CHAPTER – I
INTRODUCTION

1.1 General Background

Nepal being small in size and surrounded by big countries with big civilization, Nepal has been successful in maintaining its own unique culture, tradition and history. This country is proud of its rich history and the fact that it never became a colony of any imperialism. It is a land lock country having total area of 141,181 sq. km. For administrative purposes, the country has been divided into three ecological regions: the Mountains (Himal), the Hills (Pahad) and the Plain (Terai).

The Mountain region covers 35% of the land area of the country but only about 2% of its land is suitable for cultivation. The altitude ranges between 4,877 meters to 8,848 meters above the sea level. This region accommodates only 7.3% of population of the country.

The Hilly region is located in the middle of the mountain and the terai region. This region accounts largest, 42% of the land area of the country, about one tenth of its area being suitable for cultivation. It lies between the altitudes of 610 to 4,877 meters above the sea level. This region holds 44.3% of the total population.

The Terai region lies on the southern part of the country. It comprises 23% of the land area of the country and accommodates 48.4 % of population in 2001. This area includes most of the fertile land and dense forest of the country. Forty percentage of its land area is suitable for cultivation.

The population of Nepal (according to National Census 2001) is 22,736,934 and the population growth rate has remained at 2.24% per year. About 85.8%

of total population lives in rural area and most of the people in rural area depend on agriculture for their living and 49% of the total population lives under absolute poverty line. So, we can say that Nepal has agro-based economy with low human development and presence of endemic poverty. Nepal is definitely one of the poorest countries in the world. Its per capita income is US$ 230 which is in top ten from the below and there are many administrative, political and governmental issues that are proving impediments for the smooth growth for the country. However, despite fluid political situation, lack of infrastructure, poor implementation of resources and at reasons the country looks set to defy all the challenges.

1.2. Background of the Study

Development of the country is directly related with its economic development. The economic development of the country in turn depends upon the capital formation and industrialization. Industrialization can be achieved through proper use of the funds and their investment in the productive sector. Each and every managerial decision is based on financial analysis. It covers the acquisition, utilization, control and administration of funds. “Management finance is an exciting and dynamic area of study, and its importance to the long run success of today’s business is unquestioned. Virtually, all individuals and organization earns or raise money and invest it. Finance is concerned with the processes of institution markets and instrument involved in the transfer of money among and between individuals, business organization and governments. The field of finance is board and dynamic. Financial management leads to the decision making more skillfully. Finance has become an important branch of any economy, of which share market is a leading sector. In short period, the field of finance has developed considerably.

For economic development in any country, the favorable economic environment is must, which in turn depends on various factors. Such an inspiring environment tends to hatch idea of entrepreneurship Vis-à-vis Corporation. The ability of an organization to acquire the needed capital is one

of the main factors for its success. “Development and expansion of capital market are essential for the rapid economic growth of the country. Capital market helps economic development by mobilizing long-term capital, which is needed for productive sector. The main objective of the capital market is to create opportunity for maximum number of people to get benefits from the return obtained by directing the economy towards the productive sector by mobilizing the long-term capital.” (Ojha, 2001:1)

Capital market investment plays key role in paving way towards economic development of a country. In particular regarding the developing economies like Nepal. Investment has never been smooth always such that investors would accrue more payoffs. With the technological maturity and diversification, investment has been smooth and disciplined. Many corporate bodies are raising their capital by issuing different means such as common stock, preferred stock, and bond with attachment of warrant and convertibles. The underwriters are the prime facilitators for the process of investment.” (Paudel, 2001: 01)

Nepal aspires for a rapid economic growth that requires additional capital formation and subsequent investment. The capital market is the market, which deals in medium-term and long-term funds. It refers to all the institutions facilities, practices and arrangement for borrowing and lending medium-term and long-term capital. “In the board sense capital market which includes primary markets, secondary markets, term lending institution, banks, investors and just about anybody and everybody who is engaged in providing long-term capital (whether equity capital or debt capital) to the industrial sector.” (Karki, 1994: 08)

Rational and high moral character and accountable behavior of institutions such as the government, central bank, stock exchange

1.2.1. Investment

Sacrificing current earnings for future earnings is called investment. Risk is always associated with an investment. Investment also helps to expand the national economy.

An investment is the current commitment of money or other resources in the hope of reaping future benefits. According to J. Jordan and Donald E. Fisher, "An investment is the commitment of funds made in the expectation of some positive rate of return". If the investment is properly undertaken, the return will be commensurate with the risk the investor assumes. (Jorden & Donald, 1997:10)

Our investment is mainly concentrate with the investment in the security market. Investment in stock market can only be fruitful if decided after analyzing all the merits and demerits of the security to be invested in. Investment policy must be set which will help to determine the investors' objective and the amount of his or her fund to be invested.

Investment, in its broadest sense, means the sacrifice of current rupees and resources for the sake of future rupees and resources. In other words, it is a commitment of money and other resource and that are expected to generate additional money and resources in the future. Such a commitment takes plUFC in the present and is certain to occur but the reward comes in the future and always remains uncertain.

The sacrifice of current consumption takes plUFC at present with certainty and the investor expects desired level of wealth at the end of his investment horizon. The general principle is that the investment can be retired when cash is needed. The decision to investment now is a most crucial decision as the future level of wealth is not certain. Time and risk are the two conflicting attributes involved in the investment decision. Broadly investment alternatives fall into

two categories: real assets and financial assets. Real assets (Land, Building, factories etc.) are tangible while financial assets involve contracts written on pieces of papers such as common stocks, bonds and debentures. Financial assets are bought and sold in organized security markets.

1.2.2 Securities Market

Securities market is such financial market, which facilitated the buying and selling of the stocks conveniently to all those who are interested in carrying out the transactions. It is assumed that development of stock market marks the development of country's financial sector and it finally helps in the growth of nation. "Securities markets exist in order to bring together buyer and seller of securities meaning, they are mechanism created to facilitate the exchange of financial assets.

A stock reflects the uncertainty about future return, such that the actual return may be less than expected return. The main source of uncertainty is the price at which the stock will be sold. Dividends tends to be much more than stock prices which contributes to the return immediately received by investors and at the same time reduces the amount of earnings reinvested by the firm.

Stock market is the financial market, which probably has the greatest glamour and is perhaps the least understood. Some observers consider it as a legalized heaven for gambling and many investors consider stock market investing as a game in which the sole purpose is picking winners. Capital market is the part of financial market. A financial market is market in which financial assets (securities) such as stocks and bonds can be purchased or sold. One party transfers funds in financial market by purchasing financial assets previously held by another party. Financial market facilitates financing and investing by households, firms and government's agencies.

1.2.3. Securities Market in Nepalese Context

Nepal, on its own way has gaining experience with the securities market development and regulations. This is an attempt to give an insight into the important issues and performance of the securities market in Nepal. The market in its present form has been an outcome of an effort to organize capital market during the last quarter of the twentieth century.

The organized market made a debut in the form of government bond market. Later it is extended to counter trading of corporate stocks, though in a limited scale. During the liberalization in 1990, government exercise to develop capital market and gave a proper structure for the securities market. In June, 1993 securities board, a statutory board with a mandate to regulate and develop securities market was established. Subsequently in January 1994, trading floor is opened in the Nepal Stock Exchange (NEPSE).

Though initiated by government, the capital market has now been a partnership between government and private sector. Securities Board serves as government regulator, Nepal Stock Exchange is still controlled by government and securities businessman are from the private sector. Financial Institutions play an important role in the economic growth and development of the country. They help in mobilization of the idle and scattered savings by playing an intermediary role in making investment in different productive sectors from the collected funds. They are able to fulfill the requirements of trade and industry in the country and plays greater role in reducing poverty, increasing employment opportunities and raising people's life standard. Most of the shareholders and investors are least familiar with risk and return. "Most of Nepalese investors are found to invest in single security." Due to lack of information and proper knowledge, market intermediaries' exploit investors. Therefore many investors are afraid to invest in stocks.

Here we just concentrated our study over Stock price behavior in stock market of Nepal.

A security: An instrument representing ownership (stocks), a debt agreement (bonds), or the rights to ownership (derivatives).

The security market: The history of securities market began with the floatation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. in 1937. Introduction of the Company Act in 1964, the first issuance of Government Bond in 1964 and the establishment of Securities Exchange Center Ltd. in 1976 were other significant development relating to capital markets.

Securities Exchange Center (SEC) was established with an objective of facilitating and promoting the growth of capital markets. Before conversion into stock exchange it was the only capital markets institution undertaking the job of brokering, underwriting, managing public issue, market making for government bonds and other financial services.

Under a programmed initiated to reform capital markets converted Securities Exchange Center into Nepal Stock Exchange in 1993. Nepal Stock Exchange, in short NEPSE, is a non-profit organization, operating under Securities Exchange Act, 1983. The basic objective of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transactions in its trading floor through member, market intermediaries, such as broker, market makers etc.

NEPSE opened its trading floor on 13th January 1994.Organized security markets exist to facilitate the exchange of financial assets. Specialized markets may also exist to deal in specific type of securities such as bond markets, stock markets and government bond markets. In Nepal, Nepal Stock Exchange Limited (NEPSE) is the only organized stock market facilitating the trading of

corporate securities, mainly common stocks. It opened its floor for the trading of corporate securities on the 13th of January 1994. Prior to the establishment of NEPSE in 1994, secondary market was operated over-the-counter facility managed by Securities Exchange Center (SEC). The number of listed companies, which stood at 15 in 1993/94, increased to 128 by the end of the fiscal year 2006.

Over the last few years, both the annual turnover and market capitalization of listed companies have increased substantially. Total capitalization amount is reached at 90 arba .It is noteworthy to point out that commercial banks to total annual turnover stood at 82 percent by the end of the fiscal year 2006 with those shares accounting for 62.4 percent of the total market capitalization during the 2006 fiscal year. These indicators reveal that the shares of commercial banks have a dominant role in determining the key indicators of the Nepalese stock exchange. It is thus unsurprising that commercial banks' shares have continued to appear as the most attractive investment alternatives since the opening of the floor in January 1994.

Government of Nepal, Nepal Rastra Bank, Nepal Industrial Development Corporation and members are the shareholders of the NEPSE.

1.2.4 Securities Board of Nepal (SEBO/N)

Securities board, Nepal was established on may 26, 1993 under the provision of securities Exchange Act, 1983 (first amendment). It was with the objectives of promoting and protecting the interest of investors by regulating the issuance, sale and distribution of securities and purchase, sale or exchanges securities. Besides the regulatory role, it is also responsible for the development of securities market in the country.

The incorporation securities Board, Nepal (SEBO/N) under the securities Exchange (NEPSE) in 1983 and conversion of the Nepal Stock Exchange

center into Nepal Stock Exchange (NEPSE) in 1993 under the Government policy on capital market reform has greatly contributed to the development of primary as well as secondary market for the corporate securities. The securities Board was set up for the development of the securities market and to enhance the degree of investor's protection. And approve sock exchanges for the operation and to oversee them for healthy trading of securities.

Common stock: A security that represents ownership in a corporation. Holders of common stock exercise control by electing a board of directors and voting on corporate policy. Common stockholders are on the bottom of the priority ladder for ownership structure. In the event of liquidation common shareholders have rights to a company's assets only after bondholders, preferred shareholders, and other debt holders have been paid in full. In the U.K., these are called "ordinary shares".

When money is put into the stock market, it is done with the aim of generating a return on the capital invested. Getting started investing in the stock market can be extremely exciting. It can also be very scary for many people. That's why starting investors in the stock market are wise to begin with small stock investments. By starting to invest in the stock market using small to moderate amounts of money, a person can learn the ups and downs of the market without feeling that they've plUFCd themselves at great risk.

The old saw buy low, sell high is what most people think of when they first get started investing in the stock market. While this is sometimes good advice, it isn't always true. Sometimes it's better to buy a higher priced stock that has a record of steadily increasing in value. Knowing your tolerance for risk is vital before you start investing in the stock market. Many investors try not only to make a profitable return but also to outperform, or beat, the market. We will talk to it in broad sense in this thesis.

1.3 Focus of the Study

Profit seeking enterprise requires large sum of capital funds for smooth operation. Short, intermediate, and long-term capital funds are essential to grow and expand organizational activities. Out of that long-term funds are highly significant for future growth and prosperity. Most of the organization generates these types of funds from financial market.

Security prices play vital role in channeling the flow of capital into various industries. The behavior of price of securities has been a controversial subject matter among for the academicians investing on economics and finance. It is one of the ridiculing factors for a business person. To some extent, in advanced economies with fairly competitive market systems the pricing of securities in the capital market has left some spUFC for satisfaction. The market prices of the securities are competitive and determined by interconnected market forces. There ought not to be any different between present value and market value of shares."(Panday, 1998: 360) In other words, securities prices are set by the demand and supply of securities. Market makers try to quote an equilibrium price that equates the supply with the demand." (Mayo, 1993: 45)

Investor invests their money with a hope of receiving good return of their investable fund, but the interplay of various reasons it compels them to lose their hard earning. While investment is made without analyzing the stock, Many times investors blindly invest their funds by just reading the prospectus availed by the issuing companies and many times they purchase share any analysis. So the study is focused on stock price behavior of financial companies trading at NEPSE.

This study is mainly focused to know the effect of price trend, volume of stock traded, market behavior and impact of signaling factor on NEPSE index.

1.4. Statement of Problems

Today stock market has become global phenomenon however; the stock market in Nepal remains at infant stage. The history of securities market began with the flotation of shares by Biratnagar Jute Mills Ltd and Nepal Bank Ltd.

Stock market behavior is the backbone of investment sector in the country. So by promoting the stock market in sizeable economic sector gives raise the economic development by mobilizing swing into productive sector by making suitable investment. For investment environment different element like price trend, NEPSE index, volume of stock traded, rate of listing and signaling factor one of greater importance.

Usually the price of common stock in primary market is par value but in secondary market it may be any price. The long securities processing cycle has restricted to the development of securities market. The investors have to wait for long time for the securities in hand. This long time has restricted them to take many opportunities. Low price and low trading volume of companies have directly related to market value of firm. Due to lack of sound dividend policy, most of the companies have not been able to maximizing the value of a firm in secondary market. Lack of sufficient information dissemination to investor and lack of transparency has another problem that exists in Nepalese stock market. It mainly affects position of the company market information system and corporate governance of the company.

Talking about the capital market in Nepal there is no way to justify it as a perfect. Being an imperfect market the floor price of the listed company's shares cannot represent their true value. The options remained are undervalued or overvalued stocks. The situations might saturate into exit for the firm.

There are various visible problems in the capital market. It is not possible to address all the problems overnight. Considering this and the focus of the study in mind, this study has attempted to seek the answers of the following issue.

1. How is the trend of stock price?
2. How is the impact of price trend on transaction?
3. What is the behavior of NEPSE index?
4. What is the share price behavior of listed finance companies?

These are the burning issue regarding stock price determination of secondary market in Nepal.

1.5. Objectives of the Study

The main objective of this study is to find out the investing trends of securities market in Nepal, commercial banks, stated in NEPSE. Along this these are also major objectives respectively,

1. To examine and evaluate the investment trend of securities of listed finance companies in NEPSE.
2. To study and analyze volume of stock traded on the secondary market of listed finance companies in Nepal.
3. To analyze the profitability ratio of listed finance companies in Nepal with respect to risk.

1.6. Significance of the Study

The investment includes how an investor makes decision about what securities to invest in, how extensive the investment should be, and when they should be made.

More over the investment practices and procedures in Nepal under the organized stock exchange are still in a primitive stage. Investment in secondary stock market play crucial role in financial sector of an economy. It effects the whole economic situation of a nation. Stock market being one of the prominent sources of economic development, ultimately its potential investors are the biggest assets.

In the Nepalese context, there is the lack of wider investment opportunities that provide an attractive rate of return. So there has still been a huge amount of unutilized saving funds with the general public. The investors are attracted by the increasing trend of MPPS of public companies, mainly the joint venture commercial banks. Therefore they are investing their saving funds in the common stock of public companies with the good expectation of higher capital gain in the future.

But, most of the public investor, i.e. existing and potential have no better know-how about the real financial strength and weaknesses of the public companies in which they invest or wish to invest their funds. Further, they are unable to carry out empirical analysis and interpretation of the real financial position of a company on the basis of available data and information to reach the right conclusion.

Various studies have been conducted in the past to measure the performance of the company listed in the security market. Separately some studies have also been conducted to study the stock price behavior. This study no doubt will have importance to all the people concerned with the stock market. It is helpful to the stock investment consultants and the market makers of stock market in the Nepalese context. The study adds literature to further researchers in this area. The research is supposed in dissertation papers inquiring to know the affect of price trend, volume of stock traded, impact of signaling factors on NEPSE index. Last but not least, the study is assumed to be helpful to the financial

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1.7. Limitations of the Study

This study has been conducted under the following limitation.

1. Time, finance, and authentic information are also the major limitation of the study.
2. The research is based upon the data provided by the NEPSE from its official records. Thus the data are not verified.
3. Study being totally dependent on the secondary data .
4. Stock price trend is seen only with the help of NEPSE.
5. The study has been designed to concentrate on the finance sector, which is a part of total capital market so the conclusion can’t be generalized on the total capital market.
6. Only the listed finance companies in NEPSE are used for analysis propose

1. 8. Organization of the Study

This study has been organized in to five chapters each denoted some aspect of the study of trend of investing of securities in Nepal & stock price behavior in stock market. The title of each of these chapters is as follows.

This study includes five chapters:

Chapter 1

First chapter includes the introduction and general background, statements of the problem, objectives of the study, hypothesis and significance of the study and limitation of as the study.

Chapter 2

Second chapter includes review of literature. In this chapter review from books, Journals, Thesis, Business reports and independent studies are taken into account.

Chapter 3

Third chapter includes research methodology with research design, data collection, procedures, tools of analysis and methods of analysis and presentation.

Chapter 4

Forth chapter deals with data presentation and analysis part; it is the main body of our research. It includes data presentation, interpretation and analysis. In this chapter the unsystematic risk of each selected operators is analyzed.

Chapter 5

Fifth chapter includes summery, conclusions and recommendation of the research. Finally suggestion and recommendations are given.

CHAPTER-II
REVIEW OF LITERATURE

2.1 Introduction

This chapter highlights on the literature that is available in this topics. Specifically, it attempts in incorporating as far as practicable those studies conducted outside Nepal. To some extent available studies in the country are also reviewed.

This first part of this chapter describes about the theories of stock price behavior. It includes the fundamental analysis, technical analysis and the efficient market theories. The second part is confined to review those literature carried out previously. This section includes the studies conducted in the foreign context as well as Nepalese context.

2.2 Conceptual Framework

Before getting into the core subject matter of the share price behavior of common stocks in the market it is an imperative to be acquainted with the general concepts of the share and other related matter. Following sub section will be explaining the conceptual matters of the capital market.

Primary Market

A primary market is the plUFC where corporations and government issue new securities. All securities, whether in money or capital markets, are initially issued in the primary market. This is the only market in which the company or government is directly involve in the transaction and receives direct benefits from an issue-that is, the company actually receives the proceeds from the sale of securities.

Secondary Markets

In the secondary market the share once issued in the primary market ate traded. Once the securities begin to trade among individuals, businesses, governments, or financial institutions, savers and investors, they become a part of the secondary market.

So the secondary market liquidates the shares and provides the opportunity between the investor and the seller of the securities. The company must list the securities in the security market for the transaction purpose.

Investors usually purchase securities in the secondary market by calling securities brokers. In the secondary market investors' buy and sell securities themselves, the issuer never gets any cash flow from the trades. NEPSE is an example of organized stock exchange and this is the only stock exchange in Nepal. Similarly, the New York Stock Exchange (NYSE), Tokyo Stock Exchange, American Stock Exchange (AMEX), Bombay Stock Exchange (BSE) is the example of organized stock exchanges.

"If the owner of 100 shares sells his or her stocks, the trade is said to have occurred in the secondary market. Thus the market for outstanding shares or used shares is the secondary market. The company receives n new money when sales occur in this market" (Bringham, 1999: 305)

2.2.1 Common Stocks

The common stocks represent ownership in a company. The holders of common stocks, called shareholders or stockholders, are the legal owners of a company. The common stocks are the permanent and vital source of capital since they do not have a maturity date. The capital contributed by shareholders by purchasing common stocks, are entitled to dividends. The Company's Board of Directors fixes the amount or rate of dividend. The common stock is, therefore, known as the variable income security. Being the owner of the

company the stockholders bear the risk of ownership; they are entitled to dividends after the claims of others have been satisfied. Similarly, when the company is wound up, they can exercise their claim on assets after the claims of other suppliers of capital have been met. (Panday, 1995: 905)

The firms to raise ownership capital issue the common stocks and investors buy them with the expectation that they receive a share of profit periodically along with appreciation in the value of their investment. The common stocks legally represent the equity of business firm, and the holders are the owners business firm & even they can hare all the profits and losses of the business. They enjoy all earnings after meeting the obligations of interest on debts and dividends on preferred stocks. Thus, they enjoy all net benefits of the business by assuming the risk of losing their capital. (Pradhan, 1996:132-33)

2.2.2 Stock Certificates

The ownership of a firm's stock has typically been represented by a single certificate with the number of shares held by the particular investors noted on it, such a stock certificate is usually registered, with the name, address, and holding of the investor included on the corporation's book. Dividend payments, voting material, annual and quarterly reports and other mailing are then sent directly to the investors, taking into account the size of his or her holdings.

Shares of stock held by investors may be transferred to a new owner with the assistance of either the issuing corporation or more commonly its designated transfer agent. This agent will cancel the old stock certificate and issue a new one in its plUFC made out to the owner. Frequently, a registrar will make sure that this canceling and issuing of certificates have been done properly. Usually, banks and trust companies act as transfer agents and registrars. Many stockholders have chosen to avoid these rather cumbersome procedures. Instead, depository arrangement are used which substitute computerized records for embossed certificates. However the above-mentioned process may

not go exactly to the Nepalese practice but in the theoretical ground these are the procedures to be followed when executing the shares transactions.

2.2.3 Dividend

"The percentage of earnings the firm pays in cash to its shareholders is known as dividend. The dividends, of course, reduce the amount of earning retained in the firm and affect the total amount of internal financing." (Vanhorne, 2000: 305)

"Nothing is more important than dividends to stockholders. They buy shares of firm with the hope of sharing profits earned by firms. The role motive of stockholders is to receive return on their investment, nothing pleases them more than knowing the firm's earning and more profits mean more dividends coming in." (Pradhan, 1996: 375 -76)

"Krishman opines that of two stocks with identical earning record and prospect, but the one paying a large dividend then the other, the former will undoubtedly command a higher price merely because stockholders prefer present to future values. Stockholders often act upon the principle that a bird in the hand is worth two in the bush and for this reason that are willing to pay a premium for the stock with the higher dividend rate." (Pandey, 1995: 681)

Forms of dividend are listed below

Cash Dividend: Payments made in cash to stockholders are termed cash dividends. For which, a firm needs to have enough cash in its bank account. When cash dividend is declared, the cash account and reserves account of the firm will be reduced, thus both the total assets and the net worth of the firm are reduced in case of distribution of cash dividend.

Bonus Share (Stock Dividend): "An issue of bonus share represents a distribution of shares in addition to cash dividend (known as stock dividend in USA) to the existing stockholders. This practice has the effect of increasing the number of outstanding share of the company, which is distributed proportionality. Thus, a shareholder retains his/her proportionate ownership of the company." (Ibid 1995: 705-706)

2.2.4 Sources of Investment Risk

Some of the sources of uncertainty that contribute to the investment risk are listed below.

Purchasing Power Risk:

Purchasing power risk is the variability of return and investor suffers because of inflation. Economists measure the rate of inflation by using a price index. Rate of inflation directly affects rate of return, hence the changes in the purchasing power cause the price of securities move that result the risk.

Interest Rate Risk:

Interest rate risk is defined as the potential variability of return caused by changes in the market interest rates. More sufficiently value of securities moves inversely with changes in the market rate of interest. This interest rate risk affects the prices of bonds, stocks, real estate, gold and other investment as well.

Bull-Bear Market Risk:

As its name suggests, bull-bear market arises from the variability in market returns resulting from alternating bull and bear market forces. When a security index fairly constantly from a low point, called a trough, for a period of time, the upward trend is called bull market. The bull market ends when the market index reaches a peak and starts a downward trend. The period during which the market declines to the next trough is called bear market.

Default Risk:

Default risk is that portion of total risk of investment that results from changes in the financial integrity of the investment. The variability of return that investors experience as a result of changes in the credit worthiness of a firm in which they invested is their default risk.

Management Risk:

Through many top executives earn princely salaries, occupy luxurious offices, and wield enormous power within their organizations, they are mortal and capable of making a mistake or a poor decision. Further more, errors made by business managers can harm those who invested in their firms. Hence, it also is capable of poring risk to investment.

Liquidity Risk:

Liquidity risk is that portion of an asset's total variability of return, which results from price discounts given or sales commissions paid in order to sell the asset without delay.

Perfectly liquid assets are highly marketable- either price discounts must be given or sales commissions must be paid. The more liquid an asset is the larger the price discount or commission in which must be given up by the seller in order to affect a quick sale.

Convertibility Risk:

Convertibility risk is that part of the total variability of return from a convertible bond or convertible preferred stock that reflects the possibility that the investment may be converted into the issuer's common stock at a time or under terms harmful to the investor's best interests.

Callability Risk:

Callability risk is that portion a security's total variability of return that derives from the possibility that the issue may be called. Callability risk commands a risk premium that comes in the form of a slightly higher average rate of return.

Industry Risk:

Industry risk is that portion of an investment's total variability of return caused by events that affect the products and firms that make up an industry. The stage of the industry's life cycle, international tariffs and/or quotas on the products produced by an industry, product-or industry-related taxes, industry wide labour union problem, environmental restriction, raw material availability, and similar factors interact and affect all the firms in an industry simultaneously. As a result of these commonalities, the prices of the securities issued by competing firms tend to rise and fall together. (Ibid. 1995: 9)

Political Risk:

Political risk arises from the exploitation of a politically weak for the benefit of a politically strong group, with the efforts of various groups to improve their relative positions increasing the variability of return from the affected assets. "Regardless of whether the changes that cause political risk are sought by political or economic interests call the resulting variability of return called political risk if it is accomplished through legislative, judicial, or administrative branches of the government." (Clark, Francis, 1997: 08)

Total Risk:

"The uncertainties discussed above are the major sources of investment risk, but by no means do they make up an exhaustive list. If all the uncertainties could be listed, they would add up to total risk, or total variability of return." (Clark & Francis, 1997: 8-.9)

2.3 Theories of Stock Price Behavior

There are two theories of stock price behavior, conventional approach and efficient market theory. Conventional approach includes Fundamental Analysis Theory and Technical Analysis Theory. Under efficient market theory there are three forms of efficient market hypothesis. Conventional theory assumes that the market inefficient where as efficient market theory assume that the market is efficient i.e. market efficient is the key factor for both the approach. “Prior to the development of the efficient market theory, investors were generally divided into two groups, fundamentalists and technician.” (Reilly, 1986: 347)

2.3.1 Conventional Approach

One of the major divisions in the ranks of financial analysis is between those using fundamental analysis (known as fundamental analysts or fundamentalists) and those using technical analysis (known as technical analysts or technicians). “Conventional approach includes technical analysis and fundamental analysis.” (Pandey, 1995: 681)

2.3.1.1. Technical Analysis Theory

“Technical analysis can be defined as the use of published market data for the analysis of both the aggregate stock market and individual stocks. It is sometimes called market or internal analysis.” (Jones, 1943: 396) Technical analysis is market-oriented philosophy and it can concentrate on the force of supply of and the demand for shares as reflected in the actions of market rather than the intrinsic worth of share. Technical analysis is based on published market data that include the price of a stock or the level of a market index, volume (no. of share traded), and technical indicators.

“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 patterns to predict future prices. Some charts are used to predict the movements of a single security, other are used to predict the movements of a

market index, and still others are used to predict the action of both individual assets and the market. Some of these same charts are also used to predict the fluctuations in the price of a commodity, a foreign exchange, or a rate of interest." (Clark, Francis, 1997: 522)

Technical analysts believe in the history and that history repeats itself. Consequently all their prediction and chart are based on history. Past figure and trends are use to predict the future. This theory is also the study of the internal stock exchange information. Technical analysis is based on the widely accepted premise that security price are determined by the supply of and the demand for securities. The tools of technical analysis are therefore designed to measure of certain aspects of supply and demand. Timing-predicting short-term price movements in either individual stock or a market indicator are objective of technical analysis.

The main assumptions of the technical analysis theory are : (Levy, 1996: 348)

1. Price is determined by the interaction of demand and supply,
2. Demand and supply are governed by various factors, both rational and irrational.
3. Service of price contains trends that persist for appreciable length of time.
4. The changes in trends caused by shifts in demand and supply are detected in the analysis of past and volume data and,
5. The patterns tend to repeat it self.

In essence, technical analysts believe that past patterns of market action will recur in the future and can therefore be used for predictive purchase.

"The technician believes the forces of supply and demand are reflecting in patterns, they predict together prices are moving higher or lower, and even by how much. In the narrowest sense, the technician believes that price fluctuation

reflect logical and emotional force. They further believe that price movements whatever their cause, once in force persist for some period of time and can be detected." (Jorden & Fisher, 1997: 510) On the basis of these technical theories, many have endeavored to forecast the future of the stock market.

Various studies witness that technical analysis is a useful in enabling investors to beat the market. Many proofs of the ability of technical analysis to beat the market were offered, errors are predominant. However, several recent studies have indicated that technical analysis may be useful to investor. Technical analysis, however, attempts to predict future stock price by analyzing past stock prices. In general, tomorrow's stock price is influenced by today's stock price. The direction of price change is as important as the relative size of the change. With the various tools, the technicians attempt to correctly catch changes in trend and take advantage of them.

2.3.1.2. Fundamental Analysis Theory

"Fundamental analysis is analysis of the valve of a security based on financial statements and economic analysis."(Malcom, Richards, Cooper, Fraser, 1984: 95) Fundamentalists forecast stock prices on the basis of economic, industry and company statistic. The principal variables ultimately take the form of earnings and dividends. The fundamentalist make a judgment of the stocks value with a risk return framework based upon earning power and the economic environment.

"In the fundamental approach, the security analyst or prospective investor is primarily interested in analyzing factors such as economic influences, industry factors and pertinent company information such as product demand, earnings dividends and management in order to calculate an intrinsic value for the firm's securities. They reach on an investment decision by comparing this value with the current market price of the security. The fundamental is tends to look forward. He is concerned with such matters as future earnings and dividends. It

is some times said fundamental analysis is designed to answer to question "what?"(Sharpe, Jordon, Alexander 1995: 844)

Fundamentalists forecast stock prices on the basis of economic industry and company statistic. The principal decision variable ultimately takes form of earning and value with a risk-returns framework based upon earning power and the economic environment. "Fundamental analysts delve into companies earnings. Their management economic outlook, firm's competitor's market condition and many other factors."(Clark, Francis, 1997: 398)

The objective of fundamental securities analysis is to appraise the intrinsic valve of a security. The intrinsic value is the true economic work of financial asset.

Fundamental theory assumes that knowledge about the future of companies is not perfect, some stocks are under-priced and others are over-priced. The investor task is to study certain fundamental factors that may enable them to select undervalued stocks for purchase and sell overvalued stock. These fundamentals are the historical profitability of an industry, the leading companies in the industry, the economic outlook for the profitability of the industry as a whole, and the outlook for general economy. The potential investors then estimate the value of one company by comparing the history and expected future of this company with competing firms. Such companies are based on much objective information.

The fundamental analysts work to find new information before other investor so they can get into a position to profit form price changes they anticipated. "Fundamental analysis uses different models like Top-Down versus Bottom-up forecasting, probabilistic forecasting, econometric models, financial statement analysis etc to estimate the value of securities."(Fresher, Sharpe, Alexander &

Bailey, 1995: 850-53) Therefore the fundamental analyst reaches an investment on the basis decision on the basis of these analytical tools.

Though fundamental analysis approach is used by many security analysis or prospective investors to make a judgment of the stocks value with a risk-return framework based upon earning power and the economic environment, it is hard and time consuming work.

Technical Versus Fundamental Analysis

Technical analysts believe that past patterns of market action will recur in the future and therefore they can be used for predictive purposes.

Technical analysts estimate prices instead of values.

Technical analysts ignore the facts of fundamental analysis such as risks, earnings, dividends, growth rates etc.

Some analyst use both the techniques but think of technical analysis to superior to fundamental analysis because, technical analysis is easer, faster and can be simultaneously applied to more stocks than fundamental analysis can be.

Many technical analysts would say that fundamental analysis is not worthless, but it is just too troublesome to bother with. Fundamental analysis is hard work; manipulated income statement cannot give an accurate estimate of value, and should wait for price increase of under-priced securities.

2.3.2 Efficient Market Theories

"The term efficiency may be defined in various ways: allocative efficiency, operational efficiency and informational efficiency." (Blake, 1992: 243)

The role of markets in a competitive economy is to allocate scare resources between competing ends in a way that lends to the scare resources being used

most productively. This means that the highest bidder for the resources gets to use them. When this occurs markets are said to be allocatively efficient.

A market is said to be operationally efficient when the transaction costs of operating in the market (normally, the market –makes repaid and the broker's commission) are determined competitively. In other words, the market operates in a competitive environment with market maker and brokers earning normally profits (and not monopoly profits) on their activities. A strict definition of operational efficiency implies that the transaction costs of making a market are zero. However, in the real world, market would not exist if the people who operated them ware not compensated for doing so.

A market is said to be informationally efficient if the current market price instantaneously and fully reflects all relevant available information.

A market is to be said perfectly efficient if it is simultaneously allocatively efficient, operationally efficient and informationally efficient when the finance literature speaks of market efficiency it is generally speaking exclusively about informational efficiency.

The primary role of the capital market is allocation of ownership of the economy's capital stock. In general terms, the ideal is a market in which prices provides accurate signals for resource allocation. That is a market in which firms can make prediction-investment decisions, and investors can choose among the securities that represent ownership of firms' activities under the assumption that security price at any time " fully reflect" all available information. A market in which price always "fully reflect" available information is called 'efficient." (Fama, 1970: 383-417)

"The main assumption of market efficiency are (1) all investors have costless access to currently available information about the future,(ii) all investors are

good analysts ,and (iii)all investor pay close attention to market price and adjust their holdings appropriately." (Levin, 1997: 205) In such a market a securities price will be a good estimate of it investment value, where investment value is the present value of securities future prospects, as estimate by well informed and capable analysts, and can be thought of as the securities fair value thus a (perfectly) efficient market is one in which every security's price equals its investment value at all times. "A market is said to be efficient if it is impossible to make abnormal profits by using a particular sets of information to formulate buying and selling decisions."(Fresher, Sharpe, Alexander & Bailey, 1997: 106) "In a perfectly efficient market, each securities sells for its fair value at all times and any attempts to identify mis-priced securities sin futile. In such a market, a set of information is fully and immediately reflected in market price. A popular definition about such information is the following."(Norby, 1993: 3)

Forms of efficiency	*Set of information reflected in securities priced*
Weak	Previous price of securities
Semi-strong	All publicity available information
Strong	All information, both public and private

"In an efficient market, investors expect to make only normal profits and earn a normal rate of return on their investments. In such a market, any new information immediately and fully reflected in price. New information is just that new, meaning a surprise. In a perfectly efficient market, price changes are close to random." (Sharpe, 1997: 106) The efficient market hypothesis (EMH) has been subdivided into three categories, each dealing with a different type of information.

"Weak form market efficiency hypothesizes (MEH) that today's securities price fully information contained in historical security prices. This implies that

no investor can earn return by developing trading rules based on historical price or return fully reflected information."(Weston & Copeland, 1987: 94)

"It says that securities pries fully reflect all publicity available information."(Francis, 1997: 608) Thus, no investor could earn excess return using publicity available resources such as corporate annually reports, NEPSE price information or published investment advisory report. It contains all publicity available data such as earning, dividends, stock split announcement, and new product development, financing difficulties and accounting changes. Market that quickly incorporates all such information into prices is said to be semi-strong efficient.

"The most stringent form of market efficiency is the strong, form which asserts that prices fully reflect all information, public and non public."(Jones, 1943: 429) In such kind of market, no group of investor should be able to earn, over a reasonable period of time, excess rate of return by using publicity available information a superior manner. The strong form of the EMH states hat stock prices fully reflect all public and private information. The strong form encompasses both the weak form and the semi strong form.

These three hypotheses are not mutually exclusive they differ only in the degree of market efficiency.

2.4 Review of Previous Studies

In the following section previous studies relating to share prices behaviors are in details segmenting foreign and Nepalese contexts separately.

2.4.1 Books and Journal Review

The EMH had its genesis in random-walk theory of the movement of securities prices, which appeared in securities prices literature in the late 1950's. Actually the earliest known study on the distribution of security prices was done by

Louis Bachelier (1900) who studied commodity prices in France and concluded that the current prices of commodity was also an unbiased estimate of its future prices. This is the definition of a random walk as applied to the series of commodity prices, although Bachelier did not use that term.

After Bachelier, research on the behavior of security prices lagged until the coming of the computer. In 1953, Kendall examined the behavior of weekly changes in nineteen indices of British industrial share prices and in spot prices for cotton (New York) and wheat (Chicago). After extensive analysis of serial correlation, he suggest, in quit graphic terms. The series looks like a wandering one, almost as if once a week the demon of chance drew a random number from a symmetrical population of fixed dispersion and added it to the current prices to determine the next week's prices. (Fama, 1970 : 389-390)

In 1927, Slutsky concluded that the randomly generated prices changes look like stock prices changes and that they appears to exhibit cycle and other patterns.(Gupta, 1989: 195) Similarly, in 1933, Alfred Cows found little evidence that stock market analysis could predict future prices. (Cowles, 1934,: 309-324) In 1934, Holbrook working noted that "speculative price patterns might be shown to be random comparing with artificially generated series of prices. (Holbrook, 1934: 11-24) In 1937, Alfred Cowls and Herbest E Jones gave a controversy to the random walk model and report that stock prices moved with predictable trends. (Cowles & Jones, 1937: 280-294)

In 1927 Niarchos studied prices of 15 individual stock from the Athens Exchange (Greece) for the priced from 1957 to 1968. He found the serial correlation coefficients for individual stock were random. But Dryden's study in 1970 concluded that the share price movements were non- random. (Niarchos, 1971: 105) However in a later study, he used serial correlation and runs analysis to examine the daily closing price of 14 individual stock of U.K

market and supported the independence hypothesis of successive price change. (Dryden, 1970: 369-389)

In 1959 H.V Roberts compared the levels of Dow Jones industrial average with the levels of variable generated by a random walk mechanism and concluded that the random walk mechanism produced patterns very similar to the patterns of stock price movements. Roberts showed that a series of cumulative random numbers would closely resemble an actual stock price series. He further showed that changes in the random number series, as expected, do not exhibit patterns as its true for stock price changes. (Harry & Roberts, 1959: 1-10)

At the same time (1959), Osborne found that security prices behavior in a manner similar to that known to physicists as Brownian motion. “Brownian motion describes the movement of particles in solution, where movements of different magnitude may occur at any time, independent of any prior movement” so defined Brownian motion is a particular type of random walk. Osborne found that security prices behaved in a manner with a Broiwain motion model in which the prices which change in any preceding period. After the appearance of Robert and Osborne article, a number of additional studies appeared which attempted to test whether security prices followed a random walk. (Osborne, 1962: 145-173)

In 1961, Alexander, tested the filter technique on the closing price of two indices, the Dow-Jones industrial index from 1829 to 1929 and standard and Poor’s industrial index from 1929-1959 and reported that in general, filter of all different sizes and all different time periods yield substantial profits-profits significantly greater than that of simple buy-and-hold policy. Finally, he concluded that the independence assumption is not the less. Later in 1964, he corrected the shortcomings of his previous of stock market (Cootner, 1964: 31)

In 1962, Granger and Morgenstern applied spectral methods of analysis to the weakly monthly and volume serial from New York stock market assign Dow Jones standard and poor and other various indices as well as price serial of individual stock. The result confirmed the random walk hypothesis for weekly and monthly data from the New York stock market. (Granger & Morgenstern, 1962: 24-45)

In 1962, Moore studies weekly prices changes of 30 randomly selected stock for the period 1951-58 and found an average serial correlation 0.60. This extremely low value indicated that the weekly change data had almost no power in predicting future price change.(Moore, 1962: 139-161)

In 1965, Fama tested the serial correlation of daily price changes for the 30 companies stock comparing the Dow Jones Industrial average for five prior of 1957 to 1962 while he found an average serial correlation of 0.03, this result like Moor's, is not sufficiently for from zero to indicate that any correlation exist between price change in successive periods. Fama also used runs test to see whether price changes were likely to be followed by more price changes of the same sign. He found a slight tendency for this to occur, but again the results were in sufficient to regret the random walk hypothesis (or the weak from of EMH). (Fama, 1965: 34-105)

In 1966, Benjamin King examined the monthly price changes from 1927 of 63 stocks and concluded that the stock market prices follows random walk models. The estimated average serial correlation coefficient was 0.08, which is close to zero.(King, 1966: 136-190) Richard Breaty's findings in 1970 also supported the random walk model and concluded that successive prices changes in stock market are independent. (Brealy, 1970:203)

Hagerman and Richmond conduced in 1973, a similar analysis for the price changes of securities traded in the OTC market. Since the types of securities

trading mechanism vary from market to market we must keep in mind that efficiency of the NYSE does not imply that other securities market is also efficient. However Hagerman and Richmond did find that the return of OTS securities were not serial correlated.

In 1966, Fama and Blume's used the filter techniques to overtone the short comings of Alexander's mechanical rule. They employed twenty-four different filters ranging from 0.5% to 50% and compared the profitability with buy and hold return of each stock of the Dow Jones shares. Ignoring transaction costs only two out of thirty is superior to buy and hold policy, when commission are taken into consideration only four out of thirty have positive return and are not comparable with buy and hold return. Thus, this result supports the evidence for the conclusion previously drawn from statistical method.(Fama & Blume 1966: 226-241)

Similarly, in 1971, Kemp and Remps study was also against the random walk theory. According to them, "our conclusion is that share price movements were conspicuously non-random over the period considered." (Alaxendar & Reid, 1971: 28-51)

In 1971, Rao and mukherjee applied spectral method to test random walk model of share price behavior they examined weekly average share prices of in Aluminum Company's share for the sixteen years from 1955 to 1970 and supported the random walk hypothesis. (Rao & Mukherji, 1989: 132)

Fama and Mac Beth examined the return series by using capital assets pricing model to estimate expected return on a security. They then examined the correlation of excess return and found virtually no correlation. Similarly, Galai used a model developed by Black and Scholes to estimate expected returns on the option market and then examined the correlation of excess return. Similarly, Roll used the term "structure " of interest rates to estimate expected

return in the Treasury Bill market and than look at the correlation of excess returns. In both cases, the market was weak from efficient.

Many of the researchers who examined correlation also examined runs. The actual numbers of run in case was almost exactly equal to the expected number. In summary correlation and runs tests seem to show some small positive relation between successive price changes, but it is very small on average and frequently negative for individual securities.

Jennergren and Karsvold examined daily price serial of 15 stock from Oslo exchange (Norway) and 30 stocks from Stockholm stock exchange (Sweden) by using serial correlation and runs analysis during 1967 and found considerable dependence in both stock market prices. In their finding, they concluded, price changes are not independent random variable in the case of the majority of the 45, investigated Norwegian and Swedish stocks. This implies that the random walk hypothesis is probably not a very accurate description of share price behavior on the Norwegian and Swedish stock markets. (Jennergren & Korsvold, 1975: 165)

In 1973, Conard and Juttner applied runs and serial correlation test to examine the daily prices of 54 German stock and observed dependence in the successive price change. Thus they concluded that the random walk theory is inappropriate to describe the behavior of the share price in the Germany.

Niederhoffer and Osborne have examined the correlation between the price changes from transaction to transaction. They found a number of departures from randomness. Most interestingly, they found that a reversal in price change (a decline followed by an increase) was two to three times as likely as a continuation of the same price change. (Niederhoffer & Osborne, 1966: 897-916)

Fama, Fisher Jensen and Roll examined the effect of stock splits on security prices. A number of prior studies had suggested that stock splits increased the valve of the firm. This was disturbing to many because stock splits simply involve changing the percentage ownership of any shareholder or the asset or earning of the company. They argued that stock splits might be associated with other more fundamental changes and the effect that researches were attributing to stock splits these other phenomena. (Fama, Fisher, Jensen & Roll, 1969: 1-21)

Similarly in 1977 Sharma and Kenday concluded that the Bombay stock exchange obey a random walk hypothesis. (Sharma & Kenday, 1977: 12) In another study in 1978, Gupta concluded that the random walk model appeared to be an appropriate model to describe share price behavior. (Gupta, 1979: 51-75)

In 1988, Sweeney developed a filter rule that was able to earn modest profits. Sweeney replicated Fama and Blume's resulted in the short positions usually generated the trading loses. In, Contrast Sweeney found that the position were often profitable. So Sweeney used an X percent filter rule with on long positions. Sweeney also found that filter rule trading tended to be fairly and consistently profitable in some stock while being fairly consistently year after year in other stocks. (Sweeny, 1988: 285-300)

2.4.2. Review of Thesis

There are a few studies on the stock market prices of Nepal compared to the capital market elsewhere in the world. Some of the available studies are presented here.

Radhe Shyam Pradhan (1993) has studied "The stock market behavior in Nepal" and concluded the followings,

1. Large stocks have large PE ratio large ratio; of market value to book value of equity and smaller dividends. PE ratios and dividend ratios are more variable for smaller stocks where as market value to book value of equity is more variable for large stocks.

2. Stock with large market value to book value of equity has large PE ratio, and lower dividends. PE ratios are more variable for stocks with large market value to book value ratios and dividend ratios are more variable for stocks with smaller market value to book value.

3. Stocks paying higher dividends have higher liquidity, lower leverage, higher earning and higher turnover and higher interest coverage. However liquidity and leverage ratios are more variable for the stocks paying lower dividends while earning, assets turnover and interest coverage is more variable for the stock paying higher dividends.

Mr Manohar Krishna shrestha (1995) had studied in the title of "Shareholder's. Democracy and annual general meeting feed back." This study critically analyzed the situation of common stock investor and the situation is seems not Improved significantly until now.

Nepal stock market is emerging and even in very initial stage. Study conducted previously in Nepal was not in specific issues but in broader sense. To educate and motivate the potential investors several analysis in specific subject matters are needed.

2.4.2.1 Different Master's Dissertation Review

Mukti Aryal (1995) in his study on "The General Behavior of the Stock Market Prices" studies the random walk model of stock price behavior in Nepalese context talking the daily price of 21 stocks out of company's share for 8 months period. He applied serial correlation and runs analysis. The correlation

coefficient is mostly positive and departed from zero and runs tests too supported the correlation analysis. He found that on the basis of run tests and correlation, it seems that the independent assumption of the random walk model in stock market prices is rejected by the collected sample data of 21 companies at least as a description of price behavior in NEPSE. The stock price changes are dependent on each other. Aryal concluded that the general stock market of Nepal at the initial period appeared inefficient in incorporating the flow of information into the successive price changes. Therefore the public investors are not aware of the information available public, appropriately in adjusting with the actual market price.

Finally, he concluded, "Today's price changes of an individual common stock is not an unbiased and independent outcomes of yesterday's price changes of bernouli process."

Gopal Prasad Bhatta (1995) had conducted a study on "Assessment of the Performance of Companies in Nepal." The study is based on 10 listed companies data from 1990 to 1995 one of the major objective that concern with this research topic is to analysis the performance of listed companies on terms of risk and return i.e. 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. He basically used ratio analysis, beta coefficient, and portfolio analysis in this study and primarily based on the eight-year secondary sources of information. He has taken 10 listed companies as sample.

Bhatta addressed the following findings in risk return behavior from the analysis of different stocks. A highly significant positive co- relationship has been addressed between risk and return characters of the company. Investors expect higher return from these stock which associates higher risk. Nepalese capital market is not efficient one. So the stock prices do not contain all the

information relating to market and company itself. Neither investors analyze the overall relevant information of the stock nor do the members of stock exchange try to disseminate the information. So the market return and risk both may not represent reality. However the analysis based in the available information show high priced stock such as BBC, NIB, NIC, has higher beta risk than other. These companies thus require higher return to satisfy the investor for their risk premium.

Investors in Nepal have not yet participated to invest in portfolio of securities. An analysis of the two securities portfolio shows that the risk can be totally minimized if the correlation is perfectly negative. In this situation the risk can totally be diversified, but when there is perfect positive correlation between the returns of the two securities, the risk is un-diversifiable. The analysis shows some has negative correlation and some has positive one. Negative correlation between securities return is preferred for diversification of risk.

On the basis of finding Bhatta concluded “An analysis of risk and return shows that many companies have higher unsystematic or specific risk. There is a need of expert institution which will provide consultancy service to the investors to maximize their wealth through rational investment decision”.

Bhatta focused in the analysis of risk and return in common stock investment. But due to so many other aspects of analysis investor can not easily acces the result. Indeed, study did not focus the investors rather it concentrates the companies and stock market. However, this study also explores some dimension for further research in this subject.

Mohan Khatiwada (1996) had conducted the study on securities investment by using four-year data of 1993-1996 from the information of the trading reports of the NEPSE. Among different objectives the one “to analyze the stock market

performance" has a little relation with this "Interest rate so ascertained by financial institution for the year 1955 ranges from 12% to 12.25% per annum."

As it is reviewed a background of commercial banks deposits accepted on fixed term carry 8% to 9.50% per annum interest rate in 1955.

Although interest rate on fixed deposits is an immediate return generated through saving, the return on securities cannot be exactly predicted. Some of the companies have not even declared dividends for two\three years. Whatever the shareholders have yielded on their securities investment is very low (Avoiding exceptional cases of some financial and banking institution) as compared to the immediate return earned through fixed deposits.

About market price movement of C.S, Khatiwada summarized that, leaving some exceptional cases aside almost all the companies experienced their market price going down by less than 50% in 1995. Even the banking group could not spare the share price going down. More specifically the year1995 was a disheartening period for the stock price. It is because almost all the companies share price during the period were down even in some case below the fUFC valve. Why this deep declination in? Khatiwada did not look in this aspect.

Khatiwada recommend liberalizing the government policy by removing capital control and carrier to attract foreign portfolio flows which is essential for the development of stock market. Though the study conducted by Khatiwada does not address the individual securities analysis and its behavior, it studies light on some dimensions for the future research in this aspect.

Bharat Prasad Bhatta (1997) had conducted a study on "Dynamic of Stock Market in Nepal" concluded that the stock market and economic move in similar direction they influence each other. The development of the farmer is

reflected in the latter. The stock market raises and mobilizes the investable resources to finance the long-term large projects in the economy. The stock markets therefore can be regarded as a heart of economy. The investors are interested to invest their resources in the share of corporate sector through the stock market in the Nepalese economy.

Bhatta focus that the secondary aspect of the stock markets is also not functioning well in Nepal. There is almost no liquidity in the stock market for shares except that of banking and some finance and insurance sectors. In this study Bhatta concluded that the EPS and ROE have the decisive effect on the market.

Jas Bahadur Gurung (1999) had conducted a study “Share Price Behavior of Listed Companies in Nepal” Concluded that the transaction in banking group and the investment on banking group is highly attractive and liquid. In his study he applied statistical tools like percentage, correlation coefficient, bar group and line charts for analytical purpose. He find that NEPSE index, in general is in decreasing trends. This implies that the performance of economy is declining year by year.

Bamshidher Gautam (2001) had studied the behavior of the share price in the market with a reference to the movement caused by the rights offering by the firms issuing the common shares of the market. In his thesis entitled “An Analysis of Share Price Movement Attributed to Right Offering Announcement.” He had concluded in an aggregate the price movement due to the impact of right offering cannot be generated for all companies. This depends upon the company specifics. For the growing companies that have good investment prospect and has shown sound financial position in the past, the announcement of right offering serves a goods news to the exciting share holders and they show their positive response to it, which reflects in the increase in the share price and higher rate of subscription.

Laxman Paudel (2004) had studied on “A Study on Share Price Movement of Studied on Commercial Banks in Nepal.” Where he used financial and statistical tools like standard deviation, correlation, beta, t-test etc.

Poudel found that the ordinary least square equation of books valve per share on market value per share of relevant that the independent variable does not fully explain the dependent variable on the basis of the above mentioned two points; Nepal stock exchange operates in a week from of efficient market hypothesis, indicating that the market price move randomly. The market value per share does not accommodate all the available historical information.

Surya Chander Shrestha (2005) had conducted a study on the behavior of share in the market, in his thesis entitled “Stock Price Behaviors of Nepal.” In which he had taken daily closing prices of 30 stocks out of the listed securities about 8-month period during the fiscal year 1994 to 1995. He applied serial correlation runs tests. He concluded that the successive prices are dependent and the Nepalese stock market did not efficient in pricing shares even in its weak form.

In his study he find that the serial correlation co-efficient of the daily price changes for 142 lag days, and runs of the serial of daily price changes lead to conclude that the successive price changes are not independent random variable for sample stock listed in the NEPSE. Therefore, the random walk theory is not suitable description for the study of the behavior of Nepal.

Bachhu Ram Dahal (2007) had studied on “Stock Market Behaviors of Joint Stock Companies in Nepal.” He had concluded that signaling effects had major role in fluctuation of the sock price. In this study Dahal used five year data of 1997 to 2001 from information of the trading reports of the NEPSE.

In this study he found that investor FUFCD many difficulties in the Nepalese stock market and the investors take the investment decision on the basis of market price of share, investment process and its other factors like NEPSE index trend and investment facilities are not their work in systematic way.

Similarly, Prabhat Kumar Paudel (2007) had studied the behaviors of share in the market in his thesis entitled “Share Price of Joint Venture Banks in Nepal.” He had concluded that the shares of publicity quoted joint venture commercial banks are less risky as compared to other average stock traded in the stocks exchange. In his study he had taken 8 banks stocks and the sample period cover 1995-1999 for examining the relationship as well as for using different indicators.

He found that good track record if the financial position market penetration and continuous declaration the share of dividends encourage the potential investors to buy the shares of joint venture commercial banks. Therefore the share of joint venture commercial banks emerges as the blue chips in the Nepalese stock market. In the securities market line it sill analysis it was found that all the banks under study are still under priced hence the potentially of each banks in beating the market still remains alive.

Different scholars have given their different views about the condition of Nepalese stock market, it’s problems, investment trends & even concept of the stockholders in the security market through the secondary market and they have concluded typically and differently using approaches towards the controls of the study. Now I am trying to research more or less about the stock price behaviors with reference to the Nepalese stock Market (NEPSE)

CHAPTER-III
RESEARCH METHODOLOGY

3.1 Introduction

A systematic research study requires a proper methodology to achieve the set objective. This study has also developed the definite methodologies to achieve the set objective. So this chapter has been attempted to present a basic frame of methodology within which the research will be conducted.

Research Methodology is a way to systematically solve the research problem. It helps us to know what is to be done in the data presentation and analysis chapter. Basically this study is based on the information and data gathered through secondary sources. Besides this, primary information is also be used to test, compare and analyze the data collected through primary sources

3.2 Research Design

Research design is a plan, structure and strategy to obtain the objective of the study. The research was mainly based on secondary data and information. To conduct this study the research design was followed explanatory and descriptive as well as analytical using the various related with the performance of the company and return to investors.

3.3 Population and Sample

All fiancé companies listed with Nepal Stock Exchange are considered to be the population of the study and the finance companies under taken for the study are the samples to the study. Up to 2008 August, there are 78 finance companies listed with the Nepal Stock Exchange. This study has been limited to the finance companies sector. Therefore, the following seven finance companies have been considered as a sample.

1. National Finance Co. Ltd. (NFC)
2. United Finance Co. Ltd.(UFC)
3. Annapurna Finance Co. Ltd. (AFC)
4. Lalitpur Finance Ltd. (LFC)
5. Kathmandu Finance Limited. (KFL)
6. Universal Fin & Capital Mkt. (UFCM)
7. Nepal Housing & Merchant Fin. (NHMF)

As this study will try to explore the objective set in the previous selection. It is expected that this study will help to analyze the stock market scenario as well as the individual finance companies performance in relation to that of other having similar business characteristics. This study is also aimed at producing tested effect of historical information on future price movements. So, all the interested groups like stock analysts, financial analysts, financial managers and brokers may use the findings to assess and evaluate from their respective points of views.

3.4 Sources of Data

Data have been obtained from the secondary sources. Concerned finance companies and Nepal Stock Exchange and Security Board are the sources of data. The sample period cover the period of six years commencing from 2002/03 to 2007/08. The review of theory of the proposed theory was based on textbook, official publication such as Nepal Stock Exchange, Publication of Security Board of Nepal, Journals such as journal of finance, Economic Journal, Journal of financial Management. The facilities available at Central Library and Concerned agencies were used which have a wide range of related book, journals and other publication.

3.5 Date Collection Techniques

As already mentioned this study is totally based on the secondary Data. Data collection from secondary sources is proximate to the reality and authoritative

too. The basic technique, which was used, was observation method, for the study to be authoritative data are enclosed in annex section. Personal visit to the Nepal stock Exchange, SEBO and respective office of the finance company under study was done.

Secondary Data

The secondary data are collected from the company itself, date & report collection form the Nepal stock exchange (NEPSE), data & necessary information collected from the concern bank. The review of theory of the proposal study was based on text books, official publication, Books and journals and many other articles published in aviation sector.

3.6 Date Analysis Tools

Data so obtained have no meaning unless they are arranged and presented in a systematic way. Further, they need to be verified and simplified for the purpose of analysis. Moreover, data and information so gathered are to be checked, edited and tabulated in such ways that provide convenience for computation and interpretation.

The relevant data have been inserted in meaningful tables. Only the data that are relevant to the study have been presented in the tabular form in the understandable way and unnecessary data have been excluded. To achieve the predetermined objective of the research, certain tools are used.

- Financial Tools
- Statistical Tools

Data does not speak itself. Certain tools have to be used to extract some conclusion organization’s publish financial statement and report. The figure is the isolation does not help us to conclude anything. Investor's, before investing in any share of the company, should conduct an intensive analysis or refer to a

financial analyst. Conducting an intensive analysis is also called financial analysis. A financial analysis along with statical diagram easily provides the financial picture of the organization. Therefore, the financial analyses, which include different indicators that are major in analysis of the share prices, will be used. In order to test the risk and risk ness of shares, the risk and return analysis have been made. The expected rate of return over the period of review, the standard deviation, and the coefficient of variation of stock price are used in the form of statistical tools. In the market sensitivity analysis, beta coefficient of individual stock has been presented for understanding the market volatility in Nepal.

3.6.1 Rate of Return

Realized return is the past return. It's the return that was or could have been earned. The realized return is also known as historical return. The concept of rate of return is important because it measures the speed at which the investor's wealth increases or decreases. An investor's single period rate of return during the investment period is computed as,

Realized Rate of Return at a Time

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

Where,

Rj = Realized Rate of Return at a Time.

Pt = Current Market Price of Share.

Pt-1 = Market Price of Previous Year.

Dt = Dividend in Cash or Stock (If any).

For Stock Dividend

Total Dividend = Cash Dividend + Stock Dividend % × Next Year's MPS.

Expected Realized Rate of Return: The Expected is the return from an asset that investors expect they will earn over some future period. It's a predicted return, subject to uncertainty, and may or may not occur. The realized return may differ from expected return.

$$\overline{R_J} = \frac{\sum R_J}{n}$$

Where,

$\overline{R}j$ = Expected Realized Rate of Return.

n = Number of observation in Sample.

3.6.2 Standard Deviation

It is quantitative measure of total risk of assets. It provides more information about the risk of asset. The standard deviation of a distribution is the square root of the variance of returns around the mean. The following formula is applied to calculate the standard deviation using historical returns.

$$\pm_J = \sqrt{\frac{(R_J - \overline{R_J})^2}{n}}$$

Where,

σj = Standard Deviation of Stock J.

Rj = Realized Rate of Return at a Time.

Rj = Expected Realized Rate of Return

n = Number of observation in sample

3.6.3 Coefficient of Variation

The risk per unit of expected return could be measured coefficient of variance, which is computed as follows.

$$C.V_J = \frac{\pm_J}{\overline{R_J}}$$

Where,

CVj = Coefficient of Variation

$\bar{R}j$ = Expected Realized Rate of Return

σj = Standard Deviation of Stock j.

3.6.4 Beta Coefficient

The beta coefficient is an index of systematic risk. It may be used for ranking the systematic risk of different assets. If beta is larger than one, then the asset is more volatile than the market, which is called aggressive asset. If the beta is less than one, then the asset is considered defensive asset as its price fluctuations are less than the market. On the other hand, if the beta is equal to one, then the asset is said to be average and its price moves proportionate to the market changes.

$$_J = \frac{Cov(R_J R_m)}{\pm^2_m}$$

Where,

βj=Beta Coefficient of Stock j.

Co Variance (R_jR_m)= Co variance of the Returns of Stock j and Market.

σ^2_m =Variance of the Market.

3.6.5. Run Test

It is widely accepted techniques for a non-parametric test and Run test is applied to analyze the behavior of the stock prices in run test that do not defect by the filter rule. Run is bases on the percentage change in price. A run occur in the series numbers wherever the changes in the numbers reverse sing. The run may be positive (+ve %), negative (-ve%) and zero run. Until the percentage alter (i.e, the change in positive to negative, + ve to zero ect) the total changes are called one run.

The run test also found the active traders who search for various types of non random trends from which to earn a profit will not be able to beat a naïve buy

and hold strategy, on average. Run rest have been developed to test the hypothesis that a sample or not. For this reason, it is applied here to test the MPPS quoted in NEPSE reported is either random or not random. To complete this test MPPS (monthly closing prices) has been taken.

3.6.6. Filter Rule

Eugune Fama and Marshall Blume designed the programme to trade the securities at an x percent rule and this strategy operates as if the price of the security rises at least x percent. Buy and hold the security until it's price drops at least x percent from a subsequent height. Then, liquidate the long position and assume a short position until the price rises by x percent. But under this strategy, the research reported could out – perform the naïve buy and hold strategy.

Buy: % of market price rise ≥ x%

Sell: % of market price fall ≥ x %

3.6.7. Correlation Coefficient

Correlation coefficient is the statistical tools generally used to measure the degree to which one variable is related to another. Correlation can either be negative or positive. If both variables are changing in the same direction, then correlation is said to be positive, but when the variation in the two variables takes in opposite direction, the correlation is negative. In this study, it is performed to test how long the MPPS correlated with BVPS. Therefore, simple correlation test has been applied between MPPS dependent variables and BVPS considered as independent variables. Simple correlation coefficient is computed by,

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2}\sqrt{N\sum Y^2 - (\sum Y)^2}}$$

3.6.8. Coefficient of Determination

The coefficient of determinations is the way to measure the contribution of independent variables in predicting the dependent variable. It is more appropriate while verifying the results than the correlation coefficient and computed by square of the correlation coefficient as mentioned above.

$$R^2 = r^2$$

CHAPTER- IV

DATA PRESENTATION AND ANALYSIS

4.1 Behavior of NEPSE Index

Market index have always been of great importance in the world of security analysis and portfolio management. Both individual and institutional investors use the market index as a benchmark against which they evaluate the performance of their own or institutional portfolio. Market indexes are used to determine the relationship between historical price movement and economic variables and to determine the systematic risk for individual securities and portfolios. Technical analysis usually uses price movements to predict future movements in the stock market. Stock market indexes are used to study the trend of growth pattern in the economy, to analyze as well as to forecast business cycles and to correlate stock market indexes to economic activities.

Index is a device designed to measure the change in a group of related variables over a period of time. Regarding this study, index has taken as measuring tool weather the performance of stock market is remarkable or not. This clearly focuses on the price of stocks that is increasing or decreasing in the market due to the various changing variables. The higher index indicates the increase in stock price that implies the better performance and vice versa. Thus, the NEPSE index shows the behavior of stock prices in the capital market and how the share prices are fluctuated due the region of changing in NEPSE index.

NEPSE follows the Standard and Poor's Index, method in the construction of share price index. According to this,

$$P_{01} = \frac{\sum P_1 \times Q_1}{\sum P_0 \times Q_0} \times 100$$

Where,

P_{01} = NEPSE Price Index

P_1 = Today's Stock Price

Q_1 = No of Outstanding Shares (Listed Shares) today

P_0 = Base Market Price

Q_0 = Base Listed Shares

After the initiation of floor trading, NEPSE started to calculated the NEPSE index taking 12 Feb 1994 (30^{th} Magh 2050) as a base period and 100 as base value.

From the below table it is clear that by the end of this fiscal year, NEPSE index increased by 86.8 points. NEPSE index at the end of the last fiscal year was 286.6 points. During this fiscal year the highest point of NEPSE index was 386.8 recorded in the month June/July, while the lowest point was 293.3 Recorded on Aug/Sep. The monthly trend of NEPSE index is presented in below table and chart.

Table-1

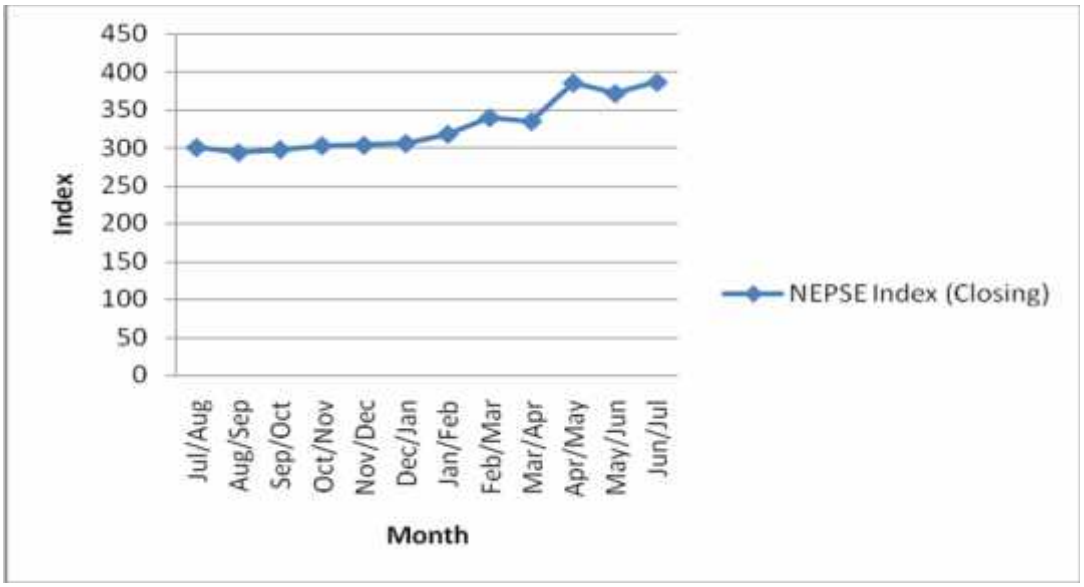
Monthly NEPSE Index (Year 2007/08)

Month	NEPSE Index (Closing)
Jul/Aug	300.00
Aug/Sep	293.3
Sep/Oct	297.3
Oct/Nov	302.4
Nov/Dec	303.1
Dec/Jan	305.5
Jan/Feb	317.7
Feb/Mar	339.8
Mar/Apr	334.8
Apr/May	385.9
May/Jun	372.00
Jun/Jul	386.8

Source: NEPSE; Annual Trading Report, 2007/08

Figure-1

Monthly NEPSE Index (Closing) for Fiscal Year 2007/08



4.2 No. of Listed Companies in Stock Exchange

The number of listed companies presented in table shows that the rate of listing companies from the year 2000/01 to 2007/08. The rate of listing companies for the fiscal year 2004/05 is 12.50%, which is highest increase rate. From the table it is clear that the rate of listing companies is in increasing trend in 2001/02 to 2002/03. No of listed companies for the fiscal year 2007/08 is 135 which is highest number of listed companies during the below given eight years in the stock market.

Table-2

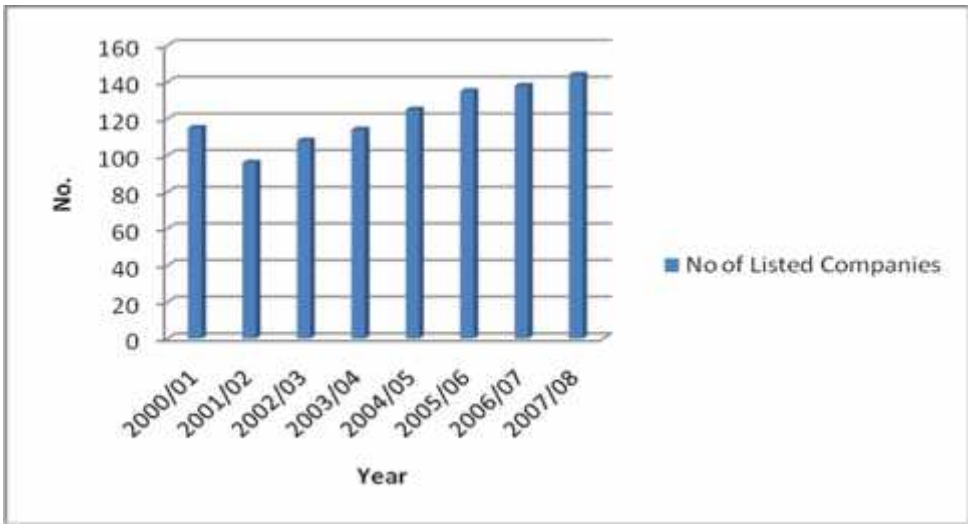
Listing Rate of Companies for Different Years

Year	No of Listed Companies
2000/01	115
2001/02	96
2002/03	108
2003/04	114
2004/05	125
2005/06	135
2006/07	138
2007/08	144

Source: NEPSE; Annual Trading Report, 2007/08

Figure-2

Number of Listed Company in NEPSE



4.3 Group – Wise Monthly Turnover

The table in annex-1 shows 12-months stock market performance from the viewpoint turnover in terms of share units and traded amount of all the companies where shares were traded on the floor of NEPSE. The overall

turnover of the market shows the mixed results, with increasing and decreasing trends. In the initial month's trading turnover is 886.62. Thousand shares which were exchanged equivalent to the amount of Rs.276.58 million, where as the lowest turnover is 397.49 thousands share traded for Rs.108.61 millions recorded in the month of Sept/Oct 2007/08. During this period the highest trading turnover figure is for the month of May/June 2007/08, in which 3973.71 thousand shares were traded for Rs.616.25 millions.

Among the various groups of industries Commercial Banks dominates other industries in term of volume and traded amount. The total no of traded shares is 5536.51 thousand (i.e. 45.67%) out of 12123.89 thousand for Commercial Banks and the traded amount of Rs.2696.61 million (i.e. 78.12%) for 12 month. Similarly the other Company has the second highest traded volume 3301.54 thousand (i.e. 27.23%) and where as its traded amount is Rs.183.88 million (i.e. 5.32%) out of Rs.3451.76 million. But in the terms of second highest traded amount among given listed group of companies, the Finance company has on the second position, where the trading amount is 385.85 million (i.e. 11.18%) having the traded share volume is 1557.55 out of 12123.89 total traded volume. Then the other industry group as Insurance, Manufacturing & Processing, Hotel, Trading and development Banking recorded as 575 thousand shares, 59.8 thousand shares, 392.18 thousand shares, 15.22 thousand shares and 386.39 thousand shares respectively out of total traded shares of 12123.89 thousand. Similarly, the traded amounts for those industry groups are Rs.129.9 million, Rs.17.19 million, Rs.19.77 million, Rs.15.8 million and Rs.82.76 million respectively out of total traded amount of Rs.3451.76 millions. The trading of higher no of share indicates the higher liquidity and a higher amount of turnover implies attractive stocks.

Figure-3

Group Wise Turnover Fiscal Year 2007/08

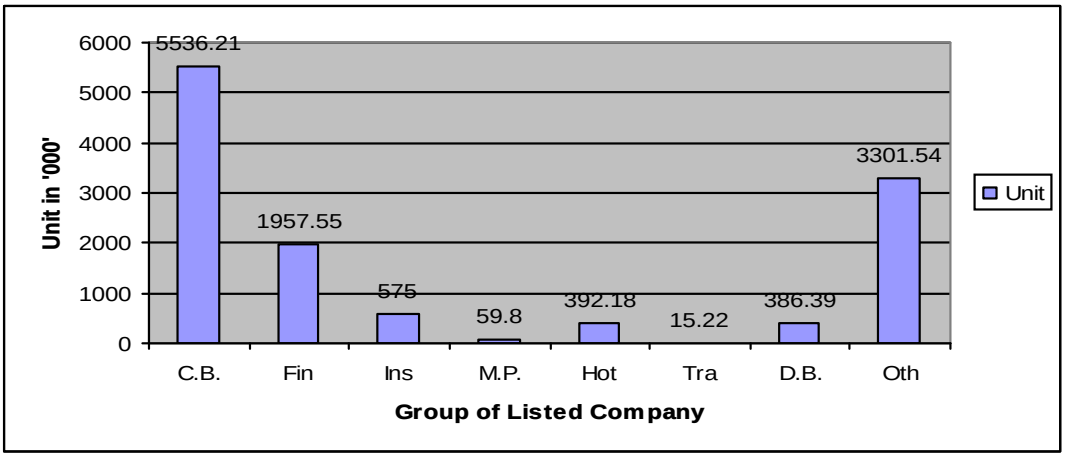
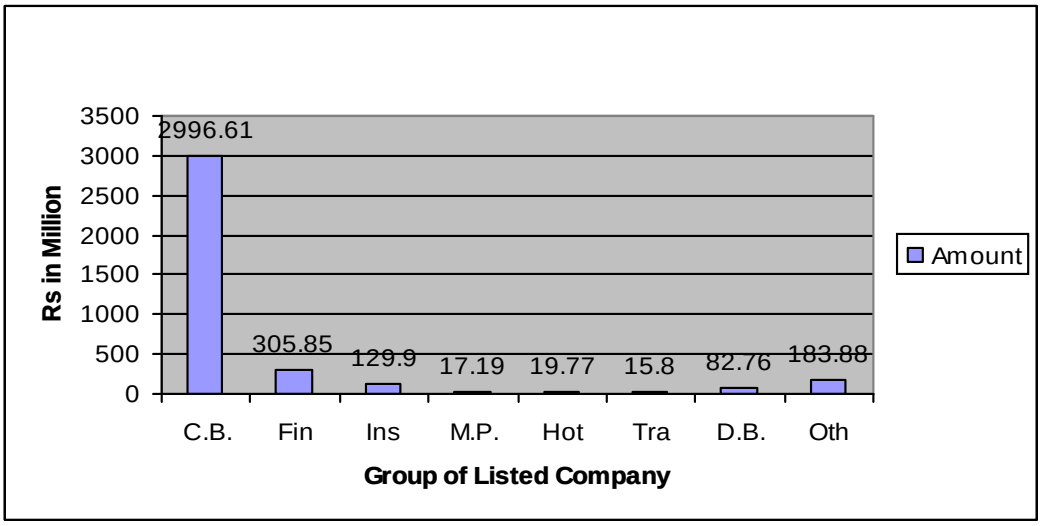


Figure-4

Group Wise Turnover of Fiscal Year 2007/08



4.4 Trading Performance of the Sample Stock

The table in annex-2 gives, different quantitative information about the stock market functioning during the fiscal year 2007/08 for each and every companies taken as sample.

Table gives information of outstanding shares, closing price of securities, paid-up value, no of transactions, shares traded in units and traded amount of every sample companies. Within the samples highest number of transaction177, highest no of shares traded 158.80 thousands shares & the highest traded amount among the samples belong to National finance Co. Limited with Rs.44.69 million. The total paid-up values of common stocks is derived by multiplying the outstanding equity with paid-up values. Here again the highest total paid-up capital is Rs.95.04 million for NCE and the lowest value belongs to KFC with Rs.33 millions. The total market value is derived by multiplying the outstanding equity and closing price of shares of each company. The highest total market value is Rs.400 million, which is for AFCL among all where as the lowest total market value, is Rs.46.20 millions recorded for KFL.

Figure-5

Trading Performance of Sample Stock of 2007/08 in RS

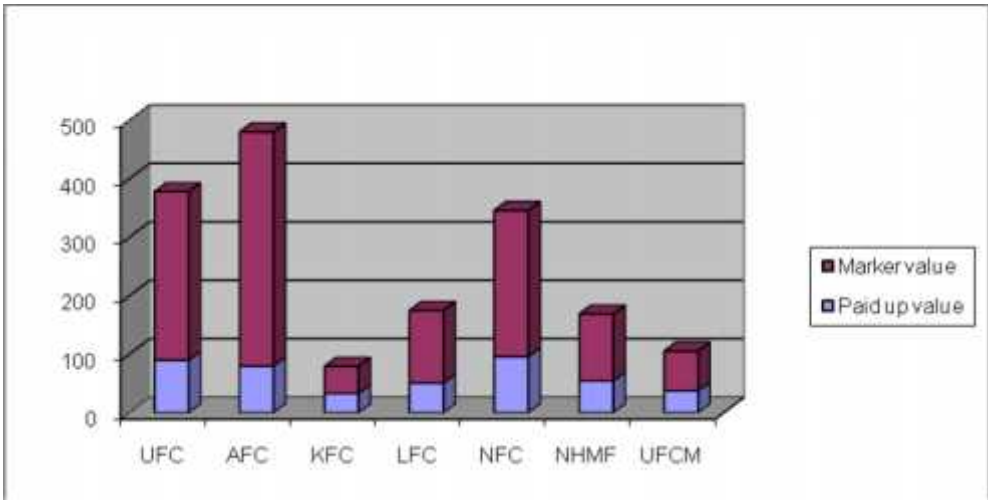
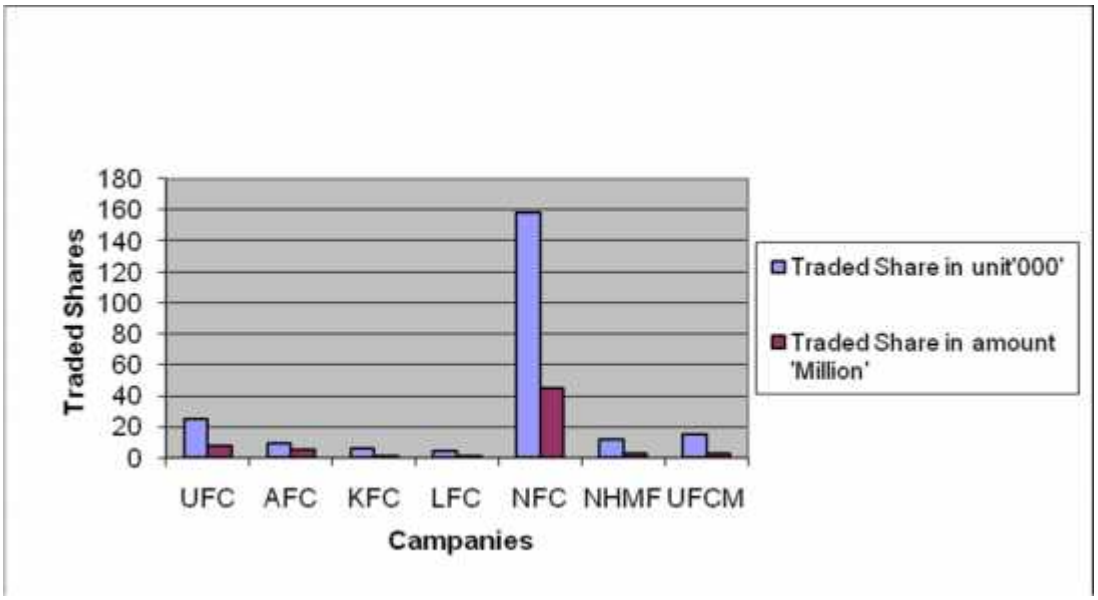


Figure-6

Trading Performance of Sample Finance Company of 2007/2008



4.5 Risk and Return Analysis of Individual Finance Company

Risk and Return analysis is considered to be one of the best way of analyzing the behaviour price fluctuation of the shares in the market. Risk measures the degree of volatility in the market price movements of individual Securities. The higher the magnitude of fluctuations, higher well be degree of risk. Though it is difficult to measure risk, some statistical tools like standard deviation, coefficient of variation and beta coefficient are used to measure the risk involved in individual security. The statistical facts of all individual company under the study, having base on the year-end closing prices of shares of finance company and dividend announcement during the year as well. All these are calculated by using the formula described in research methodology chapter.

The calculated value of expected realized return standard deviation and co-efficient of variation of each finance company are presented in the table.

Table-3

Expected Return, Standard Deviation and CV of Each Company

S. N	Finance Company	Expected Return (}Rj)	Standard Deviation (±)	CV	Remarks
1	UFC	0.0465	0.4037	8.6803	
2	AFC	0.0085	0.2215	26.011	
3	KFL	0.0685	0.2333	3.4057	
4	LFC	0.0870	0.3348	3.8481	
5	NFC	0.0677	0.3969	5.8609	
6	NHMF	0.0441	0.1286	2.9147	Best as per S.D.
7	UFCM	0.1204	0.2157	1.7920	Best as per E.R & Best as per C.V

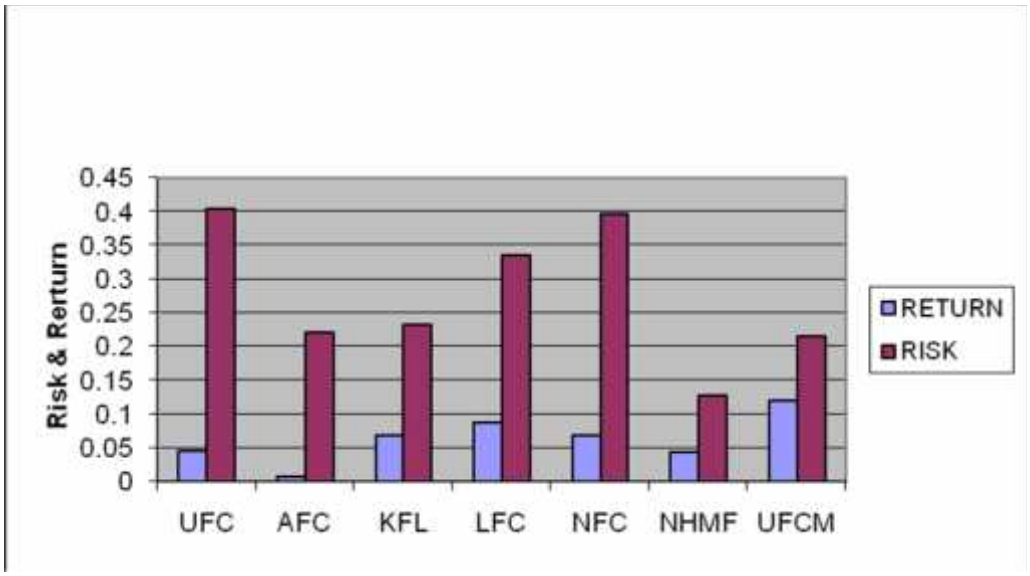
Sources: Annex-6

Investor can expect maximum return in the investment of the common stock of Universal finance & capital Market since it has the highest level of return among the sample companies under study. Thus it is preferable to those investor who seeks for value maximization.

For an easy understanding the following diagram gives a pictorial understanding to the readers.

Figure-7

Expected Return & Risk of Each Sample Finance Company



Standard deviation is a strong statistical device to measure the total risk involved in an investment which consists of both market risk and diversifiable risk. Moreover it denotes the volatility of the expected rate of return.

Based on the implicit assumption of the standard deviation investment in the common stock of UFC is more risky followed by NFC. The stock of NHMF could be considered as less risky.

The standard deviation may not be appropriate measure of risk when the realized rates of return are not same in all of the companies taken under consideration. Here also the average realized rates of return are not same for the entire sample. Therefore, it is recommended to use the coefficient of variation to measure the risk involved in individual finance company. The coefficient of variation measures the risk per unit of return.

On the basis of the CV common stock of (UFCM) Finance Company limited's is the best security for investment having lowest risk because of its minimum CV. The common stock of AFC seems to be most risky as indicated by its CV.

4.6 Market Capitalization of Finance Company

For the better understanding of the market domination by the individual finance company, if any, it is better to develop and compare the latest market capitalization of the finance company under the study. Based on the market capitalization of the year 2007/08. Market capitalization is the total market value at specific time point of the company, industry and market as a whole as well. The market capitalization of sample finance companies at year 2005/06 is given and graphically represented below in the table and attached pie chart.

Table- 4
Market Capitalization of Sample Finance Company

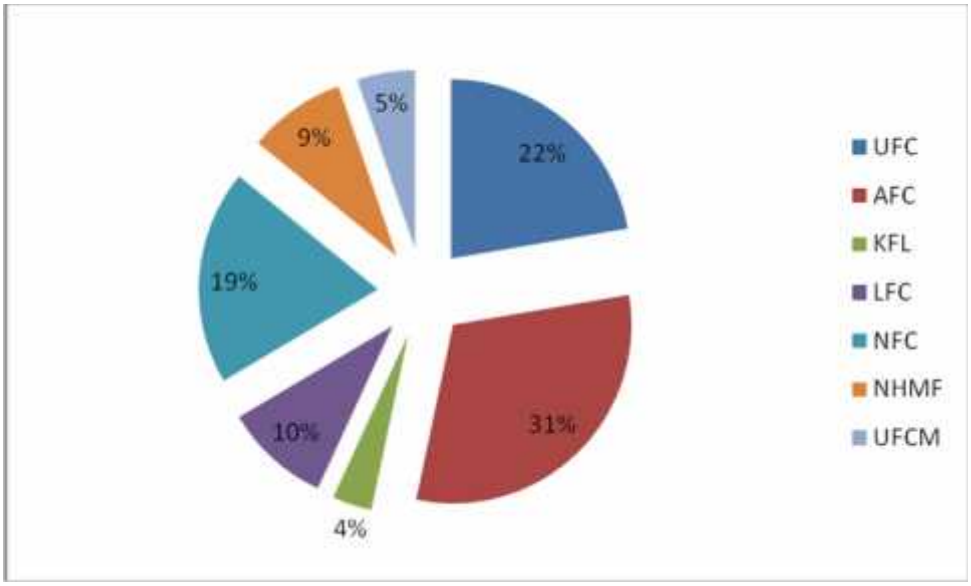
(In million)

Finance Company	**UFC**	**AFC**	**KFL**	**LFC**	**NFC**	**NHMF**	**UFCM**
Market Capitalization	**288**	**400**	**46.2**	**124.03**	**249.96**	**114.36**	**67.88**
% of Total Market Capitalization	**22.31%**	**31%**	**3.58%**	**9.61%**	**19.37 %**	**8.86%**	**5.26%**

Sources: Annex-2

Figure-8

Market Capitalization of Sample Finance Company



On the basis of the market capitalization of the firms, AFC finance is the biggest one among the sample finance companies under study in the year 2007/08. Kathmandu finance has less market capitalization in the year 2007/08. However, it should be taken into account that the market capitalization solely cannot be the yardstick for the selection of better security but it can give an amazing comparability when augmented with other technical and fundamental analytical tools.

4.7 Market Sensitivity Analysis

Standard deviation measures the total risk of an investment and the coefficient of variation measure the risk per unit of return. But the beta coefficient measures the market sensitivity or systematic risk of an investment. Analysis of market sensitivity gives a very useful insight in the analysis and the selection procedures of the common stock in the secondary market. The beta coefficient of an individual stock provides the clear picture about the tendency of movement of price of the stock with market. It measures the stock volatility relative to that of the average stock. An average stock is that which tends to

move up or down with the general market as measured by some index. Here NEPSE index is taken into consideration to measure the movement of the general market regarding the stocks of listed finance company. Higher beta indicates the greater reaction by the individual common stock with the given movement in the market status. Beta is a measurement of systematic risk, which cannot be reduced by diversification. The following table shows the degree of risk ness of each stock of entire sample in relation to the general market.

Table-5

Beta Coefficients of Sample Finance Company

Finance Company	**Beta Coefficient**	**Ranking of Riskness Based on Beta Coefficient**
UFC	0.19	1
AFC	0.00054	6
KFL	0.076	5
LFC	0.1308	2
NFC	0.0971	3
NHMF	0.00056	7
UFCM	0.083	4

Sources: Annex-6

By analyzing the above table, most of the finance company have beta coefficient less than one, which shows that they are defensive asset and less sensitive to the market in comparison to the average stock in the market. Therefore, the stocks of listed finance company are less risky as compared to the average market risk.

Through the analysis of market sensitivity posed a severe constraint for the comparative functionalities is to attempt to avoid the miss lending outcomes. From the table stocks of Nepal housing Merchant finance company appeared as the most beta coefficient of 0.00056 which is lowest among the sample under

the study. Following this are Annapurna Finance Company Ltd. with 0.00054, Kathmandu Finance Ltd. with 0.076, Universal Finance Capital Market with 0.083, National Finance C. Limited with 0.0971. Rest of the finance company in the sample do have little higher values of beta in compare with above three finance company namely Lilitpur Finance Ltd. with 0.1308, UFC Finance Co. with 0.19. By the above table presentation and ranking of the beta coefficient of each sample finance company, we have result of less then one beta coefficient of all finance company therefore all of them being defensive stock in the market. Where we can say that sample company stock price fluctuations are less then the market and ultimately less risk on investment. This result might have been due to a very short span of time period covered by this study, because of the late listing of the stock of those finance company in the secondary market i.e. Nepal stock Exchange Limited.

4.8. Run Test

It is widely accepted techniques for a non-parametric test and Run test is applied to analyze the behavior or price fluctuation of the stock prices in run test that do not defect by the filter rule. Run is bases on the percentage change in price. A run occur in the series numbers wherever the changes in the numbers reverse sing. A run test is used for testing the randomness of sequence of sample events on the basis of the order of sample events. The sequence of sample events may be defective and no defective events raise and fall of stream. This technique is based on the order of sequence on which the individual scores or observation originally were obtained. The run may be positive (+ve %), negative (-ve%) and zero run. Until the percentage alter (i.e, the change in positive to negative, + ve to zero ect) the total changes are called one run.

The run test also found the active traders who search for various types of non random trends from which to earn a profit will not be able to beat a naïve buy

and hold strategy, on average. For this reason, it is applied here to test the MPPS quoted in NEPSE reported is either random or not random. To complete this test the monthly closing price 2007/08 of UFC & AFC finance company has been taken in the account.

Table: 6

Monthly Price Fluctuation of UFC Finance Company Ltd.

Month	Closing Price	Price Change	
Jan	341	-	
Feb	340	-1	Run 1 is negative run (Jan to Jul)
Mar	338	-2	
Apr	337	-1	
May	328	-9	
June	320	-8	
Jul	250	-70	
Aug	265	15	Run 2 is positive run
Sep	265	0	Run 3 is zero run
Oct	283	18	Run 4 is positive run (Oct to Dec)
Nov	300	17	
Dec	340	40	

Sources: Annex: 7(I)

Table: 7

Monthly Price Fluctuation of UFC finance Company Ltd.

Month	Closing Price	Price Change	Result
Jan	400	-	
Feb	400	0	Run 1 is zero
Mar	441	41	Run 2 is positive run (Mar to June)
Apr	476	35	
May	480	4	
June	500	20	
Jul	445	-55	Run 3 is negative run
Aug	445	0	Run 4 is zero run (Aug to Oct)
Sep	445	0	
Oct	445	0	
Nov	512	67	Run 5 is positive run
Dec	627	115	

Sources: Annex: 7(I)

Run test presented above table no 6 of ACA finance company & 7 AFC Ltd based on monthly closing prices. On UFC finance, Run 1(Feb to July) there is negative price changes on monthly ending price, run 2 (Aug) has positive price change, run 3 (Sep) has zero price change & run 4 (Oct to Dec) has again positive price changes. Therefore result are, run 1 is negative run, run 2 is positive run, run 3 is zero run and run 4 is again positive run.

Similarly on AFC Ltd. Run 1 is zero, run 2 (Mar to June) has positive price changes, run 3 has negative price change, run 4 has (Aug to Oct) has again zero price changes, run 5 has again positive price changes, therefore run 1 is zero run, run is positive run, run 3 is negative run, run 4 is zero run and run 5 is again positive run on the table presented of AFC Ltd above.

4.9. Filter Rule

Eugune Fama and Marshall Blume designed the programme to trade the securities at an x percent rule and this strategy operates as if the price of the security rises at least x percent. Buy and hold the security until it's price drops at least x percent from a subsequent height. Then, liquidate the long position and assume a short position until the price rises by x percent. But under this strategy, the research reported could out – perform the naïve buy and hold strategy.

Buy: % of market price rise ≥ x%

Sell: % of market price fall ≥ x %

Table no: 8

The Filter Rule Trading Results of Annapurna Finance Co. Limited on Monthly Ending Price Basis

Month	Closing price	Month between	Percentage Change	Buy/Sell decision (x = 4%)	Buy/Sell decision (x = 8%)
Jan	400	-	-	-	-
Feb	400	1-2	400-400/400 =0%	-	-
Mar	441	2-3	441-400/400 = 10.25%	Buy	Buy
Apr	476	3-4	476-441/441 = 7.93%	Buy	-
May	480	4-5	480-476/476 = 0.84%	-	-
June	500	5-6	500-480/480 = 4.16%	Buy	-
Jul	445	6-7	445-500/500 = -11%	Sell	Sell
Aug	445	7-8	445-445/445 = 0%	-	-
Sep	445	8-9	445-445/445 = 0%	-	-
Oct	445	9-10	445-445/445 = 0%	-	-
Nov	512	10-11	512-445/445 = 15.056%	Buy	Buy
Dec	627	11-12	627-512/512 = 22.46%	Buy	Buy

Sources: Annex: 7(I)

From the above table presented of Annapurna Finance Co. Ltd. Concluded that it has some price fluctuation of couple of month ending prices therefore on x= 4%, there are many result either to buy or sell the security. The above calculation of the price change from month Jan to Dec, there are 5 buy and 1 sell signals on x = 4%. Where Mar, Apr, June, Nov & Dec has more than 4% rises on market price and on month of July there is more than 4% fall on market price Similarly on x= 8%, there 3 buy & 1 sell signals. Where month of Mar, Nov & Dec has more than 8% rise on market price and on the month of July, it has more then 8% fall on market price.

4.10 Relationship of Book Value to Market Value

The general trend is that the market value of publicly quoted companies is above their book values. Market values are determined by supply and demand factors. However, in an efficient market the market price of shares fully reflects all the historical information publicly available. One of the objectives of this study is to examine the form of Nepalese Stock Market in relation with the share price fluctuatation in the Nepalese stock market. Therefore, establishing the relationship between the market value and book value of shares and testing the significance of this relationship by using the correlation coefficient will give an idea whether the market prices fully reflect all the publicly available information or not. The results of correlation coefficient and coefficient of determination estimates are summarized in the following paragraph and are dealt in details in the following sub-sections of this section for each finance company under study.

4.10.1 The Correlation Coefficient

The correlation coefficient analysis is the statistical tool generally used to measure the degree to which one variable is related to another. Two variables are said to be correlated when the movements in one are accompanied by other. The correlation coefficients are calculated by using the formula described in research methodology chapter.

Following table and figure presents the clear picture of the correlation coefficient for the easy understanding of the existing relationship

Table-9

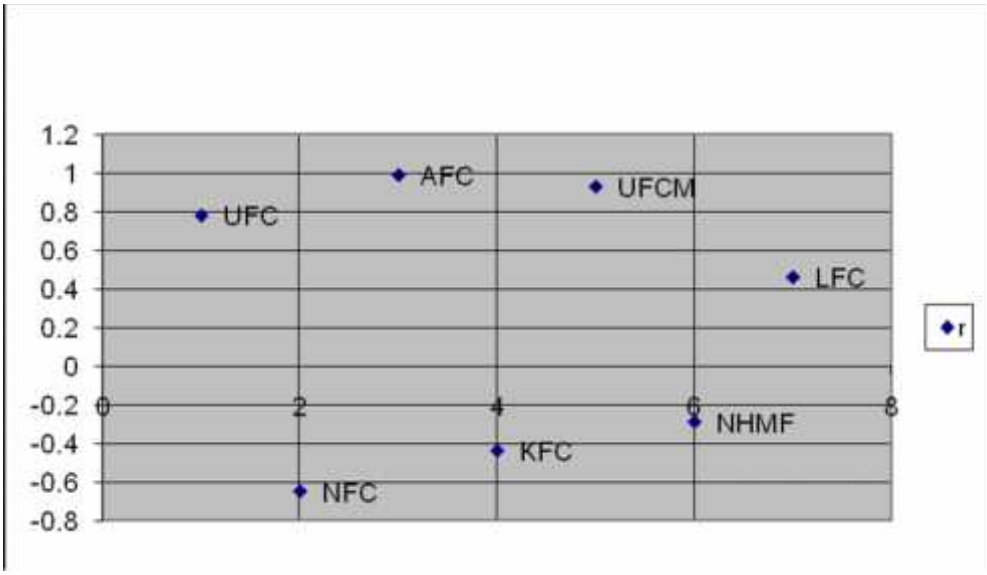
Correlation Co-efficient of Sample Finance Company

Finance Company	**UFC**	**NFC**	**AFC**	**KFL**
R	0.78	-0.65	0.99	-0.44
Finance Company	**UFCM**	**NHMF**	**LFC**	
R	0.93	-0.29	0.46	

Sources: Annex-8

Figure-9

Correlation Coefficient



From the above table 7 and figure 9, it has been depicted that the correlation coefficient of NFC, KFL, and NHMF finance company are negative with their values being –0.65, -0.44, -0.29 respectively which suggest to conclude that there is negative relationship between book value per share and market value per share of those finance company. Among the rest of finance company UFC, AFC, UFCM and LFC has positive relationship with their values being 0.78, 0.99, 0.93 and 0.46 respectively this suggests to conclude that there is positive

relation between BVPS and MPPS of those finance company. Out of these finance company AFC seems to have strangest positive relationship between its MPPS and BVPS among all finance companies under stud. Rest of the finance company UFCM, UFC, and LFC are also positively correlated in connection with the concern of BVPS to MPPS. But their relationship is small. As a result change in BVPS brings comparatively small change in MPPS.

However, the correlation found in case of most of the finance company is either positive therefore, it can be concluded that there is relationship between BVPS and MPPS.

4.11 Major Findings of the Study

Based on the analysis of data and their interpretation, the major findings of the study in relation to the objectives set could be summarized as follows.

- There are 144 companies listed in stock exchange, and the listing rate is on increasing trend.

- Among various group of industries commercial banks and Finance companies group dominates other industries in terms of volume and traded amount on the whole. In the month of May/June highest no. of shares (3773.71 thousand) were traded for the Rs.612.25 Millions in the NEPSE.

- According to the trading performance of the sample companies, it is found that the highest number of transaction has been secured by NFL, Also the highest traded no. of shares, highest traded amount among the samples and highest total paid-up capital are belongs to NFL but total market value is goes to UFC.

- Most of the finance companies are now offering cash dividends every year, and it might be the reason that investors are investing in the finance companies shares.

- The risk and return analysis is the other major tools used in this study. It is observed that this analysis can give better results only when the larger number of observation can be made. But unavailability of data due to recent listing of finance companies made such observation impossible. Therefore the result of the analysis could not fully explain the reliable behaviors of the share prices in the market.

- The average realized rates of return of all these finance companies are not the same over the sample period. Therefore, the co-efficient of variation can be preferred as a measure of risk. On the basis of the co-efficient of variation and average rate of return over the review period, stock of Annapurna Finance Company Ltd and Universal Finance Capital Merchant can be considered as best investment, as they have low risk and higher and consistent returns.

- The beta coefficient, which measures the risk of individual security in relative terms, suggests that none of the shares of sample finance companies are highly risky. The shares of finance companies are less risky as compared to other average stocks traded in the stock exchange.

- The run test, which measures the randomness of sample events, suggests that the changes in the market price of common stock of sample finance companies are not random. In fact run in every finance company is lower than the expected. This indicates that market over reacts to the available information.

- The correlation coefficient analysis tests conducted for the sample finance companies. It shows that there are positive relationship between the book value per share and market price per share of four sample companies or independent variable (BVPS) fully explain or accomplished to the dependent variable (MPPS).

- The investors' attitude towards the shares of these finance companies seems to be positive. They are making good track records of the financial position, market penetration and continuous declaration of dividends that encourages the potential investors to buy the shares of finance companies.

CHAPTER-V

SUMMARY, CONCLUSION & RECOMMENDATIONS

This research attempts to analyze the stock price fluctuation of listed finance companies in Nepal. This chapter deals with the conclusions derived from the study of share price fluctuation of seven finance companies on the basis of the analysis of data and findings from the analysis. The chapter consists of three sections; the first section provides the summary of the study, the second section draws the conclusion of the study. Finally, the third section proposes recommendations to deal the problems observed on the basis of the findings.

5.1 Summary

The study was conducted with a main objective to analyze the share price fluctuation of listed finance companies in Nepal. It is mainly focused to develop the model accordingly and its empirical tests are presented in previous chapters. Financial institutions are the backbone of the nation for the economics development. Finance companies mobilize their investable funds in different sector where return can be maximized with low risk. Finance company plays a vital role in development of the capital market through listing their common stock. In recent time people are attractive towards the common stock of finance companies. Nepalese capital market has been passing through the transitional phase and seems to exist various inconsistencies and hindrances. At the end of June/July 2007/08 there were 144 listed companies in NEPSE among them 78 are finance companies.

As per nature of the study, secondary data of sample finance companies covering the period from 2003 to 2008 are used for this research. Secondary data are collected from annual report of the finance companies, NEPSE and SEBO/N. The correlation coefficient and run test along with standard

deviation, coefficient of variation, beta coefficient, and return analysis were made for the analysis and interpretation.

Before analyzing the results of seven finance companies, the overview of the Nepalese stock market has been sketched. The recent position and performance of stock market in Nepal has been analyzed. The Nepalese stock market has not been developed remarkably in the economy because of various market imperfections like limited number of buyer and sellers, stringent government policies, negligible development of corporate sector etc.

A run test is used for testing the randomness of sequence of sample stock on the basis of the order of sample events. The results of run test do not support the randomness of the sample companies. Where as the filter rule test of AFC say buy the security rather than sell the security. The results support that the successive price changes are dependent. The relationship between market value per share and book value per share also tested with the help of correlation coefficient. The results of the analysis show that there is positive relation between market value per share and book value per share. Therefore between finance companies have highly responsive to the change in the BVPS to give accordingly effects to the MPPS in the secondary market. It also implies that independent variable does fully explain the dependent variable.

Besides these tests, other statistical tools as standard deviations, coefficient of variation and beta coefficient are also calculated to examine the risk involved in the common stocks of the finance companies. As per the result of the beta coefficient most of the finance companies seem to be less riskier than average stock, price fluctuation of the sample finance companies are less then the market and there is less risk on the investment and investors are increasing to invest in these stocks. This is due to the good track record of financial position, market penetration and continuous declaration of dividends which encourage the potential investors to buy the shares of finance companies.

5.2 Conclusion

The random walk hypothesis of share price behaviour has been tested to determine whether the successive changes of ten finance companies are random or not. A run test is used for testing the randomness of sequence of sample events on the basis of the order of sample events. This technique is based on the order or sequence on which the individual score of observations were obtained. In the series of price change observed implies that the price changes in the future market will not be independent on the price changes of the previous period. It brings about that the information of the past price changes is helpful in predicting future price changes. Therefore, sufficient opportunities are available to institutional and individual investors to make higher expected profits in future based on those historical price series. In the mean while the statistical analysis regarding the risk and return of the sampled stocks shows that most of these stocks seems to be less risky than the average stock. But as most of the finance companies are offering cash dividends every year which may not be applicable to other types of financial institutions.

The relationship between the market value per share and book value per share has been tested with the significance of the correlation coefficient. Which gives an idea whether the market prices fully reflect all the publicly available information or not. The analysis regarding the correlation coefficient analysis shows that the sample finance companies have positive relation between market price per share and book value per share. Therefore between those finance company has highly responsive to the change in the BVPS to give accordingly effects to the MPPS in the secondary market or independent variable (BVPS) fully explain the dependent variable(MPPS) because all the finance sample finance company has all most same correlation coefficient.

5.3 Recommendations

The findings of this study may provide important information for those who are concerned directly or indirectly with the stock market activities. Thus, the following recommendations can be outlined;

- NEPSE index plays major role for creating investment prosperity. So for removing stock market difficulties such as transaction facilities should be managed in effective way by formulating investor's protection act.

- Because of the persistence in the stock market price movements, professional traders either institution or individual can beat the market. Thus, it is recommended that the investors should be alert to exploit the opportunities through short-term speculation.

- The stock exchange should carry out periodic research and avail the findings to the public which would help the people to make better investment decision.

- There exists excessive price fluctuation as observed from the data and its analysis. To control such erratic price fluctuations the regulatory body should impose effective provision to the exchange member.

- The public investors should not invest their savings in shares haphazardly. They should at least analyze the future possibilities or get suggestions from expert about the financial position and the level of risk prior to taking an investment decision.

- Before investing on the stock price, investor must analyze the risk and return in the investment using the appropriate tools and try to figure out the future risk in the investment as well.

- It is also strongly recommended to the concern body to carry out or helps to carry further research on stock market price behavior and its price trend over the years for the betterment of the stock market.

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Annex – 1(I)
Group Wise Monthly Turnover
Fiscal Year 2007/2008

Description	Jul/Aug		Aug/Sep		Sep/Oct		Oct/Nov		Nov/Dec		Dec/Jan	
	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'
Commercial Bank	624.1	245.67	394.62	146.71	177.08	77.30	328.51	140.91	532.19	239.52	288.94	143.73
Finance	166.74	25.32	216.26	29.74	121.58	22.61	132.42	31.28	285.36	40.60	213.80	30.61
Insurance	69.27	12.74	54.10	13.96	21.11	4.04	9.62	2.18	71.37	12.71	18.42	4.10
Manufacturing & Processing	0.33	0.33	1.8	3.26	0.65	0.03	0.71	0.3	1.67	0.35	3.29	2.65
Hotel	7.43	0.35	6.39	0.31	13.42	0.57	1.09	0.04	320.56	16.28	21.85	1.13
Trading	0.22	0.28	0.35	0.73	6.88	2.94	0.01	0.02	0.81	1.49	0.31	0.65
Development Bank	16.51	3.86	19.13	2.69	1.62	0.33	3.82	0.65	142.22	15.64	2.78	0.67
Other	2	0.77	5.63	0.78	55.15	0.79	0.45	0.21	0.68	0.3	0.83	0.38
Total	886.62	276.58	698.28	198.18	397.49	108.61	476.54	174.87	1354.86	326.89	550.22	183.92

Annex – 1(ii)
Group Wise Monthly Turnover
Fiscal Year 2007/2008

Description	Jan/Feb		Feb/Mar		Mar/Apr		Apr/May		May/Jun		Jun/July		Total	
	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'	Share Unit In'000'	Traded Amount Rs in 'Million'
Commercial Bank	469.98	177.12	506	274.42	453.19	231	669.43	357.76	649.72	417.97	442.45	244.5	5536.21	2696.61
Finance	98.08	13.32	161.05	21.62	162.67	25.63	92.54	12.76	207.15	33.63	99.9	18.81	1957.55	305.85
Insurance	25.23	7.96	17.86	4.82	45.09	15.78	40.62	13.06	53.71	20.16	148.57	18.36	575	129.9
Manufacturing & Processing	3.98	0.3	24.59	5.33	20.18	1.07	0.63	1.32	1.4	1.05	0.57	1.18	59.8	17.19
Hotel	4.18	0.22	3.13	0.17	3.17	0.16	4.13	0.19	3.08	0.15	3.77	0.16	392.18	19.77
Trading	0.87	2.05	1.35	1	2.29	1.63	0.04	0.1	2.06	4.85	0.03	0.07	15.22	15.8
Development Bank	66.7	19.1	54.69	20.41	18.59	5.93	10.31	3.89	10.64	3.51	39.43	6.07	286.39	82.76
Other	5.29	2.3	3.78	1.26	78.86	1.32	1.17	0.76	3045.95	136.93	101.61	38.77	3301.54	183.88
Total	674.31	222.35	772.45	329.03	784.04	282.52	818.87	389.84	3973.71	618.25	836.33	327.92	12123.89	3451.76

Annex - 2

Trading Performance of Sample Stock
For Fiscal Year 2007/2008

S.N	Name of the Company	Outstanding Equity	Paid up Value	No of Transaction	Traded Share in Unit'000'	Traded Amount in Million	Closing Price	Total Paid –Up Value in Mission	Total Market Value in Million
1.	United Finance Co. Ltd	900000	100	116	24.68	7.79	320	90	288
2.	Annapurna Finance Co. Limited	800000	100	85	9.45	4.57	500	80	400
3.	Kathmandu Finance Limited	330000	100	54	5.82	0.82	140	33	46.2
4.	Lalitpur Finance Limited	506250	100	90	3.89	1.03	245	50.63	124.03
5.	National Finance Limited	950400	100	177	158.80	44.69	263	95.04	249.96
6.	Nepal Housing & Merchant Finance.	544500	100	49	11.63	2.49	210	54.45	114.35
7.	Universal Finance & Capital Mkt.	375000	100	139	15.32	2.60	181	37.50	67.88

Annex – 3 (I)

United Finance Co. Ltd				Annapurna Finance Co. Ltd				Kathmandu Finance Limited			
Year	MPS	Dividend		Year	MPS	Dividend		Year	MPS	Dividend	
		Cash	Stock			Cash	Stock			Cash	Stock
2002/03	Rs 500	25%	-	2000/01	Rs 580	12%	-	2000/01	Rs 321	23%	-
2003/04	Rs 230	5%	-	2001/02	Rs 710	12%	-	2001/02	Rs 305	12%	-
2004/05	Rs 240	15%	-	2002/03	Rs 420	12%	-	2002/03	Rs 235	-	50%
2005/06	Rs 173	N/A	-	2003/04	Rs 450	N/A	-	2003/04	Rs 205	-	-
2006/07	Rs 251	20%	-	2004/05	Rs 431	-	-	2004/05	Rs 210	-	-
2007/08	Rs 320	23%	-	2005/06	Rs 500	-	-	2005/06	Rs 320	-	-

Annex – 3 (II)

Lalitpur Finance Company Ltd				National Finance Co. Ltd				Nepal Housing & Merchant Finance Limited				Universal Fin & Capital Market			
Year	MPS	Dividend		Year	MPS	Dividend		Year	MPS	Dividend		Year	MPS	Dividend	
		Cash	Stock			Cash	Stock			Cash	Stock			Cash	Stock
2002/03	Rs 450	-	-	2000/01	Rs 560	30%	-	2000/01	Rs 280	14.25%	-	2000/01	Rs 181	5.61%	8%
2003/04	Rs 400	2.63%	50%	2001/02	Rs 545	20%	-	2001/02	Rs 310	14.25%	-	2001/02	Rs 175	8.12%	10%
2004/05	Rs 265	-	-	2002/03	Rs 455	-	20%	2002/03	Rs 240	-	50%	2002/03	Rs 150	12%	-
2005/06	Rs 235	-	-	2003/04	Rs 360	-	-	2003/04	Rs 230	-	-	2003/04	Rs 130	-	-
2006/07	Rs 240	-	50%	2004/05	Rs 295	-	-	2004/05	Rs 214	-	-	2004/05	Rs 130	12.53	32.58
2007/08	Rs 395	-	-	2005/06	Rs 545	-	-	2005/06	Rs 265	-	-	2005/06	Rs 182	-	-

Annex - 4
Risk & Return of Market Index

Year	M.I.	Realized Rate of Return (Rm)	$Rm - \overline{R_m}$	$(Rm - \overline{R_m})^2$
2002/03	348.43	-		
2003/04	227.54	- 0.3469	-0.40234	0.8047
2004/05	204.86	- 0.0996	- 0.15504	0.31
2005/06	222.00	0.0836	0.02816	0.056
2006/07	286.67	0.2913	0.2358	0.4716
2007/08	386.83	0.3488	0.2933	0.5866
		$\sum R_b = 0.2772$		$\sum (Rm - \overline{R_m})^2 = 2.2289$

A) Calculation of Realized Rate of Return

$$R_m = \frac{MI_t - MI_{t-1}}{MI_{t-1}} = -0.3469$$

B) Calculation of Mean

$$(\overline{Rm}) = \frac{\sum R_m}{n} = \frac{0.2772}{5} = 0.05544$$

C) Calculation of Standard Deviation

$$(\pm m) = \sqrt{\frac{\sum (R_m - \overline{R_m})^2}{n}} = \sqrt{\frac{2.2289}{5}} = 0.6676,$$

Therefore the Variance of the Market is = 0.4456

D) Calculation of Coefficient of Variation

$$(C.V) = \frac{\pm_m}{\overline{R_m}} = \frac{0.6676}{0.05544} = 12.04$$

Annex – 5

Book Value & Market Value of Sample Common Stock

	1.UFC		2.AFC		3.KFL		4.LFC		5.NFL	
Year	BVPS	MVPS	BVPS	MVPS	BVPS	MVPS	BVPS	MVPS	BVPS	MVPS
2002/03	176	230	304.5	710	128.05	305	257	400	277.43	545
2003/04	153	240	208.25	420	142.55	235	256	265	291.79	455
2004/05	162	173	222.05	450	154.88	205	234	235	307.51	360
2005/06	179	251	212.23	431	124.35	210	236	240	285.31	295
2006/07	201	320	247.43	500	132.54	320	241	395	253.25	545

	6.NHMF		7.UFCM	
Year	BVPS	MVPS	BVPS	MVPS
2002/03	140.21	310	89.96	175
2003/04	131.14	240	105.35	150
2004/05	140.65	230	112.52	130
2005/06	203.10	214	115.35	130
2006/07	197.28	265	161.48	182

Annex – 6

Calculation of Realized Rate of Return, Expected Return, S.D, C.V, and Beta Coefficient

United Finance Company Ltd										
Year	Market Price (Rs)	Dividend				Realized Rate (R_j)	$(R_j - \overline{R_j})$	$(R_j - \overline{R_j})^2$	$(R_m - \overline{R_m})$	$(R_i - \overline{R_i})(R_m - \overline{R_m})$
		Cash (Rs)	Stock	Calculated	Total					
2002/03	500	25	-	-	25	-	-	-	-	-
2003/04	230	5	-	-	5	- 0.53	-0.5765	0.3323	-0.40234	0.2319
2004/05	240	15	-	-	15	0.1086	0.0621	0.0038	- 0.15504	-0.0096
2005/06	173	NA	-	-	NA	-0.2791	-0.3256	0.1060	0.02816	-0.0091
2006/07	251	20	-	-	20	0.5664	0.5199	0.2703	0.2358	0.1226

2007/08	320	23	-	-	23	0.3665	0.3200	0.1024	0.2933	0.0938
					0.23	**0.232537**		**0.8150**		**0.42966**

Annex – 6, cont ……

A) Calculation of Realized Rate of Return

$$R_b = \frac{DtP_t - P_{t-1}}{P_{t-1}}$$

B) Calculation of Expected Rate of Return

$$(\overline{Rj}) = \frac{\sum R_j}{n} = \frac{0.233527}{5} = 0.0465$$

C) Calculation of Standard Deviation

$$(\pm j) = \sqrt{\frac{\sum (R_j - \overline{R_j})^2}{n}} = \sqrt{\frac{0.8150}{5}} = 0.4037$$

E) Calculation of Co Variance

$$COV(R_i R_m) = \frac{\sum (R_i - \overline{R_i})(R_m - \overline{R_m})}{n} = \frac{0.42966}{5} = 0.085932$$

F) Calculation of Beta Coefficient

$$_i = \frac{COV(R_i R_m)}{\pm 2_m} = \frac{0.085932}{0.4456} = 0.192846$$

D) Calculation of Coefficient of Variation

$$(C.V._b) = \frac{\pm_j}{\overline{R_j}} = \frac{0.4037}{0.0465} = 8.6803$$

Note: Similarly, Same procedure have been applied of rest of the sample Finance Company (AFC, NFL, KFL, UFCM, NHMF, LFC) for the calculation Realized Return, Expected Return, S.V, C.V and Beta Coefficient and presented in table. See page no.

Annex – 7 (I)

Summary of Monthly –Wise Market Price per Share of Each Sample Finance Company

	1.Market Price of UFC					2. Market Price of AFC				
Month	2003/04	2004/05	2005/06	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Jan	450	450	180	205	341	410	410	430	350	400
Feb	300	450	175	211	340	415	520	425	350	400
Mar	270	450	175	200	338	410	520	425	355	441
Apr	240	240	170	240	337	430	520	425	355	476
May	230	239	162	250	328	410	520	440	400	480
Jun	230	240	173	251	320	410	520	450	431	500
Jul	491	220	228	180	250	460	410	420	490	445
Aug	475	221	225	178	265	465	410	420	490	445
Sep	500	210	190	180	265	450	410	410	305	445
Oct	250	200	181	180	283	450	417	410	300	445
Nov	450	200	184	189	300	450	420	410	346	512
Dec	450	200	184	200	340	410	420	420	370	627

Annex – 7 (II)

3.Market Price of KFL						4. Market Price of LFC				
Month	2003/04	2004/05	2005/06	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Jan	321	325	200	167	141	440	290	230	232	250
Feb	300	325	201	150	140	375	270	245	232	260
Mar	275	325	203	150	140	475	270	240	232	
Apr	300	235	203	145		500	269	235	230	250
May	300	230	209	140	139	480	260	230	240	245
Jun	305	235	205	138	140	450	265	235	240	245
Jul	302	306	235	207	135	600	415	245	230	240
Aug	300	306	260	195	135	605	400	230	213	253
Sep	310	306	270	180	140	605	400	230	223	250
Oct	310	293	274	185	147	350	400	230	234	
Nov	340	275	267	185	135	386	300	231	216	250
Dec	325	240	200	175	135	386	300	285	226	300

Annex – 7 (III)

	5.Market Price of NFC					6. Market Price of NHMF				
Month	2003/04	2004/05	2005/06	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Jan	530	490	392		251	250	275	240	200	
Feb	500	457	392	250		250	261	240		
Mar	510	440	390		251	250	260	240	195	
Apr	500	425	390	345	250	277	260	228	203	210
May	500	419	390	325	263	280	260	228	204	215
Jun	545	455	360	295	263	280	240	230	214	210
Jul	575	491	412	350	255	201	290	228	230	220
Aug	600	450	435	350	290	291	300	228	234	220
Sep	605	465	427	350	290	320	300	228	240	220
Oct	603	465	427		290	275	280	228		
Nov	530	490	445	370	270	275	300	217	240	200
Dec	515	490	445		260	275	300	220	250	240

Annex – 7 (IV)

7.Market Price of UFCM					
Month	2003/04	2004/05	2005/06	2006/07	2007/08
Jan	190	149	130	120	178
Feb	199	145	130	120	188
Mar	180	145	133	120	182
Apr	170	150	130	125	
May	170	150	130	130	181
Jun	175	150	130	130	
Jul	190	175	130	120	150
Aug	188	160	148	126	161
Sep	180	152	148	120	165
Oct	184	155	150	117	165
Nov	200	150	150	117	165
Dec	200	150	130	112	165

Annex-8
Calculation of Correlation Coefficient and Coefficient of Determination

United Finance Company				
MPPS(X)	**BVPS(Y)**	**XY**	**X^2**	**Y^2**
230	176	40480	52900	30976
240	153	36720	57600	23409
173	162	28026	29929	26244
251	179	44929	63001	32041
320	201	64320	102400	40401
Σ(X)=1214	**Σ(Y)=871**	**Σ(XY)=214475**	**Σ(X^2)=305830**	**Σ(Y^2)=153071**

A) Calculation of mean

$$\overline{X} = \frac{\sum X}{n} = 242.8$$

$$\overline{Y} = \frac{\sum Y}{n} = 174.2$$

B) Calculation of Correlation Coefficient

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2}\sqrt{N\sum Y^2 - (\sum Y)^2}} = 0.78$$

C) Calculation of Coefficient of Determination

$$R^2 = r^2 = 0.6084$$

Note: Similarly, Same procedure have been applied of rest of the sample Finance Company (AFC, NFL, KFL, UFCM, NHMF, LFC) for the calculation of Correlation Coefficient & Coefficient of Determination presented in table.