# STUDY ON DETERMINANTS OF STOCK PRICE 

(WITH SPECIAL FOCUS To JOINT VENTURE COMMERCIAL BANKS)

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# RECOMMENDATION 

This is certified that the thesis

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has been prepared as the form approved by this department in the prescribed format for the faculty of management. This thesis is forwarded for examination.

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## DECLARATION

I herby declare that that the work reported this thesis entitled "Study on Determinants of Stock Price with Special focus to joint venture commercial Banks" Submitted to Office of the Dean Faculty of Management Tribhuvan University is my original work done in the form of partial fulfillment of the Master in Business Studies (MBS) under the supervision of Rishi Raj Gautam of Shanker Dev Campus.

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## ABBREVIATIONS

| AD | : Anno Domini (Abbreviation of Christian Era) |
| :--- | :--- |
| AGM | : Annual General Meeting |
| AM | : Arithmetic Mean |
| AMEX | : American Stock Exchange |
| BBC | : Bishal Bazar Company |
| BNL | : Bottlers Nepal Limited |
| BOK | : Bank of Kathmandu Limited |
| BPS | : Book- value Per Share |
| BS | : Citizram Sambat (Abbrestment Trust |
| CIT | : Closing |
| Col | : Development Credit Bank limited |
| DCB | : Dividend Discount Model Era) |
| DDM | : Dow Jones Industrial Average |
| DIJA | : Earning Per Share |
| DPS | : Equally Weighted |
| EPS | : Federation of Nepalese Chamber of Commerce an Industry |
| EW | : Gross Domestic Product |
| FNCCI | : Himalayan Bank Limited |
| GDP | : International Monetary Fund |
| HBL | : Internal Rate of Return |
| IMF | : International Organization for Standardization |
| IRR | : Institute of Chartered Accounts of Nepal |
| ISO | Markited |
| ICAN | Masters of Business Adminiter of Business Studies |
| Ltd. | Market Cap. |


| na | $:$ Not Audited |
| :--- | :--- |
| NBL | : Nabil Bank Limited |
| NEPSE | : Nepal Stock Exchange |
| NFC | : National Finance Company |
| NPV | : Net Present Value |
| NRB | : Nepal Rastra Bank |
| NYSE | : New York Stock Exchange |
| OE | : Organized Exchange |
| OTC Market | : Over The Counter Market |
| PE | : Price Earnings |
| Prof. | : Srofessor |
| r | : Coefficient of Simple Determination |
| r2 | : Rupee |
| Re. | : Rupees |
| Rs | : Standard and Poor 500 |
| S\& P 500 | : Standard Chartered Bank Nepal Limited |
| SCB | : Security Board of Nepal |
| SEBO/N | : Security Exchange Centre |
| SEC | : Salt Trading Corporation |
| STC | : Tribhuvan University |
| TU | : United States Dollar |
| US\$ | : United States of America |
| USA | : Union of Soviet Socialistic Republic |
| USSR | Value Weighted |
| VIP | VWord Wide Web |
| WW |  |

## CHAPTER I

## Introduction

### 1.1 General Background

Capital is the lifeblood of the business organization. Every business enterprises required short terms intermediate and long term capital for the smooth operation and expansion of the organizational activities. Among this type of fund the long term fund play highly significant role for future growth and prosperity of the organizations. Most business organizations gather long term funds from financial market.

Financial Market It is the place where the financial instruments are traded and financial instrument includes share, bond, debenture etc. It is a means to transfer funds from savers to those is need of funds Financial experts have mentioned it as a brain of the entire economic system. The failure of the financial market obstructs the progress of the whole economy.

Financial market provides a forum in which suppliers of loans and investment can transact business directly. The two key financial markets are money market and capital market. Transactions in short-term debt instruments are marketable securities, take place in the money market. Long term securities (bonds and stocks) are traded in the capital market (Gitman, 1983:30).

All securities whether in the money or capital markets are initially issued in the primary market This is the only market where the company or government is directly involved in the transaction and receives a direct benefit from the issue that the company actually receives the proceeds from the sale of securities. Once the securities began to trade of securities. Once the securities began to trade among individual; business government, or financial institution savers and investors, they becomes a part of the secondary market. The primary market is the one where "new" securities are sold the secondary market can b e viewed as a "used" or "Pre-owned" securities market (Gitman, 1988: 30).

Money market is created by a financial relationship between suppliers and demand makers of short-term funds, which have maturities of one year or less. The money market is not an actual organization housed in some certain location, such as a stock market, although the majority of money market transactions are in marketable securities, which are short-term debt instruments, such as treasury bills, commercial papers, and negotiable certificates of deposit issued by government, business and financial institutions respectively (Gitman, 1988: 31).

The money market exist because certain individuals, businesses, governments and financial institutions have temporarily idle fund that they wish to place in some type of liquid assets or short-term interest-earning instrument. At the same time, other individuals, businesses, governments and financial institutions find themselves in need of seasonal or temporary financing. Thus the money market brings together these suppliers and demand marketers of short-term liquid funds.

Capital market also plays a vital role in the national economy. Capital market facilitates the allocation of fund between the savers and burrowers. This allocation will be optimum if the capital market is efficient, the current share price of the company fully reflect the available information and there will be no question of the share price being over and under priced. Capital market is a concerned with the long term finance. The funds collected in the market are concerned with the long term finance. The funds collected in the market are raised and traded by long term financial instruments such as equities and bond.

Capital markets consist of securities market and non-securities market. Securities market implies mobilization of the fund through issuance of the securities like share, bonds and debentures by corporate sector and bond, bills and debentures by government. This securities traded in the secondary market are generally negotiable and hence can be traded in the secondary market. Non-securities refer to the mobilization of the financial resources by the financial institutions in the form of deposits and loans.

The structure of the capital market can be shown as follows:


Stock Exchange also called stock market is an organized market for the sale and purchased of securities such as share, stocks, stock and bonds. By providing a second hand market for investors to sell their shares, it facilities the raising of new capital on the new issue. The stock exchange also provides a market for government loans and securities, and selling of securities in the overseas companies. On the market, the main operators the market makers who trade in a group of share, and the stock brokers who act as agents for their clients, who are the investors who are actually buying and selling share.

In developed capitalist countries, the stock exchange has important functions. As a ready market for securities, it ensures their liquidity and thus, encourages people to channel saving in to corporate investments, and as a pricing mechanism, it allocates capital among firm by determining prices that reflect the true investment value of a company's stock.

New York Stock Exchange (NYSE), London Stock Exchange, Tokyo Stock Exchange, Paris Stock Exchange, Frank Fruit Stock Exchange, Toronto Stock Exchange is the biggest stock exchange of the world. Mumbai stock exchange is the largest stock exchange and Nepal stock exchange (NEPSE) is the only organized stock exchange of Nepal.

### 1.1.1. Constituent of capital market in Nepal.

## Securities board (SEBO/N)

Securities board (SEBO/N) was established on 26 May, 1993 under the provision of the Securities Exchange Act, 1983 which was the first amendment. It was established with the objective of promoting and protecting the interest of investors by regulating the securities market. Besides the regulatory role, it is also responsible for the development of securities market in the country. So, SEBO/N has unidentified the policy development, legal and regulatory reform, standardizing disclosures, bringing enforcement to ensure compliance and promoting broad based market as a priority area to reform.

As a part of its continuous effort to build a sound system to the securities exchange, the private sector has also equally participated. In private sectors investors, listed companies, financial \& market intermediaries and similarly in government sectors; ministry of finance, registrar of the companies (Ministry of industry, commerce and supply), Nepal Rastra Bank, Nepal Stock Exchange Ltd. Federation of Nepalese Chamber of Commerce an industries (FNCCI); Institute of Chartered Accounts of

Nepal (ICAN) and Association of Chartered Accountants of Nepal have vital support in promoting the capital market in the country.

## Nepal Stock Exchange (NEPSE)

Along with the formation of Securities Exchange Board, Nepal Government converted the security exchange centre ltd, into Nepal Stock Exchange Ltd. (NEPSE) in 1993 with a view to reform the capital market. It is a non-profit making organization operating under securities exchange act 1983. Brokers and market makers operate on the trading floor as per the securities exchange act rules and by laws of NEPSE. Nepal Stock Exchange started its trading operation on 13 Jan, 1994 through its licensed members. The securities board was constituted in 1993 under sec. 1 of the securities exchange act 1983. Brokers and market makers make operate on the trading floor as per the Securities Exchange Act rules and by laws of NEPSE. Nepal Stock Exchange started its trading operation on 13 January 1994 under sec. 1 of the Securities Exchange Act 1983.

Its main objectives are to provide essential policy direction for the systematic develop Competitive Stock exchange market by protecting and promoting the interest of the investors. Nepal Stock Exchange is a trading (operational) institution, whereas securities Board are the regulatory body. Before the Board came into existence, the securities exchange centre carried on both the functions though any corporate body desirous to carry out the transaction of securities can submit application to the board for obtaining the license till now Nepal stock exchange Ltd. Alone is representing the securities market in the country.

At present, there are 22 valid member brokers (out of 27 brokers in whim 7 of them are either nor working or suspended more than 115 listed companies. NEPSE has adopted an "open our cry" system. It means, transactions of securities are conducted on the open auction principle on the trading floor, where the price is determined when b id and offer price match. The rate of brokerage on equity transactions ranges 1 to 1.5 percent depending on the traded amount (www.nepalstock.com).

Similarly the basic objective of the NEPSE is to impact free marketability and liquidity to the government and corporate securities by facilitating transactions on its trading floor through market intermediate such as brokers, Market makers etc. Nepal Stock Exchange (NEPSE) is the only organized stock Exchange of Nepal.

### 1.1.2 Securities Market

So far as the securities market is concerned, it is an important constituent of capital market. It has a wide term embracing the buyers and sellers of securities and all the agencies and institutions that tentatively assist the sale and resale of corporate securities (Rugh, 1996: 50).

The development of a sound Securities market with its instatement financial institution enable the efficient transformation of saving from the hands of surplus spending units to ones of deficit spending ones who can use them more productivity an/or have loss/risk aversion (Rugh, 1996:56).

Although security market is concerned in few locations they refer more to mechanism rather than to place designed securities. Security market can be defined as a mechanism for bringing together buyer and seller of financial assets in order to facilitate trading in order to allocate capital effectively to maintain higher degree of liquidity in securities, the securities market should be efficient enough in pricing the share solely by economic considerations based on publicity available information.

An efficient market is one where current price of the share gives the best estimate of its true worth. Thus, the securities market is a place where share of listed companies are traded or transferred from one to another a fair price through the organized brokerage system. The major function of securities market is a competitive price thereby, importing future market ability and liquidity. It is a medium through which coffered savings and scarce resources are transferred to productive areas that ultimately help in the economic development and industrialization of the nation.

The first public floatation of shares in the securities market was initiated by Biratnagar Jute Mills Ltd in 1937. There were few companies in Nepal issuing share to the general public until another Company Act came in the operation in 1951. In the absence of developed security market in Nepal, the government was sole issuing authority of development Bonds and National saving certificates. Therefore, the securities generally in the market were mainly the government securities. Government securities are fully traded under the management and supervisions of Nepal Rastra Bank (NRB). Institutional Development of securities market in Nepal started from the year 1976 when securities exchange centre (SEC) was established under the Companies Act with the joint capital contribution of Nepal Rastra Bank and Nepal Industrial Development Corporation. The Industrial Policy of the government also encouraged the promotion of securities exchange activities in Nepal. The main objective of the establishment of the centre was to mobilize public savings and encourage the people to participate in the ownership of industries and business
enterprises. As a security market intermediary its role was to organize and provide marketing facilities of channeling securities exchange business through the centre. Its activities included the purchase underwrite and sale, directly or thorough the licensed brokers of sub brokers of the centre, the share stocks and debentures of public limited companies and also development bond as well as Treasury bill issued by the government.

Securities market can be further categorized in to two groups as primary market and Secondary Market.

Primary Market when securities are issued for the first time, they are traded in Primary Market. All proceeds from the issue in this market go to issuing corporation. It is the market for first issue of securities by corporation, in which the corporation raise new capital. However in issuing the securities, the issuing corporation could take the service of investment bankers and securities dealers, which could cover wide geographical area for distribution of securities by forming under writing syndicate (Paudel, Baral, Gautam, Rana, 2006: 27).

All the securities whether in money market or capital market are initially issued in the primary market. This is the only market in which the corporate or government issuer is directly the involved in the transaction and receives direct benefit from the issue, that is the company actually receives the proceeds from the sale of securities (Gitman 2000:34).

Secondary Market is the market in which securities are traded that has been issued at some previous point of time in other words, where outstanding securities are traded is referred so as the secondary market or more popularly known as the stock market. Share or Stock is the major component of the securities market. Stock market is the medium through which corporate sector mobilizes funds to finance productive projects by issuing share in the market. The efficient collecting of small amount of saving and transferring fund into the completive and efficient uses requires a well functioning capital market to facilitate the process (R.S. Mahat 1981). Thus, Secondary market deals with through stock exchange, over the counter market or direct selling.

An active secondary market is crucial for any securities once they are sold of primary market. The existence of secondary market facilities trading among investors to investors, thus adding to the liquidity of securities. Investors are motivated to buy securities in primary market only if the secondary market for the securities exists. (Paudel, Baral, Gautam, Rana, 2006:27).

### 1.2 Focus of the Study

Financially, it is difficult for an average Nepalese to launch a project or a mega project. But raising the scattered funds from a large numbers of investors by issuing shares, such projects can be launched, since there are a large numbers of middle class families. The small investors can invest by purchasing shares of such projects in primary market (during initial public offering) or in secondary market. NEPSE is organized by stock exchange for trading stocks (shares) in secondary market. But the general of capital market and its pricing mechanism. The price of the stock is determined by the interaction of buyers and sellers (demand and supply) in NEPSE.

The investment in stock is highly risky being an ownership capital. It bears purchasing power risk, but bear marker risk, management risk, default risk, liquidity risk, taxability risk, political risk, industry risk, etc. But the investor like to risk avert. There are various factors affecting the price of share. Some factors are can be quantified, but other some factors are qualitative, and the effect of such factors on share price can't be quantified. This study focuses to the sensitivity of the stock price in NEPSE with special focus to joint venture commercial banks towards various factors. In other words this study intends to determine the factors affecting the price (i.e. market value) of the stock.

### 1.3. Statement of the problem

Capital market investment in this present context plays a major role in the economies development of the country. The stage of development of capital market in any country and it effective growth depends upon the aggregated economic condition, saving and investment opportunities etc.

There are various institutions involved in the capital market but they are not so using positive and good performance as per the investor's expectations. On the other hand, the investors are responsible for not having self control, self judgment in the choice of the securities for investment. Besides that investors cannot identify good and bad stocks. Thus having lack of adequate information and knowledge about the certain companies, investors are unsystematically investing in stock.

Existing economic imbalance, political instability, ineffective implementation of the liberal economic policy of the country have generated negative symbols in the economy. The price of the securities especially common stock have been randomly fluctuating and dealing over the past years. Consequently some companies were liquidated and some are operating hardly in the market. The problem of Nepal stock market have not been diagnosed and identified. The policy makers are unable to make
the appropriate policy for development of the stock market. Most of the government level efforts for the development of the stock market have poorly contributed.

There are two approaches regarding the share price movement in the market. The first approach assumes that the market is inefficient in pricing of share. In which the technical analysis theory argues that the analysis of the historical prices and trading of stocks provide meaningful information and which also provide the idea of future price movements to the investors. At attempts to explain and forecast change in security price by studying the market data rather than information about a company or its prospects.

The second approach, the efficient market theory, which argues that market, is efficient in pricing the shares. In a situation where stock price movement flows random walks and every point in time actual prices represent goods estimate of its intrinsic values, general investors tend to select any security randomly to form his/her optimum portfolio. As the best investment decision strategy in such market will be random selection of securities.

The present study will try to examine the weak form of efficient market by hypothesis. It will also find out whether the price fluctuation is significantly correlated with past price movements. It also intends to explore ideas as to whether the stock market is efficient in pricing of share or not.

More specifically this study is expected to answer the following research questions.

- What are the major determinants of the research in NEPSE?
- How earning and book value affect to the stock prices?
- What is the effect of the divided to the stock price?


### 1.4. Objective of the Study

Investigators require proper knowledge of share price i.e how it is formed, why does if fluctuate, what factors are responsible for the determination of its price and so on. A few studies have been made regarding securities listed in NEPSE, however most of the studies made up to present capital market are related to the financial performance evaluation; capital structure analysis, dividend policy, risk and return etc. But significant researches have yet not been done to provide core perspective on the determinants of stock price. Thus the present study will be very much important to the investors, planners, researchers' student and policy makers to get a deep insight into the concerned field of the study. Therefore, this study aims to identify the factors
responsible for determinants of stock price, so that it will give a better insight into the stock price. Furthermore, this study is proposed meet the following objectives.

- To identify the major determinants of stock price in Nepal.
- To examine the effect of earning, dividend and book value of the stock price.


### 1.5 Significance of the study

The study may draw the attraction from every corner of entrepreneurs and also other interested and other academicians and also other interested parties.

This study is extremely helpful to the financial manager of corporate firms to know about the movement and price formation of stock price with respect to change in financial position of the firms.

This study is very useful to potential investors who are interested to know the effect of price trend, value of stock and impact of signaling factors in stock price index .

### 1.6 Limitation of the Study

This study tries to explore the factors determining the stock price in Nepal Stock Exchange. Both Primary and Secondary data are analyzed. However, this study may face the following limitation during the course of research.

- Simple research techniques were used in the data presentation and analysis.
- Time Constraints, n
- Takes into account a few number of selected organizations [i.e. six listed joint venture commercial bank] from among the listed companies,
- Most of the primary data are based on research questionnaire and
- Takes into account the only latest available six year.


### 1.7 Chapter Plan

The Study has been organized into 5 chapters. They are:

| Chapter One | : Introduction |
| :--- | :--- |
| Chapter Two | : Review of Literature |
| Chapter Three | : Research Methodology |
| Chapter Four | : Presentation \& Data Analysis |
| Chapter Five | : Summary, Conclusion \& Recommendation |

Chapter One contains the introduction of the study. It includes background $\&$ focus of the study, Statement of the problems and objectives, significant, hypothesis, limitations and organization of the study.

Chapter Two is the review of literature. This chapter reviews the relevant previous studies made on the stock price determinants and the principle set on stock market. This chapter includes the conceptual framework on common stock, stock certificates, securities as well as security markets, stock price etc. Expect that, this chapter reviews the published book, journals, and unpublished thesis report separately.

Chapter third is the research methodology. This chapter includes the detailed framework of the study such as data collection and analysis techniques.

Chapter Four of this research is concerned with the presentation and analysis of the data. In this Chapter, the primary and secondary data collections from different sources are presented in systematic format. (Like: table charts, figures) and analyzed using different analytical tools for instance, average, standard deviation, coefficient of variation, correlation, regression. In addition to that, the major findings of the study are drawn out.

Chapter Five includes the summary, conclusions and recommendation of the study and concludes the report with the major recommendations/suggestions to the investors, listed joint venture commercial banks and government about the stock price determination.

## CHAPTER II

## Review of Literature

### 2.1 Introduction

Review of literature is on the most significant part of research. It will be better to review some fundamental aspect of relevant literature before doing analysis. So it is attempted to present brief glimpses' on the common stock as well findings of the related previous studies. The review of literature has been dividend into two broad categories which are as follows.

### 2.2 Conceptual Framework

Conceptual Framework involves some of the technical terms, which are in frequent us in researches regarding capital market and finance. Thus, before going into the details of factors affecting stock price of joint venture commercial bank some the relevant technical terms related to capital market are defined and discussed here.

### 2.2.1. Common Stock (Stock)

Common Stock Securities that represent the ultimate ownership (and risk) position in a corporation (Van Harne, 2003: 75). A firm can collect fund required, by issuing share and debentures as long term sources of fund. Common stock are ownership capital where as debenture are creditor ship capital. In between of ownership and creditor ship capitals, preference share capital also exists, which is regarded as a hybrid source of financing. Common stock is "Finance is an equity share in the ownership of a company that gives the owner. The right to participate in electing the board of directors and voting on other matter brought before the stockholders, in proportion to the number of shares hold." (Webster Dictionary).

Common Stock represents equity or an ownership position in a corporation. It is a residential claim, in the sense that creditors and preferred stockholder must be paid as scheduled before common stockholders can receive any payments. In bankruptcy, common stockholders are in principle entitled to any value remaining after all other claimants have been satisfied (However, in practice, courts sometimes violate this principle) (Sharpe, Alexander, Bailey, 2006: 457).

The grantee advantage of the corporate form of organization in the limited liability of its owners. Common stock are generally "fully paid and non assessable," meaning that common stockholders may lose their initial investment but not more that is, if the corporation fails to meet its obligations, the stockholders cannot be forced to give the
corporation the funds that are needed to pay of the obligation. However, as a result of such a failure, it is possible that the value of corporations' shares will be negligible. This outcome will result in the stockholders having lost an amount equal to the price paid to buy the share (Sharpe, Alexander, Bailey, 2006: 457)

### 2.2.2 Stock Certificates

"The ownership of a firms' stock has typically been represented by a single certificates, with the number of share held by the particular investor noted on it. Such a stock certificates is usually registered, with the name, address, and holding of the investor included on the corporations' books. Dividend payment, voting material, annual and quarterly reports, and other mailings are than sent directly to the investors, taking into account the size of his or her holdings.

Shares of stock held by an investor 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 place, made out to the new owner. Frequently, a registrar will make sure that this canceling and issuing of certificates has been done properly. Usually, banks and trust companies act as transfer agents and registrars. Many stock holders have chosen to avoid this rather cumbersome procedure. Instead, depository trust companies are used, which substitute computerized record for embossed certificates. (Sharpe, Alexander Bailey, 2003: 458).

### 2.2.3. Securities

"When some one borrows money from a pawnbroker, the borrower leaves some item of value as security. If the borrower fails to repay the lone (Plus interest), the pawnbroker can sell the pawned item to recover the amount of the loan (Plus Interest and perhaps make a profit. The terms of the agreement are recorded on pawn tickets. When a college student borrows money to buy a car, the Lender usually holds formal title to the car until the loan is repaid. In the event of default, the lender can repossess the car and the sell it to recover costs. In this case the official certificate of title, issued by the state, serves as the security for the loan. A person who borrows money for a vacation may simply sign a piece of paper. Promising repayment with interest. The loan is unsecured in the sense that there is no collateral, meaning that no specific asset has been promised to the lender in the event of default. In such a situation the lender would have to take the borrower to court to try to recover the amount of the loan. Only a piece of paper called promissory note stands as evidence of such a loan.

When a firm borrows money, it may or may not offer collateral. For example, some loans may be secured (Backed) with specific pieces of property (building or equipment). Such loans are recorded by means of mortgage bonds, which indicate terms of repayment and the particular assets pledged to the lender in the event of default. However, it is much more common stock force a corporation to simply pledge all of its assets perhaps with some provision of $r$ the manner in which the division will take place in the event of default. Such a promise is known as a debenture bond.

Finally, affirm may promise a right to share in its profits in return for an investor's funds. Nothing is pledged and no irrevocable promises are made. The firm simply pays whatever its directors deem reasonable from time to time. However, the investor is given the right to participate in the determination of who will be members of the board of directors. This right protects the investors against serious malfeasance. The investor's property right is represented by a share of common stock, which can be sold to someone else, who will then be able to exercise that right. The holder of common stock is said to be an owner of the corporation and can, in theory, exercise control over its operation through the board of directors.

In general, only a piece of paper represents the investor's right to certain prospects or property and the conditions under which he or she may exercise those rights. This piece of paper, serving as evidence of property rights, is called a security. It may be transferred to another investor, and with it will go all its rights and conditions. Thus, everything from a pawn ticket to a share of G.M. common stock is a security" (Sharpe, Alexander, Bailey, 2003:2-3)

### 2.2.4 Security Market

"Security markets exist in order to bring together buyers and seller and seller of securities, meaning that they are mechanisms created to facilitate the exchange of financial assets. There are many ways in which security markets can be distinguished. One way has already been mentioned, Primary and secondary markets. Here the key distinction is whether the securities are being offered for sale by the issuer. Interestingly, the primary market itself can be subdivided into seasoned and unseasoned new issues. A seasoned new issue refers to the offering of an additional amount of an already existing security, whereas an unseasoned new issue involves the initial offering of a security to the public. Unseasoned new equity issues are often referred to as initial public offerings, or ipos.

Another way of distinguishing between security markets considers the lifespan of finance assets. Money markets typically involve financial assets that expire in one
year or less. Whereas capital market typically involve financial assets with lifespan of greater than one year. (Sharpe, Alexander, Bailey, 2003: 9-10)

### 2.2.5 Stock Market \& Stock Exchange

Secondary Markets are those in which outstanding previously issued securities are traded. By for the most active market, and the most important one to financial managers, is the stock market. It is her that the prices of firms stocks are established. Since the primary goal of financial management is to contribute to the maximization of a firms' stock price, knowledge of the market in which this price is established is essential for any one involved in managing a business.

There are two basic types of stock markets- organizational exchanges, which include the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX), and several regional exchanges, and the less formal over the counter market since the organized exchanges have actual physical market locations and are easier to describe and understand, we shall consider them first.

The organized security exchanges are tangible physical entities. Each of the larger once occupies its own building, has specifically designated members, and has an elected governing body- its board of governors. Members are said to have "Seals" on the exchange, although everybody stands up. These seats, which are bought and sold, give the holder the right to trader on the exchange (Weston \& Brigham,1990:60).

### 2.3 Stock Price

Stock Price is the amount of the money that one has to pay to purchase/receive a stock of a company. If A buys 10 shares of Himalayan Bank from B, He/She pays Rs. 2000 for these 10 shares, than the price of share is Rs. 200 (i.e. 2000/10). Thus, Stock price is the amount paid by a buyer to buy one stock or the amount received by the seller by selling a stock. The stock price is determined in stock market, by market forces, i.e. demand (buyers' forces) and individuals' future expectations/ assumptions. The stock market price is different from its par value and book value.

### 2.3.1 Par Value

When a corporation is first chartered, it is authorized to issue up to a started number of shares of common stock each of which will often cart a specified par value. Legally, a corporation may be precluded from making payment to common stockholders if doing so would reduce the balance sheet value of stockholders equity below the amount represented by the par value of outstanding stock. For this reason, the par value is typically low relative to the price for which the stock is initially sold.

Some corporations issue no par stock. [In that case, a stated value must be recorded in par value] The initial offering price of share may very from its par value if stocks are issued on premium or discount (sharpe, Alexander, ballie, 2003:461).

### 2.3.2. Earning per share (EPS)

Accounting earnings that represent the difference between revenues and expenses, including the expenses associated with non-equity source of funds (such as interest to debt dividend to preference share) is also known as total earnings available for common stocks. If this portion of income is dividend by number of outstanding share, we get earning per share (Sharpe, Alexander and baihey, 2003:622).

### 2.3.3. Dividend per share (DPS)

The percentage of earnings the firm pays in cash to its share holders is known as dividend of source, reduce the amount of earnings retained in the firm and affect the total amount of internal financing (vane horne,2003:305).

Nothing is more important than dividends to stock holder they buy share of the firm with the hope of sharing profits earned by firms the sole motive of stockholder is to receive return on their investment nothing pleases them more than knowing the firms earning and more profit mean more dividends coming in (Pradhan,1996: 376).

Krishman opines that of two stock with identical earning record and prospect but the one paying a large dividend than the other the former will undoubtedly command a higher price merely because stockholders prefer 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,1995:68).

## Forms of dividend

Cash dividend: payments made in cash to stock holders are termed cash dividends for which, a firm needs to have enough cash in its bank account. When cash dividends is declared, the cash account and reserves account of the firm will be reduced, this both the total assets and the net worth of the firm are reduced in case of distribution of case divided.

Bonus share (Stock Dividend): An issue of bonus share represents a distribution of share in addition to cash dividend (Know as stock dividend USA) to the existing stock holders. This practice has the effect of increasing the number of outstanding share of the company, which is distributed proportionately. Thus, a shareholder retains his/her proportionate ownership of the company (Pandey, 1995:706).

### 2.3.4 Stock Split

Stock splits have an effect on a firm's share price similar to that of stock dividends. A stock split is a method commonly used to lower the market price of a firm's stock by lowering the number of shares belonging to each shareholder. Quite often, a firm, believe that its stock is priced too high and that lowering the market stock to enhance the marketability of the stock and stimulate market activity. A stock split has no effect on the firms' capital structure. It commonly increases the number of share outstanding and reduces the stocks per share par value. In other words, when a stock is split, a specified number of new shares are exchanged for a given number of outstanding shares. Sometimes, a reverse split is made. A certain number of outstanding share are exchanged for two old shares; in a 2 or 3 split, two new shares are exchanged for three old shares, and so on (Gitman,1988: 628).

### 2.3.5 Stock Repurchase

In the recent past, firms have increased their repurchasing of share of outstanding common stock in the market place. A stock repurchase is made for a number of reasons: to obtain shares to be used in acquisitions, to have shares available for employee stock option, plans, to achieve a gain in the book value of equity, when shares are selling below their book value, or merely to retire outstanding shares. The accounting entries that result when common stock is repurchased are a reduction in cash and the establishment of a contra, capital account called 'treasury stock', which is shown as a deduction from stockholders' equity. The repurchase of stock can be viewed as a cash dividend, since it involves the distribution of cash to the firms' owners, who are the sellers of the shares. The advantages of stock repurchases are an increase in per share earnings and certain owner tax benefits. The tax advantage stems from the fact that if the cash dividend is paid the owners will have to pay ordinary income taxes on it of course, when the stock is sold, if the proceeds are in excess of the original purchase price, the capital gain will be taxed as ordinary income(Gitman 1998: 629).

### 2.3.6. Book Value

"With the passage of time, a corporation will generate income, much of which is paid out to creditors (as interest) and to stockholders (as dividend). Any remainder is added to the amount shown as cumulative retained earnings on the corporation's books. Sum of the cumulative retained earnings and other entries (Such as "common stock" and capital contributed in excess of par value") under stockholders' equity is the book a value of equity.

$$
\begin{aligned}
& \text { Cumulative retained earning } \\
& \text { + Capital contributed in excess of par } \\
& \text { + Common stock } \\
& \text { = Book value of equity. }
\end{aligned}
$$

"The book value per share is obtained by dividing the book value of the equity by the number of shares holders" (Sharpe, Alexander, Bailey, 2003:506)

### 2.3.7 Market price per share (MPS)

The market price of any asset, indeed, depends on the future earning power of the asset or the value of an asset depends on the future cash flow that the asset is expected to generate (Pradhan, 1996:20).

A share of common stock can be authorized either with or without par value is the recorded figure in the corporate charter. Generally par values of most stocks are set at fairly low figures with compare to their market value and the market value per share is the current price at which the stock is traded. Market value per share of common stock is the function of the current and expected future dividend of the company and the perceived risk of the stock on the part of investor (Van Horne, 2000:546).

Common stock holders are sometimes referred as the residual owner since in essence she/he receives what is left the residual after all other claims on the firm's income and assets have been satisfied. All the companies issue common stock business firm .they invests money with exploitation of getting high return. The return from the common stock is usually from the capital gained earned. If they increase in value after public by them, that's why price for common share can be more volatile. They move up and down due to the factor like economy a company performance (Gitam, 1991:573).

The market price of share gives the value of share and value of the organization .The market price of share is that price in which shares are traded or the amount which is paid by the buyer to the seller to purchase the stock of company. The market price of shares varies from one company to other. Since the common stock holders are the owner of the organization and have least priority to claim in liquidation the share price is highly volatile and very sensible to environmental factors. An organization has to types of environment, i.e. internal \&external. The environment within the organization is called environmental and is somehow in control maintain the favorable environment to maximize the share price in stock market on the other hand, external environmental factors are not within the control of the organization, but such forces highly affect the market price of share, so the firm tries to adjust themselves according to the changing environmental forces, and such adjustments are indented to maximize the share price of the value of the firm.

Since the market price of share is very much sensitive to the environmental forces, the shares price increases if there is favorable environment and vice versa. This increase in share price is based on the market mechanism or market force, i.e. demand and supply. If the earning and dividend of an organization increases, than the investors have positive perception towards the organization and they like to buy the share of the organization, as a result demand increases, on the other hand, the supplier like to hold the shares and supply increases, and there is gap between demand and supply. So, the market price of the shares increases. The investors determine the share price they would like to pay for the share of the organization and the sellers determine the price they would like to receive by selling shares based on their assumptions towards organization and future expectation. Such assumptions and expectations vary from individual to individual. Since different person analyses the same situation differently with their level of knowledge.

The index of stock gives the surrogate of market price of share. NEPSE index is surrogate of all the listed companies in NEPSE. So, it consists one of the indicators of stock price in NEPSE. There are various indexes to analyze the stock behavior in the world's capital market. "Stock market indexes are pure numbers" used for making comparison between index number in the same series of the index number. An index is usually a ratio tabulated from average of different securities. Typically, a time series of index number is constructed from the same base date and base value (usually set 100 or 10) to make time directly comparable. Some past year as is selected as the base year from which index's base value is calculated in order to impart time perspective to index. An index is series.

### 2.4 Review of Books

In this section of review of literature, the well-established principles for the valuation of common stock in global contexts are reviewed from the various books. The share price is somehow set with the valuation of stock. The internationally set principle of viewed and the abstracts of such principles are presented here.

### 2.4.1 Capitalization of Income Method of Valuation

The capitalization of income method of valuation states that the "true" or "intrinsic" value of any assets is based on the cash flow that the investors expects to receive in the future from owing the assets. Because this cash flow is expected in future, they are adjusted by a discount rate to reflect not only the time value of money but also the friskiness of the cash flows.

Angelically, Ct denotes the expected cash flow associated with the assets at time t , and k is the appropriate discount rate for cash flows of this degree of risk. In this equation, discount rate is assumed to be the same for all the periods. (Sharpe, Alexander Bailey,2003:524).

$$
\begin{aligned}
& V=\frac{c 1}{(1+K) 1}+\frac{c 2}{(1+K) 2}+\frac{c 3}{(1+K) 3}+. \\
& =\sum_{t=1}^{\infty} \frac{c t}{(1+K) 1} .
\end{aligned}
$$

### 2.4.2. Net Present Value

At the current time $(\mathrm{t}=\mathrm{o})$, if the cost of purchasing an assets is P , then its net present value (NPV) is equal to the difference of its intrinsic value (V) and cost.
I.e. NPV=V-P

$$
\begin{equation*}
=\left[\sum_{t=1}^{\infty} \frac{c t}{(1+K) 1}\right]-p . \tag{2.1}
\end{equation*}
$$

Simply, NPV is the excess of present values of all the cash flows over the present values of cash outflows (Investments). Positive NPV is favorable and vice versa. (Sharpe, Alexander, Baily, 2003: 524).

### 2.4.3. Internal Rate of Return

IRR approach for the investment decision making is similar to NPV approach IRR $\left(\mathrm{K}^{*}\right)$ a is the discount rate, which makes the NPV of the investment equal to zero.

For rational decision making, the investment is viewed favorably of $\mathrm{k}^{*}>\mathrm{K}$, and unfavorably if k* <k (Sharpe, Alexander, Baily, 2003: 525).

### 2.4.4. Stock Valuation

Securities analysis study companies' earnings and their managements, the economic outlook, the firm's competition, market conditions, and many other factors. Then their research findings are used in the accepted models to estimate value of an equity share. If the security's price is less than its estimated value, ten it appears to be a good buy or
at least worthy for further investigation. (Sharpe, Alexander, Baily, 2003 :553). Such valuation models are presented here.

### 2.4.4.1. Single price valuation model

"An investor who buys a share of the Avery Corporation's stock for $\$ 50$ and then sold it for \$ 55 a year later, after collecting a cash dividend of \$ 2.50, earned a rate of earning of 15 percent.
$r=\frac{(p 1-p 0)+d 1}{p 1}=\frac{(\$ 55-\$ 50)+\$ 2.50}{\$ 50}=\frac{\$ 7.50}{\$ 50}=15 \%$
If the stock market is efficient, then $15 \%$ is an equilibrium rate of return for Avery's stock $\qquad$ The single period valuation model is given by,
$p 0=\frac{p 1+d 1}{1+r}$.
Figuring out the risk adjusted discount rate to use into eh valuation model is an important part of the valuation process.

A fundamental principle of valuation says that in perfectly efficient markets, all securities in an equivalent risk class should be priced to yield the same rate of return. This principle implies that Avery's equilibrium rate of return of 15 percents should be used as the risk adjusted discount rate to find the present value of Avery's stock(J.C. Fransis, 1995:554).

Where, p1 = market price of a security at period 1
$\mathrm{d} 1=$ dividend per share for period of 0 to 1 year
$\mathrm{p} 0=$ present value of stock
$r$ = single period rate of return

### 1.4.4.2 Dividend Discount Model [DDM]

J. B. Williams and M. J. Gordon have developed a model relating the value of an equity share to its cash dividends. They hypothesized that the value V of a share of stock equals the present value of the infinite $(\mathrm{t}=\infty)$ stream of dividend to be received by that stock's owner. (J. C. Fransis, 1995: 455) this model is known as dividend model [DDM].
$\mathrm{V}=\frac{\mathrm{D} 1}{(1+\mathrm{k}) 1}+\frac{\mathrm{D} 1}{(1+\mathrm{k}) 2}+\ldots \ldots \ldots . . . . . . . . . . . . . . . . . .+\frac{\mathrm{D} \infty}{(1+\mathrm{k}) \infty}=\sum_{t=1}^{\infty} \frac{D 1}{(1+\mathrm{k}) 1}$
Where, K is the Capitalization rate, which is appropriate for the firm's risk class.

### 2.4.4.2.1 The Zero Growth Model

If the dividend amount per share paid over the past year $\mathrm{D}_{0}$ will also be paid over the next year $D_{1}$ and year after $D_{2}$, and the year after that $D_{3}$ and so on;
$\mathrm{D}_{0}=\mathrm{D}_{1}=\mathrm{D}_{2}=\mathrm{D}_{3}=$ $\qquad$

This is equivalent to assuming that the dividend growth rates are zero because if $\mathrm{g}=$ 0 , then $D_{t}=D_{t}-1$ : The present value of stock with zero-growth is (from equation 2.5)

$$
\begin{equation*}
V 0=D 0\left[\sum_{t=1}^{\infty} \frac{1}{(1+k) 1}\right] . . \tag{2.6}
\end{equation*}
$$

Using the property of indefinite series from mathematics, if $\mathrm{K}>0$, then,
$\sum_{t=1}^{\infty} \frac{1}{(1+k) 1}=\frac{1}{k}$.
So, $V=\frac{D}{k}$
(Sharpe, Alexander, Bailey 2003: 526)

### 2.4.4.2.2 The Constant- Growth Model

"The next type of DDM to be considered is one that assumes that dividends will grow from period to period at the same rate forever and is therefore known as the constant growth model. Specially, the dividends per share that were paid over the previous year $\mathrm{D}_{0}$, are expected to grow at the given rate 'g' so that the dividend expected over the next year $D_{1}$ are expected to be equal to $D_{0}(1+g)$. The dividends of the year after that are again to grow by the same rate g , meaning that $\mathrm{D}_{2}=\mathrm{D}_{0}(1+\mathrm{g})^{2}$ and in general:
$\mathrm{D}_{\mathrm{t}}=\mathrm{D}_{\mathrm{t}}-1(1+\mathrm{g})$
$\mathrm{D}_{\mathrm{t}}=\mathrm{D}_{0}(1+\mathrm{g})^{1}$
Now, in the equation (2.5) substituting $D_{t}$ by $D_{0}(1+g)^{1}$, we get,

$$
\begin{equation*}
V_{0}=\sum_{t=1}^{\infty} \frac{D_{0}(1+g)^{1}}{(1+k)^{1} \ldots} \tag{2.11}
\end{equation*}
$$

For zero growth models, the equation (2.12) can be simplified by noting that $\mathrm{D}_{0}$ is a fixed dollar amount, so it can be written outside the summation sign:
$V 0=D 0\left[\sum_{t=1}^{\infty} \frac{(1+g)^{1}}{(1+k)^{1}}\right]$.

If $\mathrm{K}>\mathrm{g}$, the equation (2.12) follows a property of infinite in series from mathematics.
Then,
$\sum_{t=1}^{\infty} \frac{(1+k)^{g}}{(1+k)^{1}}=\frac{1+g}{K-g}$.
Substituting the equation (2.13) into equation (2.12) results in the valuation formula for the constant growth model:
$V_{0}=\frac{1+g}{D_{0}(k-g)}$.
Or, $\sum_{t=1}^{\infty} \frac{(1+k)^{g}}{(1+k)^{1}}=\frac{(1+g)^{1}}{(1+K)^{1}}$.
$V=\frac{D_{1}}{k-g} \ldots$
Because, $\mathrm{D}_{1}=\mathrm{D}_{0}(1+\mathrm{g})$.

The equation (2.14) can be reformulated to determine the required rate of return (K) as,

$$
\begin{equation*}
K=\frac{D_{1}}{p}+g . \tag{2.17}
\end{equation*}
$$

Where, 'V' is substituted by 'P', the current price of the security. (Sharpe, Alexander, Bailey, 2003:528)

### 2.4.4.2.3 The Multiple- Growth Model

"A more general DDM for the valuing the common stock is the multiple- growth, with this model, the focus is on time in the future ( T ), after which dividends are expected to grow at constant rate 'g'. Although, the investor is still concerned with forecasting dividends, these dividends do not need to have any specific pattern of constant growth. The dividends up to $\mathrm{T}\left(\mathrm{D}_{1}, \mathrm{D}_{2}, \mathrm{D}_{3}\right.$ $\qquad$ . $\mathrm{D}_{\mathrm{t}}$ ) will be forecast individually by the investor. Thereafter, dividends are assumed to grow by a constant rate ' $g$ ' that the investor must also forecast, meaning that:
$\mathrm{D}_{\mathrm{t}}+1=\mathrm{D}_{0}(1+\mathrm{g})$
$D_{t}+2=D_{t}+1(1+g)=D_{t}(1+g)^{2}$
$D_{t}+3=D_{t}+2(1+g)=D_{t}(1+g)^{3}$ and so on. (Sharpe, Alexander, Bailey, 2003: 531)

### 2.4.4.3 Valuation Based On Infinite Holding Period

The capitalization of income method valuation involves discounting all dividends that are expected throughout the future. But when an investor plans to sell the stock in a year, then the cash flows that the investor expect to receive from purchasing a share of stock are equal to the dividends expected to be paid one year from now and the expect selling price of the stocks. The intrinsic value of the stock to the investor is given by discounting these two cash flows at the required rate of return as follows:

$$
\begin{equation*}
V=\frac{D_{1}}{(1+k)}+\frac{P_{1}}{(1+k)} \ldots \tag{2.18}
\end{equation*}
$$

Where, $D_{1}$ and $P_{1}$ are the expected dividend and selling price at $t=1$, respectively.
"To use equation (2.18) the price of the stock at $t=1$, should be expected. The simplest approach assumes that the selling price will be based on the dividends that are expected to be paid after selling date. Thus the expected selling price at $\mathrm{t}=1$ is:

$$
\begin{equation*}
P_{1}=\frac{D_{2}}{(1+k)^{1}}+\frac{D_{3}}{(1+k)^{2}}+\frac{D_{4}}{(1+k)^{3}}+\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots . \sum_{t=2}^{\infty} \frac{D_{1}}{(1+k)^{t-1}} \ldots \tag{2.19}
\end{equation*}
$$

From (2.18) \& (2.19), we get,
$V=\left[\frac{D_{1}}{(1+k)}+\frac{D_{2}}{(1+k)^{1}}+\frac{D_{3}}{(1+k)^{2}}+\frac{D_{4}}{(1+k)^{3}}+\ldots \ldots \ldots \ldots \ldots . . . .\left[\frac{1}{1+k}\right]\right.$
Or,
$V=\frac{D_{1}}{(1+k)}+\frac{D_{2}}{(1+k)^{1}}+\frac{D_{3}}{(1+k)^{2}}+\frac{D_{4}}{(1+k)^{3}}+\ldots \ldots \ldots . \ldots \ldots \ldots=\sum_{t=1}^{\infty} \frac{D_{1}}{(1+k)^{1}} \ldots$
This results to the equation (2.5). Thus, valuing a share of common stock by discounting its dividends up to some point in the future and its expected selling price at the time is equivalent to valuing stock by discounting all future dividends." (Sharpe, Alexander, Bailey, 2003:533)

### 2.4.4.4 Models Based on Price Earning Ratio

In order to show the interaction of earnings, dividends, retained earnings, and the growth rate of the firm, the model can be reformulated to treat these variables explicitly. Dividends are related to earnings by defining dividends to be equal to the payout ratios of (1-f) time's earnings as in the equations (2.20) and (2.20a). (Sharpe, Alexander, Bailey, 2003:456).
$\mathrm{D}_{1}=(1-\mathrm{f}) \mathrm{Et}=$ Corporation's total cash dividends
$\mathrm{Dt}=(1-\mathrm{f})$ et $=$ Cash dividend per share

Total corporate retained earnings of dollars are assumed to be reinvested within all equity firms to earn a rate of return of $r$. Since the firm we are discussing here has borrowed money, it can only grow from retained earnings period, as shown in equation (2.21), assuming no external capital is invested in the firm. (J.K. Fransis, 1995:456)
$\mathrm{E}_{1}=\mathrm{e} 0(1+\mathrm{g})^{1}=\mathrm{E} 0(1+\mathrm{fr})^{1}$
$e_{1}=e 0(1+g)^{1}=e 0(1+f r)^{1}$
$\mathrm{d}_{1}=(1+\mathrm{f})^{1}(1+\mathrm{fr})^{1} \mathrm{e} 0$
$d_{1}+(1-f)(1+g)^{1} e 0$
$\mathrm{d}_{1}=(1-\mathrm{f})(\mathrm{e} 1)$
As long as the retention ratio is positive number, $\mathrm{f}>0$, dividend per share will change each period as indicated in equation (2.22) if no new shares are issued. When some fraction of earnings is retained and earns of $r$ within the form, the present value of a share of stock is determined by substituting equation (2.22) into (2.19a) to obtain (2.23). In equation (2.23) the beginning cash dividend per share is stated in terms of the beginning earnings per share by substituting $e_{0}(1-f)$ in place of $d_{0}$.
$V_{0}=\sum_{t=1}^{\infty} \frac{e_{0}(1-f)(1+f r)^{1}}{(1+k)^{1}} \ldots$
Or,

$$
\begin{equation*}
=\sum_{t=1}^{\infty} \frac{d_{0}(1+f r)^{1}}{(1+k)^{1}}=\sum_{t=1}^{\infty} \frac{d_{0}(1+g)^{1}}{(1+k)^{1}}=\frac{d_{1}}{k-g} \tag{2.24}
\end{equation*}
$$

Equation (2.23) may be written equivalently as (2.25) since $g=f r$. By substituting $e_{1}(1-f)$ for equation (2.24) below, we get (2.26).
$V_{0}=\sum_{t=1}^{\infty} \frac{e_{0}(1-f)(1+g)^{1}}{(1+f)^{1}} \ldots$
Or,
$V_{0}=\sum_{t=1}^{\infty} \frac{e_{1}(1-f)}{(k-g)}$

One advantage of the dividend valuation model is that it may be written equivalently in different forms. Equations (2.19a), (2.23), (2.24), (2.26) all are useful representation of the same model. Equation (2.23) explicitly shows the relationship of earnings e, dividend policy f, internal profitability $r$, the firms cost capital $k$ and the firm's growth rate $g$ in the determination of the value of stock. The model may be used to determine the value per share by defining all the variables on a per share basis as shown or the model may be used to value the entire form by using the total quantities represented by the variables in capital letters in equations (2.20) and (2.21). (J.K. Francis, 1995:458).

### 2.4.4.5 Signaling

"A relative simple view of dividend changes is that an announced increase in dividends is a signal that management has increased its assessment of the form's future earnings. The announced increase in dividends is therefore good news and will, in turn, cause investors to raise their expectations regarding the firm's future earnings. Conversely an announced decrease in dividends is signal that management has increased its assessment of the firm's future earnings. The announced decrease in dividends is therefore bad news and will, in turn cause investors to lower their expectations regarding the firm's future earnings. An implication is that an announced increase in dividends will cause the firm's stock price to rise, and an announced decrease will cause it to fall.

There is nothing inconsistent with dividends being used as a signal and with the dividend irrelevancy argument of Miller and Modigliani. In particular, stockholders will neither better off nor worse off if the level of dividends, relative to earnings, is high or low. Changes in dividends may, however, be important because they convey information to the public about the future earnings prospects for the firm (Sharpe, Alexander, Bailey, 2003:567).

### 2.4.4.6 January Effect

"There is no obvious reason to expect stock returns to be higher in certain months than in others. However, in a study that looked at average monthly returns on NYSE listed common stocks, significant seasonality was found. In particular, the average return in January was higher than the average return in any other months .it appears that the average return in January has been approximately 3\% higher than the average monthly returns in February through December (Alexander, Sharpe, Bailey, 2003:496).

### 2.4.4.7 Day-of-the-week-effect

"Studies looked at the average daily return on NYSE 1 listed securities found that the return on Monday was quite different than returns on other days. In particular, the average return on Monday was found to be much lower that the average returns on any other day of the week. Furthermore, the average return on Monday was negative, whereas, the other days of the week had positive average returns. (Alexander, Sharpe, Bailey, 2003:497).

### 2.4.4.8 Size Effect

The past evidence suggests that the size effect also exists in Japan. The securities of Tokyo Stock Exchange classified into two sections, the second is less than $10 \%$ of the size of the first, measured by the market value of the examined over the period on it. Two indices were prepared and examined over the period from 1952 to 1980; they include the same stocks but are compiled differently. The equally weighted (EW) index weights the stocks by market value waited (VW) index weights the stock by market value. Hence, the EW index is influenced much more by the performance of small stocks than the VW index is. Te EW index returned $5.1 \%$ more, suggesting the preference of a size effect (Sharpe, Alexander, Bailey, 2003:501).

### 2.4.4.9 Earnings Announcement \& Price Changes

"A number of studies have shown large price changes for stocks of companies that reports earnings that differ substantially form consumers expectations. One study looked at three groups of 50 stocks. The first group consisted of the 50 stocks listed on the NYSE that expected the greatest price rise during 1970. The second group consisted of 50 stocks chosen randomly from all those on the NYSE during 1970. The third group consisted of the 50 stocks listed on the NYSE that experiences the greatest price decline during 1970................. It is found that the median changes in actual earnings per share for the top, random, and bottom, groups were $21.4 \%,-10.5 \%$ and 83\% respectively" (Alexander, Bailey, Sharpe, 2003:578).

### 2.5. Reviews of Previous studies

In the following section previous studies relating to stock price and organized exchanges are reviewed in Nepalese context as well as foreign context separately.

### 2.5.1 Foreign Context

According to www.stocks.about.com "Stocks trade in an open market, where buyers and sellers agree on a price. There is no fixed price like you'll find at a convenience store, instead prices follow the simple laws of supply and demand. Therefore, when a
stock's prices rises, it means that buyers are continually willing to pay more for the stock (and sellers are demanding more before they'll part with their shares).

## What Causes Buyer Demand?

As more and more buyers flock to a stock, the supply at a lower price diminishes (partly because all the cheap shares are sold out and partly because sellers realize they can raise the price). Three main factors drive buyer demand. They are:

1. Company Profitability
2. Dividend Income
3. Speculation

Most Investors Value Company Profitability
A business that makes money is worth purchasing for a variety of reasons. It won't go bankrupt, it will grow, and it might be purchased by another company. Therefore the company becomes more valuable.

You might be that the stock market pays attention to earnings releases. These releases are the company's proof that it is a valuable enterprise. When a company can demonstrate consistent earnings growth, it attracts more and more investors.

Dividend income is also valuable to investors. By paying a dividend, the company is sharing profits with the share holders. May investors like the idea of getting paid and not doing any work.

Dividend stocks can attract more and more investors just like growth stocks. If a stock has a history of always paying a hefty dividend, one can expect that history to continue. It's even better if the dividend has a history of increasing. Stocks that offer consistent dividend growth will continually attract i9nvestors. Also, stocks that offer relatively high dividend yield (Dividend payment divided by share price) attract buyers.

Finally, Speculation can cause a stock's price to change dramatically. While earnings growth and attractive dividends are reasonable approaches to investing, speculation is harder to understand.

The basic idea is that you buy a stock because you think somebody else will pay more for it in the future. The reason for the price increase doesn't really matter (after all, any profit in the stock market is a good profit). All that matters is the belief that there will be an increase.

Speculators typically don't base their behavior on historical performance (Such as earnings growth or consistent dividend growth). Rather, they are hoping to predict the future of a stock. The markets saw plenty of speculation in the intent boom. Buyers hoped that internet stocks would make a bundle of money, but they weren't quite sure how. Some gained, some lost.

## What causes prices to fall?

Now that you know what causes buyer demand, you can start to understand what drives prices down. When a stock becomes unattractive (due to a poor earnings outlook, missed dividend payments, or speculation), shareholders what to get rid of their shares. Sellers will settle for less (because they just want ot make a sale ) and buyer demand is limited.

Next time somebody asks why the market is up, you can respond with the old Wall Street joke: "More buyers than sellers"—buy you'll have a better idea why they're buying".

In an Journal Published on www.utk.edu by Debosah L. Murphy, Ronald E. Shrieves and Samuel L. Tibbs entitled "Determinants of the stock Price Reactions to Allegations of Corporate Misconduct: Earning Risk and Size Effects" studied using the most extensive sample to date. They examined the source and magnitude of market-imposed penalties experienced by firms alleged to have committed illegal acts. Stratification of the sample by crime category reveals significant verification in the announcement - related wealth effects. Also examined were the linkages between the observed wealth effects and changes in reported and expected earnings, risk, firm size, and reputation. They found they allegations of misconduct were accompanied by statistically significantly control firm adjusted decline in reported earnings, increased in return variability and a decline in concordance among analysts' earnings estimates. The magnitude of market-imposed penalties accompanying allegations is systematically related to the type of misconduct, firm size, and increase in uncertainty. However, the statistical relationship between earnings changes around the allegations and the wealth effects of criminal allegations was ambiguous. Their results offer the strongest evidence regarding a link between market-imposed penalties associated with allegations of misconduct and subsequent changes in the level of uncertainty of earnings.

In the journal of financial economies, summer 1996, entitled" Commonality in the Determinants of Expected Stock Returns" by Robert A. Huagenand Vardin L. Baker, they presented with evidence that the determinants of the cross section of expected
stock return were stable in their identify and influence from period to period and from country to country. The determinants were related to risk, liquidity, price-level, growth-potential and stock price history. Out of sample predications of expected returns, using moving average values for the pay-off to these firm characteristics were strongly and consistently accurate. Two findings, however, distinguished their paper from others in the contemporary literature. First, the stocks with higher expected and realized rates or return were unambiguously of lower risk that the stocks with lower returns. Second, they found that the important determinants of expected stock returns were strikingly common to the major equity markets of the worlds. Given the nature of the texts, it was highly unlikely that those results may be attributed to bias or data snooping, consequently, the result seems to reveal a major failure in the efficient markets hypothesis.

In 1997 International Monetary Fund (IMF), Policy Development and Review Development Division published a working paper entitled " Determinants of Stock Prices: The Case of Zimbabwe". The working paper examined the general relationship between stock prices and macroeconomic variables in Zimbabwe, using the revised DDM, error correction model, and multi factor return generating model. Despite the large fluctuation in stock prices since 1991, the analysis indicated that the Zimbabwe stock exchange functioned quite consistently during that period. Whereas sharp increases in stock prices during 1993-1994 were mainly due to the shift of the risk premium that was caused by partial capital account liberalization, the movements of monetary aggregates and market interest rates explained the rapid increases of 1990's in stock prices.

### 2.5.2 Nepalese Context

There are some studies made on the capital market of Nepal including the independent researches in journal, research for the partial fulfillment of masters' degree in management as unpublished thesis reports. Among those researches, some of the relevant studies are reviewed here:

### 2.5.2.1 Review of Independent Studies in Nepal

There are very few independent studies in Nepalese perspectives. On the core concept of capital market and determinants of stock price in stock market, very negligible studies have been made. Such researches are made on share holders democracy and dividend policies etc, even though; these studies have been made many years ago, these can provide intellectual ground, since there are no researches made on the specific topic.
"In 1993 Prof. Dr. Radhe shyam Pradhan studied the market behavior in Nepal and concluded that:

- Large stocks have large PE ratios; large ratios of market value to book of equity and smaller dividends. PE ratios and dividend ratios are more variable for smaller stocks whereas market values to book value of equity are more variable for large stocks.
- Large stocks also have lower liquidity, higher leverage lower profitability, lower assets turnover interest coverage stocks.
- Smaller dividend, lower profitability, lower assets turnover, and lower interest coverage for large stocks may be attributed to the fact that most of large stocks are at their initial stage of operation.
- Stocks with large market value to book the value of equity, large PE ratios, and lower dividends. PE ratios are more variable for stocks with large market values to book values ratios and dividends ratios are more variable for stocks with smaller market value to book value.
- Stocks with large market values to book ratios have lower liquidity, higher leverage, lower earning, lower turnover and lower interest coverage. However, liquidity and leverage are more variable for stocks with larger market value to book value ratios while earnings, assets turnover and interest coverage are more variable for stocks with smaller market value to book value ratios.
- Stocks with large ratios, large PE has large market value to book value of equity and smaller dividends ratios. However, there ratios of market value to book value of equity and dividends are more variable for smaller stocks than for large stocks.
- Stocks with large PE ratios have lower liquidity, higher leverage, lower profitability, lower assets turnover and lower interest coverage. However, liquidity, leverage, interest coverage and earning turnover are more variable for stocks with smaller PE ratios as compared to large ones.
- Stocks paying higher dividends have higher liquidity, lower leverage, higher earnings and higher turnover and higher interest coverage. However, liquidity and leverage ratios are more variable for stocks paying lower dividends while earnings, assets turnover and interest coverage is more variable for the stocks having higher dividends.

Prof. Dr. Manohar Krishna Shrestha conducted another study in the title of "Shareholder's Democracy and Annual General Meeting (AGM) Feed Back." This study critically analyzed the situation of common stock investors and the situation is not improved significantly until now.

Though the sizes of the shareholders population have been growing constantly, the government seems to have not taken initiative in formulating a separate Act, which protects the shareholders' right. However the need of separate Act regarding the protection of shareholders right is questioned. Company and other Acts relating to financial and industrial sectors have provisioned rights of the shareholders as:
i. Voting right
ii. Participation in general meeting
iii. Right of getting of information
iv. Electing as board of director
v. Participation in the profit and loss of the company
vi. Transferring shares
vii. Proxy representation

The collective rights of the shareholders are:
i. Amend the internal by laws
ii. Authorized the sales of assets
iii. Enter into merger
iv. Change amount of authorized capital

Some public limited companies have floated the shares to the general public without having shareholders representation in the board. There are many such companies, which conduct the annual general meetings just to fulfill their desire and do not consider the voice of the majority of the shareholders. Similarly management involvement and government intervention in the board election have br4ought a great set back in the voting rights of the shareholders.

Prof. Shrestha further argued to safeguard the investor's interest; the encouraging and growing confidence of shareholders over their investment seek an independent inquiry of disclosed contents of prospectus. This helps to satisfy a minimum standard of faith on investments in share through relying on pros and cons of prospectus. It is therefore, important to dispose everything in prospectus, which could reasonably influence the mind of the prudent investors. Various AGM held by different public limited companies reveal a greater gap between disclosures made in prospectus and the actual result. In this context the expression of disclosure philosophy and investigation of
frauds in prospectus need to be reconciled to check and growing problems in the development of the capital market in Nepal.

The other study by Prof. Dr. Radhe Shyam Pradhan and Mr. Nabaraj Adhikari entitled. "Impact of Dividends on share price in Nepal" leads to three important conclusions. First, dividends have positive impact on share price, i.e., paying dividends can increase share price. Second, dividends have comparatively more favorable impact on the share price of the non-finance sector than to the share prices of finance sector. Third, past earnings have more impact that retained earnings and dividends on share price of finance sector.

The another study made by Prof. Dr. Manohar Krishna Shrestha entitled "VIP Shareholders: emerging concept and Implication" conclude that Shareholders invest their hard earned money by way of investment in shares of companies need to be sufficiently watchful to get their investment protected by being vigilant independent and professional (VIP). As, the emerging concept of the VIP Shareholders is important and its development is timely. The way of VIP shareholders lies in encouraging the existing non-VIP shareholders to become VIP Shareholders in course of time as they learn to be conscious, make more studies to become independent in thinking and behave in a professional way. Another task of VIP Shareholders is to influence company management to encourage them to earn more profit so that shareholder gets adequate on their investment. There is further need to investigate on the role of VIP shareholders to redefine it in more concrete terms at it help to build strong corporate culture among companies to help shareholders to maximize their value and wealth from their investment.

A mini research entitled "Financial Performances and Common Stock pricing" conducted by Mr. Khagendra Prasad Ojha in 2002 was also reviewed for this study. The major findings of the research were: Nepalese stock market is in infancy stage. Dominant of banking sector is prevalent in the market due to other industries including finance and insurance companies. Manufacturing companies are not encouraging. He also concluded that people have a misconception that the issuance of bonus shares and right shares, which actually decrease the price and this makes them to invest even at a too high price with expectation of getting the same to increase their overall wealth. Further, he concluded that the stock price in Nepal is determined more by other factors rather than the financial performance of the concerned company.

### 2.5.2.2 Review of Unpublished Thesis

There are numerous thesis reports for the partial fulfillment of masters of Business Administration, Master of Business Studies and Masters in Arts in TU. Among those
thesis reports some are related to the capital market and very few are related to stock price in Nepal Stock Exchange. Some of those unpublished thesis reports are viewed here.

Mr. Surya Chandra Shrestha (1999) made a study entitled ' A Study on Stock Price Behavior in Nepal. The major findings of the study were:

- The price changes of the past and present can be very helpful to forecast future price and present can be very helpful to forecast future price changes.
- When log days increase, the mean value of serial correlation of coefficient is lower, than indicates the past price changes may have low power to predict the future price in the long run.
- The price changes in the present and future stock market may not be independent of the price changes in the past and present respectively.
- There exist no profitable trading rules to make greater profit than they would make the buy-and-hold strategy on past price changes.
- Nepal Stock Exchanges is not efficient in pricing shares.

Another research entitled "A study of Stock Market Behavior in Nepal" by Ms. Sangita Gautam concluded that political instability and other laws related issues are the prominent factors for the under development of the security market in Nepal. She further concludes that the stockbrokers and stock market are not being much active to create investment environment in stock market. Most of the investors are influenced through media only. Information deficiency in the capital market may be one of the reasons for the determination of the share price by excessive speculation. The available information is of low quality and people have very little knowledge of the trading procedure and price formation mechanism in NEPSE. Lack of effective laws and effective implication of the existing laws are the contributing factors for the less development of the capital market. She also argued that some of the major problems experienced by stock market are the poor regulatory controls and supervision by SEBO/N and NEPSE.

Study on determinants of stock price in Nepal by Mr. Prakash Neupane (2004). He concluded his study by quoting prices of stock do not reflect the real value of stock in almost all cases; this is due to the lack of knowledge by investors and their unwillingness to use the services of broker and even lack of calculating information in timely and accurately.

- The stockholders of the Nepalese capital market may have not adequate knowledge and education. There is lack of practices to analyze the
information before taking the any initiation in this regard. As a result, the prices of share show the irrational behavior.
- Getting varying results of relationship between the MPS with DPS, BPS and EPS individually; there might be the other internal performance related factors which significantly cause to fluctuate the share price in the market. But jointly, the MPS is significantly affected by the DPS, BPS and EPS in few sample cases. Moreover, the aggregate analysis by taking the averages of six years data shows the DPS, BPS and EPS can be the determining factors of stock price fluctuation. Based on that, we can draw the uniform conclusion that the MPS is not determined by the DPS, BPS and EPS, there are other significant factors too.
- To generalize the opinion of stock brokers, the dividend, book value, earnings, organizational growth and retention ratio, national economy and demand and supply instability of government, strike demonstration and communication and information technology, rumors and whims seriousness of listed companies affects significantly to the share price in market at $95 \%$ level of significance. On the contrary the interest rate, tax rate and market liquidity position, seasons (winter and summer), days of the week (Monday and Friday) and odd lot system of the NEPSE do not affect to the share price. An open-out-cry system does not affect significantly to discourage the brokers in trading.
- The increasing trend of NEPSE Index shows that this sector still hopeful to grow the capital market in Nepal in spite of unfavorable condition of business environment for the investment. But no single company will exist for long time on violence, instability and terrorism. So the resolution of Maoist problem should be solved with out delaying single minute of time.
Mr. Apar Neupane (2004) a research entitled "determinants of stock price in NEPSE" and tried to explore the factors that have significant influence on the stock price in NEPSE. He concluded his study by quoting.
- Nepalese investors have not adequate education about the capital market. They do not have good knowledge and information to analyze the scenario and to forecast share price. Perhaps due to this reason, stock prices in NEPSE show rather irrational behavior.
- In NEPSE, DPS, BPS and EPS individually do not have consistent relationship with the market price of share, among the listed companies. The pricing behavior varies from one company to another. But BPS, EPS and DPS, jointly, have significant effect in market price of shares. So there may be other major factors affecting the share price significantly. NEPSE is in its primary stage, adopting open out cry system for stock trading and stock brokers lack professionalism to create investing opportunities in NEPSE.
- Commercial banking sector has dominated the overall performance of NEPSE. Manufacturing \& processing, trading and hotel sector have weak performance. So financial intermediaries are strong but their ultimate investment is suffering.
- Companies' performance (earning, dividend, book value etc.), information disclosed, timely AGM, political stability, national economy, demand and supply situation, strikes/demonstrations, cease-fire and peace-talk (and their outbreak) are the major factors affecting the share price in NEPSE, according to the respondents of the survey. Interest rate, retention ratio, cost of equity, tax rate, gold price and value of US\$, global economy, market liquidity, season, day of the week, size of the firm, change in management do not significantly affect the share price in NEPSE.
- There is deficiency of proper laws and policies regarding the capital market. Shareholders are feeling unsecured to invest in security markets due to poor regulatory mechanism to protect shareholders interests. The implementation of existing laws is weak.
- Listed companies do not provide sufficient information (financial as well as non-financial) to their shareholders and they are not able to act according to the shareholders desire. The performance of most of the listed companies is not transparent.
- Since NEPSE is in increasing trend, in spite of unfavorable environment for investment, Nepalese citizens have a huge amount of scattered fund remained idle, which can be used in the industrial development through capital market to accelerate the economic growth of the nation.
- With the existing Maoist problem, industrial development and capital market development is impossible. So the peaceful solution of the Maoist problem is preliminary condition for capital market and economic development in Nepal.


### 2.6 Research Gap

This research is comparatively different from other researches which I followed while preparing it. The other researcher of investment policies are mainly based on comparison of two banks and other bank. Therefore I have taken only joint venture commercial bank for research. Which makes my research different with other similarly period of time is also very causes I have followed six year period till current fiscal year and the research methodology I have kept is quite different.

## CHAPTER III

## RESEARCH METHODOLOGY

### 3.1 Introduction

Methodology is the research method used to test the hypothesis. Research Methodology is systematic way to solve the research problems. It describes the methods and process applied in the entire aspects of the study. It refers to the various sequential steps (along with a rational of each step) to be adopted by a researcher in studying a problem with certain objectives in view. (C.R. Kothari , 1994:30). Thus the overall approach to the research is presented in this chapter. This chapter contains the research design, sample size, sample selection procedure, data collection procedures, data processing tool and techniques, variables etc.

### 3.2 Research Design

Research design is the plan, structure and strategy of investigation conceived so as to obtain answers research questions and to control variance (F.N. Kerlyinger 2002:300) It is the specification of methods and procedures for acquiring the information needed. In this study, historical as well as descriptive research design is adopted. To determine the affect of earning book value and dividend on stock price, historical research design is adopted along with correlation and regression analysis. And to identify the qualitative factors affecting stock price, the descriptive research design is adopted with non parametric test using Liker-type scale.

### 3.3 Variables

A variable is a symbol to which numerals or values are assigned (F.N. Kerlinger 2002 :300). So the variables can take on values. This research intends to identify the factors that affect the share price in NEPSE. So the market price of share is the dependent variable, which is affected by May variables. Such variables are regarded as independent variable in the study. The entire factors that affect the market price of share, such as earnings, dividend, interest rate, liquidity, book value of share economy of the nation, peace and prosperity rumors and whims etc. are the independent variables.

### 3.4 Population and Sample

This study intends to identify the factors affecting the stock price of joint venture commercial banks in NEPSE. So, the population of the study is all the listed companies in NEPSE up to end of 2064/065. In this study six sample organization
representing the joint venture commercial banks are taken into account amongst listed companies. The following Table 3.1 reflects the detail of the samples.

Table 3.1
Population and Sample

| S.No. | Name of the listed Joint Venture Commercial Bank |
| :---: | :--- |
| 1. | Standard Chartered Bank Ltd. |
| 2. | Nabil Bank Ltd. |
| 3. | Himalayan Bank Ltd. |
| 4. | Nepal SBI Bank Ltd. |
| 5. | Bank of Kathmandu Ltd. |

The secondary data of sample organization are analyzed to determine the relationship of earning, divided and book value with market price of shares in NEPSE. But to identify the qualitative factors affecting the stock price in NEPSE, primary information are collected through questionnaire from the senior officers of the listed banks, SEBO/N NEPSE and stock brokers and stock investors.

### 3.5 Sources and Nature of Data

The study is based on secondary data as well as primary data. To show the relationship between variables (share price earnings, share price book value, share price dividend). Secondary data are used but to determine the factors, which affect the stock price, primary data are collected from the correspondents through research questionnaire. The respondents of the primary data are senior officers of the listed bank, stock brokers, stock investor, NEPSE, SEBO/N, teachers etc, the options experience and thoughts of practiceners are of significance importance to identify the factors determining stock price in NEPSE.

The sources of secondary data are AGM reports of listed companies, SEBO/N, NEPSE and other concerned organization, bulletins publications of different authorities researches, journals, unpublished thesis reports, newspapers, Internet websites. Where as the learners and practiceners of stock markets are the major source of primary information of this study. They have shared their valuable ideas and experience in the questionnaire and personal meeting.

### 3.6 Data Collection Technique

The research consists of both primary and secondary data. Since the nature of these two types of data is different the data collection procedure also varies. To collect the secondary data, published materials are viewed in various spots. Book by different authors, unpublished thesis reports, journals, magazines, internet, AGM reports of the
listed companies, SEBO/N, NEPSE etc. Trading report of NEPSE are the major source of secondary data. To collect these secondary data, the research visited SDC library, NCC library, central library, social science bank, NRB library and library of SEBO/N. On the other hand, the primary data collected through questionnaire with private commercial banks and security brokers, security investors.

### 3.7 Data Analysis Tools

The primary and secondary data collected from various sources leads to the logical conclusion, only if the appropriate tools and techniques are adapted to analysis such data. The collected data has been no meaning. If such are not analyzed. To analyze the data in this research the researchers has used some statistical and financial tools which are explained here separately.

### 3.7.1 Statistical Tools

Statistical tools are the measures or the instruments to analyze the collected data from different sources. In statistics, there are numerous statistical tools to analyze data of various natures. In this study, the researcher has used the following statistical tools to analyze the data.

### 3.7.1.1 Average (Mean)

An average is a single value related from a group of values to represent them in some way, a value which is supposed to stand for whole group of which it is part, as typical of all the values in the group (S.P. Gupta 1990: E-7-2). There are various types of averages. Arithmetic Mean (AM, simple and weighted), Median Mode, Geometric mean, harmonic mean are the major types of averages. The most popular and widely used measure representing entire data by one value is the AM. The value of the AM is obtained by adding together all the items and by dividing this total by the number of items.

Mathematically,
Arithmetic mean (AM) is given by $\bar{x} \frac{\sum \mathrm{x}}{\mathrm{n}}$
Where,
$\bar{x}=$ Arithmetic mean
$\sum \mathrm{x}=$ sum of all the value of the variable x
$\mathrm{n}=$ number of observation

### 3.7.1.2 Standard Deviation

The standard deviation () measures the absolute dispersion. The grater the standard deviation, greater will be the magnitude of the deviation of the values from their mean. A small standard deviation means a high degree of uniformity of the observations as well as homogeneity of a series and vice versa.

Mathematically,
$\sigma=\sqrt{\frac{1}{\mathrm{n}} \sum(\mathrm{x}-\bar{x})^{2}}$

### 3.7.1.3 Coefficient of Variation

The standard deviation is absolute measures of dispersion; where as the coefficient of variation (CV) is a relative measure. To compare the variability between two or more series, CV is more appropriate statistical tool.

Mathematically
$C V=\frac{\sigma}{\overline{\mathrm{X}}} \times 100$

### 3.7.1.4 Correlation Coefficient

When the relationship is of quantitative nature, the appropriate statistical tool for discovering and measuring the relationship and expressing it in a brief formula is known as correlation. If the value of the variables are directly proportional then the correlation is said to be positive. On the other hand, If values of the variables are inversely proportional, the correlation is said to be negative, but the correlation coefficient always remains within the limit of +1 to -1 . By Karl Pearson, the simple correlation coefficient (between two variables, say $\mathrm{X} \& \mathrm{Y}$ ) is given by

$$
\begin{equation*}
\mathrm{r}_{\mathrm{xy}}=\frac{\operatorname{cov}(\mathrm{x}, \mathrm{y})}{\sigma_{\mathrm{x}} \sigma_{\mathrm{y}}} \tag{3.4}
\end{equation*}
$$

Where,
$\mathrm{r}_{\mathrm{xy}}=$ is the correlation coefficient - between two variables X and Y
$r$ - lies always between +1 and -1
When ' r ' $=+1$ there is perfect positive correlation
When ' r ' $=-1$, there is perfect negative correlation
When ' r ' $=0$, there is no correlation

When ' r ' $=$ lies between 0.7 to 0.99 (or -0.7 to 0.999 ) there is high degree of positive or negative correlation
When ' r ' $=$ between 0.5 and 0.6999 , there is moderated degree of correlation When $r$ is lies then 0.5 , there is low degree of correlation.

### 3.7.1.5 Simple Regression

Regression and correlation analysis are the techniques of studying how the variation in one series are related to the variations in another series. Measurement of the degree of relationship between two or more variables is called correlation analysis and using the relationship between a known variable and an unknown variable to estimate the unknown one is termed as regression analysis. Thus, correlation measures the degree of relationship between the variables while regression analysis show how the variables are related. Thus regression and correlation analysis determine the nature and the strength of relationship between variables. (P.K. Sharma \& A.K. Chaudhary, 2002: 425)

The equation of regression line where the dependent variable Y , is determined by the independent variable X , is given as:

$$
\begin{align*}
& y=a+b x \ldots \ldots  \tag{3.5}\\
& a=y \text {-intercept }
\end{align*}
$$

Where,
$\mathrm{b}=$ slope of the regression line (i.e. it measures the change in y per unit in x ) or regression coefficient of y on x .

### 3.7.1.6 Multiple Regressions

Assuming that variables are closely related, we can estimate the unknown value of one variable from the given or known value of the other variables. Multiple regression analysis. In multiple regression analysis, instant of single independent variable, two or more independent variables are used to estimate the unknown values of a dependent variable.

The multiple regression equation describes the average relationship between a dependent variable and two or more independent variables are this relationship is very much useful for estimating (or predicting) the dependent variable. Thus, a multiple regression equation of $x_{1}$, on $x_{2}, x_{3}$ and $x_{4}$ is an equation for estimating a dependant variable x , from three dependent variable $\mathrm{x}_{2}, \mathrm{x}_{3}$, and $\mathrm{x}_{4}$.

The multiple regression equation of dependent variables, $x_{1}$, on three independent variables $\mathrm{x}_{2}, \mathrm{x}_{3}$ and $\mathrm{x}_{4}$ is given by.

$$
\begin{equation*}
\mathrm{x}_{1}=\mathrm{a}+\mathrm{b}_{1} \mathrm{x}_{2}+\mathrm{b}_{2} \mathrm{x}_{3}+\mathrm{b}_{3} \mathrm{x}_{4} \tag{3.6}
\end{equation*}
$$

Where,
$a=x_{1}$ - intercept $=$ the value of $x_{1}$ when three Independent variables $x_{2}, x_{3} \& x_{4}$ are zero.
$\mathrm{b}_{1}=$ The partial regression coefficient of $\mathrm{x}_{1}$ on $\mathrm{x}_{2}$ when $\mathrm{x}_{3}$ and $\mathrm{x}_{4}$ are held constant.
$b_{2}=$ The partial regression coefficient of $x_{1}$ on $x_{3}$ when $x_{2}$ and $x_{4}$ are held constant.
$b_{3}=$ The partial regression coefficient of $x_{1}$ on $x_{4}$ when $x_{2}$ and $x_{3}$ are held constant.

### 3.7.1.7 Coefficient of Determination

The coefficient of determination gives the percentage variation in the depend variable that is accounted for by the independent variables. In other words, the coefficient of determination gives the ratio of the expected variance to the total variance. The coefficient of determination is given by the squire of the correlation coefficient i.e. $\mathrm{r}^{2}$.

So the coefficient of determination
$\mathrm{r}^{2}=\frac{\text { expected varience }}{\text { Total varience }}$

### 3.7.1.8 Test of Hypothesis

A quantitative statement about population parameter is called a hypothesis. In other words, it is an assumption that is made about the population parameter and then its validity is tested. It may of may not be found valid in verification. The act of verification involved testing the validity of such assumptions which, when undertaken on the basis of sample evidence, is called Statistical Hypothesis or testing of hypothesis (P.K. Sharma, A. K. Chaudhary 2002 : 229). The main goal of testing hypothesis is to test the characteristics of hypothesized population parameter based on sample information whether the difference between the population parameter and sample statistics is significant or not. The act of verification involves testing the validity of such assumption, which, when undertaken on the basis of sample evidence, is called Statistical Hypothesis or testing of hypothesis

For the test of hypothesis $t$-test is made in this study.

### 3.7.1.9 t- Statistics

t - Statistics is applied for the test of small sample. If the sample size is less than 30 i.e. called small sample and $t$-test is used.

The following formula is used to test an observed sample correlation co-efficient.
$\mathrm{r}=\frac{\mathrm{r}}{\sqrt{1-\mathrm{r}^{2}}} \times \sqrt{\mathrm{n}-2}$
Where,
$r=$ Simple correlation co-efficient
$\mathrm{n}=$ number of observations

### 3.7.1.10 Z- Statistics

To test the significance of the effects of the qualitative factors, collected from primary sources, Z- test is carried out. Z-test is made, since the sample size is more than 30, (i.e. 36). The test of significance of single mean for large sample ( $\mathrm{N}>30$ ) under Ho is:
$\mathrm{Z}=\frac{\bar{x}-\mu}{\text { S.E. }(\bar{x})}=\frac{\frac{\overline{\mathrm{X}}-\mu}{\frac{\sigma}{\sqrt{1}}}}{\frac{{ }^{2}}{}}$

Where, S.E. $(\bar{x})=$ Standard error mean $=\frac{\sigma}{\sqrt{\mathrm{n}}}$
In this study, the population mean () will be assumed as zero, assuming that such qualitative factors doesn't affect market price of share.

### 3.7.2 Financial Tools

Except the Statistical tools, some financial tools are also used in this research work. The major financial tools used in this research are.

### 3.7.2.1 Earning Per Share (EPS)

The Earning per Share (EPS) is the share of a stock on the earning of the company.
Mathematically,
EPS $=\frac{\text { Total Earning of Company }}{\text { Number of share outstanding }}$

### 3.7.2.2 Dividend Per Share

The DPS is the amount paid as dividend to the holder of one share of the stock.
Mathematically,
DPS $=\frac{\text { Total Dividend Paid }}{\text { No. of shares outstanding }}$

### 3.7.2.3 Market Price per Share (MPS)

The MPS is the amount in which a share of the stock is traded in the market.

Mathematically,
MPS $=\frac{\text { Total Market Capitalization }}{\text { No. of share outstanding }}$

### 3.7.2.4 Book Value per Share (BPS)

The BPS represents the real net worth per share. It is simply the ratio of net worth (Share Capital Plus retained earning, i.e. ownership Capital) and the number of existing share.

Mathematically,

BPS $=\frac{\text { Net worth }}{\text { No. of share outstanding }}$

### 3.8 Methods of Data Presentation

The collected data (from both primary and secondary sources) are presented in simple and easily understandable tables. To make those data clearer and more informative such data have been presented in figures like bar diagram, trend line, and pie chart which ever is relevant to explain the data more effectively, based on the nature of data. After presenting such data in the tables and figures, are analyzed using various statistical, mathematical and financial tools and techniques.

## CHAPTER IV

## DATA PRESENTATION AND ANALYSIS

### 4.1 Introduction

This chapter is the main body part of this study. The data, both primary and secondary, are collected in unprocessed from. Such collected data are presented in systematic formats and analyzed using different appropriate tools and techniques, in this chapter. In additional to that the relationship of the variables is presented in graphs and figures. The analysis of data consists of organizing, tabulating and performing statistical analysis. In this chapter the secondary as well as primary data, collected from different sources are presented in an understandable presentation and analyzed separately using both qualitative and quantitative measure whichever are appropriate.

### 4.1.1 Analysis of Individual Company

From among the listed companies, the researcher has chosen Five listed Joint Venture Commercial Banks. The summery of the financial data of the sample listed companies of the study are presented. With six year data (from Fiscal Year 2058/059 to 2063/064). Including market price of share (MPs), Earning Per Share (EPS) Dividend Per Share (DPS) and Book Value Per Share (BPS) and Market Capitalization in the Table 4.1

Table 4.1
DATA PRESENTATION \& ANALYSIS

|  | Year |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{5 9 / 6 0}$ | $\mathbf{6 0 / 6 1}$ | $\mathbf{6 1 / 6 2}$ | $\mathbf{6 2 / 6 3}$ | $\mathbf{6 3 / 6 4}$ | $\mathbf{6 4 / 6 5}$ |
|  | $\mathbf{2 0 0 2 / 0 3}$ | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |
| STANDARD CHARTERD BANK |  |  |  |  |  |  |
| MPS | 1550 | 1640 | 1745 | 2345 | 3775 | 5900 |
| DPS | 100 | 267 | 110 | 120 | 140 | 130 |
| BPS | 363.86 | 403.15 | 399.25 | 422.38 | 468.22 | 512.12 |
| EPS | 141.13 | 149.3 | 143.55 | 143.14 | 175.84 | 167.37 |
| Market Capitalization | 5263.01 | 5568.6 | 6537.47 | 8785.32 | 14142.67 | 24382.03 |
| NABIL BANK |  |  |  |  |  |  |
| MPS | 700 | 740 | 1000 | 1505 | 2240 | 5050 |
| DPS | 30 | 50 | 65 | 70 | 85 | 140 |
| BPS | 233 | 267 | 301 | 337 | 381 | 418 |
| EPS | 55.25 | 84.66 | 92.61 | 105.49 | 129.21 | 137.08 |
| Market Capitalization | 5891.94 | 3608.81 | 4916.54 | 7399.40 | 11013.05 | 24828.54 |


|  | Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 59/60 | 60/61 | 61/62 | 62/63 | 63/64 | 64/65 |
|  | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |
| HIMALAYAN BANK |  |  |  |  |  |  |
| MPS | 1000 | 836 | 840 | 920 | 1100 | 1740 |
| DPS | 35 | 25 | 20 | 31.58 | 35 | 40 |
| BPS | 220.02 | 247.81 | 246.93 | 239.59 | 228.72 | 264.74 |
| EPS | 60.26 | 49.45 | 49.05 | 47.91 | 59.24 | 60.66 |
| Market Capitalization | 3000 | 3586.44 | 45045 | 5920.2 | 8494.2 | 14108.09 |
| NEPAL SBI BANK |  |  |  |  |  |  |
| MPS | 401 | 255 | 307 | 335 | 612 | 1176 |
| DPS | 0 | 8 | 0 | 0 | 5 | 47.59 |
| BPS | 131.88 | 134.03 | 146.8 | 159.54 | 151.78 | 178.04 |
| EPS | 9.61 | 11.47 | 14.26 | 13.29 | 18.27 | 39.35 |
| Market Capitalization | 577.44 | 1100.72 | 1310.05 | 1446.75 | 3918.24 | 7617.40 |
| BANK OF KATHMANDU |  |  |  |  |  |  |
| MPS | 254 | 198 | 295 | 430 | 850 | 1375 |
| DPS | 10 | 5 | 10 | 15 | 48 | 20 |
| BPS | 171.83 | 192.83 | 218.38 | 213.6 | 230.67 | 164.68 |
| EPS | 2 | 17.72 | 27.5 | 30.1 | 43.67 | 43.5 |
| Market Capitalization | 594.36 | 917.89 | 1367.56 | 1993.4 | 3940.44 | 8293.20 |

Source: AGM Reports of the listed companies.

## Note:

MPS = Market Price per Share
DPS = Dividend per Share (i.e. including bonus)
BPS = Book Value per Share
EPS = Earning Per Share

### 4.2 Relationship between EPS, DPS \& BPS to MPS

To analyze the relationship of EPS, DPS and BPS to MPS, it is assumed that the market price of share is influenced with the change in EPS, DPS and BPS. So MPS is the dependent variable whereas, BPS, EPS, DPS and BPS with MPS is determined separately to each of the sampled listed companies. The correction analysis is preformed to determine the relationship of EPS, DPS and BPS with MPS. To determine the effect to DPS, EPS and BPS on MPS. Simple correlation as well as their coefficient of determination are calculated. For the test of hypothesis of simple and multiple coefficient calculated $t$ - value are compared with the tabulated t-value at $95 \%$ level of significance. To determine the magnitude of the effects of the independent variables to the dependent variable, simple and multiple regression
analysis are made and the magnitude is identified after determining the regression equations. In addition to that multiple correlation coefficient, multiple coefficient of determination (MPS being dependent variable are DPS, BPS and EPS being independent variables). Standard errors of estimate are analyzed during the correlation and regression analysis.

### 4.2.1 Correlation \& Regression Analysis of SCB

Table 4.2 (a \& b) summarizes the financial performance of SCB over last six years and table 4.2 shows the relationship (correlation) of EPS, DPS \& BPS to MPS along with the significance of such relationship.

Table 4.2 (a)
Summary of the Financial Performance of SCB

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :--- | :---: | :---: | :---: | :---: |
| $2059 / 060$ | 1550 | 100 | 363.86 | 141.13 |
| $2060 / 061$ | 1640 | 267 | 403.15 | 149.30 |
| $2061 / 062$ | 1745 | 110 | 399.25 | 143.55 |
| $2062 / 063$ | 2345 | 120 | 422.38 | 143.14 |
| $2063 / 064$ | 3775 | 140 | 468.21 | 175.84 |
| $2064 / 065$ | 5900 | 130 | 512.11 | 167.37 |
| Total | 16955 | 867 | 2568.96 | 920.33 |
| Mean | 2825.83 | 144.5 | 428.16 | 153.39 |
| SD | 1719.58 | 61.66 | 53.44 | 14.62 |
| CV | 60.85 | 42.67 | 12.48 | 9.53 |

Table 4.2 (b)
Relationship of BPS, EPS and DPS with MPS

| Variables | $\mathbf{r}$ | $\mathbf{r}^{2}$ | t-cal | t-table | Remarks |
| :--- | :--- | :--- | :--- | :--- | :--- |
| rab | 0.167 | 0.28 | -0.338 | 2.776 | Not significant |
| rac | 0.961 | 0.924 | 6.987 | 2.776 | Significant |
| rad | 0.798 | 0.547 | 2.652 | 2.776 | Not significant |

Where,
T- table value is at $95 \%$ level of significant
( $n-2=6-2=4$ degree of freedom)
rab = correlation coefficient of 'a' and 'b'
$\mathrm{r}^{2}=$ coefficient of (simple) determination
SD = Standard deviation
CV = Coefficient of Variation
Mean = Arithmetic mean

For SCB, it is found from the table and figure 4.2 that the BPS and EPS are in the increasing trend till the year 2060/061 and have slightly decreased in 2061/062. BPS and EPS are very less volatile with $12.48 \%$ coefficient of variation (CV) of BPS and 9.53\% CV of EPS. In comparison to these, MPS and DPS are little bit more volatile with $60.85 \%$ and $42.67 \%$ of CV in the last six years period. Looking at the simple correlation analysis, MPS of SCB is positively correlation with DPS meaning that increasing the MPS, DPS decreasing and vice versa. On the other hand, MPS is positively correlated with BPS and EPS. However, there is low degree of correlation. The coefficient of simple determination show that $28.0 \%$ of changes in the MPS is explained by DPS, where as $92.4 \%$ and $54.7 \%$ of the change in the MPS is explained by BPS and EPS respectively. Even though, the MPS is affected by DPS, BPS and EPS. The degree of correlation is not significant at $95 \%$ level of confidence for all these three independent variables even the MPS is relatively less positively correlated with DPS than other.

Similarly, while comparing SCB with industrial benchmark (i.e. the average performance of selected. Five Joint Venture Commercial Banks) it is revealed that for MPS, mean MPS of SCB is greater (2825.83) than industrial mean of MPS (1370.467), standard deviation of MPS is higher (1719.58) then industrial standard deviation (1013.76) and coefficient of variation is lesser (60.85) then industrial CV (73.65). This result shows that MPS has very good performance. For DPS, its mean is higher (144.5) then industrial average (53.315), Standard deviation is greater (61.66) then industrial SD (58.58) and coefficient of variance is lesser (42.67) the industrial average (106.33), thus is good however it is more risky than industrial average DPS. For BPS SCB mean is greater (428.16) then industrial mean 9269.52) standard deviation is lesser (53.44) then industrial average SD (116.16) and less coefficient of variation (12.48) is lesser than industrial CV (42.17). It proves that SCB's BPS is satisfactory. Finally, for EPS, SCB mean EPS is greater (153.39) than industrial average (70.74), Standard deviation is lesser (14.62) then industrial average (57.25) and CV is also lesser (9.53) then industrial average (82.84). Thus EPS has very good performance. Thus is overall, SCB has very good performance in the last six years (See Annex - XII)

The linear relationship of DPS, EPS, BPS and MPS of SCB is presented in the Figure 4.1

Figure: 4.1


Source: Table 4.1
From the simple regression analysis, the regression equations are found (MPS being dependent variable as: (Annex 1)

## MPS on DPS

MPS $=3496.866-4.644$
The regression constant 3496.866 implies that when DPS is zero, MPS is 3496.866 . The constant for DPS -4.644 implies that when DPS increase by Rs 100 , MPS decrease by RS 464.40 and vice versa. The simple correlation coefficient is -0.167 with 1895.71 standard error of estimate.

## MPS on BPS

MPS $=-10412.567+30.917$
The regression constant -10412.567 implies that when BPS is zero, MPS is 10412.567. The constant for BPS 30.917 implies that when DPS increases by Rs 100. MPS increase by 309.17 and vice versa. The simple correlation coefficient is 0.961 with. 529.09 standard error of estimate

## MPS on EPS

MPS $=1157.66+93.920$
The regression constant 1157.66 implies that when DPS is zero, MPS is 1157.66. The constant for EPS 93.920 implies that when EPS increase by Rs 100 MPS increase by RS 939.20 and vice versa. The simple correlation coefficient is 0.798 with 1157.66 standard error for estimate.

The multiple regression analysis of SCB gives the multiple regression equation MPS being dependant variable and DPS, BPS \& EPS being independent variable as (Annex II).

## MPS on DPS BPS and EPS

MPS $=-9738.901$-3.870 DPS +31.052 BPS -1.124 EPS

Where,
-9738.901 $=$ Dependent - variable - Intercept $-($ MPS-intercept), Multiple regression constant)
$-3.870=$ partial regression coefficient of dependent variable (MPS) on DPS when BPS and EPS are held constant
31.052 = partial regression coefficient of dependent variable (MPS) on BPS when DPS and EPS are held constant
-1.124 = partial regression coefficient of dependant variable (MPS) on EPS when DPS and BPS are held constant.

The equation implies that the multiple regression constant (a) is -9738.901 which suggest that when DPS, BPS and EPS are zero, MPS would be -9738.901. The constant for DPS is -3.870 implies that when DPS increase by Rs 100, MPS decreased by RS 387.00, the constant from BPS is 31.052 implies that when BPS increased by Rs 100, MPS will increase by RS 3105.2 and then constant for EPS -1.124 , implies that when EPS increase by RS 100, MPS decrease by RS 112.4 and vice versa, remaining intervening variables constant. The analysis shows that the multiple correlation coefficient 0.971 and coefficient of multiple determination 0.944 with 644.64. Standard error of estimate. The multiple correlation coefficient are significant at $95 \%$ level of significance. (SEE Annex II)

### 4.2.2 Correlation and regression analysis of NBL

Table 4.2 (a\&b) summarize the financial performance of NBL over last six years and table 4.3 shows the relationship (correlation) of EPS, DPS \& BPS to MPS along with the significance of such relationship.

Table 4.3(a)
Summery of the financial Performance of NBL

| Year | MPS (a) | DPS (b) | BPS (c) | EPS (d) |
| :--- | :---: | :---: | :---: | :---: |
| $2059 / 060$ | 700 | 30 | 233 | 55.25 |
| $2060 / 061$ | 740 | 50 | 267 | 84.66 |
| $2061 / 062$ | 1000 | 65 | 301 | 92.61 |
| $2062 / 063$ | 1505 | 70 | 337 | 105.49 |
| $2063 / 064$ | 2240 | 85 | 381 | 129.21 |
| $2064 / 065$ | 5050 | 11235 | 440 | 418 |
| Total | 1872.50 | 73.33 | 1937 | 604.30 |
| Mean | 1660.433 | 51.33 | 21.64 | 69.72 |
| SD | 88.67 |  | 100.72 |  |
| CV |  |  | 30.16 |  |

Table 4.3(b)
Relationship of BPS, EPS and DPS with MPS

| Variables | $\mathbf{r}$ | $\mathbf{r}^{\mathbf{2}}$ | $\mathbf{t - c a l}$ | t-table | Remarks |
| :--- | :--- | :--- | :--- | :--- | :--- |
| rab | 0.966 | 0.933 | 7.470 | 2.776 | Significant |
| rac | 0.874 | 0.765 | 3.606 | 2.776 | Significant |
| rad | 0.810 | 0.656 | 2.763 | 2.776 | Not significant |

In is revealed from above tables and figure 4.2 that the NBL has not constant performance over the six years period. MPS is more volatile with $88.67 \%$ CV. In comparison to MPS, DPS and EPS are less volatile with $51.33 \%$ CV DPS and 29.944\% CV of EPS. On the other hand, BPS has relatively consistence performance with lower CV of $21.596 \%$. The simple correlation analysis revealed that the MPS is positively correlated with the independent variables DPS and EPS which indicates the on increasing DPS and EPS, MPS also increases and vice versa. DPS is more correlated to MPS then the EPS whereas BPS is negatively correlated. (Inverse Relationship) with MPS. The coefficient of determination shows that the $65.6 \%$ of changes in the MPS is explained by EPS, $76.5 \%$ of change in the MPS is explained by BPS and this ration to DPS is 93.3 \%. The simple correlation of coefficients of DPS BPS and EPS with MPS are not significant at $95 \%$ level of significant

Similarly, the comparison of NBL with industrial benchmark yields the following result.

For MPS of NBL, mean MPS is higher; SD and CV are nearly same then that of industrial average indicates clearly that MPS of NBL is satisfactory. For DPS mean DPS is nearly same SD and CV are lesser than industrial average meaning that it is also satisfactory. For BPS, NBL has higher mean of BPS and lesser performer. And finally for EPS of NBL. Mean EPS is greater and SD and CV are lesser than that of industrial average meaning that is also good. Thus it is revealed from above analysis that NBL has good performance in last six years (See Annex VII)

The linear relationship of DPS BPS and EPS to MPS of NBL are presented in Figure 4.2

Figure : 4.2


From the simple regression analysis, the regression equations are found (MPS being dependant variable) as: (Annex I)

## MPS on DPS

MPS - $-4252.535+42.614$

The regression constant -1252.535 implies that when DPS is zero, MPS is -125.535 . The constant for DPS 42.614 implies that when DPS increases by Rs 1 MPS increase by RS 42.614 and vice versa. The simple correlation coefficient is 0.966 with 480.134 standard error of estimate.

## MPS on BPS

MPS - $-4850.828+20.826$

The regression constant -4850.828 implies that when BPS is zero, MPS is -4850.828 . The constant for BPS 20.826 implies that when BPS increases by Rs 1, MPS increases
by RS 20.826 and vice versa. The simple correlation coefficient is 0.874 with 900.505 standard error of estimate.

## MPS on EPS

MPS - $-2619.488+44.60$

The regression constant -2619.488 implies that when DPS is zero. MPS is -2619.488 . The constant for EPS 44.60 implies that when EPS increases by RS 1 MPS increases by Rs 44.60 and vice versa. The simple correlation coefficient is 0.810 with. 1088.461 standard error of estimate

The multiple regression analysis of NBL gives the multiple regression equation (MPS being dependent variable and DPS, BPS and EPS being independent variables) as (Annex II)

## MPS on DPS, BPS and EPS

MPS $=-2316.56+48.745+17.977-51.521$

Where,
-2316.56 = Dependent variable - intercept (MPS - Intercept), multiple regression constant
48.745 = Partial regression coefficient of dependent variable (MPS) on DPS when BPS \& EPS are held constant.
17.977 = Partial regression coefficient of dependent variable (MPS) on BPS when DPS and EPS are held constant
-51.521= Partial regression coefficient of dependent variable (MPS) on EPS when DPS and BPS are held constant

The equation implies that the multiple regression constant (a) is -2316.56 which suggest that when DPS, BPS and EPS are zero, MPS would be -2316.56. The constant for DPS is 48.745 implies that when DPS increases by Rs 1 MPS decrease by Rs 48.745, the constant for BPS is 17.977 implies that when BPS increases by RS. 1, MPS will increases by Rs 17.977 and the constant for EPS - 51.521 implies that when EPS increases by Rs 1, MPS decreased by Es 51.521 and vice versa, and remaining, intervening variable constant. The analysis shows that the multiple correlation coefficient 0.985 and coefficient of multiple determination 0.969 with 459. 48. Standard error of estimate. The multiple correlation coefficients are not significant at 95\% level of significance (See Annex II).

### 4.2.3 Correlation and Regression analysis of HBL

Table 4.3 (a\&b) summarizes the financial performance of HBL over last 6 years and table 4.3 shows the relationship (correlation) of EPS, EPS and BPS to MPS along with the significance of such relationship.

Table 4.4(a)
Summery of the financial Performance of HBL

| Year | MPS (a) | DPS (b) | BPS © | EPS (d) |
| :--- | :---: | :---: | :---: | :---: |
| $2059 / 060$ | 1000 | 35 | 393.34 | 60.26 |
| $2060 / 061$ | 836 | 25 | 247.81 | 49.45 |
| $2061 / 062$ | 840 | 20 | 246.93 | 49.05 |
| $2062 / 063$ | 920 | 31.58 | 239.59 | 47.91 |
| $2063 / 064$ | 1100 | 35 | 228.72 | 59.24 |
| $2064 / 065$ | 1740 | 40 | 264.74 | 60.66 |
| Total | 6436 | 186.58 | 1621.13 | 326.57 |
| Mean | 1072.667 | 31.09 | 270.188 | 54.43 |
| SD | 341.998 | 7.35 | 61.47 | 6.199 |
| CV | 31.88 | 23.64 | 22.75 | 11.389 |

Table 4.4(b)
Relationship of BPS, EPS and DPS with MPS

| Variables | $\mathbf{r}$ | $\mathbf{r}^{2}$ | $\mathbf{t - c a l}$ | $\mathbf{t - t a b l e}$ | Remarks |
| :--- | :--- | :--- | :--- | :--- | :--- |
| rab | 0.773 | 0.592 | 2.435 | 2.776 | Not Significant |
| rac | 0.016 | 0.00 | 0.032 | 2.776 | Not Significant |
| $\operatorname{rad}$ | 0.688 | 0.472 | 1.895 | 2.776 | Not significant |

Its is revealed from above table and figure 4.3 that the HBL has not consistent performance over the six years period. MPS is highly volatile with 31.88\% of CV. In comparison to DPS EPS and BPS are less volatile with 22.75 CV of BPS and 23.64\% relatively consistence performance with lowest CV of $4.389 \%$. The simple correlation analysis revealed that the MPS is positively correlated with the independent variables DPS and EPS which indicates that on increasing DPS and EPS, MPS also increases and vice versa. MPS is a little more correlated to EPS than the DPS, whereas BPS has of determination shows that the $47.3 \%$ of change in MPS is explained by EPS $0.0 \%$ of change in the MPS is explained. By BPS and this ratio to DPS is $59.2 \%$. The simple correlation of coefficient of DPS, BPS and EPS with MPS are not significant at 95\% level of significance

Similarly, comparative analysis of HBL with industrial benchmark reveals the following information.

For HBL, MPS has good performance, DPS is good but mean DPS is a bit less than industrial average. Likewise BPS in satisfactory and its level of consistence is very low and lost but not least. EPS is satisfactory as well. Therefore, HBL is overall have satisfactory performance (SEE Annex VII)

The linear relationship of DPS BPS and EPS to MPS of HBL are presented in Figure 4.3.

Figure: 4.3


From the simple regression analysis, the regression equation are found (MPS being dependent variable) as: (Annex I)

## MPS on DPS

MPS $=-45.129+35.946$

The regression constant -45.129 implies that when DPS is zero. MPS is -45.129 . The constant for DPS 35.946 implies that when DPS increased by Rs 1 MPS decrease by Rs 35.946 and vice versa, the simple correlation coefficient is 0.773 with 242.684 standard error of estimate.

## MPS on BPS

MPS $=1048.919+0.088$
The regression constant 1048.919 implies that when BPS is zero. MPS is 1048.919, The constant for BPS 0.088 implies that when BPS increase by Rs. 1 MPS increased by Rs 0.08 and vice versa. The simple correlation coefficient is 0.016 with 282.31 standard error of estimate.

## MPS on EPS

MPS $=-992.129+37.936$
The regression constant -992.129 implies that when DPS is zero, MPS is -992.129. The constant for EPS 37.936 implies that when EPS is increases by Rs 1 MPS increases by Rs 37.936 and vice versa. The simple correlation coefficient is 0.688 with 277.587 standard error of estimate.

The multiple regression analysis of HBL gives the multiple regression equation (MPS being dependent variable and DPS, BPS \& EPS being independent variables) as (Annex II)

## MPS on DPS, BPS and EPS

MPS $=-462.64+24.37-1.908+23.757$
Where,
-462.64 = Dependent variable - intercept (MPS - intercept), Multiple regression constant
24.37 = partial regression coefficient of dependent variable (MPS) on DPS when BPS and EPS are held constant.
-1.908= Partial regression coefficient of dependent variable (MPS) on BPS when DPS and EPS are held constant
23.757 = Partial regression coefficient of dependent variable (MPS) on EPS when DPS and BPS are held constant.

The equation implies that the multiple regression constant (a) is -462.64 which suggest that when DPS, BPS and EPS are zero, MPS would be -462.64. The constant for DPS is 24.37 implies that when DPS increase by Rs 1, MPS increase by Rs 24.37, the constant for BPS is -1.908 , implies that when BPS decrease by Rs. 1, MPS will be increase by Rs. 1.908 and the constant for EPS is 23.757 implies that when EPS increase by Rs 1, MPS increase by Rs 23.757 and vice versa, remaining. Intervening variables constant. The analysis show that the multiple correlation coefficient 0.834 with 298.33 Standard error of estimate. The multiple correlation coefficient are not significant at $95 \%$ level of significant at $95 \%$ level of significance (See Annex II)

### 4.2.4 Correlation and Regression analysis of SBI

Table 4.4 (a \& b) summarize the financial performance of SBI over last six years and table 4.4 show the relationship (correlation) of EPS, DPS and BPS to MPS along with the significance of such relationship

Table 4.5(a)
Summery of the financial Performance of SBI

| Year | MPS (a) | DPS (b) | BPS © | EPS (d) |
| :--- | :--- | :--- | :--- | :--- |
| $2059 / 060$ | 401 | - | 131.88 | 9.61 |
| $2060 / 061$ | 255 | 8.00 | 134.03 | 11.47 |
| $2061 / 062$ | 307 | - | 146.80 | 14.26 |
| $2062 / 063$ | 335 | - | 159.54 | 13.29 |
| $2063 / 064$ | 612 | 5.00 | 151.78 | 18.27 |
| $2064 / 065$ | 1176 | 47.59 | 178.04 | 39.35 |
| Total | 3086 | 60.59 | 902.07 | 106.25 |
| Mean | 514.33 | 10.098 | 150.345 | 17.708 |
| SD | 347.16 | 18.665 | 17.165 | 10.996 |
| CV | 67.497 | 184.84 | 11.42 | 62.096 |

Table 4.5(b)
Relationship of BPS, EPS and DPS with MPS

| Variables | $\mathbf{r}$ | $\mathbf{r}^{\mathbf{2}}$ | $\mathbf{t - c a l}$ | t-table | Remarks |
| :--- | :---: | :--- | :--- | :--- | :--- |
| rab | 0.923 | 0.852 | 4.796 | 2.776 | Significant |
| rac | 0.801 | 0.642 | 2.678 | 2.776 | Not Significant |
| rad | 0.965 | 0.931 | 7.349 | 2.776 | Significant |

Its is revealed from above table and figure 4.4 that the SBI has not consistent performance over the six years period. DPS is more volatile with $184.84 \%$ of CV. In comparison to DPS MPS, EPS and BPS are volatile in decreasing rate. With 67.497 CV of MPS 62.096 CV of EPS and relatively low degree of volatility i.e. $11.42 \%$ CV of BPS. The simple correlation analysis revealed that the MPS is positively correlated with DPS, BPS, which indicates that on increasing DPS and BPS, MPS also increases and vice versa. On the other hand, MPS is a negatively correlated to EPS however the degree and moderate degree of correlation with MPS and BPS respectively. The coefficient of determination shows that the $85.20 \%$ of change in MPS is explained by BPS and this if of coefficient of DPS, BPS and EPS with MPS are not significant at $95 \%$ level of significance. The comparison of SBI with industrial Benchmark gives the following information.

For MPS of SBI, mean and level of risk are less whereas CV is higher then the industrial average meaning that MPS does not seem good. For DPS, mean and SD as well as CV is lesser then industrial average. BPS as well as EPS are almost same as DPS. Thus in overall, the SBI does not have satisfactory performance than industrial benchmark (See Annex VII)

The liner relationship of DPS, BPs and EPS to MPS of SBI are presented in Figure 4.4

Figure : 4.4


From the simple regression analysis, the regression equation are found (MPS being dependent variable) as: (Annex I)

## MPS on DPS

MPS $=327.068+17.524$
The regression constant 327.068 implies that when DPS is zero. MPS is 327.068 . The constant for DPS 17.524 implies that when DPS increased by Rs 1 MPS decrease by Rs. 17.524 and vice versa, The simple correlation coefficient is 0.897 with 290.19 standard error of estimate.

## MPS on BPS

MPS = -1921.963+16.205
The regression constant - 1921.963 implies that when BPS is zero. MPS is -1921.963 , The constant for BPS 16.205 implies that when BPS increase by Rs. 1 MPS increased by Rs 16.205 and vice versa. The simple correlation coefficient is 0.801 with 232.219standard error of estimate.

## MPS on EPS

MPS $=-25.108+30.463$

The regression constant -25.108 implies that when DPS is zero, MPS is -25.108 . The constant for EPS 30.463 implies that when EPS is increases by Rs 1 MPS increases by Rs 30.463 and vice versa. The simple correlation coefficient is 0.965 with 101.916 standard error of estimate.

The multiple regression analysis of SBI gives the multiple regression equation (MPS being dependent variable and DPS, BPS \& EPS being independent variables) as (Annex II)

## MPS on DPS, BPS and EPS

MPS $=602.48-6.094+5.87+48.366$

Where,
602.48= Dependent variable - intercept (MPS - intercept), Multiple regression constant
-6.094 = Partial regression coefficient of dependent variable (MPS) on DPS when BPS and EPS are held constant.
5.87= Partial regression coefficient of dependent variable (MPS) on BPS when DPS and EPS are held constant
48.366 = Partial regression coefficient of dependent variable (MPS) on EPS when DPS and BPS are held constant.

The equation implies that the multiple regression constant (a) is 602.48 which suggest that when DPS, BPS and EPS are zero, MPS would be 602.48. The constant for DPS is -6.094 implies that when DPS increase by Rs 1 , MPS decrease by Rs 6.094, the constant for BPS is 5.87 , implies that when BPS increase by Rs. 1, MPS will be increase by Rs. 5.87 and constant for EPS is 48.366 implies that when EPS increase by Rs 1, MPS increase by Rs 48.366 and vice versa, remaining, intervening variables constant. The analysis show that the multiple correlation coefficient 0.971 coefficient of multiple determination 0.943 with 130.92 standard error of estimate. The multiple correlation coefficient are significant at 95\% level of significant (See Annex II)

### 4.2.5 Correlation and Regression analysis of BOK

Table 4.5 (a \& b) summarizes the financial performance of BOK over last 6 years and table 4.5 shows the relationship (correlation) of EPS, EPS and BPS to MPS along with the significance of such relationship.

Table 4.6 (a)
Summery of the financial Performance of BOK

| Year | MPS (a) | DPS (b) | BPS © | EPS (d) |
| :--- | :---: | :---: | :---: | :---: |
| $2059 / 060$ | 254 | 10 | 171.83 | 2 |
| $2060 / 061$ | 198 | 5 | 192.52 | 17.72 |
| $2061 / 062$ | 295 | 10 | 218.38 | 27.5 |
| $2062 / 063$ | 430 | 15 | 213.38 | 27.5 |
| $2063 / 064$ | 850 | 48 | 230.67 | 43.67 |
| $2064 / 065$ | 1375 | 20 | 164.68 | 43.50 |
| Total | 3402 | 108 | 1191.61 | 164.49 |
| Mean | 460.399 | 15.556 | 198.61 | 27.415 |
| SD | 81.199 | 86.422 | 26.642 | 15.937 |
| CV |  |  | 13.41 | 58.132 |

Table 4.6(b)
Relationship of BPS, EPS and DPS with MPS

| Variables | $\mathbf{r}$ | $\mathbf{r}^{2}$ | $\mathbf{t - c a l}$ | $\mathbf{t - t a b l e}$ | Remarks |
| :--- | :--- | :--- | :--- | :--- | :--- |
| rab | 0.558 | 0.312 | 1.346 | 2.776 | Not Significant |
| rac | 0.247 | 0.061 | -0.510 | 2.776 | Not Significant |
| rad | 0.783 | 0.614 | 2.520 | 2.776 | Not significant |

Its is revealed from above table and figure 4.5 that the BOK has not consistent performance over the six years period. DPS is highly volatile with $86.422 \%$ of CV. In comparison to DPS, EPS \& MPS are less volatile with 58.132 CV of EPS and 81.199\% CV of MPS. On the other hand, BPS had relatively consistence performance with lowest CV of $13.41 \%$. The simple correlation analysis revealed that the MPS is positively correlated with the independent variables (i.e. DPS, BPS \& EPS), which indicates that on increasing DPS, BPS and EPS, MPS also increases and vice versa. MPS is a more correlated to EPS than the DPS, and. The coefficient of determination shows that the $61.4 \%$ of change in MPS is explained by EPS $6.10 \%$ of change in the MPS is explained by BPS and this ratio to DPS is $31.2 \%$. The simple correlation of
coefficient of DPS, BPS and EPS with MPS are not significant at 95\% level of significant even EPS is more positively correlated with MPS then others.

Similarly, comparative analysis of BOK with industrial benchmark reveals the following information.

For MPS of BOK, it is less risky but mean is less than industrial average, risk level as well as CV is also less, similarly. Looking at BPS all the factors mean, SD and CV are less than that of industrial average. Finally, the EPS shows the same result as BPS thus in overall BOK does not have good performance in the last six years (SEE Annex VII).

The liner relationship of DPS, BPs and EPS to MPS of BoK are presented in Figure 4.5

Figure:4.5


From the simple regression analysis, the regression equation are found (MPS being dependent variable) as: (Annex I)

## MPS on DPS

MPS $=269.569+16.524$
The regression constant 269.569 implies that when DPS is zero. MPS is 269.569. The constant for DPS 16.524 implies that when DPS increased by Rs 1 MPS decrease by Rs 16.524 and vice versa, the simple correlation coefficient is 0.558 with 427.04 standard error of estimate.

## MPS on BPS

MPS $=1414.514-4.267$

The regression constant 1414.514 implies that when BPS is zero. MPS is 1414.514. The constant for BPS -4.267 implies that when BPS increase by Rs. 1 MPS increased by Rs -4.267 and vice versa. The simple correlation coefficient is -0.247 with 498.801 standard error of estimate.

## MPS on EPS

MPS $=-53.320+22.627$

The regression constant -53.320 implies that when DPS is zero, MPS is -53.320 . The constant for EPS 22.627 implies that when EPS is increases by Rs 1 MPS increases by Rs 22.627 and vice versa. The simple correlation coefficient is 0.783 with 319.990 standard error of estimate.

The multiple regression analysis of BOK gives the multiple regression equation (MPS being dependent variable and DPS, BPS \& EPS being independent variables) as (Annex II)

## MPS on DPS, BPS and EPS

MPS $=2142.646+10.394+12.04+22.924$
Where,
2142.646 = Dependent variable - intercept (MPS - intercept), Multiple regression constant
10.394 = Partial regression coefficient of dependent variable (MPS) on DPS when BPS and EPS are held constant.
12.04= Partial regression coefficient of dependent variable (MPS) on BPS when DPS and EPS are held constant.
22.924 = Partial regression coefficient of dependent variable (MPS) on EPS when DPS and BPS are held constant.

The equation implies that the multiple regression constant (a) is 2142.646 which suggest that when DPS, BPS and EPS are zero, MPS would be 2142.646 . The constant for DPS is 10.394 implies that when DPS increase by Rs 1, MPS decrease by Rs 10.394 , the constant for BPS is 12.04 , implies that when BPS increase by Rs. 1 , MPS will be increase by Rs. 12.04 and the constant for EPS is 22.924 implies that
when EPS increase by Rs 1, MPS increase by Rs 22.924 and vice versa, remaining, intervening variables constant. The analysis show that the multiple correlation coefficient 0.995 and coefficient of multiple determination 0.614 with 319.99 Standard error of estimate. The multiple correlation coefficients are not significant at 95\% level of significance (See Annex II).

### 4.3 Analysis of Primary Data

This thesis involves primary data also which were collected through questionnaire (Annex-V). During the course of collecting primary data, the researcher visited the private commercial banks as well as security brokers. Among the various factors affecting the share price, twenty factors were considered and primary information was collected from thirty one [nine private commercial banks and twenty two security brokers] institutions. The answers of the respondents were marked with +2 to -2 on the basis of the degree of agreement to disagreement of the respondents. (-2 for strongly disagree, -1 for disagree, 0 for undecided, 1 for agree and 2 for strongly agree; using five degree Liker -Type Scale. The summaries of the respondent's response for each of the identified factors are presented in this section separately. All the necessary calculations for this section are presented in Appendices III and IV with the help of MS. Excel Software.

### 4.3.1 Higher the Earnings (EPS), Higher the Share Price

The responses of the respondents for the affect of EPS to the market price of share were found as shown in Table 4.7.

Table 4.7
Higher the Earnings (EPS), Higher the Share Price

| S. no. | Responses | No. | Percentage |
| ---: | :--- | ---: | ---: |
| 1 | Strongly Agree (SA) | 4 | 12.90 |
| 2 | Agree (A) | 21 | 67.74 |
| 3 | Undecided (U) | 4 | 12.90 |
| 4 | Disagree (D) | 2 | 6.45 |
| 5 | Strongly Disagree (SD) | 0 | 0.00 |
|  | Total |  |  |
|  | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |  |

Source: Annex IV
Form the primary responses it is found that $80.64 \%$ of the respondents were agree that the increased earnings increases the share price in the market. Only, $6.45 \%$ were
disagreed and 12.90 \% were undecided with the statement. So, the increase in EPS significantly increases the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.2 Higher the cash dividend, higher the share price

The responses of the respondents for the affect of cash dividend to the market price of share were found as shown in Table 4.8.

Table 4.8

| Higher the cash dividend, higher the share price |  |  |  |
| :--- | :--- | :--- | :--- |
| S.no. | Responses | No. | Percentage |
| 1 | Strongly Agree (SA) | 5 | 16.13 |
| 2 | Agree (A) | 19 | 61.29 |
| 3 | Undecided (U) | 3 | 9.68 |
| 4 | Disagree (D) | 3 | 9.68 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |
| Source: Annex IV |  |  |  |

Form the primary responses it is found that 77.42 \% of the respondents were agree that the increased cash dividend increases the share price in the market. Only, 12.91\% were disagreed and $9.68 \%$ were undecided with the statement. So, the increase in cash dividend significantly increases the market price of the share and vice versa at 95 \% level of significance. (See Annex: VI)

### 4.3.3Lower the growth rate (g), higher the share price

The responses of the respondents for the affect of growth rate to the market price of share were found as shown in Table 4.9.

Table 4.9
Lower the growth rate (g), higher the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 0 | 0.00 |
| 2 | Agree (A) | 2 | 6.45 |
| 3 | Undecided (U) | 6 | 19.35 |
| 4 | Disagree (D) | 20 | 64.52 |
| 5 | Strongly Disagree (SD) | 3 | 9.68 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $6.45 \%$ of the respondents were agree that the decreased growth rate increases the share price in the market. Only, $74.2 \%$ were disagreed and $19.35 \%$ were undecided with the statement. So, the decrease in growth rate significantly increases the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.4 Higher the interest rate ( $r$ ), higher the share price

The responses of the respondents for the affect of interest rate to the market price of share were found as shown in Table 4.10.

Table 4.10.

Higher the interest rate (r), higher the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 2 | 6.45 |
| 2 | Agree (A) | 17 | 54.84 |
| 3 | Undecided (U) | 7 | 22.58 |
| 4 | Disagree (D) | 4 | 12.90 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that 61.29 \% of the respondents were agree that the increase in interest rate increases the share price in the market. Only, 16.13\% were disagreed and 22.58 \% were undecided with the statement. So, the increase in interest rate does not significantly increase the market price of the share and vice versa at 95 \% level of significance. (See Annex: VI)

### 4.3.5 Higher the retention ratio, better the share price

The responses of the respondents for the affect of retention ratio to the market price of share were found as shown in Table 4.11.

Table 4.11.

Higher the retention ratio, better the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 2 | 6.45 |
| 2 | Agree (A) | 14 | 45.16 |
| 3 | Undecided (U) | 5 | 16.13 |
| 4 | Disagree (D) | 8 | 25.81 |
| 5 | Strongly Disagree (SD) | 2 | 6.45 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |
| Source: Annex IV |  |  |  |

Form the primary responses it is found that $51.61 \%$ of the respondents were agree that the increase in retention ratio increases the share price in the market. Only, $32.62 \%$ were disagreed and 16.13 \% were undecided with the statement. So, the increase in retention ratio does not significantly affect the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.6 Stock dividend increases the share price

The responses of the respondents for the affect of stock dividend to the market price of share were found as shown in Table 4.12.

Table 4.12

Stock dividend increases the share price

| S. no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 2 | 6.45 |
| 2 | Agree (A) | 15 | 48.39 |
| 3 | Undecided (U) | 5 | 16.13 |
| 4 | Disagree (D) | 8 | 25.81 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that 54.84 \% of the respondents were agree that the stock dividend increases the share price in the market. Only, 29.04\% were disagreed and 16.13 \% were undecided with the statement. So, the stock dividend significantly affects the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.7 Higher cost of equity reduces the share price

The responses of the respondents for the affect of cost of equity to the market price of share were found as shown in table 4.13.

Table 4.13

## Higher cost of equity (Ke) reduces the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 2 | 6.45 |
| 2 | Agree (A) | 14 | 45.16 |
| 3 | Undecided (U) | 6 | 19.35 |
| 4 | Disagree (D) | 8 | 25.81 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $51.61 \%$ of the respondents were agree that the higher cost of equity decreases the share price in the market. Only, 29.04\% were disagreed and $19.35 \%$ were undecided with the statement. So, the higher cost of equity does not significantly affect the market price of the share and vice versa at 95 \% level of significance. (See Annex: VI)

### 4.3.8Lower personal tax rate reduces the share price

The responses of the respondents for the affect of personal tax rate to the market price of share were found as shown in Table 4.14.

Table 4.14

## Lower tax rate reduces the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 1 | 3.23 |
| 2 | Agree (A) | 7 | 22.58 |
| 3 | Undecided (U) | 7 | 22.58 |
| 4 | Disagree (D) | 14 | 45.16 |
| 5 | Strongly Disagree (SD) | 2 | 6.45 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |
| Source: Annex IV |  |  |  |

Form the primary responses it is found that 25.81 \% of the respondents were agree that the lower tax rate decreases the share price in market. Whereas, $51.61 \%$ were disagreed and 22.58 \% were undecided with the statement. So, the personal tax rate significantly affects the market price of the share at $95 \%$ level of significance. (See Annex: VI)

### 4.3.9 Fall in gold prices causes fall in the share price

The responses of the respondents for the affect of gold price to the market price of share were found as shown in Table 4.15.

Table 4.15
Fall in gold price causes fall in share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 0 | 0.00 |
| 2 | Agree (A) | 7 | 22.58 |
| 3 | Undecided (U) | 15 | 48.39 |
| 4 | Disagree (D) | 8 | 25.81 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV
Form the primary responses it is found that 22.58 \% of the respondents were agree that the fall in gold price causes fall in the share price in market. Whereas, $29.04 \%$ were disagreed and 48.39 \% were undecided with the statement. So, change in gold
price does not significantly decreases the market price of the share and vice versa at 95 \% level of significance. (See Annex: VI)

### 4.3.10 Fall in value of US \$ exchange rate causes fall in the share price

The responses of the respondents for the affect of fall in the value of US\$ exchange rate to the market price of share were found as shown in Table 4.16.

Table 4.16
Fall in value of US\$ reduces the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 0 | 0.00 |
| 2 | Agree (A) | 6 | 19.35 |
| 3 | Undecided (U) | 17 | 54.84 |
| 4 | Disagree (D) | 8 | 25.81 |
| 5 | Strongly Disagree (SD) | 0 | 0.00 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that 19.35 \% of the respondents were agree that the fall in the value of US\$ causes fall in the share price in market. Whereas, $25.81 \%$ were disagreed and $54.84 \%$ were undecided with the statement. So, fall in the value of US\$ does not significantly decreases the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.11 Instability of the government causes fall in the share price

The responses of the respondents for the affect of the instability of the government to the market price of share were found as shown in Table 4.17.

Table 4.17
Instability of government reduces the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 3 | 9.68 |
| 2 | Agree (A) | 22 | 70.97 |
| 3 | Undecided (U) | 4 | 12.90 |
| 4 | Disagree (D) | 2 | 6.45 |
| 5 | Strongly Disagree (SD) | 0 | 0.00 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that 80.65 \% of the respondents were agreed that instability of government causes fall in the share price in market. Whereas, 6.45\% were disagreed and $12.90 \%$ were undecided with the statement. So, instability of the government significantly decreases the market price of the share and vice versa at 95 \% level of significance. (See Annex: VI)

### 4.3.12 Strikes, demonstration etc. causes fall in the share price

The responses of the respondents for the affect of strike, demonstration to the market price of share were found as shown in Table 4.18.

Table 4.18

## Strikes, Demonstrations reduces the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 3 | 9.68 |
| 2 | Agree (A) | 23 | 74.19 |
| 3 | Undecided (U) | 2 | 6.45 |
| 4 | Disagree (D) | 2 | 6.45 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $83.87 \%$ of the respondents were agreed that strike, demonstration etc. causes fall in the share price in market. Whereas, 9.68\% were disagreed and $6.45 \%$ were undecided with the statement. So, strike, demonstration etc. significantly decreases the market price of the share and vice versa at 95 \% level of significance. (See Annex: VI)

### 4.3.13 Cease-fire/peace talks affect positively the share price

The responses of the respondents for the affect of cease-fire/peace talks to the market price of share were found as shown in Table 4.19

Table 4.19
Cease-fire/peace talk affect positively to the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 4 | 12.90 |
| 2 | Agree (A) | 22 | 70.97 |
| 3 | Undecided (U) | 2 | 6.45 |
| 4 | Disagree (D) | 2 | 6.45 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $83.87 \%$ of the respondents were agreed that cease-fire/piece talks affect positively the share price in market. Whereas, 9.68\% were disagreed and 6.45 \% were undecided with the statement. So, Cease-fire/peace talk significantly affects the market price of the share positively at $95 \%$ level of significance. (See Annex: VI)

### 4.3.14 Outbreak of Cease-fire increases the share price

The responses of the respondents for the affect of cease-fire/peace talks to the market price of share were found as shown in Table 4.20.

Table 4.20

## Outbreak of cease-fire increases share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 0 | 0.00 |
| 2 | Agree (A) | 2 | 6.45 |
| 3 | Undecided (U) | 4 | 12.90 |
| 4 | Disagree (D) | 19 | 61.29 |
| 5 | Strongly Disagree (SD) | 6 | 19.35 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Form the primary responses it is found that $6.45 \%$ of the respondents were agreed that outbreak of cease-fire affect positively the share price in market. Whereas, $80.64 \%$ were disagreed and $12.90 \%$ were undecided with the statement. So, outbreak of cease-fire significantly affects the market price of the share negatively at $95 \%$ level of significance. (See Annex: VI)

### 4.3.15 Better the national economy, better the share price

The responses of the respondents for the affect of national economy to the market price of share were found as shown in Table 4.21.

Table 4.21

| Better the national economy, better the share price |  |  |  |
| :--- | :--- | :--- | :--- |
| S.no. | Responses | No. | Percentage |
| 1 | Strongly Agree (SA) | 4 | 12.90 |
| 2 | Agree (A) | 21 | 67.74 |
| 3 | Undecided (U) | 4 | 12.90 |
| 4 | Disagree (D) | 2 | 6.45 |
| 5 | Strongly Disagree (SD) | 0 | 0.00 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |
| Source: Annex IV |  |  |  |

Form the primary responses it is found that $80.64 \%$ of the respondents were agreed that better national economy affect positively the share price in market. Whereas, $6.45 \%$ were disagreed and $12.90 \%$ were undecided with the statement. So, better economy significantly affects the market price of the share positively at $95 \%$ level of significance. (See Annex: VI)

### 4.3.16 Better the global economy, better the share price

The responses of the respondents for the affect of global economy to the market price of share were found as shown in Table 4.22.

Table 4.22
Better the global economy, better the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 2 | 6.45 |
| 2 | Agree (A) | 12 | 38.71 |
| 3 | Undecided (U) | 10 | 32.26 |
| 4 | Disagree (D) | 6 | 19.35 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV
Form the primary responses it is found that $45.16 \%$ of the respondents were agreed that better global economy affect positively the share price in market. Whereas, $23.18 \%$ were disagreed and $32.26 \%$ were undecided with the statement. So, better global economy does not significantly affect the market price of the share and vice versa at 95 \% level of significance. (See Annex: VI)

### 4.3.17 Higher the market liquidity, lower the share price

The responses of the respondents for the affect of market liquidity to the market price of share were found as shown in Table 4.23.

Table 4.23
Higher the market liquidity, lower the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 2 | 6.45 |
| 2 | Agree (A) | 9 | 29.03 |
| 3 | Undecided (U) | 7 | 22.58 |
| 4 | Disagree (D) | 10 | 32.26 |
| 5 | Strongly Disagree (SD) | 3 | 9.68 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $35.48 \%$ of the respondents were agreed that higher market liquidity affect negatively the share price in market. Whereas, $41.94 \%$ were disagreed and $22.58 \%$ were undecided with the statement. So, higher market liquidity does not significantly affect the market price of the share and vice versa at 95 \% level of significance. (See Annex: VI)

### 4.3.18 Share price is influenced by season

The responses of the respondents for the affect of season to the market price of share were found as shown in Table 4.24.

Table 4.24

| Share price is lower in winter than in summer |  |  |  |
| :--- | :--- | :--- | :--- |
| S.no. | Responses | No. | Percentage |
| 1 | Strongly Agree (SA) | 1 | 3.23 |
| 2 | Agree (A) | 6 | 19.35 |
| 3 | Undecided (U) | 14 | 45.16 |
| 4 | Disagree (D) | 9 | 29.03 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV
Form the primary responses it is found that $22.58 \%$ of the respondents were agreed that share price is influenced by season. Whereas, $32.26 \%$ were disagreed and $29.03 \%$ were undecided with the statement. So, the season i.e. summer or winter does not significantly affect the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.19 Share price is lower in Sunday than on Thursday

The responses of the respondents for the affect of week of the day to the market price of share were found as shown in Table 4.25.

Table 4.25
Share price is lower in Monday than in Friday

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 2 | 6.45 |
| 2 | Agree (A) | 7 | 22.58 |
| 3 | Undecided (U) | 17 | 54.84 |
| 4 | Disagree (D) | 4 | 12.90 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $29.03 \%$ of the respondents were agreed that share price is lower on Sunday than on Thursday. Whereas, $16.13 \%$ were disagreed and $54.84 \%$ were undecided with the statement. So, the week of the day effect does not significantly affect the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.20 Higher the risk, higher the share price

The responses of the respondents for the affect of risk to the market price of share were found as shown in Table 4.26.

Table 4.26
Higher the risk, higher the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 1 | 3.23 |
| 2 | Agree (A) | 2 | 6.45 |
| 3 | Undecided (U) | 5 | 16.13 |
| 4 | Disagree (D) | 20 | 64.52 |
| 5 | Strongly Disagree (SD) | 3 | 9.68 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV
Form the primary responses it is found that $9.68 \%$ of the respondents were agreed with higher the risk, higher the share price. Whereas, $74.2 \%$ were disagreed and $16.13 \%$ were undecided with the statement. So, the risk factor significantly affects the market price of the share negatively at $95 \%$ level of significance. (See Annex: VI)

### 4.3.21 Larger companies have higher share price

The responses of the respondents for larger companies have higher share price were found as shown in Table 4.27.

Table 4.27
Larger companies have higher share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 3 | 9.68 |
| 2 | Agree (A) | 15 | 48.39 |
| 3 | Undecided (U) | 5 | 16.13 |
| 4 | Disagree (D) | 7 | 22.58 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $9.68 \%$ of the respondents were agreed with higher the risk, higher the share price. Whereas, $74.2 \%$ were disagreed and $16.13 \%$ were undecided with the statement. So, the larger company size significantly affects the market price of the share at 95 \% level of significance. (See Annex: VI)

### 4.3.22 Share price increases with change in management

The responses of the respondents for share price increases with change in management were found as shown in Table 4.28

Table 4.28
Share price increases with change in management

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 0 | 0.00 |
| 2 | Agree (A) | 5 | 16.13 |
| 3 | Undecided (U) | 18 | 58.06 |
| 4 | Disagree (D) | 7 | 22.58 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV
Form the primary responses it is found that $16.13 \%$ of the respondents were agreed with share price increases with change in management. Whereas, $25.81 \%$ were disagreed and $58.06 \%$ were undecided with the statement. So, change in management does not significantly affect the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.23 Lower the BPS, higher the share price

The responses of the respondents for lower the BPS, higher the share price were found as shown in Table 4.29.

Table 4.29
Lower the BPS, higher the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 0 | 0.00 |
| 2 | Agree (A) | 2 | 6.45 |
| 3 | Undecided (U) | 5 | 16.13 |
| 4 | Disagree (D) | 21 | 67.74 |
| 5 | Strongly Disagree (SD) | 3 | 9.68 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $6.45 \%$ of the respondents were agreed with lower BPS causes higher the share price. Whereas, $77.42 \%$ were disagreed and $16.13 \%$ were undecided with the statement. So, BPS significantly affects the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.24 Share price is influenced by demand \& supply

The responses of the respondents for share price is affected by demand and supply were found as shown in Table 4.30.

Table 4.30
Share price is affected by demand and supply

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 4 | 12.90 |
| 2 | Agree (A) | 20 | 64.52 |
| 3 | Undecided (U) | 2 | 6.45 |
| 4 | Disagree (D) | 4 | 12.90 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |
| Source: Annex IV |  |  |  |

Form the primary responses it is found that $77.42 \%$ of the respondents were agreed with lower share price is affected by demand and supply. Whereas, $16.13 \%$ were disagreed and $6.45 \%$ were undecided with the statement. So, the fact that demand and supply of the stock significantly affects the market price of the share and vice versa at 95 \% level of significance. (See Annex: VI)

### 4.3.25 Rumors and whims affect the share price

The responses of the respondents for share price are affected by rumors and whims were found as shown in Table 4.31.

Table 4.31.
Rumors and Whims affects the share price

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 4 | 12.90 |
| 2 | Agree (A) | 17 | 54.84 |
| 3 | Undecided (U) | 5 | 16.13 |
| 4 | Disagree (D) | 3 | 9.68 |
| 5 | Strongly Disagree (SD) | 2 | 6.45 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $67.74 \%$ of the respondents were agreed with share price is affected by rumors and whims. Whereas, $16.13 \%$ were disagreed and $16.13 \%$ were undecided with the statement. So, the fact that rumors and whims significantly affects the market price of the share and vice versa at $95 \%$ level of significance. (See Annex: VI)

### 4.3.26 Capital market is not developed due to poor regulatory mechanism

The responses of the respondents for capital market is not well developed due to poor regulatory mechanism were found as shown in Table 4.32.

Table 4.32
Capital market is not well developed due to poor regulatory mechanism

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 4 | 12.90 |
| 2 | Agree (A) | 17 | 54.84 |
| 3 | Undecided (U) | 5 | 16.13 |
| 4 | Disagree (D) | 4 | 12.90 |
| 5 | Strongly Disagree (SD) | 1 | 3.23 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV
Form the primary responses it is found that $67.74 \%$ of the respondents were agreed with capital market is not well developed due to poor regulatory mechanism. Whereas, $16.13 \%$ were disagreed and $16.13 \%$ were undecided with the statement. So, the fact that capital market is not well developed due to poor regulatory mechanism is significant at $95 \%$ level of significance. (See Annex: VI)

### 4.3.27 Listed companies are not serious towards shareholder's interests

The responses of the respondents for listed companies are not serious about shareholders interests were found as shown in Table 4.33.

Table 4.33
Listed companies are not serious towards shareholder's interest

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 5 | 16.13 |
| 2 | Agree (A) | 16 | 51.61 |
| 3 | Undecided (U) | 3 | 9.68 |
| 4 | Disagree (D) | 5 | 16.13 |
| 5 | Strongly Disagree (SD) | 2 | 6.45 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV

Form the primary responses it is found that $67.74 \%$ of the respondents were agreed with the fact that listed companies are not serious about shareholders interests. Whereas, $22.58 \%$ were disagreed and $9.68 \%$ were undecided with the statement. So, the fact that listed companies are not serious about shareholders interests is significant at 95 \% level of significance. (See Annex: VI)

### 4.3.28 NEPSE and SEBO are not able to protect shareholders interests

The responses of the respondents for NEPSE and SEBO are not able to protect shareholders interests were found as shown in Table 4.34.

Table 4.34
NEPSE and SEBO are able to protect shareholder's interest

| S.no. | Responses | No. | Percentage |
| :--- | :--- | :--- | :--- |
| 1 | Strongly Agree (SA) | 2 | 6.45 |
| 2 | Agree (A) | 5 | 16.13 |
| 3 | Undecided (U) | 3 | 9.68 |
| 4 | Disagree (D) | 17 | 54.84 |
| 5 | Strongly Disagree (SD) | 4 | 12.90 |
|  | Total | $\mathbf{3 1}$ | $\mathbf{1 0 0 . 0 0}$ |

Source: Annex IV
Form the primary responses it is found that $22.58 \%$ of the respondents were agreed with the fact that NEPSE and SEBO are able to protect the shareholders interests. Whereas, $67.74 \%$ were disagreed and $9.68 \%$ were undecided with the statement. So, the fact that NEPSE and SEBO are not able to protect shareholders interests is significant at $95 \%$ level of significance. (See Annex: VI)

### 4.4 Empirical Findings of the study

In this study both of the primary as well as secondary data are analyzed. The researcher, with the help of research questionnaire, gathered primary data which helped to identify the factors affecting stock price. Similarly, with the help of secondary data, the relationship of market price per share with dividend, earning as well as book value was determined. Here, the empirical findings from both of the primary as well as secondary data analysis are presented separately below:

### 4.4.1 Findings from Secondary Data Analysis

The analysis of secondary data of Five Joint venture commercial banks gives the following results:

- For standard Chartered Bank, MPS is negatively correlated with DPS where as it is positively correlated with BPS and EPS. None of these relationships are
significant at 95\% level of significance. BPS, EPS and MPS are less volatile except DPS. In overall, SCB has very good performance in the last six years.
- For NBL, MPS is positively correlated with DPS and EPS where as negatively with BPS. However, the relationship is not significant at $95 \%$ level of significance. DPS, BPS and EPS as well as MPS are less volatile. It is revealed from analysis that NBL has good performance in last six years.
- For BOK, MPS is positively correlated with all of the independent variables (i.e. DPS, BPS \& EPS); however, the degree of correlation shows insignificant at 95\% level of significance. The volatility of DPS, MPS and EPS are a little bit higher than that of BPS which has a good performance. In overall, BOK does not have good performance in the last six years
- While analyzing the HBL, MPS is positively correlated with DPS and EPS and negatively correlated with BPS. The degree of correlation is high however these relationships are not significant at 95\% level of significance. BPS is very much consistent where as MPS and EPS are not bad and DPS is a bit more volatile. HBL in overall have satisfactory performance.
- For, SBI bank, MPS has high degree of correlation with DPS, low degree correlation with BPS and negative correlation with EPS. But, t-test analysis shows that neither of them is significant at $95 \%$ level of significance. BPS consistent and good where as EPS, MPS and DPS have higher volatility respectively. In overall, the SBI does not have satisfactory performance than industrial benchmark.
- From the view point of multiple correlations, it is known that independent variables (DPS, BPS and EPS) are significantly correlated to SCB, and SBI only. Remaining all is insignificantly correlated.


### 4.4.1.1 Empirical Findings from Primary Data Analysis

On the other hand, the analysis of primary data reveals the following results:

- MPS is significantly affected by company's performance such as earnings, cash dividends payment, book value, risk associated with the company and growth rate at $95 \%$ level of significance.
- When looking at, the other relevant factors to share piece such as interest rate, retention ratio, and cost of equity etc., these factors do not affect significantly
whereas stock dividend significantly affects the share price at $95 \%$ level of significance.
- Similarly, the political, economic and environmental factors such as instability of government, strike and demonstrations, cease-fire, national economy, tax rate, etc. significantly affect the share price where as global economy insignificantly affect the share price at $95 \%$ level of significance.
- From other factors, gold prices, value of US\$ exchange rate, seasonal factors like summer and winter, day of the week, change in management have insignificant impact on the share price.
- Similarly, size of the company, demand and supply, rumors and whims etc significantly affect the share price.
- While analyzing the response of capital market is not well developed in Nepal, Listed companies are not serious about shareholder's interests and NEPSE and SEBO are not able to protect share holders interest has shown significant implication at 95\% level of significance.


## CHAPTER V

## SUMMARY CONCLUSIONS \& RECOMMENDATIONS

### 5.1 Introduction

This is the final chapter that involves summary, conclusions and recommendations of the research work. The facts and findings from primary and secondary data analysis are presented in this chapter. Besides summarizing and concluding research work, recommendations are made to concerned persons and organizations.

### 5.2 Summary

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 Centre Ltd. in 1976 were other significant development relating to capital markets.

Securities Exchange Centre 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.

Government of Nepal, under a program initiated to reform capital markets converted Securities Exchange Centre 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. Nepal Government, Nepal Rastra Bank, Nepal Industrial Development Corporation and members are the shareholders of the NEPSE.

After the restoration of democracy in 1990, Nepal Government initiated privatization and economic liberalization, the industrial development as well as the capital market development process took a pace. However, with the initiation of Moist armed
revolution, the industrial and capital market development process got a break. The nation has been paralyzed in terms of economic development due to the lack of peace and security. Most of the government investment has been concentrated to maintain security only. Similarly, lack of political stability and Royal take over of February 1; has added fuel in this issue.

Nepalese capital market is still in primary stage. Most of the citizens are not aware of the basic knowledge regarding security market. As a result they have not been able to make investment and if even invested; are being exploited in the absence of proper knowledge. In spite of poor condition of the security market in Nepal, government of Nepal has not given priority in its current tenth five year plan. Government has not been able to create basic infrastructures, sound policies and laws and their effective implementation, for the capital market development. As a result, there is not transparency in the performance of the listed companies and the capital market due to which capital market is struggling to mature.

The researcher has tried to explore the factors affecting share price in NEPSE, with special focus to Joint venture commercial banks. The major objectives of the dissertation work are listed as:

- To identify the major determinants of stock price in Nepal.
- To examine the effect of earning dividend and book value of the stock price.

To meet the desired objectives, the researcher identified the effect of quantitative factors, DPS, BPS \& EPS with MPS by correlation and regression analysis of secondary data, whereas, to identify the qualitative factors affecting the share price, the researcher used the questionnaire approach.

On the one hand, from the secondary data analysis it is found that, for some companies, the correlation coefficient of MPS with independent variables (i.e. DPS, BPS \& EPS ) is significantly positive whereas in some other cases significantly negative at $95 \%$ level of significance. MPS is significantly positively correlated with DPS, BPS and EPS of NBB where as MPS is significantly negatively correlated to none of the factors.

Even though DPS, BPS \& EPS affect the MPS positively, there are several other factors in the internal as well as external environment that affect the share price significantly. Theoretically, when earnings, dividends and book value per share increases, the market price per share also increases and vice versa. But in case of

NEPSE, this theory does not seem to be true hundred percent meaning that there are various other factors too that affects the share price.

On the other hand, the qualitative factors affecting the share price are identified through the primary data analysis. Dividends, earnings, book value per share, growth rate and risk associated with the company are some internal factors affecting the market price per share. Among other environmental factors affecting the share price are political stability, cease fire and peace talks, strikes/bandha, rumors and whims, national economy, demonstrations, demand and supply situations. While analyzing the effects of interest rate, retention ratio, stock dividend, cost of equity, tax rate, value of US \$ exchange rate, gold price, global economy, market liquidity, season, day of the week, size of the organization, change in the management etc , it is found that these factors have nominal effects o share price.

During the course of research work, it was understood that, there is not good regulatory mechanism in the NEPSE for the listed companies to protect shareholders interests. The listed companies other than banks and financial companies, are not able to conduct the AGM in time, submit their report to SEBO/N and give the detail information to the shareholders (knowingly and unknowingly) .Thus, it seems that, on the one hand, listed companies are not able to protect the shareholders interests properly and on the other hand, there is lack of effective watchdog to implement rules and regulations.

Talking about the listed companies in the NEPSE, most of the companies are unable to meet organizational objectives. Service industries and manufacturing industries are suffering loss in the present context. The only the satisfactory sector is banking and financial institutions.

### 5.3 Conclusion

Based on the above summary and findings of the research, the researcher came into the following conclusions:

- Adequate knowledge and information regarding the capital market is lacking in Nepalese investors. This is precisely the reason why they are cheated by the concerned companies and the NEPSE shows rather irrational behavior.
- Most of the listed companies do not provide sufficient and timely information to NEPSE as well as their shareholders. And even the supplied information does not have similarity among NEPSE, Annual Report and their particular websites. Meaning that they try to attract potential investors by providing exaggerated information regarding their performances.
- From the secondary data analysis it is revealed that, pricing behavior differs company to company. Even though, DPS, BPS and EPS jointly have significant effect on the share price, individually they do not have consistent relationship with MPS. It means that there may be other major factors influencing and determining the share price significantly.
- Whereas analysis of primary data (from view point of respondents) summarizes, company performance ( EPS, book value, DPS, risk), information disclosed, timely AGM, other political and economic factors such as political stability, national economy, peace, strikes/bandhas, demand and supply situation of the share, cease-fire etc. are the some important factors having significance influence on the share price. Similarly, other relevant factors, interest rate, tax rate, seasonal factors, day of the week effect, gold price, global economy, value of US\$, cost of equity, market liquidity, size of the firm and change in management do not have significant effect .
- Due to poor rules and regulations as well as effective regularity mechanism, one the one hand, shareholders are not confident enough to invest in the share whereas on the other hand, capital market has not been growing as per expectation. Similarly, lack of political stability, peace and Moist revolution has constrained the smooth development of security market.
- The study concludes that the Nepalese stock market is in infancy stage. There is a gap between the theory and practice of investment in Nepalese stock market due to lack of proper study/analysis of stock market. Professionalism is lacking.
- In spite of the several constraints, the NEPSE has been growing gradually. The commercial banking sector is the best performer among the listed companies. We can't undermine the truth that with the presence of peace and political stability, the capital market gets far better soon.


### 5.4 Recommendations

Based on the research work, the researcher has reached the following recommendations:

## To Investors

Lack of education and sufficient information is the main weakness of the investors. They should seek their right towards accurate and timely information, as well as for protection. Similarly, investors should be alert to exploit the opportunities through short term speculation. So, they are suggested to raise their voice and complain about the misconduct of relevant company or NEPSE, SEBON as well as of Government. They are encouraged to enrich their level of knowledge and make the investment opportunities fruitful.

## To Brokers

Brokers are suggested not only to look at their interests but also be sincere and cooperate with investors. Since they have greater level of practical knowledge they should provide rational and accurate advices to their clients/investors and foster professionalism.

## To SEBO/N NEPSE

Perfect markets require that all information concerning future risks and returns of securities be readily available to all investors. As there exists various market imperfections, relevant information are not easily available to the investors. They are often published in national dailies, but most of the information is highly aggregated and not reliable. Because of the lack of technical knowledge, majority of the investors is unable to analyze the available information. As such, a single buyer and a single seller can affect the price of securities. NEPSE has to insure listed companies relevant information. Similarly, NEPSE can expand its service to regional and local level so that it gives the equal opportunity to all the potential investors. The existing manual method of security trading should be replaced with computerized method to ensure the accuracy and systematic. Investors should be provided with investment guidelines and relevant information through media. It should monitor the activities of brokers as well as listed companies.

## To Listed Companies

Listed companies are requested to avail the accurate and timely information to concerned authorities as well as to investors. They should conduct timely AGM, and fulfill the requirement of concerned authorities. They should not provide gimmicks to attract the potential investors.

## To Government

Government should formulate as well as implement effective rules and regulations, code of conduct, for the gradual development of capital market. For this purpose national as well as international stock experts should be consulted. Similarly, it should encourage independent rating agencies so that the investors will have a confident picture of financial health and future prospects of organizations/instruments. NEPSE should be given authority to take immediate action for wrongdoer companies. Government should encourage the concerned body to organize programs, seminars time to time to create awareness among the investors.

## To Further Researcher

Research is an ongoing process. Study of security is a vast field of study. Through this research, the researcher has tried to explore the factors affecting share price of joint venture commercial banks, which is I believe more specific, the further researcher can focus their study towards more specific factors. Similarly, they can even carry out research based on primary source. The other relevant factors for example can be impact of CEO charisma, Research, inflation, oil/energy prices etc that affect the share price.

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## Annex - I

## Summary of Simple Correlation and Regression Analysis

| Relationship | correlation coefficient | coefficient of Determination | Standard Errors of Estimate | MPS Intercept | Variable Intercept | t-calculate | t-Table value | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MPS on DPS | -0.167 | 0.028 | 1895.710 | 3496.866 | -4.644 | -0.338 | 2.7760 | Insignificant |
| MPS on BPS | 0.961 | 0.924 | 529.090 | -10412.567 | 30.917 | 6.987 | 2.7760 | Significant |
| MPS on EPS | 0.798 | 0.637 | 1157.660 | -11580.451 | 93.920 | 2.652 | 2.7760 | Insignificant |
| 2. Nabil Bank Limited |  |  |  |  |  |  |  |  |
| Relationship | correlation coefficient | coefficient of Determination | Standard Errors of Estimate | MPS Intercept | Variable Intercept | t-calculate | t-Table value | Remarks |
| MPS on DPS | 0.966 | 0.933 | 480.134 | -1252.535 | 42.614 | 7.470 | 2.7760 | Significant |
| MPS on BPS | 0.874 | 0.765 | 900.505 | -4850.828 | 20.826 | 3.606 | 2.7760 | Significant |
| MPS on EPS | 0.810 | 0.656 | 1088.461 | -2619.488 | 44.60 | 2.763 | 2.7760 | In Significant |
| 3. Himalayan Bank Limited |  |  |  |  |  |  |  |  |
| Relationship | correlation coefficient | coefficient of Determination | Standard Errors of Estimate | MPS Intercept | Variable Intercept | t-calculate | t-Table value | Remarks |
| MPS on DPS | 0.773 | 0.597 | 242.684 | -45.129 | 35.946 | 2.435 | 2.7760 | In Significant |
| MPS on BPS | 0.016 | 0.000 | 282.31 | 1048.919 | 0.088 | 0.032 | 2.7760 | In Significant |
| MPS on EPS | 0.688 | 0.473 | 277.587 | -992.129 | 37.936 | 1.895 | 2.7760 | In Significant |

## Annex - II

Summary of Multiple Regression Analysis

## MPS on DPS, BPS and EPS

| Sample <br> Companies | Correlation Coefficient | Coefficient <br> of Determination | Standard <br> Errors of <br> Estimate | MPS <br> Intercept | DPS <br> Intercept | BPS <br> Intercept | EPS <br> Intercept | t-Calculated | t-Table Value | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCB | 0.971 | 0.944 | 644.64 | -9738.901 | -3.87 | 31.052 | -1.124 | 4.2238 | 2.7760 | Significant |
| NBL | 0.985 | 0.969 | 459.48 | -2316.56 | 48.745 | 17.977 | -51.521 | 2.0934 | 2.7760 | Insignificant |
| HBL | 0.834 | 0.696 | 298.33 | -462.64 | 24.37 | -1.908 | 23.757 | 2.3862 | 2.7760 | Insignificant |
| SBI | 0.971 | 0.943 | 130.92 | 602.48 | -6.094 | 5.87 | 48.366 | 3.79 | 2.7760 | Significant |
| BOK | 0.995 | 0.990 | 73.7498 | 2142.646 | 10.394 | 12.04 | 22.924 | 1.97 | 2.7760 | Insignificant |

Source : AGM Report of Sampled companies and NEPSE Trading Report

## Annex III

You are Kindly requested to indicate the extent to which you are agree with the following statements by filling in each of the blank with :

| SA | for | Strongly Agree |
| :--- | :--- | :--- |
| A | for | Agree |
| U | for | Undecided |
| D | for | Disagree |
| SD | for | Strongly Disagree |

[All the statements are related to NEPSE and market price of share of some private joint venture commercia bank.]

1 Higher the EPS, higher would be the share price.
2 Higher the DPS/cash dividend, higher would be the share price.
3 Lower the growth rate (g) of a company, higher would be the share price.
4 Of interest renvestment rete (r) increase, share price also increase.
5 Higher the retention ratio, better will be the market price of the share.
6 Payment of stock divided increase the share price in market.
$7 \quad$ Higher cost of equity (Ke) reduces the share price.
8 Lower the personal tax rate, lower would be the share prce.
$9 \quad$ Fall in gold price, causes fall in share price.
10 Fall in the value of US \$, causes fall in share price.
11 Share price declines, with the instability of the government.
12 Strikes/bandhas/demonstrations badly affect the share price.
13 Peace talks with Maoist (cease-fire) affect positively to the share price.
14 Outbreaks of the cease-fire decrease the share price.
15 Share price is sensitive towards national economic environment.
16 Share price is sensitive towards global economy.
17 Share price decreases with increase in liquidity in market.
18 Share price is influenced with seasonal factors.
19 Share price is lower on Sunday, than on Thursday.
Higher the risk associated with a company, higher will be the share price.
21 Larger companies have higher share price.
22 Share price reacts positively with charge in management.
23 Lower the book value of share, higher would be the share price.
24 Share price is affected with demande and supply of the share.
25 Rumors and whims affect the share price.
26 Capital market is not well developed due to poor regulatory mechanism in Nepal.
27 Public/listed companies are not serious towards shareholders interests.
28 NEPSE ans Securities board are not able to protect investors' interest effectively.

# Annex: IV 

## SUMMARY OF THE PRIMARY DATA

|  | Variables | SA | A | U | D | SD | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Higher the EPS , higher the price | 4 | 21 | 4 | 2 | 0 | 31 |
| 2 | Higher the cash dividend, higher the share price | 5 | 19 | 3 | 3 | 1 | 31 |
| 3 | Lower the growth rate (g), higher the share price | 0 | 2 | 6 | 20 | 3 | 31 |
| 4 | Higher the interest rate (r), higher the share price | 2 | 17 | 7 | 4 | 1 | 31 |
| 5 | Higher the retention rate, better the share price | 2 | 14 | 5 | 8 | 2 | 31 |
| 6 | Stock dividend increases the share price | 2 | 15 | 5 | 8 | 1 | 31 |
| 7 | Higher cost of equity ( Ke ) reduces the share price | 2 | 14 | 6 | 8 | 1 | 31 |
| 8 | Lower tax rate reduces the share price | 1 | 7 | 7 | 14 | 2 | 31 |
| 9 | Fall in gold price causes fall in share price | 0 | 7 | 15 | 8 | 1 | 31 |
| 10 | Fall in value of US \$ reduces the share price | 0 | 6 | 17 | 8 | 0 | 31 |
| 11 | Instability of government reduces the share price | 3 | 22 | 4 | 2 | 0 | 31 |
| 12 | Strikes, Demonstrations reduces the share price | 3 | 23 | 2 | 2 | 1 | 31 |
| 13 | Cease-fire/peace talk affect positively to the share price | 4 | 22 | 2 | 2 | 1 | 31 |
| 14 | Outbreak of cease-fire increase share price | 0 | 2 | 4 | 19 | 6 | 31 |
| 15 | Better the national economy, better the share price | 4 | 21 | 4 | 2 | 0 | 31 |
| 16 | Better the golbal economy, better the share price | 2 | 12 | 10 | 6 | 1 | 31 |
| 17 | Higher the market liquidity, lower the share price | 2 | 9 | 7 | 10 | 3 | 31 |
| 18 | Share price is lower in winter than in summer | 1 | 6 | 14 | 9 | 1 | 31 |
| 19 | Share price is lower in Monday than in Friday | 2 | 7 | 17 | 4 | 1 | 31 |
| 20 | Higher the risk, higher the share price | 1 | 2 | 5 | 20 | 3 | 31 |
| 21 | Larger companies have higher share price | 3 | 15 | 5 | 7 | 1 | 31 |
| 22 | Share price increase with change in management | 0 | 5 | 18 | 7 | 1 | 31 |
| 23 | Lower the BPS, higher the share price | 0 | 2 | 5 | 21 | 3 | 31 |
| 24 | Share price is afected by demand and supply | 4 | 20 | 2 | 4 | 1 | 31 |
| 25 | Rummers and Whims affects the share price | 4 | 17 | 5 | 3 | 2 | 31 |
| 26 | Capital market is not well developed due to poor regularoty mec | 4 | 17 | 5 | 4 | 1 | 31 |
| 27 | Listed companies are not serious towards shareholder's interest | 5 | 16 | 3 | 5 | 2 | 31 |
| 28 | NEPSE and SEBO are able to protect shareholder's interest | 2 | 5 | 3 | 17 | 4 | 31 |

Where, weight for : $\mathrm{SA}=2, \mathrm{~A}=1, \mathrm{U}=0, \mathrm{D}=-1, \mathrm{SD}=-2$ Source: Questionnaire

## Annex: V <br> SUMMARY OF THE PRIMARY DATA

| S.N. | Variables |
| :--- | :--- |
| 1 | Higher the EPS, higher the share price |
| 2 | Hgher the cash dividend, higher the share price |
| 3 | Lower the growth rate (g), higher share price |
| 4 | Higher the interest rate (r), higher the share price |
| 5 | Higher the retention ratio, better the share price |
| 6 | Stock dividend increases the share price |
| 7 | Higher the cost of equity (Ke), reduces the share price |
| 8 | Lower the tax rate reduces the share price |
| 9 | Fall in to gold price causes fall in share price |
| 10 | Fall in value of US\$ reduces the share price |
| 11 | Instability of government reduces the share price |
| 12 | Strikes, Demonstrations reduces the share price |
| 13 | Cause-fire/peace talk affect positively to the share price |
| 14 | Outbreak of case-fire increased share price |
| 15 | Better the national economy, better the share price |
| 16 | Better the global economy, better the share price |
| 17 | Higher the market liquidity, lower the share price |
| 18 | Share price is lower in winter than in summer |
| 19 | Share price in lower in Monday than in Friday |
| 20 | Higher the risk, higher the share price |
| 21 | Larger companies have higher share price |
| 22 | Share price increases with changing management |
| 23 | Lower the BPS , higher the share price |
| 24 | Share price is affected by demand and supply |
| 25 | Rummers and Whims affects the share price |
| 26 | Capital market is not well developed due to poor regularoty machanism |
| 27 | Listed companies are not serious towards shareholder's interest |
| 28 | NEPSE and SEBO are able to protect shareholder's interest |


| SA | A | U | D | SD | N | fx | AM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | 22 | 3 | 2 | 0 | 31 | 28 | 0.9032 |
| 5 | 19 | 3 | 3 | 1 | 31 | 24 | 0.7742 |
| 0 | 2 | 6 | 20 | 3 | 31 | -24 | -0.7742 |
| 1 | 15 | 6 | 8 | 1 | 31 | 7 | 0.2258 |
| 2 | 14 | 7 | 6 | 2 | 31 | 8 | 0.2581 |
| 2 | 15 | 5 | 8 | 1 | 31 | 9 | 0.2903 |
| 2 | 14 | 6 | 8 | 1 | 31 | 8 | 0.2581 |
| 1 | 7 | 7 | 14 | 2 | 31 | -9 | -0.2903 |
| 0 | 7 | 15 | 8 | 1 | 31 | -3 | -0.0968 |
| 0 | 6 | 17 | 8 | 0 | 31 | -2 | -0.0645 |
| 3 | 22 | 4 | 2 | 0 | 31 | 26 | 0.8387 |
| 3 | 23 | 2 | 2 | 1 | 31 | 25 | 0.8065 |
| 4 | 22 | 2 | 2 | 1 | 31 | 26 | 0.8387 |
| 0 | 2 | 4 | 19 | 6 | 31 | -29 | -0.9355 |
| 4 | 21 | 4 | 2 | 0 | 31 | 27 | 0.8710 |
| 2 | 10 | 12 | 6 | 1 | 31 | 6 | 0.1935 |
| 2 | 8 | 9 | 9 | 3 | 31 | -3 | -0.0968 |
| 1 | 6 | 14 | 9 | 1 | 31 | -3 | -0.0968 |
| 2 | 7 | 17 | 4 | 1 | 31 | 5 | 0.1613 |
| 1 | 2 | 5 | 20 | 3 | 31 | -22 | -0.7097 |
| 3 | 14 | 6 | 7 | 1 | 31 | 11 | 0.3548 |
| 0 | 5 | 18 | 7 | 1 | 31 | -4 | -0.1290 |
| 0 | 2 | 5 | 21 | 3 | 31 | -25 | -0.8065 |
| 4 | 20 | 2 | 4 | 1 | 31 | 22 | 0.7097 |
| 3 | 17 | 5 | 3 | 2 | 30 | 16 | 0.5333 |
| 4 | 18 | 4 | 4 | 1 | 31 | 20 | 0.6452 |
| 5 | 18 | 3 | 3 | 2 | 31 | 21 | 0.6774 |
| 2 | 5 | 3 | 17 | 4 | 31 | -16 | -0.5161 |

## Annex: VI <br> SUMMARY OF THE PRIMARY DATA

| S.N. | Variables |
| :--- | :--- |
| 1 | Higher the EPS, higher the share price |
| 2 | Hgher the cash dividend, higher the share price |
| 3 | Lower the growth rate (g), higher share price |
| 4 | Higher the interest rate (r), higher the share price |
| 5 | Higher the retention ratio, better the share price |
| 6 | Stock dividend increases the share price |
| 7 | Higher the cost of equity (Ke), reduces the share price |
| 8 | Lower the tax rate reduces the share price |
| 9 | Fall in to gold price causes fall in share price |
| 10 | Fall in value of US\$ reduces the share price |
| 11 | Instability of government reduces the share price |
| 12 | Strikes, Demonstrations reduces the share price |
| 13 | Cause-fire/peace talk affect positively to the share price |
| 14 | Outbreak of case-fire increased share price |
| 15 | Better the national economy, better the share price |
| 16 | Better the global economy, better the share price |
| 17 | Higher the market liquidity , lower the share price |
| 18 | Share price is lower in winter than in summer |
| 19 | Share price in lower in Monday than in Friday |
| 20 | Higher the risk, higher the share price |
| 21 | Larger companies have higher share price |
| 22 | Share price increases with changing management |
| 23 | Lower the BPS , higher the share price |
| 24 | Share price is affected by demand and supply |
| 25 | Rummers and Whims affects the share price |
| 26 | Capital market is not well developed due to poor regularoty machanism |
| 27 | Listed companies are not serious towards shareholder's interest |
| 28 | NEPSE and SEBO are able to protect shareholder's interest |

Where, weight for: $S A=2, A=1, U=0, D=-1, S D=-2$

| SA | A | U | D | SD | N | $\sum \mathrm{x}$ | $\overline{\mathrm{C}}$ | S | Z Cal | Z table | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 22 | 0 | -2 | 0 | 31 | 28 | 0.9032 | 0.66536 | 7.5582 | 1.645 | Significance |
| 10 | 19 | 0 | -3 | -2 | 31 | 24 | 0.7742 | 0.87841 | 4.9072 | 1.645 | Significance |
| 0 | 2 | 0 | -20 | -6 | 31 | -24 | -0.7742 | 0.66202 | -6.5112 | 1.645 | Significance |
| 2 | 15 | 0 | -8 | -2 | 31 | 7 | 0.2258 | 0.84791 | 1.4827 | 1.645 | Not significance |
| 4 | 14 | 0 | -6 | -4 | 31 | 8 | 0.2581 | 1.01189 | 1.4200 | 1.645 | Not significance |
| 4 | 15 | 0 | -8 | -2 | 31 | 9 | 0.2903 | 0.94923 | 1.7029 | 1.645 | Significance |
| 4 | 14 | 0 | -8 | -2 | 31 | 8 | 0.2581 | 0.94245 | 1.5246 | 1.645 | Not significance |
| 2 | 7 | 0 | -14 | -4 | 31 | -9 | -0.2903 | 0.9195 | -1.7580 | 1.645 | Significance |
| 0 | 7 | 0 | -8 | -2 | 31 | -3 | -0.0968 | 0.72102 | -0.7473 | 1.645 | Not significance |
| 0 | 6 | 0 | -8 | 0 | 31 | -2 | -0.0645 | 0.62078 | -0.5786 | 1.645 | Not significance |
| 6 | 22 | 0 | -2 | 0 | 31 | 26 | 0.8387 | 0.63714 | 7.3292 | 1.645 | Significance |
| 6 | 23 | 0 | -2 | -2 | 31 | 25 | 0.8065 | 0.76789 | 5.8474 | 1.645 | Significance |
| 8 | 22 | 0 | -2 | -3 | 31 | 25 | 0.8065 | 0.79257 | 5.8919 | 1.645 | Significance |
| 0 | 2 | 0 | -19 | -12 | 31 | -29 | -0.9355 | 0.71481 | -7.2866 | 1.645 | Significance |
| 8 | 21 | 0 | -2 | 0 | 31 | 27 | 0.8710 | 0.66536 | 7.2883 | 1.645 | Significance |
| 4 | 10 | 0 | -6 | -2 | 31 | 6 | 0.1935 | 0.88153 | 1.2225 | 1.645 | Not significance |
| 4 | 8 | 0 | -9 | -6 | 31 | -3 | -0.0968 | 0.12569 | -0.5253 | 1.645 | Not significance |
| 2 | 6 | 0 | -9 | -2 | 31 | -3 | -0.0968 | 0.79434 | -0.6783 | 1.645 | Not significance |
| 4 | 7 | 0 | -4 | -2 | 31 | 5 | 0.1613 | 0.78544 | 1.1433 | 1.645 | Not significance |
| 2 | 2 | 0 | -20 | -6 | 31 | -22 | -0.7097 | 0.79387 | -4.9773 | 1.645 | Significance |
| 6 | 14 | 0 | -7 | -2 | 31 | 11 | 0.3548 | 0.96385 | 2.0498 | 1.645 | Significance |
| 0 | 5 | 0 | -7 | -2 | 31 | -4 | -0.1290 | 0.65604 | -1.0951 | 1.645 | Not significance |
| 0 | 2 | 0 | -21 | -6 | 31 | -25 | -0.8065 | 0.65038 | -6.9039 | 1.645 | Significance |
| 8 | 20 | 0 | -4 | -2 | 31 | 22 | 0.7097 | 0.89269 | 4.4263 | 1.645 | Significance |
| 6 | 17 | 0 | -3 | -4 | 31 | 16 | 0.5161 | 0.96825 | 2.9679 | 1.645 | Significance |
| 8 | 18 | 0 | -4 | -2 | 31 | 20 | 0.6452 | 0.90645 | 3.9628 | 1.645 | Significance |
| 10 | 18 | 0 | -3 | -4 | 31 | 21 | 0.6774 | 1.05221 | 3.5846 | 1.645 | Significance |
| 4 | 5 | 0 | -17 | -8 | 31 | -16 | -0.5161 | 1.02607 | -2.8007 | 1.645 | Significance |

## Annex - VII

INDUSTRY AVERAGE ( AVERAGE OF FIVE JOINT VENTURE COMMERCIAL BANKS)

|  |  |  | MPS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | SCB | NBL | HBL | SBI | BOK | Total | Mean | S.D. | CV |
| $2059 / 060$ | 1550 | 700 | 1000 | 401 | 254 | 3905 | 781.00 | 516.72 | 66.16 |
| $2060 / 061$ | 1640 | 740 | 836 | 255 | 198 | 3669 | 733.80 | 580.52 | 79.11 |
| $2061 / 062$ | 1745 | 1000 | 840 | 307 | 295 | 4187 | 837.40 | 597.01 | 71.29 |
| $2062 / 063$ | 2345 | 1505 | 920 | 335 | 430 | 5535 | 1107.00 | 833.72 | 75.31 |
| $2063 / 064$ | 3775 | 2240 | 1100 | 612 | 850 | 8577 | 1715.40 | 1309.8 | 76.36 |
| $2064 / 065$ | 5900 | 5050 | 1740 | 1176 | 1375 | 15241 | 3048.20 | 2244.78 | 73.64 |
| Total | $\mathbf{1 6 9 5 5}$ | $\mathbf{1 1 2 3 5}$ | $\mathbf{6 4 3 6}$ | $\mathbf{3 0 8 6}$ | $\mathbf{3 4 0 2}$ | Total | $\mathbf{8 2 2 2 . 8}$ | $\mathbf{6 0 8 2 . 5 5}$ | $\mathbf{4 4 1 . 8 7}$ |
| Mean | $\mathbf{2 8 2 5 . 8 3 3 3 3}$ | $\mathbf{1 8 7 2 . 5}$ | $\mathbf{1 0 7 2 . 6 6 6 6 7}$ | $\mathbf{5 1 4 . 3 3 3 3 3 3}$ | $\mathbf{5 6 7}$ | Mean | $\mathbf{1 3 7 0 . 4 6 6 6 7}$ | $\mathbf{1 0 1 3 . 7 5 8 3 3}$ | $\mathbf{7 3 . 6 4 5}$ |
| S.D. | $\mathbf{1 7 1 9 . 5 8}$ | $\mathbf{1 6 6 0 . 4 3 3}$ | $\mathbf{3 4 1 . 9 9 8}$ | $\mathbf{3 4 7 . 1 6}$ | $\mathbf{4 6 0 . 3 9 4}$ |  |  |  |  |
| CV | $\mathbf{6 0 . 8 5}$ | $\mathbf{8 8 . 6 7}$ | $\mathbf{3 1 . 8 8}$ | $\mathbf{6 7 . 4 9 7}$ | $\mathbf{8 1 . 1 9 9}$ |  |  |  |  |


|  |  |  |  | DPS |  |  | CV |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | SCB | NBL | HBL | SBI | BOK | Total | Mean | S.D. | CV |
| $2059 / 060$ | 100 | 30 | 35 | 0 | 10 | 175 | 35.00 | 39.05 | 111.57 |
| $2060 / 061$ | 267 | 50 | 25 | 8 | 5 | 355 | 71.00 | 111.02 | 156.36 |
| $2061 / 062$ | 110 | 65 | 20 | 0 | 10 | 205 | 41.00 | 45.88 | 111.9 |
| $2062 / 063$ | 120 | 70 | 31.85 | 0 | 15 | 236.85 | 47.37 | 48.27 | 101.9 |
| $2063 / 064$ | 140 | 85 | 35 | 5 | 48 | 313 | 62.60 | 51.93 | 82.95 |
| $2064 / 065$ | 130 | 140 | 40 | 47.59 | 20 | 377.59 | 75.52 | 55.34 | 73.28 |
| Total | $\mathbf{8 6 7}$ | $\mathbf{4 4 0}$ | $\mathbf{1 8 6 . 8 5}$ | $\mathbf{6 0 . 5 9}$ | $\mathbf{1 0 8}$ | Total | $\mathbf{3 3 2 . 4 8 8}$ | $\mathbf{3 5 1 . 4 9}$ | $\mathbf{6 3 7 . 9 6}$ |
| Mean | $\mathbf{1 4 4 . 5}$ | $\mathbf{7 3 . 3 3}$ | $\mathbf{3 1 . 1 4}$ | $\mathbf{1 0 . 0 9 8}$ | $\mathbf{1 8}$ | Mean | $\mathbf{5 5 . 4 1 4 6 6 6 7}$ | $\mathbf{5 8 . 5 8 1 6 6 6 7}$ | $\mathbf{1 0 6 . 3 2 6 6 6 7}$ |
| S.D. | $\mathbf{6 1 . 6 6}$ | $\mathbf{3 7 . 6 4}$ | $\mathbf{7 . 3 5}$ | $\mathbf{1 8 . 6 6 5}$ | $\mathbf{1 5 . 5 5 6}$ |  |  |  |  |
| CV | $\mathbf{4 2 . 6 7}$ | $\mathbf{5 1 . 3 3}$ | $\mathbf{2 3 . 6 4}$ | $\mathbf{1 8 4 . 8 4}$ | $\mathbf{8 6 . 4 2 2}$ |  |  |  |  |

