision means representing previous three steps of the process. That is, over the period of time, the objectives of the investor may change and the current portfolio may no longer be optimal.

- The investor can sell some unattractive securities and introduce attractive ones to form a new portfolio.
- Some securities that are initially unattractive may turn out to be attractive later and vice versa.
v) Portfolio Performance Evaluation

The last step of investment process is portfolio performance evaluation. Investors should evaluate the portfolio performance periodically. The Performance should be evaluated not only in term of the return but also the risk experienced. To evaluate the performance, appropriate measures and standards are needed. A portfolio is a combination of investment assets.

### 2.1.6 Assets Ownership by Individual Investors

The institutional investors hold both the real as well as the financial assets. However, it was believed that the individual investor's asset to a greater extent is the real assets. But by now this believes in untrue. Even in case of Nepal, we can observe that the assets owned by the individual is not the real assets but some aware individual do have financial assets too. If we analyze the assets detail of an engineer, doctor, and lawyer or even of farmers and academicians one financial sector assets such as shares, bonds, treasury bills etc. are held by them. This shows that the growing trends of shifting towards financial assets form the real tangible assets.

### 2.1.7 Investment Alternatives

There are various investment alternatives available to investors in the market. Common stocks, preferred stocks, bond, options, warrant, rights, futures, real estates, precious metals are the important investment alternatives to the investors. The capital market in Nepal is very small to provide wide range of investment alternatives yet, real assets
investment like investment in land, building etc. predominates the financial investment. Taking about the financial assets (securities) common stocks investment is quite popular in the recent years. ${ }^{14}$

These alternatives are described below:

## Equity Securities

An equity security represents ownership shares in a corporation. Equity securities are traded in organized exchange.

## Common Stock

Common stock is an ownership share on a corporation; therefore the common stock holders are the true owners a corporation. Each share of common stock represents a fractional ownership interest in the firm. For example, one share of common stocks in a corporation that has 1000 shares outstanding would represent $1 / 1000$ ownership interest. The return on common stock investment comes form either of two sources- the periodic receipt of dividends and capital gains. Common stockholders enjoy a number of rights such as are divided rights, assets rights, preemptive rights, voting rights etc. Common stock is the recipient of the residual income of the corporation. Common stockholders are in an uncertain position about dividends, capital gains and residual claim. Therefore, common stockholders must bear the greatest risk. Common stock is suitable for the investor who wants to take high risk and return and for al long period too. Common stocks are traded in Stock Exchange.

## Preferred Stock

[^10]Preferred stock (also known as preference share) is a hybrid form of long-term financing with combined features of both common stock and long-term debentures.

Bond -like features:
Promises to pay fixed divided;
No voting rights;
No control;
Tax deductible
Fixed maturity
High priority in payment (Before common stock);
Convertibility
Call ability
Stock - like feature:
Non-payment of preference dividend does not force the company to insolvency;
No specified maturity;
Not tax deductible;
Voting rights;

Control;
Residual clam

## Short-Term Debt Securities

Short term financing is that type of financing which matures one year or less. Short term financing is required or used to support a large portion of the firm's current assets such as cash, marketable securities, inventories etc. Short term debt securities are traded in the money market. They are as follows:

Treasury bills
Commercial paper
Banker's Acceptances

## Long-Term Debt Securities

These are obligations that mature in more than one year.
Government Securities
Local Government Securities (Municipal Securities)
Corporate Bonds

## Derivative Securities

The These Securities that derive their value from the value of underlying assets.
Options

Commodity futures
Financial futures
Options on futures
Warrants
Rights

## Real Assets

Real assets are the non-financial assets.
Precious metal
Real estate
Collectibles
Other Investment Alternatives
Pension
Mutual Funds
Closed-end companies

### 2.1.8 Factors to be considered in choosing investment alternatives

The major factors that should be considered in making investment decision include

Investment Objective

## Rate of Return

Taxes
Investment Horizon
Investment Strategies
-Selection
-Timing
-Diversification

### 2.1.9 Types of Investors

Investors are anyone who makes the investment in the securities. Though there is not much attraction of investor's towards the world of financial instruments. There are various types of investor in the market. On the basis of use of information, individual investors and institutional investors are the most important investors in the financial market

## a. Individual investor

"Individual Investors owns a portfolio of securities and become investor. But individual investors are part timer; they are businessman, government worker, doctor, lawyers and even housewives and unemployed adults. When an
individual buy a securities, holds them and gets divided or profit through price appreciation, the cash flow becomes income to the people.

The average investors in securities is a part-timer, with neither the ability not the time to evaluate a large (and often complex) flow of information. Most individual investors have a job apart from investing. Individual have opportunity cost obtaining investment information. Such as reading publication, tracking stock price and building files on securities. This opportunity cost is the time and resources for gone that could have been used in other endeavors., 15

## b. Institutional Investors

Institutional investors are those investor's which is an institution or organization/. Their base is very small to mobilize saving in a cost effective manner for individual savers who otherwise might not participate in the stock market. The growth institutional investor portfolios had a bearing on many of the financial instruments and investment management techniques.

The securities market has been dominated by the institutional investors as they have large capital available to invest.The institutional investors take an advantage form the various profits available from the security market. The security market have been a good place to invest for institutional investors as it gives an opportunity to institutes to make their capital works or decrease non performing assets.

In Nepal, the institutional investor base is very small to mobilize saving in a cost effective manner for individual savers who otherwise might not participate in the stock market. "To ensure sustained price and market the policy

[^11]level author should encourage institutional buyers." ${ }^{16}$ said stock broker and general secretary Stock Broker Association of Nepal (SBAN) Parmeshwor Malla.
"Analytical and bulk buying of shares is rendered possible through such institutional buyers which in turn help make the market less volatile than at present. ${ }^{, 17}$ Malla observed.

There are dozen- plus commercial banks and about 45 finance companies that are potential institutional buyers. "Investors awareness is key to a healthy stock market. Overall, there is a big lack of relevant and updated information about the companies in the market, ${ }^{18}$ said prof. Dr. Manohar Krishna Shrestha. The institutional investors seek to derive the necessary information form the following source before taking investment decisions.

Stock recommendation
Earnings forecasts
Written reports
Overall performance
2.1.10 Right of a share holder as an investor

[^12]As a shareholder in a company one enjoys certain rights, which are as follows:

1. To receive share certificates, on allotment or transfer as the case may be, in dues time.
2. To receive copies of the abridged annual reports, the balance sheet, the profit and loss account and the auditors report.
3. To received dividends in due time once they are approval in general meetings.
4. To get corporate benefit, such as rights and bonus share, once they are
5. To get corporate benefit, such as rights and bonus share, once they are approval.
6. To apply to the companys law board to call or direct the annual general meeting.
7. To inspects the minute's book of the general meeting and receive copies of there.
8. To proceeding against the company by way of civil or criminal proceed.
9. To apply for the winding up of the company; and to receive the residual proceeds

The rights of the shareholders can be grouped as collective rights and specific rights. Some of the major rights are listed below:

## Collective Rights:

1. Rights to approve / disapproved the books of account.
2. Rights to give suggestion to the management.
3. Rights to appoint auditors.
4. Rights to approve the change in Memorandum and Articles of Association.
5. Rights to approve of reject the proposal submitted.
6. Rights to gather shareholders to support and opposed the management.

## Specific Rights:

1. Rights to see the books of account.
2. Rights to see the shareholder's lists.
3. Rights to participate in Annual General Meeting.
4. Rights to put his/ her comment regarding management activity.
5. Right to vote for the election of Representatives.
6. Right to be elected.
7. Right to get major decision made by management.
8. Right to get price sensitive information.
9. Right to speculate.
10. Right to trade.
11.Right to get market benefits.
12.Right to get classification for management.
11. Right to get dividend.
12. Right to get the residual amount at the time of liquidation.

### 2.1.11 Investment Strategy in Broader Sense

Investors should know how an investment strategy can be developed." An investment strategy can be developed at a number of different levels, form a very specific to very broad, A very specific strategy would be a decision on the part of an investor to invest only in specific strategy would be a decision on the part of an investor to invest only in specific types of assets, to never borrow money (margin trading) when buying securities or to always engage in hedging activities to reduce the risk of a security position. Such strategies are called trading strategies.

On a broader level, investment strategies are related to the approaches used to analyze and select investment alternatives. The investor may elect to use technical analysis, which relies on historical patterns of price and volume data to estimate future values. Fundamental analysis uses available financial information to estimate the value of a security, or combination of the two approaches. These strategies are known as analysis strategies.

On a broader level the investor must decide how to approach the entire investment process. At one extreme, the investor may believe that because of certain personal attributes, such as superior analytical talents or informational advantages, he or she should personally make the investment decision as to selection and timing. At the other
extreme, the investor may conclude that the market is highly efficient and that there is no advantage to a do -ityourself approach to investing. In this case the investor would select a diversified portfolio with the appropriate risk and return characteristics and devote very little time and effort to security selection and market timing. These strategies can be classified as investment strategies in an efficient market. ${ }^{19}$
a. Trading strategies: Investors should have knowledge about trading strategies which are available to investors including short selling. Margin- trading, hedging and arbitrage. As our emphasis is analytical strategies the detail analysis on trading strategies has not been made.
b. Analysis Strategies: Investors should have knowledge about analysis strategies. There are two main approaches to analyzing securities which are technical analysis and fundamental analysis.

### 2.1.12 Technical Analysis

Technical analysis is based on the widely accepted premise that $\mathrm{q} \quad$ security prices are determined by the supply of and the demand for securities. The tools of technical analysis are there fore are designed to measure certain aspects of supply and demand. Typically, technical analysts record historical financial data on charts; study these charts in search of patterns that they find meaningful and endeavor to use the pattern to predict future prices. Some charts are used to predict the movement of single security, other are used to predict the movement of market index

[^13]and still others are used to predict the action of both individual assets and the market. In essence, technical analysts believe that past patterns of market action will recur in future and can therefore be used for predictive purposes. ${ }^{20}$

Technical analysts use some tools to measure supply and demand to forecast securities prices are:

## a. The Venerable Dow Theory:

The Dow Theory is one of the oldest and most famous technical tools, originated by Charles Dow, Founder of the Dow Jones Company. Many version of the theory exist and are used; it is the basis of much of the work done by technical analysts. The Dow Theory is used to delineate trends in the market as a whole or in individual securities. According to Dow "the market is always considered as having three movements, all going at the same time. The first is narrow movement from day to day. The second is the short swing, running from two weeks to a month or more; the third is the main movement, covering at least 4 years duration.

Dow Theory practitioner refers to these three components as:
Primary trends: Primary trends are commonly called bear or bull markets. Delineating primary trends is the primary goal of Dow Theory.

Secondary Movements: These movements last only a few months; secondary movements are sometimes called corrections.

[^14]Tertiary Movements: Tertiary moves are simply daily fluctuations. The Dow Theory asserts that daily fluctuations are essentially meaningless random wingless. Nonetheless, the chartist should plot the asset's price or market average each day in order to trace out the primary and secondary trends. ${ }^{21}$

## b. Bar Charts:

Technical analysts employ bar charting technique. Bar charts have vertical bars representing each day's price movement. Each bar spans the distance form the day's highest price to the day's lowest price and a small cross on each bar marks that day's closing price. Bar charts usually have bar graphs along the bottoms of the charts showing the volume of shares treaded at each date. Next to the prices, trading volume is the second most important statistic technical analysts try to relate stock price moves and the volume of shares traded. ${ }^{22}$

Instead of above two major techniques analysis, there are some other tools also used by investors. These tools are contrary opinion Theories, Confidence Index, Breadth of market, Relative Strength Analysis, Charting Volume of shares Traded Data and Moving-Average Analysis. All the technical analysis tools have one common characteristicthey attempt to measure supply and demand. Technical analysis assumes that at least some of the shifts in supply and demand occur gradually over time, rather than instantaneously. When shifting prices are detected, they are presumed to be the result of gradual shifts in supply and demand rather than a series of instantaneously shifts that all coincidentally happened to be moving in the same direction.

### 2.1.13 Fundamental Analysis

[^15]Fundamental analysis was developed after the passage of securities act of 1933 and the securities exchange act of 1934 in U.S.A. when detailed financial information become available, the techniques and procedures of fundamental analysis began to emerge. The fundamentalists are of the opinion that the value of a share depends upon the future stream of returns and corresponding capitalization rates. The capitalization rate is an appropriate risk related cost of equity. Therefore, value of share under this model is equal to the present value of future incomes from an equity discounted at risk adjusted capitalization factor. It requires full disclosure of financial and economic information. If the dissemination of information is not regular, reliable and complete, the market value of shares can not be properly sustained. Two model are popularly used under this theory e.g., Earning capitalization Model and Divided capitalization Model. The market price of share is based on its intrinsic value. The shareholder would like to maximize the return by buying shares of the under priced company and selling shares of the overvalued company. Buying pressure would increase the price of undervalued company and selling pressure would decrease the price of overvalued company until the equilibrium price is restored.

### 2.1.14 Investment Strategies in an Efficient Market.

Because of the competitiveness of the market, native and uniformed investors eventually realize that they will not able to earn risk-adjusted excess returns. They are a competitive disadvantage. The remaining investors and traders represent the survival of the fittest and are likely to be the more knowledgeable and skilled players. In this type of market, security prices are likely to accurately reflect available information and to respond very rapidly to new information; prices reflect technical and fundamental factors and are unbiased of intrinsic values.

Given this competitiveness and resulting efficiency in correctly pricing securities, what investment strategies are appropriate? Is it reasonable to assume that strategies based on traditional technical and fundamental analysis can
outperform the market on a risk-market? If the market is less than perfectly efficient, some strategies may result in risk-adjusted excess returns. The critical question, therefore, is the degree of market efficiency." ${ }^{23}$

The degree of market efficiency has been the subject of considerable debate. Academics trend to argue that market are highly efficient, while practitioner's trend shows that there are inefficiencies. The evidence and debate are inconclusive since "the case for forms of EMH seems to us to be neither as strong as most academics assumes nor as week as most professional investor like to believe., ${ }^{24}$

The debate has resulted in two investment strategies-passive strategies and active strategies. Efficient market suggests passive strategies while market inefficiencies suggest active strategies.
I) Passive Strategies:"A passive strategy does not attempt to outperform the market or to earn risk-adjusted excess returns; the objective is to do as well as market. At the extreme stock could be randomly selected since in a perfectly efficient market, the selected stock would be correctly valued. To reduce the risk of possible unexpected company or industry-specific developments (diversifiable risks), an adequate numbers of securities would be included in the portfolio.

[^16]The investment horizon would be long term, with little, if any, portfolio revisions because of security selection and market timing efforts. An advantage of passive management is that the transaction costs of the portfolio are minimized. The cost of trading or acquiring and analyzing information is avoided. ${ }^{25}$

In brief, efficient market and high transaction cost suggest passive investment strategies. Evidence also indicates that passive strategies have become increasingly popular with both institutional and individual investors. In additional many commentators have predicted that the popularity of passive strategy will continue to grow. These forecasts are often based on the felling that active management is usually not successful.
II) Active Strategies: Since the study is oriented towards individual investors, the primary purpose is to provide information and procedures that can assist individual in making informed investment decision. Informed investors therefore should appreciate the pitfalls and complications that occur in pursing an active investment strategy in an efficient market.Investor should have knowledge about efficient market and their impact on investment strategies. Essentially this idea assumes that some investors have an advantage over others. The following are three possible areas of advantage:

Timing: An investor who can accurately predict movements in individual securities or market can achieve superior returns. Market timing requires consistently accurate predictions. To be correctly only 50 percent of the time will result in performance that is inferior to a buy -and hold strategy.

[^17]Selection: In order to identify undervalued or overvalued securities or industry groups, the investor needs to gain insight that is superior to that of other investors. To do so, the investor must possess advantage in the quality and timeliness of information, the analytical approach employed, and / or judgment.

Investment Philosophy: Investment philosophy requires a commitment to a specific area or investment approach. For example, an area might include growth stocks in the high technology field, and an investment approach might involve a concentrate on analyzing assets or cash flows rather than earnings.

Another rational supporting active for individuals is that they have advantage over institutions and professional investors, including the following:
a) Individual investors engage in small trades that can be executed quickly.
b) Individual has the flexibility to invest in small companies.
c) If they wish, individual investors can put all or most of their eggs in one basket.
d) Individual has the flexibility to use short sales and margin trading. ${ }^{26}$

Do-it-Yourself Approach for Individual Investors: Individuals who elects to pursue an active investment strategy can perform all necessary tasks themselves. Essentially, these individuals are their own portfolio managers. Once this decision is made, the individual is faced with the task of identifying specific investment alternatives that can accomplish the objectives of the portfolio. In this approach the following tactics for common stocks have been suggested:

[^18]a) Invest in stocks selling below liquidation value.
b) Invest in new issues of stocks.
c) Invest in small companies.
d) Form a portfolio of stocks selling for low $\mathrm{P} / \mathrm{E}$ ratios.
e) Buy stocks that have a high ratio of book value to stock price.

Most of these tactics are based on market anomalies that may represent market inefficiencies and therefore provide riskadjusted excess returns. ${ }^{27}$

Use an Expert: Rather than attempting a complete do-it-yourself approach, individuals may elect to use a professional for part or all the portfolio tasks. For example, an individual may decide to reply on investment research performed by brokerage firm or by an investment advisory service. There is evidence that some of this research can identify securities that can outperform the market. ${ }^{28}$

The decision to pursue a passive or an active investment strategy in an efficient market is a key decision for individual investors. Once the passive-versus-active decision is made, a particular investment approach must be selected. It is important to realize that there is no optimal investment strategy and that risks and return can vary widely form strategy to strategy.

[^19]Markets are also dynamic in the sense that new products are emerging and the important decision variable and relationship between variables are unstable. In a dynamic market, successful investors must also change; techniques and strategies that have been successful in the past may not be successful in the future. The dynamic environment increases the difficulty of making successful investment decision but also provides a challenge to investors inclined to question the efficiency of markets.

### 2.1.15 Market Information for Stock Investment

Investment is information-oriented subject. Investment makes their investment decision on the basis of their expectations for the future. Many pieces of information influence investment decision. Investors need to know the characteristics of various investment alternatives and must keep informed on the status of and trends in the economy, particular industries, and firms.

Success in investing will be largely dependent on 1 ) discovering and credible information rapidly and in more detail than others do, and 2) apply superior judgment so as to ascertain the relevance of the information to the decision at hand. Various public and private sources of information must be analyzed. Judgment depends pretty much upon one's store of knowledge and experiences. The task of security analysis is largely a matter of sifting, sorting and rearranging data on market, the economy, industry and firms. By applying various tools of analysis to the data, investor formulates exceptions and judgments about the alternatives open to him.

There are two broad categories of information: Internal and External. Internal information consists of data and events made public by firms concerning their operations.It mainly takes the form of interim and annual reports to shareholders, and public and private statements of the officers and managers of the firm. The principle information sources generated internally by a firm are its financial statements. The analyst does not; of course limit inquiry to
information provided by accountants; ingenious and competent analysts sample widely from many kinds of information.

External sources of information are those generated independently outside the company. These sources provide supplements to company-generated information by overcoming some of its bias, such as public pronouncements by its offers. The external information sources also provide certain kinds of information not found in the materials made available by companies themselves. ${ }^{29}$

Market information is an essential matter to the present and potential investor to know about the capital market especially about the listed companies' right information in right time, right place.

Actions Speak Louder Than Words: Information is not usually available to all parties in business in equal in equal measure. For example, the board of directors will know more about the future prospects of the business than the shareholders who have to rely on published information. This information asymmetry means that investors not only listen to the board's rhetoric and confident projection, but also examine the information content in its corporate actions. This signaling effect is most commonly seen in the dividend declaration and share dealing by the board. An increase in dividends signals that the company is expected to be able to sustain those levels of cash distribution in the future. ${ }^{30}$

[^20]Many corporate managers are somewhat parsimonious in their release of information to the market. Their motives are often understandable, suck as reluctance to divulge commercially sensitive information. As a result many valuations are largely based on inspired guesswork.

The value of a company quoted on a semi-strong efficient share market can nosy be the pre-product to what information has been released supplemented by institutation, yet company chairman are fond of complaining that the market persistently undervalued their companies.

Some, for example, Richard Branson (Virgin) and Andrew loyd- Webber (Really useful group) have, in exasperation even mounted buy-back operations to repurchase publicity held shares to return their enterprises into private hands. The problem however, is often of their making.

The market can only absorb and process the information offered to it. Indeed, information hoarding may even be interpreted adversely.If information about company performance and future prospect is jealously guarded. We should not be surprised if the valuation even of quoted companies appears somewhat haphazard.

Information helps the investors that affect the beat investment decision taking among the above available. Information affects the prices of securities of a company. Any information that affects the value of a company will also affect the prices of its securities. This includes firm specific information of its future earnings, cash flows, and growth prospects; macro economic information on inflation, interest rates, and the economy; and industry specific information. As the managers of the company have control on the firm specific information they should provide such information to the investors (capital market) as soon as possible.

## Importance of Information

No one should buy a stock without knowing as much as possible about company that issues it. And it is possible only by gathering as much information as is available on the company.

Informed investing is not grouping in the dark; it is not purchasing a share because the name is attractive. It is the investing in a company whose performance and strength have been evaluated and the investment and the investment is made in a reasonable belief that company is good and the price will be rise.

The information that on should seek to be able to invest knowledgeably can be broken down into:

1. Information on the company-its performance, its sales, its profit and its products.
2. Information on the company's performance in relation to the other similar companies.
3. Information on the industry in which the company operates. Industries go through periods of boom and depression. Some companies are more susceptible to economic depression than others. It is important to know at what stage of the economic cycle the company is in.
4. Information on government policy on legislation likely to be passed, on taxation to be imposed, or duties to be leaved or reduced. All these would affect the performance of the company and as a result the share price.
5. Information on consumer outlook and fashions and spending. These can be of prime importance.

In Nepal, the investors do not properly understand the risk and reward of investing in the stock market. This leads to increase the savings into banks deposits rather than direct investment in the shares by the individual investors. In order to make informed decisions, investors must have access to accurate and timely information.

But this is not the case in Nepalese corporate sector. The lack of accurate and timely information is one of the importance reasons why investors to a great extent have lost their confidence in Nepalese stock market. Privatized companies have even a worse track record in case of periodic performance publicity or disclosure. They show the losses more readily in worse situation than the profit in prosperous situation.

Investors' confidence in the Nepalese stock market is relatively low because of stock market volatility. Investor's put their money in shares expecting reasonable return to earn from it. Such return in the form of both dividend appreciation and capital appreciation should be reasonable enough to attract them. Dividend as a prime motivator is worthy enough to attract the investors to make the investment decision if provided enough and regularly. But the dividend policy and calculation is not so easy to analyze."Black epitomizes the lack of consensus by stating 'the harder one look at the dividend picture, the more it seems like a puzzle, with pieces that just doesn't fit together. ${ }^{31}$

## Sources of information

Since the investment process is basically information-oriented, investors need to know about the various sources of investment information. User of information can be broadly divided into tow groups; individual investors and institution investors, individual are usually part-time investors with neither the time nor the ability to digest a complex flow of information.

A large amount of information is available to investors form companies that specialize in providing investment information and advice. Investors can subscribe these services, several of which offer a variety of products or they can read at least some of them free of charge at their library or at the offices of their broker.

[^21]Although some these services offer both information and investment advice. Investors can access financial information and variety of information services such as; systematic, continuous flow of reports on a daily, weekly and monthly as well as annually basis. ${ }^{32}$

The usual sources are given as below. ${ }^{33}$

1. The media
2. Insiders
3. Stock brokers
4. Tips form colleagues, friends and acquaintances
5. Professional investment consultants
6. The annual report
7. The media: The general public is fortune that is today a municipality of magazine, periodicals and newspapers that focus their articles predominantly on companies and it is important that these be read and digest so that the decisions to buy sell or hold are based on information procured and not on a whim.

Most of the literature listed below is easily available at vendors and bookshops in Nepal. Published sources of information:

- Annual reports of NEPSE / SEBON
- National daily newspaper
- Companies AGM reports/ Financial statements

[^22]- Monthly business age
- Financial news published in weekly
- Economic survey
- Journal of economic and future
- Journal of finance
- Journal published of banks (Central bank and others)
- Publication of stock analysts
- Book/ Booklet etc.
- Magazines: business world, capital market, business manager
- Professional journals
- Economic survey
- Information directors: Stock exchange official directory
- Stock exchange year books/ reports/ financial statements volume etc.

2. Insiders: Insider is person who is aware of news that would shortly cause the price of the share to soar or fall. If one acts on insider information and purchase or sells share (depending on the news) he can make a fortune and this is often done. Insider as any person who is or was connected with the company or is deemed to have been connected with the company and who is reasonably expected to have access by virtue of such connection to unpublished price sensitive information in respect of securities of the company or who has received or has access to such unpublished price sensitive information. Insider's information is usually known as only as only to a few- the directors and senior officials. Many may guess but only a few actually known if the information is accurate. Insiders can be divided into two categories. These are as follows:

Primary Insider: The primary insider has access to obtain the unpublished price-sensitive information.Any person to obtain the information as the direct connection of the indoor management.

Secondary Insider: Secondary insider means that who has obtained the price-sensitive information due to the relation with close relatives who involves in indoor management. The close relatives include family person $\&$ other relatives of the family. They will flow the information that is not to give the public.
3. Stock Brokers: Stockbrokers are a valuable of information as they are in touch with the performance of companies, to news on the economy and the industry at all times.

And most investors do seek their advice and base their decisions on investment on the suggestions made by their brokers. There are also people and investors who have though the brokers positively because of their favorable impressions and good business handling and advice. There are different types of brokers in the markets; those are full time brokers, and active brokers and unskilled brokers available. A few words of warning though given as below:

Stock brokers usually tend to look at companies from a very short term point of view they rarely attempt to suggest or advice on how a company is likely to perform in two or three years in the future.

- A lot of information that a stockbroker may give is based on rumors and tips many, which may be untrue and unsubstantiated.
- The stockbroker could have vested interests. He earns commission form both the seller and from the purchaser.
- The stockbroker's advice usually based on 'hot tips' that he receives. X company is about to announce a bonus issue. X company is doing badly. By the time the news reaches the broker and then you-the market is most likely to have already reacted and so the news is not often going to be of much value.

4. Tips from colleague's friends acquaintances: The people who love to gossip, to criticize, to spread rumors and to give advice and suggestions (very often unwelcome and unsought). Do not act unless you have checked it out thought.
5. Professional Investment Consultants: Professional investment consultants offer advice on shares that should be purchased, held or sold, manage portfolios and suggest on the investment that should be made. These consultants are expensive.
6. Annual Reports: The annual reports gives one the most detailed information about the performance of a company and the information that it gives must be carefully analyzed and digested. Many types of investment media or channels for acquiring investment information are available. A sound investment program can be contracted if the investor familiarizes himself with the various alternative investments available.

## Regulation on Disclosure of Information:

A provision of information disclosure has been made on acts, its rules and regulation, by laws and directives related to securities market in Nepal. A fair and timely information disclosure is essential ingredient to function the securities market efficiently. The providing on disclosure of information, which is pertinent in the determination of transaction price of the securities is a must so that securities prices reflects full significantly affect the price of securities, are presented.

Companies are required to carryout their AGM within one year form its approval to start the operation and then after the regular AGM are to be conducted within six months after completion of fiscal year. They are required to publish the notice starting place, date and agendas for discussion and resolution to carryout its AGM at least before 21 days. In the AGM, it has to submit the audited annual report, inclusive of details of balance sheet and profit and loss accounts, board of director's report, auditors and their remuneration for solution. Corporate bodies are also required to provide the photocopies of all the reports to the shareholders if they request in written applications. Thus among others, provision to hold AGM corporation is important to disclose is information of their operation. The information received by the exchange is made available to the general investors through media or its intermediaries such as brokers. Thus it helps acquiring necessary information easily
to make transaction of fair price. The corporate bodies that have listed their securities have to give the notice of the various activities, which is directly and indirectly affect the investor subjects to the stock exchange from time to time.

## Corporate Disclosure

An all important source of information is the corporation itself. Owner of common stock will receive the annual reports issued by each company and non shareholders (Potential investors) can obtain the annual report from the company or their broker. Annual reports highlights the most recent fiscal year. Extended discuss of activities, problems are prospects are often part of the report. In additional, the annual report contains audited financial information, summary of accounting policies and details notes to the financial statements. Such information can aid diligent investors is better assessing the current and future condition of the listed company.

Under the provision of present securities legislation, listed companies are required to provide price sensitive information and other important immediately to the investors and to the NEPSE. After the second amendment in securities exchange act, 1893 the listed companies are required to submit their annual as well as half yearly report to $\mathrm{SEBO} / \mathrm{N}$ in additional to NEPSE. The amendment made it mandatory that the listed companies should submit reports along with financial statement to SEBO/N within 4 months after the expire of the fiscal year period. SEBO/N is continuously informing the listed companies regarding those provisions and is following up the companies through regular correspondence and public notice.

### 2.1.16 Deciding Which Shares to Buy

"One of the keys to investing in the stock market is information. This topic explains how to interpret and make the most of the different sources of information about companies quoted on the stock exchange., ${ }^{, 34}$

Stock Assessment: If you have no experience of share investment the 'report and accounts' will be a daunting document. If you are serious about learning more, you will have to study its contents and translate what is often seemingly impenetrable jargon into more meaningful terms.

The Reports and Accounts: Quoted companies are obliged to disclose a good deal of information about them. They do so every year in their 'report and accounts' which is sent out to share-holders. Half way through the year there will also be an interim report, showing the year's progress to date.

## Some point to be consideration while investing in securities:

- Some companies, especially large companie conscious of good investor relations, are doing their best to make company reports more user-friendly. But there are still plenty of examples of reports filled with unfamiliar jargon.
- There is a limit to what can be learnt solely form the accounts. Find out more about the companies from the press and other sources.
- No body likes to give away more about themselves than they have to-and companies are no exception. Whilst companies will fulfill their legal disclosure obligations, they won't go out of their way to highlight a problem.
- Big business is complex and it may not always be easy to pick out what is happening in the company just form the accounts.
- It is hard to lay down accounting rules which result in completely standard presentation of the company information one company may record a certain aspect of its business differently from a competitor. This makes it hard for the investor to

[^23]compare the two.

- Figures shown in brackets in the accounts are negative amounts.
- You can make most sense of the accounts by comparing them to previous years' figure.
- The accounts are a snapshot of what was happening in the company at a certain date, usually some months before the report reaches the hands. Remember this when reading them.


## The Main Sections which are considered while investing in securities:

- The financial summary: Selected highlights of performance, sometimes giving a number of years of historical comparison.
- Chairman's report: A careful worded PR document which may not be all that informative. Some reading between the lines may be necessary.
- Directors' report: More information on the company's activities during the year. Charges to the board and political and charitable donations will be included.
- Auditors' report: If the accounts are not properly presented in some way the auditors indicate they are not happy with them. However, this is a very rare occurrence. It is far more likely that any problems will have been settled to the auditor's satisfaction before the report is printed.
- Balance Sheet: Statement of the company's and liabilities- the property it owns and anything it owns. Fixed assets are things like building and machinery. Current assets included cash, money owned to the company, stock and raw materials. Liabilities included any amount owing to creditors, overdrafts, payments due on loans, tax and national insurance. Current liabilities are payable within a year. Companies which have subsidiaries produce group accounts, with
a consolidated balance sheets which shows the assets and liabilities of all the business combined.
- Profit and loss account: This shows the extent to which the company's income from sales has exceeded its costs. If the costs are higher, the company has made a loss. Turnover is the amount of sales made in the year. The profit for the year after tax, and after the deduction of minority shareholder's interests (other owners of party owned subsidiaries) is what is left for distributions to shareholders. It is sometimes called "attribut profits." The accounts will break it down in to the amount the company has earned per share ('earning per share') and the amount the directors have decided to pay as dividends ('dividend per share'). The difference between the two is put back into the business.
- Cash Flow: This shows the company's cash position -cash rose form activities like a new share issue or the sale of an assets, and spent on things like repaying loans or acquiring new assets. Cash is important in a company-if there is not enough of it, the company will go bust.
- Notes to the accounts: The notes may appear to be the most impenetrable part of the report and accounts, but they can contain important nuggets of information-for instance, directors' pay, share options and shareholdings; change in their shareholdings (whether they have bought or sold shares); the major shareholders; further details of sales and profits; and any unusual items.


## Reading the Accounts:

- Turn over: If turnover is up, profits and earnings per share should also grow, Turnover is a key indicator.
- Cash flow is another important sign of whether the company is healthy. If cash balances are falling, the company could ultimately become insolvent.
- Per-tax profits should show a rising trend along with turnover if the business is doing well. Don't rely on profit figures alone-there are accounting methods, often referred to as 'massaging' which can be used to make them seem larger.
- Interest Charges: What is the trend here? If charges are up, it is it due to increased borrowings or higher interest rates?
- Dividends: Are they up on last year? Comparing them to earnings per share tells you a lot about dividend policy in the company.
- Other questions to ask:
- If costs or taxes are up, find out why.
-Are there any exceptional items which make a difference to the figures?
-Have there been any changes in accounting policies? If so,why?
- Have there been major pay rises for directors?
- Have directors sold big blocks of shares? Ask why.


## Ratios

Those who study company accounts use a number of ratios to help them compare one company with another. A ration is a figure based on the relationship of one financial aspect of the business to another. It is importance to compare ratios with other companies in the same sector, and with the sector average.

- The price-earning or P/E ratio (current share price divided by earnings per share-earning per share is after tax profits divided by the number shares in issue):
This ratio is widely used as a shorthand guide to how well the market rates a company. A historic $\mathrm{P} / \mathrm{E}$ ratio uses projected price and the latest profits. A prospective $P / E$ uses projected future figures. The higher the $P / E$, the better rated the
company-it shows how many times earnings investors are prepared to pay for the shares, or how much they expect earnings to grow. The $\mathrm{P} / \mathrm{E}$ ratio moves in the opposite direction form the yield.
- Dividend covers (earning divided by dividends): This shows how comfortably (or otherwise) the company can afford to pay its dividends. The higher the ratio, the more investors can expect increasing dividends in future years. If cover is low, the company can be in danger of cutting a dividend.
- Gearing (net borrowings dividend by shareholder's fund and minority interest): This shows how important borrowings are to the company. The lower the gearing ratio, the better. Gearing of $50 \%$ of net assets is regarded as OK. Much more than that, and the company could badly burdened by debt and vulnerable to increase in interest rates.
- The acid test ratio (Current assets excluding stock dividend by current liabilities): This measure the company's liquidityhow easy it would be for it to pay short- term creditors? Stock is excluded because the company might not be able to reply on tuning it into cash quickly. If the two sides of the calculation are roughly equal that is, the ratio is around 1 -the position is healthy. If the ratio is less than 1 the company could not meet is short-term liabilities.
- Return on capital employed (profit before tax divided by shareholder's funds): This measure how much the company is making compared to the capital put into the business. If the return on capital is not high enough, the company will have trouble funding its borrowings. A company which is doing well should have a return on capital of a least $20 \%$.


## Assessing Stocks:

- Set out to learn the language and implications of annual reports. If you have a stockbroker who is friendly and helpful, ask lot of questions.
- Get full report and accounts for stocks you and analyze them as best you can, working out ratios where appropriate.
- You can also get annual reports for companies where you are not a shareholder. Ask through the company's head office. The financial times offers a report ordering service in a number of companies quoted in its price pages.
- Compare this year's figures to previous year and consider any observable trends.
- Ask questions of the company itself if anything is unclear. Large companies have investor relations departments which should be happy to help, although they won't give answers on commercially sensitive issues.
- Follow your company's progress in the press. Look in the city pages of your newspaper and specialist financial publications. There will be comment in the media when your company's annual report is published, so you can compare notes with the experts.
- Specialist trade publications may be relevant. For instance, if you are investing in a computer company which brings out a new product, computing magazines will review it and give their opinion. This in turn may give you an impression of how likely the company is to increase sales.
- Don't forget to compare your company to its sector, which is good way of getting a perspective on its performance.
- Attend the annual general meeting. Anyone who holds at least one share can attend and ask questions. You might have to submit any questions in advance.
- Once you own shares, don't forget to keep an eye on them. Don't allow yourself to get upset by day-to-day ups and downs in the price, but alert for more serious changes in price trend, or for news which may affect your company's fortunes.


### 2.1.17 Strategies for Choosing Best Stock

There is a good deal of folklore surrounding the choosing of shares. Recommended strategies range forms the ranks of the old wives tale to highly technical systems accessible only to the expert. ${ }^{35}$

Before you start, there are two golden rules:

[^24]1. Have a strategy: It may be simple, and may not amount to much more than a basic philosophy of investment, but a rational of some sort is better than making unrelated choice.
2. Bear in Mind Your Risk Profile: Your strategy should not cut across your risk tolerance level. The following section on risk gives some general ideas on how to manage volatility-don't be tempted into a fashionable, small highTech company if you want low-risk, long-term investments with a high yield. Here is a checklist of some of the main investment strategies. Some of them are more appropriate to the fund manager than the private investors, but they do throw some light on how the professional think when they are making investment choices. First, some strategies the smaller investor can relate to:
I) Investing in the street: The idea of this is to spot companies with which you come into contract day to day, and use your own basis observation to assess likely success. Perhaps a new furniture store has recently opened a huge branch near you. You are impressed with its style and prices. Then a friend in another city mentions that a branch has opened there, too. The company looks good. You decide to invest.
II) Investing in small companies: This is an appealing strategy. You may have personal knowledge of small companies in your area, and small companies are known to do better than larger ones over the long term. What's more small companies are capable of much faster growth than big, nature conglomerates because they are starting from a smaller base.
III) Special Situations: There are stocks which have some special reason to attract the investor. They may look likely to be taken over. They may recently have had a major management shake-up which could improve their fortunes. They may be developing which have done badly in the recent past but look likely to improve are called recovery stocks.
IV) Investment Saying: Most of these are most at the wives tale end of strategy spectrum, though some are valuable. Perhaps the most famous is: 'sell in May and go away, buy back on St Leger's Day' (which is in September). The logic behind this is that markets slump over the summer, so the private investor should put his or her portfolio on ice for its own protection. Unfortunately, you can't rely on this one. It may works in some years, and not in others. The private investor will do better, not by jumping in and out of the market, but by holding shares for the long term.

A wiser saying is: 'It is never too early to take a profit.' When your investments are doing well, holding out for that little bit more it often a recipe for disaster. Leaping out of the roller coaster before it reaches peak and hurtles down the other side could be very good advice.
V) Top down or bottom up: We are now in the realms or the professional investor, where decisions may be made by committee and reinforced by the research of a large team of analysts. In this situation, 'top down' means that the larger considerations are looked at first: Is this an appropriate market in which to invest? Are economic conditions such that this market or that sector will benefit? Should we avoid companies in this industry altogether and concentrate on a different market sector?

Having made such decisions, the investment committee will give its pronouncements: the portfolio will be 'over weight' in this or that sector, depending on its prospects in the wider economy. This means the investment portfolio will have a higher percentage of stocks than its size as a constituent of the market index might suggest. It may be' underweight' in other sector. Having passed the chosen weighting to the analysts, they will then choose individual stocks.

A 'bottom up' approach means that you start with the stocks and simply choose those which seem like the best investments, without first looking at relative prospects for market sectors. While private investor cannot work like a
professional team, an overall impression of what is happening in the economy and in the different market sectors will help inform investment choice, not forgetting that a spread of sectors is important.
VI) Value or Growth: 'value' and 'growth' investment are two well known approaches, whose relative merits are debated by professional investors. They are easy to explain. Value investment tries to seek out companies which are undervalued buy the market. In other words, the experts have missed an aspect of the company which suggests it is worth more than its current price. Growth investment tries to catch companies with a record of growing sales and earnings which still have some way to go.
VII) Systems: Both private individuals and some professional use investing 'system'. This entire means is that they use a strict formula in order to decide which stock to buy and sell. This may depend on a couple of favorite ratios, or a broader system such as following charts-chartists use the shape of the share graph itself to predict its future movements. Systems have some value, not least because they force the investors to take a purely dispassionate view. Successful investors must learn to cut their losses on occasion, rather than hanging into a stock because it 'might come right in the end'.

### 2.1.18 Common Stock Risk and Return

Investors need to analyze basis information about the returns from, and risk of, investing in common stocks. Common stocks returns: the return of common stock can be separated into two parts:

## Dividend and Capital Gain or Losses

Total Return (TR) =dividend Yield +Capital Gain / Losses (CG/L)
$\mathrm{TR}=$ Total return on a stock during any specified period.
$\mathrm{DY}=$ Ratio of dividend to make price.
$C G / L=$ Capital gain or loss resulting form the purchase of a stock at one price and its subsequent sale at a different price.

Dividend can be a substantial part of the total return from a common stocks; in fact some common stock (in particular, utilizes are bought primarily for their dividend yield. Dividends have constituted almost half of the total return from common stocks. Nevertheless, most investors think of common stocks as vehicles for large capital gains, although quite a few end up with capital losses. It is the part of the total return that really excites most investors in common stocks.

## Measuring Returns

The income component of common stock returns is measured by the dividend yield, defined as the ratio of dividends to stock price. For example, the current yield on a stock is the current annual dividend by the current market price. The estimated yield on a stock price is estimated dividend to be paid for some period.

## Common Stock Risks

Risk is an important element since investment with greater risk required a higher return than investment with lower risk. A risk-return trade off is related to the preference of the investor. Risk in inter market operations include execution of the order at right price in the best market, delays in communication, malpractices due to the number of intermediaries involved in each operation delay in receipt of payment.

## Types of Risks

It helps to identify the various risks attached to stock market investment.

- Inflation risk: This is the main type of risk investor's face. Equity investments are a good way of countering this risk if the investment is made over the long term.
- Market risk: If the investment is made in shares or funds, and the price falls, that is called market risk. Stock market prices go up and down all the time, so market risk is never absent in any investment that is stock market-related. The reason we accept market risk is that over the long term, such investment have the best growth record.
- Credit risk: This only affects fixed interest investment.
- Foreign Exchange risk: If the investment is made over the country (overseas) there will be subject to the ups and down of the pound compared to the currency of the country concerned. Currencies also have a bearing on shares or funds in overseas market.
- Liquidity risk: Liquidity means being able to buy and sell easily because there is whose shares are rarely traded. If the shares are hold and the price falls, the shares would not able to be sold and get the money back. Then the growing losses will be occurring. This is what happened to some investors in smaller companies and investment funds in the 1987 stock market crash.


### 2.1.19 Risk Diversification and portfolio analysis

Rational investors hold diversified Portfolio form which diversifiable risk is more or less eliminated, i.e investors should reduce by making appropriate portfolios. If investors select the appropriate securities for investment, which have highly negative correlation of returns, they can eliminate the unsystematic risk totally. "If his correlation between the returns of two stocks is highly positive, risk is not significant. So the portfolio between the common stock of same industry cannot reduce risk properly. To reduce the overall risk, it is best to combine or add to the
portfolio assets that have a negative (or low positive) correlation. By combining negatively correlated assess, the overall variability of returns or risk can be reduced. ${ }^{36}$

Portfolio management is a broad topic in financial management. There are so many opportunities set of portfolio in the market. Construction of portfolio with considering all available securities is essential to get a maximum return with minimum risk form investment in stocks.

Market forces like changes in political, legal, economical, socio-culture and so many national and international factors, which can affect business in many ways, is explains as none diversified risk and is measured by beta. Here, the main concern is diversifiable risk, which is also known as-specific-firm risk and can be eliminated by proper construction of portfolio.

Diversified risk is unique to a particular company or industry; it is independent of economic, political and other factors that affect all securities in a systematic -manner. The major factors that affect diversified risk can be as Internal Management, Employee Moral, Functional level of management, attitude towards risk and so on.

As a private or individual investor one has not control even in these internal factors. If so, what can they do? They can easily diversify their fund. So that risk caused by internal factors, is avoided by making suitable portfolio. These are so many opportunities set of portfolio available in market. Among these which are best one for investment? This is a key question to every investor. No, one set of portfolio is best for all. Selection of optimal (efficient) portfolio depends upon the size of found available for stock investment, time horizon liquidity \& stock etc. Optimal portfolio can offer maximum expected return for minimum level of risk.

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## Reducing Risk

There are various steps to reduce the investment risk. Here, is a nine-point risk reduction plan:
a) Spread Your Assets: The principle here is simply 'don't put all your eggs in one basket'. Use a mix of investment which will not leave you vulnerable to any class of risk. Investment advisers commonly talk about dividing the money in three ways between cash, shares and bonds.
b) Spread Your Investment: A spread is important with every class of assets. It should be avoided to invest all in one company, one sector. An obvious way of buying a spread of investment is to use a fund; a unit trust or an investment trust. If it is stick to shares, try and keep at least six to ten holding. Less than this and the risk level are very high. Much more, it will be very hard to keep track of all the companies concerned.
c) Long-term or Short-term: The 'long term' for stock market investment should be at least five years, and preferable ten or more. Those investing for less than five years should stick to investment homes with no market risk.
d) Stay Flexible: Keeping a spread of investment will help give flexible to the investment planning. A shift in investment allocation if circumstances change for example, a move away form the stock market and towards high fixed-rate deposit if interest rates rise- can reduces risk.
e) Direct or through Funds: To spread risk, use investment funds instead of buying shares directly, but the investors should be very big to make this spread through the direct investment.
g) General or Specialist: Within the wide range of share investment some carry more risk and some less. There will always be more risk in smaller companies, especially if they are new and dependent on a single and untried product.

An example might be a pharmaceuticals company which is trying to develop a new cancer drug. If its research is successful, the price could take off dramatically. If it is not, the company could disappear, leaving the investor with a total loss.

### 2.1.20 Present Status of Stock Market in Nepal

Equity market has shown impressive recovery from the sharp fall in 1994 with the lag effect elongated till late 1998. At present, it has been performing more strongly than in the earlier years. The improvement, in the equity market has been attributed to various factors including good prospect of corporate earnings and broader household participation in the stock market. Investor the statement of the brokers, but they also have a concern over the financial information of the concerned company. Therefore, the shares of companies with better prospect of dividend, capital increment and growth have normally higher prices in the stock market. Recent rise in equity prices can also be attributed to the gradual fall in the bank deposit interest rates causing excess liquidity in the market. Investors without any credible investment opportunity have diverted their resources towards the stock market. At present, the stock market in Nepal has witnessed its strength surprisingly, and this has raised hopes for sustained growth of corporate undertakings.

Stock market in Nepal has been growing gradually both in terms of turnover as well as the capital investment. From 16 listed companies in 1986 they grew to 148 in 2008.During this period, their paid up capital surged up form Rs. 789 million to Rs. 26.61 billion.Number of listed companies increased by tenfold, whereas the paid up capital went up 38 times. Market capitalization of listed shares has been risings continuously, expect with a few cases of volatility. ${ }^{37}$

## i. Turnover:

[^26]Since 24 August 2007 trading is being done through the Automated Trading System (ATS), a fully automated screen-based trading system. The introduction of the ATS, extension of trading hours and listing of new companies has companies has contributed to a substantial increase in trading activities. The total transactions of shares in terms of value increased by 172 percent to Rs. 22.82 billion in the FY 2007/08, while it was R. 8.36 billion last year. Similarly, the number of transaction increased by 25.10 percent to 15.08 hundred thousand, and it was 12.05 hundred thousand last year. The number of shares traded during the year increased by 17.2 percent to 136 , whereas it was 116 year before. Like wise, the number of ordinary shares traded during the review period was 28599.77 million, which is a 57.6 percent increase from previous year. The daily average turnover recorded in the review year was Rs. 97.11 million, the turnover was Rs. 78.22 million last year. Similarly, the market opened for 235 days this year, three days more than last year.

In the total turnover, the commercial banking group's overall domination continued as before because of a better performance of commercial banks. Almost all commercial banks have posted profit in the review period in which the turnover of commercial banking group was Rs. 5.56 billions. However, in total composition of turnover share of commercial bank declined slightly compared to $63 \%$ in the review year which occupied 65 percent in the FY 2006/07. The hydropower group came second on the basis of annual turnover. This groups' turnover was Rs. 3.19 billion, which accounts for $15 \%$ of the total transaction. In the same way, finance companies occupied $10 \%$ and development banks 9 percent. But the contribution of the manufacturing and processing group, other group, trading group and hotel group was insignificant as these groups contributed less than $1 \%$ in total turnover.

The block transaction of Bottlers Nepal Limited contributed to tremendous growth of the manufacturing and processing group in terms of turnover. This group posted a 100 times growth in the review period. Similarly, the turnover of the development banking group increased by approximately five fold compared to the previous year. The commercial bank,
finance, hotel and trading groups posted a good rate of growth on the basis of turnover while insurance companies posted a relatively moderate growth but that of hotel and trading companies declined.

The ratios of turnover to market capitalization and turnover to GDP are 6.2 percent and 2.8 percent respectively-a significant improvement over the previous year's $4.5 \%$ and 1.1 percent.

## ii. Trading of Bonds:

Both the government and corporate bonds have listed but they were not traded at all in the secondary market during the review period. Listing of government bonds reached 12 amounting Rs. 13.15 billion and corporate bonds amounting Rs. 4.85 billion has been listed on NEPSE till the end of the FY 2007/08. A low number of individual investors and income on interest for individual and the corporate were the major reasons for a minimal transaction of specially government bonds.

## iii. Market Capitalization:

The total market capitalization of listed company of listed shares almost doubled to Rs. 336.24 billion during the review year. The central's bank directive to increase the capital base of banks and financial institutions has a major impact on the market value of listed shares. Most of the companies opted to issue bonus and right shares to increase their capital base, which attracted lots of investors. With the step increase in market capitalization, its ratio to GDP went up to 44.3 percent this year. It is a notable increment over previous year's 29.8 percent level. In terms of market capitalization of the commercial bank group touched Rs. 259.55 billion in the FY 2006/07, which is 72 Percent of the total market capitalization. Hydropower companies, insurance companies, development banks, manufacturing and processing, hotels occupied 10 percent, 3 percent, 5 percent, 2 percent and 1 percent of the total market capitalization whereas others and trading each occupied less than 1 percent.

## iv. Indices:

Due to a whopping increment in the share price of banks, financial institutions, hydropower companies and developing companies and development banks, the NEPSE index has continuously increased despite some ups and downs in the current fiscal year. Restoration of peace, listed companies improved financial performance and most importantly the Central Bank's directives dated 26, March 2007 to double the paid-up capital of banks and finance institutions contributed to a remarkable increase in share price and, subsequently, the stock market indices.

The stock market opened with the NEPSE index of 683.95 points at the beginning of the FY 2007/08 and ended with 963.36 points during the year. The year on NEPSE index increased by 40.9 percent. It reached the high of 1064.09 on 17 December 2007 and the low of 677.98 on 18 July 2008. Of the NEPSE index, banking sub-index went up by 181.39 points to 985.65 (which is also the highest point) during the year. The banking sub-index measure the transactions of companies listed under commercial bank group. It touched the lowest point of 759.67 on 31 August 2007.

## v. Inflation:

During the FY 2007/08 the inflation level, which is measured by the change in consumer price index (CPI) as prepared by Nepal Rastra Bank, rose to 7.7 percent from the level of 6.6 percent last fiscal year. The rise in inflation was mainly due to substantial hikes in the prices of petroleum products in the FY 2007/08 together with escalating food prices observed in the market.

## vi. Listing:

The total number of listed companies reached 148 in the first eleven months of FY 2007/08; it was just 135 in the same period last year. At the end of the review period 15 companies were listed under commercial bank group. Similarly, there
were 24 companies in the development bank group, 17 companies in the insurance group, 57 companies in the finance group, 21 companies in the manufacturing and processing group, four companies in the hotel group, five in the trading group, and two in others group. The paid-up value of these companies reached Rs. 26.61 billion in the review period (it was Rs. 21.45 billion years). In the last three months 39 companies listed a total of 41.07 million shares, amounting to Rs. 957.74 million, 10 listed rights shares amounting to Rs. 2866.78 million and five companies listed ordinary shares amounting to 279.27 million.

## NE PSE Starts Trading of Promoters' Shares

NEPSE began trading promoters' share on 31 March 2008, adopting a different price quoting mechanism for the first trading of promoters' share of the listed companies. For the first trading, the price of the promoters' share of a company that has a positive net worth could not be less than half of five times its net worth per share or half of the current market price of the ordinary shares, which ever is low. Similarly, in the case of a company that has a negative net worth, the first trading price couldn't be below half of the current market price of the ordinary share. Earlier, one could have traded the promoter's shares on the basis of the market price of the ordinary share.

Alpic Everest Finance Limited and Machhapuchhre Bank were the first two listed companies to trade promoter's share based on the new price quoting mechanism. Alpic Everest traded 1, 28000 units of share for Rs 12.58 million and Machhapuchhre Bank traded 2, 51,410 units of its share for Rs. 125.7 million. NEPSE expects that trading of promoters’ share will make the capital market more vibrant and stabilizes the price of ordinary shares. ${ }^{38}$

[^27]
## OTC Market Starts

NEPSE Exchange started the over-the-counter (OTC) market form 4 June 2008 to give shareholders a chance to sell or buy the share of companies that are de-listed and that are not listed on NEPSE for failing to meet the listing criteria.

The shares of the 38 companies can be now being traded in the OTC market. But NEPSE has decided to restrict the shares trading of Nepal Bank Limited in the OTC, as per the request of Nepal Rastra Bank. The shares trading of Nepal Bank Limited has had negative impact on the ongoing Finance Sector Reform Project.

In the OTC market one does not have to go to brokers to trade shares; one can come to NEPSE and trade, paying a commission of two percent for transactions of up to Rs.25,00o , 1.5 percent for transaction of above Rs.25,000 but under Rs.5,00,000 and one percent for transaction of over Rs.5,00,000. ${ }^{39}$

### 2.1.21 Procedures of Securities (Stock) Trading in Nepal

Regarding the investors investment decision criteria, these will be the factors to be considered or simply one says these are the basic principle to be followed while investing in shares. Several procedures and facts need to be taken into account before buying and selling of securities. ${ }^{40}$ They are given as below.

1. Placement of Orders: The investors must submit written buy and sale orders to be the brokers to conduct the trading of proposed securities in prescribed formats.

[^28]2. Points to be Included in the order: The buy and sale orders the investors must consist the name of securities, its type, quantity value (i.e fixed / maximum/ maximum or as demanded appropriated by the brokers) and the validity of the order in prescribed formats. If the tenure is not specified in the order it will be valid for 5 days only.
3. Obtaining Receipts for the Registration of Orders.: The investor must obtain receipt against the deposit of orders in which the broker's members must state date, time and registration number.
4. To obtain Notification for the purchase and sale of securities: After the transactions as per the orders done the brokers must acknowledged the clients either on the same or next in prescribed format.
5. To submit either Purchase Value or Certificates: The investors after getting the notification from the brokers must submit total amount required, in case of purchase and certificate of securities, in case of sale within five working days from the date of transactions.

In case of sale, the concerned seller must handover to the brokers the share certificates along with the signed documents (i.e. transfer deeds, bonds deeds) and buying investors must submit the total required amount. Both the brokers have to submit those documents to the stock exchange. It is the duty of stock exchange to cross- verifies the certificate deposited with the amount deposited.
6. Commission of the Brokers: The commission for his /her service range from 1 to 1.5 percent based on volume of trading
7. To Receive the Amount of Share Certificate: The brokers have to submit the amount and share certificate within 5 working days from the date of transaction and they will be eligible to get payment and certificate on the $8^{\text {th }}$ days. On the $6^{\text {th }}$ days stock exchange will do the crossing of documents and prepares bill and makes payments to the brokers on
the $7^{\text {th }}$ days. If both the amount and number of shares and the company matched with each other the amount and number of shares and the company matched with each other the amount will be transferred to the selling broker's account and certificate along with documents will be handover to the buying brokers. It is the investors who have to make decision whether to send documents to the concerned company for the name transfer or to register it as transfer for resale purpose.
8. The Tenure for the Blank Transfer: The decision of the investors needs to be executed through the brokers. If the investors make decision to register the purchase securities as blank transferred will be wise to continue this decision before the closure of fiscal year or before the book closure whichever is either. In order to send it to the concerned company, the investors must fill all the required forms, which are signed by the selling brokers and need to handover to the concerned brokers. The investors himself/herself cannot send those documents for transfer.
9. Receiving and Making Payment through Cheques: The investors must make payment or receive payments from brokers either by bank transfer or through cheques.
10. Trading of the Shares of the Same Company Can Take Place Different Prices: The investors must be aware that shares of the same company can traded at different prices or the buying and selling prices of the shares of the same company can be different from one transaction to another transaction.

If the investors are in doubt regarding the purchase and sale of their securities they can contract to the concerned authority of Stock Exchange with notification receipts.
11. To be Careful in Risk Involved in Securities Transactions: Investing in securities is not gambling. Certain principles are the investors must be aware of the existing risk involved in trading and investing in securities. So,
before making investment decisions the investors must consult financial statements of the concerned company and price study. The speculators may create rumors in the market and if investors run after that it will be his/her fault but not of the brokers. The fund is as well as the investment decision is of investors. So the wise investment decision decisions will be productive also supportive to the market.
12. Compensation form the Deposit of the Brokers: Each and every broker has to submit the bank guarantee and cash deposit in the stock exchange. The stock exchange will make payments if stock exchange identifies any fraud committed by brokers and also incase of default of the brokers or may other case like nature. If the deposited amount becomes short the investors himself/herself recover the balanced from brokers.
13. My Bond is my Bond: The service of the brokers based on the principle" My word is My Bond". The brokers should not be deviated from the principle. The investors must support the principles of the brokers. If any unseen able events take place the broker must notify the stock exchange and reverse the transactions either by buy or sale according to the nature of the transaction. If the investor suffers any loss according to the nature of the transaction.If the investor suffer any loss that should be done by the investor himself or herself.
14. Transaction Based on Mutual Faith and Trust: It is the mutual faith and trust between the brokers and investors whether to do transaction without getting certificates or amount in advance. But as short sale and forward trading are not permitted once the transactions are done according to the orders, the documents and amount need to be deposited in any case. But if the client is new to the brokers they can ask certain amount in advance or also can ask the share certificates along with signed and verified in advance.
15. Investors if have Doubt can Contract to the Concerned Authority for Findings the Reality: The investors can contract the concerned authority of the stock exchange if have any doubt and clarity it anytime after the transactions been completed.
16. To have Knowledge about trading, settlement and clearing procedures: The complete knowledge about trading, clearing and settlement procedures needed for the investors. If they do not have this knowledge the investors may be in dilemma.

Hence, to obtain the information about these procedures either with the brokers or from published materials by stock exchange is the right off the investors.
17. Duty and Right of the investors: If the problems exist while making investment, it is the right and duty of the investors to inform the stock exchange authority. It is right of the investors to get problem solved and is also their duty to make other investors aware about the existed problem. Hence the investors should feel to contract the concerned authority of stock exchange with any problem either with listed companies or brokers.

### 2.2 Review of Related Studies

### 2.2.1 Review from Journals and Articles

The research articles article published in various well-known journals, which are relevant to this study, have been reviewed here. Like books, there are very limited numbers of journals study, have been reviewed here. Looks books, there are very limited numbers of journals available in the field of management in Nepal and is hard to find any research relevant to this study. Despite the situation, some articles published in both national and international journals are taken into consideration.

### 2.2.1.1 Reviews in International Perspective

John Telesephore Bar in his article" The Expectations of stock market participants for selected stocks" "investigates the nature of investor's expectations of financial returns from common stocks. Three research questions are embodied in the scope of the study:

1. Do investors expect a higher rate of return form higher risk stock? 2. Do the risk return characteristic of investor expectations differ according to whether the investor is a buyer, seller or owner of the stock?
2. Are the expectations of investors consistent with the proposition that all publicity available information is fully reflected in the price of a stock? Empirical data for this research were obtained form a sample of four types of stock market participants (buyers, sellers, owners, and security analysts) for three selected common stock. During the period March 19 to April 13, 1973, approximately 800 individual investors and 15 security analysts responded to a mail questionnaire that measured their price and divided expectations for the stock that they had just bought, or sold, owned, or followed (analysts). Expectations were obtained in the form of discrete probability distributions.

Inter-and intra-stock comparison of the parameters of unmeasured expectations led to the conclusion that: investors expect a higher return from higher risk stocks; seller of a stock expected a lower return than either buyers or owners of the stock; and, that all publicity available information was not fully reflected in the price of the three stocks at the time of the study. However, these conclusions are subject to qualifications regarding their applicability to different types of return (price, dividend, and total return) to different expectations time horizons, and to different parameters of return expectations. ${ }^{41}$

[^29]An article written by Anthony W Lynch and David K. Musto (October 2003), "H ow Investors interpret Past fund Returns?" concluded that investors who condition open-end mutual fund allocations on past performance appear to be relatively indifferent among bad returns. Several recent papers shows net new investment to be much less sensitive to past returns in the region of bad returns, as if all returns below some threshold send roughly the same signal to investors about future prospects.

A mutual fund's shareholders delegate its productive decisions to an investment advisor. The shareholders and other investors cannot usually observe these decisions directly, but they can infer them from the funds' operating performance and invest accordingly. The finance literature usually models this inference/ investment process: i) estimating a funds' past risk-adjusted expected returns, and ii) investing on the assumption that the pas risk-adjusted expected return will persist into the future.

This paradigm has some intuitive appeal and empirical support, but it does not take into account the investment advisor's option to disconnect past and future performance. ${ }^{42}$

An article published in the journal of finance by Groff Reyp. Clarkson and Allan H. Meltzer (Dec. 1960). "Portfolio selection: A Heuristic Approach "assess that the problem of selection a portfolio can be divided into two components: i) the analysis of individual securities based on the previous analysis. Up to now, the majority of writer has focused on the first part of the problem and had been paid to the second phase of the problem. It is to this second part of the portfolio selection process that this paper is principally is to this second part of the portfolio selection process that this paper is principally devoted. Recently a normative approach to portfolio selection for a particular kind of investor has been proposed by Markowitz. He defines a decision problem (in this case the selection of a set of

[^30]securities), assumes a decision functional, and observes the behavior which the system generates when inputs are varied. In his analysis, Markowitz shows that, for given securities, a rational investor can determine the "efficient "set.

To obtain an optimal portfolio from the efficient set, additional assumptions are required: namely, a Markowitz investor must choose that combination of mean and variance which provides the maximum utility. But, whatever form the decision function takes, it must be such as to make its mathematical representation tractable and soluble.

A positive theory of portfolio selection does not yet exist. Such theories must desirable and predict the investment behavior of individuals under uncertainty. Whether one constructs a positive theory or compares the result of a normative theory with existing procedures, of actual behavior is a prerequisite. Since neither a theory none an adequate description of the selection process is available, the aim of this paper is partially to fill both gaps.

An investor is confronted with a large assortment of information which he may use in making decisions. There is a wide variety of data, past and current, on the operation of firms and the market valuation of their stocks. There are many published predictions about the present and future state of the general economy, the stock market, and particular industries and firms. There are legal restrictions and the desire of clients to be considered when an investor acts in an agency of fiduciary capacity. These factors, when evaluated and combined with an investment policy, ultimately result in a decision to buy specific quantities of particular stock and bonds.

An investor choosing a portfolio is processing information; he sorts the useful form the irrelevant and decides which parts of the total information flow are most important. As we have seen, the theory of human problem-solving was built to handle problems of this type. ${ }^{43}$

### 2.2.1.2 Review in Nepalese Perspective

Atma Ram Ghimire in his article "Investor's Perspective tips to Investors" "assess that investors have to learn few things before they make investment on stock. First of all they should know the financial health of that company. For example, if somebody wants to invest in Nepal Grindlays Bank share, he must see its balance sheet or at least know its' paid up capital, last year's net profit, current years' anticipated profit and calculating earning per share, and the price earning ratio. These two number would give a fair idea about company's health and then market price could be judged through the discount factor based upon one of he sound company's data. Market price is equal to earning per share dividend by discount factor.

EPS can be derived by dividing total net profit after tax by total number of shares and $\mathrm{P} / \mathrm{E}$ ratio by dividing market price per share by EPS. Lower the P/E ratio higher the chances of profit with capital gain and others.Let we take a numerical example. Based on the information for fiscal year 057/58, Grindlays will make Rs. 680 million rupees net profit. Then earning per share is Rs. 200 as it has 3.4 million shares. P/E ratio is 1900 (market price)/ $200=9.5$, discount factor $100 / 9.5(P / E)=10.52$, and market price $(200 / 10.52)=100 \mathrm{X} 1900$. If we regard this as a sound and fair company then the price of every other commercial bank can be calculated by dividing EPS of that bank by the discount factor 10.52.

[^31]Based on above, people should not be rushing to the market for purchase of shares at present. However, there might be some shares with prospects for good value in future. Investor must not lose that opportunity. Return form investment in stock is not a short run phenomenon. Yes, trading while the market is in a bullish trend could sometimes result in capital gain but it is only during the upward phase of the business cycle.

Small investors may choose sound finance or insurance companies, which have lower capital outgo for purchase and might bring good dividend. If finance companies have 300 as its price and if it provides $24 \%$ dividend, then it is providing $8 \%$ in return. This percentage is regarded as high. Because, normally, divided yield ratio would be 1 to 2 percent below the bank interest rate.By that standard if we see $5 \%$ saving interest rate then 3 to 4 percent dividend is justified for investment in the stock when all the parameters and components in the share market are sound.

Investment in multinational companies is generally safer due to the transparency of accounts and transactions. But the political atmosphere is very negative at this stage for such investment. If they put out due to insecurity and uncertainty shareholders will be at loss.

The most important part is to observe the market situation. Be informed and sell the shares that have $\mathrm{P} / \mathrm{E}$ ratio more than 25 , even if you have faith on them. You can buy them cheaper in the future. ${ }^{44}$

A study carried out by a Radhe Shyam Pradhan in the topic of "Stock market behavior on a small capital market: a case of Nepal" it's published in Nepalese Management Review in 1993. The study was based on the data collected for seventeen enterprises from 1986 to 1990. The basic objective of his study is to assess the stock market behaviors in Nepal. Giving background of Nepalese Stock market he states " The Nepalese stock market " is

[^32]characterized by low trading volume absence of professional brokers, early stage of growth, limited movement of shares prices and limited information available to investors. ${ }^{45}$
"The result of study is explained as: the overall result suggests that profitable, liquidity, leverage, assets turnover and interest coverage are related to dividend payouts.He observed that stock with larger ratio divided per share to market price per share have higher liquidity earnings and lower leverage ratios. Positive relationship observed between ratio of dividend per share to market price per share and turnover rations as well as interest coverage.

The positive relationship existed between dividend payouts and liquidity, dividend payouts and profitability ratios, divided payouts and turnover ratios, dividend payouts and interest coverage and negative relationship is noticed between dividend payouts and leverage ratios. He concludes that stocks with larger price earning ratio have larger market value to book value equity and small dividend ratios. Stock with larger price-earning ratios have lower liquidity, higher leverage, lower profitability, lower assets turnover and lower interest coverage's. However, liquidity and leverage ratios are more variable for the stock paying lower dividends while earnings, assets turnover and interest coverage's are more variable for the stock paying higher dividend. ${ }^{46}$

An article written by J eevan Basnet " E valuate Stocks, Don't Pay M ore" "conducted that common stock investor holds a piece of paper, an engraved stock certificate, which can be sold in stock market at a price that varies from moment and which is often unreflective of the balance sheet value. But there is a pre-determined price of stock

[^33]derived from its true and inherent worth. This 'intrinsic' price of valuation of the stock generally differs from the market price of a particular stock ought to be.

There are numerous modalities to calculate the buying price of the stock and it has been observed that one methodology applied in a particular scenario may not be a useful guide at others. However, through the price so calculated may not be completely authentic or exact, it will nevertheless be a point towards formaulation of a price based on reasonably sound judgment on whether the stock is over-priced or under-price.

Three main criteria are generally regarded as crucial in this context: a satisfactory ratio of earning to price, sufficiently strong financial outlay and the prospect of its earning over the year.All said and done, we purchase here a model to detect what price should an investor pay based on the famous price-to-earning (P/E) ratio citing Everest Bank stock as an example. Need less to say that this ratio is numerical short hand for the relationship between the stock price and the earning of the company. Since components relative to stocks (earning, market price, future prospect) are more or less bought to a point (valuation), this simply method is highly practiced everywhere. It is often a useful measure to assert whether a stock is overpriced, fairly priced or under-priced relative to a company's money making potential.

With this simple calculation investor can at least set mind with the theme of acquiring and holding suitable stocks at suitable prices. However, one should not forget significant added consideration like measure of managerial competence, progressive divided history and long range trend of the average market value. A stock combined with these intangible soundless with proper price paid shall never fail you.

Stock investment is most intelligent when it is most business like, hence it requires a background of preparation and disciplined capacity and the first lesson is to avoid anything that appears overpriced i.e. stock to valuation, don't pay more. ${ }^{47}$

Another study carried out by the Manohar K. Shrestha entitled "share holders democracy and annual general meeting feedback," critically analyzed the situation of common stock investors and the current situation of investors. The author explains as "some public limited companies have floated the shares to the general public without having share holders representation in the board. There are many such companies, which conduct the annual general meeting just to fulfill their desire and do not consider the voice of the majority of the shareholders. Similarly, management involvement and government intervention in the board election have brought a greater set back in the voting rights of the shareholders. ${ }^{48}$

Shrestha argued further to safeguard the investor's interest "The encouraging and growing confidence of shareholders over investment seek an independent inquiry of disclosed contents of prospectus. This helps to satisfy a minimum standard of faith an investment in shares through relying on prows and cons of prospectus. It is therefore, important to dispose everything in prospectus which could reasonably influence the mind of the prudent investors. Various annual general meeting held by the different public limited companies reveal a greater gap between disclosures made in prospectus and the actual results which were reported. In this context, the expression of disclosure philosophy and

[^34]investigation of frauds in prospectus need to be reconciled to check and growing problems in the development of the capital market in Nepal. ${ }^{49}$

An article written by Rabindra Bhattarai, "Define your Objective before Buying Stocks" "assess that people invest in the share market for different purposes. If someone is not clear about his/her purpose, the strategy followed can be wrong and the benefit not satisfactory, or there she/he may even incur a loss. So, define your objectives first and then start playing with the market. Some possible objectives would be to maximize dividend income, to maximize capital gain in the short run, to maximize dividend income, to maximize capital gain in the short run, to maximize total gain and to minimize risk. A proper setting of objectives helps you identify the category of shares that helps to accomplish the set objectives. If we observe stock market regularly, we find various patterns of movement in different stocks. Thus, setting clearly defined objectives will help to gain form such movements.

The Bank of Katmandu (BOK) Limited and International Leasing and Finance Company (ILFC) Limited both paid $10 \%$ cash dividend to the shareholders for the fiscal year 2003/04. The shares of Bok are currency trading in a range of Rs. 450 -Rs 460 and the shares of ILFC are trading in a range of Rs.120-130. Investors who want to maximize their dividend income would do better by investing in ILFC than in Bok. With the same amount of investment one can purchase more shares at a less amount of commission in the ILFC as compared to Bok. For example, if you have Rs. 10,000 as investment, then you can purchase 21 Bok shares or 76 ILFC shares.

If we expect the same dividend rate in the companies as in the last year, then we can earn Rs. 210 form Bok or Rs. 760 from ILFC. There are many such examples of finance companies and insurance companies with low priced stock but paying equal dividend rate as a high priced stock.

[^35]But for those investors who want to maximize their return by capital gain in the short-run, it is better to avoid investing in shares of finance and insurance companies because their share price is found to fluctuate less as compared to the banks. In case of stocks that do not fluctuate much, it will be difficult to cover the transaction cost. Capturing a capital gain in a short run requires a selection of highly fluctuating companies or newly listed companies. The present examples of such companies are Bank of Kathmandu (Bok), Lumbini Bank Ltd. (LBL), Machhapuchhre Bank Ltd. (MBL), Nepal Bangladesh Bank Ltd. (NBBL) and Nepal Credit and Commerce Bank Ltd. (NCCBI).

On March 1, the share price of Bok was Rs. 391 and it reached Rs. 460 on April 25. Similarly, the share price of NBB on March 1 was Rs. 237 and it reached Rs. 319 on April 21. Then it turned bearish again. Similar examples can found in the LBL, MBL, KBL, etc. These price changes can provide a handsome capital gain to the investors but it further requires a regular collection of information and regular contract with brokers.

Similarly, the shares of newly listed banks are found to fluctuate more compared to old banks. For example, the market price of NCC stayed in a range of Rs.118-Rs. 135 for more than a month after its listing and turned bearish after reaching Rs. 155 on 19 April. Similar example can be found in case of Lumbini bank. It price reaching Rs. 125 and fell down to Rs.199, and again turned bullish to reach Rs.223.

The next fundamental objective of buying securities is for the purpose of borrowing. Investors can borrow money by using the shares as collateral. Banks and finance companies provide loans up to $50 \%$ of the market price of the shares. To borrow in this way, you should have those of Standard Chartered Bank Nepal Ltd., Nabil Bank Ltd., Bishal Bazar Company Ltd., and Uniliver Nepal Ltd. And Nepal Investment Bank Ltd., Therefore, it is better to buy this high priced stock if you intend to borrow by pledging them.

Such borrowing can be used to buy more stocks and the selection of such stock will again depend on the purpose for which you want to buy them.

If the objective is to minimize the risk, investors require selecting stocks that remain less fluctuating in the market. For example, Bishal Bazaar Company Ltd. Himalayan Bank Ltd., Bottlers Nepal Ltd., Rastria Beema Sansthan and Uniliver Nepal Ltd. are found to be such stocks. ${ }^{50}$

### 2.2.2 Review from Thesis

Under this section, various unpublished masters degree thesis related to this topic have been reviewed.

## Study of Durga Lamsal

Durga Lamsal submitted the thesis entitled "A study on Investors Awareness on Common Stock (with special reference to some listed companies)" in the year 2007. "The objectives of his study are as follows:

- To examine the popularity of the securities among the general people.
- To trace out the investors attitude towards the share investment in comparison to investment in other sectors.
- To provide the suggestions and recommendation to the related individual and institutions on the basic of findings. ${ }^{51}$

[^36]The research covers the 5 years period form $2000 / 01$ to $2004 / 05$ ( $2057 / 58$ to $2061 / 62$ ) including the base year data of $1999 / 2000$. The research is more quantitative or analytical based and less descriptive. ${ }^{52}$

The major findings of the study are as follows:

- Investor feels that investment in common stock is popular because it provides sufficient return in comparison to other field of investment.
- Investors are found to be at very low level as far as the awareness in share trading rumor related to share prices.
- Investors are believed that the real and timely information should be provided to the investors to maintain the efficient share trading in the market. ${ }^{53}$

On the basis of findings, Lamsal concluded that fair and timely information disclosure was essential ingredients to function the securities market efficiency. Information deficiency in the capital market might be one of the reasons for determination of share price by excessive speculation. This might lead to domination by the gamblers and the speculators in the capital market. Norms, regulatory submission and disclosure of information by listed companies are meant for ensuring good corporate governance, transparency and investors protection.

Since the quality of information available to investors, the rationality of the investors in Nepal is to be at quite low. They have very little knowledge for the trading procedures and the price formation mechanism of NEPSE. Considerable efforts should be given to expand the role of training and certification institution to include research and investors education. This

[^37]size of the market is simply too simple to make research and economically viable function to be offered by securities firm of investment banks in the next several years. ${ }^{54}$

Lastly Lamsal recommended the following points:

- Information made available by units should be processed to make comparable and understandable.
- The transparency and openness of transactions, quality of professional service and improved legal and regulatory and supervisory frameworks are the urgent needs to build-up the confidence of the potential investors in Nepalese Stock Market.
- The NEPSE should be exposed to the latest concepts and techniques that are employed within the region.
- To win in the stock market, investors should always be clear to his strengths, weakness, needs, desire, risk taking capabilities and how to react on different and ever changing market condition. ${ }^{55}$


## Study of Sanita Maharjan

Sangita Maharjan also conducted a study titled" Investor's Awareness in the Securities Market in Nepal" in the year 2006 under Faculty of Management, T.U. " The study had the following Objectives:

- To analyze whether the investor's are adequately aware or not in the stock trading.
- To examine how the investors take investment decision in securities market.
- To analyze the investment trend in the security market of Nepal. ${ }^{56}$

[^38]"The sampling data had been taken from 11 company's fiscal year 2005/06 from seven sectors among the 135 total listed companies. The descriptive and analytical research design has been used for the study. ${ }^{57}$

On the basis of the analysts following major findings were observed.

- Most of the investors were found to be aware about the securities market i.e. they have the knowledge of the securities market but they seem to be unaware of the trading procedure in NEPSE.
- Share price is also one of the reliable factors for testing the rationality. Most of the investors were found, who watch the share price daily rather than the weekly, monthly, occasionally and twice a month.
- Most of the investors think that it is necessary to get the timely information of the listed company.
- According to the major proportion of the respondents, it was found that government rules and regulation are not sufficient to protect the investors' investment in the securities market.
- Large number of investor who have invested on the basis of market whim and rumor.
- Investor's have invested their investment into the single stock. They have not diversified their investment in different securities of the different sectors. ${ }^{58}$

On the basis of the findings, Maharjan concluded there is lack of professional investors in Nepal. People in Nepal, simply invest in shares mainly on the basis of whim and in a single sector rather than diversified sector. So, the concerned bodies should feel responsible to provide sufficient and reliable information about the investment in shares. Since, the quality of

[^39]information available to investors, the rationally of investor's in Nepal is to be at the lowest level. They have little knowledge of the trading procedures and price information mechanism in NEPSE. ${ }^{59}$

The following are the Recommendations:

- The transparency and openness of transactions, quality of professional service and improved legal and regulatory and supervisory frameworks are the urgent needs to build up the confidence of the potential investors of Nepalese stock Market.
- Every investor should follow different source which could provide information. Only one share either NEPSE or SEBO/N is not sufficient for investors. Other sources of information such as economic review, annual report of listed companies, Journals should be referred frequently.
- The stock Exchange should have speed settlement and clearance system, investor's-friendly environment, well equipped office and well trained brilliant and hard working staff.
- The development of stock market is also depending on political stability of the nation. So, government should try to maintain the political stability to develop the securities market. ${ }^{60}$


## Study of Gopal P. Bhatta

Gopal Prasad Bhatta performs the study in 1995 in the title of "Assessment of the performance of listed companies in Nepal." Bhatta's study in performance of listed companies is based on the 10 listed companies' data form 1990 to 1995. "Among different objectives, the one to analyze the performance of listed companies in terms of risk and return i.e.

[^40]expected rate of return and company specific risk, required rate of return and internal rate of return, systematic risk and diversification of risk through portfolio context. ${ }^{61}$
"In his study, the following findings are depicted:

- A highly significant positive co-relationship has been addressed between risk and return character of the company. Investors expect higher returns from those stocks, which associates higher risk.
- Neither investors analyze the overall relevant information of the stock nor does the number of stock exchange try to disseminate the information. As well the stock price does not contain all the information relating to market and company itself. So, that market return and risk both may not represent reality.

Analysis based on the available information shows high priced stocks such as BBC, NIB and NIC has higher beta risk than others. So, these companies require higher returns to satisfy the investors for their risk premium.

- Investors in Nepal have not yet practiced to invest in portfolio securities. An analysis of the two securities portfolio shows that risk can be totally minimized if the correlation is perfectly negative. Like, in such cases, the risk can totally be diversified, but when there is perfectly positive correlation ship between the returns of the two securities, the risk is un-diversifiable. The analysis shows both negative and positive correlation. Negative correlation between securities returns is preferred for diversification of risk.
- Many companies have higher unsystematic or specific risk. So, there is a need of expert institution, which will provide consultancy services to the investors to maximize their wealth through rational investment decision. ${ }^{62}$

[^41]On the basis of findings, Bhatta concluded, an analysis of risk and return show that may companies have higher unsystematic risk. There is a need of expert institution, which will provide consultancy service to the investor to maximize their wealth through investment decision. Lastly Bhatta's recommended the following points to the market efficiency:

- Developed institutions to consult investor for risk minimization.
- Established an information channel in Nepal Stock Exchange.
- Make proper amendment on trading rules.

To some extent Bhatta focused in analysis of risk and return in common stock investment. But due to so many aspects of analysis investors cannot easily assess the result. Indeed, study did not focus the viewpoint of investors; it concentrates on companies and stock market. However, this study also explores some dimension for future research in this subject.

## Study of Badri Man Shrestha

Badri Man shrestha performed the study in 2006 in the title of "An investment analysis of common stock with selection of an optimal portfolio " is reviewed here. "The objectives of the study are as follows:

- To evaluate investment analysis of common stock of different industries with relevant variables that help to make investment decision on common stock.
- To choose the efficient set of portfolio for selection of an optimal portfolio to obtain the maximum risk.
- To find out the correlation coefficient between the return of portfolio assets, where correlation are perfectly positive, perfectly negative and not correlated.
- To identify where price of selected companies are under priced, overpriced and equilibrium priced.
- To provide suggestions, recommendations and ideas on the basis of findings, conclusion and analysis of data. ${ }^{63}$

[^42]The research is based on recent historical data that covers the seven years period from fiscal year 1997/98 to fiscal year 2003/04. The research methodologist has been designed on the basis of secondary data by using necessary financial and statical tools and interpreting very simple. The research is made more analytical using different analytical tools. ${ }^{64}$
"Major findings of the study are as follows:

- From the analysis, beta coefficient of the stock, STCL and BBCL is less than 1 ( $1>0.1221$ and 0.0770 ), which are defensive stock but all other selected companies stock are aggressive because of their beta is more than 1 .
- Study shows that stock of STCL and BBCL are overpriced and remaining companies stocks are under priced.
- In the study, SRCL and BNCL has the negative correlation ( -0.3759 ), STCL and CIT ( -0.3137 ), STCL and NIDC $(-0$. $11243)$, BNCL and NLCL ( -0.09 ) and STCL and NIBL ( -0.2064 ) has the negative correlation.
- The market has expected return of $9.89 \%$ which is less than NIBL, SCBL, NIDC, CIT, UNCL, BNCL and HGICL but expected market return is more than STCL and BBCL. Market risk is $35.45 \%$, which is less than NIBL, NIDC, CIT, UNCL, OICL, HGICL and C.V. is $3.579 \%$ which is more than all selected companies. ${ }^{65}$
On the basis of findings, Shrestha concluded that the selection of an optimal portfolio depends on the investor's preference for risk and return and general investor are risk averse. Most of the investors, invest their fund in single securities. Some of the investors use their fund in two or more securities but they don't make any analysis of portfolio. They invest their fund in different securities on the basis of expectations and assumption of individual security rather than analysis of the effect of the portfolio. ${ }^{66}$

[^43]Lastly, Shrestha recommended the following points:

- Investors should have take the investment decision on the basis of expected rate of return and risk statistics.
- Investor's should spend the time to take the decision for purchase of stocks or sale.
- Before purchase the stock, investor should be clear about the investment period.
- For the portfolio construction, select the stocks that have negative return with negative correlated stock.
- Investors need to analyze risk and return on the basis of portfolio analysis.
- Investors should select least coefficient of variation (C.V) because of higher C.V explains, that the stock are highly volatile and thus much riskier.
- The nation should be politically stable, so that each and every sector can work a peaceful environment.
- NEPSE should be modernized to develop efficient and effective information channel and to provide up to date information. ${ }^{67}$


## Study of Pradeep Chakradhar

One of the studies entitled "An analysis of Performance Evaluation of Stock Investment in Listed Companies" conduct by Pradeep Chakradhar (2006) is related to some extend. "The study had the following objectives:

- To know the procedure of portfolio investment on common stock of listed companies.
- Selecting the 'A' graded five years average highest valued stock of different sector for portfolio investment which trades in NEPSE.
- To evaluate the performance of the different weight based portfolios and the overall market value based portfolio of using various measurement.

[^44]- Drawing conclusion and give recommendations as the study finds out. ${ }^{68}$

This research is based on recent historical data collected from NEPSE.Securities board and other sources. It deals with the common stocks of different 'A' graded 8 sectors. It covers the period of fiscal year 2057/58 to 2061/62. Descriptive and analytical research design have been followed for the study. ${ }^{69}$

The major findings of the study as follows:

- The investment in single asset is extremely volatile. Construction of portfolio can diversify such volatility to some extend.
- The stock of UNL and NFL are found to be defensive and the rest stocks of SCBL and EICL are found to be most aggressive.
- All of the securities were under priced as all the securities required rate of return are less than the expected rate of return are less than the expected rate of return.
- All the companies are correlated positively each other but not perfectly which falls under intermediate correlation of + 0.4 to +0.75 except the correlation of UML with EICL of 0.3111 . It means their portfolio combination could not eliminate the risk but minimize to the some extend. ${ }^{70}$

The researcher has concluded to the following key points from this research work.

[^45]- The EICL has the highest expected rate of return among the companies and the least return is given by UNL.
- All the companies securities are worthy for investment as they are all under priced. Regarding to their historical return relationship, The UNI and EICL have more indifference on the relationship as is 0.3111 .
- The portfolio combination of four assets has showed that the portfolio has $31.6846 \%$ returns as their market value is assumed the weight of the portfolio. Risk associated with the portfolio is to be 65.75 and coefficient of variation is 2.07533 . ${ }^{71}$

Lastly, Chakradhar recommended the following points:

- Investors are recommended to make investment after the technical analysis rather than fundamental analysis. The investment should be diversified for reduce risk. For the portfolio construction, investor should select the stocks that have higher return and negative correlation or moderate positive correlation between stocks of different companies and sectors.
- The investor should watch the companies as their plan and policies. Like wise, the investors should diagnosis the market influences and events that make changes the share price directly and indirectly.
- The study recommends that the portfolio combination of the each sector's leading companies listed in NEPSE gives optimal satisfaction that is equal to market returns in terms of return in terms of return, risk and the performance evaluation. ${ }^{72}$


### 2.3 Research Gap

After reviewing the literature, researcher is highly encouraged to conduct investors' awareness in the stock market of Nepal. Before it, no research has so far been conducted which truly reflect the provision and practice in regards to

[^46]investor's awareness in the stock market. Further, no research has tried to give sound conceptual framework of investor's protection in Nepalese Capital Market. So, this study tries to find out the different influential factors of investors decisions \& to recommended the necessary activities to be carried out to enhance the rationality of the investors by creating the awareness among them for the fair transaction of the stock and to highlight the growing importance of this particular topic for the acquisition of the required fund for different corporate sectors. This study also focuses on the impact of present existing situation faced by the general investors while making investment decisions.

## CHAPTER -III

## RESEARCH METHODOLOGY

Research Methodology is a systematic way to solve the research problem. In other words, research methodology describes the methods and process applied in the entire aspect of the study Research methodology refers to the various sequential steps (along with a rational of each steps) to be adopted by researcher in studying a problem with certain objectives in view. Thus, the overall approach to the research is presented in this chapter. This chapter consists of research design, sample size and selection process, data collection procedure and data processing techniques and tools. So, suitable research methodology according to the demand of the study is presented below.

### 3.1. Research Design

Research design is a systematic and purposeful plan of study to be carried out, during the process of research, in order to find the solution of research problem. It is the plan or schema for the collection, analysis and the interpretation of data. It helps the researcher to know what information is to be collected from which sources and by what procedures.

To achieve the objectives of the study, descriptive and analytical research design has been used. Some financial and statistical tools have been adopted to evaluate the awareness of investor's in stock market of Nepal.

This research work is done on recent available historical data from various sources covering a period of 5 years, i.e. 2003/04 to 2007/08 and includes the fiscal year data of 2002/03 as a base year. It deals with the common stocks of different companies from different sectors on the basis of available information.

### 3.2. Population and Sample

NEPSE has categorized the total listed companies into eight sectors. They are commercial banks, development banks, finance companies, hotel and others. All of these companies made the total market portfolio. The sampling data had been taken from eight companies among the total listed companies of the year 2007/8. The sample companies were taken form four sectors which had six-year data including the data of base year using a stratified random sampling method. The stratification is made on the basis of their categories. The selection of sample companies from each sector is taken disproportional according to the highest MPS. These sample companies include two commercial banks, two finance companies, two manufacturing and processing companies and two trading companies. The name list of the sample companies selected for the study is presented in the following table.

Table 3.1
Selection of samples companies from the total population of the listed companies.

| S.N | Sample Companies | Sector | No. of sample <br> companies |
| :--- | :--- | :--- | :--- |
| 1. | Standard Chart. Bank Ltd |  |  |
| 2. | NABIL Bank Ltd. | Commercial Banks | 2 |


| 3. | Annapurna Finance Co. <br> Ltd. |  |  |
| :--- | :--- | :--- | :--- |
| 4. | Nepal Share Market.\& F. <br> Co. Ltd | Financial <br> Institutional | 2 |
| 5. | Uniliver Nepal Ltd. |  |  |
| 6. | Bottlers Nepal Ltd. |  <br> Proces. company | 2 |
| 7. | Bishal Bazar Co. Ltd. |  |  |
| 8. | Salt Trading Corporation | Trading <br> Companies | 2 |

### 3.3. Source of Data

To accomplish the above-mentioned objectives, this research is based upon the secondary data for historical performance assessment and the primary data for the qualitative assessment of information. Primary data are collected by means of structured questionnaire and interview. The twenty-five individual investors from primary market and twenty five individual investors form secondary market are asked to fill up the set of questionnaires. For the purpose of questionnaire and interview, the investors are selected randomly. The secondary data are collected through various published and unpublished source. The sources of relied secondary data are:

- Various publications of the Government agencies such as national planning agency, SEBO/N, NEPSE etc and bodies relating the field.
- Books relating the subject, precious thesis and studies.
- Various journals, article website like NEPSE, Security board of Nepal etc.


### 3.4 Data Analysis Tools

In order to get the concrete results form this research, data are analyzed by using different types of tools. As per topic requirements, emphasis is given on statistical financial tools.

### 3.4.1 Market Return $\left(\mathbf{R}_{\mathrm{m}}\right)$ :

Yearly return on market is the percentage increase in the NEPSE index. In other words, yearly market return is the average return of the market as a whole. The yearly return on market is calculated as,

$$
\mathrm{R}_{\mathrm{m}}=\underline{\text { It- It- } 1} \times 100
$$

It-1
Where, It= Market Index at the end of the period
It-1=Market Index at the beginning of the period $t$

### 3.4.2 Expected Return on Market $\left(\overline{\mathbf{R}_{\mathrm{m}}}\right)$ :

Expected Return on market is the future return expected by the market. It is calculated by dividing the sum of market return of past five years by number of samples.
$\bar{R}_{\mathrm{m}}=\sum \mathrm{R}_{\mathrm{m}}$
n

Where,
$\overline{\mathrm{R}}_{\mathrm{m}}=$ Expected Return on market.
$\mathrm{n}=$ Number of years that the return is taken.
$\Sigma=$ Sign of Summation.

### 3.4.3 Yearly Return on Stock ( $\mathbf{R}_{\mathbf{j}}$ )

Yearly return on stock is also known as a single period rate of return. It is the return gained by the investors after a period or year. The single period rate of return $\left(R_{j}\right)$ is calculated by adding the change in the market price with total dividend and then dividing by market price of previous year.

$$
\mathrm{R}_{\mathrm{j}}=(\mathrm{Pt}-\mathrm{Pt}-1)+\mathrm{Dt} \quad \times 100
$$

Pt-1
Where,
$\mathrm{Rj}_{\mathrm{j}}=$ Return on stock.
$\mathrm{P}_{\mathrm{t}}=$ the ending stock price
$\mathrm{P}_{\mathrm{t}-1}=$ the starting stock price
$D_{t}=$ the cash dividend for the time' $t$ '

### 3.4.4 Expected Return on Stock $\left(\overline{\mathbf{R}}_{\mathbf{j}}\right)$

Expected return on particular stock is the future return expected by the investors of that particular stock. Expected return is obtained by dividing the sum of periodic returns of past year by the number of periods (i.e. years).

$$
\overline{\mathrm{R}}_{\mathrm{j}}=\sum \mathrm{R}_{\mathrm{j}}
$$

n
Where,
$R_{j}=$ Expected rate of return on stock $j$.

### 3.4.5 Required Rate of Return $\left(\mathbf{R}_{\mathbf{j}}\right)$ :

The required rate of return on an individual security is represented by a risk-free rate of interest plus a risk premium. Capital market theory shows the risk premium to be equal to the market premium, $E\left(R_{m}\right)-R f$, weighted by the index of the systematic risk $\left(b_{j}\right)$ of the individual security. The required rate of return is calculated to find out the status of the share of the company by comparing it with the expected rate of return of the company. The expected rate of return is the average return of the company whereas the required rate of return is calculated as:

Required rate of return $\left(\mathrm{R}_{\mathrm{j}}\right)=\mathrm{RF}+\left[\mathrm{E}\left(\mathrm{R}_{\mathrm{m}}\right)-\mathrm{RF}\right] \times \mathrm{b}_{\mathrm{j}}$

### 3.4.6 Standard Deviation ( ${ }_{6}$ )

The standard deviation of a random variable is a measure of the dispersion or spread of possible values the random variable can take on. The standard deviation is the square deviation of the variance. Standard deviation is an estimate of the likely divergence of an actual return form an expected return. It is statistical measure of the variable of a distribution of return around its mean. It is the square root of variance and measure the risk on stock investment.

Symbolically,
S.D. $=$ Standard Deviation $(\bar{\sigma})=\sqrt{ } \sqrt{\sum\left(\mathrm{R}_{\mathrm{j}}-\mathrm{R}_{\mathrm{j}}\right) 2 / \mathrm{n}-1}$

Where,

$$
\begin{aligned}
& \mathrm{R}_{\mathrm{j}}=\text { Rate of return on stock } \mathrm{j} \\
& \overline{\mathrm{R}_{\mathrm{j}}}=\text { Expected rate of return on stock } \mathrm{j} \\
& { }_{6}=\text { Standard deviation }
\end{aligned}
$$

### 3.4.7 The Coefficient of Variation (C.V.)

It is defined as the standard deviation divided by the mean of expected return. It is used to standardize the risk per unit of return i.e. measure the risk per rupee. The coefficient of variation should be used to compare investment when both the standard deviations and the expected values differ.
C.V. $=\sigma_{j} / \mathrm{R}_{\mathrm{j}} \times 100$

A project with a C.V. has less risk per rupee than a project with a high C.V.

### 3.4.8 Beta Coefficient (bj)

Beta coefficient measures the systematic risk of the stock, which cannot be diversified. Beta coefficient shows how sensitive the stock is in comparisons with market. The beta coefficient of a particular stock ranges from zero to one of the most important tools for analyzing risk and return of the stock. It is calculated for the study by dividing co-variance of the stock return with market return, by variance of the market.
$b_{j}=\operatorname{Cov}\left(R_{j} \cdot R_{m}\right) / \sigma_{m} 2$
Where,
$\operatorname{Cov}\left(\mathrm{R}_{\mathrm{j}} \mathrm{R}_{\mathrm{m}}\right)=\sum\left[\mathrm{R}_{\mathrm{j}}-\mathrm{E}\left(\mathrm{R}_{\mathrm{j}}\right)\right] \times\left[\mathrm{R}_{\mathrm{m}}-\mathrm{E}\left(\mathrm{R}_{\mathrm{m}}\right)\right] / \mathrm{n}-1$
$\sigma_{\mathrm{m} 2}=$ Variance of the market return

### 3.4.9 Correlation Coefficient ( $\mathrm{r}_{\mathrm{AB}}$ )

Two variables are said to have 'correlation' when they are so related that the change in the value of one variable is accompanied by the change in the value of the other. The measure of correlation called the 'correlation
coefficient may be positive or negative. If two variables vary in the same direction i.e. if increase (or decrease) in the value of one variable, results increase (or decrease) in the value of other variable, then the two variables are said to have positive correlation. On the other hand, two variables are said to have negative correlation if two variables move in the opposite direction.

The return of two securities, which are negatively correlated when combined in a portfolio, reduces the risk. If they correlate positively, risk cannot be reduced. Two correlation coefficient of two securities' return is obtained by dividing covariance of two returns by the product of the standard deviations of these securities. The correlation coefficient lies between -1 to +1
$r_{A B}=\operatorname{Cov}(R A * R B) / \sigma_{A} \sigma_{B}$

### 3.4.10 Co-variance

Covariance is a statistical measure of a relationship between two random variables. It measures how two random variables such as returns on securities $j$ and market return are related to each other. A positive value for covariance indicates that the securities zero value for the covariance indices that there is little or no relationship between the returns for the two securities. It is calculated as:

Covariance $\left(\mathrm{R}_{\mathrm{j}} * \mathrm{R}_{\mathrm{m}}\right)=\sum\left[\mathrm{R}_{\mathrm{j}}-\mathrm{E}\left(\mathrm{R}_{\mathrm{j}}\right)\right] \times\left[\mathrm{R}_{\mathrm{m}}-\mathrm{E}\left(\mathrm{R}_{\mathrm{m}}\right)\right] / \mathrm{n}-1$
Where,
$R_{j}=$ Returns of stock $j$
$E\left(R_{j}\right)=$ Expected return on stock $j$
$\operatorname{Cov}\left(R_{m} * R_{j}\right)=$ Covariance between stock $j$ and market
$\mathrm{n}=$ No. of observation
$\sum=$ Sign of summation.

### 3.4.11 Multiple Regression Equation Using Deviation from Actual Mean

This method is more appropriate when the arithmetic means of all the variables are not on fraction i.e. they are all in or arithmetic means are taken.

Thus the multiple regression equation of $X_{1}$ on $X_{2}$ and $X_{3}$ is given by
$\mathrm{X}_{1}=\mathrm{b}_{1} \mathrm{x}_{2}+\mathrm{b}_{2} \mathrm{x}_{3}$
$\mathrm{X}_{1}=\mathrm{X}_{1}-\mathrm{X}_{1}, \quad \mathrm{X}_{2}=\mathrm{X}_{2}-\overline{\mathrm{X}_{2}}, \quad \mathrm{X}_{3}=\mathrm{X}_{3}-\mathrm{X}_{3}$,
The values of regression parameters b1 and b2 are determined by solving following two normal equations.

$$
\begin{align*}
& \Sigma \mathrm{X}_{1} \mathrm{X}_{2}=\mathrm{b}_{1} \Sigma \mathrm{X}_{2}^{2}+\mathrm{b}_{2} \sum \mathrm{X}_{2} \mathrm{X}_{3} .  \tag{ii}\\
& \Sigma \mathrm{X}_{1} \mathrm{X}_{3}=\mathrm{b}_{1} \Sigma \mathrm{X}_{2} \mathrm{X}_{3}+\mathrm{b}_{2} \Sigma \mathrm{X}_{3}^{2} \tag{iii}
\end{align*}
$$

Now, substituting the values of $b_{1}$ and $b_{2}$ in equation (i) we get the required multiple regression equation of $X_{1}$ on $X_{2}$ and $X_{3}$.

### 3.4.12 Weight of Risk Minimizing Portfolio

If the two assets negatively correlated and if they are combined in a portfolio, they can reduce risk. The weight for the stock for making portfolio is obtained as,
$\mathrm{W}_{\mathrm{A}}=$ бАВ-rАВ.бА.бВ / б2B.-2rАВ.бАбВ
Where,

```
WA = Weight for stock A
WB}=1-W
WB = weight for stock B
r AB = Correlation between securities A and B
```


### 3.4.13 Portfolio Return (Rp)

The portfolio return is the weight average of the returns of the securities considered for making a portfolio. For two assets A and B , the portfolio return will be their weighted average.
$\mathrm{Rp}=\mathrm{WA} \cdot \overline{\mathrm{RA}}+\mathrm{WB} \cdot \overline{\mathrm{RB}}$

### 3.4.14 Portfolio Standard Deviation

When two negative correlated assets combined in a portfolio, the total risk of an asset i.e. standard deviation can be reduced. Hence portfolio standard deviation is the reduce risk of the assets to be combined.

$$
\mathrm{p}=\sqrt{\mathrm{WA} 2 .} \mathrm{B} 2+\mathrm{WB} 2 . \mathrm{B} 2+2 \mathrm{WA} . \mathrm{WB} . \mathrm{A} . \mathrm{B} \cdot \mathrm{rAB}
$$

## CHAPTER-IV

## DATA PRESENTATION AND ANALYSIS

This chapter is the main body of the study. Detailed data collected from both primary and secondary sources are presented and analyzed. On the background of literature review and research methodology as outlined in the presiding chapter, it is tried to analyze and diagnose the movement of investment of returns and price of stocks and investors' responses regarding various aspect of investment are analyzed to judge their awareness and than the secondary data analyzed to examine the risk and return on common stock of selected companies.

### 4.1 Presentation and analysis of investors' views

The primary data needed for the study is collected through the structured questionnaire. As the objective of this analysis is to know the view and awareness of investors towards risk, return and different aspect of capital market, the needed data are collected from the investors of Nepalese capital market. The structured questionnaires were distributed to fifty investors of both primary and secondary market. Among fifty, twenty-five sample investors were taken from the primary market. They were the general investors chosen randomly from the queue while submitting application on initial public offering of Pashupati development bank Ltd. and rest twenty-five sample investors were the professional investors of secondary market. The presentation and analysis of primary data collected through the questionnaire are presented below.

### 4.1.1 Investors Objectives on Stock Investment

It is found that most of the investors want to invest in shares of companies basically for price appreciation. From their response shown in the following table, it is found that about $60 \%$ of investors invest on stock for price appreciation, $28 \%$ investors invest on earning dividend and $8 \%$ investors invest for social status while making investment and $4 \%$ wants to invest in other.

Table No. 4.1
Response about investors' objective on stock investment

| Option | Response | No. of investors | Percentage (\%) |
| :--- | :--- | :--- | :--- |
| A | For dividend | 14 | 28 |
| B | For price <br> appreciation | 30 | 60 |
| C | For social status | 4 | 8 |
| D | Others | 2 | 4 |


|  | Total | 50 | 100 |
| :--- | :--- | :--- | :--- |

### 4.1.2 The Sector Wise Preference of Investors

From question that which sector they give preference for investors, it is found that they are more interested to invest in baking sector. From the response shown in the table 4.2, 36 percent investors invest in commercial banks and 18 percent investors gave second priority in development banks. They are found less interested to make investment on finance and insurance companies, manufacturing and trading companies, hotels and other sectors.

Table No 4.2

## Response about the sectorial Preference of Investors

| Options | Response | No. of Investors | Percentage (\%) |
| :--- | :--- | :--- | :--- |
| A | Commercial Banks | 18 | 36 |
| B | Development Banks | 9 | 18 |
| C | Financial Company | 6 | 12 |
| D | Insurance Comp. | 5 | 10 |
| E | Manufacturing | 3 | 6 |


| F | Trading company | 2 | 4 |
| :--- | :--- | :--- | :--- |
| G | Hotel | 1 | 2 |
| H | Hydropower | 4 | 8 |
| I | Others | 2 | 4 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.3 The Investors about Factors Affecting the Stock Return

The investors were asked to rank the factors that affect the return on stock most. From their response shown in the table 4.3, 42 percent think EPS as an important factors that affect stock return, 28 percent think the return of stock is also affected by MPS, 20 percent think Net worth as a third important factor and 10 percent think company goodwill as a last one that affect their stock return.

Table No. 4.3
Response about Factors Affecting Stock Return

| Options | Response | No. of Investor | Percentage |
| :--- | :--- | :--- | :--- |
| A | EPS | 21 | 42 |
| B | MPS | 14 | 28 |
| C | Net worth | 10 | 20 |
| D | Company goodwill | 5 | 10 |


|  | Total | 50 | 100 |
| :--- | :--- | :--- | :--- |

### 4.1.4 Investors' Preference in Different Area of Investment

The investors were asked that which area they think more attractive. From their response shown in the table 4.4, it is found that most of the investors prefer to invest on securities. They give second priority on real estate. Fixed deposit are the third priorities alternative of investment and the commodity, treasure bill and gold are the least prioritized alternative of investment as they give fourth, fifth and sixth rank respectively.

Table No. 4.4
Response about the Preference in Different Area of Investment

| Options | Response | No. of Investors | Percentage |
| :--- | :--- | :--- | :--- |
| A | Portfolio | 15 | 30 |
| B | Real Estate | 14 | 28 |
| C | Gold | 2 | 4 |
| D | Treasury bill | 4 | 8 |
| E | Bank fixed deposit | 10 | 20 |
| F | Commodity | 5 | 10 |


|  | Total | 50 | 100 |
| :--- | :--- | :--- | :--- |

### 4.1.5 The Nature of Risk in Stock Investment

The investors' awareness about the nature of risk in stock investment is also analyzed by asking about the nature of risk on stock investment. From their response shown in the following table, it is found that about 36 percent of investors think the nature of risk as a manageable factor, 32 percent investors think it as an unknown factor, 28 percent think it is predictable and rest 4 percent think the risk factor as a known factor.

Table No 4.5
Investors' Thinking about the Nature of Risk on Stock Investment

| Options | Response | No. of investors | Percentage (\%) |
| :--- | :--- | :--- | :--- |
| A | Predictable | 14 | 28 |
| B | Manageable | 18 | 36 |
| C | Known | 2 | 4 |
| D | Unknown | 16 | 32 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.6 The Risk Aversion Nature of Investors

From the question, to know if they are risk averter or risk seeker, it is found that most of the investors want to invest in moderate risk with moderate return. The portion of risk averter investors are 48 percent, where as 36 percent investors are found risk seeker. They want to invest on such assets of high return with high return 10 percent investors and 3 percent reject any level of risk. They want to invest such asset which has low risk with low return.

Table No. 4.6
Investor's Risk Aversion

| Options | Response | No. <br> Investors | of |
| :--- | :--- | :--- | :--- |
| A | High return with high risk | 18 | 36 |
| B with | 24 | 48 |  |
| C | Moderate return <br> moderate risk | Low return with low risk | 5 |
| (\%) |  |  |  |
|  | Other | 3 | 10 |
|  | Total | $\mathbf{5 0}$ | 6 |

### 4.1.7 Consultation Habit of Investor's before Investing in Shares

It is also tired out to know, how far investors consult others before investing in shares. Form the data collected shown in the following table 4.7, Its is found that most of the investors consult their friends i.e. 40 percent, 24 percent investors consult with stock brokers where as 16 percent investors make their decision with consulting their relatives and only 14 percent investors consult professional services is not expanded to that extent to investor's excess and 6 percent from others media.

Table No. 4.7

## Investor's Consultation Habit

| Options | Response | No. of Investors | Percentage |
| :--- | :--- | :--- | :--- |
| A | Stock Broker | 12 | 24 |
| B | Professionals | 7 | 14 |
| C | Friends | 20 | 40 |
| D | Relatives | 8 | 16 |
| E | Others | 3 | 6 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.8 Factor's Given Priority for Measuring Company's Performance

The investors were asked to rank the given alternatives as their preferred performance measure. From their response shown in table 4.8, most of the investors perceived on issue of bonus and right share (44\%) as an indicator for measuring company's performance. They gave second priority on declaration of dividend ( $30 \%$ ), third priority on timely AGM ( $12 \%$ ) Interaction of company is ( $10 \%$ ) and last priority on systematic flows of information (4\%). Declaration of dividend is a
second preferred indicator of measuring company's performance than that of timely AGM and systematic flows of information.

Table No. 4.8

## Response about Preferred Factor for Measuring Company's Performance

| Options | Response | No. of Investors | Percentage |
| :--- | :--- | :--- | :--- |
| A | Timely AGM | 6 | 12 |
| B | Declaration of dividend | 15 | 30 |
| C | Issue of Bonus and <br> Right share | 22 | 44 |
| D flow of | 2 | 4 |  |
| E | Systematic <br> information | Interaction of company | 5 |
|  | Total | $\mathbf{5 0}$ | 10 |

### 4.1.9 Option about the Main Cause of over Subscription in Initial Offering in Nepal

The respondents were asked that the main cause of over subscription in initial offering in Nepal. From data collected. presented in the following table 4.9 , it is found that $38 \%$ investors says that rise in market price, $24 \%$ investors says that
there is lack of investment opportunities, $20 \%$ says there is low bank interest rate and $14 \%$ says there is high dividend distribution and others were 4 percent investor.

Table No. 4.9
Investor's options about the main cause of over subscription in Initial offering

| Options | Response | No. of Investors | Percentage |
| :--- | :--- | :--- | :--- |
| A | Lack of Investment <br> opportunities | 12 | 24 |
| B | High dividend distribution | 7 | 14 |
| C | Low bank interest rate | 10 | 20 |
| D | Rise in market price | 19 | 38 |
| E | Others | 2 | 4 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.10 Opinion about Existing Rules and Regulation

Investors were asked for their opinion about existing rules and regulations of stock market in Nepal. From their response shown in the following table 4.10 , it is found that most of the investors (i.e. $30 \%$ ) think that the existing rules and regulations are unpractical, $22 \%$ investors believe as adequate and only 20 percent investors think the current rules and regulations are relative. 18 percent thinks it is inadequate and 10 percent others means of existing rules and regulation of stock market. From the views of investors, it can be conclude that the present rules and regulations are not satisfying investors.

Table No. 4.10

## Investor's opinion on Existing rules and regulations

| Options | Response | No. of investor | $\%$ |
| :--- | :--- | :--- | :--- |
| A | Adequate | 11 | 22 |
| B | Inadequate | 9 | 18 |
| C | Relevant | 10 | 20 |
| D | Unpractical | 15 | 30 |
| E | Others | 5 | 10 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.11 Management Attitudes towards Public Shareholders

From the question that what do investors feel about management attitudes towards public shareholders. Their response has been shown in the following table. From the investor's response, it is found that most of the investor's (i.e. $38 \%$ ) says that responsiveness of top 16,14 percent says it is positive management, 10 percent says about others. It is thus concluded that investors are not fairly treated by management.

Table No. 4.11

## Investor's Perception on Management Attitudes

| Options | Response | No. of investors | $\%$ |
| :--- | :--- | :--- | :--- |
| A | Positive | 7 | 14 |
| B | Satisfactory | 11 | 22 |
| C | Responsiveness of <br> top management | 19 | 38 |
| D | Inadequate | 8 | 16 |
| E | Others | 5 | 10 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.12 Driving Factors for Investment in Initial Public Offering

The investors were asked to rank the factors that drive them to the market at the time of initial public offering. From their response shown in the following table, it is found that $(34 \%)$ is a most important driving factor that drives them to the market at the time of initial public offering. They think founder and management of the company ( $22 \%$ ) as second important factors, satisfactory return ( $18 \%$ ) of the company share and $(16 \%)$ are drive for director nominee and 10 percent for ownership benefits.

Table No. 4.12

## Response about Driving Factors for Investors to Primary Market

| Options | Response | No. of Investors | Percentage |
| :--- | :--- | :--- | :--- |


| A | Satisfactory return | 9 | 18 |
| :--- | :--- | :--- | :--- |
| B | Ownership benefits | 5 | 10 |
| C | Choice of sector <br> Bank, finance, <br> hydropower) <br> F and | 11 | 34 |
| D | Founder <br> Management | 11 | 22 |
| E | Director nominee | 8 | 16 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.13 Investors' Reaction on Increasing Trend of Market Price Per Share.

Investors were asked for their response on increasing market price per share. Their response is shown in the following table 4.13. Most of the investor's want to sell their shares (i.e. 52 percent) while 32 percent investor's don't trade at the time of increasing MPS and only 16 percent investors are found who purchase shares at the time of increasing MPS. Thus, it is quite clear that investor's are found fear on price fall and thus they want to sell their shares on such a situation.

Table No. 4.13

## Investor's Reaction on Increasing Trend of MPS

| Options | Response | No. of Investors | Percentage |
| :--- | :--- | :--- | :--- |
| a | Buy | 8 | 16 |
| b | Sell | 26 | 52 |


| c | Don't trade | 16 | 32 |
| :--- | :--- | :--- | :--- |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.14 Investor's Reaction on Decreasing Trend of Market Price per Share.

Investors were also asked for their response on decreasing market price per share. Thus response is shown in the following table. If there will be decreasing trend of market price, most of the investors i.e. 32 percent investor sell the security, 24 percent invest in security, 18 percent buy the security, 16 percent hold the security and 10 percent realized capita gain. Due to the lack of adequate knowledge of trading from secondary market, most of the investors go through selling their shares so that they don't bear additional loss from falling price.

Table No. 4.14

## Investor's Reaction on Decreasing Trend of MPS

| Options | Response | No. of Investor | Percentage (\%) |
| :--- | :--- | :--- | :--- |
| a | Invest in Securities | 12 | 24 |
| b | Sell the Securities | 16 | 32 |
| c | Buy the Securities | 9 | 18 |


| d | Hold the Securities | 8 | 16 |
| :--- | :--- | :--- | :--- |
| e | Realized capital gain | 5 | 10 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.15 Investor's Participation Pattern in Annual General Meeting

What is the question that how far investors participated on company's annual general meeting the summarized from of response collected from investor's has been shown in the following table. From the following table 4.15, it is found that most of the investor's (i.e. $46 \%$ ) participated in AGM each year, 30 percent investors participate indirectly by proxy to others and rest 8 percent investor's have no interest to participate in AGM. Investors are not found serious to use AGM as democratic platform of investor's protection. As only 46 percent investor's are found regular participants.

Table No. 4.15

## Investor's Participation Pattern on AGM

| Options | Response | No. of Investors | Percentage |
| :--- | :--- | :--- | :--- |
| a | Regular | 23 | 46 |
| b | Sometimes | 15 | 30 |
| c | By Proxy | 8 | 16 |
| d | No Participation | 4 | 8 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.16 Suggestions for Protection of Public Interest

Investors were asked to suggest for ranking the ways for improvement to be done to public interest in stock market. From their response shown in table 4.16, they show more representation of public on board of director's is quite necessary to protect the interest of public on board ( 38 percent). They have given next more weight on regular flows of information (i.e. 30 percent) is to be managed by the company management. Investor's awareness program (i.e. 18 percent) by the government authorities has given and priority and they feel increase shareholders activism (i.e. 14 percent) is less effective to protect their interest on stock market. From their response in the given question, it is conclude that they search easy way to be secured firm fluctuations of stock market to their to be more rational investor's as they give less weight to the awareness program and their activism.

Table No. 4.16

## Investor's Opinion to Protect the Interest on Public Shareholders

| Options | Response | No. of <br> Investors | Percentage <br> (\%) |
| :--- | :--- | :--- | :--- |
| a | More representation of Public in <br> Board of Directors | 19 | 38 |
| b | Regular flows of information <br> through different Media | 15 | 30 |


| C | Public awareness program by <br> government authorities | 9 | 18 |
| :--- | :--- | :--- | :--- |
| d | Increased shareholders <br> activism on their rights. | 7 | 14 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.17 Investor's Response on VIP Shareholder Association

Investor were asked about the VIP shareholder association, what they thinks are presented from their respond shows in table 4.17 i.e. 50 percent thinks that it is of personal benefit, 24 percent thanks that is for investors benefit, 16 percent thinks that it is for public welfare and 10 percent are of other.

Table No. 4.17

## Investor's R esponse on VIP Shareholders A ssociation

| Options | Response | No. of Investors | Percentage (\%) |
| :--- | :--- | :--- | :--- |
| a | Investor benefit | 12 | 24 |
| b | Public welfare | 8 | 16 |
| c | Personal benefit | 25 | 50 |
| d | Others | 5 | 10 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.18 Factor's Affect for Investors to Investment in Securities

Investors were asked for ranking what affect for investors to investment in securities, their ranks are as shown in table 4.18 i.e. 46 percent rank about legal restriction, 24 percent rank for political indifference, 14 percent rank for strikes, 10 percent rank for road blockage and 6 percent for others. From this it is concluded that investor are in high risk for investment in securities.

Table No. 4.18
Investor's R esponse on Factor Affect for Investment in Securities

| Options | Response | No. of Investors | Percentage (\%) |
| :--- | :--- | :--- | :--- |
| a | Political indifference | 12 | 24 |
| b | Strikes | 7 | 14 |
| c | Road blockage | 5 | 10 |
| d | Legal restriction | 23 | 46 |
| e | Others | 3 | 6 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.19 Role of Investor's Association about Investor's A wareness

Investors were rank about the role of investor's association about investor's awareness than they rank as shown in table no. 4.19 i.e. 32 percent about passive environment, 26 percent about provides systematic flow of information, 19 percent about raising the voice of investors benefits 16 percent about events organized and 8 percent for others.

Table No. 4.19
Investor's R esponse on R ole of Investor's A ssociation about Investor's A wareness

| Options | Response | No. of Investors | Percentage (\%) |
| :--- | :--- | :--- | :--- |
| a | Provides systematic flow of <br> information | 13 | 26 |
| b | Events organized like <br> (Seminar, training, <br> Meeting) | 8 | 16 |
| c | Passive environment | 16 | 32 |
| d | Raising the voice for <br> investor benefit | 9 | 18 |
| e | Others | 4 | 8 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.1.20 Role of Broker Association or Broker House

Investor were asked about the role of broker association their ranking are as shown in table no. 4.20 i.e. 42 percent rank for inadequate, 30 percent for adequate, 20 percent for satisfactory, 8 percent for others. It is conclude that 42 percent investor thinks about the broker association or broker house is inadequate.

Table No. 4.20
Role of Broker Association

| Options | Response | No. of Investors | Percentage (\%) |
| :--- | :--- | :--- | :--- |
| a | Adequate | 15 | 30 |
| b | Satisfactory | 10 | 20 |
| c | Inadequate | 21 | 42 |
| d | Others | 4 | 8 |
|  | Total | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

### 4.2 Presentation and Analysis of Secondary Data

The secondary data collected form secondary sources like publication of NEPSE, annual report of SEBO/N and other related sources are presented and their interpretation and analysis carried out in this section. The secondary data includes market capitalization, market share, share transaction (turnover) of each sectors and MPS and dividend paid on selected securities for various year and NEPSE index of the respective years. Here closing market price and closing NEPSE index into consideration. Appropriate Figures and tables are presented to make the analysis more simple and understandable.

### 4.2.1 Inter-Sector Comparison

### 4.2.1.1 Size of Sector Regarding Market Capitalization

Market capitalization is the total market value at specific time period of the company, sector and market as a whole. Below is presented annual sector-wise market capitalization for five years. Commercial sector is in first place regarding market capitalization for all years. Its market capitalization has started form Rs. 27147.42 million in the fiscal year 2003/04 and has increased to its peak level to Rs. 218264.19 million in the fiscal year 2007/08. Development sector market capitalization started form Rs. 796.85 million in the fiscal year 2003/04 and ended in Rs. 15619.36 million in the fiscal year 2007/08. Market capitalization of financial, trading and other * sector has continuously increased for five years. The table shows that
manufacturing and processing sector starting market capitalization is Rs. 4644.59 million and its highest market capitalization of Rs. 6576.18 million in the fiscal year 2007/08. Size of hotel sector was in decreasing trend till 2005/06 but after that it has slightly increased. Similarly, insurance sector's market capitalization was in increasing trend till the fiscal year 2005/06 and decrease in Rs. 3059.80 in fiscal year 2006/07 and now it reached to Rs. 10897.16 million.

Table No. 4.21
Annual Sector wise Market Capitalization

| Yrs. <br> Sectors | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Commercial | 27,147.42 | 40,119.88 | 68,694.35 | 1,35,588.40 | 2,18,264.19 |
| Development | 796.85 | 1,050.07 | 1,577.45 | 6,010.60 | 15,619.36 |
| Finance | 2,911.75 | 3,666.13 | 5,000.04 | 9,889.30 | 27,113.59 |
|  <br> Proc | 4,664.59 | 5,0024.83 | 5,472.117 | 6,200.00 | 6,576.18 |
| Trading | 490.37 | 635.88 | 764.44 | 796.40 | 686.73 |
| Hotel | 2,391.39 | 2,308.38 | 2,344.21 | 3,261.10 | 3,484.13 |
| Insurance | 2,549.30 | 3,966.10 | 4,952.19 | 3,059.80 | 10,897.16 |
| Others* | 493.09 | 4,594.62 | 8,008.94 | 16,495.70 | 26,128.90 |


| Total | $41,424.76$ | $61,365.89$ | $96,913.74$ | $181,301.30$ | $308,770.30$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

Figure No. 4.1
Annual Sector-wise Movement of Market Capitalization


In the Figure 4.1 above, the annual sector size as per their market capitalization is represented. The commercial sector has leaded all other sector as per the Figure. Finance companie in second position. Other sectors expect commercial bank has comparatively started with below Rs 50000 million and ended no not more than 200000 million.

### 4.2.1.2 Size of Sector Regarding Market Share

Below is presented annual sector wise market share for five years in table No. 4.22. Commercial sector is in front of all sectors for all years in comparison to market share. Its market share has started form 65.54 percent in the end of fiscal year

2003/04 and has increased to its peak level to 70.70 percent in the year 2007/08. Development sector has 1.92 percent of market share in 2003/04 and has decreased for three years and then increased up to 5.10 in fiscal year 2007/08. Market share of financial sector has decreased till 2005/06 and increased up to 8.80 percent. Manufacturing and processing trading and hotel sector has decreasing trend of market share. Similarly insurance sector has fluctuating trend of market share. Others* sector has lowest market share in comparison to others sector in the fiscal year 2003/04 and now it is 8.5 percent in fiscal year 2007/08.

Table No. 4.22
Annual Sector Wise Market Share
(in percentage)

| F/Y |  | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Sectors |  |  | $\mathbf{2 0 0 7 / 0 8}$ |  |  |
| Commercial | 65.54 | 65.38 | 70.96 | 74.78 | 70.70 |
| Development | 1.92 | 1.71 | 1.63 | 3.32 | 5.10 |
| Finance | 7.03 | 5.97 | 5.16 | 5.45 | 8.80 |
| Manu. <br> Proc | 11.21 | 8.19 | 5.65 | 3.42 | 2.10 |
| Trading | 1.18 | 1.04 | 0.79 | 0.44 | 0.20 |
| Hotel | 5.77 | 3.76 | 2.42 | 1.80 | 1.10 |
| Insurance | 6.16 | 6.46 | 5.12 | 1.69 | 3.50 |
| Others* | 1.19 | 7.49 | 8.27 | $\mathbf{9 . 1 0}$ | 8.50 |
| Total | $\mathbf{1 0 0}$ | $\mathbf{1 0 0}$ | $\mathbf{1 0 0}$ | $\mathbf{1 0 0}$ | $\mathbf{1 0 0}$ |

Figure No. 4.2
Annual Sector-wise Movement of Market Share


In Figure no. 4.2 above, has presented for showing movement of market share of all sectors for the year 2003/04 to 2007/07. The Figure clearly indicates the commercial banks are in the top position comparing to other sectors. Size of development sector was in decreasing trend up to fiscal year 2003/04 to 2005/06 after than it is in increasing trend and reaches 5.10 percent in fiscal year 2007/08. Finance companies are in third position. Insurance companies, Manufacturing and processing
companies and hotel are in respectively 3.50 percent, 2.10 percent and 1.10 percent in fiscal year 2007/08. Trading sector has lowest percent obtained in fiscal year 2007/08.

### 4.2.1.3 Size of Sector Regarding Share Transaction (Turnover)

Table no 4.23 below is presented to show the share transaction of each sector form the fiscal year 2003/04 to 2007/08. The size of each sector is compared as per their share transaction in million. By observing the table, commercial sector seems leading sector regarding all other sector. Its share transaction has started for 863.41 at the beginning of the fiscal year 2003/04 and increase in peak level of Rs. 13822.14 million in the year 2007/08. Development sectors' share transaction was low for four years but rapidly increased in the end o fiscal year 2007/08. Share transaction of financial and others * sector has continuously increased. Share transaction of manufacturing and processing sector was in increasing trend and it reaches Rs. 343.44 million in the end of fiscal year 2007/08. Hotel sector's share transaction has fluctuating trend. Size of insurance sector was in decreasing trend in 2003/04 but after that it has continuously increased and it reaches Rs. 264.86 million in the end of fiscal year 2007/08.

Table No. 4.23
Annual Sector wise Share Transaction

| Yectors | $2003 / 04$ | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Commercial | 863.41 | 4021.83 | 2696.28 | 5855.77 | 13822.14 |
| Development | 32.33 | 22.01 | 82.76 | 355.73 | 1981.05 |


| Finance | 165.09 | 216.37 | 305.85 | 624.64 | 2307.53 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Manu. <br> Proc | 1031.62 | 114.90 | 17.19 | 24.12 | 343.44 |
| Trading | 11.82 | 7.99 | 15.80 | 10.42 | 33.65 |
| Hotel | 2.84 | 4.48 | 19.77 | 7.07 | 27.67 |
| Insurance | 36.86 | 67.62 | 129.90 | 204.97 | 264.86 |
| Others* | 0.29 | 52.48 | 183.88 | 1259.40 | 3206.30 |
| Total | 2144.27 | 4507.68 | 3451.43 | 8342.10 | 21986.70 |

Figure No. 4.3
Annual Sector-wise Movement of Market Share


### 4.2.2 Inter Security Comparison

In this section, the comparison between different securities taken as a sample for this study is compared. The comparison is made in terms of average return, standard deviation and coefficient of variation.

Table No. 4.24
Average Returns, Standard Deviation and Coefficient of Variation of Selected Companies.

| Sectors | Securities | Average <br> Return | Standard <br> Deviation | Coefficient <br> of Variations |
| :--- | :--- | :--- | :--- | :--- |
| Commercial | Standard Charter Bank <br> Ltd. | 39.81 | 24.12 | 0.6057 |
|  | Nabil Bank Ltd. | 59.00 | 45.46 | 0.7705 |
|  | Nepal Share Maket \& F. <br> Co. Ltd | 130.15 | 193.28 | 1.4851 |
|  | Annapurna Finance Co. <br> Ltd. | 70.58 | 70.98 | 1.0056 |
| Manufacturing <br>  <br> Processing | Uniliver Nepal Ltd. | 40.38 | 21.34 | 0.5286 |
| Trading | Bottlers Nepal Ltd. | 2.542 | 44.186 | 17.38 |
|  | Bishal Bazar Co. Ltd | 13.70 | 23.45 | 1.7119 |
|  | Salt trading Corporation | 7.106 | 3.182 | 0.4478 |
|  | Market as a Whole | $\mathbf{3 8 . 0 2 2}$ | $\mathbf{2 4 . 8 9}$ | $\mathbf{0 . 6 5 4 7}$ |

The average return of standard chartered bank ltd is 39.81 percent; the total risk i.e. standard deviation associated with 39.81 percent return of SCBL is 24.12 percent. The average return of SCBL stock is significantly higher than the market
return. i. e. 38.02 percent. Standard deviation of SCBL stock i.e. 24.12 percent is lower than that of market standard deviation of SCBL stock i.e. 24.89 percent. The C.V. of SCBL stock is 0.6057 which is lower than market C.V. i. e 0.6547.

The average return of NABIL stock is 59.00 percent which is also higher than the market return and is also more than the return of SCBL. In terms of standard deviation, it is also higher than that of SCBL i. e. $45.46>24.12$ percent. SCBL stock is less risky than NABIL stock in the case of standard deviation. C.V. of NABIL is higher than that of C.V. of SCBL. The investor should bear low risk for additional one unit return in SCBL than NABIL stock.

The average return form financial sector is seen as an attractive. The average return of Nepal Share Market and Finance Company Ltd. (Nepal S.M. \& F. Co. Ltd) is 130.15 percent. The total risk i.e. standard deviation associated with 130.15 percent of Nepal S.M \& F. Co Ltd. is 193.28. The average return of Nepal S.M \& F. Co Ltd is significantly higher than the market return i.e. 38.02 percent. Standard deviation of Nepal S.M \& F. Co Ltd stock i.e. 193 percent is also higher than that of market standard deviation i.e. 24.89 percent. The C.V. of Nepal S.M \& F. Co. Ltd stock is 1.4851 which is higher than market C.V. i.e. 0.6547 .

The average return of Nepal S.M \& F.Co Ltd is 130.15 percent while of Annapurna Finance Co. Ltd. is 70.58 percent which is lower than Nepal S.M \& F.Co Ltd. The average returns on both stocks are higher than the market return. The standard deviation of AFCL is 70.98 percent is significantly lower than that of NSMFCL i.e. 193.28 percent. Thus the stock of NSMFCL is very risky in comparison to AFCL. The C.V. of Annapurna Finance Co. Ltd. is 1.0056 which is higher than the market return of C.V. i.e. 0.6547 . Thus very risky stock can be regarded s NSMFCL and less risky stock as AFCL.

The sample taken form manufacturing and processing sector i.e.Uniliver Nepal Ltd. and Bottlers Nepal Ltd. The average return of Uniliver Nepal Ltd. i.e. 40.38 percent which is higher than average return of market i.e. 38.022 percent.The average return of Bottlers Nepal Ltd. is 2.542 percent which is less than market return i.e. $38.022<2.542$. The standard
deviation of Uniliver is 21.34 percent which is lower than market standard deviation i.e. 24.89 percent and risk is higher than in Bottlers Nepal Ltd. Bottlers Nepal Ltd has standard deviation i.e. 44.186 percent which is higher than market standard deviation i.e. 24.89 percent. The C.V. of Bottlers Nepal Ltd is 17.38 percent which is higher than market C.V. i.e. 0.6547 and higher than all the securities.

The Sample taken form trading sector i.e. Bishal Bazar Co. Ltd and Salt Trading Corporation has average return of 13.70 and 7.106 percent which is lower than market average return i.e. 38.022 percent. Standard deviation of both company are 23.45 and 3.182 percent which are also lower than market standard deviation. The C.V. of both stock are 1.7119 and 0.4478 percent. The C.V. of Bishal Bazar Co. Ltd. is higher than market C.V. and Salt trading corporation has lower C.V. 0.4478 than market C.V. of 0.6547.

### 4.2.3 Analysis of Market as a Whole.

The analysis of market as a whole is done by calculating the average return and standard deviation of market as a whole. The NEPSE indexes for the six year from fiscal year 2002/03 to fiscal year 2007/08 are taken for the calculation of average return on market. The market return, market standard deviation and coefficient of variation are calculated and shown in the table below. Market return movement and NEPSE index movement are shown in the Figure 4.4 and 4.5 .

Table No. 4.25
Closing Market Index (It), Yearly Return on Market ( $\mathbf{R}_{\mathrm{m}}$ ),
Average Return of Market ( $\mathbf{R}_{\mathrm{m}}$ ) and M arket Standard Deviation ( $\mathbf{\sigma}_{\mathrm{m}}$ )

| Fiscal Year | Closing <br> NEPSE | Change <br> in | Yearly <br> Market | $\left(\mathbf{R}_{m}-\mathbf{R}_{m}\right)$ | $\left(\mathbf{R}_{m}-\mathbf{R}_{m}\right)^{\mathbf{2}}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |


|  | Index ( $\mathbf{I t}$ ) | Index | Retrun (R $\mathbf{m})$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2002 / 03$ | 204.86 | - | - | - | - |
| $2003 / 04$ | 222.04 | 17.18 | 0.0839 | -0.29632 | 0.08780 |
| $2004 / 05$ | 286.67 | 64.63 | 0.2911 | -0.08912 | 0.00794 |
| $2005 / 06$ | 386.83 | 100.16 | 0.3494 | -0.03082 | 0.00949 |
| $2006 / 07$ | 653.95 | 297.12 | 0.7681 | 0.38788 | 0.1504 |
| $2007 / 08$ | 963.36 | 279.41 | 0.4086 | 0.02838 | 0.00081 |
|  |  |  | $\sum \mathbf{R}_{\mathbf{m}}=\mathbf{1 . 9 0 1 1}$ |  | $\boldsymbol{\sum}(\mathbf{R m} \mathbf{- R m})^{\mathbf{2}}=$ <br> $\mathbf{0 . 2 4 8 0}$ |

Average return on market $\left(\overline{R_{m}}\right)=\sum R m$
n
$=1.9011$

$$
\begin{aligned}
& 5 \\
= & 0.38022 \text { i.e. } 38.022 \%
\end{aligned}
$$

Market Standard Deviation $(б \mathrm{~m})=\sqrt{ } \overline{\sum(\mathrm{Rm}-\mathrm{R} \overline{\mathrm{m}})^{2} / \mathrm{n}-1}$

$$
=\sqrt{0.2480 / 4}
$$

$$
=\sqrt{ } 0.062
$$

$$
=0.2489
$$

Coefficient of Variation (C.V.) $=\left(\delta_{m}\right) / \overline{R_{m}}$

$$
=0.2489 / 0.38022
$$

$$
=0.6547 \text { i.e. } 65.47
$$

Figure No. 4.4
Trend of Market Return


Figure No. 4.5

## Level of Closing NEPSE Index



The trend of the market return from fiscal year 2003/04 to fiscal year 2007/08 is in increasing trends. In the fiscal year 2003/04 the market return is 8.39 percent. From the fiscal year 2004/05 to 2007/08 are 29.11 percent, 34.94 percent, 76.81 percent, 40.86 percent respectively. The average return from the fiscal year 2002/03 to $2007 / 08$ is 38.022 percent. The standard deviation is found 24.89 percent of market return and Coefficient of Variation is found to be 65.47 percent. By relating the market return with the market standard deviation, market C.V. i.e. risks per unit of return is calculated as 0.6547. Hence, in the market as a whole, for 100 percent return, the risk shall be more than 0.6547 i.e. 65.47 percent.

### 4.2.4 Analysis of Sensitivity of Securities

The tendency of stock to move with the market is reflected in its beta coefficient; which is a measure of the stock volatility relative to that of average stock. Hence market sensitivity of a stock is determined in terms of its beta coefficient. Beta coefficient is an index of systematic risk, which cannot be controlled. The beta of market is always 1 . If beta of any stock move more than 1 , is known as more risky or aggressive stock and less than 1 is known as less risky or defensive or if beta is higher, the stock will be more volatile and vice versa.

The beta coefficient of sample securities are presented below and its calculation is shown in appendix-2 (a-h)
Table No. 4.26

## Beta Coefficient (bj) of Individual Securities

| S/N | Sample Securities | Beta Coefficient (bj) | Remarks |
| :--- | :--- | :--- | :--- |
| 1. | SCBL | 0.567 |  |
| 2. | NBL | 1.26 |  |
| 3. | NSMFL | 2.63 | Most Aggressive |
| 4. | AFCL | 0.338 |  |
| 5. | UNL | 0.391 |  |
| 6. | BNL | 0.037 |  |
| 7. | BBCL | 0.1991 | Less Aggressive |
| 8. | STC | -0.1175 |  |

The range of beta coefficient of the sample securities is 0.037 to 2.63 . The beta coefficient of BNL is found to be minimum i.e. 0.037 which means if there is 100 percent increase or decrease in the market return, there will be 3.7 percent increase or decrease in the return on BNL. As it has lowest beta coefficient, it is less volatile than other stocks and market too. As beta is less than 1 , the systematic risk of BNL is also lowest among all other sample securities.

The beta of SCBL is 0.567 which reflect the stock is less volatile than the market. If there is 100 percent increase (or decrease) in the market, there will be 5.67 percent increase (or decrease) in the return of SCBL.

The securities of NBL have 1.26 beta coefficients which reflect stock is more volatile than the market. If there is 100 percent increase (or decrease) in the market, there will be 126 percent increase (or decrease) in the return of NBL.

NSFCL has highest beta coefficient. The stock of NSFCL is most aggressive stock and is more volatile than the market and other securities too. The systematic risk of NSFCL is also highest among all other sample companies If there is 100 percent increase (or decrease) in the market, there will be 263 percent increase (or decrease) in the return of NSFCL.

The securities of AFCL, UNL, BNL, BBCL and STC has beta coefficient of $0.338,0.391,0.037,0.1991,-0.1175$ respectively which reflect the stock is less volatile than the market. The security of STC is less aggressive than all other sample securities.

### 4.2.5 Evaluation of Pricing of Securities

The model CAMP can be used to assess the securities to know if they are under or overpriced. Hence, the CAMP is used for calculating the required rate of return of stock. If the required rate of return is less than the average return, the price of stock is said to be underpriced and vice versa.

To calculate required rate of return, the risk free rate of return is required; which is assumed from the interest rate of Treasury bill issued by central bank for this purpose, the interest rate of 364 days duration Treasury bill is taken, which is considered as risk free rate of return. The following table shows the under and over priced of selected securities.

Table No. 4.27

Status of the Market Price of the Share of the Sample Companies

| S.N | Securities | Beta <br> Coefficient (bj) | Average rate <br> of return | Required rate <br> of return | Remarks |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | SCBL | 0.567 | 0.39802 | 0.3287 | Under priced |
| 2. | NBL | 1.26 | 0.59 | 0.4671 | Under priced |
| 3. | NSMFCL | 2.63 | 1.3015 | 0.4671 | Under priced |
| 4. | AFCL | 0.338 | 0.7058 | 0.0352 | Under priced |
| 5. | UNL | 0.391 | 0.40386 | 0.1731 | Under priced |
| 6. | BNL | 0.037 | 0.02542 | 0.0398 | Over priced |
| 7. | BBCL | 0.1991 | 0.13702 | 0.2909 | Over priced |
| 8. | STC | -0.1175 | 0.07106 | -0.1032 | Under priced |

The securities of SCBL, NBL, NSMFCL, AFCL, UNL and STC are under priced due to higher average rate of return than required rate of return and the securities of BNL and BBCL are over priced because the average rate of return is less than the required rate of return. None of the sample company is found reasonably priced. This shows that the market is very much inefficient in Nepal.

### 4.2.6 Diversification of Risk

Portfolio theory proposed by Harry M. Markowitz gives the concept of diversification of risk by investing total funds more than the single asset or single stock. By diversification total fund in different securities, the risk of individual security can be reduced without loosing considerable return. The main aim of portfolio construction is reduction of unsystematic risk, form which investors can take more benefit by making an efficient portfolio.

If two assets, correlated negatively be combined in a portfolio, the risk can be diversified or reduced. Combining assets from different sectors can only reduce the risk. The risk cannot be diversified if the assets combined are positively correlated. The securities form same sector always correlate positively. But the securities from the different sector may correlate negatively. The correlation between securities is presented in the following table.

## Table No. 4.28

## Correlation Coefficient between Securities

| SeCurities | SCBL | NBL | NSMFCL | AFCL | BBCL | STC | UNL | BNL |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| SCBL | $* * * *$ | 0.65 | -0.34 | -1.99 | 0.65 | -0.11 | 0.93 | -0.21 |
| NBL | 0.65 | $* * *$ | -0.44 | -0.75 | 0.32 | -0.72 | 0.33 | -0.22 |
| NSMFCL | -0.34 | -0.44 | $* * * *$ | 0.89 | -0.59 | -0.089 | -0.15 | 0.49 |
| AFCL | -1.00 | -0.75 | 0.89 | $* * * *$ | -0.61 | 0.32 | -0.42 | 0.47 |
| BBCL | 0.65 | 0.32 | -0.59 | -0.61 | $* * * *$ | 0.13 | 0.68 | -0.12 |
| STC | -0.11 | -0.72 | -0.089 | 0.32 | 0.13 | $* * * *$ | -0.68 | -0.11 |
| UNL | 0.93 | 0.33 | -0.15 | -0.42 | 0.68 | -0.68 | $* * * *$ | -0.084 |
| BNL | -0.21 | -0.22 | 0.49 | 0.47 | -0.12 | -0.11 | -0.084 | $* * * *$ |

The correlation coefficient between SCBL and NSMFCL, SCBL and AFCL, SCBL and STC, and SCBL with BNL, NBL and AFCL, NBL and STC, NBL and BNL, NSMFCL and BBCL, NSMFCL and STC, NSMFCL and UNL, AFCL and BBCL, AFCL and UNL, BBCL and BNL, STC and UNL and BNL, STC and UNL and BNL, UNL and BNL are found to be negative. Hence, the portfolio is made between these securities to reduce the risk. But the portfolio between others securities cannot reduce risk significantly because these securities is found to be positive. For making appropriate portfolio to reduce the risk, the weight of the combining assets must be needed. The weight that reduces the risk is calculated by the model as mentioned in the chapter of research methodology.

Here, the portfolio of the common stock of SCBL and STC is made. Let the return on common stock of SCBL (say A) and that of STC (say B), proportion of the amount to be invested in each security, portfolio expected return and standard deviation are calculated and presented below.

Table No. 4.29
Computation of Cov (RA. RB)

| Year | (RA $-\mathbf{R} \overline{\mathbf{A})}$ | (RB-R $\overline{\mathbf{B})}$ | (RA-R $\overline{\mathbf{A}) ~(R B-R B \bar{B})}$ |
| :--- | :--- | :--- | :--- |
| $2003 / 04$ | -0.2669 | 0.04564 | -0.01218 |
| $2004 / 05$ | 0.01458 | -0.00766 | -0.000112 |
| $2005 / 06$ | 0.27148 | -0.00436 | -0.00119 |
| $2006 / 07$ | 0.19928 | -0.04256 | -0.00849 |
| $2007 / 08$ | -0.21842 | 0.00894 | -0.00196 |
|  |  |  | Total $=-0.03106$ |

```
    \sum(RA-RA})(\textrm{RB}-\textrm{RB})\quad-0.0310
Cov (RA. RB) =
\square
    =\square=-0.0007765
    n-1
    4
```

And to minimize the risk, the weight of stock A in portfolio is given as :-

$$
\left(\sigma_{\mathrm{B}}\right)^{2}-\operatorname{Cov}(\text { RA. RB })
$$

$\mathrm{WA}=$

$$
\left(\sigma_{\mathrm{A}}{ }^{12}+\left(\sigma_{\mathrm{B}}\right)^{2}-2 \operatorname{Cov}(\mathrm{RA} . \mathrm{RB})\right.
$$

$$
(0.03182)^{2}-(-0.0007765)
$$

$$
0.007891
$$

$\mathrm{WA}=$

$$
(0.2412)^{2}+(0.03182)^{2}-2(-0.0007765) \quad 0.06074
$$

$=0.1299$ i.e. 0.13
$\mathrm{WB}=1-\mathrm{WA}$
$=1-0.13$

$$
=0.87
$$

Hence, the portfolio return is given as:-

$$
\begin{aligned}
\mathrm{Rp} & =\mathrm{WA} \cdot \overline{\mathrm{RA}}+\mathrm{WB} . \mathrm{R} \overline{\mathrm{~B}} \\
& =0.13 \times 0.39802+0.87 \times 0.07106 \\
& =0.05175+0.06183 \\
& =0.1136 \\
\sigma \mathrm{p} & =\sqrt{\left(\mathrm{W}_{\mathrm{A}}\right)^{2} \cdot\left(\sigma_{\mathrm{A}}\right)^{2}+\left(\mathrm{W}_{\mathrm{B}}\right)^{2} \cdot\left(\sigma_{\mathrm{B}}\right)^{2}+2 \mathrm{~W}_{\mathrm{A}} \cdot \mathrm{~W}_{\mathrm{B}} \cdot \operatorname{Cov}\left(\mathrm{R}_{\mathrm{A}} \cdot \mathrm{R}_{\mathrm{B}}\right)} \\
& =\sqrt{0.0169 \times 0.05817+0.7569 \times 0.001013+2 \times 0.13 \times 0.87 \times-0.0007765} \\
= & \sqrt{0.0015742} \\
= & 0.03968
\end{aligned}
$$

Since the correlation coefficient between SCBL and STC -0.11 the unsystematic risk of the portfolio i.e. $\sigma$ p $=0.03968$ which is less than бА $(0.2412)$ and more than $б B(0.03182$ but the expected portfolio return is increased to $11.36 \%$ in comparison with expected return of STC stock i.e ( $\mathrm{RB}=7.106 \%$ ). The appropriate portfolio will reduce the risk is proved in the above analysis. As the standard deviation of SCBL is 0.24012 while standard deviation of STC is 0.03182 by making a portfolio of SCBL and STC giving the weight of 0.13 and 0.87 respectively, the portfolio standard deviation is decreased to 0.1136 less than the standard deviation of SCBL and more than standard deviation of STC.
4.2.7 Comparison of yearly market returns on NEPSE, Banking Sub-Index and Risk free return (Regression analysis):-

Table No. 4.30
Return on NEPSE, Banking Sub-Index \& Risk-Free Return

| Year | NEPSE Return $\left(\mathbf{X}_{\mathbf{1}}\right)$ | Banking Sub- Index $\left(\mathbf{X}_{\mathbf{2}}\right)$ | Risk Free Return $\left(\mathbf{X}_{\mathbf{3}}\right)$ |
| :--- | :--- | :--- | :--- |
| $2003 / 04$ | 8.39 | 16.04 | 2.93 |
| $2004 / 05$ | 29.11 | 31.33 | 2.46 |
| $2005 / 06$ | 34.94 | 43.61 | 2.84 |
| $2006 / 07$ | 76.81 | 80.39 | 2.42 |
| $2007 / 08$ | 40.85 | 24.89 | 4.22 |

Let suppose that,
$\mathrm{X}_{1}=$ NEPSE yearly market return (Dependent Variable)
$\mathrm{X}_{2}=$ Banking Sub-Index (Independent Variable)
$\mathrm{X}_{3}=$ Risk free- return (Independent Variable)
Now, the regression equation on $X_{1}$ on $X_{2}$ and $X_{3}$ using actual mean method given by,
$X_{1}=b_{1} X_{2}+b_{2} X_{3} \ldots \ldots$... (i)
Where,
$\mathrm{X}_{1}=\mathrm{X}_{1}-\overline{\mathrm{X}_{1}}, \quad \mathrm{X}_{2}=\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}, \mathrm{X}_{3}=\mathrm{X}_{3}-\overline{\mathrm{X}}_{3}$
By using the principle of least square method, the normal equations are
$\sum \mathrm{X}_{1} \cdot \mathrm{X}_{2}=\mathrm{b}_{1} \sum \mathrm{x}_{2}{ }^{2}+\mathrm{b}_{2} \sum \mathrm{X}_{2} \sum \mathrm{X}_{3}$
$\sum \mathrm{X}_{1} \cdot \mathrm{X}_{3}=\mathrm{b}_{1} \sum \mathrm{x}_{2} \cdot \mathrm{X}_{3}+\mathrm{b}_{2} \sum \mathrm{X}_{3}{ }^{2}$ $\qquad$
$x_{1}=0.67096 x_{2}+16.80 x_{3}+0.616632$
This is the required estimated regression equation of $\mathrm{x}_{1}$ on $\mathrm{x}_{2}$ and $\mathrm{x}_{3}$. (Source-Annex-3)

### 4.3 Major Findings of the Study

The study was based mainly on primary data collected by using questionnarie. In addition, secondary data have also been used to fulfill the objectives of this research; some of the major findings of this analysis from both primary and secondary data are summarized and presented as follows:

* Most of the investors want to invest in shares of companies basically for price appreciation. It is found that about $60 \%$ of investor invest on stock for price appreciation, $28 \%$ investor invest on earning dividend and $4 \%$ investors invest for social status while making investment and $4 \%$ wants to invest in other.
* Most of the investor is interested to invest in banking sector especally in commercial bank, development bank, financial companies, then in other sector.
* EPS as an important factors that affect stock return is $42 \%, 28 \%$ think the return of stock is also affected by MPS, $20 \%$ think Net worth as third important factor and $10 \%$ think company goodwill as a last one that effect their stock return.
* The investors were asked that which area they prefer to invest, it is found that most of the investor prefers to invest on securities. After that they give priority on real estate, fixed deposit, commodity, treasery bill \& gold are least prioritized.
* The investor's awareness about the nature of risk in stock investment is also analyzed by asking about the nature of risk on stock investement. It is found about $36 \%$ of investors think the nature of risk as a managerable factor, $32 \%$ investors think it as an unknown factor, $28 \%$ think it is predictable and rest $4 \%$ think the risk factors as a known factor.
* It is found that most of the investor wants to invest in moderate risk with moderate return. The portions of risk averter investor are $48 \%$ where as $36 \%$ investor are found risk seeker. They want to invest on such assets of high return with $10 \%$ and $3 \%$ reject any level of risk. They want to invest such assets which have low risk with low return.
* It is found that most of the investor consult with friends i.e. $40 \%, 24 \%$ investors consult with stock brokers where as $16 \%$ investors make their decision them selves without consulting others and only $14 \%$ investors
consult professional services is not expanded to that extent to investor's excess and $6 \%$ from other media.
* Most of the investors perceived on issue of bonus and right shares $44 \%$ as an indicator for measuring company's performance $30 \%$ on declaration of dividend, $12 \%$ on timely AGM and $4 \%$ on systematic flows of information and $10 \%$ interaction of company.
$\%$ It is observed that $38 \%$ investors says that rise in market price, $24 \%$ investors says that there is lack of investment oppurtinities, $20 \%$ says there is low bank interest rate and $14 \%$ high dividend distribution and others were $4 \%$ investor.
* It is found that most of the investors $30 \%$ think that the existing rules and regulation are unpractical, $22 \%$ investors belive as satisfactory and only $20 \%$ investors think the current rules and regulations are adequate, $18 \%$ thinks it is inadquate and $10 \%$ others means of exisiting rules and regulations of stock market.
* The invstor's response is found that most of the investor's $38 \%$ says that responsive of top $16 \%, 14 \%$ says it is positive management, $10 \%$ says about others. It is thus concluded that investors are not fairly treated by management.
* The driving factors for investment in Initial Public Offering is found that $34 \%$ is a most important driving factors that drives them to the market at the time of initial public offering. They think founder and management of the company $22 \%$ as second important factors, satisfactory return $18 \%$ of the company share and $16 \%$ are drive for director nominee and $10 \%$ for ownership benefits.
* When MPPS increase most of the investor's want to sell their share i.e. $52 \%$, while $32 \%$ investor's don't trade at the time of increasing MPS and only $16 \%$ investors are found who purchase shares at the time of increasing MPS. It is quite clear that investor's are found fear on price fall and thus they want to sell their shares on such a situation.
* If there will be decreasing trend of market price, most of the investors i.e. $32 \%$ investor sell the security, $24 \%$ invest in security, $18 \%$ buy the securities, $16 \%$ hold the security and $10 \%$ realized capital gain. Due to the lack of adequate knowledge of trading form secondary market, most of the investors go through selling their shares so that they don't bear additional loss form falling price.
* It is found that most of the investors $46 \%$ participated in AGM each year, $30 \%$ investor participation indireclty by proxy to others and rest $8 \%$ investors have no interest to participate in Annual General Meeting. Investors are not found serious to use AGM as democratic platform of investor's protection.
* Suggestions for protection of public interest show that more representation of public on board of director's is quite necessary to protect the interest of public on board i.e. $38 \%$. They have given next more weight on regular flows of information i.e. $30 \%$ is to be managed by the company management investor's awareness program i.e. $18 \%$ by the government authorities has given priority and they feel increase share holders activism i.e. $14 \%$ is less effective to protect their interest on stock market.
* It is found about the response of VIP Shareholder association as $50 \%$ thinks that it is of personal benefits, $24 \%$ thinks that is for investors benefit, $16 \%$ thinks that it is for public welfare and $10 \%$ are of other.
* What factors affect for investor's to investment in securities, found that $46 \%$ rank about legal restriction, $24 \%$ rank for political indifference, $14 \%$ rank for strikes, $10 \%$ rank for road blockage and $6 \%$ for other media.
* The role of the investor's association about investor's awareness is found that $32 \%$ about passive environment, $26 \%$ about provides sustematic flow of information, $19 \%$ about raising the voice of investors benefit, $16 \%$ about events organized and $8 \%$ for others media.
* Investors were asked about the role of broker association than it is found that $42 \%$ rank for inadequate, $30 \%$ for adequate, $20 \%$ for satisfactory, $8 \%$ for other. It is concluded that $42 \%$ investor think about the broker association or broker house is inadequate.
* From the analysis of the secondary data, the average return of the NSMFL is found highest i.e. $130 \%$ among all securities. The expected return of STC is found negatively by $-0.103 \%$ and the average return on market is found as $38.02 \%$.
* The measurement of total risk i.e. standard deviation is highest in the stock of NSMFCL and it is also highest among all selected securitites and hence it is risker than others. The SD of STC is lowest i.e. $3.18 \%$ but it is higher in comparison to its expected return. The standard deviation of market is found $24.80 \%$.
* The relative measurement of risk with returns i.e. C.V. is 0.44 in STC, which is minimum among all sample
securities and the C.V. of BNL is $17.3 \%$ which is maximum which is higher than market of C.V. i.e. 0.6547 .
* NSMFCL has highest beta coefficient i.e. 2.63 the stock of NSMFCL is most aggressive stock and is more volatile than the market and other securities too. The systematic risk and sensitive of NSMFCL is also highest among all other sample companies. The beta coefficient of STC is lowest, hence it has lowest systematic risk, that cannot be diversifiable and the return of STC is less volatile as compared to the market return.
* The MPS of BBCL and BNL are found overpriced because of higher required rate of return than the average rate of return. The MPS of SCBL, NBL, AFCL, NSMFCL, STC and UNL are under priced as the required rate of return is less than the average rate of return.
* The risk can be diversified if the two assets combained in a portfolio with negatively correlated. It is found that the stock of SCBL is negatively correlated with the stock NSMFCL, STC, and BNL. The stock NBL is negatively correlated with the stock of NSMFCL, AFCL, STC and BNL. The stock AFCL is negatively correlated with the stock STC and BNL. The stock NSMFCL is negatively correlated with the stock SCBL, NBL, BBCL, STC, UNL. The stock AFCL is negatively correlated with the stock SCBL, NBL, BBCL, UNL. The stock BBCL is negatively correlated with the stock NSMFCL, AFCL, BNL. The stock STC is negatively correlated with the stock SCBL, NBL, NSMCL, UNL, BNL. The stock UNL is negatively correlated with the stock NSMFCL, AFCL, STC, BNL. The stock BNL is negatively correlated with the stock SCBL, NBL, BBCL, STC, UNL and the rest of the securities are positivelu correlated with each other. Hence they cannot reduce risk if combined in a portfolio.
* The expected portfolio return of SCBL is $11.36 \%$ and porffolio risk is $3.9 \%$. The standard deviation of SCBL is 0.24012 by making portfolio. The weight of SCBL 0.13 and SCT are 0.87 respectively.
* The required estimated regression equation of $x_{1}$ on $x_{2}$ and $x_{3}$ is $x_{1}=0.67096 x_{2}+16.80 x_{3}+0.616632$.


## CHAPTER-V

## SUMMARY, CONCLUSION

## AND

## RECOMMENDATIONS

This chapter is the final body of this research. It contains summarize description of the research. Beside it, conclusion drawn from this research and the recommendations to correct some aspects to improve the position of the Nepalese stock market is also presented in this chapter.

### 5.1 Summary

Fair and timely information disclosure is essential ingredient to function the security market efficiently. Information deficiency in the capital market may be one of the reasons for determination of the share price by excessive speculation. This may lead to the domination by the gambler and speculators in the capital market. The regulatory norms on submission and disclosure of information by the listed companies are meant for ensuring good corporate governance, transparency and investor protection.

The first chapter of this research concludes general back ground of the study, focus of the study, statement of the problem, objectives of the study, research hypothesis, significance of the study, limitations of the study and organization of the study. The first objective was to know the present transaction system of stock market. Similarly, second objective of this research was to examine whether the investors are fully aware or not in the share trading system. Third objective
of this research was to analyze and evaluate the risk and return of common stock of some selected companies. Fourth objective was to suggest the investors how they can reduce risk by making portfolio in their investment. Finally the last objective was to give suggestions to the related individuals and institution on the basis of findings.

The second chapter is review of literature. The review is done on the topic "Investor's Awareness in Stock Market of Nepal". Review of literature is conducted separately through review of article, books, journals, dissertations, company prospectus etc. In this chapter the major terms as well as tools has been described briefly. Similarly review of different research, articles and journals are also presented in this chapter.

The third chapter is research methodology. It relates to the overall approach to the research process. Research methodology is the way to solve a research problem systematically. It describes the methods and process followed in the entire research process. Hence, this chapter deals with the method and process applied for this research study. This study covers quantitive methodology in a greater extent and also uses descriptive methods based on both technical and logical aspects. On the basis of historical data, different financial and statistical tools are used for the analysis of different variables. Components of research methodology are also presented to give clear pictures.

In the fourth chapter, different data collected has been presented separately. This is the main body of the research which gave the different output to fulfill the objectives of the research. To fulfill such objective, both primary as well as secondary data are collected and analyzed. Primary data has been collected by structured questionnaire. It has been distributed to the fifty investors randomly and gathered different opinion from them.

Besides, it the verbal information has been gathered from different respondent of Nepal Stock Exchange and Security Board. It has been presented in the same chapter to know the current transaction or trade system of stocks.

Similarly, the secondary data has been gathered from current annual report of SEBO/N. The risk and return is calculated from different selected companies. The collected data has been analyzed and presented by using different financial and statistical tools in the same chapter.

Further, overall return of market is computed on the basis of closing NEPSE index. Side by side, the comparison of individual stock return with market return is presented in the same chapter.

The study was based mainly on primary data, collected by using questionnaire. In addition, secondary data have been also been used to fulfill the objectives of this research. At the end of the chapter, some of the major findings of this analysis form both primary and secondary data are summarized presented.

### 5.2 Conclusion

The awareness of investor about the company in which they are investing is not satisfactory as they give more emphasis on banking sector for investment. Investing without knowledge about capital structure, founder and management and future plan of the company may leads the investment towards the wrong way and there will be greater probability of suffering loss. There is high chance of exploitations of the investors by the market intermediaries, as their awareness of investors about the rules and regulations on the behalf of them is not satisfactory. Due to the high degree of dissatisfaction to the rules and regulations among investors, it is concluded that the existing rules and regulations are not appropriate and in favor of investors.

Most of the investors are not satisfied with the management attitudes towards them and thus it is concluded that the current attitudes towards public shareholder is not appropriate. They are not agreeing with the current performance of stock market and thus stock market performance is not adequate as it would be. Most of the investors prefer to invest in
the banking sector. They do not like to invest in other securities because of their lack of sufficient knowledge. Most of the investors are buying shares of banking sectors only and making portfolio from the same sector. But investing in the same shares of same industry cannot reduce risk as they correlate positively.

Since both the quality of information available to the investors and their rationality is low. They have very little knowledge of trading procedures, price formation mechanism and risk diversification. The lack of investor's education training and research has made capital market least prioritized sector of the state. Most of the investors in Nepalese capital market do not believe on statement published on prospectus by the company before going to public. Despite these facts, they put their application for higher price in future. There is prevalent belief that buying share is a sure shot way of making profit. They do not think the decrement of share price from its par value. The rumor and whim is highly responsible in influencing the decision of the investors in share investment. Rather than analyzing to find out whether the company is worthwhile or not, they run behind the rumors and whim of the market.

### 5.3 Recommendations

There is no doubt that the level of awareness of investors in Nepalese capital market is quite low. It is necessary to increase the level of awareness of individual investors towards various aspect of capital market. Based on the findings of the study, the following recommendations have been made:

* The transparency and openness of transactions, quality of professional service and improved legal regulatory and supervisory frame works are the urgent needs to build up the confidence of the potential investors in Nepalese Capital Market. This requires an integral plan of action not piecemeal effort.
* Policy should be adopted to attract the investor towards secondary market to mobilize high liquidity of market.
* Investors should make a proper analysis or conclusion with experts before selling or purchasing the securities. NEPSE and SEBO/N should manage the sufficient, updated and relevant information about the listed companies that
would help the investors in their investment decision making.
* Investors should be aware about the rules and regulation and the function of stock exchange and capital market to protect them from being exploited. The rules and regulation should be timely updated and its implementation should be effective.
* Policy should be adopted to reduce the exploitation of the investors by the market intermediaries and to stop manipulation practice, efficient measure should also be taken to make the market more efficient.
* Investors should analze the financial performance ot the company, its current position and future plans before investin gin its securities. This is one game where self-knowledge, superior forecasting ability, and sound understanding about the information can give a winning edge to the investor.
* To protect investor's interest on capital market, the government should promulgate the suitable policies. The amendment of concerned act and its reguations should be made.
* Market professionalism should be developed. Research on emerging issues on capital market should be conducted. Programs should be launched to educate investors. There should be effective contribution of public companies on investor's awareness program.
* Investors should consult brokers and professionals before making investment decision. Investors should change their perception about banking sector as an always profitable one. They must search other sectors that can provide high rertun with low risk. Broker and professional service on stock market should be expanded.
* Grievance handling mechanism of investors should be developed. Management should give high attention to satisfy their investors. They should preserve the interest of minorities.
* Investor's should invest by making portfolio of different sectors to minimize risk and maximize return. Portfolio should be constructed on negatively correlated assets to reduce significant level of risk.
* Informed and well aware investors are the back for the development of capital market. They should define their priorities themselves. Every investor should read journals and newspaper as well as other publication related to stock market issues of different organizations. They should keep record of daily stock price and trading volume published by NEPSE.
* In the age of modern developed technology, the trading system of NEPSE needs to be modernized. It needs to develop efficient and effective information channel to provide updated data and related information. NEPSE needs to initiate different programs for investors' education through investors' meeting and seminars in different subject matters of stock market.
* As s main regulatory body, SEBO/N needs to take quick against breaking rules and regulations by any company or any other component of stock markets. Situation of getting benefit in breaking rules and regulation should be avoided. SEBO/N should examine the company's performance before giving approval to issue share to the general public. Presentation of fake information and artificial data should be controlled and that should be punished to protect investors from exploitation.


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Appendix -1.a
Yearly Return (Rj), Average Ret $\overline{u r n}(\mathbf{R} \overline{\mathbf{j}})$ and Standard Deviation ( $\mathbf{6 m}$ )of SCBL

| Fiscal Year | Closing Market Price (Pt) | Total Dividend (Dt) | $\begin{aligned} & \text { Yearly Return } \\ & \mathbf{R j}=\frac{(\mathrm{pt} \text { pt-1 })}{\mathbf{P t}-1} \end{aligned}$ | $(\mathbf{R j}-\overline{\mathbf{R} \mathbf{j}})$ | $(\mathbf{R j}-\overline{\mathbf{R}} \mathbf{j})^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2002/03 | 1640 | - | - | - | - |
| 2003/04 | 1745 | 110 | 0.1311 | -0.2669 | 0.07124 |
| 2004/05 | 2345 | 120 | 0.4126 | 0.01458 | 0.000212 |
| 2005/06 | 3775 | 140 | 0.6695 | 0.27148 | 0.07370 |
| 2006/07 | 5900 | 130 | 0.5973 | 0.19928 | 0.03971 |
| 2007/08 | 6830 | 130 | 0.1796 | -0.21842 | 0.04770 |
| $\mathrm{N}=5$ |  |  | $\Sigma R \mathrm{j}=1.9901$ |  | $\begin{array}{\|l} \sum(\mathbf{R j}-\overline{\mathbf{R j}})^{2} \\ =\mathbf{0 . 2 3 2 5} \end{array}$ |

$$
\begin{aligned}
& \text { Average return }(\overline{\mathrm{Rj}})=\Sigma \mathrm{Rj} \\
& \mathrm{n} \\
& 1.9901 \\
&=\frac{}{5}=0.39802
\end{aligned}
$$

Standard Deviation $(6 \mathrm{j})=\sqrt{ } \overline{\sum(\mathrm{Rj}-\mathrm{Rj})^{2} / \mathrm{n}-1}$

$$
\begin{aligned}
& =\sqrt{0.2325 / 4} \\
& =0.2412
\end{aligned}
$$

$$
\begin{aligned}
\text { Coefficient of Variation (C.V.) } & =\frac{(\overline{\mathrm{j})}}{(\overline{\mathrm{Rj})}}=\frac{0.2411}{0.39802} \\
& =0.6057
\end{aligned}
$$

Appendix -1.b

## Yearly Return ( Rj ), A verage R eturn ( $\overline{\mathrm{R}}$ ) and Standard Deviation ( $\mathbf{\sigma m}$ ) of NBL

| Fiscal Year | Closing <br> Market Price <br> $(\mathbf{P t})$ | Total <br> Dividend (Dt) | Yearly Return <br> $\mathbf{R j}=\frac{(\mathbf{p t - p t - 1})}{\mathbf{P t}-\mathbf{1}}$ | $(\mathbf{R j - \overline { \mathbf { R j } } )}$ | $\left(\mathbf{R j}-\overline{\mathbf{R} \mathbf{j})^{\mathbf{2}}}\right.$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2002 / 03$ | 735 | - | - | - | - |
| $2003 / 04$ | 1000 | 65 | 0.4489 | -0.14112 | 0.01992 |
| $2004 / 05$ | 1505 | 70 | 0.575 | -0.01502 | 0.000226 |


| $2005 / 06$ | 2240 | 85 | 0.5449 | -0.04512 | 0.002036 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2006 / 07$ | 5050 | 140 | 1.3169 | 0.72688 | 0.5284 |
| $2007 / 08$ | 5275 | 100 | 0.0644 | -0.5257 | 0.2763 |
| $\mathrm{~N}=5$ |  |  | $\Sigma R \mathrm{l}=2.9501$ |  | $\sum(\mathbf{R j}-\overline{\mathbf{R j}})^{\mathbf{2}}$ <br> $\mathbf{0 . 8 2 6 8 8}$ |

Average return $\begin{aligned}(\overline{\mathrm{Rj}}) & =\frac{\sum \mathrm{Rj}}{\mathrm{n}} \\ & 2.9501 \\ & =\frac{}{5}=0.59002\end{aligned}$

Standard Deviation $(6 \mathrm{j})=\sqrt{ } \overline{\sum\left(\mathrm{Rj}-\mathrm{Rj} \overline{\mathrm{j}}^{2} / \mathrm{n}-1\right.}$

$$
\begin{aligned}
& =\underline{\sqrt{0.82688 / 4}} \\
& =0.4546
\end{aligned}
$$

Coefficient of Variation (C.V.) $=\frac{(\overline{\mathrm{j}})}{(\overline{\mathrm{Rj}})}=\frac{0.4546}{0.5900}$

$$
=0.7705
$$

Appendix -1.c


| Fiscal Year | Closing <br> Market Price <br> $(\mathbf{P t})$ | Total <br> Dividend (Dt) | Yearly Return <br> $\mathbf{R j}=\frac{(\mathbf{p t - p t - 1})}{\mathbf{P t} \mathbf{- 1}}$ | $(\mathbf{R j - \overline { \mathbf { R j } } )}$ | $\left(\mathbf{R j - \overline { \mathbf { R } } ) ^ { \mathbf { 2 } }}\right.$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2002 / 03$ | 125 | - | - | - | - |
| $2003 / 04$ | 103 | - | -0.176 | -1.4775 | 2.1831 |
| $2004 / 05$ | 120 | 10 | 0.2621 | -1.0394 | 1.0803 |
| $2005 / 06$ | 145 | 10.53 | 0.2960 | -1.0055 | 1.0110 |
| $2006 / 07$ | 300 | 20 | 1.2068 | -0.0947 | 0.00897 |
| $2007 / 08$ | 1670 | - | 4.5666 | 3.2651 | 10.6608 |
| $\mathrm{~N}=5$ |  |  | $\Sigma R \mathbf{j}=6.5075$ |  | $\Sigma\left(\mathbf{R j}-\overline{\mathbf{R j})^{\mathbf{2}}}=\right.$ |

Average return $(\overline{\mathrm{Rj}})=\Sigma \mathrm{Rj}$

$$
=\frac{6.5075}{5}=0.1 .3015
$$

$$
\begin{aligned}
\text { Standard Deviation }(\sigma \mathrm{j}) & =\sqrt{\overline{\sum(\mathrm{Rj}-\mathrm{Rj})^{2} / \mathrm{n}-1}} \\
& =\sqrt{14.9442 / 4} \\
& =1.9328
\end{aligned}
$$

$$
=\sqrt{ } 3.7360
$$

$$
\text { Coefficient of Variation (C.V.) }=\frac{(\overline{\mathrm{jj})}}{(\overline{\mathrm{Rj}})}=\frac{1.9328}{1.3015}
$$

$$
=1.4851
$$

## Appendix -1.d



| Fiscal Year | Closing <br> Market Price <br> $(\mathbf{P t})$ | Total <br> Dividend (Dt) | Yearly Return <br> $\mathbf{R j}=\frac{(\mathbf{p t - p t - 1})}{\mathbf{P t}-\mathbf{1}}$ | $(\mathbf{R j - \overline { R j } )}$ | $\left(\mathbf{R j - \mathbf { R } \mathbf { j } ) ^ { \mathbf { 2 } }}\right.$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2002 / 03$ | 420 | - | - | - | - |
| $2003 / 04$ | 450 | 212.63 | 0.5776 | -0.1282 | 0.0164 |
| $2004 / 05$ | 431 | 265.81 | 0.5484 | -0.1574 | 0.0247 |


| $2005 / 06$ | 500 | 43.63 | 0.2613 | -0.4445 | 0.1975 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2006 / 07$ | 500 | 101.05 | 0.2021 | -0.5037 | 0.2537 |
| $2007 / 08$ | 1470 | - | 1.94 | 1.2343 | 1.5232 |
| $\mathrm{~N}=5$ |  |  | $\sum R \mathrm{j}=3.5294$ |  | $\sum(\mathbf{R j}-\overline{\mathbf{R j}})^{\mathbf{2}}$ <br> $\mathbf{2 . 0 1 5 5}$ |

Average return $(\overline{\mathrm{Rj}})=\Sigma \mathrm{Rj}$

$$
=\frac{\bar{n}}{5}=0.7058
$$

Standard Deviation $(\sigma \mathrm{j})=\sqrt{ } \overline{(\mathrm{Rj}-\mathrm{Rj})^{2} / \mathrm{n}-1}$

$$
\begin{aligned}
& =\underline{\sqrt{2.0155 / 4}} \\
& =0.7098
\end{aligned}
$$

Coefficient of Variation (C.V.) $=\frac{(\overline{\mathrm{\sigma j}})}{(\overline{\mathrm{Rj}})}=\frac{0.7098}{0.7058}$
$=1.0056$

## Appendix -1.e

## Yearly R eturn ( $\mathbf{R j}$ ), A verage Return ( $\overline{\mathrm{Rj}}$ ) and Standard Deviation ( $\mathbf{\sigma m}$ )of UNL

| Fiscal Year | Closing <br> Market Price <br> $(\mathbf{P t})$ | Total <br> Dividend (Dt) | Yearly Return <br> $\mathbf{R j}=\frac{(\mathbf{p t - p t - 1})}{\mathbf{P t}-\mathbf{1}}$ | $(\mathbf{R j - \overline { \mathbf { R j } } )}$ | $\left(\mathbf{R j - R \mathbf { j } ) ^ { \mathbf { 2 } }}\right.$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2002 / 03$ | 1350 | - | - | - | - |
| $2003 / 04$ | 1400 | 100 | 0.1111 | 0.2927 | 0.0856 |
| $2004 / 05$ | 1631 | 400 | 0.4507 | 0.04684 | 0.002194 |
| $2005 / 06$ | 2500 | 250 | 0.6861 | 0.2822 | 0.07964 |
| $2006 / 07$ | 3400 | 275 | 0.4700 | 0.06614 | 0.004375 |
| $2007 / 08$ | 4100 | 325 | 0.3014 | -0.10246 | 0.01049 |
| $\mathrm{~N}=5$ |  |  | $\sum \mathrm{Rj}=2.0193$ |  | $\Sigma\left(\mathbf{R j - \overline { R } \mathbf { j } ) ^ { \mathbf { 2 } }}=\right.$ |
| $=$ |  |  | $\mathbf{0 . 1 8 2 3 0}$ |  |  |

Average return $(\overline{\mathrm{Rj}})=\Sigma \mathrm{Rj}$

$$
=\frac{2.01935}{5}=0.40386
$$

Standard Deviation $(\sigma \mathrm{j})=\sqrt{ } \overline{\sum(\mathrm{Rj}-\mathrm{Rj})^{2} / \mathrm{n}-1}$

$$
\begin{aligned}
& =\sqrt{0.18230 / 4} \\
& =0.2134
\end{aligned}
$$

$$
\begin{aligned}
\text { Coefficient of Variation (C.V.) } & =\frac{(\overline{\mathrm{j}})}{(\overline{\mathrm{Rj}})}=\frac{0.2134}{0.40386} \\
& =0.5286
\end{aligned}
$$

## Appendix -1.f

## Yearly Return ( Rj ), A verage Return ( $\overline{\mathrm{Rj}}$ ) and Standard Deviation ( $\mathbf{\sigma m}$ )of BNL

| Fiscal Year | Closing <br> Market Price <br> $(\mathbf{P t})$ | Total <br> Dividend (Dt) | Yearly Return <br> $\mathbf{R j}=\frac{(\mathbf{p t}-\mathbf{p t - 1})}{\mathbf{P t}-\mathbf{1}}$ | $(\mathbf{R j}-\overline{\mathbf{R j}})$ | $(\mathbf{R j}-\overline{\mathbf{R}})^{\mathbf{2}}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2002 / 03$ | 700 | - | - | - | - |
| $2003 / 04$ | 551 | - | -0.2128 | -0.23822 | 0.5674 |


| $2004 / 05$ | 635 | - | 0.1524 | 0.12698 | 0.01612 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2005 / 06$ | 500 | - | -0.2125 | -0.2379 | 0.0565 |
| $2006 / 07$ | 500 | - | 0 | -0.02542 | 0.0006418 |
| $2007 / 08$ | 700 | - | 0.4000 | 0.37458 | 0.140310 |
| $\mathrm{~N}=5$ |  |  | $\Sigma R \mathrm{Rj}=0.1271$ |  | $\sum(\mathbf{R j}-\overline{\mathbf{R j}})^{\mathbf{2}}$ <br> $\mathbf{0 . 7 8 0 9 7}$ |

Average return $(\overline{\mathrm{Rj}})=\underline{\mathrm{Rj}}$

> n $=\frac{0.1271}{5}=0.02542$

Standard Deviation $(б \mathrm{j})=\sqrt{ } \overline{\sum(\mathrm{Rj}-\mathrm{Rj})^{2} / \mathrm{n}-1}$

$$
\begin{aligned}
& =\underline{\sqrt{0.78097 / 4}} \\
& =0.44186
\end{aligned}
$$

Coefficient of Variation (C.V.) $=\frac{(\overline{\mathrm{j}})}{(\overline{\mathrm{Rj}})}=\frac{0.44186}{0.02542}$

$$
=17.3824
$$

## Appendix -1.g

Yearly Return ( Rj ), A verage $\mathrm{Return}(\overline{\mathrm{Rj}})$ and Standard Deviation ( $\mathbf{\sigma m}$ )of BBCL

| Fiscal Year | Closing Market Price (Pt) | Total Dividend (Dt) | Yearly Return $\mathbf{R j}=\frac{(\mathbf{p t}-\mathrm{pt}-1)}{\mathbf{P t}-1}$ | $(\mathbf{R} \mathbf{j}-\overline{\mathbf{R} \mathbf{j}})$ | $(\mathbf{R j}-\overline{\mathbf{R}} \mathbf{j})^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2002/03 | 1550 | - | - | - | - |
| 2003/04 | 1400 | 85 | -0.04193 | -0.17895 | 0.03202 |
| 2004/05 | 1930 | 90 | 0.4428 | 0.30578 | 0.09350 |
| 2005/06 | 2400 | 100 | 0.2954 | 0.15838 | 0.02508 |
| 2006/07 | 2575 | 100 | 0.1146 | -0.02242 | 0.0005027 |
| 2007/08 | 2201 | 50 | -0.1258 | -0.26282 | 0.0690 |
| $\mathrm{N}=5$ |  |  | $\sum \mathrm{Rj}=0.6851$ |  | $\begin{aligned} & \sum(\mathbf{R j}-\overline{\mathbf{R j}})^{2} \\ & \mathbf{0 . 2 2 0 1} \end{aligned}$ |

Average return $(\overline{\mathrm{Rj}})=\Sigma \mathrm{Rj}$
n
0.6851

$$
=\overline{5}=0.13702
$$

Standard Deviation $(6 \mathrm{j})=\sqrt{ } \overline{\sum(\mathrm{Rj}-\mathrm{Rj})^{2} / \mathrm{n}-1}$

$$
\begin{aligned}
& =\sqrt{0.2201 / 4} \\
& =0.2345
\end{aligned}
$$

Coefficient of Variation (C.V.) $=\frac{(\overline{\mathrm{j}})}{(\overline{\mathrm{Rj}})}=\frac{0.2345}{0.1371}$

$$
=1.7119
$$

## Appendix -1.h

## Yearly Return ( Rj ), A verage Return ( Rj ) and Standard Deviation ( $\mathbf{\sigma m}$ )of STC

| Fiscal Year | Closing <br> Market Price <br> $(\mathbf{P t})$ | Total <br> Dividend (Dt) | Yearly Return <br> $\mathbf{R j}=\frac{(\mathbf{p t - p t - 1})}{\mathbf{P t}-1}$ | $(\mathbf{R j}-\overline{\mathbf{R j}})$ | $\left(\mathbf{R j}-\overline{\mathbf{R} \mathbf{j})^{2}}\right.$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2002 / 03$ | 300 | - | - | - | - |


| $2003 / 04$ | 315 | 20 | 0.1167 | 0.04564 | 0.002083 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $2004 / 05$ | 315 | 20 | 0.0634 | -0.00766 | 0.00005868 |
| $2005 / 06$ | 316 | 20 | 0.0667 | -0.00436 | 0.00001901 |
| $2006 / 07$ | 325 | - | 0.0285 | -0.04256 | 0.0018114 |
| $2007 / 08$ | 331 | 20 | 0.08 | 0.00894 | 0.00007993 |
| $\mathrm{~N}=5$ |  |  | $\sum \mathrm{Rj}=0.3553$ |  | $\sum(\mathbf{R j}-\overline{\mathbf{R j}})^{\mathbf{2}} \quad$ <br> $\mathbf{0 . 0 0 4 0 5 2}$ |

Average return $(\overline{\mathrm{Rj}})=\Sigma \mathrm{Rj}$

$$
\frac{{ }^{n}}{\frac{\mathrm{n}}{0.3553}}=\frac{}{5}=0.07106
$$

Standard Deviation $(6 \mathrm{j})=\sqrt{ } \overline{\sum(\mathrm{Rj}-\mathrm{Rj})^{2} / \mathrm{n}-1}$

$$
=\sqrt{0.004052 / 4}
$$

Coefficient of Variation (C.V.) $=\frac{(\overline{\mathrm{\sigma j})}}{(\overline{\mathrm{Rj}})}=\frac{0.03182}{0.07106}$

Appendix-2.a
Calculation of beta coefficient of SCBL

| Year | ( $\mathbf{R} \mathbf{j}-\overline{\mathbf{R} \mathbf{j}}$ ) | $(\mathbf{R m}-\overline{\mathbf{R m}})$ | $(\mathbf{R} \mathbf{j}-\overline{\mathbf{R} \mathbf{j}}) \quad(\mathbf{R m}-\mathbf{R} \overline{\mathbf{m}})$ |
| :---: | :---: | :---: | :---: |
| 2003/04 | -0.2669 | -0.29632 | 0.0791 |
| 2004/05 | 0.01458 | -0.08912 | -0.00130 |
| 2005/06 | 0.27148 | -0.03082 | -0.00837 |
| 2006/07 | 0.19928 | 0.38788 | 0.0773 |
| 2007/08 | -0.21842 | 0.02838 | -0.00620 |
|  |  |  | $\sum(\mathbf{R j}-\overline{\mathbf{R j}})(\mathbf{R m}-\mathbf{R} \overline{\mathbf{m}})=\mathbf{0 . 1 4 0 6}$ |

$$
\begin{aligned}
& \operatorname{Cov}(\mathrm{RjRm})=\frac{\sum(\mathrm{Rj}-\mathrm{Rj})(\mathrm{Rm}-\mathrm{Rm} \overline{\mathrm{~m}})}{\mathrm{n}-1} \\
& =\frac{0.1406}{5-1}=0.036 \\
& \mathrm{Bj}=\frac{\mathrm{Cov}(\mathrm{Rj} . \mathrm{Rm})}{}=\frac{0.036}{}=0.567
\end{aligned}
$$

The beta coefficient of $\mathrm{SCBL}=0.567$

## Appendix-2.b

Calculation of beta coefficient of NBL

| Year | $(\mathbf{R j}-\overline{\mathbf{R} j})$ | $(\mathbf{R m}-\overline{\mathbf{R}} \mathbf{m})$ | $(\mathbf{R j}-\overline{\mathbf{R} \mathbf{j}})(\mathbf{R m}-\mathbf{R m})$ |
| :--- | :--- | :--- | :--- |


| $2003 / 04$ | -0.14112 | -0.29632 | 0.0419 |
| :--- | :--- | :--- | :--- |
| $2004 / 05$ | -0.01502 | -0.08912 | 0.00134 |
| $2005 / 06$ | -0.04512 | -0.03082 | 0.00140 |
| $2006 / 07$ | 0.72688 | 0.38788 | 0.2820 |
| $2007 / 08$ | -0.52562 | 0.02838 | -0.0150 |
|  |  |  | $\sum(\mathbf{R j - R j})(\mathbf{R m}-\mathbf{R m})=\mathbf{0 . 3 1 1 6 4}$ |

$\operatorname{Cov}(\mathrm{RjRm})=\sum(\mathrm{Rj}-\mathrm{Rj} \overline{\mathrm{j}}(\mathrm{Rm}-\mathrm{Rm})$
$=L^{0.31164}=0.0780$

5-1
$\mathrm{Bj}=\frac{\operatorname{Cov}(\mathrm{Rj} . \mathrm{Rm})}{\mathrm{m} 2}=\frac{0.0780}{0.062}=1.26$

Appendix-2.c
Calculation of beta coefficient of NSMFCL

| Year | ( $\mathbf{R j} \mathbf{-} \overline{\mathbf{R} \mathbf{j}}$ ) | $(\mathbf{R m}-\overline{\mathrm{Rm}})$ | $(\mathbf{R} \mathbf{j}-\overline{\mathbf{R}} \mathbf{j})(\mathbf{R m}-\mathbf{R m})$ |
| :---: | :---: | :---: | :---: |
| 2003/04 | -1.4775 | -0.29632 | 0.4379 |
| 2004/05 | -1.0394 | -0.08912 | 0.0927 |
| 2005/06 | -1.0055 | -0.03082 | 0.0310 |
| 2006/07 | -0.0947 | 0.38788 | -0.0368 |
| 2007/08 | 3.2651 | 0.02838 | 0.0927 |
|  |  |  | $\sum(\mathbf{R j}-\overline{\mathrm{Rj}})(\mathbf{R m}-\mathbf{R m})=0.6506$ |

$\operatorname{Cov}(\mathrm{RjRm})=\sum(\mathrm{Rj}-\mathrm{Rj})(\mathrm{Rm}-\mathrm{Rm})$
n-1

$$
\begin{gathered}
=\frac{0.6506}{5-1}=0.1627 \\
\mathrm{Bj}=\frac{\mathrm{Cov}(\mathrm{Rj} . \mathrm{Rm})}{\mathrm{m} 2}=\frac{0.1627}{0.062}=2.63 \\
\text { The beta coefficient of NSMFCL }=2.63
\end{gathered}
$$

## Appendix-2.d

## Calculation of beta coefficient of AFCL

| Year | ( $\mathbf{R j} \mathbf{-} \overline{\mathbf{R} \mathbf{j}}$ ) | $(\mathbf{R m}-\overline{\mathbf{R}} \mathbf{m})$ | $(\mathbf{R} \mathbf{j}-\overline{\mathbf{R}} \mathbf{j}) \quad(\mathbf{R m}-\mathbf{R m})$ |
| :---: | :---: | :---: | :---: |
| 2003/04 | -0.1282 | -0.29632 | 0.0380 |
| 2004/05 | -0.1574 | -0.08912 | 0.0141 |
| 2005/06 | -0.4445 | -0.03082 | 0.0137 |
| 2006/07 | -0.5037 | 0.38788 | -0.0196 |
| 2007/08 | 1.2342 | 0.02838 | 0.0351 |
|  |  |  | $\sum(\mathbf{R j}-\overline{\mathbf{R j}})(\mathbf{R m}-\mathbf{R} \overline{\mathbf{m}})=\mathbf{0 . 0 8 1 3}$ |

$\operatorname{Cov}(\operatorname{Rj} R m)=\underline{\sum(R j-R \bar{j})(R m-R \bar{m})}$ n -1 0.0813

$$
=\frac{}{-}=0.021
$$

$$
5-1
$$

$$
\mathrm{Bj}=\frac{\operatorname{Cov}(\mathrm{Rj} . \mathrm{Rm})}{\mathrm{m} 2}=\frac{0.021}{0.062}=0.338
$$

## Appendix-2.e

Calculation of beta coefficient of UNL

| Year | ( $\mathbf{R j}$ - $\overline{\mathbf{R} \mathbf{j}}$ ) | $(\mathbf{R m}-\overline{\mathbf{R m}})$ | $(\mathbf{R j}-\overline{\mathbf{R}} \mathbf{j})(\mathbf{R m}-\mathbf{R} \mathbf{m})$ |
| :---: | :---: | :---: | :---: |
| 2003/04 | -0.2927 | -0.29632 | 0.0868 |
| 2004/05 | 0.04684 | -0.08912 | -0.004175 |
| 2005/06 | 0.2822 | -0.03082 | -0.00870 |
| 2006/07 | 0.06614 | 0.38788 | 0.0257 |
| 2007/08 | -0.10246 | 0.02838 | -0.00291 |
|  |  |  | $\Sigma(\mathbf{R j}-\overline{\mathrm{Rj}})(\mathbf{R m}-\mathbf{R m})=0.0968$ |

$\operatorname{Cov}(\mathrm{Rj} R \mathrm{Rm})=\underline{\left.\underline{\sum(R j-R j}\right)(\mathrm{Rm}-\mathrm{R} \overline{\mathrm{m}})}$

$$
=\frac{0.0968}{5-1}=0.0242
$$

$\operatorname{Cov}$ (Rj. Rm) 0.0242
$\mathrm{Bj}=\frac{\mathrm{m} 2}{0.062}=\frac{}{0.391}$
The beta coefficient of UNL $=0.391$

Appendix-2.f
Calculation of beta coefficient of BNL

| Year | $(\mathbf{R} \mathbf{j}-\overline{\mathbf{R}} \mathbf{j})$ | $(\mathbf{R m}-\overline{\mathbf{R}} \mathbf{m})$ | $(\mathbf{R j}-\overline{\mathbf{R}} \mathbf{j})(\mathbf{R m}-\mathbf{R} \mathbf{m})$ |
| :---: | :---: | :---: | :---: |
| 2003/04 | -0.23822 | -0.29632 | 0.0706 |
| 2004/05 | 0.12698 | -0.08912 | -0.0114 |
| 2005/06 | -0.2379 | -0.03082 | 0.00734 |
| 2006/07 | -0.02542 | 0.38788 | -0.000986 |
| 2007/08 | 0.37458 | 0.02838 | 0.0107 |
|  |  |  | $\sum(\mathbf{R j}-\overline{\mathbf{R j}})(\mathbf{R m}-\mathbf{R} \overline{\mathbf{m}})=\mathbf{0 . 0 7 6 2 5 4}$ |

$\operatorname{Cov}(\operatorname{RjRm})=\underline{\sum(\mathrm{Rj}-\mathrm{Rj})(\mathrm{Rm}-\mathrm{Rm})}$
0.076254
$=\frac{}{5-1}$
$\mathrm{Bj}=\frac{\mathrm{Cov}(\mathrm{Rj} . \mathrm{Rm})}{\mathrm{m}}=\frac{0.0191}{0.062}=0.0377$

Appendix-2.g
Calculation of beta coefficient of BBCL

| Year | ( $\mathbf{R} \mathbf{j}-\overline{\mathbf{R} \mathbf{j}}$ ) | $(\mathbf{R m}-\overline{\mathbf{R m}})$ | $(\mathbf{R j}-\overline{\mathbf{R}} \mathbf{j})(\mathbf{R m}-\mathbf{R} \overline{\mathbf{m}})$ |
| :---: | :---: | :---: | :---: |
| 2003/04 | -0.17895 | -0.29632 | 0.0531 |
| 2004/05 | 0.30578 | -0.08912 | -0.0273 |
| 2005/06 | 0.15838 | -0.03082 | -0.00489 |
| 2006/07 | -0.02242 | 0.38788 | -0.00870 |
| 2007/08 | -0.26282 | 0.02838 | -0.00746 |
|  |  |  | $\sum(\mathbf{R j}-\overline{\mathrm{Rj}})(\mathrm{Rm}-\mathrm{R} \overline{\mathrm{~m}})=\mathbf{0 . 0 0 4 7 5}$ |

```
\(\operatorname{Cov}(R j R m)=\underline{\sum(R j-R j)(R m-R \bar{m})}\)
        0.00475
    \(=-=0.0011875\)
    5-1
    \(\operatorname{Cov}(\mathrm{Rj} . \mathrm{Rm}) \quad 0.0011875\)
\(\mathrm{Bj}=\frac{\mathrm{m} 2}{}=\overline{0.062}=0.01916\)
```

The beta coefficient of BBCL $=0.01916$

Appendix-2.h
Calculation of beta coefficient of STC

| Year | ( $\mathbf{R j} \mathbf{j} \mathbf{- \mathbf { R }}$ ) | $(\mathbf{R m} \cdot \overline{\mathbf{R}} \mathbf{m})$ | $(\mathbf{R} \mathbf{j}-\overline{\mathbf{R}} \mathbf{j})(\mathbf{R m}-\mathbf{R} \overline{\mathbf{m}})$ |
| :---: | :---: | :---: | :---: |
| 2003/04 | 0.04564 | -0.29632 | -0.0136 |
| 2004/05 | -0.00766 | -0.08912 | 0.0006827 |
| 2005/06 | -0.00436 | -0.03082 | 0.0001344 |
| 2006/07 | -0.04256 | 0.38788 | -0.0166 |
| 2007/08 | 0.00894 | 0.02838 | 0.0002538 |
|  |  |  | $\sum(\mathbf{R j}-\overline{\mathbf{R j}})(\mathbf{R m}-\mathbf{R} \bar{m})=-\mathbf{0 . 0 2 9 1 3}$ |

$\operatorname{Cov}(R j R m)=\sum(R j-R \bar{j})(R m-R \bar{m})$
n-1
-0.02913
$=-=0.00729$
5-1
$\mathrm{Bj}=\frac{\operatorname{Cov}(\mathrm{Rj} . \mathrm{Rm})}{\mathrm{m} 2}=\frac{-0.00729}{0.062}=-0.1175$

## Appendix-3

## Computation of sum of values

| $\mathrm{X}_{1}$ | $\mathrm{X}_{2}$ | $X_{3}$ | $\mathrm{X}_{1}=\mathrm{x}_{1}-\overline{\mathrm{x}_{1}}$ | $\mathrm{X}_{2}=\mathrm{x} 2-\bar{x}_{2}$ | $\mathrm{X}_{3}=\mathrm{x}_{3}-\bar{x}_{3}$ | $\mathrm{X}_{1} \cdot \mathrm{X}_{2}$ | $\mathrm{X}_{2} \cdot \mathrm{X}_{3}$ | $\mathrm{X}_{1} \cdot \mathrm{X}_{3}$ | $\left(X_{1}\right)^{2}$ | $\left(X_{2}\right)^{2}$ | $\left(X_{3}\right)^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.0839 | 0.1604 | 0.0293 | -0.2965 | -0.2321 | -0.00044 | 0.068817 | 0.0001021 | 0.0001304 | 0.08791 | 0.05370 | 0.0000001936 |
| 0.2911 | 0.3133 | 0.0246 | -0.0893 | -0.0792 | -0.00514 | 0.0070725 | 0.0004070 | 0.0004591 | 0.007974 | 0.006272 | 0.0000264196 |
| 0.3494 | 0.4361 | 0.0284 | -0.031 | 0.0436 | -0.00134 | -0.0013516 | -0.0000584 | 0.0000415 | 0.000961 | 0.001901 | 0.0000017956 |
| 0.7681 | 0.8039 | 0.0242 | 0.3877 | 0.4114 | -0.00554 | 0.1594997 | -0.0022791 | -0.002147 | 0.150312 | 0.169249 | 0.0000306916 |
| 0.4086 | 0.2489 | 0.0422 | 0.0282 | -0.1436 | 0.01246 | -0.0040495 | -0.0017892 | 0.0003513 | 0.000796 | 0.020620 | 0.0001552516 |
| $\sum \mathrm{X}_{1}=1.90$ | $\begin{aligned} & \sum x_{2} \\ & =1.96 \end{aligned}$ | $\sum x_{3}=0.1487$ |  |  |  | $\begin{aligned} & \sum \mathrm{x}_{1} \cdot \mathrm{x}_{2} \\ & =0.2299 \end{aligned}$ | $\begin{aligned} & \sum x_{2} \cdot x_{3} \\ & =-0.0037 \end{aligned}$ | $\begin{aligned} & \sum \mathrm{x}_{1} \cdot \mathrm{x}_{1} \\ & =-0.0012 \end{aligned}$ | $\begin{aligned} & \sum\left(\mathrm{X}_{1}\right)^{2} \\ & =0.25 \end{aligned}$ | $\begin{aligned} & \sum\left(\mathrm{X}_{2}\right)^{2} \\ & =0.24 \end{aligned}$ | $\begin{aligned} & \sum\left(\mathrm{X}_{3}\right)^{2} \\ & =0.00022 \end{aligned}$ |

## Computation of sum of values

Now,
$\sum \mathrm{X}_{1} 1.902$
$\bar{X}_{1=}=\square=0.3804$
N 5
$\sum \mathrm{X}_{2} 1.96$
$\bar{X}_{2=}=-=0.3925$
N 5
$\sum X_{3} 0.1487$
$\overline{\mathrm{X}}_{3=}=\square=0.02974$
N 5
Substituting the calculated sum of values in equation (ii) and (iii), we get
$0.2299=b_{1} .0 .25+b_{2} .(-0.0037)$ $\qquad$ (iv)
$-0.0012=b_{1} .0 .0037+b_{2} 0.00022$
Now multiplying (iv) by 1 and (v) by 67.57 and subtracting we get
$0.2299=0.25 b_{1}-0.0037 b_{2}$
$-0.081084=0.25 b_{1}+0.0148 b_{2}$
$\qquad$
$0.3109=-0.0185 b_{2}$
$\mathrm{b}_{2}=-16.80$
$0.2299=b_{1} .0 .25+b_{2} .(-0.0037)$
$0.2299=\mathrm{b}_{1.0} 0.25+(-16.50)(-0.0037)$
$0.25 b 1=0.16774$
$\mathrm{b}_{1}=0.67096$

Substituting the value of b1 and b2 in equation (i) we get multiple regression equation of $X_{1}$ on $X_{2}$ and $X_{3}$ using deviation from mean as, or, $\mathrm{X}_{1}=\mathrm{b}_{1} \mathrm{X}_{2}+\mathrm{b}_{2} \mathrm{X}_{3}$
or, $X_{1}=0.67096 X_{2}+(-16.80) . X_{3}$
or, $\left(\mathrm{X}_{1}-\overline{\mathrm{X}}_{1}\right)=0.67096\left(\mathrm{X}_{2}-\overline{\mathrm{X}}_{2}\right)-16.80\left(\mathrm{X}_{3}-\overline{\mathrm{X}_{3}}\right)$
$x_{1}=0.67096 x_{2}+16.80 x_{3}+0.616632$
This is the required estimated regression equation of $x_{1}$ on $x_{2}$ and $x_{3}$.

## Appendix-4

Survey Questionnaire for Investors

## Respected Respondent.

You are requested to provide me your valuable time to fill up this questionnaire which has been prepared for the research work entitled "Investors Awareness in the Stock Market on Nepal" for the partial fulfillment of the requirement of Masters of Business Studies.

## Puja Panta

## M.B.S. Student

Padma Kanya Multiple Campus
Bagbazar, Kathmandu.

Name of the respondent: $\qquad$
Address: $\qquad$

Professional
Age $\qquad$

1. Why do you invest in shares? Please rank
a) For dividend
b) For price appreciation
c) For special status
d) Others
2. Which sector is your preference for investment? Please rank
a) Commercial banks
b) Development banks $\square$
c) Financial
d) Insurance companies
e) Manufacturing

f) Trading Companies
g) Hotel

h) Hydropower
i) Others

3. Which factor do you think that affect the return on stock?
a) EPS
b) MPS
c) Net worth

d) Company Goodwill
e) Others
4. In which of the following, you prefer to invest your money?
a) Portfolio

b) Real Estate
c) Gold
d) Treasury bill
e) Bank Fixed deposit

f) Commodity
5. What do you think about the nature of risk in stock investment?
a) Predictable
b) Manageable
c) Known
d) Unknown
6. In which of the following situation you would prefer to invest?
a) High return with high risk

b) Moderate return with moderate risk
c) Low return with low risk

d) Others
7. Have you ever consult others before investing in shares? If yes, to whom.
a) Stock Broker

b) Professionals
c) Friends
d) Relatives
e) Others
8. Which of the following factors do you give importance to Measure Companies Performance? Please rank.
a) Timely AGM
b) Declaration of dividend
c) Issue of bonus and right share
d) Systematic flow of information
e) Interaction of Company
9. What do you think about the main cause of over subscription in initial public offering in Nepal?
a) Lack of investment opportunities in other sector
b) High dividend distribution
c) Low bank interest rate
d Rise in market price
e) Others
10. What do you think about the existing rules and regulation about the stock market in Nepal?
a) Relevant
b) Adequate
c) Inadequate
d) Unpractical
e) Others
11. What do you think about the management attitudes towards public shareholder?
a) Positive
b) Responsiveness of top management
c) Satisfactory
d) Inadequate

e) Others
12. What is the factor that drives investor to invest in Initial Public Offering?
a) Satisfactory return
b) Ownership benefits
c) Choice of sector (Banking, finance, other etc)
d) Founder and management
e) Director nominee
13. If market price per share is in increasing trend, what will you do?
a) Invest in securities
b) Sell the securities
c) Buy and hold strategy
d) Others
14. If market price per share is in decreasing trend, what will you do?
a) Invest in securities
b) Buy the securities
c) Sell the securities
d) Hold the securities
e) Realized capital gain
15. How often do you participate in AGM of concerned company?
a) Regular
b) Sometimes
c) By proxy
d) No participation
16. In your opinion, what is to be done to protect the interest of public shareholder in stock market? Please rank.
a) More representation of public in Board of Directors
b) Regular Flows of information through different Medias $\square$
c) Public awareness programs by government authorities $\qquad$
d) Increased shareholder's activism of their rights
17. What do you think about the VIP Shareholders association?
a) Investors benefit
b) Public welfare
c) Personal benefit
d) Others
18. What factors affect more for investors to investment in securities?
a) Political indifference
b) Strikes'
c) Road blockage
d) Legal restrictions (showing income source, tax etc)
e) Others
19. What do you think about the role of investors association about the investor's awareness?
a) Provides systematic flow of information
b) Events organized like (Seminar, training, meeting)
c) Passive environment
d) Raising the voice for investor benefit
d) Others
20. What do you think about the role of broker association or broker house?
a) Adequate

b) Satisfactory
c) Inadequate
d) Others

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