## CHAPTER - I

## INTRODUCTION

### 1.1 Background of the Study

Nepal is one of the least developed, landlocked countries with giant countries in east west north and south as boarder. Nepal is like a sandwich between these countries. Though, Nepal has huge amount of natural resources, it is very much far behind in development of industry and commerce. It is due to the lack of proper utilization of natural resources in efficient and effective manner, lack of proper plan and strategy of development and insufficient capital and technology.

Nepal is still a developing country characterized by high population growth rate of $1.419 \%$, lower per capital income of $\$ 470$. Gross domestic saving is less and almost half of the population lives below the absolute poverty line. Unfavorable topography, absence of economic infrastructure, political instability and lack of political commitment are some of the major reasons behind the backward economic condition. Majority of population are dependent on agriculture and need to create job opportunities for them in non-agriculture sector through the development of productive industries. This will help not only to resolve the problems of unemployment and underemployment but also stimulate the process of economic development of the country.

Industrialization is an important factor for achieving the basic objectives of a country's economic and social progress .It not only provides goods and services but also creates employment opportunities and facilitates an effective mobilization of resources of capital and skills, which might otherwise remain unutilized.

In Nepal the industrial revolution took place after establishment of Biratnagar Jute mills in 1936 AD, Nepal Bank Ltd was established for promoting and enhancing banking, commercial and industrial sectors. One more brick was added in the same year by formulating industrial act, which was favorable to promote industries and capital markets
in Nepal. Many ups and downs have passed thereafter in Nepal in the industries. Many reforms have been taken in industrial acts and will be continued in future.

Concerning to our country, the government is unable to receive dividends from the public enterprises as documented in past several years budget speech and economic survey published by Nepal governments ministry of finance. According to the study made by the government consultants and company it is found that the government never received a dividend more than 1.07 percentage aggregate net worth. So, either the corporation of Nepal is capable of generating sufficient earning for dividend payment nor the government excepts dividends since it has been observed that dividend payment is periodically a crucial problem of the corporation.

### 1.1.1 Joint Venture Bank

Joint Venture is global prospective is the mode of trading through partnership bet6ween various groups of industries and trades to achieve mutual exchanges of advantages. "A joint venture is joining of forces between two or more enterprises for the purpose of carrying out a specific operation.

In context of Nepal, when the government, in early 1980's permitted to established the foreign joint venture banks. (JVBs), three JVBs namely Nepal Arab Bank limited(NABIL), Standard Chartered Bank Limited(SCBL), and Nepal Indosuez Bank Limited(NISBAL) were established in 1984, 1985, and 1986 respectively. After the establishment of democracy system, the democratically elected government adopted open, liberal, competitive and market oriented policy, the number of joint venture bank increased continuously. These banks are playing vital role economic development of country. they regulate the different policies so that the economic standards of the country uplifted. Earning more and more profit in every transaction period by proper mobilizing the resources available in the particular productive use after collecting them from scattered sources in the basic objective of these banks.

In the modern days, the importance of bank is well acquainted. It needs proper attention to run successfully. Normally, banks play the public money and funds. Hence people pay
their attention whether their funds are properly utilized or not and running at profit or loss. If bank earn more profit they can declare dividend form their earning and can attract rational investors in current competitive market. Therefore, dividend policy can play vital role for the joint venture banks as well.

We can find the most of the JVBs have practiced dividend. They all like to pay more attention for paying appropriate dividend to the shareholders. But the appreciation in the market value of share of the JVB have, without any doubt provided adequate sense of protection to shareholders.

### 1.1.2 Insurance Companies

Insurance is a cooperative device to spread the loss caused by particular risk over a number of persons who are exposed to similar risk over a number of persons who are exposed to similar risk on consideration of premium. Every risk involves the loss of one or other kind. The insurance company spread risk to many heads. Insurance provide certainty protection and share risk. The need and importance of insurance houses growing on continuous and it depends upon their level of business activities.

Insurance house started late in Nepal, in coordination of the Nepal Bank Limited "Nepal properties dispatch and insurance company" was established for the first time in Nepal on Poush 8, 2004 to compensate the loss due to fire, theft etc around the country in lieu of the premium. Similarly HMG Nepal established "Rastriya Bima Shansthan" National insurance board on first Poush 2024 as company act 2023, on third five year plan.

At present there are 18 insurance companies doing the life and non-life insurance business and also the reinsurance in the country. This shows that there is fast and healthy growth of the insurance business in Nepal.

In reality, insurance companies are predominant components in the financial structure of the nation. They play double roles in the Nepalese developing economy providing safeguard against risk, uncertainties, and unfortunate happening and other hand it
thoroughly exploits long term firms like wise, other sector playing vital roles, the contribution insurance cannot be underestimated.

In fact, insurance companies are established with the strong view to develop economy in healthy way. Generally, company running at higher profit is able to provide facilities in long run. For the systematic development insurance sector, the government cannot provide huge amount of capital such capital needs to be collected from public sector. Public invest their money in such company for dividend. So the public will be always interested to know about the financial position of the company, whether they are utilizing their money or not for making high profit. Generally, while the company operates in profit it will capable to pay the dividend regularly. Hence, the dividend policy for the insurance company can play the important role to sustain in the current technological and competitive market for the long run market and existence for future prospect and growth.

In Nepal there is no rule and regulation for dividend payment. Usually dividend are paid monthly, quarterly, semi-annually or annually. But in Nepal it paid annually. Some companies pay whole earnings within a years as dividend, whereas in some companies the dividend is not announced. Usually the dividend pay out ratio seems to be 40 percent. It seems that the actual owners of the companies are not treated rightly by not giving sufficient. "Although the actual owners of the company are shareholders. They are paid low dividends in some companies whereas in some companies, dividend is not announced. But recently the trend of paying dividend is increasing.

This research work will look into all relevant factors of dividend regarding dividend policy among joint venture banks and insurance companies. Joint venture banks and insurance companies show differences in policy adopted by them considering size of the profit \& dividend. The study shows overall implication of dividend policy of joint venture banks and insurance companies. It is also more specific in application of dividend policy in the joint venture banks and insurance companies.

### 1.1.3 Dividends Practices

Dividend Policy is a major decision of any firm that involves division of earnings between payments to shareholders and retains them for reinvestment. Retained earnings are one of the most significant sources of the funds for financing corporate growth but dividends constitute cash flows that accrue to stockholders.

Dividend is a money prize or amount of profit that a company pays to the people who own shares in the company. Therefore it is the reward or return of shareholders. Generally, all the firms are operated to earn profit and the shareholders supply equity capital hoping to earn either directly or indirectly.

Companies payout certain portion of their earning to shareholders as direct benefit .On the other hand, instead of paying dividend, forms retain that funds to exploit other growth opportunities from which shareholders benefit indirectly through future increment in share price as capital gains.

Many variables influence the dividend payout. Higher the dividends means higher the immediate cash flows to the investors, which is good but lower future growth, which is bad. Hence, the dividend policy should be optimal which balances the opposing forces and maximizes stock prices.

Nepal is the small and least developed country .The capital market of Nepal is still small emerging and disorganized .The government is unable to receive dividend from Public Enterprises.

After the establishment of joint venture companies, it has brought new hopes for productive mobilization of funds according to their new trend of distributing dividend. Among these joint ventures banks are heading the topmost.

Banks are purely commercial. Their primary or basic objective is to earn more and more profit in every transaction by mobilizing the resources available collected from scattered
sources. Commercial banks are those financial institutions, mainly dealing with financial activities of trade, commerce, industries, agriculture etc. These banks perform the functions of in many different ways like accepting deposits, granting loans, performing agency functions etc.

In the modern days the importance of bank is well acquinted. It needs proper attention to run successfully. Normally, banks play the public money and funds. Hence people pay their attention whether their funds are properly utilized or not and running at profit or loss. The existence of the profit to any organization is the basic factor .If there is no profit; a business firm becomes unable to provide its facilities in the long term. From the profit amount the dividend is distributed .The Amount distributed, as dividend should be adequate to meet the normal expectation of the shareholders. If it could not be fulfilled, the investors would think that their investment is worthless. In doing so, modern joint venture banks are far ahead than other local banks. Therefore dividend is the one of the major factors in all the company for its overall success.

Hence the study of dividend practices of joint venture banks in Nepal is very much essential and necessary from which other may benefit from it.

### 1.2 Significance of the Study

The potentiality of this study is not limited to any particular group and individual or institution .It is helpful to researcher, entrepreneur, students as well as government. Still the most important role plays to the shareholders and the business firms which they can be benefited to their risk and return.

If explained in brief, this report will be helpful to the following stakeholders:

1. To Potential and existing shareholders of the company.
2. To the management to determine optimal dividend policy.
3. To the decision maker of the capital structure
4. To the Students for the further research.
5. To the Government to enact policies, plans and strategy.
6. To the organizations.

### 1.3 Statement of the Problem

It is true that after the establishment of Nepal Stock Exchange, the capital market has grown rapidly with in a very short period. However, the attitudes, thoughts and knowledge of most of the investors and firms are not changed. Most of the investors are least familiar with financial activities; they do not have good idea of risk and return. Awareness regarding the financial activities, investment policy, making portfolio etc is very little. Without having sufficient theoretical knowledge of risk associated with investment on stock, which is very wrong and bad trend.

Dividend policy is the most inspiring factor for investment on shares of the companies. Due to which all the investors invest their funds. But Nepalese commercial banks have no satisfactory result about dividend decision It is affected by various government rules, liquidity position, profit rate, stability in earnings, access to the capital market ,control position and tax bracket. Therefore dividend payment is one of the one of the major aspects of commercial banks.

Dividends are paid from the net profit. Since profit is also treated as financing sources of the firm, management retains some of the profit as retained earnings for internal financing. The amount paid as dividend indicates the financing soundness of the firm.

Therefore, it is obvious that the following issues are dealt at the time of study.

1. What is the company's attitude to pay dividends?
2. What are the major determinants of the dividend policy?
3. How the dividend policy is affected by various determinants?
4. What is the best practice of dividend payment?
5. What is the relationship of dividend with EPS, MPS, Net Profit and Net Worth of the company?

### 1.4 Objective of the Study

Objective is the ultimate goal of research .The main objective of the study is to analyze the dividend practices in the joint venture banks selected in this study.

However, the specific objectives are as follows:

1. To analyze and interpret the relationship of dividend with various variables related to dividends.
2. To provide the reliable and workable suggestion and guidelines to overcome gaps based on findings.
3. To extract the trend of dividend payment and future prospects.
4. T o make ease to investors in their funds investment in best joint venture banks.

### 1.5 Limitation of the Study

Each and every research is bounded by some of kinds of factors, which one cannot ignore during his /her research .In the context of Nepal, data problem is acute. There is considerable place for arguing about its accuracy and reliability .on the other hand; this study is simply a partial requirement of Masters of Business Study programme and is not conducted by research professional. Hence, there might be many loopholes.

Some of the limitations attached with study are as follows:

1. Only secondary data are analyzed to interpret the result.
2. Only five years' data $056-057$ to $60-61$ will be taken into consideration due to time and cost constraint.
3. Only four joint venture banks are selected in the study.
4. Among various factors, only the factors related with dividend are considered.
5. Results and findings depend upon the validity, accuracy and reliability of the reports collected from these banks.

### 1.6 Organization of the Study

Being a student of the management, overall efforts will concentrate in managing the things in a way so that it looks well organized and systematic .To meet the so called management, the thesis is tentatively organized in the following five chapters:

Chapter one deals with the subject matters of the study, consisting background of the study, statement of problem, objectives, significance of study and limitation of the study.

Chapter two deals with review of literature. It includes conceptual framework along with review of major books, journals, research work and thesis etc.

Chapter three deals with research methodology. It is used to evaluate dividend practice of commercial banks in Nepal. It consists of research design, sources of data, population and financial tools.

Chapter four deals with presentation and interpretation of data using financial and statistical tools. It also includes the major findings.

Chapter five deals with summary, conclusion and recommendation of the study. It states suggestion of the study. The appendices and bibliography are incorporated in the end of the study.

# CHAPTER - II REVIEW OF LITERATURE 

### 2.1 Conceptual / Theoritical Review

Dividend is the major decision of the firm. It is the portion of the net profit distributed to the shareholders. And the policy of the company on the division of its profit between shareholders as a dividend and retention for investment in opportunities is called the dividend policy. Dividend policy determines the division of earnings between payments to stockholders and reinvestment in the firm. Retained earnings are one of the most significant sources of funds for financing corporate growth, but dividends constitute the cash flows that accrue to stockholders. Any changes in dividend policy have both favorable and unfavorable effects on the firm's stock price. Higher the dividends earns higher the immediate cash flows to investors which is good, but lower future growth, which is bad.

Dividend policy is the crucial area of decisions of the companies, which contains distribution of net profit between shareholders and retains them for the future. There is reciprocal relation between retained earning and dividend. Higher the retention, lower the dividend and vice versa.

Shareholders invest their money through common stock in a company by hopping to get return generally in two forms. Such kinds of benefits can be either in capital gains or dividends. When the company distributes or pays dividends, the shareholders will be benefited directly and if the company retains the earning to exploit growth opportunity, shareholders can be benefited indirectly in the form of capital gains through increase in the price of their shares. The company has to choose between distributing the profit to shareholders and ploughing them back into business. The decision depends on the objectives of the management for wealth maximization. The company should select the optimal dividend policy that maximizes the market value of the shareholders wealth. "Since Dividend would be more attractive to stockholders, one might think that there would be tendency for corporations to increase distribution of dividends. But one might
equally pressure that gross dividend would be reduced somewhat with an increase in net after tax dividends still available to stockholders, and increase in retained earnings for the corporation" (Smith, 1977).

Therefore company's dividend policy has to maintain a balance between shareholders' interest with that of corporate growth from internally generated funds. If the company does not have any investment opportunity, should be better paid as dividend as shareholders have investment opportunities to employee funds else where."A dividend payment is distribution to the share-holders of something belonging to the corporation and especially to the stock holders themselves as owner of the corporation" (Pearson Hunt and Williams, 1966).
"Dividend policy is wise policy to maintain a balance between shareholders interest with that the corporation growth from internally generated fund". (MK Shrestha, Financial Management Theory and Practices. (Curriculum Development Center, 1980).

### 2.1.1 Forms of Dividends

Most of the financial institution use cash dividend and stock dividend. But according to changing needs, objective and policies of the firms, dividend is being distributed in several forms as per the company's strategy. The major forms of dividend being practiced in Nepal are cash dividend and stock dividend. Apart from these two there are many forms of dividends, which are as follows:

## Cash Dividend

Cash dividend is a kind of dividend, which is distributed to the shareholders in the form of cash out of the earnings of the company. If cash dividend is paid, it will reduce the total assets and net worth of the company as cash and earning decreases. "The market price of the share drops in most cases by the amount a cash dividend distributed" (Hasting, 1970). The company should maintain adequate liquidity position for distribution of cash dividend. Otherwise the company should borrow the needed fund
externally, which is difficult to maintain stable dividend policy. Still the cash dividend is the most popular in Nepal.

## Stock Dividend (Bonus Share)

The second most popular form of dividend distributed by companies is stock dividend. It is also called the bonus share. A bonus or stock dividend is simply the payment of dividend in the firm of stock. It is additional share distributed to shareholders. It represents nothing more than a recapitalization of the company. Stock dividend increases the number of outstanding shares of the firm's stock. Although stock dividends don't have real value, firms pay stock dividend as a replacement for a supplement to cash dividend. Under stock dividend, stockholders receive additional shares of the company in lieu of cash dividends. Stock dividend requires an accounting entry transfer from the retained earnings account to the common stock and paid in capital accounts.

Rupees transferred from retained earning $=$ No. of shares outstanding $\mathrm{x} \%$ of stock dividend x market price of the stock. There is no change in the firm's assets or liabilities or in shareholders equity by payment of stock dividend. But earning per share, book value and market value of the shares will be decreased.

## Property Dividend

Dividend can be distributed in the firm of assets or property such dividend is called property Dividend. When there are assets that are no more necessary in operation of the business or in extra ordinary circumstances, the companies distribute such types of dividend. Companies' own product and securities of subsidiaries are the examples that have been paid as property dividends. Such types of practices are rarely used. A shareholder cannot be compelled to take a property dividend distributed to him. If he/she refuses it, the company may return it in the trust for him or possibly sell it for his benefit. $\mathrm{He} /$ she does not have option to receive equivalent amount of cash in lieu of a property dividend.

## Scrip Dividend

The company may declare dividend in the firm of scripts when earning justifies dividend but the company's cash position is temporarily weak and does not permit cash dividend. Scrip is a form of promissory note to pay the holders at specified future date when the company has really earned profit and has only to wait for the conversion of other current assets into cash in the course of operation.

## Bond Dividend

Companies can give dividends in the firm of bonds. These bonds can be long-term bonds. Such bond dividends are given, as the company is unable to take the burden of interest of loans. This will help to avoid the cash out flows. The main purpose of Bond dividend is to postpone the immediate dividend payment and to enhance liquidity.

## Composite Dividend

Sometimes companies pay dividend partly in the form of cash and partly in the form of property. Such types of dividend are called Composite Dividend.

## Optional Dividend

Instead of giving composite dividend, company can give option to its shareholders to take the dividend in cash or in property. Such dividend is called optional dividend.

Besides there are other types of dividend such as interim dividend paid before the end of the financial year, special dividend etc. But the most popular forms of dividend are cash and stock dividend.

### 2.1.2 Theory of Dividend; Residual Dividend Policy

Residual dividend policy is based on the premise that investors prefer to have a firm retain and reinvest earning rather than payout in dividends if the rate of return the firm can earn on invested earnings exceeds the rate of return investors can obtain for themselves on other investments of comparable risk. Further, it is less expensive for the firm to use retained earnings than is to issue new common stock. Therefore; the
shareholders get dividend only when there exist balance of earning after paying fixed obligation and financing all acceptable investment. This theory explains that the dividend is residual after the meeting of the obligations and adjusting for retention of earning and other provision. "The starting point of this theory is that investors to have the firm retain and invest earning; Rather than pay them out in the trend of dividend. If the returns on investment exceed the rate of return, the investors can obtain on other investment of comparable risk" (Weston and Brigham, 2003: 682).

### 2.1.3 Stability of Dividends

The term dividend stability refers to the consistency or lack of variability in stream of dividends. It means that a certain minimum amount of dividend is paid out regularly. The most desirable policy of the company concerning to the dividend payment to the shareholders is stability or regularity of dividends. Most of the shareholders also prefer stable dividends because all other things being the same stable dividends have a positive impact on market price of the share. By stability, we mean maintaining its position in relation to a trend live preferable one that is upward sloping.

There are some reasons to believe that stable dividend policy does lead the higher stock price. First investors generally expect to value higher dividend. They want to be sure about the dividend, as fluctuating dividends are riskier than stable ones. Accordingly the same amount of dividend received under a fluctuating dividend policy is likely to have higher discount factor than stable dividend policy. This means, the company with stable dividend will have a lower required rate of return or cost of equity capital than one whose dividends fluctuate. Secondly, many stockholders live on income received in the form of dividend and they will pay premium for stock with a relatively assured minimum dollar dividend. Third, from the standpoint of both company and its shareholders, the stability of dividend is desirable for the requirement of legal listing.

There are three distinct forms of such stability of dividend payments commonly used. They are:

## Constant Dividend Per Share

Constant dividend per share policy is based on the payment of a fixed rupee dividend in each period. A number of companies follow the policy of paying fixed amount per share as dividend every period without considering the fluctuation in the earning of the company. This policy does not imply that the dividend per share or dividend rate will never be increased. When the companies reaches new level of earnings and expects maintain it, the annual dividend per share may be increased. Investors who have dividends on the only source of their income prefer the constant dividend policy. Due to the stability in dividend, it is easy to understand the dividend policy to the shareholders where as the company may face problem if it couldn't earn sufficient profit or did not maintain adequate reserve for the same. Hence, for the constant dividend, the company should yield homogeneous profit every year.

## Constant Payout Ratio

The ratio of dividend to earning is known as dividend payout ratio. When fixed percentage of earnings is paid as dividend in every year /period, the policy is called constant payout ratio (Weston and Brigham, 2003: 682). Since earning fluctuates, the amount of dividend will fluctuate in direct proportion to earning in other words, there is positive relationship between the level of earning and the percentage value of dividend. This means, this policy ensures that dividend is paid when profits are earned, and avoided when it incurs losses.

## Small Regular Dividends Plus Extras

The policy of small regular dividends plus extras is a compromise between stable dividend and a constant payout ratio. Under this policy, the amount of dividend is set at a high level and the companies with stable earning usually adopt this. This policy gives the firms flexibility. Yet investors can count on receiving at least a minimum dividend. In the boom period the company can pay extra dividend over and above the regular one where as if the condition remains normal, the company cuts extra. This type of policy enables a company to pay constant amount of dividend regularly without default and allows a great
deal of flexibility for supplementing the income of shareholders. It is often used/followed by the firms with relatively volatile earnings from year to year.

### 2.1.4 Factors Affecting Dividend Policy

Most of the public enterprises owned by government are operating in loss. Therefore; there is no question of paying dividend rather they try to minimize the loss.

In the recent decades, there are many multinational and joint venture companies. They are earning good profit and even distributing considerable portion of their net profit as dividend. But the amount or percentage of dividend varies from company to company. This indicates that there is no hard and fast rule to determine dividend. It depends on various factors and determinants. Such factors should be considered by financial executive while determining dividend policy. Some of these factors are as follows:

## Legal Rules

It is obvious that rules and regulations are the prime factors to the firms. It plays vital role in the limitation of the amount of the dividends. These legal rules constraints fall into two categories. First, statutory restrictions may prevent company from paying dividends. While specific limitation may vary by state. Generally a corporation may not pay a dividend (i) if the firm's liabilities exceeds its assets (ii) if the amount of the dividend exceeds the accumulated (retained earning) profit and (iii) if the dividend is being paid from capital investment of the firm. The second type of legal restrictions is unique to each firm and results from restrictions in debt and preferred stock agreement clearly specified in the indenture.

Legal rules are significant in the sense that they provide the framework to dividend policy which can be formulated within their boundaries; however, financial and economic factors have a major influence on policy.

## Liquidity Position

The liquidity position of the company influences its ability to pay dividend. Payment of dividend is possible only if the firm has sufficient liquidity. But if the firm invests all its
liquid funds in fixed assets, it can't pay dividend. So availability of cash is a major factor to be considered to pay greater amount of dividend. If a company has higher liquidity position it will be able to pay greater amount of dividend. A mature company is generally liquid and is also to pay large amount of dividend, such company does not have other investment opportunity too. On the other hand growing company faces the problem of liquidity. It needs funds to expand its activities. Therefore even it can make profit it can't be able to pay dividend.

## Stability of Earning

The firms earning is major determinants of a sound dividend policy. Depending upon the characteristics of earning, corporation has to follow a dividend policy that tends to overcome the effect of business cycles. "Company where earnings are relatively incentives to business cycles can usually afford high pay out ratio" (Western and Brigham, 1974: 511). When earning fluctuates significantly, a large amount of the profits may be retained to ensure that enough money is available for investment project when needed and reduce the dividend.

## Desires of Shareholders

Shareholders may be interested either in dividend incomes or capital gains. Wealthy Shareholders in a high income tax bracket may be interested in capital gains as against current dividends. A retired and old person, whose source of income is dividend, would like to get regular dividend.

In a closely held company, management usually knows the desires of shareholders. So, they can easily adopt a dividend policy that satisfies all the shareholders. But in a widely held company numbers of shareholders is very large and have diverse desires regarding dividends and capital gains. Therefore this will matter the dividend policy.

## Access to the Capital Market

Each and every firm needs funds. The funds can be availed in two ways; i) From internal sources and (ii) external sources. If the firms have good access in capital market they can
provide good amount of dividend. But if the capital market is in slack position and the funds and the funds are not available easily, the company retains most of its profit for investment that will decrease the dividends amount.

## Restriction in Loan Agreement

Restriction in loan agreement may specify that dividends may be paid only out of earnings generated after signing the loan agreement and only when net working capital is above a specified amount. Also preferred dividends take precedence to common stock dividends. This will hamper the dividend policy.

## Management Control

The payment of dividend directly influence in company's cash position. When the dividend payout is higher; then the cash position will be decreased. As a result, the company will have to issue new shares to maintain the position. In this case if existing shareholders cannot buy additional shares, their control power will be diluted. Thus the desire of control power is stimulated to retain the earnings.

## Tax Position of Shareholders

Paying dividend is not only the action of company but is also should consider the preferential need of the stockholder. The shareholder with high income tax brackets prefers to receive low dividend and high rate of rate of retention. Owned by small investors tend toward higher dividend payout.

## Investment Opportunities in the Company

If the firm has future profitable investment opportunities, the firm is likely to reinvest the earning rather than paying dividends." The more rapid the rate at the need for financing assets expansion, the greater the future need for funds, the more likely the firm is to retain earnings rather than pay them out" (Christy and Roden, 1976: 330).

## Inflation

When inflation exists, the price of the assets will rise up. Funds generated from the deduction of depreciation amount may not be adequate to replace the equipment. Thus,
the fund should be expensed more than reserve maintained. The inadequate amount has to be financed by earnings which reduces the amount of dividend.

## Past Dividend

A firm with record of past dividend payment strive to maintain the same in the future. If it is not maintained, the market price of share may suffer. That is why; past dividend will affect the dividend policy.

### 2.1.5 Legal Provisions Regarding Dividend Practices in Nepal:

According to the some earlier researcher, it was found that most of the companies in Nepal do not have any fixed dividend policy. Before 1997, there was not any legal provision regarding dividend policy. Nepal Companies' Act 1997 makes some legal provisions for dividend payments. These provisions may be seen as follows:
"Section 2(m) states that stock dividend (bonus share) means share issued in the form of additional shares to shareholders by capitalizing the surplus from the profit or the resource fund of a company. The form also denotes as increase in the paid up values of the shares after capitalizing surplus or resource fund (Nepalese Company Act, 1997 ; 43) "Section 47 has prohibited company from purchasing its own shares. This section states that no company shall purchase its own share or supply loans against the security of its own shares".
"Section 137, bonus shares and subsection states that company must inform the office before issuing bonus shares. Under subsection 1, this may be done only according to a special resolution passed by general meeting".

Section 140: Dividend and subsection of this section are as follows:

## Subsection 1:

Except in the following circumstances, dividend shall be distributed among the shareholders within 45 days from the data of descision to distribute them.
a) In case any law forbids the distribution of dividend.
b) In case the right to dividend is disputed.
c) In case dividends cannot be distributed within the time limited.

Mentioned above owing to circumstances beyond anyone's control and without any fault on the part of the company.

## Subsection 2:

Incase dividends are not distributed within the time limit mentioned in subsection 1. This shall be done by adding interest at the prescribed rate.

## Subsection 3:

Only the person whose name stands registered in the register of existing shareholders at the time of declaring the dividend shall be entitled to it.

### 2.2 Review of Previous Studies

Due to rapidly increasing aspects of dividends policy, many thought provoking ideas in this area were reviewed. This section is devoted to the review of the major studies in general concerning the relevant with dividends policy in management view and its effect in stock prices.

### 2.2.1 Review of Empirical Studies

Linter's study (1956) has focused on the behavioral aspect of dividend policy in the American context. He made 15 readily observable factors and characterizes that appear reflect or might be expected to have on important happiness on dividend payment and policy (Linter, 1956: 97 -113). He investigated a partial adjustment model as he tested the dividend patterns of 28 American companies. From the study he concluded that a major portion of the dividend of the firm could be expressed in the following ways:
$\operatorname{DIV}_{\mathrm{t}}^{1}=\mathrm{P}^{\mathrm{EPS}}{ }_{\mathrm{t}}$
$\operatorname{DIV}_{\mathrm{t}}=$ DIV $_{\mathrm{t}-1}=\mathrm{a}+\mathrm{b}($ DIVt-DIVt-1) $)+\mathrm{et}$
$\operatorname{DIV}_{t}=a+b \operatorname{DIV}_{t}{ }^{1}+(I-b) \operatorname{DIV}^{1}{ }_{t}+e_{t}$
Where,
DIV1t $=$ Desired payment of firm

EPSt $=$ Earnings
$\mathrm{P}=$ Target payout ratio
$\mathrm{a}=$ Constant relating to dividend growth
$\mathrm{b}=$ adjustment factor relating to previous periods dividend and new desired level of dividend where $\mathrm{b}<1$.

The major findings of this study are as follows:

- Firms generally think in terms of proportion of earnings to be paid out.
- Investment requirements are not considered for modifying the patterns of dividend behavior.
- Firms generally have target payout ratios in view while determining change in dividend per share.

Walter's Study (1996) conducted a study on dividend and stock prices. He proposed a model for share valuation. According to him, the dividend policy of the firm affects the value of the shares. His model supports that dividends are relevant. He argues that the choice of dividend policies almost always affect the value of an enterprise. The investment policy of a firm cannot be separated from its dividend policy; according to him both are interlinked which is just opposite to Modigliani and Miller approach.

Walter's model shows clearly the importance of the relationship between the return on a firm's investment or its internal rate of return (r) and its cost of capital or the required rate of return (k) in determining the dividend policy. As long as the internal rate is greater than the cost of capital, the share price will be enhanced by retention and will vary inversely with dividend payment. In this way Walter's model is also known as "optimal theory of dividend'. The basic assumptions of the Walter's model are as follows.

- The firm finances all investment through retained earning. The external sources if funds like debt or new equity capital are not used.
- Firm's internal rate of return (r) and cost of capital (k) are constant.
- All earnings are either distributed as dividend or reinvested internally.
- There is no change in value of earning per share (E) and dividend per share (D). The value of ' $E$ ' and ' $D$ ' remain constant, although there may be changed in the model for determining the result.
- The firm has a perpetual or infinite life.

Based on above assumption, formula determining to find the market price per share is as follows:

$$
\begin{aligned}
& \mathrm{P}=\frac{D P S}{K}+\frac{r(E P S-D P S) / K}{K} \\
& \text { or, } p=\frac{D P S+r / k(E P S-D P S)}{K}
\end{aligned}
$$

Where,
$\mathrm{P}=$ Market price per share
DPS = Dividend per share
$\mathrm{r}=$ Firm's internal rate of return
$\mathrm{k}=$ Firm's cost of capital or capitalization.

Walter's model shows that there are three probable conditions of the firm for comparing the relationship between ' $r$ ' and ' $k$ '.

## 1) $\quad \mathbf{r}>\mathbf{k}$ (Growth Firm)

If the internal rate of return is greater than cost of capital, it is better to retain earnings. These firms are able to reinvest earnings at a rate (r), which is higher than the rate expected by shareholders $(\mathrm{k})$. They will be maximizing the value per share, if they follow a policy of retaining all for internal investment.

The market value per share increases by decreasing the dividend in such a condition. The market value for share will be maximum at zero dividends.

## 2) $\quad \mathbf{r}=\mathrm{k}$ (Normal Firm)

If internal rate of return is equal to cost of capital the dividend payout does not affect the value of share. Such an enterprise can be called as a normal firm. Whether the earnings
are retained or distributed, it is a matter of indifference for a normal firm. The market price of share will remain constant for all dividend payout ratio from zero to hundred. There is no optimum dividend policy for such firm. The market value per share is not affected by the payout ratio when $\mathrm{r}=\mathrm{k}$.

## 3) $\quad \mathbf{r}<\mathbf{k}$ (Declining Firm)

If internal rate of return ( $r$ ) is less than cost of capital ( $k$ ), it indicates that the shareholder can earn a higher return by investing elsewhere. In such case for maximizing the value of share dividend also should be maximized. By distributing the entire earning as dividend the value of the shares will be at optimum value. The dividend payout ratio would give on optimum dividend policy. The market value per share increases as payout ratio increases when $\mathrm{r}<\mathrm{k}$.

## Conclusion

$(\mathrm{r}>\mathrm{k})=$ Dividends are negatively correlated with stock price.
$(\mathrm{r}=\mathrm{k})=$ Dividend is indifferent to variation in the market price of the share.
$(\mathrm{r}<\mathrm{k})=$ Dividends are positively correlated with stock price.

Gordon's Study (1962) in his study concluded that dividend policy of a firm affects its value. In this model, he pleaded that investors are not indifferent between current dividends and retention of earnings. The conclusion of this study is that investors value the present dividend more than future capital gain. His argument insisted that an increase in dividend payout ratio lends to increase in the stock prices for the reason that investors consider the dividend yield $\left(D_{1} / P_{0}\right)$ is less risky than the expected capital gain.

Hence, investors required rate of return increases as the amount of dividend decreases. This means there exists a positive relationship between the amount of dividend and the stock prices.

## Gordon's Model is based on the following assumptions:

- The firm is an all equity firm.
- No external financing is available.
- Internal rate of return, (r) appropriate discount rate (k) are constant.
- The firm and its stream of earnings are perpetual.
- The corporate taxes do not exit.
- The retention ratio (b) ones decided upon is constant. Thus, the growth rate $\mathrm{g}=\mathrm{br}$, is constant forever.
- The discount rate is greater than growth rate, $\mathrm{k}>\mathrm{br}=\mathrm{g}$.

Based on the above assumptions, Gordon provided the following formula (which is a simplified version of the original formula) to determine the market value of a share.

Where,

$$
P=\frac{E(1-b)}{K-b r}
$$

Where,
$\mathrm{P}=$ Price of share
$\mathrm{E}=$ Earning per share
$b=$ Retention ratio or percentage of earnings retained
1-b = Dividend payment ratio i.e. percentage of earning distributed as dividend.
$\mathrm{E}(1-\mathrm{b})=$ Dividend per share
$\mathrm{K}=$ Capitalization rate or cost of capital.
$\mathrm{br}=$ the rate of return on investment of an all equity firm.
According to his model, the following facts are revealed.

1) $\quad \mathbf{r}>\mathbf{k}$ (Growth Firm): In the case of growth firm, share price tends to decline in correspondence with increase in payout ratio or decreases in retention ratio, i.e., high dividend corresponding to earnings leads to decrease in share prices. Therefore dividends and stock prices are negatively correlated in growth firm.
2) $\quad \mathbf{r}=\mathbf{k}$ (Normal Firm): In the case of normal firm, share value remains constant regardless of changes in dividend policies. It means dividend and stock prices are free from each other in normal firm.
3) $\quad \mathbf{r}<\mathbf{k}$ (Declining Firm): In the case of declining firm, share price tend to rise in correspondence with rise in dividend payout ratio. It means dividend and stock prices and positively corelated with each other in a decline firm.

## In conclusion:

- Investors give more value to the current dividend than the future capital gain.
- Investors pose those views because they do not want to bear the future uncertainly rather then enjoying the current earnings (dividend).
- Payment of more dividends increases the market value of the share (i.e. investors find more dividend yield).

Modigliani and Miller's Study (1961) propounded the major argument indicating that dividends are irrelevant. It is popularly known as M-M approach. It is sometimes termed as "Dividend Irrelevance Model".

Through an article "Dividend policy, growth and valuation of share they advocate that dividend policy does not affect the value of the firm i.e. dividend policy has no effect on the share price of the firm. The M-M approach focuses the irrelevant effect of dividend policy in the firm valuation arguing that, the value of firm is determined only by its basic earnings power and its business risk, thus, the value of the firm depends on the income from it assets and not on how this income is split between dividend and retain earnings.

The Modigliani and Miller approach of irrelevance dividend based on the following critical assumptions.

- Perfect capital market in which all investors are rational. Information available to all at no cost, instantaneous transaction without costs, infinitely divisible securities and no investor large enough to affect the market price of the security.
- There is no transaction cost. The securities can be purchased and sold without payment of any commission or brokerage etc.
- Taxes do not exist.
- A given investment policy for the firm, no subject to change.
- Perfect certainty by every investor as to future investment and profits of the firm (But M-M dropped this assumption later).

M-M had tried to prove their theory by different models. Of those, some are explained below.

## Market Value/Price of Share

The market value of share at the beginning of the period is equal to the present value of dividend paid at the end of period plus at the market price at the end of the period i.e.

$$
\begin{equation*}
\text { Po }=\frac{D_{1}+P_{1}}{1+K_{e}} \tag{i}
\end{equation*}
$$

Where,
$\mathrm{P}_{0}=$ Market price at the beginning (zero period)
$\mathrm{D}_{1}=$ Dividend per share to be received at the end of the period
$\mathrm{P}_{1}=$ Market price of the share at the end of the period
$\mathrm{K}_{\mathrm{e}}=$ Cost of equity capital (assumed constant)

## No External Financing

Assuming that the firm does not need to any external financing the market value of the firm can be computed as follows:

$$
\begin{equation*}
n p=\frac{n\left(D_{1}+P_{1}\right)}{1+K_{e}}--\cdots--- \tag{ii}
\end{equation*}
$$

Where,
$\mathrm{n}=$ Number of equity shares at zero period.

## New shares

Assuming that the retain earnings is not sufficient to finance the investment need of the funds in that case issuing new shares in the other alternative. Say $(\Delta n)$ is the number of newly issued equity share at the price of $\left(\mathrm{P}_{1}\right)$.

$$
\begin{equation*}
n P_{0}=\frac{n D_{1}+(n+\Delta n) P_{1}-\Delta n P_{1}}{1+K_{e}} \tag{iii}
\end{equation*}
$$

Where,
$\Delta \mathrm{n}=$ No. of equity shares at the end of the years.
$\mathrm{n}=$ No. of shares at the beginning

## Total Numbers of Shares

The issuing of new stock is determined by the amount of investment in period not financed by retained earnings. The total numbers of new shares can be found out by the following way:

$$
\begin{align*}
& \Delta n P_{1}=1-\left(E-n D_{1}\right) \\
& \text { or, } \Delta n P_{1}=1-E+n D_{1} \tag{iv}
\end{align*}
$$

Where,
$\Delta n \mathrm{P}_{1}=$ The amount obtained from the sale of new shares to finance capital budget.
$\mathrm{I}=$ Total new investment required.
$\mathrm{E}=$ Earning of the firm during the period.
$\mathrm{nD}_{1}=$ Total dividend paid.
$\left(E-\mathrm{nD}_{1}\right)=$ Retained earning.

Conclusion: By substituting the value of $\Delta \mathrm{np}_{1}$ from equation (IV) to the equation (III), We find,

$$
\begin{align*}
& \Delta n P_{o}=\frac{n D_{1}+(n+\Delta n) P_{1}-\left(1-E+n D_{1}\right)}{1+K_{e}} \\
& \text { or, } n P_{o}=\frac{\left.n D_{1}+(n+\Delta n) P_{1}-1+E-n D_{1}\right)}{1+K_{e}} \\
& \text { or, } n P_{o}=\frac{(n+\Delta n) P_{1}-1+E}{1+K_{e}} \tag{iv}
\end{align*}
$$

In such way, M-M approach concludes its result, that there is no any role of divided ( $\mathrm{D}_{1}$ ) in the above equation. So M-M conclude that dividend policy is irrelevant and dividend policy has no effect on the share prices.

Chawla, Deepak and Srinivasan, G. Study (1987) conducted study in the impact of dividend and retention on share price. They took 18 chemicals and 13 sugar companies and estimated cross-sectional relationship for the years 1969 and 1973. The required data were collected from the official directory of Bombay stock exchange. They used two stage least square techniques for estimation. The objectives of their studies were as follows.

- To estimate a model to explain share price, dividend and retained earning relationship.
- To test the dividend, retained earnings hypothesis.
- To examine the structural changes in the estimated relations over time.

To explain above-mentioned objectives, they used simultaneous equation mode. As developed by Friend and Puckett (1964). They used two stage least square techniques for estimation. They also used earning price ratio instead of lagged price earning ratio, i.e. $(\mathrm{P} / \mathrm{E})$. The model in its unspecified from was as follows.

1. Price Function $\quad P_{t}=f\left(D_{t}, R_{t},(P / E)_{(t-1)}\right)$
2. Dividend Supply Function $\quad D_{t}=f\left(E_{t}, D_{(t-1)},(P / E)_{(t-1)}\right)$
3. Identity $E_{t}=D_{t}+R_{t}$

Where,
$\mathrm{P}=$ Market price per share
$\mathrm{D}=$ Dividend per share
$\mathrm{R}=$ Retained earning per share
$\mathrm{E}=$ Earning per share $(\mathrm{D}+\mathrm{R})$
$(P / E)=$ Deviation from the sample average of price earning ratio.
$t=$ Subscript for time.

As per financial theories, they expected the coefficients of both dividend and retained earnings to be positive in the price equation. Similarly in the dividend supply function also they expected a positive sign for current earnings and previous dividend.

From the result of their two stage least square estimation, they found that in the case of chemical industry the coefficients has the correct sign and the coefficient of determination of all the equations were very high. It implies that the stock price and dividend supply variation can be explained by their independent variables. But incase of sugar industry they found that the sign for the retained earnings is negative in both years. So they left sugar industry for further analysis. For chemical industry, they observed that the coefficient of dividend was very high as compared to retained earnings. They also found that coefficient of dividend was significant at one percent level in both years. Where as coefficient of retained earnings were significant at ten percent level in 1969 and at one percent level in 1973.

Financially, they concluded that the dividend hypothesis holds good in the chemical industry. Both dividend and retained earnings significantly explain the variations in share price in chemical industry. They also stressed that the impact of dividend is more pronounced than that of the retained earnings but the market has started shifting towards more weight for earnings.

### 2.2.2 Review of Nepalese Studies

There are few articles relating dividend policy bonus issue and impact on share price arepublished in Nepal. Which are significant in this study, have drawn in this section.

Shrestha (1981) on article, "Public Enterprises; Have they dividend paying ability? was published in 1981 by prof. Dr. Monohar Krishna Shrestha, which gives shot indication of the dividend performance of some public enterprises of that time in Nepal. Dr. Shrestha has highlighted following issues in his articles.

Nepal Government expects two things from the public enter praises one is they should be in a position to pay minimum dividend and the public enterprises should be self supporting in financial matters in future years to come but none of these two objectives are achieved by public enterprises.

One of reason for this efficiency is caused by excessive government interference in day to day affairs. On the other hand, high ranking officials of NG appointed on directors of board do nothing but simply show their bureaucratic personalities. Bureaucracy has been the enemy of efficiency and this led corporations to faces losses. Losing corporation are therefore not in position to pay dividend to government.

Another reason the lack of self criticism and self consciousness. The lack of favorable leaders is one of the biggest constraints to institution building, moreover, corporate leadership come as managers of corporations have not able to identify themselves regarding what they can contribute as manager of corporations. So Nepal government must be in position to develop a financial target in corporate investment by imposing financial obligation on corporation

The article point out the irony of government biasness that government has not allowed banks to follows an independent dividend policy and Nepal government is focused to have pressurized on dividend payment in case of Nepal bank Ltd. regardless of profit. But it has let off Rastriya Banijya Bank from dividend obligation in spite of considerable profits.

The improvements suggested by author are:
Adopt a criteria - guided policy to drain resources from corporations through the medium of dividend payment.

Realization by managers about the cost of equity and dividend obligation. If Nepal government wants to tap resources through dividend following criteria should be followed;
a. Circulating the information to all the public enterprises about the minimum rate of dividend.
b. Proper evaluation of public enterprises in term capability of paying dividend should be made through corporation coordination committee. Imposition of fixed rate of dividend by government to financially sound public enterprises.
c. Specifying performances Criteria such as profit target in terms of emphasis, d. priorities, timing and plans and developing a strategic plan, this is not just a e. statement of corporation aspiration but must be done to covert the aspiration into reality.

Identification of Corporation objectives in corporation act, company act or, special character so as to clarify the public enterprise managers regarding their financial obligation to dividend to Nepal government.

### 2.2.3 Review of Previous Thesis:

In this topic many researcher are studies and findings conclusion in previous thesis. some of relevant thesis are mentioned below.

Pradhan, R(1992) conducted a research on the title of "Market Behavior of stock in Nepal". In these studies the data were collected from 17 enterprises covering the years between 1986 to 1990. The objectives of his study were as follows.

- To assess the stock market behavior in Nepal.
- To examine the relationship of market equity, market value to book value, priceearnings and dividend with liquidity, profitability, leverage, assets turnover and interest coverage.

Following findings of his study among others were as follows.

- Higher the earnings on stock, larger the ratio of dividends per share to market price per share.
- Dividend per share and market price per share was positively corelated.
- Positive relationship between the ratio dividend per share to market price per share and interest coverage.
- Positive relationship between dividend payout and liquidity.
- Positive relationship between dividend payout and profitability.
- Positive relationship between dividend payout and turnover ratios.
- Positive relationship between dividend payout and interest coverage.
- Liquidity and leverage are more variable for the stock paying lower dividend.
- Earning assests turnover and interest coverage are more variable for the stock paying higher dividends.

Manandhar, K.D.(2000) conducted a research on the title of "Preliminary test of lagged structure of Dividend, on his book Management Dynamics vol 10. This study is to set test whether Neplease corporate firms consider the lagged earning and dividend paid to pay the dividend in current year. To test this problem he has consider 17 corporate sector and banking and insurance sector. Writer using the data for 16 enterprises from 1990 through 1994 for analysis. The objectives of this study were as follows.

- To test the relationship between dividend per share and stock prices.
- To determine the impact of dividend policy on stock prices.
- To identify whether it is possible to increase the market value of the stock changing dividend policy or payment ratio.

The major findings of the study were as follows.

- The relationship between dividend per share and stock price is positive the sample companies.
- Dividend per share affects the stock price variedly in different sectors.
- Changing the dividend policy or dividend per share might help to increase the market price of the share.
- The relationship between stock price and retained earning per share is not prominent.
- The relationship between stock price and lagged earning price ratio is negative.

Gautam, R.R (1996) conducted a research on the title of "Dividend policy in Commercial Banks". He has studied the dividend policy of three companies and has examined its impact on share price. His conclusions can be summarized as under:

- Average EPS of all concerned Banks is satisfactory. DPS is not satisfactory.
- Analysis of DPR shows that none of the bank exibits constant DPR.
- Corelation between DPS and EPS of all concerned bank is fairly positively. But it is fairly safe to say that the relationship is not significant.

Companies as samples and set different hypothesis and drawn the following conclusion:

- There is significant relationship between change in dividend policy in terms of DPS and change in lagged earning.
- In overall there is a positive relationship between change in lagged consecutive earnings and DPS.
- There is relationship between distributed lagged profit and dividend.
- When change in lagged consecutive earning is greater than zero, in $65 \%$ case, change in DPS.
- Overall increase in EPS has resulted to the increase in dividend payment in 66.66\% of the cases while decrease in EPS resulted decrease in dividend payment.
- Neplease corporate firms have followed the practice of maintaining constant dividend payment per share.
- Corporate firms do not take into account that one-year and two-year lagged earning.
- In overall Nerplease corporate firm are reluctant to decrease dividend either keeping dividend payment constant or higher to take the advantage of information constants and signalling effects of dividend relating to the firm continued progress and performance, sound financial strength favourable investment environment, lower risk, ability to maintain dividend rate and finally to the stock in the stock market.

Timilsena, $\mathbf{S}$ (1997) conducted a research on the title of "Dividends and stock prices: An Empirical study", he used multiple regression model of three independent variables. Besides this he also tried to highlight the relationship between stock price and other independent variables. Besides this he also tried to highlight the relationship between stock price and other independent variables separate simple liner regression equations. The sector chosen for the study were manufacturing and trading.

- The coefficient of corelation between EPS and MPS seems to be positive in all banks except NGBL, Beta coefficient of NGBL, NIBL and NABIL are 9.215, 12.447 and 7.551 respectively.
- The analysis of the coefficient of corelation between current ratio and DPS suggest that the relationship is positive in NIBL and NABIL where as it is negative in NGBL.
- Theoretically, issue of bonus share has equal impact on EPS, MPS and DPS. But in case of these three commercial banks, a significant variation in the degree of impact is observed.
- Fluctuation in EPS is rare in relation to the original number of share. However, EPS seems to be rather inconsistent when observed in relation fluctuation of EPS due to the addition of bonus share is remarkable.

Adhikari, N(1999) conducted a research on the topic of "Share Market In Nepal". The study has covered the period of 1990 to 1996 with the total observation of 47 firms in financial sector and 30 in non-financial sector. The basic objectives of the study are as follows:

- To examine the relationship between dividend and stock price.
- To analyse the properties of portfolio forms on dividends.
- To survey the opinion of financial executives on corporate dividend practices.

The following findings were as follows:

- Stock with larger ratio of dividend per share to book value per share has higher liquidity.
- Stock with larger ratio of dividend per share to book value per share have higher profitability.
- Positive relationship is there between the ratio of dividend per share o book value per share and turnover ratio.
- There is positive relationship between the ratio of dividend per share the book value per share and interest coverage ratio.
- There is positive relationship between dividend payout ratio and current ratio whereas the negative relationship between dividend payout and quick ratio.
- There is negative relationship between dividend payout and the earning before tax to net worth.
- There is positive relationship between dividend payout and interest coverage ratio.

Bhattrai, A.R (1990) conducted a research study on the topic of "Share market in Nepal" through some light on dividend performance of some companies. Study concluded that:

- Many companies were paying less than the expected cash dividend per share of the investors. Some of them were paying higher than the average cash dividend per share while some company were paying regular dividend with higher amount, was low priced. Thus, taking as a whole most companies were under rating the expectation of investors and there by resulting the low market ability of shares on the trading floor of stock exchange.
- There were mismatch between the calculated price and quoted price of share was observed only one calculated price of share was near the actual market price of the share. It clearly signals over pricing of the shares and market prices were guided by technical factors.
- Most of the companies displaying lower price earning ratio indicates the erosion of the believes of investors on the shares of listed companies. As a result market price of the share is highly skewed.
- The expected percentage of dividend of investors was not matching with the actual percentage. So, majority of the companies declaring less percentage than the risk free of return plus risk premium are unable to maintain investor's psychology in marketing.
- Wide gap was recorded in the percentage of cash dividend paid by the listed public companies.

Dividend policy is one of the important topics in financial management. But, only few student conducted research on dividend policy based on old data. Therefore I saw gap of research on dividend policy and its impact on stock price comparative study between Nabil Bank, SCBL, HBL and NIBL.

Based on latest five years data from 1997/98 to 2001/02 first time, I conducted a research in dividend policy in these four sample banks in the history of Tribhuvan University. I hoped that this thesis would be helpful to policy maker as well as share holders.

Friend, I \& Pocket, M (1964) conducted a study on the topic of "Dividend and Stock Price". They studied on the relationship between dividends and stock prices, by running regression on the data of 110 firms from chemicals, electric utilities, electronics, food and steels five industries. They were selected to permit a distinction made between the results for growth and non-growth industries and to provide a basis of comparison with result by the other authors for earlier years. They also considered cyclical and noncyclical industries which they covered. The period covered a boom year (1956) and depressed year (1958).

Dividends, retained earnings and price earnings ratio as an independent variables in their regression model of price function. Similarly they used earnings, last year dividends and price earnings ratio as an independent variable for supply function i.e. dividend function. The ouated that the dividend supply function (equation) was developed by adding to the best type of relationship developed by adding to the best type of relationship developed by Linter.

Symbolically, their price function and dividend supply functions are:

Price function $\left(\mathrm{P}_{\mathrm{t}}\right)=\mathrm{a}+\mathrm{bD}_{\mathrm{t}}+\mathrm{CR}_{\mathrm{t}}+\mathrm{d}\left(\mathrm{E} / \mathrm{P}_{\mathrm{t}}\right)_{\mathrm{t}-1}$
Where,
$\mathrm{P}_{\mathrm{t}}=$ Per share price at a time t
$\mathrm{D}_{\mathrm{t}}=$ Dividends at a time t
$\mathrm{R}_{\mathrm{t}}=$ Retained earnigs at a time t
$\left(E / P_{t}\right)=$ Lagged earnings price ration

## Dividend Supply Function

Where,
$E_{t}=$ Earnings per share at a time $t$
$\mathrm{D}_{\mathrm{t}-1}=$ Last years dividends

Their study based on the following assumption.

- Dividend to react to year-to-year fluctuation in earnings.
- Price does not contain speculative components.
- Earning fluctuations may not sum zero over the sample.

Their regression results based on the equation of $\mathrm{P}_{\mathrm{t}}=\mathrm{a}+\mathrm{bD} \mathrm{D}_{\mathrm{t}}+\mathrm{CR}_{\mathrm{t}}$ showed the costumary strong dividend and relatively weak retained earnings effects in three i.e. chemicals, foods and steels industries. They tested other regression equations by adding lagged earning price ratio to the above equation and resulted the following equation.

$$
\mathrm{P}_{\mathrm{t}}=\mathrm{a}+\mathrm{b} \mathrm{D}_{\mathrm{t}}+\mathrm{d}\left(\mathrm{E} / \mathrm{P}_{\mathrm{t}}\right)_{\mathrm{t}-1}
$$

They found that more than $80 \%$ on the variation in stock prices can be explained by three independent variables. Dividends have a predominant influence on stock prices in the same three out of five industries but they found the differences between the dividend and retained earnings coefficients are not quite so market as in the first set of regressions. Another finding that the dividends and retained earnings coefficient are closer to each other for all industries in both years except for steels in 1956 and the correlations are higher, again except for steels.

They also calculated dividend supply equation i.e.,
$D_{t}=a+f E_{t}+g D_{t-1}+n(E / P)_{t-1}$ and the derived price equations for four industry groups in 1958. In their derived price equation it seems that there was no significant changes from those obtained from the single equation approach as explained above they argued that the stock prices or more accurately the price earnings ratios does not seem to have a significant effect on dividend payout. On the other hand, they noted that the retained earnings effect is increased relatively in three or four cases tasted. Further they argued that their results suggested price effect n dividend supply are probably not a serious sources of bias in the customary derivation on dividend and retained earnings effects on stock prices, though such a bias might be marked if the distributing effect of short run income movements are sufficiently great.

Further they used lagged price as a variable instead of lagged earnings price ratio and showed that more than $90 \%$ of variation in stock prices can be explained by the three independent variables and retained earnings received greater relative weight than dividends in the most of the cases. They considered chemicals, electronics and utilities as growth industries in these groups. For the other two industries, namely foods and steels, there was no significant systematic difference between the retained earnings and dividend coefficient.

Similarly they tested the regression equations of $\mathrm{Pt}=\mathrm{a}+\mathrm{bDt}+\mathrm{C}$ Rt by using normalized earnings again. They obtained normalized earnings. That normalization procedure earning by substracting dividends from normalized earnings. That normalization procedure was based on the period 1950-1961. Again they added prior year's normalized earnings price variable and they compared the result. Then they found that there was significant role of normalized earnings and retained earnings but effects of normalized price earnings ratio were constant. When they examined the later equation. The found that the differences between dividend and retained earnings coefficient disappeared. Finally, they concluded that management might be able to increase prices somewhat by raising dividends in foods and steels industries.

They conducted more detailed examination of chemical samples. That examination disclosed that the result obtained largely reflected the undue regression weighting given the three firms with price deviating most from the average price in the sample of 20 firms and retained earnings as a price determinants.

Friend and Puckett finally concluded that, it is possible that management might be able, at least in some measure, to increase stock prices in non-growth industries by raising dividends and in growth industries by greater retention, i.e. low dividends.

### 2.3 Research Gap

Previous researchers analyzed the Dividend Policy of Commercial banks only in the Nepal by using secondary source of information in terms of Dividend practices in Nepal.

But this study looks upon the dividend policy among joint venture banks and insurance companies in the Nepal. Joint venture banks and insurance companies show differences in policy adopted by them considering size of the profit \& dividend. And their overall implication varies due to different external factors, rules and policies of the companies.

Since Dividend Policy is the core policy of the every Companies, this study focus on the retain earning of selected commercial banks and insurance companies and their measuring of dividend practices by using secondary as well as primary data applying various statistical tools and Questionnaires. Among of them, primary analysis in terms for dividend policy adopted by financial institutions. And secondary, the stakeholders concern on investing in those institutions by analyzing policies. To show the latest picture of financial indicators researcher covers data of periods form 2004/2005 to 2008/2009 and collected latest information or changes that occurs in this periods. Hence this study fulfills the prevailing research gap about the in depth analysis of dividend policy which is the major concern of stakeholders. This study also tries to revel the major developments and changes in the legal aspects and provisions regarding dividend policy the enactment of Companies act 2063. During the review of previous thesis, it is found that no research has been concluded by taking the sample of Commercial Banks and Insurance Companies, which has been selected in this research. So, it is believe that this study will fulfill the gap, which has been made by the earlier researchers.

## CHAPTER - III

## RESEARCH METHODOLOGY

### 3.1 Introduction

Research Methodology is the composition of two words 'Research' and 'Methodology'. Research is a systematic and organized effort to investigate a specific problem that needs a solution (Sekaran, 1992). This process of investigation involves a series of well thought out activities of gathering, recording, analyzing and interpreting the data with the purpose of finding answers to the problems. Thus, the entire process by which we attempt to solve problems is called Research. Methodology is the research method used to test hypothesis. Therefore, the research methodology is the process of solving the problem about the arising problem.

In the other word, research is the process of a systematic and in-depth study or search of any particular topic, subject or area of investigation backed by the collection, compilation, presentation and interpretation of relevant details or data. Methodology is the way to conduct the research. Methodology contains various methods and processes to conduct the research. The proper methodology results dependable and desired outcome. But if the methodology is not proper, the result will be undependable and defective.

Therefore, research methodology adopted in this study is discussed in the following manner:

### 3.2 Research Design

Research design decides the fate of the proposal and its outcome. If the design in defective, the whole outcome and report will be faulty and undependable. It is upon the
design that nature of data to be collected will very much depend. It is therefore desirable that research design should be methodologically prepared.

In a nutshell it can be said that the design tells us what observation to make, how to make and how to analyze the quantitative representation of the observation. It also tells how many variables are active, the directions of the research and statistical tools to be used. A good research design also help in drawing possible conclusion from the analysis.

A research design will always help us in knowing successive stages. It will be a logical sequence and one after the other stages will significantly and logically follow. Thu, it will help identifying the importance of step in the whole scheme of things. This also helps to find the total time to be given to whole research as well as the time that will be consumed by each step. Further, research design will discuss about the universe of the study.

Therefore, in narrow sense research design refers to the procedures for the collection of data and its analysis. "But in the broader sense, a research process involves identification and selection of research problem, choice of theoretical framework for research problem and its relationship with previous research, formulation of research problem, specification of its objectives, its scope and hypothesis to be tested, design of experiment or enquiry; definition and measurement of variables; sampling procedure tools and techniques for gathering data, coding, editing and processing of data: analysis of data selection and use of appropriate statistical procedures for summarizing data and for statistical inference. Reporting research description for research process; presentation, discussion and interpretation of data, generalizations of research findings and their limitations and suggestions for further research.

Similarly, 'Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and control variance." (Shah, 1972: 3-4).

The research design of this study is also analytical as well as descriptive. For the research secondary data are mainly considered. The reports published by the banks are major source of data. The study is concentrated on the study of data from 2056/57 to 2060/61 B.S.

### 3.3 Sources of Data

Basically the study is based on secondary data. The data relating to dividend policy are obtained from annual reports of the related banks and Nepal Stock Exchange mainly.

These sources of data are as follows:

- Annual reports of these banks from 2061/62 to 2065/66 B.S.
- Other publication of the concerned banks.
- Newspaper and magazine
- Nepal Rastra Bank
- Nepal Stock Exchange Ltd.

Similarly, the primary data are collected by personal interview and questionnaire with staffs of concerned banks and financial experts. For the purpose of conducting this research.

### 3.4 Period Covered

Single research can't cover total period and subject matter in one shot. Hence, it is to be limited due to various factors i.e. time and cost. Hence, for conducting this study, total 5 years time is covered for analysis and interpretation. Fiscal years 2061/62 to 2065/66 are the basic time period under study for the study. The entire dividend related heads are studied and relations between these heads are presented in the study.
3.5 Population \& Sampling

Basically the study is based on secondary data. The data relating to dividend policy are obtained from annual reports of the related banks and Nepal Stock Exchange mainly. These sources of data are as follows:

- Annual reports of these banks from 2061/62 to 2065/66 B.S.
- Other publication of the concerned banks.
- Newspaper and magazine
- Nepal Rastra Bank
- Nepal Stock Exchange Ltd.

Similarly, the primary data are collected by personal interview and questionnaire with staffs of concerned banks and financial experts. For the purpose of conducting this research.
3.6 Method of Analysis

Various Financial and statistical tools have been used in this study. The analysis of data will be carried out according to the pattern of data available. Actually, the analysis will be done by using financial tools, simple regression and correlation analysis.

Simple regression analysis has been used in this study the influence of independent variable on a dependent variable. It is used as a tool of determining the strength of relationship between two variables. It is a statistical device with the help of which, we can estimate or predict the help of which, we can estimate or predict the value of one variable when the value of other variable is known. It helps in studying the effect and the magnitude of the effect of single independent variable on the dependent variable.

Therefore, to determine whether the variable of earning per share is related to dividend decision, the following regression model is applied.

$$
Y=a+b x_{1}
$$

Where,
$\mathrm{Y}=$ Dividend per share.
$\mathrm{a}=$ Fixed proportion (Intercept).
$\mathrm{b}=$ slope variable or relation.
$\mathrm{x}_{1}=$ Earning per share.

This model has been applied to examine the relationship between the EPS and DPS of these banks in the final year 2061/62 to 2065/66.

Similarly, the following regression models have been applied to determine whether the variables of net profits, market price per share and net worth of the company is related to dividend per share.

$$
Y=a+b x_{2}
$$

Where,

$$
\begin{aligned}
& \mathrm{Y}=\text { Dividend per share (Dependent variable) } \\
& \mathrm{X}_{2}=\text { Net profit (independent variable) } \\
& \mathrm{Y}=\mathrm{a}+\mathrm{bx}_{3}
\end{aligned}
$$

Where,

```
\(\mathrm{Y}=\) Market price per share (D.V.)
\(\mathrm{x}_{3}=\) Dividend per share
\(\mathrm{Y}=\mathrm{a}+\mathrm{bx}_{4}\)
```

Where,
$\mathrm{Y}=$ Net worth
$\mathrm{x}_{4}=$ Dividend per share.

Here, 'a' \& 'b' the constants are calculated with the below stated normal equations:

$$
\Sigma y=n a+b \Sigma x
$$

$$
\Sigma x y=a \Sigma x+b \Sigma x^{2}
$$

Where,
'a' and 'b' are unknown variables.
$\mathrm{n}=$ Number of observation.
3.7 Analysis of Financial Indicators and Variables
a) Earning Per Share (EPS) EPS is calculated to know the earning power of the banks. Higher the EPS, higher the earning power of the banks. Hence, it is calculated by dividing net profit after tax by no. of common stock outstanding, i.e.

$$
E P S=\frac{\text { Net Profit after tax }}{\text { No. of common stock outstanding }}
$$

b) Dividend Per Share (DPS) DPS is the part of earnings distributed to the shareholders on unit share basis. It is calculated by dividing the total dividend to equity shareholders by total no. of equity shares, i.e.

$$
\text { DPS }=\frac{\text { Total Dividend }}{\text { No. of common stock outstanding }}
$$

c) Dividend Percentage The percentage of dividend is the ratio between DPS to the paid up price per ordinary share. This is calculated as

$$
\text { Dividend Percentage }=\frac{\text { DPS }}{\text { Paid up Price Per Share }}
$$

d) Dividend payout Ratio (DPR) DPR is calculated to percentage of the profit on share that is distributed as dividend. Using following formula, DPR can be calculated.

$$
\text { DPR }=\frac{\text { Dividend Per Share }}{\text { Earning Per Share }}
$$

and retention ratio $=1-$ DPR
e) Price Earning Ratio (PE Ratio) PE Ratio indicates the price currently paid by the market for each rupees of currently reported earning per share. This is also known as reciprocal of earnings yield (EY). Therefore, it is calculated by dividing the market value per share by earning per share.

$$
\text { PE Ratio }=\frac{\text { Market value per Share }}{\text { Earning Per Share }}
$$

f) Earning Yield The earning yield is the ratio of earning per share to the market value per ordinary share and earning yield is calculated as:

$$
\text { Earning Yield }=\frac{\text { Earning Per Share }}{\text { Market Value Per Share }}
$$

Earning yield evaluate the shareholders return in relation to market value of the share.
g) Dividend Yield Dividend yield reflects percentage relationship between dividend per share and market value per share. It is calculated through dividing the cash dividend per share and market value per share. Therefore:

$$
\text { Dividend Yield }=\frac{\text { Dividend Per Share }}{\text { Market Value Per Share }}
$$

### 3.8 Test of Hypothesis

Testing of hypothesis is one of the most important aspects of the theory of decision making. It is an assumption that is made about the population parameter and then tested its validity. It may or may not found valid on verification. Therefore, it is the procedure to assess the significance of a statistic or difference between two independent statistics.

Generally, two complementary hypotheses are set up at one time. If one of the hypothesis is accepted, then the other hypothesis is rejected and vise-versa. These hypotheses are the null hypothesis and alternative hypothesis.

The hypotheses of this research are as follows:
a) First Hypothesis

Null hypothesis (Ho): There is not significant difference in DPS of sample banks and insurance companies.

Alternative Hypothesis (H1): There is significant difference in DPS of sample banks and insurance companies.
b) Second Hypothesis

Null Hypothesis (Ho): There is not significant difference in EPS of sample banks and insurance companies.

Alternative Hypothesis (H1): There is significant difference in EPS of sample banks and insurance companies.

## c) Third Hypothesis

Null Hypothesis (Ho): There is not significant difference in MPS of sample banks and insurance companies.

Alternative Hypothesis (H1): There is significant difference in MPS of sample banks and insurance companies.
d) Fourth Hypothesis

Null Hypothesis (Ho): There is not significant difference in DPR of sample banks and insurance companies.

Alternative Hypothesis (H1): There is significant difference in DPR of sample banks and insurance companies.

### 3.9 Statistical Tools Used

## a) Mean

Simply mean or average is the set of observation that presents entire data. Its value lies somewhere between the extremes. For this reason, average is frequently referred to as a measure of center tendency. The data related to dividend are tabulated and drawn out average over different years.

## b) Standard Deviation

The measurement of the scattered of the mass of figures about an average is known as dispersion. The standard deviation measures the absolute dispersion. If standard deviation is large, there is no uniformity in the observation and homogeneity is lacking and if standard deviation is small, it indicates the homogeneity and less scattered of series.

## c) Coefficient of variation (C.V)

The coefficient of variation is the relative measure of dispersion, comparable across, which is defined as the ratios of the standard deviation to mean expressed in percentage.

$$
C V=\frac{S D}{\bar{X}} \times 100 \%
$$

Where,
SD = Standard deviation
X = Mean

The higher CV indicates the higher variability of variables and vice-versa.

## d) Coefficient of Correlation (r)

Correlation analysis is the statistical tool that can be used to describe the degree to which one variable is linearly related to another.

The coefficient of correlation measures the degree of relationship between two sets of figures. In this study, simple coefficient of correlation is used to determine the relationship of different factors with dividend and other variables. The data related to dividend over different years are tabulated and their relationship with each other is drawn out.
e) Coefficient of determination $\left(\mathrm{r}^{2}\right)$

The coefficient of determination is a measure of the degree of liner association or correlation between two variables one of which happens to be independent variable. In other words $r^{2}$ measures the percentage total variation in dependent variables. The coefficient of determination value can have ranging fr om 0 to 1 .

## f) Probable Error [PE( r )]

The probable error of the coefficient of cor relation helps in interpreting its value. It helps to determine the reliability of the value of coefficient. To cross the validity of the result, we can take the help of following formula.
P. E. $(r)=0.6751$

$$
\text { P.E. }(r)=0.6745 X \frac{1-r^{2}}{\sqrt{n}}
$$

Where PE (r) = Probable Error of r

If the value of $r$ is less than 6 times the probable error [i.e. $r<6$ P.E. (r)], there is no significant relation between X and Y .

If the value of r is more than 6 times the pr obable error [i.e. $\mathrm{r}>6$ P.E. (r)], there is most significant relation between X and Y .
g) Regression Analysis

Correlation analysis tells the direction of movement but it does not tell the relative movement in the variables under study. Regression analysis helps us to know the relative movement in the variables. Regression analysis of the following variable have been calculated and interpreted.

- Simple Regression Analysis

Dividend per share on Earning per share
This analysis tests dependency of the dividend per share on the earning per share.

$$
Y=a+b x
$$

Where,

$$
\begin{aligned}
& Y=\text { dividend per share } \\
& a=\text { regression constant } \\
& b=\text { Regression coefficient } \\
& x=\text { Earnings Per share }
\end{aligned}
$$

Market value per Share on Dividend per Share
This analysis tests the dependency of market value per share on dividend per share.

$$
Y=a+b x
$$

Where,
$Y=$ Market value per share
$\mathrm{a}=$ Regression constant
b $=$ Regression Coefficient
$\mathrm{x}=$ Dividend per Share

- Multiple Regression Analysis

The variable dividend depends up on more than two variables and thus, the multiple regression analysis explains it. Her e for this study the model has been formulated as model.

$$
\text { MVPS }=a+b 1 D P S+b 2 R E+b 3 P / E \text { Ratio }
$$

The above model has been formulated considering market value per share is influenced by dividend per share, Retained Earnings per Share and Price Earnings ratio per share.

Where,
MVPS $=$ Market value per Share
DPS $=$ Dividend per Share
RE = Retained Earnings per Share
P/E Ratio $=$ Price Earnings ratio per share
It helps to predict the market price per share on earning per share and dividend per share.

- Regression Constant (a)

The value of constant is intercept of the model, when the independent variables are zero; it indicates the average level of dependent variable. In other words it is better to understand ' $a$ ' indicates the mean or average effect on dependent variable if all the variables omitted the model.

- Regression Coefficient (b1, b2,b3....)

The regression coefficient of each dependent variable shows the relationship between that variable and value of dependent variable, holding constant the effect all
other independent variables in regression model. In other words, the coefficient explains how changes in independent variables affect the value of dependent variable estimate.
h) Standard Error of Estimate (SEE)

With the help of regression equation, perfect prediction is practically impossible. Hence SEE measures the reliability of the estimating equation, indicating the variability of observed points around the regression line. That is the extent to which observed values differ from their predicted values on the regression line.

The smaller the value of SEE, the closer will be the dots to the regression line and better the estimates based on equation for the line. If SEE is zero, than there is no variation about the line and the correlation will be perfect. Thus, with the help of SEE, it is possible for us to ascertain how good and representative the regression line is as description of the average relationship between two series.

$$
S E E=\frac{\sigma y}{\sigma x} \sqrt{\frac{1-r^{2}}{n}} \quad \text { or } S E E=\sqrt{\frac{\sum y 2-a \sum y-b \sum x y}{n-2}}
$$

## CHAPTER - IV

## DATA PRESENTATION AND ANALYSIS

The purpose of this chapter is to carry out the secondary data analysis. In this chapter the different relevant data and information related to commercial banks and insurance companies are presented and analyzed comparatively. To fulfill the objectives of the study, several analytical tools and techniques have been used and are fully used to draw the conclusion.

This chapter begins with analysis of Market Price per share, earning per share, dividend per share, price earnings ratio, dividend yield analysis. These financial indicators of the commercial banks and insurance companies are compared with the help of statistical tools viz. means, i.e. average standard Deviation, coefficient of variations finally correlation and regression analysis of some specific components have been made and the data are also presented in chats diagrams as far as possible.

### 4.1 Analysis of Market Value Per Share (MPS)

Market price per share is that value of stock, which can be received by firm or equity holders selling it in capital market. The capital market determines MPS, MPS of commercial banks are taken as per shown in annual report of respective commercial banks and that of insurance companies are taken from the data recorded by the Nepal Stock Exchange. The market price per share depicts the perception of market relating to the performance of a company. MPS is current price at which stock is traded.

Table 4.1
Analysis of Market Value Per Share (MPS)

| F/Y | Commercial Banks |  |  | Insurance Companies |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SCBNL | NABIL | BOK | NLIC | AIC | HGIC |
| $2061 / 62$ | 2345 | 1505 | 430 | 304 | 110 | 205 |
| $2062 / 63$ | 3775 | 2240 | 850 | 427 | 102 | 189 |
| $2063 / 64$ | 5900 | 5050 | 1375 | 820 | 111 | 300 |
| $2064 / 65$ | 6830 | 5275 | 2350 | 1669 | 154 | 345 |
| $2065 / 66$ | 7750 | 4899 | 1750 | 1295 | 180 | 285 |
| Average | 5320 | 3793.8 | 1351 | 903 | 131.4 | 264.8 |
| S.D | 1987.92 | 1590.37 | 671.87 | 516.27 | 30.37 | 58.99 |
| C.V | 0.37 | 0.42 | 0.50 | 0.57 | 0.23 | 0.22 |

Source: Appendix 1-6

In the above table, MPS of sample banks and insurances from 2061/62 to 2065/66 are presented. It indicates the value of share in the market in the particular year of the banks and insurances.

### 4.1.1 Analysis of MPS in commercial banks.

It was observed that in year 61/62, the MPS of SCBNL is Rs. 2345 and is the highest among the sample banks; BOK has MPS of 430, which is the least among these sample banks. Similarly, NABIL has Rs. 1505 of MPS respectively.

MPS of SCBNL has in increasing trends for five years. NABIL and BOK have increasing trends form year 61/62 to 64/65 and decreasing trend in year 65/66.The average of MPS of SCBNL is 5320 which is the highest.

The coefficient of variation shows that SCBNL has the most consistent share price (.37) and the MPS of BOK is the most fluctuating (0.50) in the five years period. Hence, it shows that SCBNL share is most preferable and BOK share is least.

Figure 4.1
Analysis of MPS in Sample Banks


### 4.1.2 Analysis of MPS in Insurance Companies

It was observed that in year 61/62, the MPS of NLIC is Rs. 304 and is the highest among the insurances; AIC has MPS of 110, which is the least among these sample insurances. Similarly, HIGC has Rs. 205 of MPS respectively.

AIC has increasing trends in MPS for five years. HIGC has decreasing trends form year 61/62 to 62/63 and increasing trend in year 63/64 and 64/65.Finally it has decreasing trend in year 5/66. The NLIC has increasing trend except in year 65/66 and has good average of MPS 903, which was raised up to 1295.

The coefficient of variation shows that NLIC has the most fluctuating share price (.57) and the MPS of HGIC is the most consistent (0.22) in the five years period. Hence, it shows that HGIC share is most preferable and NLIC share is least.

## Figure 4.2

## Analysis of MPS in Insurance Companies



Thus, it is observed that market price of banks are more than that of insurance companies. C.V. sample bank varies from 0.37 to 0.50 whereas C.V. of Insurance Companies varies from 0.22 to 0.57 . Therefore, through observation of C.V., it is found that fluctuation in MPS is less in commercial banks than Insurance Companies.

### 4.2 Profitability Ratios

### 4.2.1 Analysis of Earning Per Share (EPS)

Normally, the success and failure of any business firm depends on the earning capacity the earning of any business firm helps to evaluate the performance. The level of earning shows the status and goodwill of the firm in the market. Higher earnings show higher strength while lower earnings show weaker strength. Earning is important because it is helpful in growth, expansion, development and diversification of business. Thus all the business firms always seek to have more and more earnings so that they can sustain efficiently in the competitive market. The following table highlights the details relating to the EPS of respective banks and insurances.

Analysis of Earnings Per Share (EPS)

| Fiscal <br> year | Commercial Banks |  |  | Insurance Companies |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SCBN | NABIL | BOK | NLIC | AIC | HGIC |
| $2061 / 62$ | 143.14 | 105.79 | 30.1 | 4.18 | 6.64 | 36.7 |
| $2062 / 63$ | 175.84 | 129.21 | 43.67 | 18.5 | 13.17 | 39.9 |
| $2063 / 64$ | 167.37 | 137.08 | 43.5 | 3.08 | 23.12 | 25.12 |
| $2064 / 65$ | 131.92 | 108.31 | 59.94 | 1.67 | 6.28 | 10.61 |
| $2065 / 66$ | 110.32 | 106.76 | 54.68 | 2.68 | 22.67 | 24.23 |
| Average | 145.72 | 117.43 | 46.38 | 6.02 | 14.38 | 27.31 |
| S.D | 23.78 | 13.10 | 10.33 | 6.29 | 7.38 | 10.39 |
| C.V | 0.16 | 0.11 | 0.22 | 1.04 | 0.51 | 0.38 |

Source: Appendix 1-6

The above table escalates the EPS of the concerned banks and insurance companies from the fiscal year 2061/62 to 2065/66 B.S. The comparative study of EPS is made here on year basis and also with the help of average, standard deviation and co-efficient of variation.

### 4.2.1.1 Analysis of EPS in Sample Banks

In the year 2061/62, it is obvious that the SCBL has highest EPS and BOK has the least among Commercial banks. The data related to 2062/63 shows the increase in EPS in all banks. In year 2063/64, only NABIL has increase in EPS by $7.91 \%$ and other two have decrease in EPS. But in year 2064/65, BOK has increase in EPS with $14.45 \%$ and other two have slightly decreased in EPS. Similarly, in the year 2065/66, all banks have decrease in EPS.

Figure 4.3
Analysis of EPS Sample Banks


### 4.2.1.2 Analysis of EPS in Insurance Companies

In the year 2061/62, HGIC has highest EPS and NLIC has the least among Insurance Companies. The data related to 2062/63 shows the increase in EPS in all Insurance Companies. In year 2063/64, only AIC has increased in EPS by $9.95 \%$ and other two have decrease in EPS. But in year 2064/65, all Insurance Companies have decreased in EPS. Similarly, in the year 2065/66, all Insurance Companies have increased in EPS.

Figure 4.4
Analysis of EPS in Insurance Companies


A small S.D. ( $\sigma$ ) measures a high degree of uniformity of observation as well as homogeneity of value and vice versa. There is obvious that among the banks, the BOK has the uniform EPS and NABIL has the least uniform EPS. Similarly among insurance companies, NLIC has the uniform EPS and AIC and HGIC have least uniform EPS.

Now it is preferable to state the rate of fluctuations with the help of coefficient of variation. The C.V. of SCBNL, NABIL, \& BOK are $0.16,0.11$ and 0.12 respectively. It shows that the BOK has the high fluctuations in EPS. Similarly C.V. of NLIC, AIC, \& HGIC are $1.04,0.51$ and 0.38 respectively. It shows that the NLIC has the high fluctuations in EPS.

It is observed that a C.V. sample bank varies from 0.11 to 0.16 whereas C.V. of Insurance Companies varies from 0.38 to 1.04 . Therefore, through observation of C.V., it is found that fluctuation in EPS is less in commercial banks than Insurance Companies.

### 4.2.2 Analysis of price Earning Ratio P\E Ratio:

Price earnings ratio also called as $\mathrm{P} / \mathrm{E}$ Ratio is one of the major financial tool to analyze the ratio between MVPS and EPS.

Table 4.3

Analysis of Price Earnings Ratio (P\E Ratio)

| Fiscal Year | SCBNL | NABIL | BOK | NLIC | AIC | HGIC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 16.38 | 14.23 | 14.29 | 72.73 | 16.57 | 5.59 |
| $2062 / 63$ | 21.47 | 17.34 | 19.46 | 23.08 | 7.74 | 4.74 |
| $2063 / 64$ | 35.25 | 36.84 | 31.61 | 266.23 | 4.8 | 11.94 |
| $2064 / 65$ | 51.77 | 48.7 | 39.21 | 999.4 | 24.52 | 32.52 |
| $2065 / 66$ | 70.24 | 45.89 | 32 | 483.2 | 7.94 | 11.72 |
| Average | 39.02 | 32.6 | 27.31 | 368.93 | 12.31 | 13.30 |
| S.D | 19.86 | 14.31 | 9.09 | 354.53 | 7.26 | 10.06 |
| C.V | 0.51 | 0.44 | 0.33 | 0.96 | 0.59 | 0.76 |

Source: Appendix 1-6

### 4.2.2.1 Analysis of P/E Ratio in Banks

The above table calculated P/E Ratio of five fiscal years of three commercial banks. In the year 61/62 SCBNL has 16.38 times of P/E ratio, which is highest. The lowest P/E Ratio is 14.23 of NABIL Bank. Similarly, BOK has P/E of 147.29 respectively. The P/E ratio of SCBNL is in increasing trends for the five years. And both the other two banks have increasing trends up to four years and decreasing trend in last one year. On average, SCBNL has the highest P/E of 39.02 times and BOK has only 27.31, the least. NABIL has average $\mathrm{P} / \mathrm{E}$ of 32.6.

The standard Deviation of sample banks shows the deviation of P/E ratio from mean P/E ratio. Therefore S.D of SCBNL is 19.86, NABIL 14.31, BOK is 9.09. It means BOK has lest deviation and is more consistent and preferable and SCBNL has the most fluctuating. And the C.V. of P/E of SCBNL, NABIL and BOK are $51 \%, 44 \%$ and $33 \%$. It indicates the compactness of the values. It shows that the SCBNL has the least compactness and BOK has the most. Therefore, BOK has preferable P/E Ratio.

Figure 4.5
Analysis of P/E Ratio in Sample Banks


### 4.2.2.2 Analysis of P/E Ratio in Insurance Companies

The above table calculated P/E Ratio of five fiscal years of three insurance Companies. In the year 61/62 NLIC has 72.73 times of $\mathrm{P} / \mathrm{E}$ ratio, which is highest. The lowest P/E Ratio is 5.59 of HGIC and AIC has $\mathrm{P} / \mathrm{E}$ of 16.57 respectively. The $\mathrm{P} / \mathrm{E}$ ratio of insurance companies has been fluctuating order.

It was observed that the S.D of NLIC, AIC and HGIC are 354.53, 7.26 and 10.06 respectively. It means AIC has lest deviation and is more consistent and preferable and NLIC has the most fluctuating.

And the C.V. of P/E of NLIC, AIC and HGIC are $96 \%, 59 \%$ and $76 \%$. lues. It shows that the NLIC has the least compactness and AIC has the most. Therefore, AIC has preferable P/E Ratio.

Figure 4.6

Analysis of P/E Ratio in Insurance Companies


### 4.2.3 Conclusion

The profitability ratio of a company affects the market price of the stock and the ability of the company to pay dividends. The profitability ratio indicates how well management is using the resources of a disposal to earn a return on the funds instead by shareholders and various other groups.

EPS is one of the measures of the profitability of a firm. It measures the profit available to the ordinary shareholders on a per share basis. Analyzing the EPS of three commercial banks, it is found that SCBNL has high and NABIL has consistent for the five years. Similarly in insurance companies, HGIC has high and consistent EPS.

Comparing the $\mathrm{P} / \mathrm{E}$ ratio, among the listed commercial banks, BOK has highest and SCBNL has lowest P/E ratio. It indicates that SCBNL has highest potential for future growth and BOK has lowest possibility among banks. Similarly among insurances, NLIC
has highest and AIC has lowest P/E ratio. It indicates that AIC has highest potential for future growth and NLIC has lowest possibility among insurance companies.

It was observed that banks have more consistent EPS than insurances. And banks have more potentiality for future growth than insurance companies.

### 4.3 Dividend Ratios

### 4.3.1 Analysis of Dividend per Share (DPS)

Dividend per share is the amount of profit distributed to the shareholders on each share. It directly affects the MVPS of the company.

Table 4.4
Analysis of Dividend per Share(DPS)

| Fiscal Year | SCBNL | NABIL | BOK | NLIC | AIC | HGIC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 120 | 70 | 15 | 0 | 0 | 0 |
| $2062 / 63$ | 120 | 85 | 18 | 20 | 0 | 0 |
| $2063 / 64$ | 80 | 140 | 20 | 0 | 0 | 5.79 |
| $2064 / 65$ | 80 | 100 | 40 | 0 | 0 | 5.26 |
| $2065 / 66$ | 50 | 85 | 47.37 | 0 | 10 | 10 |
| Average | 90 | 96 | 28.074 | 4 | 2 | 4.21 |
| S.D (r) | 26.83 | 23.96 | 13.06 | 8 | 4 | 3.81 |
| C.V. \% | 0.298 | 0.25 | 0.47 | 2 | 2 | 0.90 |

Source: Appendix 1-6

### 4.3.1.1 Analysis of DPS in Banks

From the above table it is obvious the NABIL has highest average DPS and BOK has least average DPS. BOK has the increasing trends of DPS in all five years but other banks have fluctuating trend of DPS .Here, S.D of SCBNL is 26.83, NABIL 23.96 and BOK 13.06. This indicates that BOK has the highest uniformity and homogeneity in DPS and the other banks SCBNL and NABIL has respectively higher uniformity.

But if we observe the fluctuations or variations in payment of DPS i.e. C.V. can find that NABIL has least fluctuating DPS and is $25 \%$ only. Similarly, SCBNL and BOK have
$29.8 \%$ and $47 \%$ respectively. It indicates that Nabil bank pays dividend in least fluctuating ratio as compared to others.

Figure 4.7
Analysis of DPS in Sample Banks


### 4.3.1.2 Analysis of DPS in Insurance Companies

From the above table it is obvious the HGIC has highest average DPS and AIC has least average DPS. HGIC has the increasing trends of DPS in all last three years. But NLIC has paid DPS in Year 62/63 only and AIC has paid DPS in year 65/66 only. Here, S.D of HGIC is 3.81 , AIC is 4 and NLIC 8 . This indicates that HGIC has the highest uniformity and homogeneity in DPS than others.

But if we observe the fluctuations or variations in payment of DPS i.e. C.V. varies from 0.90 to 2 which indicates that vast fluctuation in dividend paying pattern in insurance companies.

Figure 4.8

## Analysis of DPS in Insurance Companies



It was observed that banks have followed consistent dividend policy than insurance companies. Here we observed that insurance companies have zero dividends in some years. So this concludes that the insurance companies have been not followed the consistent dividend policy.
4.3.2 Dividend Payout Ratio (DPR)

Table 4.4
Analysis of Dividend Payout Ratio (DPR)

| F/Y | SCBL | NABIL | BOK | NLIC | AIC | HGIC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 83.83 | 66.17 | 49.83 | 0 | 0 | 0 |
| $2062 / 63$ | 68.24 | 65.64 | 41.22 | 108.11 | 0 | 0 |
| $2063 / 64$ | 47.8 | 102.19 | 45.98 | 0 | 0 | 23.04 |
| $2064 / 65$ | 60.64 | 92.32 | 66.73 | 0 | 0 | 49.57 |
| $2065 / 66$ | 45.32 | 79.62 | 86.73 | 0 | 44.11 | 41.1 |
| Average | 61.17 | 81.19 | 58.10 | 21.62 | 8.82 | 22.74 |
| S.D | 14.10 | 14.39 | 16.70 | 43.24 | 17.64 | 20.45 |
| C.V | 0.23 | 0.18 | 0.29 | 2 | 2 | 0.90 |

Source: Appendix 1-6
The above table depicts the DPR of the selected banks. The main objective of the presentation is to show the percentage of dividend payout out of its earnings. Stable and
regular dividend is considered as a favorable and desirable policy by the management of the company. Most of the shareholders also prefer stable dividends as other thing remaining the same; the stable dividends have positive impact on the market price of the shares. Hence, management declares and determines the lower but less volatile dividends than the banks.

### 4.3.2.1 Analysis of DPR in Banks

From the above table we can see that SCBNL has DPR of $83.83 \%$. NABIL $66.17 \%$ and BOK 49.83 \% in the year 61/62. There was the fluctuation in DPR of all banks in the fiscal five years. The average DPR of NABIL is highest among the banks of $81.19 \%$ and lowest of BOK with $58.10 \%$. And SCBNL has good average of DPR $61.17 \%$.

Similarly, the deviation S.D. of selected banks represents the deviation of DPR from mean DPR. It shows that the DPR of SCBNL is least variate from mean and has S.D of 14.10 and BOK has the highest variation of 16.70 . NABIL has as good as S.D as SCBNL of 14.39 .

The preferable way of calculating the homogeneity of data is coefficient of variation. In the table it BOK has the most instable or inconsistent DPR where NABIL has the most consistent DPR and is preferable.

Figure 4.9
Analysis of DPR in Sample Banks


### 4.3.2.2 Analysis of DPR in Insurance Companies

From the above table we can see that all insurance companies have zero DPR in 2061/62. In year 2062/63, only NLIC has DPR of $108.11 \%$. Similarly AIC has DPR of $44.11 \%$ in year 65/66. And HGIC has DPR of 23.04, 49.57 and 41.1 in years 63/64, 64/65 and 65/66 respectively, which shows the inconsistent DPR in the insurance companies.

Similarly, the deviation S.D. of HGIC is 0.90 shows the variate from mean and other two have great variation from mean with DPR of same 2.

In the table NLIC and AIC have the most inconsistent DPR where as HGIC has the most consistent DPR and is preferable.

Figure 4.10
Analysis of DPR in Insurance Companies


It was observed that banks have followed consistent DPR than insurance companies. So the banks are more preferable than insurance companies for the stakeholders.

### 4.3.3 Dividend Yield Analysis (DY)

Dividend yield is the ratio between DPS and MPS. Therefore, before allocating dividend, the company should look after the impacts of it over MPS and market scenario. Since small change in DPS can bring effective change in MPS, it is one of the import factors for analysis of dividend policy.

Table 4.5
Analysis of Dividend Yield (DY)

| F/Y | SCBNL | NABIL | BOK | NLIC | AIC | HGIC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 5.12 | 4.65 | 3.49 | 0 | 0 | 0 |
| $2062 / 63$ | 3.18 | 3.79 | 2.12 | 4.68 | 0 | 0 |
| $2063 / 64$ | 1.35 | 2.7 | 1.45 | 0 | 0 | 1.93 |
| $2064 / 65$ | 1.17 | 1.9 | 1.7 | 0 | 0 | 1.52 |
| $2065 / 66$ | 0.65 | 1.73 | 2.71 | 0 | 0.06 | 3.5 |
| Average | 2.29 | 2.95 | 2.29 | 0.94 | 0.012 | 1.39 |
| S.D | 1.65 | 1.12 | 0.73 | 1.87 | 0.024 | 1.31 |


| C.V | 0.72 | 0.38 | 0.32 | 2 | 2 | 0.94 |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |

Source: Appendix 1-6

### 4.3.3.1 Analysis of DY in Banks

The table above in 4.3.3, the DY is calculated of all the sample banks for the sample periods. From the table it is obvious that in the year $61 / 62$ SCBNL has DY of 5.12 , which is highest. BOK has least of DY 3.49 whereas NABIL has DY of 4.65 respectively. There is decreasing trends of DY in SCBNL and NABIL for the five fiscal years. But there is decreasing trends in DY for first two year and then increasing trends in BOK.

Similarly, we can see that BOK has the least deviation in DY and the SCBNL has the most deviation. The coefficient of variation analysis shows that BOK has the most consistent DY (32\%) and the SCBNL has the most fluctuating DY (72\%). In aggregate SCBNL is efficient for distribution of DPS on the basis of MPS.

Figure 4.11
Analysis of DY in Sample Banks


### 4.3.3.2 Analysis of DY in Insurance Companies

From the above table we can see that all insurance companies have zero DY in 2061/62. In year 2062/63, only NLIC has DPR of $46.8 \%$. Similarly AIC has DY of $6 \%$ in year 65/66. And HGIC has DY of 1.93, 1.52 and 3.5 in years 63/64, 64/65 and 65/66 respectively, which shows the inconsistent DY in the insurance companies. Similarly, the deviation C.V. of HGIC is 0.94 shows the least variation DY from mean and other two have great variation from mean with DY of same 2.

Figure 4.12
Analysis of DY in Insurance Companies


### 4.3.4 Earning Yield Analysis (EY)

Earning yield is the ratio of EPS and market value per share.
Table 4.6
Analysis of Earning Yield (EY)

| F/Y | SCBNL | NABIL | BOK | NLIC | AIC | HGIC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 33.89 | 7.03 | 7 | 1.38 | 6.04 | 5.59 |
| $2062 / 63$ | 37.55 | 5.77 | 5.14 | 4.33 | 12.91 | 4.74 |
| $2063 / 64$ | 32.68 | 2.71 | 3.16 | 0.38 | 20.83 | 11.94 |
| $2064 / 65$ | 32.85 | 2.05 | 2.55 | 0.1 | 4.08 | 3.07 |
| $2065 / 66$ | 29.2 | 2.18 | 3.12 | 0.21 | 12.6 | 8.53 |
| Average | 33.23 | 3.95 | 4.19 | 1.28 | 11.29 | 6.77 |
| S.D | 2.68 | 2.053 | 1.65 | 1.59 | 5.91 | 3.13 |
| C.V | 0.08 | 0.52 | 0.39 | 1.24 | 0.52 | 0.46 |

Source: Appendix 1-6

### 4.3.4.1 Analysis of EY in Banks

In the year 61/62 EY of SCBNL is 33.89, NABIL 7.03 and BOK 7. Among them, SCBNL has the highest earning yield and BOK has the least EY.

The average EY is the highest of SCBNL bank with EY of 33.23. Similarly, BOK and NABIL have got second last and the last average of EY 4.19 and 3.95 respectively. The S.D of these sample banks state the deviation in EY. From the observation, it is found that the BOK has the least deviation with S.D of 1.65 and SCBNL has the highest deviation of 2.68.

Similarly, the coefficient of variation is highest i.e. 0.52 of BOK and SCBNL has the least C.V of 0.08 which shows that SCBNL is the most consistent and favorable.

Figure 4.13
Analysis of EY in Sample Banks


### 4.3.4.2 Analysis of EY in Insurance Companies

In the year 61/62 EY of AIC is 6.04, NLIC 1.38 and HGIC 5.59. Among them, AIC has the highest earning yield and NLIC has the least EY.The average EY is the highest of AIC bank with EY of 11.23. Similarly, HGIC and NLIC have average of EY 6.77 and 1.28 respectively. The S.D of these sample insurance companies state the deviation in EY. From the observation, it is found that the NLIC has the least deviation with S.D of 1.59 and AIC has the highest deviation of 5.91.

Similarly, the coefficient of variation is highest i.e. 1.24 of NLIC and HGIC has the least C.V of 0.46 which shows that HGIC is the most consistent among insurance companies and preferable.

Figure 4.14
Analysis of EY in Insurance Companies


### 4.3.5 Conclusion

The dividend ratios are used to find out the dividend policy on any company. The dividend per share ratio shows the dividend paid by the company as per their earnings. By looking at DPS, it seems that NABIL has good average among the banks and pays regularly basis. Among the insurance companies, HGIC has good average and consistent DPS.

Looking upon DPR, it is found that NABIL is following aggressive dividend policy and SCBNL and BOK are following moderate dividend policy. In insurance companies, HGIC has moderate and NLIC and AIC has conservative dividend policy.

By analyzing DY ratio it is found that NABIL has the highest DY ratios which indicate that they are in mature growth stage having less growth potential. Banks have lower DY
ratio return much of their earnings and good growth potential than the Insurance companies.

### 4.4 Correlation Analysis

Correlation analysis is the statistical tool that we can use to describe the degree to which one variable is linearly related to other variables. It is an analysis of the covariance between two or more variables. It helps to determine whether a high or low moderate degree of positive or negative correlation.

The reliability of the coefficient of correlation can be measured by using Probable Error (PE) of correlation coefficient.

The significance of correlation coefficient with the help of PE can be interpreted as follows:
a) If $r<P . E$, than the value of $r$ is insignificant.
b) If $r>P . E$, than $r$ is significant.
c) In other situation, nothing can be calculated with certainly.

The degree of correlation can be interpreted in the following manner:
a) If $r=+1$, there is perfect positive correlation.
b) If $r=-1$, there is perfect negative correlation.
c) If $\mathrm{r}=0$, there is no correlation.
d) If $r$ lies between 0.7 to $0.999(-0.7$ to -0.999$)$ there is high degree of positive (negative) correlation.
e) If $r$ lies between 0.5 to 0.699 , there is moderate degree of correlation.
f) If $r$ is equal to 0.5 there is low degree of correlation.

### 4.4.1 Correlation between DPS and EPS

Table 4.7
Relation between DPS and EPS

| Banks | Correlation (r) | Relationship | $\mathrm{r}^{2}$ | PE | $6 \times \mathrm{PE}$ | Sig/insigh. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 0.68 | Positive | 0.46 | 0.16 | 0.96 | Insignificant |
| NABIL | 0.71 | Positive | 0.50 | 0.15 | 0.90 | Insignificant |
| BOK | 0.87 | Positive | 0.76 | 0.07 | 0.42 | Significant |
| Insurances |  |  |  |  |  |  |
| NLIC | 0.99 | Positive | 0.98 | 0.01 | 0.06 | Significant |
| AIC | 0.56 | Positive | 0.31 | 0.21 | 1.26 | Insignificant |
| HGIC | $(0.66)$ | Negative | 0.44 | 0.17 | 1.02 | No Conclusion |

Source: Refer Annex -I for detailed calculation
The above table depicts the correlation between DPS and EPS of the concerned banks during he year covered by the investigation. The correlation of SCBNL, NABIL, BOK, NLIC, AIC and HGIC are $0.68,0.71,0.87,0.99,0.56$, and -0.66 respectively. This shows that DPS and EPS of SCBNL, NABIL, BOK, and NLIC have high degree of positive correlation. AIC and HGIC have moderate degree of positive and negative correlation between DPS and EPS.
$r^{2}$ is the coefficient of determination. It measures the degree of linear associations between two variables. From the table, $r^{2}$ of SCBNL, NABIL, BOK, NLIC, AIC and HGIC are $0.46,0.50,0.76,0.98,0.31$ and 0.44 which means the variations in independent variable EPS explain $46 \%, 50 \%, 76 \%, 98 \%, 31 \%$ and $44 \%$ variations in dependent variable DPS.

The relationship between DPS and EPS whether they are significant or not can be measured by calculating PE of the correlation coefficient. It would be more preferable to calculate and observe the value of PE and 6xPE. From the table SCBNL, NABIL and AIC have insignificant correlation between EPS and DPS. The correlation between EPS
and DPS of HGIC can't be concluded whereas NLIC and BOK have significant correlation between EPS and DPS.

### 4.4.2. Correlation Between DPS and MPS

Table 4.8
Relation between DPS and MPS

| Bank | r | Relationship | r 2 | PE | 6xPE | Sig/in |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | $(0.95)$ | Negative | 0.90 | 0.18 | 1.09 | Significant |
| NABIL | 0.66 | Positive | 0.44 | 0.17 | 1.01 | Insignificant |
| BOK | 0.83 | Positive | 0.69 | 0.09 | 0.63 | Significant |
| Insurances |  |  |  |  |  |  |
| NLIC | -0.46 | Negative | 0.21 | 0.35 | 2.12 | No Conclusion |
| AIC | 0.80 | Positive | 0.64 | 0.16 | 0.97 | Insignificant |
| HGIC | 0.74 | Positive | 0.55 | 0.20 | 1.21 | Insignificant |

Source: Refer Annex -I for detailed calculation

The above table calculates the correlation between DPS and MPS. From the table SCBNL and NLIC have correlation coefficient of -0.95 and -0.46 respectively. It indicates that SCBNL and NLIC have high degree of negative correlation between DPS and MPS. Similarly, NABIL, BOK, AIC and HGIC have correlation coefficient of 0.66, $0.83,0.80$ and 0.74 respectively. NABIL has low degree of positive correlation and BOK, AIC and HGIC have high degree of positive correlation.

Similarly, coefficient of determination ( $\mathrm{r}^{2}$ ) of the sample bank and insurance companies are $0.90,0.44,0.69,0.21,0.64$ and 0.55 respectively. It escalates that variation in independent variable (DPS) explains $90 \%, 44 \%, 69 \%, 21 \%, 64 \%$ and $64 \%$ variation in dependent variable of MPS of SCBNL, NABIL, BOK, NLIC, AIC and HGIC respectively.

The reliability of the value of coefficient of correlation is determined by probable error i.e. PE from the above table SCBNL has negative r greater than $6 x$ PE implies that negatively correlated and highly significant. Similarly BOK has positive correlation with highly significance.

### 4.4.3. Correlation between EPS and MPS

Table 4.9
Relation between EPS and MPS

| Banks | r | Relationship | $\mathrm{r}^{2}$ | PE | $6 x$ PE | Sig/insig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | $(0.56)$ | Negative | 0.31 | 0.21 | 1.24 | - |
| NABIL | $(0.07)$ | Negative | 0.005 | 0.30 | 1.80 | - |
| BOK | 0.95 | Positive | 0.90 | 0.03 | 0.18 | Significant |
| Insurances |  |  |  |  |  |  |
| NLIC | $(0.56)$ | Negative | 0.31 | 0.21 | 1.24 | - |
| AIC | 0.22 | Positive | 0.05 | 0.29 | 1.72 | - |
| HGIC | $(0.98)$ | Negative | 0.96 | 0.012 | 0.07 | Significant |

Source: Refer Annex -I for detailed calculation

Above table furnishes the correlation coefficient between EPS and MPS. From the table, it is clear that SCBNL, NABIL, BOK, NLIC, AIC and HGIC have coefficient correlation of $-0.56,-0.07,0.95,-0.56,0.22$ and -0.98 respectively. SCBNL and NLIC have moderate degree of negative correlation and NABIL has low degree of negative correlation. Similarly BOK has high degree of positive correlation and AIC has low degree of correlation between EPS and MPS.

Similarly SCBNL, NABIL, BOK, NLIC, AIC and HGIC have coefficient of determination ( $\mathrm{r}^{2}$ ) of $0.31,0.005,0.90,0.31,0.05$ and 0.96 . This means variation in EPS
explains $31 \%, 0.05 \%, 90 \%, 31 \%, 5 \%$ and $96 \%$ of variation in MPS of SCBNL, NABIL, BOK, NLIC, AIC and HGIC respectively. The coefficient of determination $0.05 \%$ is negligible.

From the table above correlation coefficients of BOK and HGIC, are greater than 6xPE. Hence, correlation coefficient is significant. Similarly, correlation coefficient other draws no conclusion.
4.4.4 Correlation between DY \& EY:

Table 4.10
Relation between DY and EY

| Banks | r | Relationship | $\mathrm{r}^{2}$ | PE | 6 xPE | Sig/insig |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 0.60 | Positive | 0.36 | 0.19 | 1.16 | Insignificant |
| NABIL | 0.98 | Positive | 0.96 | 0.012 | 0.07 | Significant |
| BOK | 0.76 | Positive | 0.58 | 0.13 | 0.76 | Significant |
| Insurances |  |  |  |  |  |  |
| NLIC | 0.95 | Positive | 0.90 | 0.03 | 0.18 | Significant |
| AIC | 0.11 | Positive | 0.01 | 0.30 | 1.78 |  |
| HGIC | 0.51 | Positive | 0.26 | 0.22 | 1.34 | Insignificant |

Source: Refer Annex -I for detailed calculation

The above table depicts that relationship between earning yield and dividend yield of banks and insurances. The correlation coefficients of SCBNL, NABIL, BOK, NLIC, AIC and HGIC have coefficient correlation of $0.60,0.98,0.76,0.95,0.11$ and 0.51 respectively. It indicates that NABIL, BOK and NLIC have High degree \& positive correlation. SCBNL and HGIC have Moderate degree of positive correlation and AIC has low degree of positive correlation respectively.

Similarly SCBNL, NABIL, BOK, NLIC, AIC and HGIC have coefficient determination of $60 \%, 98 \%, 76 \%, 95 \%, 11 \%$ and $51 \%$ respectively. This indicates that the change in EY causes respective \% of changes in DY.

From the table NABIL, BOK and NLIC have significant positive coefficient of correlation whereas significance of AIC cannot be concluded. SCBNL and HGIC have insignificant coefficient of correlation.
4.4.5 Correlation between DPR and MPS

Table 4.11
Relation between DPR and MPS

| Bank | r | Relationship | r2 | PE | $6 x P E$ | Sig/insig |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | -0.89 | Negative | 0.79 | 0.063 | 0.38 | Significant |
| NABIL | 0.87 | Positive | 0.76 | 0.07 | 0.43 | Significant |
| BOK | 0.64 | Positive | 0.41 | 0.18 | 1.07 | Insignificant |
| Insurances |  |  |  |  |  |  |
| NLIC | 0.99 | Positive | 0.98 | 0.006 | 0.04 | Significant |
| AIC | 0.56 | Positive | 0.31 | 0.21 | 1.24 | Insignificant |
| HGIC | -0.95 | Negative | 0.90 | 0.03 | 0.18 | Significant |

Source: Refer Annex -I for detailed calculation

Above table represents the correlation between DPR and MPS of concerned banks and insurances. It shows that NABIL and NLIC have high degree of positive correlation and SCBNL and HGIC have high degree of negative correlation between DPR and MPS. BOK and AIC have moderate degree of positive correlations.

Similarly SCBNL, NABIL, BOK, NLIC, AIC and HGIC have coefficient of determination ( $\mathrm{r}^{2}$ ) of $-0.89,0.87,0.64,0.99,0.56$ and -0.95 . This means variation in DPR
explains $89 \%, 87 \%, 64 \%, 99 \%, 56 \%$ and $95 \%$ of variation in MPS of SCBNL, NABIL, BOK, NLIC, AIC and HGIC respectively.

From the table it is clear that $r$ is greater than $6 x$ PE of NABIL and NLIC. Hence, are significant in positive correlation. Similarly SCBNL and HGIC are significant in negative correlation between DPR and MPS. But correlation (r) of BOK and AIC are insignificant between the relationship among DPR and MPS.

### 4.5 Regression Analysis

Regression is the technique of studying now the variation in on series is related to variation in another series. In regression the relationship between a known variable and an unknown variable to estimate the unknown one is used. Hence, regression analysis determines the strength of relationship between two variables. The unknown value which is used for prediction is called independent or predictor variable and the unknown value which is to be estimated or predicted by known value is called dependent or explained variable.

The data calculated by regression analysis can be plotted in regression lines. Regression lines are expressed in terms of algebraic terms i.e. $\mathrm{y}=\mathrm{a}+\mathrm{bx}$ where, Y is a dependent variable and x is an independent variable. Similarly, a is the intercept of the model that indicates the average level of dependent variable when independent variable is zero. Likewise, regression coefficient $b$ describes how changes in independent variable affect the value of dependent variable. Coefficient of multiple determination $r^{2}$ measures the percentage of total variation in dependent variable explained by independent variable. But with the help of the regression equation, perfect prediction is practically impossible. So, standard error of estimate (SEE) measures the accuracy of the estimated figures.

To test the validity of our assumptions, if the sample size ( n ) is less than 30 t -test is used. If the calculated value of exceeds the table value, we conclude that the difference is significant in the given level of significance. But if ' t ' is less than the table value, the
difference is not treated as significant that it is insignificant i.e. if $+\mathrm{cal}>\mathrm{t}$ tab significant and if $+\mathrm{cal}<\mathrm{t}$ tab - insignificant.

Given below are the findings of regression analysis between MPS, DPS, EPS, DPR and P/E.
4.5.1 Regression analysis between MPS and DPS

Table 4.12

Regression equation: MPS $=a+b$ (DPS)
Market per share on Dividend per share

| Bank | Constant A | B | SEE | r | $\mathrm{R}^{2}$ | t -value | t t-tabulated | Sig/insig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 16662.5 | -70.47 | 791.67 | -0.95 | 0.91 | -5.341 | 2.776 | Insig. |
| NABIL | -408.83 | 43.8 | 1543.39 | 0.66 | 0.44 | 1.52 | 2.776 | Insig. |
| BOK | 148.29 | 42.84 | 408.63 | 0.83 | 0.69 | 2.60 | 2.776 | Insig. |
| Insurances |  |  |  |  |  |  |  |  |
| NLIC | 1022 | -29.45 | 591.45 | -0.46 | 0.21 | -0.90 | 2.776 | Insig. |
| AIC | 119.25 | 23.61 | 23.51 | 0.80 | 0.64 | 2.31 | 2.776 | Insig. |
| HGIC | 216.79 | 11.4 | 51.51 | 0.74 | 0.55 | 1.89 | 2.776 | Insig. |

Source: Refer Annex -II for detailed calculation

Above table represents the regression results between dependent variable MPS and independent variable DPS of sample banks and insurances. In the table the regression coefficient or beta coefficient of SCBNL, NABIL, BOK, NLIC, AIC and HGIC are -$70.47,43.78,42.84,-29.45,23.61$ and 11.4 respectively. This indicates that SCBNL and NLIC have negative beta coefficient and explains that one rupees increase in DPS of SCBNL leads to an average of 70.47 decreases in MPS. One rupees change in DPS of NLIC leads to an average of 29.45 rupees of decrease in MPS. Similarly NABIL, BOK, AIC and HGIC have positive beta coefficients. It indicates that one rupees change in DPS
leads to an average of rupees 43.78, 42.84, 23.61 and 11.4 increase in MPS of NABIL, BOK, AIC and HGIC respectively.

The intercept A is $11662.5,-408.83,148.29,1022,119.25$ and 216.79 of SCBNL, NABIL, BOK, NLIC, AIC and HGIC respectively. This indicates that the average MPS would be $11662.5,-408.83,148.29,1022,119.25$ and 216.79 of these banks and insurances if DPS becomes zero.From the table, the tabulated value of $t$ is 2.776 . When compared to tabulated value at $5 \%$ level of significance with calculated value of these banks, we find that variation in MPS due to DPS of SCBNL, NABIL, BOK, NLIC, AIC and HGIC i.e $53.4 \%, 15.2 \%, 26 \%, 9 \%, 23.15$ and $18.9 \%$ respectively are insignificant as calculated $t$-values of these banks and insurances are less than tabulated value of $t$.

Similarly, coefficient of determination $\mathrm{R}^{2}$ of SCBNL is $90 \%$ which means this variation is occurred due to the change in DPS and remaining (100-90)\% is due to other factors. The calculated value of $(t)$ is less than tabulated value of $t$ i.e. $-5.43<2.776$. Hence the variation at 5\% level of significance is statistically insignificant. Similarly others are also insignificant.
4.5.2 Regression Analysis between MPS and EPS

Table 4.13
Equation: MPS $=\mathrm{A}+\mathrm{B}(\mathrm{EPS})$
Market per share on Earning per share

| Banks | A | B | SEE | r | r2 | t-value | Sig/insig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 12185.85 | -47.11 | 2120.12 | -0.56 | 0.638 | -1.18 | Insig. |
| NABIL | 2736.31 | 9 | 2047.50 | 0.07 | 0.005 | 0.13 | Insig. |
| BOK | -1530.29 | 62.13 | 256.98 | 0.96 | 0.92 | 5.58 | Sig. |
| Insurances |  |  |  |  |  |  |  |


| NLIC | 1184.10 | -46.68 | 548.20 | -0.57 | 0.32 | -1.20 | Insig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AIC | 118.57 | 0.89 | 38.27 | 0.22 | 0.05 | 0.38 | Insig |
| HGIC | 416.30 | -5.55 | 16.25 | -0.98 | 0.96 | -7.94 | InSig |

Source: Refer Annex -II for detailed calculation

The above table depicts the analysis of regression between the dependent variable MPS and independent variable EPS. In the table A is intercept. In the table the regression coefficient or beta coefficient of SCBNL, NABIL, BOK, NLIC, AIC and HGIC are -$47.11,9,62.13,-46.68,0.89$ and -5.55 respectively. This indicates that SCBNL, NLIC and HGIC have negative beta coefficient and explains that one rupees increase in DPS of SCBNL, NLIC, HGIC leads to an average of 47.11, 46.68 and 5.55 decreases in MPS. Similarly NABIL, BOK and AIC have positive beta coefficients. It indicates that one rupees change in DPS leads to an average of rupees $9,62.13$, and 0.89 increase in MPS of NABIL, BOK, and AIC respectively.

The tabulated value of $t$ at $5 \%$ level of significance for (5-1) $=4$ degree of freedom is 2.776. From the table calculated value of $t$ of NABIL is 5.58 is greater than tabulated value of $t$ i.e. 2.776 which is significant at $5 \%$ level of significance.

In the case of BOK, $\mathrm{R}^{2}$ is $92 \%$ which means $92 \%$ of variation on MPS is due to EPS and $(100-92) \%$ is due to other factors.
4.5.3 Regression Analysis between MPS and DPR

Table 4.14
Equation: MPS $=\mathrm{A}+\mathrm{B}(\mathrm{DPR})$
Market per share on Dividend payout ratio

| Banks | A | B | SEE | r | $\mathrm{R}^{2}$ | t -value | Sig/insig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 119.04 | 0.44 | 29.65 | 0.26 | 0.068 | 0.46 | Insig. |


| NABIL | -4026.51 | 96.32 | 1007.6 | 0.87 | 0.76 | 3.08 | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BOK | -145.75 | 25.77 | 667.02 | 0.64 | 0.41 | 1.43 | Insig |
| Insurances |  |  |  |  |  |  |  |
| NLIC | 1022 | -5.50 | 591.46 | -0.46 | 0.21 | -0.90 | Insig. |
| AIC | 119.25 | 6.08 | 23.57 | 0.8 | 0.64 | 2.31 | Insig. |
| HGIC | 203.72 | 2.69 | 27.78 | 0.93 | 0.86 | 4.42 | Sig |

Source: Refer Annex -II for detailed calculation

The table above depicts the regression analysis between MPS and DPR. From the table it is noticed that constant A of the SCBNL, NABIL, BOK, NLIC, AIC and HGIC are 119.04, $-4026.51,-145.75,1022,119.2$ and 203.72 respectively. This indicates the MPS values of different banks and insurances when EPS is zero.

Similarly, B is the beta coefficient of the banks. In the case of SCBNL, B is 0.44 which means 1\% increasing in DPR results rupees 44 increase in MPS and also 6.8\% variation on MPS is due to change in DPR.

In the case of NABIL and HGIC have calculated values of $\mathrm{t} 3.08,4.42$ greater than the tabulated value of $t 0.05$ at $5 \%$ level of significance with (5-1) $=4$ degree freedom. Hence, are statistically significance. But other's variances are insignificant.
4.5.4 Regression Analysis between MPS and P/E

Table 4.15
Equation: $\mathrm{MPS}=\mathrm{A}+\mathrm{B}(\mathrm{P} / \mathrm{E})$
Market per share on Price earning ratio

| Bank | A | B | SEE | $r$ | $R^{2}$ | t-value | Sig/insig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 1611.81 | 95.03 | 806.4 | 0.95 | 0.91 | 5.23 | Sig. |
| NABIL | 304.47 | 107.03 | 551.8 | 0.96 | 0.92 | 3.5952 | Sig. |


| BOK | -617.83 | 72.08 | 191.43 | 0.98 | 0.96 | 7.65 | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Insurances |  |  |  |  |  |  |  |
| NLIC | 387.39 | 1.4 | 187.24 | 0.96 | 0.92 | 5.92 | Sig |
| AIC | 119.26 | 0.99 | 38.1 | 0.24 | 0.06 | 0.42 | Insig. |
| HGIC | 197.26 | 5.07 | 38.05 | 0.87 | 0.76 | 3 | Sig. |

Source: Refer Annex -II for detailed calculation

Above table is the analysis of regression between MPS and P/E. It depicts that the coefficient of intercept or the constant A of SCBNL, NABIL, BOK, NLIC, AIC and HGIC is $1611.81,304.47,-617.83,387.39,119.26$ and 197.26 respectively. This escalates the value of MPS when independent variable has 0 values. Similarly, beta coefficient is $95.03,107.03,72.08,1.40,0.99$, and 5.07 of SCBNL, NABIL, BOK, NLIC, AIC and HGIC respectively. This shows the effect of $1 \%$ change in price earning ratio on MPS. All the sample banks and insurances except BOK have positive effect. $\mathrm{P} / \mathrm{E}$ affects most in the MPS of SCBNL and least to BOK.

Similarly, coefficient of determination R $^{2}$ of SCBNL, NABIL, BOK, NLIC, AIC and HGIC is $0.91,0.92,0.96,0.92,0.06$ and 0.76 . This indicates that variation in MPS of these depends $91 \%, 92 \%, 96 \%, 92 \%, 6 \%$ and $76 \%$ on P/E of SCBNL, NABIL, BOK, NLIC, AIC and HGIC respectively.

Again the calculated values of $t$ of SCBNL, NABIL, BOK, NLIC, AIC and HGIC are $5.23,6.21,7.65,5.92,0.42$ and 3.00 respectively. Among them except AIC, all have greater calculated value than tabulated of $t 0.05$ i.e. 2.776 . Thus, these are significant at $5 \%$ level of significance. And AIC is statistically insignificant.
4.5.5 Regression Analysis between DPS and EPS:

Table 4.16
Equation: DPS = A+B (EPS)

Dividend per share on Earning per share

| Banks | A | B | SEE | r | $\mathrm{R}^{2}$ | t -value | Sig/Insig |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| SCBNL | -21.56 | 0.77 | 24.45 | 0.68 | 0.46 | 1.60 | Insig. |
| NABIL | -57.20 | 1.30 | 21.69 | 0.71 | 0.50 | 1.76 | Insig. |
| BOK | -22.81 | 1.10 | 8.37 | 0.87 | 0.76 | 3.03 | Sig. |
| Insurances |  |  |  |  |  |  |  |
| NLIC | -3.60 | 1.26 | 1.32 | 0.99 | 0.98 | 13.44 | Sig |
| AIC | -2.38 | 0.30 | 4.27 | 0.56 | 0.31 | 1.18 | Insig. |
| HGIC | 10.86 | -0.24 | 3.68 | -0.66 | 0.44 | -1.54 | Insig. |

Source: Refer Annex -II for detailed calculation

Above table represents the regression analysis between dependent variable DPS and independent variable EPS. From the table, it is clear that the coefficient of intercept A of SCBNL, NABIL, BOK, NLIC, AIC and HGIC is -21.56, -57.20, -22.81, -3.60, -2.38 and 10.86 respectively. These values represent the value of DPS when EPS is zero.

Similarly, beta coefficients of SCBNL, NABIL, BOK, NLIC, AIC and HGIC 0.77, 1.30, $1.10,1.26,0.30$ and -0.24 respectively. This means one rupees change or increase in EPS of SCBNL, NABIL, BOK, NLIC and AIC results average of one rupees increase in the DPS. But HGIC has opposite relation. One rupees increase in EPS decreases 0.24 rupees of DPS of BOK.

Similarly coefficient of determination of SCBNL, NABIL, BOK, NLIC, AIC and HGIC $46 \%, 50 \%, 76 \%, 98 \%, 31 \%$ and $44 \%$ respectively. This means, $46 \%, 50 \%, 76 \%, 98 \%$, $31 \%$ and $44 \%$ if variation in DPS of SCBNL, NABIL, BOK, NLIC, AIC and HGIC is due to EPS and remaining is due to other factors.

Similarly, the tabulated value of $t$ at $5 \%$ with 4 degree of freedom is 2.776 and calculated value of SCBNL, NABIL, BOK, NLIC, AIC and HGIC is $1.60,1.76,3.03,13.44,1.18$ and -1.54 . The calculated value of BOK and NLIC are greater than tabulated value of t0.05. Therefore they are statistically significant at $5 \%$ level of significance. All the others have calculated value of $t$ less than tabulated value. Hence, they are insignificant at the same level of significance.

### 4.6 Multiple Regression of Market Price on DPS, RE and P/E Ratio

The impact of dividend policy on shareholders' wealth of banks and insurance companies with adoption of dividend policy has been elicited using multiple regression analysis. The Dividend per share (DPS) has been used as proxy for measuring the dividend policy of the companies and Market value (MV) of equity of the companies under study is considered as proxy for measuring the shareholders' wealth and used as dependent variable. Apart from DPS, Retained earnings (RE), Price-Earnings Ratio (PEt-1) and lagged Market value of equity (MVPS) are also used as explanatory variables in order to know whether dividend policy of banks and insurance companies are dominated by these factors in influencing the creation of shareholders' wealth.

In this study, regression equation of MPS on DPS, RE and P/E Ratio is analyzed. For this study; following hypothesis is created.

| Null Hypothesis (Ho) | $:$ MPS is independent of the EPS, RE \& P/E Ratio |
| :--- | :--- |
| Alternative Hypothesis $\left(\mathrm{H}_{1}\right)$ | $:$ MPS is dependent of the EPS, RE \& P/E Ratio |

The below table tabulates Multiple Regression analysis and its findings.

Table 4.17
Multiple Regression Equation of MPS on DPS, RE \& P/E Ratio

|  |  | Regression Coefficient |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SN | Commerci <br> al Banks | Constant <br> $(\mathrm{a})$ | Slope <br> $\left(\mathrm{b}_{1}\right)$ | Slope <br> $\left(\mathrm{b}_{2}\right)$ | Slope <br> $\left(\mathrm{b}_{3}\right)$ | $\mathrm{r}^{2}$ | Calculated value <br> of $\left(\mathrm{F}_{3,1}\right)$ at $5 \%$ <br> level of <br> significance | Tabulated <br> value of $\left(\mathrm{F}_{3,1}\right)$ <br> at 5\% level of <br> significance | Significance |
| 1 | SCBNL | -2227.96 | 17.4 | 33.57 | 105.40 | 0.98 | 16.89 | 216 | Insignificant |
| 2 | NABIL | -2012.63 | 24.54 | 10.78 | 98.76 | 0.99 | 480.39 | 216 | Significant |
| 3 | BOK | -1015.56 | 25.74 | 21.77 | 45.60 | 0.98 | 22.98 | 216 | Insignificant |
| Insurances |  |  |  |  |  |  |  |  |  |
| 4 | NLIC | 2624.14 | -151.46 | -554.49 | 0.02 | 0.97 | 12.57 | 216 | Insignificant |
| 5 | AIC | 22.20 | 8.42 | 3.00 | 4.48 | 0.98 | 17.58 | 216 | Insignificant |
| 6 | HGIC | 666.09 | -14.86 | -11.46 | -5.56 | 0.9293 | 19.7075 | 216 | Insignificant |

Source: Refer Annex -III for detailed calculation

Table 4.6 shows multiple regression equation of MPS on DPS, RE and P/E Ratio of the sample companies. The Coefficient of Determination ( $\mathrm{r}^{2}$ ) for SCBNL, NABIL, BOK, NLIC, AIC and HGIC is $0.98,0.99,0.98,0.97,0.98$, and 0.99 and it indicates a strong relationship between MPS with DPS, RE and P/E Ratio. This indicates that 98\%, 99\%, $98 \%, 97 \%, 98 \%$, and $99 \%$ variability in MPS of SCBNL, NABIL, BOK, NLIC, AIC and HGIC respectively can be explained jointly by DPS, RE and P/E Ratio whereas the remaining $2 \%, 1 \%, 2 \%, 3 \%, 2 \%$, and $1 \%$ variability in MPS of the respective companies is due to other unexplained factors. The Coefficient of Determinants ( $\mathrm{r}^{2}$ ) of SCBNL is 0.98 which shows that $98 \%$ variability in the MPS is explained by DPS, RE and P/E Ratio together whereas the remaining $2 \%$ variability is explained by other factors. This shows that the MPS is a function of DPS, RE and P/E Ratio for most company under study.

The calculated value and tabulated value under F-test at 5\% level of significance is presented in the above table. The table shows that for SCBL, BOK, NLIC, AIC and HGIC the calculated value is less than tabulated value i.e. Null Hypothesis is accepted whereas for NABIL the calculated value is greater than tabulated value so the Null hypothesis is rejected. It shows that for NABIL, the MPS is significantly correlated with DPS, RE and P/E Ratio whereas for SCBL, BOK, NLIC, AIC and HGIC the MPS is not significantly correlated with DPS, RE and P/E Ratio together. This demonstrates that the MPS of NABIL is influenced or determined by DPS, RE and P/E Ratio together whereas it is not influenced for SCBNL, BOK, NLIC, AIC and HGIC respectively.

### 4.7 Test of Hypothesis

This part of study is concerned with the relation between EPS, DPS, MPS and DPR of sample banks and insurance companies.

The Null Hypothesis has been formulated to test whether the difference between the mean value of EPS,DPS, MPS and DPR of sample banks and insurance companies are significantly difference or not.

### 4.7.1 First Hypothesis: DPS

This analysis is based on the pooled average of DPS of three Banks and Insurance Companies.

| Fiscal Year | $2061 / 62$ | $2062 / 63$ | $2063 / 64$ | $2064 / 65$ | $2065 / 66$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Banks | 68.33 | 74.33 | 80 | 73.33 | 60.79 |
| Insurances | 0 | 6.67 | 1.93 | 1.75 | 6.67 |

Null Hypothesis(H0): There is no significant difference between the DPS of Banks and Insurance Companies.
ie, $\mu 1=\mu 2$

Alternative Hypothesis(H1): There is significant difference between the DPS of Banks and Insurance Companies.
ie, $\mu 1 \neq 12$
Computation of test statistics $t$

Mean $\left(x^{-}{ }_{1}\right)=71.36$
Mean $\left(x^{-}{ }_{2}\right)=3.40$
Variance $\left(S^{2}\right)=30.76$
Number of observation $\left(\mathrm{n}_{1}\right)=5$
Number of observation $\left(\mathrm{n}_{2}\right)=5$

$$
\begin{aligned}
t= & \frac{\bar{x}_{1}-\bar{x}_{2}}{\sqrt{S^{2}\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}} \\
& =19.36
\end{aligned}
$$

Source: Refer Annex -IV for detailed calculation

The critical value for degree of freedom (d.f.) $8, \mathrm{t}(0.05)=2.306$.
Decision: Hence the calculated value of $t(19.36)$ is greater than the tabulated value of $\mathrm{t}(2.306), \mathrm{H} 0$ is rejected. So, there is significant difference between the DPS of banks and insurance companies.

### 4.7.2 Second Hypothesis: EPS

This analysis is based on the pooled average of EPS of three Banks and Insurance Companies.

| Fiscal Year | $2061 / 62$ | $2062 / 63$ | $2063 / 64$ | $2064 / 65$ | $2065 / 66$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Banks | 93.01 | 116.24 | 115.98 | 100.06 | 90.59 |
| Insurances | 15.84 | 23.86 | 17.11 | 6.19 | 16.53 |

Null Hypothesis(H0): There is no significant difference between the EPS of Banks and Insurance Companies.
ie, $\mu 1=\mu 2$

Alternative Hypothesis(H1): There is significant difference between the EPS of Banks and Insurance Companies.
ie, $\mu 1 \neq 12$

Computation of test statistics t
Mean $\left(x^{-}{ }_{1}\right)=103.176$
Mean $\left(x^{-}{ }_{2}\right)=17.906$
Variance $\left(S^{2}\right)=95.698$
Number of observation $\left(\mathrm{n}_{1}\right)=5$
Number of observation $\left(\mathrm{n}_{2}\right)=5$

$$
\begin{aligned}
t= & \frac{\bar{x}_{1}-\bar{x}_{2}}{\sqrt{S^{2}\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}} \\
& =14.10
\end{aligned}
$$

The critical value for degree of freedom (d.f.) $8, t(0.05)=2.306$.
Decision: Hence the calculated value of $t(14.10)$ is greater than the tabulated value of $\mathrm{t}(2.306), \mathrm{H} 0$ is rejected. So, there is significant difference between the EPS of banks and insurance companies.

### 4.7.3 Third Hypothesis: MPS

This analysis is based on the pooled average of MPS of three Banks and Insurance
Companies.

| Fiscal Year | $2061 / 62$ | $2062 / 63$ | $2063 / 64$ | $2064 / 65$ | $2065 / 66$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Banks | 1428.33 | 2155 | 4108.33 | 4818.33 | 4799.67 |
| Insurances | 206.33 | 239.33 | 410.33 | 722.67 | 586.67 |

Null Hypothesis(H0): There is no significant difference between the MPS of Banks and Insurance Companies.
ie, $\mu 1=\mu 2$
Alternative Hypothesis(H1): There is significant difference between the MPS of Banks and Insurance Companies.
ie, $\mu 1 \neq 12$
Computation of test statistics $t$
Mean $\left(x^{-}{ }_{1}\right)=3461.93$
Mean $\left(x^{-}{ }_{2}\right)=433.1$
Variance $\left(S^{2}\right)=1260695.20$
Number of observation $\left(\mathrm{n}_{1}\right)=5$
Number of observation $\left(\mathrm{n}_{2}\right)=5$

$$
\begin{aligned}
& t= \frac{\bar{x}_{1}-\bar{x}_{2}}{\sqrt{S^{2}\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}} \\
&=4.26
\end{aligned}
$$

The critical value for degree of freedom (d.f.) $8, \mathrm{t}(0.05)=2.306$.

Decision: Hence the calculated value of $t(4.26)$ is greater than the tabulated value of $t(2.306), H 0$ is rejected. So, there is significant difference between the MPS of banks and insurance companies.

### 4.7.4 Fourth Hypothesis: DPR

This analysis is based on the pooled average of DPR of three Banks and Insurance
Companies.

| Fiscal Year | $2061 / 62$ | $2062 / 63$ | $2063 / 64$ | $2064 / 65$ | $2065 / 66$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Banks | 84.94 | 58.37 | 65.32 | 73.23 | 70.52 |
| Insurances | 0 | 36.04 | 7.68 | 16.52 | 28.40 |

Null Hypothesis (H0): There is no significant difference between the DPR of Banks and Insurance Companies.
ie, $\mu 1=\mu 2$

Alternative Hypothesis (H1): There is significant difference between the DPR of Banks and Insurance Companies.
ie, $\mu 1 \neq 12$
Computation of test statistics $t$
Mean $\left(x^{-}{ }_{1}\right)=70.48$
Mean $\left(x^{-}{ }_{2}\right)=17.73$
Variance $\left(S^{2}\right)=156.98$
Number of observation $\left(\mathrm{n}_{1}\right)=5$
Number of observation $\left(\mathrm{n}_{2}\right)=5$
$\begin{aligned} t= & \frac{\bar{x}_{1}-\bar{x}_{2}}{\sqrt{S^{2}\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}} \\ & =6.66\end{aligned}$

The critical value for degree of freedom (d.f.) $8, \mathrm{t}(0.05)=2.306$.

Decision: Hence the calculated value of $t(6.66)$ is greater than the tabulated value of $\mathrm{t}(2.306), \mathrm{H} 0$ is rejected. So, there is significant difference between the DPR of banks and insurance companies.

### 4.7.5 Conclusion

Through hypothesis test of DPS, EPS, MPS and DPR, it was found that there is significant difference between the DPS, EPS, MPS and DPR of sample banks and insurance companies.

### 4.8 Findings

### 4.8.1 Descriptive Findings

1) From the descriptive analysis, it is found that only the DPS of NABIL has consistent dividend policy. And among insurance companies, HGIC has consistent dividend policy. This indicates that other banks and insurance companies need to develop consistent dividend strategy that ultimately increases the MPS.
2) MPS is affected by financial position and dividend paid by the banks and insurances. In the connection, the MPS of the sample banks and insurance companies seems fluctuating and investors are not secured in the investment.
3) The normal practice of DPR is $46 \%$. But the sample banks and insurance companies have DPR of more than popular practice in almost all the cases.
4) It seems that the sample banks and insurance companies lack the proper planning of dividend payment.

### 4.8.2 Major Findings of the Study

The major findings that have drawn from analysis of secondary data and primary data are presented below;

1) SCBNL has the highest average EPS of Rs. 145.72 and BOK has the least EPS of 46.38 among sample banks. HGIC has the highest average EPS of Rs. 27.31 and NLIC has the least EPS of 6.02 among insurance companies. The trend analysis of EPS shows that SCBNL profitability of common stock holders' investment is better than other sample banks. Similarly, profitability of common stock holders for insurance companies is not good at all. The highest fluctuation calculated by C.V is 0.22 and 1.04 of BOK and NLIC. It is observed that banks have more consistent EPS than insurance companies.
2) There is no regularity in DPS of Sample banks and Insurance Companies in dividend payment. NABIL dividend is comparatively better than other two banks. The C.V. ranges from $25 \%$ to $47 \%$ and there is no consistency in dividend payment. In the analysis of three insurances, HGIC has the consistent dividend among three insurance companies. The C.V. ranges from $90 \%$ to $200 \%$ and there is no consistency in dividend payment. Banks have more consistent dividend than Insurance companies.
3) The analysis of dividend payout ratio gives us to find out dividend policy and practices adopted by the sample banks and Insurance companies. In our analysis shows that both banks and insurance companies DPR has not stable. Among the sample banks NABIL has the higher DPR 81.19\% with moderate fluctuation and among insurance companies HGIC DPR is $22.74 \%$ with moderate fluctuation.
4) On the analysis of dividend Yield ratio BOK is least deviated and consistent among three banks. The average dividend yield of bank is $2.29 \%$ to $2.95 \%$. In the CV analysis SCBNL 0.72 is more fluctuate than other sample banks. Similarly in case of insurances, HGIC has more consistent and least deviated dividend yield ratio than others. Both the NLIC and AIC has most fluctuating DY.
5) SCBNL has highest $\mathrm{P} / \mathrm{E}$ ratio indicates the favorable condition for the owner among the banks. But SCBNL has most fluctuating P/E ratio. Among the insurance companies, AIC has preferable P/E Ratio and NLIC has most fluctuating P/E ratio.
6) The relationship between DPS of all sample banks with EPS is positively correlated. Correlation coefficient between DPS and MPS two sample banks have positive and SCBNL has negative. Similarly, the correlation of the DPS with EPS is positive in insurance companies except HGIC. The correlation of the DPS with MPS of the all sample insurances is also positively correlated except NLIC.
7) The correlation between DPS and MPS of NABIL and BOK is positive and the correlation between SCBNL is negative. This indicates only the NABIL and BOK have significant relation between DPS and MPS. Similarly, correlation between DPS and MPS of AIC and HGIC is positive and NLIC is negative. This shows that NLIC has no relation with DPS and MPS whereas others have relation.
8) The relation between EPS and MPS of sample banks determined by correlation coefficient $-0.56,-0.07$, and 0.95 of SCBNL, NABIL and BOK respectively. Among insurance companies, NLIC, AIC and HGIC have correlation coefficient of $-0.56,0.22$, and -0.96 of respectively. Among banks BOK has significant relation and among insurance companies HGIC has significant relation between EPS and MPS.
9) The correlation between DY and EY of sample banks are $0.60,0.9$ and 0.76 of SCBNL, NABIL and BOK respectively. Among them the relation of NABIL and BOK is significant. The correlation between DY and EY of sample insurance companies are $0.95,0.11$ and 0.51 of NLIC, AIC and HGIC respectively. Among them the relation of NLIC is significant.
10) The correlation between DPR and MPS of NABIL and BOK is highly positive. SCBNL has negative correlation. Among them, the relation of SCBNL and NABIL
have found significant. The correlation between DPR and MPS of NLIC and AIC is positive. HGIC has negative correlation. Among them, the relation of NLIC and HGIC have found significant.
11) The regression coefficient DPS on EPS of all sample banks and insurances are positive except HGIC. Which indicates that DPS is influenced by any factor else than EPS. The coefficient of NABIL is high in comparison sample banks. From the regression analysis it can be concluded that a change in EPS affects the DPS differently in different banks and insurance companies.
12) The regression coefficient of MVPS on DPS of the SCBNL, NABIL and BOK are $70.45,43.80$, and 42.84 respectively. Similarly NLIC, AIC and HGIC has beta coefficient of $-29.25,23.61$ and 11.4 respectively. This means that one rupee increase in DPS of the NABIL by RS 43.8, BOK of Rs 42.84, AIC of Rs 23.61 and HGIC of Rs 11.4 MVPS respectively.
13) From the analysis of regression between MPS and EPS, it is found that the beta of SCBNL, NABIL, HBL and BOK is $-47.11,9$ and 32.13 and by looking at calculated value of $t$, only BOK has significant. In insurance companies, NLIC, AIC and HGIC has beta coefficient of $-46.68,0.89$ and -5.55 respectively. And all are insignificant while comparing calculated value of $t$ with tabulated value of $t$.
14) The regression analysis between MPS and DPR shows that SCBNL, NABIL and BOK have positive impact of DPR on MPS as the beta of there banks are 0.44 , 96.32 and 25.27 respectively. Similarly, beta coefficient between MPS and DPR of NLIC, AIC and HGIC are $-5.50,6.08$ and 2.69 respectively. The $t$-test is found significant for HGIC only.
15) The regression analysis between MPS and $P / E$ shows that $P / E$ has positive effect on MPS of SCBNL, NABIL and BOK. This is indicated by the beta of sample banks. T-test is found significant of for all the banks. Similarly, regression analysis between MPS and P/E shows that P/E has positive effect on MPS of NLIC, AIC and HGIC. Among insurance companies, the t-test of NLIC and HGIC are found significant where as AIC is insignificant.
16) The Multiple regression analysis between MPS with DPS, RE and P/E Ratio shows the Coefficient of Determination (r2) for SCBNL, NABIL, BOK, NLIC, AIC and

HGIC is $0.98,0.99,0.98,0.97,0.98$, and 0.99 respectively and it indicates a strong relationship between MPS with DPS, RE and P/E Ratio. The F-test demonstrates that the MPS of NABIL is influenced or determined by DPS, RE and P/E Ratio together whereas it is not influenced for SCBNL, BOK, NLIC, AIC and HGIC respectively.
17) From the first hypothesis, the test of hypothesis of F-test statistic between sample banks and insurance companies shows that there is a significant difference in EPS of the sample banks and insurance companies at 5\% level of significance.
18) From the second hypothesis, the test of hypothesis of F-test statistic between sample banks and insurance companies shows that there is a significant difference in DPS of the sample banks and insurance companies at 5\% level of significance.
19) From the third hypothesis it can be concluded that at the $5 \%$ level of significance that null hypothesis is rejected and alternative hypothesis is accepted. It means that there is significance difference between MPS of sample banks and insurance companies.
20) From the third hypothesis it can be concluded that at the $5 \%$ level of significance that null hypothesis is rejected and alternative hypothesis is accepted. It means that there is significance difference between DPR of sample banks and insurance companies.
21) $40 \%$ of respondents replied company pay dividend to attract potential investor and other remaining replied capture the market and retain existing investors.
22) $53 \%$ of total respondents said that dividend policy highly affects the market price per share.
23) $50 \%$ of total respondents said that they invest for dividend.
24) $45 \%$ of total respondents said that Liquidity position is considerable factor while adopting dividend practices.
25) $64 \%$ of total respondents said that chief executive officer is the most influential in developing the dividend decision policy.
26) $64 \%$ of total respondents said that bank reexamine its dividend policy annually.

## CHAPTER -V <br> SUMMARY, CONCLUSION AND RECOMMENDATIONS

After the analysis of the data, this chapter focuses on summarizing the study. The next attempt in the chapter will be made for recommendation on the basis of findings. The whole chapter is sub divided into summary, conclusion and recommendation.

### 5.1 Summary

Dividend refers to that portion of firms net earning which is paid out to the shareholders. Dividend serves as simple, comprehensive signal of management s interpretation of the firm's recent performance and its future prospects. The improved corporate dividend practices are thus essential means to solve the problem of asymmetric information between companies and Nepalese s investors who has poured their fund in. An effective way to attract new investors to invest in shares is paying dividend. Due to division of earnings of a company between dividend payout and retention of earnings, its effect on market price of shares is crucial questions. Thus, a wise policy should be maintained between shareholders interest and corporate growth from internally generated funds. The funds could not be used in case of lack of investment opportunities. Dividend payment to shareholders is taken as best in such a condition, because shareholders have investment opportunities to imply elsewhere. In the changed context of encouraging secondary market, it is time to study influences of other factors on dividend and implication of dividend on market price per shares.

The study has tried to cover some such factors. However it is not enough due to some limitation. The study mainly aims to analyze the existing dividend practices of sample banks. Its specific objectives are:

1. To analyze the existing dividend practices of sample banks and Insurance companies in terms of DPS, DPR, and DY.
2. To find out the effect on market value per share due to DPS and EPS,
3. To analyze the relationship of dividend with earning per share, market value per share of sample commercial banks and Insurance companies.
4. To find out significance difference between mean of DPS, EPS, MPS and DPR, among sample Commercial banks and Insurance companies.

Among 26 commercial banks only three commercial banks Standard Chartered bank ltd., NABIL Bank Ltd., Bank of Kathmandu Ltd. have been taken as sample banks for the study. Among 17 insurance companies, three insurance companies Nepal Life Insurance Co. Ltd., Alliance Insurance Co. Ltd., and Himalayan General Insurance Co. Ltd. have been taken for the study. The study has covered a period of five fiscal years from 2061/2062 to 2065/2066. The study has been conducted on the secondary data such as annual reports of selected banks and insurance companies. For the analysis of data different financial tools like DPS, DY, DPR, and statistical tools such as mean, standard deviation, correlation coefficient regression and hypothesis have been used.

Most of the things about dividend policy and brief introduction of this study has been presented in first chapter and available literature review as mentioned in second chapter. Research methodology is mentioned in third chapter. All available secondary data are presented and analyzed in fourth chapter. In the fifth chapter summary, conclusion and recommendation is mentioned.

### 5.2 Conclusion

From the finding of primary data, it can be concluded that commercial banks distribute dividend to attract potential investors. Banks market price per share is highly affected by dividend policy. Liquidity position is important factor while adopting dividend policy. The major motive of cash dividend of commercial bank is to convey information to shareholders that the company is doing well. The dividend practices followed of Nepalese commercial bank is payment of dividend after financing in appropriate investment opportunities. Chief executive officer is the most influential in developing the dividend decision in Nepalese commercial banks and insurance companies. Banks and
insurance companies reexamine their dividend policy normally annually. Commercial banks should be consistency in dividend policy in Nepalese enterprises.

The above mentioned secondary data analysis of major findings give this study to conclude that according to different financial indicators tools of the three sample banks, it shows that average dividend per share of Himalayan bank is higher than other EBL and NIBL. This indicates that HBL is paying higher dividend then other sample banks to its shareholders. On the basis of average dividend pay out ratio, NABIL Bank is paying higher portion of dividend of its earning as dividend then other two sample banks. On the basis of Dividend Yield ratio SCBNL is more efficient than NABIL and BOK for distribution of dividend on the basis of market price per share. Among the insurance companies, HGIC has the highest Dividend pay out ratio and Dividend yield ratio than others.

As for the simple regression of dividend per share on earning per share beta coefficient is positive in all sample banks. The positive sign of beta coefficient of earning per share indicates that dividend per share increase with higher per share in sample banks remaining other variable constant. On the basis of regression analysis dividend per share on Earning per share two insurance companies beta coefficient are positive and HGIC beta coefficient is negative. On the basis of regression analysis of market value per share on dividend per share is concerned, beta coefficient is positive except in SCBNL and NLIC, it means that increase in dividend per share results increase in market price per share in sample banks and insurance companies.

The correlation between DPS and MVPS of sample banks and insurance companies are found positive except SCBNL and NLIC. It implies that DPS affect MVPS.

On the basis of hypothesis test there is significance difference between mean of DPS, EPS, MPS and DPR among the sample commercial banks and the insurance companies.

### 5.3 Recommendations

On the basis of major findings of the study following recommendations can be made.

1. Banks and Insurance companies should pay dividend adopting any appropriate policy. Banks should have their clearly defined dividend policy. Clearly defined dividend policy helps to determine specific policy such as stable dividend or low regular plus extra. What should be the long run dividend payout ratio; either it is pure residual policy, fixed dividend payout policy should have been clearly explained. This short of policy helps to investors in deciding whether to buy or not the share of particular company. It also helps to build good image stock market. This kind of policy should be passed only one the conscious of shareholders. The tendency of management interference in policy matters should be eliminated.
2. There is lack of rules binding companies to pay dividend. So the Government of Nepal, SEBON, and NEPSE should act in favor of the investor and should bind through such legal provision so that the profit earning companies should distribute certain of their earning as dividend.
3. Most of the companies have great fluctuation on dividend per share. Earning per share, dividend yield and dividend payout ratio and share price in terms of coefficient of variation. Such fluctuation increases in risk position of investors. Therefore, company should stabilize these variables.
4. Payment of dividend is neither static nor constantly growing. It is highly fluctuating; such way of paying dividend could not impress the market positively. SO, these banks and Insurance companies are advised to follow either static or constantly growing dividend policy. It would be better to fix the amount of dividend in the general annual meeting. This is important not only from the point of view of adequate return to shareholders but also to generate stable and increasing market value per share, long run survival of bank, efficient management and socially acceptable distribution of income.
5. Any organization should be formed by the intellectual shareholders for working in favor of Nepalese investors, which should be recognized by the government. The government should this kind of organization to promote these activates and to protect the interest of investors.
6. Banks and Insurance companies are playing on the public money. So in this regard they are advised to have target rate of earning and target pay out ratio that will help companies to build good image in stock market and investors will be ease in making investment decision.
7. Each and every company should provide the information regarding their activities and performance, so that investors can analyze the situation and invest their money in the best company.
8. Companies should have long term vision regarding earning and dividend payment that helps to cope with challenging competitive situation of present world. Companies should define their vision clearly considering their future plans, expansion of business, future economy of country. Considering various internal and external factors, companies should choose whether to adopt stable dividend policy or constant payout ratio or low plus extra or leaving dividend as residual.
9. It is recommended to the concerned parties that the optimum dividend policy must be based on the following criteria: Optimum retention is made for excellent expansion and modernization. Optimum dividend so that market value per share will increase rapidly i.e. net present value of shareholders wealth can be maximized.

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## Appendix - 1

## Standard Chartered Bank Nepal Ltd

| Year | Total No. of Share Outstanding | Total <br> Dividend |  | $\begin{gathered} \text { MVP } \\ \mathrm{S} \end{gathered}$ | $=z_{6 .}=\frac{k^{P} \times(S}{E F S}$ | $\begin{gathered} \text { DPS } \\ \% \end{gathered}$ | DPS | DY | EY | $\begin{gathered} \mathrm{DP} \\ \mathrm{R} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2061/62 | 3746404 | 374640400 | 143.14 | 2345 | 16.38 | 100 | 120 | 5.12 | 33.89 | 83.83 |
| 2062/63 | 3395488 | 339548800 | 175.84 | 3775 | 21.47 | 100 | 120 | 3.18 | 37.55 | 68.24 |
| 2063/64 | 4132548 | 413254800 | 167.37 | 5900 | 35.25 | 100 | 80 | 1.35 | 32.68 | 47.80 |
| 2064/65 | 6807840 | 680784000 | 131.92 | 6830 | 51.77 | 100 | 80 | 1.17 | 32.85 | 60.64 |
| 2065/66 | 9319664 | 931966400 | 110.32 | 7750 | 70.24 | 100 | 50 | 0.65 | 29.20 | 45.32 |

Source: Calculated using chapter on the basis of the data extracted from NEPSE and annual reports of SCBNL Bank.

Dividend $\%=\frac{\text { Total Dividend }}{\text { No. of equity share }}$

## Appendix-2

Nabil Bank Ltd.

| Year | Total No. of Share Outstanding | Total <br> Dividend |  | MVPS | $=E \sim 6.3=\frac{k^{\sim} \times(S}{E F S}$ | DPS | DY | EY | DPR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2061/62 | 4909950 | 490995000 | 105.79 | 1505 | 14.23 | 70 | 4.65 | 7.03 | 66.17 |
| 2062/63 | 4909950 | 490995000 | 129.21 | 2240 | 17.34 | 85 | 3.79 | 5.77 | 65.64 |
| 2063/64 | 4909950 | 4909950 | 137.08 | 5050 | 36.84 | 140 | 2.70 | 2.71 | 102.19 |
| 2064/65 | 6873930 | 687393000 | 108.31 | 5275 | 48.70 | 100 | 1.9 | 2.05 | 92.32 |
| 2065/66 | 9657470 | 965747000 | 106.76 | 4899 | 45.89 | 85 | 1.73 | 2.18 | 79.62 |

Source: Calculated using chapter on the basis of the data extracted from NEPSE and annual reports of NABIL Bank.

## Appendix-3

## Bank of Kathmandu Ltd.

| Year | Total No. of Share Outstandin g | Total Dividend |  | $\begin{gathered} \text { MVP } \\ \mathrm{S} \end{gathered}$ |  | DPS | DY | EY | DPR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2061/62 | 4635809 | 463580900 | 30.1 | 430 | 14.29 | 15 | 3.49 | 7 | 49.83 |
| 2062/63 | 6031413 | 603141300 | 43.67 | 850 | 19.46 | 18 | 2.12 | 5.14 | 41.22 |
| 2063/64 | 6031413 | 603141300 | 43.5 | 1375 | 31.61 | 20 | 1.45 | 3.16 | 45.98 |
| 2064/65 | 6031413 | 603141300 | 59.94 | 2350 | 39.21 | 40 | 1.7 | 2.55 | 66.73 |
| 2065/66 | 8443979 | 844397900 | 54.68 | 1750 | 32 | 47.37 | 2.71 | 3.12 | 86.63 |

Source: Calculated using chapter on the basis of the data extracted from NEPSE and annual reports of BOK Bank.

## Appendix-4

## Nepal life Insurance Company Ltd

| Year | Total No. of Share Outstanding | Net Profit after Tax | Total Dividend |  | MVPS | $=\equiv z_{6} . \mathrm{k}=\frac{\mathrm{kP} / \mathrm{S}}{\mathrm{EFS}}$ | DPS | DY | EY | DPR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2061/62 | 2500000 | 10450000 | - | 4.18 | 304 | 72.73 | - | 0 | 1.38 | 0 |
| 2062/63 | 2500000 | 46250000 | 50000000 | 18.5 | 427 | 23.08 | 20 | 4.68 | 4.33 | 108.11 |
| 2063/64 | 2500000 | 7690000 | - | 3.08 | 820 | 266.23 | - | 0 | 0.38 | 0 |
| 2064/65 | 2500000 | 4180000 | - | 1.67 | 1669 | 999.40 | - | 0 | 0.10 | 0 |
| 2065/66 | 3000000 | 8500000 | - | 2.68 | 1295 | 483.20 | - | 0 | 0.21 | 0 |

Source: Calculated using chapter on the basis of the data extracted from NEPSE and annual reports of NLIC Insurance Company.

## Appendix-5

## Alliance Insurance Company Ltd

| Year | Total No. of Share Outstanding | Total Dividend |  | MVPS | $\left.=\equiv z_{6} \cdot\right\}=\frac{k^{2} \cdot x S}{E F S}$ | DPS | DY | EY | DPR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2061/62 | 500000 | 0 | 6.64 | 110 | 16.57 | - | 0 | 6.04 | 0 |
| 2062/63 | 500000 | 0 | 13.17 | 102 | 7.74 | - | 0 | 12.91 | 0 |
| 2063/64 | 500000 | 0 | 23.12 | 111 | 4.8 | - | 0 | 20.83 | 0 |
| 2064/65 | 500000 | 0 | 6.28 | 154 | 24.52 | - | 0 | 4.08 | 0 |
| 2065/66 | 500000 | 5000000 | 22.67 | 180 | 7.94 | 10 | 0.06 | 12.60 | 44.11 |

Source: Calculated using chapter on the basis of the data extracted from NEPSE and annual reports of AIC Insurance Company.

## Appendix-6

## Himlayan General Insurance Company Ltd

| Year | Total No. of Share <br> Outstanding | Net Profit after Tax | Total Dividend |  | MVPS | $=\equiv$ 26. $=\frac{k-3 / S}{E F S}$ | DPS | DY | EY | DPR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2061/62 | 300000 | 11011000 | - | 36.7 | 205 | 5.59 | - | 0 | 5.59 | 0 |
| 2062/63 | 300000 | 11970000 | - | 39.9 | 189 | 4.74 | - | 0 | 4.74 | 0 |
| 2063/64 | 300000 | 7538000 | 173700 | 25.12 | 300 | 11.94 | 5.79 | 1.93 | 11.94 | 23.04 |
| 2064/65 | 630000 | 6685000 | 3313800 | 10.61 | 345 | 32.52 | 5.26 | 1.52 | 3.07 | 49.57 |
| 2065/66 | 1008000 | 24420000 | 10080000 | 24.23 | 285 | 11.72 | 10 | 3.5 | 8.53 | 41.1 |

Source: Calculated using chapter on the basis of the data extracted from NEPSE and annual reports of HGIC Insurance Company.

Annex - I

| Year | SCBNL <br> DPS | NABIL <br> DPS | BOK DPS | NLIC <br> DPS | AIC <br> DPS | HGIC <br> DPS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 120 | 70 | 15 | 0 | 0 | 0 |
| $2062 / 63$ | 120 | 85 | 18 | 20 | 0 | 0 |
| $2063 / 64$ | 80 | 140 | 20 | 0 | 0 | 5.79 |
| $2064 / 65$ | 80 | 100 | 40 | 0 | 0 | 5.26 |
| $2065 / 66$ | 50 | 85 | 47.37 | 0 | 10 | 10 |

Correlation between DPS and EPS

| F/Y | SCBNL <br> EPS | NABIL <br> EPS | BOK EPS | NLIC <br> EPS | AIC <br> EPS | HGIC <br> EPS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 143.14 | 105.79 | 30.1 | 4.18 | 6.64 | 36.7 |
| $2062 / 63$ | 175.84 | 129.21 | 43.67 | 18.5 | 13.17 | 39.9 |
| $2063 / 64$ | 167.37 | 137.08 | 43.5 | 3.08 | 23.12 | 25.12 |
| $2064 / 65$ | 131.92 | 108.31 | 59.94 | 1.67 | 6.28 | 10.61 |
| $2065 / 66$ | 110.32 | 106.76 | 54.68 | 2.68 | 22.67 | 24.23 |


| Correlation | 0.68 | 0.71 | 0.87 | 0.99 | 0.56 | -0.66 |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: |
| $\mathrm{r}^{2}$ | 0.46 | 0.50 | 0.76 | 0.98 | 0.31 | 0.44 |
| probable E | 0.16 | 0.15 | 0.07 | 0.01 | 0.21 | 0.17 |
| 6 PE | 0.96 | 0.90 | 0.42 | 0.06 | 1.26 | 1.02 |

Correlation has been calculated by using MS-Excel by using Formula= correl(DPS:EPS)

Correlation between DPS and MPS

| Year | SCBNL <br> DPS | NABIL <br> DPS | BOK DPS | NLIC <br> DPS | AIC <br> DPS | HGIC <br> DPS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 120 | 70 | 15 | 0 | 0 | 0 |
| $2062 / 63$ | 120 | 85 | 18 | 20 | 0 | 0 |
| $2063 / 64$ | 80 | 140 | 20 | 0 | 0 | 5.79 |
| $2064 / 65$ | 80 | 100 | 40 | 0 | 0 | 5.26 |
| $2065 / 66$ | 50 | 85 | 47.37 | 0 | 10 | 10 |


| Year | SCBNL <br> MPS | NABIL <br> MPS | BOK MPS | NLIC <br> MPS | AIC <br> MPS | HGIC <br> MPS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 2345 | 1505 | 430 | 304 | 110 | 205 |
| $2062 / 63$ | 3775 | 2240 | 850 | 427 | 102 | 189 |
| $2063 / 64$ | 5900 | 5050 | 1375 | 820 | 11 | 300 |
| $2064 / 65$ | 6830 | 5275 | 2350 | 1669 | 154 | 345 |
| $2065 / 66$ | 7750 | 4899 | 1750 | 1295 | 180 | 285 |


| Correlation | -0.95 | 0.66 | 0.83 | -0.46 | 0.80 | 0.74 |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: |
| $\mathrm{r}^{2}$ | 0.90 | 0.44 | 0.69 | 0.21 | 0.64 | 0.55 |
| probable E | 0.18 | 0.17 | 0.09 | 0.35 | 0.16 | 0.20 |
| 6 PE | 1.09 | 1.01 | 0.63 | 2.12 | 0.97 | 1.21 |

Correlation has been calculated by using MS-Excel by using Formula= correl(DPS:MPS)

## Correlation between EPS and MPS

| Year | SCBNL <br> EPS | NABIL <br> EPS | BOK EPS | NLIC <br> EPS | AIC <br> EPS | HGIC <br> EPS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 143.14 | 105.79 | 30.1 | 4.18 | 6.64 | 36.7 |
| $2062 / 63$ | 175.84 | 129.21 | 43.67 | 18.5 | 13.17 | 39.9 |
| $2063 / 64$ | 167.37 | 137.08 | 43.5 | 3.08 | 23.12 | 25.12 |
| $2064 / 65$ | 131.92 | 108.31 | 59.94 | 1.67 | 6.28 | 10.61 |
| $2065 / 66$ | 110.32 | 106.76 | 54.68 | 2.68 | 22.67 | 24.23 |


| Year | SCBNL <br> MPS | NABIL <br> MPS | BOK MPS | NLIC <br> MPS | AIC <br> MPS | HGIC <br> MPS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 2345 | 1505 | 430 | 304 | 110 | 205 |
| $2062 / 63$ | 3775 | 2240 | 850 | 427 | 102 | 189 |
| $2063 / 64$ | 5900 | 5050 | 1375 | 820 | 11 | 300 |
| $2064 / 65$ | 6830 | 5275 | 2350 | 1669 | 154 | 345 |
| $2065 / 66$ | 7750 | 4899 | 1750 | 1295 | 180 | 285 |


| Correlation | -0.56 | -0.07 | 0.95 | -0.56 | 0.22 | -0.98 |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: |
| $\mathrm{r}^{2}$ | 0.31 | 0.005 | 0.90 | 0.31 | 0.05 | 0.96 |
| probable E | 0.21 | 0.30 | 0.03 | 0.21 | 0.29 | 0.012 |
| 6 PE | 1.24 | 1.80 | 0.18 | 1.24 | 1.72 | 0.07 |

Correlation has been calculated by using MS-Excel by using Formula= correl(EPS:MPS)

## Correlation between DY and EY

| Year | SCBNL <br> DY | NABIL <br> DY | BOK DY | NLIC <br> DY | AIC <br> DY | HGIC <br> DY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 5.12 | 4.65 | 3.49 | 0 | 0 | 0 |
| $2062 / 63$ | 3.18 | 3.79 | 2.12 | 4.68 | 0 | 0 |
| $2063 / 64$ | 1.35 | 2.7 | 1.45 | 0 | 0 | 1.93 |
| $2064 / 65$ | 1.17 | 1.9 | 1.7 | 0 | 0 | 1.52 |
| $2065 / 66$ | 0.65 | 1.73 | 2.71 | 0 | 0.06 | 3.5 |


| Year | SCBNL <br> EY | NABIL <br> EY | BOK EY | NLIC EY | AIC EY | HGIC EY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 33.89 | 7.03 | 7 | 1.38 | 6.04 | 5.59 |
| $2062 / 63$ | 37.55 | 5.77 | 5.14 | 4.33 | 12.91 | 4.74 |
| $2063 / 64$ | 32.68 | 2.71 | 3.16 | 0.38 | 20.83 | 11.94 |
| $2064 / 65$ | 32.85 | 2.05 | 2.55 | 0.10 | 4.08 | 3.07 |
| $2065 / 66$ | 29.2 | 2.18 | 3.12 | 0.21 | 12.6 | 8.53 |


| Correlation | 0.60 | 0.98 | 0.76 | 0.95 | 0.11 | 0.51 |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| $\mathrm{r}^{2}$ | 0.36 | 0.96 | 0.58 | 0.90 | 0.01 | 0.26 |
| probable E | 0.19 | 0.012 | 0.13 | 0.03 | 0.30 | 0.22 |
| 6 PE | 1.16 | 0.07 | 0.76 | 0.18 | 1.78 | 1.34 |

Correlation has been calculated by using MS-Excel by using Formula= correl(DY:EY)

## Correlation between DPR and MPS

| Year | SCBNL <br> DPR | NABIL <br> DPR | BOK DPR | NLIC <br> DPR | AIC <br> DPR | HGIC <br> DPR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 83.83 | 66.17 | 49.83 | 0 | 0 | 0 |
| $2062 / 63$ | 68.24 | 65.64 | 41.22 | 108.11 | 0 | 0 |
| $2063 / 64$ | 47.8 | 102.19 | 45.98 | 0 | 0 | 23.04 |
| $2064 / 65$ | 60.64 | 92.32 | 66.73 | 0 | 0 | 49.57 |
| $2065 / 66$ | 45.32 | 79.62 | 86.73 | 0 | 44.11 | 41.1 |


| Year | SCBNL <br> MPS | NABIL <br> MPS | BOK MPS | NLIC <br> MPS | AIC <br> MPS | HGIC <br> MPS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2061 / 62$ | 2345 | 1505 | 430 | 304 | 110 | 205 |
| $2062 / 63$ | 3775 | 2240 | 850 | 427 | 102 | 189 |
| $2063 / 64$ | 5900 | 5050 | 1375 | 820 | 11 | 300 |
| $2064 / 65$ | 6830 | 5275 | 2350 | 1669 | 154 | 345 |
| $2065 / 66$ | 7750 | 4899 | 1750 | 1295 | 180 | 285 |


| Correlation | -0.89 | 0.87 | 0.64 | 0.99 | 0.56 | -0.95 |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: |
| $\mathrm{r}^{2}$ | 0.79 | 0.76 | 0.41 | 0.98 | 0.31 | 0.90 |
| probable E | 0.063 | 0.07 | 0.18 | 0.006 | 0.21 | 0.03 |
| 6 PE | 0.38 | 0.43 | 1.07 | 0.04 | 1.24 | 0.18 |

Correlation has been calculated by using MS-Excel by using Formula= correl(DPR:MPS)

## Annex - II <br> Regression analysis between MPS and DPS of SCBNL



## Regression analysis between MPS and DPS of NABIL

| Regression Statistics |  |
| :---: | :---: |
| Multiple R | 0.659489 |
| R Square | 0.434926 |
| Adjusted R |  |
| Square | 0.246568 |
| Standard |  |
| Error | 1543.387 |
| Observations | 5 |

ANOVA

|  |  |  |  |  | Significance |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $d f$ | $S S$ | $M S$ | $F$ | $F$ |
| Regression | 1 | 5500230 | 5500230 | 2.309039 | 0.225943 |
| Residual | 3 | 7146129 | 2382043 |  |  |
| Total | 4 | 12646359 |  |  |  |


|  |  | Standard |  |  |  |  | Upper | Lower |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Coefficients | Error | $t$ Stat | P-value | Lower $95 \%$ | $95 \%$ | $95.0 \%$ | $95.0 \%$ |
| Intercept | -408.826 | 2850.527 |  | 0.895049 | -9480.48 | 8662.824 | -9480.48 | 8662.824 |
| y | 43.77735 | 28.80937 | 1.519552 | 0.225943 | -47.9069 | 135.4616 | -47.9069 | 135.4616 |

## Regression analysis between MPS and DPS of BOK



## Regression analysis between MPS and DPS of NLIC

| Regression Statistics |  |
| :---: | :---: |
| Multiple R | 0.460997 |
| R Square | 0.212518 |
| Adjusted R |  |
| Square | -0.04998 |
| Standard |  |
| Error | 591.4575 |
| Observations | 5 |

ANOVA

|  |  |  |  |  | Significance |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $d f$ | $S S$ | $M S$ | $F$ | $F$ |
| Regression | 1 | 283220 | 283220 | 0.809612 | 0.434549 |
| Residual | 3 | 1049466 | 349822 |  |  |
| Total | 4 | 1332686 |  |  |  |


|  |  | Standard |  |  |  |  | Upper | Lower |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Coefficients | Error | Ustat | P-value | Lower 95\% | $95 \%$ | $95.0 \%$ | $95.0 \%$ |
| Intercept | 1022 | 295.7288 |  | 0.040762 | 80.8591 | 1963.141 | 80.8591 | 1963.141 |
| y | -29.75 | 33.06348 | -0.89978 | 0.434549 | -134.973 | 75.47275 | -134.973 | 75.47275 |

Regression analysis between MPS and DPS of AIC

| Regression Statistics |  |
| :---: | :---: |
| Multiple R | 0.800174 |
| R Square | 0.640278 |
| Adjusted R |  |
| Square | 0.520371 |
| Standard |  |
| Error | 23.51418 |
| Observations | 5 |
|  |  |
| ANOVA |  |



## Regression analysis between MPS and DPS of HGIC

| Regression Statistics |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Multiple R | 0.736521 |  |  |  |  |  |  |  |
| R Square | 0.542463 |  |  |  |  |  |  |  |
| Adjusted R |  |  |  |  |  |  |  |  |
| Square | 0.389951 |  |  |  |  |  |  |  |
| Standard |  |  |  |  |  |  |  |  |
| Error | 51.51538 |  |  |  |  |  |  |  |
| Observations | 5 |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Significance |  |  |  |
|  | df | SS | MS | $F$ | $F$ |  |  |  |
| Regression | 1 | 9439.297 | 9439.297 | 3.556852 | 0.155774 |  |  |  |
| Residual | 3 | 7961.503 | 2653.834 |  |  |  |  |  |
| Total | 4 | 17400.8 |  |  |  |  |  |  |
| Standard |  |  |  |  |  | Upper | Lower | Upper |
|  | Coefficients | Error | $t$ Stat | $P$-value | Lower 95\% | 95\% | 95.0\% | 95.0\% |
| Intercept | 216.7858 | 34.33532 | 6.313784 | 0.00803 | 107.5155 | 326.0561 | 107.5155 | 326.0561 |
| y | 11.4048 | 6.047206 | 1.885962 | 0.155774 | -7.84011 | 30.64971 | -7.84011 | 30.64971 |

Regression analysis between MPS and DPS:

| Companies | Constant A | B | SEE | r | $\mathrm{R}^{2}$ | t -value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 16662.5 | -70.47 | 791.67 | -0.95 | 0.91 | -5.341 |
| NABIL | -408.83 | 43.8 | 1543.39 | 0.66 | 0.44 | 1.52 |
| BOK | 148.29 | 42.84 | 408.63 | 0.83 | 0.69 | 2.60 |
| NLIC | 1022 | -29.45 | 591.45 | -0.46 | 0.21 | -0.90 |
| AIC | 119.25 | 23.61 | 23.51 | 0.80 | 0.64 | 2.31 |
| HGIC | 216.79 | 11.4 | 51.51 | 0.74 | 0.55 | 1.89 |

Calculated By using MS-Excel Regression Analysis as above

Regression Analysis Between MPS and EPS:

| Banks | A | B | SEE | r | r 2 | t -value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 12185.85 | -47.11 | 2120.12 | -0.56 | 0.638 | -1.18 |
| NABIL | 2373.21 | 9 | 2047.50 | 0.07 | 0.005 | 0.13 |
| BOK | -1530.29 | 62.13 | 256.98 | 0.96 | 0.92 | 5.58 |
| NLIC | 1184.10 | -46.68 | 548.20 | -0.57 | 0.32 | -1.20 |
| AIC | 118.57 | 0.89 | 38.27 | 0.22 | 0.05 | 0.38 |
| HGIC | 416.30 | -5.55 | 16.25 | -0.98 | 0.96 | -7.94 |

Calculated By using MS-Excel Regression Analysis

Regression Analysis between MPS and DPR

| Companies | A | B | SEE | r | $\mathrm{R}^{2}$ | t -value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 119.04 | 0.44 | 29.65 | 0.26 | 0.068 | 0.46 |
| NABIL | -4026.51 | 96.32 | 1007.6 | 0.87 | 0.76 | 3.08 |
| BOK | -145.75 | 25.77 | 667.02 | 0.64 | 0.41 | 1.43 |
| NLIC | 1022 | -5.50 | 591.46 | -0.46 | 0.21 | -0.90 |
| AIC | 119.25 | 6.08 | 23.57 | 0.8 | 0.64 | 2.31 |
| HGIC | 203.72 | 2.69 | 27.78 | 0.93 | 0.86 | 4.42 |

Calculated By using MS-Excel Regression Analysis

Regression Analysis between MPS and P/E

| Companies | A | B | SEE | r | $\mathrm{R}^{2}$ | t -value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | 1611.81 | 95.03 | 806.4 | 0.95 | 0.91 | 5.23 |
| NABIL | 304.47 | 107.03 | 551.8 | 0.96 | 0.92 | 3.5952 |
| BOK | -617.83 | 72.08 | 191.43 | 0.98 | 0.96 | 7.65 |
| NLIC | 387.39 | 1.4 | 187.24 | 0.96 | 0.92 | 5.92 |
| AIC | 119.26 | 0.99 | 38.1 | 0.24 | 0.06 | 0.42 |
| HGIC | 197.26 | 5.07 | 38.05 | 0.87 | 0.76 | 3 |

Calculated By using MS-Excel Regression Analysis

Regression Analysis between MPS and P/E

| Companies | A | B | SEE | r | $\mathrm{R}^{2}$ | t -value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCBNL | -21.56 | 0.77 | 24.45 | 0.68 | 0.46 | 1.60 |
| NABIL | -57.20 | 1.30 | 21.69 | 0.71 | 0.50 | 1.76 |
| BOK | -22.81 | 1.10 | 8.37 | 0.87 | 0.76 | 3.03 |
| NLIC | -3.60 | 1.26 | 1.32 | 0.99 | 0.98 | 13.44 |
| AIC | -2.38 | 0.30 | 4.27 | 0.56 | 0.31 | 1.18 |
| HGIC | 10.86 | -0.24 | 3.68 | -0.66 | 0.44 | -1.54 |

Calculated By using MS-Excel Regression Analysis

## Annex - III

Multiple Regression Analysis of MPS on DPS, RE and P/E Ratio of SCBNL

## SUMMARY OUTPUT

| Regression Statistics |  |
| :--- | ---: |
| Multiple R | 0.990276 |
| R Square | 0.980647 |
| Adjusted R |  |
| Square | 0.922587 |
| Standard Error | 618.3854 |
| Observations | 5 |

ANOVA

|  |  |  |  |  |  | Significance |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $d f$ |  | $S S$ | $M S$ | $F$ | $F$ |  |
| Regression |  | 3 | 19376650 | 6458883 | 16.89036 | 0.176555 |  |
| Residual | 1 | 382400.5 | 382400.5 |  |  |  |  |
| Total | 4 | 19759050 |  |  |  |  |  |


|  | Coefficients | Standard Error | $t$ Stat | $P$-value | Lower 95\% | $\begin{gathered} \hline \text { Upper } \\ 95 \% \end{gathered}$ | $\begin{aligned} & \hline \text { Lower } \\ & 95.0 \% \end{aligned}$ | $\begin{aligned} & \text { Upper } \\ & 95.0 \% \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intercept | -2227.96 | 7240.567 | -0.30771 | 0.809962 | -94228.1 | 89772.16 | -94228.1 | 89772.16 |
| DPS(X1) | 17.39625 | 47.27861 | 0.367952 | 0.775542 | -583.335 | 618.128 | -583.335 | 618.128 |
| RE(X2) | 33.57205 | 19.61017 | 1.711971 | 0.336557 | -215.599 | 282.7429 | -215.599 | 282.7429 |
| PE Ratio(X3) | 105.3953 | 58.13907 | 1.812814 | 0.320915 | -633.332 | 844.1222 | -633.332 | 844.1222 |

## Multiple Regression Analysis of MPS on DPS, RE and P/E Ratio of NABIL SUMMARY OUTPUT

| Regression Statistics |  |
| :--- | ---: |
| Multiple R | 0.99965324 |
| R Square | 0.9993066 |
| Adjusted R |  |
| Square | 0.9972264 |
| Standard Error | 93.6428505 |
| Observations | 5 |


| ANOVA |  |  |  |  |  | Significance |
| :--- | ---: | ---: | ---: | :---: | :---: | :---: |
|  | $d f$ |  | $S S$ | $M S$ | $F$ | $F$ |
| Regression | 3 | 12637589.82 | 4212530 | 480.3898 | 0.03352369 |  |
| Residual | 1 | 8768.983455 | 8768.983 |  |  |  |
| Total | 4 | 12646358.8 |  |  |  |  |


|  | Standard |  |  |  |  |  | Upper | Lower |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: |
|  | Coefficients | Error | $t$ Stat | P-value | Lower 95\% | 95\% | 95.0\% | $95.0 \%$ |
| Intercept | -2012.6287 | 644.0729715 | -3.12485 | 0.197172 | -10196.352 | 6171.094 | -10196.4 | 6171.094 |
| DPS(X1) | 24.5403497 | 3.929277165 | 6.245513 | 0.101074 | -25.38585 | 74.46655 | -25.3859 | 74.4655 |
| RE(X2) | 10.781349 | 7.361148535 | 1.464629 | 0.381377 | -82.750911 | 104.3136 | -82.7509 | 104.3136 |
| PE Ratio(X3) | 98.7580008 | 5.251775422 | 18.80469 | 0.033822 | 32.0278671 | 165.4881 | 32.02787 | 165.4881 |

## Multiple Regression Analysis of MPS on DPS, RE and P/E Ratio of BOK SUMMARY OUTPUT

| Regression Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Multiple R | 0.992812889 |  |  |  |  |
| R Square Adjusted R | 0.985677432 |  |  |  |  |
| Square | 0.942709727 |  |  |  |  |
| Standard Error | 179.7952246 |  |  |  |  |
| Observations | 5 |  |  |  |  |
| ANOVA |  |  |  |  |  |
|  | $d f$ | SS | MS | F | Significance |
| Regression | 3 | 2224693.677 | 741564.6 | 22.93996 | 0.152013 |
| Residual | 1 | 32326.32279 | 32326.32 |  |  |
| Total | 4 | 2257020 |  |  |  |


|  | Standard |  |  |  |  |  | Upper <br> $95 \%$ | Lower <br> $95.0 \%$ |
| :--- | ---: | :---: | ---: | :---: | :---: | :---: | :---: | :---: |
|  | Coefficients | Error | Stat | P-value | Lower $95 \%$ | $95.0 \%$ |  |  |
|  | - |  |  |  |  |  |  |  |
| Intercept | 1015.557051 | 515.1967296 | -1.9712 | 0.298877 | -7561.75 | 5530.638 | -7561.75 | 5530.638 |
| DPS(X1) | 25.73596383 | 17.87309418 | 1.439928 | 0.386435 | -201.363 | 252.8352 | -201.363 | 252.8352 |
| RE(X2) | 21.76574079 | 23.48851383 | 0.926655 | 0.524224 | -276.684 | 320.2156 | -276.684 | 320.2156 |
| PE Ratio(X3) | 45.60465267 | 20.14357755 | 2.26398 | 0.264789 | -210.344 | 301.5531 | -210.344 | 301.5531 |

Multiple Regression Analysis of MPS on DPS, RE and P/E Ratio of NLIC SUMMARY OUTPUT

| Regression |  |
| :--- | ---: |
| Statistics |  |
| Multiple R | 0.987004366 |
| R Square | 0.974177618 |
| Adjusted R |  |
| Square | 0.896710473 |
| Standard Error | 185.5077539 |
| Observations | 5 |

ANOVA

|  |  |  |  | Significance |
| :---: | :---: | :---: | :---: | :---: |
| $d f$ | $S S$ | $M S$ | $F$ | $F$ |


| Regression | 3 | 1298273 | 432757.6 | 12.57536 | 0.203717 |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Residual | 1 | 34413.13 | 34413.13 |  |  |
| Total | 4 | 1332686 |  |  |  |


|  | Coefficients | Standard Error | $t$ Stat | $P$-value | Lower 95\% | $\begin{gathered} \hline \text { Upper } \\ 95 \% \end{gathered}$ | Lower $95.0 \%$ | Upper <br> 95.0\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intercept | 2624.137612 | 1571.705 | 1.669612 | 0.343546 | -17346.3 | 22594.55 | -17346.3 | 22594.548 |
| DPS(X1) | -151.461862 | 106.7748 | -1.41852 | 0.390915 | -1508.16 | 1205.241 | -1508.16 | 1205.24106 |
| RE(X2) | 554.4876873 | 386.9254 | 6 | 0.387862 | 4 | 6 | 470 | 4361.8662 |
| PE Ratio(X3) | 0.015948747 | 1.005152 | 0.015867 | 0.9899 | -12.7557 | 12.78762 | -12.7557 | 12.7876168 |

## Multiple Regression Analysis of MPS on DPS, RE and P/E Ratio of AIC

## SUMMARY OUTPUT

| Regression |  |
| :--- | ---: |
| Statistics |  |
| Multiple R | 0.990652411 |
| R Square | 0.9813922 |
| Adjusted R |  |
| Square | 0.925568801 |
| Standard Error | 9.263060308 |
| Observations | 5 |


| ANOVA |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | :---: | :---: | :---: |
|  | $d f$ |  | $S S$ | $M S$ | $F$ | Significance |
|  |  |  | $F$ |  |  |  |
| Regression |  | 4525.396 | 1508.465 | 17.5803 | 0.173143 |  |
| Residual | 1 | 85.80429 | 85.80429 |  |  |  |
| Total | 4 | 4611.2 |  |  |  |  |


|  | Standard |  |  | $P$-value | Lower 95\% | $\begin{gathered} \text { Upper } \\ 95 \% \end{gathered}$ | Lower$95.0 \%$ | $\begin{aligned} & \text { Upper } \\ & 95.0 \% \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Coefficients | Error | $t$ Stat |  |  |  |  |  |
| Intercept | 22.2029046 | 31.9439 | 0.695059 | 0.613316 | -383.683 | 428.0887 | -383.683 | 428.0887 |
| DPS(X1) | 8.415993976 | 1.202462 | 6.998972 | 0.090348 | -6.86273 | 23.69472 | -6.86273 | 23.69472 |
| RE(X2) | 3.002253762 | 1.356874 | 2.212625 | 0.27023 | -14.2385 | 20.24297 | -14.2385 | 20.24297 |
| PE Ratio(X3) | 4.483450941 | 1.195601 | 3.749957 | 0.165906 | -10.7081 | 19.675 | -10.7081 | 19.675 |

# Multiple Regression Analysis of MPS on DPS, RE and P/E Ratio of HGIC 

## SUMMARY OUTPUT



|  | Standard |  |  |  |  |  |  | Upper |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Coefficients | Error | t Stat | P-value | Lower 95\% | Sow | Upper <br> $95.0 \%$ | $95.0 \%$ |
| Intercept | 666.0937489 | 220.9843 | 3.014213 | 0.203932 | -2141.78 | 3473.966 | -2141.78 | 3473.965708 |
|  | - |  |  |  |  |  |  |  |
| DPS(X1) | 14.86415417 | 10.20425 | -1.45666 | 0.382996 | -144.521 | 114.7931 | -144.521 | 114.7931332 |
| RE(X2) | -11.4586724 | 5.220153 | -2.19508 | 0.272136 | -77.787 | 54.86967 | -77.787 | 54.86966505 |
| PE Ratio(X3) | -5.56287852 | 4.406251 | -1.2625 | 0.426468 | -61.5496 | 50.42385 | -61.5496 | 50.42385226 |

## Annex - IV

Hypothesis testing of DPS of Banks and Insurance Companies based on pooled average
t-Test: Two-Sample Assuming Equal Variances

|  | Banks | Insurances |
| :--- | ---: | ---: |
| Mean | 71.356 | 3.404 |
| Variance | 52.06428 | 9.45728 |
| Observations | 5 | 5 |
| Pooled Variance | 30.76078 |  |
| Hypothesized Mean |  |  |
| Difference | 0 |  |
| df | 8 |  |
| t Stat | 19.37196056 |  |
| P(T<=t) one-tail | $2.61706 \mathrm{E}-08$ |  |
| t Critical one-tail | 1.859548033 |  |
| $\mathrm{P}(\mathrm{T}<=\mathrm{t})$ two-tail | $5.23413 \mathrm{E}-08$ |  |
| t Critical two-tail | 2.306004133 |  |

Hypothesis testing of EPS of Banks and Insurance Companies based on pooled average
t-Test: Two-Sample Assuming Equal Variances

|  | Banks | Insurances |
| :--- | ---: | ---: |
| Mean | 103.176 | 15.906 |
| Variance | 151.51873 | 39.87753 |
| Observations | 5 | 5 |
| Pooled Variance | 95.69813 |  |
| Hypothesized Mean Difference | 0 |  |
| df | 8 |  |
| t Stat | 14.10533011 |  |
| $\mathrm{P}(\mathrm{T}<=\mathrm{t})$ one-tail | $3.10075 \mathrm{E}-07$ |  |
| t Critical one-tail | 1.859548033 |  |
| $\mathrm{P}(\mathrm{T}<=\mathrm{t})$ two-tail | $6.20151 \mathrm{E}-07$ |  |
| t Critical two-tail | 2.306004133 |  |

Hypothesis testing of MPS of Banks and Insurance Companies based on pooled average
t-Test: Two-Sample Assuming Equal Variances

|  | Banks | Insurances |
| :--- | ---: | ---: |
| Mean | 3461.932 | 433.066 |
| Variance | 2472699.303 | 49231.11068 |
| Observations | 5 | 5 |
| Pooled Variance | 1260965.207 |  |
| Hypothesized Mean |  |  |
| Difference | 0 |  |
| df | 8 |  |
| t Stat | 4.26479846 |  |
| P(T<=t) one-tail | 0.001371733 |  |
| t Critical one-tail | 1.859548033 |  |
| P(T<=t) two-tail | 0.002743466 |  |
| t Critical two-tail | 2.306004133 |  |

Hypothesis testing of DPR of Banks and Insurance Companies based on pooled average
t-Test: Two-Sample Assuming Equal Variances

|  | Banks | Insurances |
| :--- | ---: | ---: |
| Mean | 70.476 | 17.728 |
| Variance | 97.48333 | 216.48112 |
| Observations | 5 | 5 |
| Pooled Variance | 156.982225 |  |
| Hypothesized Mean |  |  |
| Difference | 0 |  |
| df | 8 |  |
| t Stat | 6.656573959 |  |
| P(T<=t) one-tail | $7.98578 \mathrm{E}-05$ |  |
| t Critical one-tail | 1.859548033 |  |
| P(T<=t) two-tail | 0.000159716 |  |
| t Critical two-tail | 2.306004133 |  |

