# <u>CHAPTER-I</u>

# INTRODUCTION

# **1.1 BACKGROUND OF THE STUDY:**

Financial Institutions are investment intermediaries linking the savers and users of capital. So Financial institutions, especially the banks are the lifeblood of economy. Without these, the modern complex economic system cannot function. The banking system has facilitated the personal transaction such as deposit and remittance of money and lending and borrowing of money. It has made easier to develop agriculture industry and trade. At the same time, it has helpful to accelerate the pace of economic development. In general, the term bank is used to mean a commercial bank. Commercial banks play vital role in capital formation and proper utilization of collected fund, providing service in domestic and internal trade. Safe and sound banking system is of crucial importance for the financial stability and sustainable development. A good banking system is supposed to help in mobilization saving from households and business in low east of financial activities and allocation of scarce resources to the most productive investment opportunities, which are essential for economic development.

In the economic development of the country the banks are playing specific role, so if there is insufficiencies of banking and financial facilities, the growth of the economic development become slow. The main objectives of the commercial are to earn profit by proper mobilization of resources. It is fairly safe to say that banks are not the outcome of the economic development but are the courses for it. Specially, commercial banks provide different facilities to the people engaged in trade, commerce and industry. That is why; they are being the means to uplift the society. Commercial banks functions are different way such as accepting deposit, providing interest. In the formulation of capital performing agency functions which make business easier and they also play an important role in credit creation when economy is in boom commercial banks increase interest rate which reduce the profitability of inflation and incase of depression they reduce interest rate. So that, people interested in financial sector. Thus in the modern economic system, commercial banks are regarded as the backbone of economy.

There are several commercial banks operating in Nepal that aim at contributing to trade, commercial and industrial sector in the country. The commercial banks including joint venture banks are altogether 20 in number (as on mid July, 2007). Which are; Rastriya Banijya Bank, Nepal Arab Bank Ltd., Nepal investment Bank Ltd., Standard Chartered Bank Nepal Ltd., Himalayan Bank Ltd., Nepal Bangladesh Bank Ltd., Nepal SBI Bank Ltd., Everest Bank Ltd., Bank of Kathmandu Ltd., Nepal Credit and Commerce Bank Ltd., Lumbani Bank Ltd., Nepal Industrial and Commercial Bank Ltd., Machhapuchre Bank Ltd., Kumari Bank Ltd., Laxmi Bank Ltd., Shiddhartha Bank Ltd., Agriculture Development Bank, Global Bank Ltd and Citizens Bank International Ltd.

The commercial banking industry has remarkable developed in a short span of one decade. The development has certainly helped to mobilize the unused internal resources and external funds for economic development of the nation. The modern banking philosophy like credit card facilities, Tele banking, 24 hours banking service, and now even e-banking concept are actually remarkable banking facilities of commercial banks.

The history of modern banking in Nepal began in 1937 A.D when Nepal Bank Ltd. was established as a first bank in non-governmental sector. After 16 years of establishment, it becomes public limited company, in 1953 AD. It performed as central bank until Nepal Rastra Bank was established in 1956 AD. Before 1980, only government sector banks i.e. Nepal Bank Limited and Rastriya Banijya Bank operated as commercial banks. When government sector adopted policy of the globalization and liberalization several financial institutions were established to mobilize scattered funds in the economy. In other wards His Majesty's Government of Nepal permitted to establish private commercial banks with foreign investment in this sector. Since then, private commercial banks and joint venture banks are established. The first joint venture bank, NABIL, was established in Nepal in 1984 AD.

Investor purchase shares available in the capital market expecting two forms of future retains: dividend gain and capital gain (Pradhan and Adhikari, 2001) when a company pays out a portion of its earning to shareholder in the form of dividend, the shareholder benefit directly. If instead of paying dividends, the firm retains the fund to exploit other growth opportunities the shareholder can expect to benefit indirectly through future increase in the price of their stocks. Thus shareholder's wealth can be increased through either dividend or

capital gain. The policy of a company on the division of its earning between dividend and retention is known as dividend policy. Dividend policy determines the division f\of dividend of earnings between payment to shareholder and reinvestment in the form (Weston Copeland: 1990).All aspects and the issues, related to payment of dividend are contained in dividend policy. The primary purpose of business organization is to create profit for its owner's and dividend is the most important way the business fulfill this mission. When a company earns a profit, some of this money is typically reinvestment in the business to maximize the wealth in the long run, called retained earning. So that retained earnings are the most significant internal source of financing for the growing firm even though. Financing growth can be considered as a secondary objective of dividend policy. Dividend policy of the firm thus has its effect on both the long term financing and wealth so shareholders. Therefore the firm should forecast the future need for funds and should determine the amount of retained earnings available after payment of dividend. There is reciprocal relationship between retained earnings and cash dividends. A higher dividend rate means less retained earning lesser dividend rate means high retained earning. If retained earning is less the growth will be slower and lower market price per share. So, the financial manager must vary carefully decide the allocation of earning between dividends and retained earnings, as this decision effects the value of the firms and as a result, the value of the firms cost of capital. Most corporations pay dividend quarterly. Dividends may be paid in cash, stock or merchandise. Cash dividends are most common and merchandise dividends are least common. Shareholders are not promised a dividend, but he or she grows to expect certain payment on the historical dividend pattern of firm. Before dividends are paid to common stockholders the claims of all creditors, the government and preferred stockholders must be satisfied (Lawrence, 1988).

According to Pandey, (1999), Dividend policy is a major decision of the firm. A firm's dividend policy has the effect of dividing its net earnings in to two parts: the retained earnings and dividends.

Dividend distributions are based on percentage of the Par value or are certain sum per share of no Par value stock. They become payable only when approved by the board of directors and are usually declared at regular intervals. Obviously, dividend should not be paid unless the company has an accumulated a profit or surplus. In context of Nepal, dividend can be paid either cash or stock of their company. But most of the shareholders prefer cash dividend because it is predictable than future gain in the form of capital gain (Brealy and Meyers 1998. 417)

In setting its dividend policy a firm must consider many factor in addition to taxes, friction cost and information effects. It must consider interdependencies among investment, financing and dividend policies earning prospects liquidity requirement, makeup of the shareholders group and legal and regulatory restrictions. Dividend policy may affect such areas as the financial management, the flow of the funds, corporate liquidity, stocks price and investors attitude.

In context of Nepal, most of the public enterprises are operating in loss. In situation it is not possible to distribute the dividend. Such enterprises mainly focus on minimizing their loss. There are few companies who pay dividend. But after the establishment of joint venture companies, there is a trend of distributing dividends.

Dividend distributing trend has not only attracted the investors but has also made the management conscious about the policy regarding the payment of dividend.

#### **1.2 STATEMENT OF PROBLEM:**

Dividend is the most inspiring factor for the investment on share of the company and similar to commercial banks. But Nepalese commercial bank has not satisfactory result resulting dividend decision. The dividend behavior and the market price of the commercial banks are also affected by government rules and regulations. There is no limit to the identification of the problem about dividend behavior and impact in market price. That is visible in commercial banks in Nepal.

Dividend decision is still crucial as well as controversial area of corporate finance. The effect of the dividend and market value of a corporation is a subject of long standing controversy. Capital market is an important part corporate development of a country even if capital market is in the early stage of development in Nepal. Nepalese investors have heavily made investment on newly established companies, especially in the financial sector because they have been receiving dividend in each and every year. this trend will remain to continue until the investors are satisfied by the decision made by the management of these companies. In such context, the dividend policy is an effective tool to attract new investor and to maintain the present ones however. Even if dividend affects the firms' value, unless management knows exactly how they affect the value, there is not much they can do to increase the shareholders wealth. So it is necessary for the management to understand how the dividend policy effects the market valuation of the firm or market price of stock.

The major problems that have been identified for the purpose of this study are:

- 1. What is the relationship of dividend with earning per share, market price per share, net profit and net worth of different commercial banks?
- 2. What is the elasticity of dividend and retained earning with respect the market price per share.
- 3. Are all Nepalese commercial banks having uniform policy in the dividend distribution?

#### **1.3 OBJECTIVES OF THE STUDY:**

The major objective of the study is to analyze the relationship between the dividend change and its impact on share price of commercial banks in context of Nepal. The specific objectives are as follows:

- 1. To examine the relationship of dividend with earning per share, market price of the share, growth rate and net profit.
- 2. To observe the elasticity of dividend and retained earning with respect the market price per share.
- 3. To take depth knowledge of the dividend policy of Nepalese commercial banks.

#### **1.4 NEED AND IMPORTANCE OF THE STUDY:**

Every people are attracted to invest in share capital for propose of getting more return as well as to maximize their wealth. So the dividend policy has become an effective way to attract new investors. This study will be helpful to understand the dividend payment policy of the commercial bank in Nepal. It will be helpful to related persons like policy maker, shareholders and management. It will be important for the government in making policy, controlling, monitoring and supervising the commercial bank in Nepal. This study will be helpful to the further researchers.

## **1.5 LIMITATION OF THE STUDY:**

This study will be limited by following factors:

- 1. This study covers only dividend policy of commercial banks and its impact on market price of share.
- 2. Only secondary data will be used for this study.
- 3. The study covers five fiscal years data from FY 2003/04 to 2007/2008.
- 4. Only five Commercial banks are taken for the study. These banks may not represent all the commercial banks in the economy. The banks are:
  - I. Standard Chartered Bank Nepal Ltd
  - II. Nepal SBI Bank Ltd.
  - III. Bank of Kathmandu Ltd
  - IV. Nepal Bangladesh Bank Ltd.
  - V. Everest Bank Ltd.

#### **1.6 ORGANIZATION OF THE STUDY:**

This study has been organized into five chapters, each devoted to some aspect of the study of dividend policy followed by commercial banks in Nepal.

Chapter I includes the introductory part of the study as already mentioned this chapter describes the general background if the study, statement of the problem, objectives of the study, need and important of the study, research methodology, limitation of the study and organization of the study. Chapter II deals with conceptual framework on dividend policy and also includes major studies with dividend decision, type of dividend and factor affecting

dividend policy. Chapter III describes the research methodology employed in the study. This deals with the matter and sources of data, population and sample, the model of analysis, meaning and definition of statistical tools. Chapter IV deals with presentation and analysis of data and information through a definite course of research methodology. Chapter V states summary and conclusions, major finding of the study and recommendation. In this part, major findings and comparison with theory and other empirical evidence to the possible extent will present. The bibliography, annexes are incorporated at the end of the study.

# <u>CHAPTER II</u> REVIEW OF LITERATURE

In the first chapter the introductory part of this study has been presented. This chapter highlights upon the literature that, are concerned to this subject. Similarly, what other have said, done or written etc. about the dividend policy are also reviewed. Which provides the useful inputs in this study and we should study in this chapter what factors are affected to dividend and what are the types of dividends.

## **2.1 CONCEPTUAL FRAMEWORK:**

The term dividend possesses great significance for stakeholders since the evaluation of corporate business. Dividend is one of the major reasons for which public are interested in investing their saving in common stocks of corporate firms and institution. Dividend policy determines the decision of earnings between payments to shareholders and reinvestment in the firm. Retained earnings are one of the most significant sources of funds for financing corporation growth, but dividend constitutes the cash flow that accrues to shareholder (Weston and Copeland: 1990).

Dividend policy decision is a crucial and integral part of financial management which affect financial structure, the flow of funds, corporate liquidity and investor's attitudes. The dividend policy adopted by the firm should be such that it strikes a proper balance between the financing decision and wealth maximization decision. There is reciprocal relationship between the retained earning and cash dividend. If retained earning is kept more by the company less will be dividend and vice-versa. It is in the sense that the firm has to choose between distribution profits of shareholders and plowing them back in to the business. The decision depends upon the objectives of the management for wealth maximization. The firm will use the net profit for paying dividends to the shareholders.

What and how much it is desirable to pay as dividend is always a matter of disputed, because shareholder expects higher dividend from corporation wants to re-invest its profit for maximizing the overall shareholder's wealth. "Financial management is therefore concerned with the activities of corporation that affect the well-being of shareholders. That will being can be particularly measured by the dividend received, but a more accurate measure is market value of stock. (Dean, 1997).

The company should adopt that dividend policy which should be minimizing the market price of share. "The objective of dividend policy should be to maximize a shareholder's return so that value of the investment is maximized (Pandey, 1999). Dividend policy of a firm has a long term impact on financial structure, the flow of funds, corporate liquidity, net profit, share price and earning per share. The more the company distribute cash dividend the lesser will be earning available for reinvestment, weather dividend will increase value or not may depend on the profitable investment opportunities available to the firm.

Higher dividends can directly benefit shareholders because they reduce the free resources, with managers can use sub-optimally. Some economists believe that management decides to pay dividend in order to pay dividend in order to reduce agency costs (Easter, 1984).

It is a fact that a high payout policy means more current dividend and less retained earnings which may consequently result in slower growth and perhaps lower market price per share. Low payout policy means less current dividend, more uncertain than current dividends but current dividends may be taxed more than capital gains. It is quite plausible that some investors would prefer high payout companies while others may prefer low payout companies. Thus the relationship between dividend, retained earnings and the value of the share is not clear-cut.

#### 2.2 RESIDUAL THEORY OF DIVIDEND:

We know the each period the company must decides whether to retain its earnings or to distribute part or all of them to shareholders as cash dividends. The firm may treat dividend policy as a residual decision. Under this theory earning will be distributed to shareholders in the form of cash dividend, only the firm has retained earning left over after financing all acceptable investment opportunities. In other words, the shareholders get dividend only when there exist balance of earning after paying fixed obligation and financing all acceptable investment opportunity. If nothing is left after financing, there will be no dividends. It assumes that the internally generated funds (retained earnings) are comparatively cheaper

than the funds obtained from external sources due to floatation cost. It is also known as treating dividend policy as a financial decision. According to this concept dividend policy is passive in nature. The treatment of dividend policy as a passive residual determinant solely by the availability of acceptable investment proposals implies that dividends are irrelevant, the investor in indifferent between dividends and retention by the firms.

## 2.3 DISCRETIONARY CONCEPT:

Dividend Payment is one of director's decisions and so they use discretion in declaration of dividend. Corporation charter vested power to Board of directors(BODs) and it is up to their discretion that determines what and how much to pay by way of dividends to shareholders in practices are devoid ot this power to claim dividend since corporation charter characteristically separate owners in matter of dividend decision of directors. Unless question of legality are involved the payment or withholding of dividend is a matter of business policy over which the directors have complete jurisdiction.

#### 2.4 STABILITY OF DIVIDENDS:

Stability or regularity of dividend is considered as a desirable policy by the management of most companies in practice. Most of shareholders also seem generally in favour of this policy and value stable dividends higher than fluctuating ones. All other things being same, stable dividends have a positive impact on the market price of share. This policy is applicable in the firm having regular and stable income. But this policy does not refer to fix income every year or period. It can be changed proportionately with changer in companies earning.

The term dividend stability refers to the consistency or lack of variability in the stream of dividends. In more precise terms, it means that a certain minimum amount of dividend is paid out regularly. The stability of dividends can take any of the following three forms.

#### **Constant dividend per share:**

When a firm pays fix amount of dividend per share over the year and does not change it with the fluctuation in the level of its earnings, it is said to have persuade relatively stable dividend policy. The policy doesn't imply that the dividend per share or dividend rate will never be increased. When the company reaches new level of earning and expect to maintain it, the annual dividend per share may be increased. This policy is completely rational policy and poses the strategic financial management. Therefore, it is related to the company's ability to pay dividend. Investors who have dividends as the only source of their income prefer the constant dividend policy.

#### **Constant payment ratio:**

Constant payment means paying a fixed percentage of net earnings as dividend payment every year. Under this policy, the dividend fluctuates in direct proportion to the volatility of earnings. It reflects company's ability to pay dividends. If the company generates profits, dividends shall be paid otherwise not. At any given pay out ratio, the amount of dividends and addition to retained earnings increasing with earning and decrease with decreasing earnings. So it guards against over payments as well as underpayments of dividends. Earn and avoided when it incurs losses (Brantd, 1972). However shareholders argue that this policy poses uncertainty and irregularity in regards to expected dividends. There is much irregularity in payment of dividends in Nepal.

#### Low regular dividend plus extras

Under this policy a sum of amount is paid regularly as dividend. In the boom period, extra dividend is paid over and above the regular dividend payment and the normal condition retains, the firm cuts extra dividend per share and pay regular dividends only. For companies with fluctuating earnings, this method of payment dividends is desirable. Shareholders also favor this policy because they are benefited in prosperity and continual depression. In other words certain shareholders like this policy because of the certain cash flow in the form of regular dividends and option of earning extra dividends occasionally. So, this policy is compromise between first two.

#### 2.5 FORMS OF DIVIDEND:

The usual practice is to pay dividend in the form of cash. But dividend can be distributed in different forms regarding the corporate objectives and dividend policy and attitude of the directors. The type of dividend that corporations follow is partly a matter of attitude of

directors, partly a matter of shareholders preferences and also depending on the various circumstances and other financial constraints that bound corporate plan and policies. Based on the financial suitability of corporations, dividend may be distributed in various forms like cash dividend, property dividend, scrip dividend and stock dividend and bond dividend. In our country, only cash and stock dividend are declared and paid.

# **Cash Dividend:**

It is a kind of dividend, which is distributed to the shareholders in the form of cash out of the earning of the company. If dividend is paid, it will be reduce the balance of the cash and reserve account. The market price of the share drops in most cases by the amount of the cash dividend distribution. The firm has to maintain adequate level of liquidity position for distribution of the cash dividend otherwise the company should borrow the needed fund externally.

When the company follows the stable dividend policy, it should prepare a cash budget for coming period to indicate the necessary funds, which would be needed to meet the regular dividend payment of the company. When cash dividend is distributed, both total assets and net worth of the company are decreased. But it helps the company to build an image in the capital market so as to create favorable condition to arise the funds at the needs.

# Stock Dividend (Bond Shares) and Shares Split:

Another expect of the dividend policy is stock dividend and stock split. A stock dividend is paid in additional shares of stock instead of in cash and simply involves bookkeeping transfer from retain earning to the capital stock account. In the stock split there is no changed in capital account instead a lager no. of shares of common stock is issued. In a two – for – one split, stock holder received two share for each one previously held. The book value per share is cut in half, and the par, or stated, value of share of stock in similarly changed (Weston Copeland: 1990). Some of the joint venture companies of Nepal have adopted the policy of paying cash along with stock dividend.

One of the common forms of the stock dividend referred as bonus share, are the subscription receipt (scrip) provided to the shares holders as additional shares. Bonus share has the attribute buoyancy so that it is more preferred by the stock holders.

The effect of the stock dividend or a stock split can be summarized as follows (Schall & Haley, 1991).

- ) There is no changed in the firm assets and liabilities or on share holders' equity (assets less liabilities).
- ) There is fall in per share earnings, book value and market price and offsetting rise in the no. of shares held by each share holders.
- ) The issue of stock dividends does not affect the shareholders proportional ownership.
- ) The issue of stock dividend transfer retained earning to capital accounts.

# **Property Dividend:**

This involves payment of assets / property in any form other then cash. Occasionally, a corporation has been known to pay dividend in the form of merchandise owned or products by it. Stockholders can not be compelled to take the property distributable to him on account of dividend. If the stockholders refuse to take property dividend, the company may retain it in trust him of possible sell it for his benefit (Gesterberg, 1996) He does not have option to receive equivalent amount of cash in lieu of property dividend. This form dividend may be followed when there are assets that are no longer necessary in operation of business or in extra ordinary circumstances .Companies on product and securities of subsidiaries are the example that have been paid as property dividend. In Nepal, there is not tradition of paying property dividend, still in U.S.A. companies are found paying property dividend.

# **Bond Dividend:**

Bond dividend by its name is a dividend that is distributed to share holders in form of the bond. |Bond dividend helps to postpone the payment of cash. In other words, company declared dividend in the form of its own bond with a view to avoid cash out flows is called bond dividend. Bond dividends are the means to dividend postponement for a while. But it could not bring back the psychological value as the cash dividend.

# Scrip Dividend:

A dividend paid in the form of transferable promissory notes is called scrip dividend. "Scrip dividends are those paid in company's promises to pay instead of cash". (Americana, Encyclopedia Americana, 1997. It is paid when earnings of the company justify dividends

but the company's cash position is temporarily weak and doesn't permit cash dividend. It may declare dividend in form of scrip. When the company actually generates cash inflows then such notes are converted into cash. Scrip dividends may bear a definite maturity date or the disbursement date may be left to the directors. Such dividends may be interest bearing or non interest bearing.

## 2.6 FACTORS EFFECTING IN DIVIDEND POLICY:

The factor effecting dividend decision is one of the main focuses of this study. Mostly government owned public limited companies are in loss. There's no question of paying dividend rather they are attempting to minimize losses. However in case of joint venture companies, insurance companies and other private owned enterprises, management has somewhat understood the importance of the dividend. Through all of them are not distributing dividend. Therefore it is desirable to study the factors recognized as active variable in determination of dividend in Nepalese companies.

#### **Stability of earnings**

Along with the rate of profit, stability of profit is also equally important. A firm that has relatively stable earning is often able to predict approximately what its future earnings will be. This stable earning of the firm enables to pay dividend regularly. The firms with stable earning and likely to pay higher dividend if the earnings are fluctuating, the amount of dividend also fluctuates as well.

#### **Legal Requirements:**

The dividend policy of the firm has to be evolved with in the legal framework and restrictions. The legal rules provide that dividend must be paid from earning either from the current earnings or from past years earning as reflected in the balance sheet account "retained earning". Legal rules constrain dividend payment on certain conditions as follows:

- a) Capital impairment rule states that dividend should not be paid out of paid-up capital, which causes adverse effect on security of creditors and preference shareholders.
- b) The firm should not pay cash dividend greater then the current net profit plus accumulated balance of retained earning. Accumulated loss should be recouped out of

current earnings. This rule is violated by some of Nepalese companies due to management intention and government intervention.

- c) Insolvent firms i.e. liquidities exceeding assets or unable to pay bills are prohibited for paying cash dividend to protect creditors of the firm.
- d) If the firm has retained earning to provide opportunity to shareholders for capital gain and thereby evade tax liability of income, under such condition the firm may be forced to pay dividends.

# **Liquidity Position:**

Liquidity position or the availability of cash factors are to be considered in making the dividend decisions. A firm may have sufficient retained earnings, but if they are invested in physical assets cash may not available to make dividend payments. Even a company that is growing and profitable may not be liquid, for its funds may go into investment opportunities, fixed assets and permanent current assets. Although a firm has adequate earnings to declare dividend, it may not have sufficient cash to pay dividends because of its liquidity position and may issue stock dividend and retain earning in to business to improve its liquidity position.

# **Need to Repay Debt:**

When a firm has issued debt to finance expansion or to substitute for other form of financing, it is faced with two alternatives. It can refund the debt at maturity by replacing it with another form of security or it can make provision of paying off debt. If the decision is to retire the debt, this will generally require the retention of earning (Weston and Copeland: 1990).

# **High Rate of Profit:**

At this level it is desirable to retain earnings rather then to pay those out of the investor will earn less by outside investment.

# **Control Consideration:**

Dividend policy may also be affected by the share holders or the management's control objective. That is to say, sometimes management employs dividend policy as an effective instrument to maintain its position of command and control.

The dividend pays out influences additional external control financing. If the owners rely on external financing in order to maintain control, the amount of the dividend will be reduced.

# **Tax Policy:**

The dividend policy of the firm may be dictated by the income tax status of the shareholders. The tax policy of government, high or low tax payment effects dividend policy differently. Corporations owned largely by taxpayers in high income tax bracket tend toward lower dividend pay outs because the tax rate applied to dividends. Corporations owned by small investors tend towards higher dividend payments. Sometimes there may be a conflict between shareholders in high income tax brackets and shareholders in low tax brackets. The dividend policy may be a compromise on intermediate payment ratio. If one group dominates the members of the other groups are likely to sell their share, overtime. Therefore a firm's dividend policy dictates the type of shareholders it has and vice-versa. These types of activity are called the clientele effect.

# Access to Capital Market:

A company which is not sufficiently liquid can pay dividends if it is able to raise debt or equity in the capital markets. A firm which well established and has a record of profitability will not find much difficulty in raising funds in the capital markets. The greater ability of the firm to raise funds in the capital markets, the greater will be its ability to pay dividends even if it is not liquid.

# **Restrictions in Loan Agreements:**

Lender may generally put restrictions on dividend payments to protect their interests when the firm is experiencing liquidity or profitability difficulties. As such a firm agrees as part of a contract with a lender to restrict dividend payment. When restrictions are put, the company is forced to retain earnings and have a low payment.

# **Investment Opportunities:**

Most of the corporations look towards important prospects for profit enhancement through expansion of facilities and scope of operation. If a company have good opportunity for investment it is better to reinvest the earnings. If there are no good investment opportunities in that case it is better to paying dividend. In other words, when the investment opportunity rises infrequently it should follow a policy of paying dividends and raise external funds when the investment opportunities occur.

# Inflation:

Inflation also play decisive role in dividend decision. If price raise, the company may have to retain high percentage of earning because of inadequate funds generated from depreciation to replace equipments.

# **Others:**

- ) Past dividends.
- ) Rate of assets expansion.
- ) The lack of other sources of financing.

# 2.7 LEGAL PROVISIONS REGARDING DIVIDEND PRACTICES IN NEPAL

The first legal provision regarding the protection shareholders interest was empowered by the Security Exchange Act 1983/84 even though it was not clear. Simply it empowered to the stock exchange center to bear responsibility to take required action to protect shareholders interest, which was not sufficient. Then after, Nepal Company Act 1997 has made some legal provision for dividend payment in Nepalese organizations. These provisions are as follows:

# Section 2:

Section 2 (m) states that bonus share (stock dividend) means share issued in the form of additional share to shareholders by capitalizing the surplus from the profit or the reserve fund of a company. The trend also denotes an increase in the paid up value of the share after capitalizing surplus reserve funds.

# Section 47:

Section 47 has prohibited company from purchasing its own share. This section states that no company shall purchase its own shares or supply loans against the security of its own shares.

#### Section 137:

Bonus share and sub-section (1) states that the company must inform the shareholders before issuing bonus share under sub-section (1). This may be done only according to a special resolution passed by the general meetings.

#### Section 140:

Dividend and sub-sections of these sections of this section are as follows:

#### ▲ Sub- section - 1:

Expect in the following circumstances, dividend shall be distributed among the shareholders with the 45 days from the date of decision to distribute them.

- ) In case any law forbids the distribution of dividend.
- ) In case the right to dividend is disputed.
- ) In case dividend can not be distributed within the time limit mentioned above owing to circumstance anyone's control and without any fault on the past the company.

## ▲ Sub- section – 2:

In case dividends are not distributed within the time limit mentioned in sub-section (1), dividend pins interest should be distributed.

#### ▲ Sub- section –3:

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

The above rules indicated that Nepalese law prohibits repurchase of stock which is against the theory of finance. The reason for this kind of provision is not known.

# **2.8 REVIEW OF MAJOR INTERNATIONAL STUDY:**

There are so many studies made by the different persons and institutions for dividend change and stock price. There are two opinions regarding to dividend payout and market price of shares. The first point of views argues that dividend payment do not effect the market value of the share. The other viewer argues that dividend is relevant and the amounts of dividend paid affect the market value of share. To put high light to these matter different studies made by different international scholars and researcher should be over viewed. Some of the major international studies on the relating to dividend are stated as follows:

#### Modigliani and Miller's Study:

Modigliani and Miller's (1961) article is the most comprehensive argument for the irrelevance of dividend, i.e. dividend policy has no effect on the share price of the firm. They argue that the value of the firm depends on the firms earnings, which result from its investment policy. Thus, when investment decision of the firm is given dividend decision, the split of earnings between dividends and retained earning has no significance in determining the value of the firm.

In general, the argument supporting the irrelevance of dividend valuation is that dividend policy of the firm is a part of its financing decisions. As a part of the financing decision of the firm, the dividend policy of the firm is a residual decision and dividend are passive residual.

Modigliani and Miller's (MM'S) hypothesis of irrelevancy is based on following assumptions.

- a) The firms operates is perfect capital market (i.e. all investors are rational, information is freely available, floatation cost dose not exist, infinitely divisible securities and no investors are large enough to affect market price of security.)
- b) The firm has a fixed investment policy which is not subjected to change.
- c) Risk of uncertainty does not exist.
- d) Tax does not exist.
- e) Every investor is certain as to future investments and profits of the firm. (MM dropped this assumption later.)

MM provides the proof in support of their argument in the following ways;

Step-1:

$$P_o = \frac{D_1 + P_o}{1 + K_s} \dots \dots \dots \dots (1)$$

The market price of the share of the firm at the beginning of the period is defined as equal to present value of dividend paid at the end of the period. Symbolically,

Where,

 $P_0$ = Current market price per share.

 $D_1$ = Dividend per share to be received at the end of the period.

 $P_1$ = Market price per share at the end of the period.

K<sub>e</sub>= Cost of equity capital (assumed constant)

## **Step- 2:**

Multiply both sides of the equation (1) by the number of shares outstanding (n), we obtained the total value of firm if no new financing exists.

$$nP_{o} = \frac{nD_{1} - nP_{1}}{1 + K_{a}}....(2)$$

Where,

n= No. of outstanding share at the zero period.

## Step-3:

If the firm sells no of new shares ( n) at the end of the period at a price P1, the value of the firm at time will be;

$$nP_{o} = \frac{nD_{1} + P_{1}(n - \Delta n) - \Delta nP_{1}}{1 + K_{e}}$$
(3)

Where,

n= No. of equity shares issued at the end of the period.

## Step-4:

$$\zeta nP_1 X I Z (E Z nD_1)$$
  
or,  
$$\zeta nP_1 X I Z E \Gamma nD_1....(4)$$

If the investment projects of the firm are a given period of the time can be financed either by retained earning or the issues of new share or both. Thus, the amount issued will be;

Where,

I= Total new investment during the period. (Investment need)

#### E= Earnings of the firm during the period. (Earning available)

#### Step-5:

By subtracting the value of nP1 from equation (4) to equation (3), we get;

$$nP_{0} = \frac{nD_{1} + (D + \Delta n)P_{1} - I + E - nD_{1}}{1 + K_{e}}$$
  
Or,  
$$nP_{0} = \frac{P_{1}(n + \Delta n) - I + E}{1 + K_{e}}$$
....(5)

#### Step-6:

#### **Conclusions:**

There is no any rule of dividend in above equation. Therefore MM conclude that dividend policy does not affect the value of the firm or it is irrelevant factor. A firm that pays dividends will have to raise funds externally to finance its investment plans. MM hold that when the firm pays dividends external financing effects its advantages.

## Walter's Study:

Professor James E. Walter studies on dividend and stock price on 1966. He proposed a model for share valuation. According to him, the dividend policy of the firm affects of the value of the share. So, the dividends are relevant. He argues that the choice of dividend policies always affect the value of enterprises.

The key argument in support of the relevance proposition of Walter's model is the relationship between the rate of return on a firm's investment or its internal rate of return (r) and its cost of capital or required rate of return (k). The firm would have an optimum dividend policy which will be determined by the relationship of r and k.

The assumptions of the Walter's model are as follows:

- a) The firm finance all investment through retain earning. The external funds (i.e. debt, new equity) are not used for new investment.
- b) The firm's internal rate of return (r) and its cost of capital (k) are constant.
- c) All earnings are either distributed as dividend or retained internally.
- d) There is no change in value of earning per share & dividend per share.
- e) The firm has a perpetual or infinite life.

Based on above assumptions, the market price of share is determined by the following formula:

$$P X \frac{DPS \Gamma r}{K_e} (EPS Z DPS)}{K_e}$$

Where,

P= Market price per share.

DPS= Dividend per share.

EPS= Earning per share.

r= Internal rate of return of retained earning.

K<sub>e</sub>= Cost of equity or market capitalization rate.

According to this study the given firm may have three probable conditions which are as follows:

# Growth Firm (r>K<sub>e</sub>):

The firms that have profitable investment opportunities are growth firms. Such firms reinvest retain earning at a rate which is higher then the rate expected by shareholders. These firms would maximize the value per share if they follow the policy of retaining all earning for reinvestment. In this case optimum payout ratio for this types firm (growth firm) is zero. Thus the correlation between dividend and stock price is negative when  $r > K_e$ .

# Normal firm (r=K<sub>e</sub>):

In normal firm the market value of share is constant irrespective of the dividend payout ratio; there is no optimum dividend policy. Or the market price of share is not affected by the D/P ratio. One dividend policy is good as other and the market value per share is not effected by the payout ratio when r=k.

# Declining firm (r<K<sub>e</sub>)

If the internal rate of return (r) is less than cost of capital (k); it indicates that the share holders can earn a higher return by investing elsewhere. In such a case for maximizing the value of share, dividend also should be maximized. By distributing the entire earning as dividend, the value of share will be at optimum value. The relation between dividends and

stock price is 100% and the market value per share increases as payout ratio increases when r<k.

By studying the Walter's model, the dividend policy of the firm depends on the availability of investment opportunities and the relationship between the firms cost of capital ( $k_e$ ) and internal rate of return (r) (Ezra, 1963). The firm should use all earnings for reinvestment in growth firm r> $k_e$ , distribute all earnings as dividends in decreasing firm r< $k_e$  and be indifferent between payment and retention of earning in normal firm r= $k_e$ . Thus dividend decision is a financial decision when dividend decision is treated as a financial decision and the payment of cash dividend is positive residual.

### **Gordon's Study:**

Myron Gordon concluded that in his study in 1963, the dividend policy of a firm influences the value of the shares. According to him, a corporation's share price is not independent of the dividend rate. The conclusion of this study is that investor's value of the present dividend more than future capital gain. That is to say current dividends are considered certain and risk less. So, it is preferred by rational investors as compared to differed dividend in future. The future is uncertain. The investor would naturally like to avoid uncertainty. He argued that an increase in dividend pay out ratio leads to increase in the stock price for the reason that investors consider the dividend yield  $(D_1/P_0)$  is less risky than the expected capital gain (Gordon.1962).

His model is based on the following assumptions:

- a) The firm is an all equity firm. (that is no debt exists)
- b) There is no outside financing and corporate growth is expected to drive from retained earnings.
- c) The firm and its stream of earnings are perpetual.
- d) The corporate taxes ignored.
- e) Internal rate of return (R) and cost of capital (K<sub>e</sub>) are constant.
- f) The retention ratio 'b' once declared is constant. Thus, the growth rate 'g' =br is constant.
- g) 'K<sub>e</sub>' must be greater than 'g' (br).

$$P X \frac{E(1 Z b)}{K_e Z br}$$

Considering the above assumptions, Gordon has given the following formula for finding out the market value per share.

Where,

P= Market price per share.

E= Earning per share.

B= Retention ratio or percentage of retained earning.

(1-b)= Percentage of earning as dividends.

E(1-b) = Dividend per share.

 $K_e$ = Cost of capital or capitalization rate.

br = g = Growth rate.

According to this model, the following facts are revealed:

## Growth firm (r>K<sub>e</sub>):

In the case of growth firm, share price tends to decline in corresponding with increase in pay out ratio, i.e. high dividend leads to decrease in share price. Therefore, dividend and stock prices are negatively correlated in growth firms.

# Normal firm (r=K<sub>e</sub>):

Dividend pay out ratio does not affect the value of share in the normal firm. In other words, share value remains constant regardless of changes in dividend policies. It means dividend and stock price are free from each other in normal firm i.e.  $r=K_e$ .

# **Decline firm** (r<K<sub>e</sub>):

In the case of decline firm, share price tends to rise with the rise in dividend pay out ratio. It means dividend and stock price are positively correlated with each other in decline firms.

# Van Horne and McDonald's Study:

Van Horne and McDonald conducted a comprehensive study on dividend policy and new equity financing. The propose of this study was to investigate the combined effect of dividend policy and new equity financing decision on the market value of the firm's common stocks. For their investigation they selected two investors. They did the investigation by a gross section regression model during the year end 1968. The performed the empirical test. The required data are collected from 86 electricity utility firms included on the COMPUSTAT utility database and 39 firms from the electronic component industries as listed on the COMPUSTAT industrial database.

They tested two regression models for the utilities industries. The first model was,

 $P_0 / E_0 X a_0 \Gamma a_1(g) \Gamma a_2(D_0 / E_0) \Gamma a_3(Lev) \Gamma U$ 

Where,

 $P_0/E_0$  = Closing market price in 1968 divided by EPS for 1967 & 1968.

 $D_0/E_0$  = Dividend payment, measured by cash dividend in 1968 divided by earning in 1968.

Lev = Financial risk, measured by internal changes divided by the difference of operating revenues and operating expenses.

G= Expected growth rate, measured by the compound annual rate of growth in assets per share for 1960 through 1968.

The second model was,

 $P_0 / E_0 X a_0 \Gamma a_1(g) \Gamma a_2(D_0 / E_0) \Gamma a_3(Lev) \Gamma a_4(F_a) \Gamma a_5(Fb) \Gamma a_6(Fc) \Gamma a_7(Fd) \Gamma U$ 

Where,

Fa, Fb, Fc and Fd are dummy variables corresponding to "new issue ratio" (NIR) groups a through d.

It is noted that they had groped the firms in five categories A, B, C, D and E by NIR. For each firm the value of dummy variables representing its NIR group is one and the value of remaining dummy variables is zero.

Again, they tested the following regression equation for electronic components industry.

 $P_0 \ / \ E_0 \ X \ a_0 \ \Gamma \ a_1 (g) \ \Gamma \ a_2 (D_0 \ / \ E_0) \ \Gamma \ a_3 (Lev) \ \Gamma \ a_4 (OR) \ \Gamma \ U$ 

Where,

Lev= Financial risk, measured by long-term debt plus preferred stock divided by net worth as of the end of 1968.

OR= Operative risk, measured by the standard error for the regression of operating earnings per share on time of 1960 through 1968, and rest are as in first model above.

By using different methodologies, they compared the rests obtained from firms, which both paid dividends and engaged in new equity financing with other firms in the industry sample. They concluded that for the electric utility firms (1968), share value was not adversely affected by new financing in the present and cash dividend, expect for those firms in the highest new issue group and it made new equity a more costly financing than retention of earnings. They also indicated that the payment of dividend through excessive equity financing reduces share prices. For electronic components industries, a significant relationship between new equity financing and value was not demonstrated.

# Linter's Study:

An American financial analyst Linter's (1956) had conducted an important study highlighting on the on the behavioral aspect of dividend. He investigated a partial adjustment model as he tested the dividend patterns of some 28 companies. He concluded that a major portion of the dividend of a firm could be expressed in the following way.

$DIV_{t}^{*}X_{p} EPS_{t}$	(1)
And , $DIV_{t} Z DIV_{tZl} X a \Gamma b (DIV_{t}^{*} Z DIV_{tZl}) \Gamma e_{t}$	2)
$Or, DIV_{t} X a \Gamma b DIV_{t}^{*} \Gamma(1 Z b) DIV_{t}^{*} Z 1 \Gamma e_{t} \dots \dots$	.(3)

Where,

 $DIVt^* = Firm's$  desired payment.

EPSt = Earning per share.

P = Targeted payment ratio.

- a = Constant retaining to dividend growth.
- b = Adjustment factors relating to previous period's dividend and new desired level of dividend where b<1.</p>

The major findings of this study were as follows;

- ) Firms generally have target payout ratios in view while determining change in dividend behavior (policy) or dividend rate.
- Firms generally think in terms of proportion of earnings to be payout.
- ) Investment requirements are not considered for modifying the pattern of dividend behavior.

#### Nils H. Hakansson's Study:

This study was conducted on daily share price changes around the announcement of dividend changes were found consistent with dividend announcement effect. Increase in dividend led to a positive excess returns and decrease in dividend to negative excess returns. The effects seemed to a be more applied for companies that previously over invested free cash flows in projects with returns less then what the financial market required. The firms paying dividend after a long interruption were found to have earned significant excess returns and interpreted that dividend conveyed variable information to investors over and above that variable from other sources. The companies omitted dividend because of poor present earning and future prospects suffered decline share prices.

#### R. Michaely, Rechard H. Thaler and L. Womack's Study:

R. Michaely, Rechard H. Thaler and L. Womack had jointly preformed a study relating, " Price reaction to dividend initiations and omission" in 1995. They investigated the immediate and long-term effect of dividend initiations and omission announcement.

They fund that the short-run price impact of dividend omission was negative and that of initiations was negative. Initiation reactions were about one half the magnitude of the market reaction to omission announcement. The change in yield however was seven times larger for the omission announcement. They found that the market reaction to the dividend omission announcement was no greater than to an initiation for a given change yield.

#### **2.9 REVIEW OF RESEARCH IN NEPALESE CONTEXT:**

There are very few articles relating directly or indirectly with dividend and stock price are published in Nepal. Some of them which are significant in the study are reviewed in this topic.

#### Dr. Pardhan's study:

Dr. R. S. Pradhan has conducted a study on Stock Market Behavior in A Small Capital Market: A Case of Nepal. It is pertinent to put forth here because he has analyzed various ratios related to dividend and market price of the shares. The study was based on pooled-cross sectional data of 17 enterprises covering the year from 1986 to 1990.

The objectives of this study were as follows;

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

The major findings of this study were as follows;

- Stocks with larger market value than book value of equity have larger price earning ratio and lower dividend. Price earning ratios are more variable for stock with larger market value to book value ratio and dividend ratios are more variable for stock with smaller market value of book value.
- 2. Larger stock have larger price equity ratio, larger ratio of market value to book value of equity and smaller dividends. However price earning ratio and dividend ratio are more variable for smaller stocks whereas market value to book value of equity is more variable for smaller stock whereas market value to book value of equity is more variable for larger stock.
- Stocks with larger ratio of dividend per share to market price per share have higher liquidity. Liquidity position of stocks paying lower dividends is also more inconsistent as compared to stocks paying higher dividend.
- 4. Smaller dividends, lower profitability, lower assets turnover and lower interest coverage for larger stocks may be attributed to the fact that most of larger stocks are at their initial stage of operation.
- 5. Stock with larger price earning ratios, larger market value to book value of equity and smaller dividends ratios. But there ratios of market value to book value of equity and dividends are more variable for smaller stocks than for larger stocks.
- 6. Stocks with larger price earning ratios have lower liquidity, higher leverages, lower profitability, lower assets turnover and lower interest coverage. However, liquidity, leverage, earnings, turnover and interest coverage are all more variable for stock with smaller price earnings ratio.
- 7. Stock with larger market value to book value ratios have lower liquidity, higher leverage, lower earnings, lower turnover and lower interest coverage: however, liquidity are more variable for stocks with the larger market value to book value ratios. While earnings

assets turnover and interest coverage are more variable for stock with smaller market value to book value ratios.

So, in conclusion, it indicates positive relationship of dividend per share to market price per share with liquidity, profitability, assets turnover and interest coverage; and negative relationship with leverage.

## Manandhar's study:

The main statement of problem of the study is to test weather Nepalese corporate firms consider the lagged earning and dividend paid to pay the dividend in current year.

For the test, 17 samples Nepalese corporate firm has seen taken and different hypothesis have been tested.

The conclusions drown by the study is;

- ) There is significant relationship between change in dividend policy in terms of DPS and change in lagged earnings.
- ) In overall there is positive relationship between change in lagged consecutive earnings and dividend per share.
- ) There is relationship between distributed lag profit and dividend.
- ) When change in lagged consecutive earning is greater than zero is 65% of the cases change in dividend per share.
- ) Overall increase in EPS (t) has resulted to the increase in the dividend payout by 66.6% of the cases while decreases in EPS has resulted decrease in dividend payments.
- ) Nepalese corporate firms have followed the practice of maintaining constant dividend payment per share.
- Corporate firm do not take in to account that one-year and two-year lagged earnings.

In overall Nepalese corporate firm are reluctant to decrease dividend either keeping dividend payment constant or higher to take the advantages of information constants and signaling effect of dividend relating to the firms, continued progress and performance, sound financial strength, favorable investment, lower risk ability to maintain dividend rate and finally to increase the market price of stocks in the stock market.

#### 2.10 REVIEW OF PREVIOUS THESIS:

**Bhattrai, Bishnu Hari (1996)** in his thesis paper, "Dividend Decision and its impact of Stock Valuation," concluded that:

- 1. There is positive relationship between cash flow and current profit and dividend percentage shares. The degree of relationship in almost perfect. Noteworthy point in Nepalese companies is cash balance and is maintained only when there is profit to pay dividend through where there if both balance of cash and enough net profit only when the dividend is declared.
- 2. In aggregate, there is not stable dividend paid by the companies over years, some companies have steadily increased dividend, it can be inferred that they adopted low regular plus extra dividend. Stable dividend influence considerable impact on valuation of realized by Nepalese company management.
- 3. There was negative relationship between market price and stockholders have foregone opportunity and income in hope of getting higher return, but the companies have not been able to return even equal to risk free rate of return.
- 4. There are also no criteria to adopt payment ratio and it is observed that there is negative relationship between the payment ratio and valuation of shares.
- 5. Inflation rates in recent years are decreasing and the market prices of share are increasing. Nevertheless the companies are not able to give required rate of return to the investors.
- 6. There was positive relationship observed on foreign investment and payment of dividend i.e. the companies invested by foreign investors are paying regular dividends than companies dominantly invested by Nepalese. There was negative relationship observed between the companies paying dividend and percentage of public shareholder and percentage of share hold by HMG/N.

**Timilsina, Sadakar** (1997) in his thesis paper entitled, "Dividends and Stock Price: An Empirical study" he use multiple regression model of three independent variables. Besides this he also tried to highlight the relation between stock and other independent variables setting separate simple liner regression equations. The sectors chosen for the study were manufacturing and trading sector and banking and insurance sector.

The major findings of the study were as follows:

- 1. The relationship between dividend per share and stock price is negative.
- 2. Dividend per share affects the stock price variedly in different sectors.
- 3. Changing the dividend policy or dividend per share might help to increase the market of share.
- 4. The relationship between stock price and retained earning per share is not prominent.

Gautam, Rishi Raj (2001): He has also conducted a research work on comparative study on dividend policy of Nepal Grindlays Bank Ltd., Nepal Indosuez Bank Ltd. and NABIL. The main objectives of his study are:

- 1. To identify the type of dividend followed by the banks.
- 2. To examine the impact of dividend on share price.
- 3. To identify the relationship between DPS and other financial indicators.
- 4. To know the uniformity among DPS, EPS, and DPR of the sample companies.

Following are the conclusion of his study:

- 1. No clearly defined dividend policy is found followed by the sample companies.
- 2. The market price of the share doesn't seem to be more or less dependent on EPS or DPS.
- 3. No significant relationship between DPS and other financial indicators.
- 4. No uniformity in EPS but prominent difference in DPS and DPR.

Adhikari, Nabaraj (1999) conducted a study on corporate dividend practice in Nepal. From his study, he concludes that:

- 1. There are differences in financial position of high dividend paying and low dividends paying companies.
- 2. Other things remaining the same, financial position of high dividend paying companies are comparatively better than of two dividends paying companies.
- 3. Market price of share is affected by dividend.
- 4. Financial executives of Nepal reject dividend as a residual decision in Nepalese companies.

# <u>CHAPTER III</u>

# **RESEARCH METHODOLOGY**

The research methodology describes that methods and process applied in the entire aspect of study. Every research should be applied in the entire aspect systematic manner and for that reason research methodology is one of the most important parts of every research .Research methodology is a way to systematically solve the research problem. In other words research methodology is the methods, various sequential steps and analysis to be adopted by researcher in studying a problem with certain objectives (Kothari.1994). It is the way of presenting collected data with meaningful analysis.

This study is based on secondary data only. These data are used to analysis the dividend policy of commercial banks in Nepal. And it's to find out the factor that affects dividend policy. The basic objective of such analysis is to find out the relationship between dividend with market price of share, net profit, earning per share and net worth of the commercial bank in Nepal.

#### **3.1 RESEARCH DESIGN:**

Research design is the plan, structure and strategy of investigation concerned so as to obtain answers to research questions and to control variances. The research design of this study basically follows the impact of dividend policy on the market price. In other words, this research is designed so as to find out the effect on the market price of share (common stock) of the company when dividend is paid to the shareholders and also how the market price responds when dividend is not paid to the shareholders. Various analytical and descriptive approaches are used to determine the impact of dividend policy followed by an organization and its market price. Analytical Research design has been followed mainly the relationship among dividend changes and different variables. Descriptive Research design has been utilized mainly for conceptualization of problem. Likewise, development research has been conducted for the purpose and predicating future trends.

# **3.2 NATURE AND SOURCES OF DATA:**

This study is based on secondary data. Secondary data is those which are publicity available in before hand. The necessary data pieces of information have been collected from various sources and covering a period of 5 years from 2003/04 to 2007/08 publication of Nepal Stock Exchange Ltd. This study used the samples data.

Different variables have been computed as and when required for the study and time. The major sources of data and information are

- ) Website of NEPSE Ltd. http://www.nepalstock.com
- J Website of Nepal Rastra Bank http/www.nrb.org.np
- ) Website of Securities Board of Nepal http/ www.sebon.com.np
- Annual report FY 2007/2008
- J Economy survey FY 2007/08 Ministry of finance, NG
- ) Various research study dissertations and articles related to the subject.
- ) Website of selected banks

# **3.3 POPULATION AND SAMPLE:**

There are various commercial banks (Government owned, Private and Joint venture) operating in Nepal. 20 commercial banks have got permission to work till mid-July 2008. They are as follows:

Commercial banks	Operation Date(B.S.)	Head Office
Nepal Bank Ltd.	1994/07/30	Kathmandu
Rastriya Banijya Bank	2022/10/10	Kathmandu
NABUK Bank Ltd	2041/03/29	Kathmandu
Nepal Investment Bank Ltd.	2042/11/16	Kathmandu
Standard Chartered Bank Nepal Ltd.	2043/10/16	Kathmandu
Himalayan Bank Ltd.	2049/10/05	Kathmandu
Nepal SBI Bank Ltd.	2050/03/23	Kathmandu
Nepal Bangaladesh Bank Ltd.	2050/02/23	Kathmandu
Everest Bank Ltd.	2051/07/01	Kathmandu
Bank of Kathmandu Ltd.	2051/11/28	Kathmandu
Bank of Credit and Commerce Ltd.	2053/06/28	Sidarthanagar
Lumbini Bank Ltd.	2055/04/01	Narayangadh
Nepal Industrial and Commerce Bank Ltd.	2055/04/05	Biratnagar
Machhapuchhre Bank Ltd.	2057/06/01	Pokhara
Kumari Bank Ltd.	2057/12/21	Kathmandu
Laxmi Bank Ltd.	2058/12/21	Birgunj
SIdhartha Bank Ltd.	2059/09/09	Kathmandu
Agriculture Development Bank Ltd.	2062/12/03	Kathmandu
Global Bank Ltd.	2063/09/13	Birgunj
Citizens International Bank Ltd.	2064/03/07	Kathmandu

## List of licensed commercial banks (Up to Mid-July 2008)

Sources: Annual report of "Banking and Financial Statistics" published by Nepal Rastra Bank

It is not possible to study all banks because we have lack of time period. So, we should study only five commercial banks (NBBL, SCBNL, EBL, BOK & NSBIL) among listed are taken as sample for this study.

# **3.4 METHODS OF ANALYSIS:**

Analysis is the careful study of available fact so that one can understand and draw conclusion from them on the basis of established principles and sound logic. Collected data, relevant facts and figures are systematically tabulated under the different heads for the purpose of analysis. So far as computation is concerned; it has been done with the help of scientific calculator and computer.

#### **3.5 DATA ANALYSIS TOOLS:**

There are two types of analytical tools used for this study. A brief explanation of financial as well as statistical tools is as follows:

## FINANCIAL TOOLS:

#### **Earning Per Share (EPS):**

Earning per share is one of the factors that affect the dividend policy and stock price of firm. If earning per share is greater, then the dividend will be larger and the market price also will be raised. So, it is assumed as an independent variable to determine the dividend and market price of stock. It is calculated by dividing the earning available after tax to the common stockholders by the total no of common shares outstanding.

 $EPS = \frac{\text{Net profit before tax}}{\text{No. of common share outstanding}}$ 

#### **Dividend per Share (DPS):**

Dividend per share also affects the market price of stock, but it does not affect the earning per share. So, it is assumed as an independent variable to determine the market price of stock and also assumed as dependent to the EPS. If the EPS is greater, the dividend per share will automatically be greater. It is calculated by dividing the total amount declared as dividend for equity shareholders by the total number of share outstanding.

Net Profit after Interest, Taxes and Preference dividend paid to shareholders

DPS = -

No. of Ordinary Shares Outstanding

## **Dividend Pay out Ratio (DPR):**

It reflects the percentage of profit that distributed as dividend. The remaining portion of profit is retained as reserve as surplus for the growth of the banks. It is calculated by dividing DPS by EPS.

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

## Market Price per Share (MPS):

Market price per share is that value of stock, which can be obtained by a firm from the market. Market value of share is one of the variables which are affected by the dividend per share and earning per share of the firm. If the earning per share and dividend per share is high, the market value of share will also be high. Market value of share may be lower and higher than the book value. If the firm is growing concern and its earning power is greater than the cost of capital, the market value of share will e higher than the book value. If firms earning capacity is lower than the cost of capital the market price of share will also be lower. The capital market determines MPS.

#### **Price Earning Ratio:**

Price earning ratio is also called the earning multiplier. This ratio reflects the market value per share for each rupee of currently reported earning per share. In other words, E/P ratio is the ratio between market price per share and earning per share. This ratio is computed by dividing earning per share to market price per share.

P/E Ratio = Market Price per Share
Earning per Share

#### **Dividend Percentage (DP) per share:**

Dividend percentage is the ratio of dividend per share to paid-up price per ordinary share. It can be calculated as:

DP = Paid-Up Price per Share

#### **Dividend Yield (DY):**

This ratio shows the relationship between dividend per share and market value per share. It is calculated by dividing dividend per share by market value per share.
DY = DY = Market Value per Share

# **Earning Yield (EY):**

This ratio shows the relationship between earning per share and market value per share. It is calculated by dividing earning per share by market value per share.

EY = Earning per Share Market Value per Share

## Net-Worth per share (NWPS):

It is a rupee value per share. It is calculated by dividing book value of net worth by total no. of share outstanding.

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

#### Market value per share (MPS) to Book value per share (BVPS):

This ratio measures the Market situation per share in the competitive open market with respect to book value per share of commercial banks. This ratio indicates the price that the market is paying for the share that is reported from the net worth of the banks. This ratio can be derived by dividing market price per share by book value per share.

MPS to BVPS Ratio = Market Price per Share Book Value per Share

## STATISTICAL TOOLS:

There are financial tools as well as statistical tools are necessary for this study. The result of analysis has been properly tabulated, compared, analyzed and interpreted. In this study, the following statistical tools are used to analyze the relationship between dividend and other variables.

### **Arithmetic Mean:**

An average value is a single value with in the range of data that is used to represent all of the values in the series since an average is somewhere within the range of the data, it is also called a measure of central value (Gupta .2000).

Arithmetic Mean  $\overline{X} \times \frac{X_1 \Gamma X_2 \Gamma X_3 \Gamma}{N}$ 

$$\overline{X} \times \frac{X}{N}$$

Where,

X = Sum of the size of the items.

N = Number of items.

# **Standard Deviation:**

The standard deviation concept was introduction by Karl Person in 1823. It is by for the most important and widely used measure of studying dispersion. Standard deviation is the positive square root of the arithmetic average of the square of all the deviations measured from the arithmetic average of the series. The standard deviation measures the absolute dispersion of a distribution. The greater the amount of dispersion the grater standard deviation, i.e. Greater will be the magnitude of the deviation of the values from their mean. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series. Standard deviation is a denoted by a Greek letter ' ' (sigma) and for sample, it is calculated as follows.

Standard Deviation († ) X  $\sqrt{\frac{\int X \ Z \ \overline{X} \ A}{N \ Z \ 1}}$ 

Where,

N = No. of items in the series.

 $\overline{X}$  = Mean X = Variable

### **Coefficient of Variation (CV):**

The corresponding relative measure is known as the coefficient of variation. This measure developed by Karl Pearson is the most commonly used measure of relative variation. IT is used in such problems where we want to compare the variability of two or more then two series. That series for which the coefficient of variation is greater is said to be more variable or conversely less consistent, less uniform, less stable or less homogeneous. On the other hand, the series for which coefficient of variation is less is said to be less variable or more consistent, more uniform more stable of more homogeneous. In symbol;

$$C.V. = \frac{SD \mid 100}{\overline{X}}$$

### **Coefficient of correlation (r):**

Correlation analysis is the statistical that can be used to describe the degree to which one variable is linearly related to other another. If two or more quantities vary in sympathy so that movements in tend to be accompanied by corresponding movements in the outers then they are said to be correlated. (Levin and David.1997) The coefficient of correlation measures the direction of relationship between two sets of figure. It is the square root of the coefficient of determination. Correlation can either be negative or positive. If both variables are changing in the same direction the correlation is said to be positive but when the variation in the two variables take place in opposite direction the correlation is termed as negative.

The correlation coefficient can be calculated as follows;

$$(r) X \sqrt{\frac{Cov f X, Y A}{\dagger x \dagger y}}$$

Or, (r) X 
$$\sqrt{\frac{\int X \ Z \ \overline{X} \ A y}{\int N \ Z \ I \ A t} x \dagger y}}$$

Or, (r) X 
$$\frac{N \quad XY \quad Z \quad X \quad Y}{\sqrt{N \quad X^2 \quad Z \quad f \quad X \quad A \quad \sqrt{N \quad Y \quad 2 \quad Z \quad f \quad Y \quad A}}}$$

Where,

x, y are the standard deviation of the distributions of X and Y values respectively.

Cov(X, Y) = Covariance of X and y values.

$$\frac{\int x \ z \ \overline{x} \ A }{\int N \ z \ I A}$$

In this study, the coefficient of correlation is calculated to know the relationship as follows:

- a) Market price per share and dividend per share.
- b) Market price per share and dividend pay out ratio.
- c) Market price per share and dividend percentage.
- d) Market price per share and earning per share.

### **Probable Error [PE(r)]:**

Probable error of correlation coefficient, usually denoted by PE(r) is an old measure of testing the reliability of an observed value of correlation coefficient in so far as it depends upon the conditions of random sampling (Gupta.2002). The probable error of the coefficient of correlation is obtained as follows;

PE(r) = 0.6745 
$$\frac{1 Z r^2}{\sqrt{N}}$$

Where,

r = Correlation coefficient between x and y.

N = the number of piers of observations.

- I. If the value of r is less than the probable error [i.e. r< PE(r)]; there is no significant relation between X and Y.
- II. If the value of r is greater than 6 times of the probable error. [i.e. r> 6PE(r)]; there is most significant relation between X and Y.
- III. If PE(r) < r < 6PE(r); there is moderate relation between X and Y.
- IV. In this study; probable error has been calculated to determine the reliability of the value of coefficient of DPS & MPS, DPS & EPS, DPS & NWPS and EPS & MPS.

## **Coefficient of Determination**

One of very convenient and useful way of interpreting the value of coefficient of correlation between two variables is to use square of coefficient of correlation, which is called coefficient of determination. The coefficient of determination thus equals  $R^2$ . If the value of r= 0.90 R<sup>2</sup> will be 0.81 and this word mean that 81 percent of the variation in the dependent variable has been explained by the independent variable. In other words, R<sup>2</sup> measures the percentage total variations of dependent variable explain by independent variables. The R<sup>2</sup> is always positive number. It can have a value ranging from zero to one.

Coefficient of Determination $(r^2) =$	Explained Variance		
	Total Variance		
Coefficient of Determination $(r^2)$ –	1- Unexplained Variable		
	Total Variance		

# **Regression Analysis:**

Correlation analysis shows the direction of movement but it does not tell the relative movement in the variables under study. Regression analysis helps to the relative movement in variables. Simple regression analysis of following variables are calculated and interpreted in this study.

# a) Market price per share on dividend per share:

Y = a + bX

Where,

Y = Market price per share

- a = Regression constant
- b = Regression coefficient
- X = Dividend per share

This model has been constructed to examine the relationship between MPS (dependent variable) and DPS (independent variable).

## b) Dividend per share on Earning per share:

$$Y = a + bX$$

Where,

Y = Dividend per share
a = Regression constant
b = Regression coefficient
X = Earning per share

The relationship between dividend per share (dependent variable) and Earning per share (independent Variable) can be explained through this model.

## c) Market price per share on Earning per share:

$$Y = a + bX$$

Where,

Y = Market price per share
a = regression constant
b = Regression coefficient
X = Earning per share

This model has been constructed to examine the relationship between MPS (dependent variable) and EPS (earning per share).

## Test of Hypothesis: Two ways ANOVA

In two way classification, the statistical data are classified on the basis of two factors i.e. the effects of two factors are simultaneously taken in to consideration in two ways ANOVA.

### CHAPTER IV

# PRESENTATION AND ANALYSIS OF DATA

Presentation and analysis data is the major part of this research study. Using the various financial variables and statistical tools discussed in research methodology; we analyze the data achieve our objectives of the study.

## **Presentation of Financial Indicators:**

#### 4.1 Earning per Share (EPS):

Generally, the performance and achievements of business organization are measured in terms of their capacity to generate earnings. Earning per share refers the rupee amount earned per share of common stock outstanding. It measures the profitableness of the share holder's investment. The earning per share shows the profitability of the banks on a per share basis. The higher earning indicates the better achievements of the profitability of the banks by mobilizing their funds and vice versa. The earnings per share of the concerned banks under study are tabulated in table 4.1

Year	SCBNL	NSBIBL	BOK	NBBL	EBL
2003/04	143.55	14.26	20.50	118.48	45.60
2004/05	143.14	13.29	30.10.	83.45.	54.20
2005/06	175.84	18.27	43.67	18.41	62.80
2006/07	167.37	39.35	43.50	19.87	78.40
2007/08	131.92	28.33	59.94	-	91.82
Mean	152.36	22.70	39.54	48.04	66.56
Std. Dev.	16.47	9.88	13.42	45.15	16.64
C.V.	10.81	43.52	33.94	93.98	25.00

Table 4.1Earning Per Share of Selected Banks

Source: Annual report of concerned banks.

The earning per share of Standard Chartered Bank Nepal Ltd. (SCBNL) range between Rs. 175.84 to Rs. 131.92 during the period of study. During the period, the average EPS is Rs.

152.36 and the standard deviation of EPS during the period of study is 16.47. The C.V. of 10.81 indicates that there is a little fluctuation of 10.81% in the EPS of SCBNL, during the period of study.

During the period of study, Nepal SBI Bank Ltd. (NSBIBL) has an average EPS of Rs. 22.70 and its standard deviation is 9.88. The EPS range between Rs. 39.35 to Rs. 13.29. The coefficient of variation of 43.52 indicates that there is a fluctuation of 43.52% in the EPS of Nepal SBI Bank Ltd., during the period of study.

Bank of Kathmandu Ltd. (BOK) has Rs. 39.54 average EPS, during the period of study. Its EPS range is between Rs.59.94 to Rs. 20.50. The standard deviation of EPS is 13.42 whereas the coefficient of variation is 33.94 which show the fluctuation of 33.94% in EPS of BOK Ltd.

The average EPS of Nepal Bangladesh Bank Ltd. (NBBL), during the period of study is Rs. 48.04. It stayed within the range of Rs. 118.48 to Rs. 18.41. The standard deviation of EPS is 45.15. The coefficient of variation shows the fluctuation of 93.98% in EPS of NBBL.

During the period of study, Everest Bank Ltd. (EBL) has an average EPS of Rs. 66.56 with a standard deviation of 16.64. The EPS range between Rs. 91.82 to Rs. 45.60 The coefficient of variation shows the fluctuation of 25.00% in EPS of EBL.

From the above data and calculations, it can be seen that the average EPS of SCBNL is highest and that of Nepal SBI Bank is the lowest. The value of EPS range of the banks under study is between Rs. 175.84 of SCBNL and Rs. 13.29 of NSBIBL during the period. Similarly, the standard deviation of NBBL is the highest and NSBIBL is the lowest, the coefficient of variation of these banks shows the fluctuation in EPS. If compared the SCBNL has the most consistent EPS among all sample banks.

## 4.2 Dividend per Share (DPS):

Dividend per share is the rupee earning distribution per share to common stockholder. Dividend per share shows the portion of earning distributed to the shareholder on per share basis. Generally, the higher DPS creates positive attitude among the shareholders towards the bank, which accordingly helps to increase the market value of shares. It also works as the indicator of better performance of the bank management. The dividends per share of the banks under study are stated in the table 4.1:

#### Table 4.2

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	110	0	10	0	20
2004/05	120	0	15	5.04	0
2005/06	130	5	18	0	25
2006/07	80	12.59	20	0	10
2007/08	80	0	2.11	0	20
Mean	104	3.52	13.02	1.01	15
Std. Dev.	20.59	4.93	6.41	2.62	8.94
C.V.	19.79	140.06	49.23	200.40	59.60

### **Dividend per Share of Selected Banks**

Source: Annual Report of Concerned Banks.

The highest and lowest DPS of standard Chartered Bank Nepal Ltd. (SCBNL) are Rs. 130 and Rs. 80 respectively, during the period of study. The average DPS of SCBNL is Rs. 104 with the standard deviation of 20.59. The coefficient of variation is 19.79%, which indicates that there is a fluctuation in the DPS of SCBNL during the period of study.

In the case of Nepal SBI Bank Ltd. (NSBIBL), the average DPS of Rs. 3.52, the highest DPS is Rs. 12.59 and the lowest DPS is Rs. 0. The standard deviation is 4.93 and coefficient of variation is 140.06%. The C.V. indicates the DPS of NSBIBL is highly fluctuating during the period of study.

BOK has paid highest DPS Rs. 20 and lowest DPS is Rs. 2.11 during the period of study. The average DPS of BOK has Rs. 13.02. The standard deviation and coefficient of variation of the bank is 6.40 and 49.23 respectively, during the period of study. The C.V. 49.23% indicates that there is moderate fluctuation in the DPS of BOK during the period of study.

Nepal Bangladesh Bank Ltd. (NBBL) paid the highest DPS is Rs. 5.04 in the year 2004/05 and no dividend paid for rest of the years during the five years period of study. An average DPS of Rs. 1.01 has been noted during the period of study. The standard deviation of the

DPS is 2.02 and coefficient of variation of 200.40% indicates the highest fluctuation in DPS of NBBL.

The average DPS of Everest Bank Ltd. (EBL) is Rs. 15 with standard deviation of 8.94. The highest DPS is Rs. 25 and no dividend is paid in the year 2004/05... The coefficient of variation 59.60% indicates the moderate fluctuation of DPS in EBL.

From the above analysis SCBNL has the highest average DPS and NBBL has lowest. The standard deviation of SCBNL has highest and NBBL has lowest. Similarly, the C.V. indicates that among the banks under study during the period SCBNL has the highest consistency in paying dividend whereas the DPS of NBBL is most highly fluctuating.

# **4.3. Dividend Percent (DP)**

Dividend percentage (DP) is the ratio of DPS to the paid of price (face value) per share. It is measured in percentage. The dividend percent during the period of study are presented in the table 4.3.

## Table 4.3

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	110	0	10	0	20
2004/05	120	0	15	5.04	0
2005/06	130	5	18	0	25
2006/07	80	12.59	20	0	10
2007/08	80	0	2.11	0	20
Mean	104	3.52	13.02	1.01	15
Std. Dev.	20.59	4.93	6.41	2.62	8.94
C.V.	19.79	140.06	49.23	200.40	59.60

# **Dividend Percent of Selected Banks (of FV)**

Source: Annual Report of Concerned Banks.

All the banks under study have same paid up price of Rs. 100 per share but the DPS is different. From the above data SCBNL pays the highest percent dividend on the face value of share and NBBL is the lowest. The C.V. indicates that among the banks under study during

the period, SCBNL has the highest consistency in dividend percent whereas the dividend percent of NBBL is highly fluctuating.

#### 4.4. Dividend Payout Ratio (DPR):

The proportion of earning paid in the form of dividend is called dividend payout ratio (DPR). This ratio shows that what percentage of profit is distributed as dividend and it is measured in percentage. The dividend payout ratio of the banks depends upon the earnings made by the bank. The DPR of the banks under study are stated in the table 4.4.

#### Table 4.4

Banks	SCBNL	NSBIBL	BOK	NBBL	EBL
2003/04	76.63	0	48.78	0	43.86
2004/05	83.83	0	49.83	6.04	0
2005/06	73.93	27.37	41.22	0	39.81
2006/07	47.80	32	45.98	0	12.76
2007/08	60.64	0	3.52	0	21.78
Mean	68.57	11.87	37.87	1.21	23.64
Std. Dev.	12.81	14.62	17.43	2.42	16.44
C.V.	18.68	123.17	46	200.33	69.54

#### **Dividend Payout Ratio of Selected Banks:**

Source: Annual Report of Concerned Banks.

The table 4.4 shows the dividend payout ratios of five banks respectively. The above table shows the percentage of dividend paid out of the total earnings made by each banks for each year during the period of study.

From the above table it can be observed that in the year 2004/05, the DPR of SCBNL and BOK and NBBL have increase than previous year but the NSBIBL and EBL has not paid dividend in this year. In the year 2005/06 the DPR of SCBNL, and BOK has decreased but the DPR of NSBIBL and EBL have increased and NBBL has not paid the dividend. In the same way in the year 2006/07 the DPR of NSBIBL and BOK have increased and SCBNL & EBL have decreased than previous year but NBBL has zero percent of DPR. Similarly, in

the year 2007/08 the DPR of SCBNL & EBL has increased and DPR of NSBIBL and BOK are fall downed at highly different than previous year.

The averages DPR of SCBNL, NSBIBL, BOK, NBBL and EBL are 68.57, 11.87, 37.87, 1.21 & 23.64 percent respectively. Similarly, the standard deviation of NBBL is lowest than other banks and Coefficient of variation of DPR of SCBNL is lowest among all. Therefore it can be shown the SCBNL is comparatively able to maintain stable dividend payout ratio (DPR). Whereas DPR of NSBIBL ranges from zero to 32 % which is highest fluctuation as indicated by C.V. of 123.17%. The C.V. of DPR of NBBL ranges from zero to 6.04%, which is also highest fluctuation as indicated by C.V. of 200.73%.

# 4.5. Market Price per Share (MPS):

The MPS of a share is current market price at which can be sold. MPS of share should depend upon the firms return. If the firms return is increased the MPS also increased and vice versa. So we can say that the MPS of firms shows its position. In other words the MPS is the price of share on which share are traded in the secondary market. The average market price of share of banks under study is presented in the table 4.5.

## Table 4.5

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	1745	307	295	1260	680
2004/05	2348	335	430	1827	870
2005/06	3775	612	850	683	1379
2006/07	5900	1176	1375	412	2430
2007/08	6830	1511	2350	0	3132
Mean	4119.60	788.20	1060	836.40	1698.20
Std. Dev.	1970.39	477.66	746.95	642.48	939.77
C.V.	47.83	60.60	70.46	76.81	55.34

# Market Price per Share of Selected Banks:

Source: Annual Report of Concerned Banks.

During the period of study, Standard Chartered Bank Nepal Ltd. (SCBNL) has an average MPS of Rs 4119.60 with standard deviation of 1970.39. The coefficient of variation shows the fluctuation of 47.83% in MPS of SCBNL.

In the case of Nepal SBI Bank Ltd. (NSBIBL) the highest MPS is in the year of 2007/08 and lowest MPS is in the year of 2003/04. The average of MPS of NSBIBL during the period of study is Rs. 788.2 with a standard deviation of 477.66 and a coefficient of variation is 60.60%.

The average MPS of BOK during the period of study is Rs. 1060. It stated with in the range of Rs. 2350 to Rs. 295. The standard deviation of closing MPS is 746.93 whereas the coefficient of variation is 70.46%. The C.V. indicates the high fluctuation in the MPS of the bank.

In the above table 4.1.5 it can be shown the NBBL has an average MPS is Rs. 836.40. It stated with in the range of Rs. 1827 to Rs. 412. The standard deviation of MPS is 642.48 and C.V. of 76.81 indicates that there is a fluctuation of 76.81% in the MPS of NBBL during the period of study .which is quite higher than other banks.

Everest Bank Ltd. (EBL) has an average MPS of Rs. 1698.20. It stated with in the range of Rs. 3132 to Rs. 680. The standard deviation of MPS is 1698.20. The coefficient of variation is 55.34 which shows the fluctuation of 55.34% in MPS of EBL.

From the above data and calculations, it can be seen that the average MPS of SCBNL is highest and NSBIBL is the lowest. The standard deviation of NBBL is the highest and that of SCBNL is lowest. The coefficient of variation of these banks shows that there is moderate level of fluctuation in the MPS.

## 4.6. Price Earning Ratio (P/E Ratio):

The ratio between Market Price per Share and Earning per Share is called Price Earning Ratio. It is also called Earning Multiplier. The price .earnings ratio is widely used by the security analysis to evaluate the firm's performance as expected by investors. It indicates investor's judgment or expectations about the firm's performance. Management is also interested in this market appraisal of the firm's performance and will like to find the causes if

the E/P Ratio declines. The price earning ratio of the banks under study are presented in table 4.6

## Table 4.6

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	12.16	21.54	14.39	10.63	14.91
2004/05	16.38	25.21	14.28	21.89	16.05
2005/06	21.47	33.49	19.46	37.10	21.96
2006/07	35.25	29.89	31.61	20.73	30.99
2007/08	51.77	53.34	39.20	0	34.11
Mean	27.41	32.70	23.79	18.07	23.60
Std. Dev.	14.45	11.09	9.96	12.37	7.75
C.V.	52.72	33.92	41.87	68.46	32.84

## **Price Earning Ratio of Selected Banks**

Source: Annual Report of Concerned Banks.

SCBNL has an average P/E Ratio of 27.41, ranging between 51.77 and 12.16, during the period of study. The standard deviation is 14.45 and coefficient of variation of 52.72% indicates the fluctuating nature of P/E ratio in SCBNL.

The average P/E Ratio of NSBIBL, during the period of study is 32.70. It is ranged between 53.34 and 21.54. The standard of P/E Ratio is 11.09 whereas the coefficient of variation of 33.92% indicates the fluctuating nature of P/E Ratio in EBL.

Similarly, BOK has an average P/E Ratio of 23.79. The range of P/E Ratio is between 39.20 and 14.28. The standard deviation is 9.96 and its coefficient of variation is 41.87. The C.V. indicates the P/E Ratio of BOK is quite fluctuating.

In the case of NBBL the average P/E Ratio is 18.07. The standard deviation of P/E Ratio of this bank is 12.37. The P/E Ratio of this bank is within range of 37.10 to 10.63. The coefficient of variation is 68.46.

EBL has an average P/E Ratio of 23.60. The P/E Ratio of this bank is ranged between 34.11 and 14.91. The standard deviation of P/E Ratio is 7.75 and its coefficient of variation is 32.84, which indicates that there is a fluctuation of P/E Ratio of EBL during the period of study.

By the above data analysis, we fund that the average P/E ratio of the NSBIBL has highest and the NBBL has the lowest. The standard deviation of SCBNL has the highest and it is the lowest of EBL. Similarly, the coefficient of variance of these banks shows that there is a fluctuation in P/E Ratio of all banks under study period.

## 4.7. Earning Yield (EY):

The earning yield evaluates the shareholders return in relation to the market value of the share. Earning yield is percentage of earnings per share to the market price per share in the secondary market. It gives an idea of how much an investor might get for his money. The share with higher earnings yield is worth buying. Earning Yield of the banks under study is presented in the table 4.7.

#### **Table 4.7**

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	8.23	4.64	6.95	9.40	6.70
2004/05	6.10	3.97	7.00	4.57	6.23
2005/06	4.66	2.98	5.14	2.70	4.55
2006/07	2.84	3.35	3.16	4.82	3.23
2007/08	1.93	1.87	2.55	0	2.93
Mean	4.75	3.36	4.96	4.30	4.73
Std. Dev.	2.26	0.93	1.84	3.08	1.54
C.V.	47.56	27.68	37.10	71.63	32.56

#### **Earning Yield of Selected Banks.**

Source: Annual Report of Concerned Banks.

The average Earning Yield of Standard Chartered Bank Nepal Ltd. (SCBNL) has 4.75% with the standard deviation of 2.26. The highest and lowest Earning Yield is 8.23% and 1.93% respectively. The coefficient of variation is 47.56%, during the period of study.

Nepal SBI Bank Ltd. (NSBIBL) has an average EY of 3.36%. The EY ranges from 4.64% to 1.87%. The standard deviation is 0.93 and coefficient of variation is 27.68%. The C.V. indicates the EY of NSBIBL is fluctuating situation during the period of study.

The average EY of Bank of Kathmandu Ltd. (BOK)., during the period of study is 4.96%. It is within the range of 7.00% to 2.55%. The standard deviation of EY is 1.84 whereas the

coefficient of variation of 37.10%. The C.V. of 37.10% indicates the fluctuation in the EY of BOK.

For the Nepal Bangladesh Bank Ltd. has an average EY of 4.30%, ranging between 9.40% and 2.70%, during the period of study. The standard deviation is 3.08 and the coefficient of variation is 71.63%, which indicates the high fluctuation in the period of study.

The Everest Bank Ltd. has an average EY is 4.73%. The range of EY is between 6.70% and 2.93%. The standard deviation of the EY is 1.54 and coefficient of variation of 32.56 indicates the moderate level of fluctuation in the EY of EBL during the period of study.

From the above data analysis, we can show that the SCBNL has highest EY and it is lowest of NSBIBL. Similarly, the standard deviation of NBBL has highest than other banks under study and it is lowest of NSBIBL. In the same way the C.V. also same condition of both banks and SCBNL has above moderate level and BOK and EBL has under moderate level of fluctuation in earning yield (EY).

# 4.8 Dividend Yield (DY):

Dividend yield is the percentage of DPS on MPS. It measures the dividend in relation to market value of share. This ratio highly influences the market price per share because a small change in dividend per share can bring effective change in market value of the share. The dividend yield of the banks under study is presented in the table 4.8.

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	6.30	0	3.39	0	2.94
2004/05	5.11	0	3.49	2.76	0
2005/06	3.44	0.82	2.12	0	1.81
2006/07	1.35	1.07	1.45	0	0.41
2007/08	1.17	0	0.09	0	0.64
Mean	3.47	0.39	2.11	0.55	1.16
Std. Dev.	2.02	0.43	1.27	1.10	1.07
C.V.	58.21	110.26	60.19	200	92.24

 Table 4.8

 Dividend Yield of Selected Banks.

Source: Annual Report of Concerned Banks.

The dividend yield of Standard Chartered Nepal Bank Ltd. (SCNBL) range between 6.30% to 1.17% during the period of study .The average dividend yield of SCNBL is 3.47% and the standard deviation of DY under the period of study is 2.02%. The C.V. of 58.21% indicates that the fluctuation of DY of SCNBL is the moderate.

During the period of study, Nepal SBI Bank Ltd. has average DY of 0.39% with standard deviation of 0.43%. The DY ranges from 1.07 to 0.00%. The coefficient of variation of 110.26% indicates that there is high fluctuation during the period of study.

The DY of BOK Ltd. has ranges from 3.49% to 0.09% during the period of study. An average DY of BOK is 2.11. The standard deviation of the DY is 1.27. The C.V. of 60.19 indicates the fluctuation of 60.19% in the DY of BOK during the period of study.

Similarly, the average DY of NBBL, during the period of study is 0.55%. It stayed with the range of 2.76% to 0.00%. The standard deviation of DY is 1.10 where as the coefficient of variation is 200%. The CV indicates the highest fluctuation in the DY of the Bank.

The Everest Bank Limited has average Dividend Yield (DY) is 1.16. The range of dividend of EBL is between 2.94% and 0.00%. The dividend yields of 2004/05 year is nil because the dividend was not paid in those year. The standard deviation of DY of EBL is 1.07 and coefficient of variation of the Everest bank Ltd. during the period of study is 92.24%.

From the above table shows the average of dividend yield (DY) of banks under study range between 3.47% (SCBNL) and 0.39% (NSBIBL). The BOK, NBBL and EBL has the average DY of 2.11%, 0.55% and 1.16% receptively.

Similarly, the coefficient of variation shows the highest consistency in the DY of SCBNL (58.21) where as the DY of NBBL has highest fluctuation (200.00%) among the banks. The CV of BOK, NSBIBL, and EBL are 60.19%, 110.26% and 92.24% respectively.

## 4.9 Net Worth per Share (NWPS):

The Net Worth per share is the value per share of total net worth in book value. It is calculated dividing total net worth by total no. of share outstanding which is stated in the table 4.9.

#### Table 4.9

Banks	SCBNL	NSBIBL	BOK	NBBL	EBL
2003/04	339.25	146.60	218.78	182.42	171.52
2004/05	422.38	159.54	213.60	(32.59)	219.87
2005/06	468.22	151.78	230.67	(217.07)	217.67
2006/07	512.12	178.04	164.68	(364.54)	292.75
2007/08	401.52	160.57	222.51	(317.03)	321.77
Mean	428.70	159.33	210.05	(149.76)	244.72
Std. Dev.	58.87	6.08	23.33	558.90	54.68
C.V.	13.73	3.81	11.11	(373.20)	22.34

### Net worth per Share (NWPS) of Selected Banks.

Source: Annual Report of Concerned Banks.

The Net worth per share of Standard Chartered Bank Nepal Ltd ranges between Rs. 512.12 and Rs. 339.23 during the period of study. The average NWPS of SCBNL has Rs. 428.70 and the standard deviation of NWPS under the period of study is 58.87. The coefficient of variation 13.73% shows the lower fluctuation of NWPS of SCBNL.

During the period of study, Nepal SBI Bank Limited (NSBIBL) has average NWPS is 159.33. It is stayed with the range of Rs. 178.04 to 146.80. The standard deviation of NWPS of NSBIBL is 6.08 and coefficient of variation of 3.81% indicates the lowest fluctuation of NWPS of NSBIBL during the period of study.

The BOK Ltd. has average NWPS is Rs. 210.05 and its range between Rs. 230.67 and Rs. 164.68. The standard deviation of NWPS of BOK is 23.33. The coefficient of variation of 11.11 shows that is pure consistency of NWPS of BOK.

Similarly the NWPS of NBBL is range between Rs. 182.42 to (364.54). The average NWPS of NBBL is Rs. (149.76). The standard deviation of NWPS is 558.96 and coefficient of variation of NWPS of NBBL is (373.20), which indicates negatively highest fluctuation in NWPS of NBBL during the period of study.

In the same way, the average NWPS of EBL is Rs. 244.72. The range of NWPS of EBL has Rs. 321.77 to Rs. 171.52. The standard deviation of NWPS of EBL is 54.68% and its CV 22.34% indicates the fluctuation of NWPS of EBL is under moderate level, during the period of study.

The above data analysis shows the average Net worth per share (NWPS) of the bank under study range between Rs.428.70 (SCBNL) and Rs 149.76 (NBBL). NSBIBL, BOK and EBL have the average NWPS of Rs. 159.33, Rs. 210.05 and Rs. 244.72 respectively. Similarly, the CV shows the highest consistency in NWPS of NSBIBL (3.81%) whereas the NWPS of NBBL has the highest negative fluctuating tendency (373.20%) among the banks. The CV of NWPS of SCBNL, BOK and EBL are 13.73%, 11.11% and 22.34% respectively, which shows a lower moderate level of fluctuation.

### 4.10. Market Price per Share (MPS) to Book Value per Share (BVPS):

This is important to compare share price of different stocks on the basis of book value per share. It shows the market share price of a stock as a percentage of book value per share and the effect of later on the former. The higher ratios present to conclude that the batter performance of commercial banks in terms of market price per share to book value per share. The MPS to BVPS ratio of the banks under study are presented in the table 4.10:

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	17.45	3.07	2.95	12.60	6.80
2004/05	23.48	3.35	4.30	18.27	8.70
2005/06	37.75	6.12	8.50	6.83	13.79
2006/07	59	11.76	13.75	4.12	24.30
2007/08	68.30	15.11	23.50	0	31.32
Mean	41.20	7.88	10.60	8.36	16.98
Std. Dev.	19.70	4.78	7.47	6.42	9.40
C.V.	47.80	60.66	70.47	76.79	55.36

**Table 4.10** 

## Market Price Per Share (MPS) to Book Value Per Share (BVPS)

Source: Annual Report of Concerned Banks.

The average ratio of MPS to BVPS of Standard Chartered Bank Nepal Ltd. (SCNBL) is 41.20.The standard deviation of the ratio is 19.70. The coefficient of variation is 47.80. The value indicates that there are only about 47.80% fluctuations in the ratio of MPS to BVPS o the bank over the study period.

An average MPS to BVPS ratio of NSBIBL and BOK has 7.88 and 10.60 respectively. The standard deviations of the ratio of NSBIBL and BOK are 4.78 and 7.47 and coefficient of variation of 60.66 and 70.47 respectively. The CVs are indicating there are only 60.66% and 70.47% fluctuation in the ratio of MPS to BCPS of these banks respectively.

In case of NBBL and EBL the average MPS to BVPS ratio are 8.36 and 16.98 respectively. The standard deviations of the ratio are 6.42 and 9.40 with its C.V. of 76.79 and 55.36 respectively. The values of C.V. indicate the 76.79% and 55.36% fluctuation in the ratio of BVPS of NBBL and EBL respectively for the year of study.

The above calculation shows the average ratio of MPS to BVPS of SCBNL has highest among the banks under study while this ratio is lowest for NSBIBL. Further the C.V. of the ratio of MPS to BVPS shows consistency of SCBNL and wide fluctuation of NBBL.

## 4.11 Company Wise Analysis:

In the earlier section, the different types of financial variables of the concerned banks have been presented. Keeping in mind the need for more elaborate and extensive analysis company wise analysis has been presented in this section.

# **Table 4.11**

Variables	Min	Max	Mean	S.D.	C.V.
EPS	131.91	175.84	152.36	16.47	10.81
DPS	80	130	104	20.59	19.79
DPR	47.80	83.83	68.57	12.81	18.68
MPS	1745	6831	4119.60	1970.39	47.83
P/E Ratio	12.16	51.77	27.41	14.45	52.72
EY	1.93	8.23	4.75	2.26	47.58
DY	1.17	6.30	3.47	2.02	58.21
NWPS	339.25	512.12	428.70	58.87	13.73

# **Financial Situation of SCBNL**

Source: Annual Report of Concerned Banks.

SCBNL has average EPS of Rs. 152.36. Its standard deviation is 16.47 and coefficient of variation of 10.81 indicates the consistency in EPS of this bank. The range of EPS of this

Bank is between Rs. 131.92 and 175.84. DPS of this bank is range between Rs. 80 and Rs. 130 and average DPS is Rs. 104. Its standard deviation is 20.59 and coefficient of variation of this bank is 19.79% which is very low fluctuation. The DP ratio of this bank is ranged between Rs. 47.80% and 83.83% and its average DP ratio is 68.57%. The standard deviation is 12.81 and C.V. of DP ratio is 18.68%. This also shows consistency of DP ratio. The MPS of this bank ranged between Rs. 1745 and 6831 and average MPS of Rs. 4119.60. The standard deviation and C.V. is 1970.39 and 47.83% respectively. The price-earning ratio is range between 12.16 and 51.77 and its average PE ratio is 27.41. The standard deviation is 14.45 and coefficient of variation of 52.72% is indicating the moderate fluctuation. Similarly the average Earning yield (EY) is 4.75% which is range between 1.93 % and 8.23%. The standard deviation of EY is 2.26 and CV is 47.58 % the dividend yield (DY) is ranged between 1.17% and 6.30% and average DY under the studying period is 3.47. The standard deviation is 2.02 with its CV of 58.21% in the same way the net worth per share of SCBNL is range between Rs. 339.25 to 512.12 with average NWPS of RS. 428.70 and Standard deviation of NWPS is 58.87 with CV of 13.73%.

The bank is paid dividend continues in the period of study. There is positive relationship between DPS and MPS.

Variables	Min	Max	Mean	S.D.	C.V.
EPS	13.29	39.35	22.70	9.88	43.52
DPS	0	12.59	3.52	4.93	140.06
DPR	0	32	11.87	14.62	123.17
MPS	307	1511	788.20	477.66	60.60
P/E Ratio	21.54	53.34	32.70	11.09	33.92
EY	1.87	4.64	3.36	0.93	27.68
DY	0	1.07	0.39	0.43	110.26
NWPS	146.80	178.04	159.33	6.08	3.81

### **Table 4.12**

# **Financial Situation of NSBIBL**

Source: Annual Report of Concerned Banks.

NSBIBL has an average EPS is Rs. 22.70 and it is range between Rs. 13.29 and Rs. 39.35. The standard deviation of EPS is 9.88 and its CV shows under moderate fluctuation of EPS of NSBIBL during the period of study. The DPS is range between Rs. 0 and Rs. 12.59 and the average of DPS is Rs. 3.52. The standard deviation of DPS is 4.93 with C.V. of 140.06%. The CV is indicating that there is over fluctuation in DPS. During the period of study, the average DP ratio is 11.87 with the standard deviation of 14.62 and the CV of DPR is 123.17% shows that there is also over fluctuation of DPR.

The MPS is range between Rs. 307 and Rs. 1511 and average of MPS is Rs. 788.20. The standard deviation of MPS is 477.66 and CV 60.60. The CV indicates the moderate fluctuation in MPS of NSBIBL. The P/E ratio is ranged between 21.54 and 53.34 and its average is 32.70. The standard deviation and C.V. is 11.09 and 33.92 respectively.

Similarly, the average of earning yield is 3.36, which range between 1.87% and 4.64%. The standard deviation is 0.93 with the CV of 27.68. This bank's dividend yield is ranged between 0% and 1.07% with the average of 0.39%. The standard deviation of DY is 0.43 and its C.V of 110.26% is indicating the high fluctuation of DY under the period of study. The NWPS of this bank is ranged between Rs. 146.80 and Rs. 178.04 and the average of NWPS is Rs. 159.33. The standard deviation and CV is 6.08 and 3.81% respectively.

By studying table 4.12, we can found that there is high fluctuation in paying of dividend. In this table we see the increase in DPS as well as increasing in MPS during the period of study.

Variables	Min	Max	Mean	S.D.	C.V.
EPS	20.50	59.94	39.54	13.42	33.94
DPS	2.11	20	13.02	6.41	49.23
DPR	3.52	49.83	37.87	17.43	46
MPS	295	2350	1060	746.93	70.46
P/E Ratio	14.28	39.20	23.79	9.96	41.87
EY	2.55	7	4.96	1.84	37.10
DY	0.09	3.49	2.11	1.27	60.19
NWPS	164.68	230.67	210.05	23.33	11.11

Table 4.13 Financial Situation of BOK

Source: Annual Report of Concerned Banks.

The average EPS of BOK has Rs. 39.54 and it is ranged between Rs. 20.50 and Rs. 59.94. The standard deviation of EPS is 13.42 and Coefficient of variation (C.V) is 33.94. The Coefficient of variation indicates the under moderate fluctuation of EPS. The DPS of BOK is ranged between Rs. 2.11 and Rs. 20 with the average of Rs. 13.02 and its standard deviation is 6.41.

The Coefficient of variation of 49.23% says that it is moderate fluctuation. The D/P ratio of this bank is ranged between 3.52 and 49.83 and its average DP ratio is 37.87. The standard deviation of DP ratio is 17.43 with the Coefficient of variation of 46. The Coefficient of variation shows the moderate consistency in the DP ratio of the NABIL

The average MPS of the BOK is Rs. 1060 and it's ranged between Rs. 295 and Rs. 2350. The standard deviation of MPS is 746.93 and coefficient of variation is 70.46% which indicates the high fluctuation of MPS of the BOK. The average of PE ratio is 23.79 and the standard deviation and Coefficient of variation CV of PE ratio of BOK is 9.96 and 41.87% respectively.

Similarly, the average of earning yield (EY) of BOK is ranged between 2.55 and 7 and the average is 4.96. The standard deviation is 1.84. The CV of EY 37.10% shows that there is under moderate fluctuation of EY of BOK. The dividend yield (DY) of BOK ranged between 0.09 and 3.49 with the average of 2.11. The standard deviation of DY of this bank 1.27 and its coefficient of variation of 60.19% is indicating the over moderate level fluctuation. The average of Net worth per Share is Rs. 210.05 and it is ranged between Rs. 164.68 and Rs. 230.67. The standard deviation of NWPS is 23.33 and the CV of NWPS of 11.11% is indicating the consistency of NWPS of BOK

In the table 4.13 we can see that the relationship of dividend per share (DPS) and MPS is positive. Increasing DPS as well as increasing in MPS and decreasing DPS as well as decreasing MPS.

But the increasing ratio MPS is greater than the increasing ratio of DPS and same condition is seen in the NWPS.

#### **Table 4.14**

Variables	Min	Max	Mean	S.D.	C.V.
EPS	0	118.48	48.04	45.15	93.98
DPS	0	5.04	1.01	2.02	200.40
DPR	0	6.04	1.21	2.42	200.33
MPS	0	1827	836.40	642.48	76.81
P/E Ratio	0	37.10	18.07	12.37	68.46
EY	0	9.40	4.30	3.08	71.63
DY	0	2.76	0.53	1.10	200
NWPS	(364.54)	182.42	(149.76)	558.90	(373.20)

### **Financial situation of NBBL**

Source: Annual Report of Concerned Banks.

The Earning per share (EPS) of the NBBL is ranged between Rs 0 to Rs.118.48 and its average is Rs 48.04. The standard deviation of EPS is 45.15 and the C.V. of 93.98% is indicating the high fluctuation of MPS of this bank. The DPS of this bank is ranged between Rs 0.00 to Rs 5.04 but its average is Rs 1.01. The standard deviation of DPS is 2.02 and C.V. of 200.40% shows the highly fluctuation in DPS of NBBL. Therefore it is seen in DP ratio and Dividend Yield also highly fluctuates.

The market price per share (MPS) is stayed within the range of Rs 0.00 and Rs. 1827. The average of MPS is RS. 836.40 and the standard deviation of MPS is 642.48 and the C.V. of 76.81% which shows the over moderate fluctuation in MPS of NBBL during the period of study.

Similarly the PE ratio of NBBL is ranged between 0.00 and 37.10. The average of PE ratio is 18.07. The standard deviation and C.V of PE ratio is 12.37 and 68.46 respectively. The C.V. indicates there is not consistency of PE ratio. The average earning Yield (EY) is 4.30% and its C.V. of 71.63% shows that the over moderate fluctuation of EY. The average DY is .53% and standard is 110. The C.V of 200% shows highest fluctuation in DY. The net worth per share (NWPS) is ranged between Rs. (364.54) and Rs. 182.42. The average of NWPS is Rs. (149.76) and the standard deviation of NWPS is Rs. 558.90 and C.V. of NWPS is (373.20)%. The NBBL is not paid the dividend at four years during the five years period of study, so we find that the banks DPS, DPR and DY very high fluctuate. But the fluctuation of MPS is not

directly effected by the dividend payment. In he FY 2004/05 there is highest market price per share and in the minimum MPS during the period of study is seen in the FY 2007/08. In this period the dividend is not paid.

### **Table 4.15**

Variables	Min	Max	Mean	S.D.	C.V.
EPS	45.60	91.82	66.56	16.64	25
DPS	0	25	15	8.94	59.66
DPR	0	43.86	23.64	16.44	69.54
MPS	680	3132	1698.20	939.77	55.34
P/E Ratio	14.91	34.11	23.60	7.75	32.84
EY	2.93	6.70	4.73	1.54	32.56
DY	0	2.94	1.16	1.07	92.24
NWPS	171.52	321.77	244.72	54.68	22.34

#### **Financial Situation of EBL**

Source: Annual Report of Concerned Banks.

Average EPS of EBL is Rs.66.56 over the study period and stayed within the range of Rs.45.60 and 91.82. The standard deviation of 16.64 and C.V. of 25% indicates that there is under moderate fluctuation in EPS of EBL over the period. The DPS ranges between Rs.0.00 to Rs.25 and its average is Rs.15 over the period. The standard deviation of DPS is 8.94 and C.V. of DPS is 59.66%, which indicates that there is high fluctuation of DPS over the study period. Dividend has directly affected to DP ratio and DY. So the fluctuation in DP ratio and DY is also high. The MPS ranged between Rs. 680 and Rs.3132 but the DPS is constant in both periods. The PE ratio ranges between 14.91 and 34.11 with average of 23.60 and S.D. of 7.75. The C.V. of PE ratio at 32.84% shows the consistency in PE ratio.

Similarly, the earning yield (EY) of EBL has under moderate fluctuation which is indicating by CV of 32.56% and its DY is ranged between 0% and 2.94% with the average of 1.16% and its standard deviation of 1.07. The NWPS of EBL is stayed within the range of Rs. 171.52 to Rs. 321.77 with standard deviation of 244.72 and the CV of NWPS of EBL is 22.34%, which indicates that there is fluctuation of NWPS of EBL. The EBL is not paid the dividend at FY 2004/05 during the five years period of study. But the fluctuation of MPS is not directly effected by the dividend payment.

# **Statistical tools:**

The statistical tools are used as follows

## 4.12 Correlation Analysis:

The correlation coefficient measures the relation between two or more variables. It also measures the extent to which one variable affects the other one. The correlation coefficient lies between +1 and -1. The +1 coefficient indicates that the variables are perfectly positively corrected and -1 coefficient indicates that the variables are perfectly negatively corrected. And if the correlation coefficient is 0, it means that the variables are not related to each other. The negative correlation indicates that increase in value of one variable leads to decrease in the value of the other and positive correlation indicate that increase in value of one variable leads to decrease in the value of the other and positive correlation indicate that increase in value of one variable leads to decrease in the value of the other variable also. The numbers indicates that degree of correlation between the variables.

#### **Table 4.16**

Banks	Coefficient of	Relationship	$\mathbf{r}^2$	Probable	Sig./Insig.
	variation			error	
SCBNL	-0.99	Negative	0.98	0.006	Significant/
NSBIBL	0.6518	Positive	0.4248	0.1735	Moderate
BOK	-0.79	Negative	0.62	0.11	Insignificant
NBBL	0.198	Positive	0.96	0.0121	Significant
EBL	0.48	Positive	0.23	0.23	Moderate

Correlation between DPS and MPS of Selected Banks.

The table 4.16 shows the relationship between DPS and MPS of five commercial banks. The coefficient of correlation between DPS and MPS of SCBNL, NSBIBL, BOK, NBBL and

EBL are -0.99, 0.6518, -0.79, 0.198 and 0.48 respectively. The correlation of NSBIBL, NBBL and EBL shows positive relationship between DPS and MPS but of SCBNL and BOK shows negative relationship between DPS and MPS. The above figure indicates the higher degree of negative correlation between DPS and MPS in case of SCBNL (-0.99) where as strongly higher degree of positive correlation in case of NBBL (0.98). Thus this implies that MPS is not affected only by DPS but other factors also determine the MPS of the commercial banks. However, the DPS also plays the role to determine the MPS, we can't reject this matter.

The coefficient of determination  $(r^2)$  is a measure of the degree of linear association or correlation between two variables, one of which is the independent variables and the other is dependent variable. The coefficient of determination between DPS and MPS of the SCBNL is 0.98, which means that the independent variable (DPS) explains 98.00% of the variables in MPS. Thus, this shows that the variable of DPS has more effect on the variations of MPS in the case of SCBNL. In the same way, in case of NSBIBL, the variation in DPS determines the 42.48% of the variation in MPS. Similarly in case of BOK, the variation in DPS determines the 62.00% the variation in DPS determines the 96.00% of the variation in MPS in case of NBBL. Finally, the figure 0.23 indicates that the variation in DPS determines 23.00% variation in MPS in case of EBL.

The significance of the relationship between DPS and MPS is measured by calculating probable error of coefficient from the above table; we can conclude that the relationship between DPS and MPS of BOK is insignificant. Since the coefficient of correlation (r) is smaller than the probable error. In case of SCBNL, and NBBL the relationship between DPS and MPS is significant as the coefficient of correlation is higher than 6PE. But the relationship between DPS and MPS of NSBIBL and EBL is moderate significant (or neither significance nor insignificance). Since the coefficient of correlation though greater than PE, is still less than 6 PE.

Banks	Coefficient of	Relationship	$\mathbf{r}^2$	Probable	Sig./Insig.
	variation			error	
SCBNL	0.63	Positive	0.40	0.18	Moderate
NSBIBL	0.98	Positive	0.96	0.01	Significant
BOK	-0.62	Negative	0.39	0.18	Insignificant
NBBL	0.70	Positive	0.49	0.15	Moderate
EBL	0.43	Positive	0.18	0.25	Moderate

 Table 4.17

 Correlation between DPS and EPS of Selected Banks.

In the table 4.17, we can see the relationship between EPS and DPS of five concerned commercial banks. It can be observed that the coefficient of correlation (r) is highest and positive for NSBIBL, which indicates higher degree of correlation between EPS and DPS. The correlation coefficient of SCBNL, NBBL and EBL is 0.63, 0.70 and 0.43 respectively in positive degree but BOK has higher negative degree of correlation coefficient (-0.62).

The coefficient of determination  $(r^2)$  for SCBNL is 0.40, which means that the variation in EPS explains 40.00% variation in DPS, which is quite considerable. In case of NSBIBL, EPS explains 96.0% variation in DPS, which is also considerable. The coefficient of determination of BOK and NBBL are 0.39 and 0.49 respectively, which indicates that the variation in EPS explain39.0% and 49.0% variation in DPS respectively, which is also quite considerable. But the coefficient of determination being 0.18 in case of EBL, which indicates that, EPS explains 18.0% variation in DPS which is not considerable.

As far as significance of relationship is concerned, it is hard to define that the relationship being significant or insignificant in case of SCBNL, NBBL and EBL. Since the coefficient of correlation (r) though greater than PE, is still less than 6 PE. However, in case of BOK, the relationship is said to be insignificant as coefficient of correlation (r) is less than probable error (PE). This implies that the EPS is not considerable enough in determining the DPS. But in case of NSBIBL, there is significant relationship between DPS and EPS as coefficient of correlation (r) is greater than 6PE. Thus, in case of BOK we can say that the dividend is dependent heavily on other variables than the earning per share but in case of NSBIBL we can say that the earning per share is major factor in determining the dividend per share.

#### **Table 4.18**

Banks	Coefficient of	Relationship	r <sup>2</sup>	Probable	Sig./Insig.
	variation			error	
SCBNL	-0.45	Negative	0.20	0.24	Insignificant
NSBIBL	0.95	Positive	0.91	0.03	Significant
BOK	-0.79	Negative	0.62	0.11	Insignificant
NBBL	0.36	Positive	0.13	0.26	Moderate
EBL	-0.25	Negative	0.06	0.28	Insignificant

Correlation between DPS and NWPS of Selected Banks.

The table 4.18 shows the relationship between DPS and NWPS of five concerned banks. The coefficient of correlation between DPS and NWPS of NSBIBL and NBBL are 0.95 and 0.36 which indicates positive relationship. The above figure indicates the lower degree of correlation between DPS and NWPS in case of NBBL, whereas the strong and higher degree of positive correlation shows in case of NSBIBL. The correlation coefficient of SCBNL is - 0.45 and that of BOK is -0.79, which indicates there is negative relation between DPS and NWPS of SCBNL and BOK.And the coefficient of correlation of EBL also negative(-0.25) and it shows a little relation between DPS and NWPS.

The coefficient of determination  $(r^2)$  between DPS and NWPS of SCBNL shows that the variation in DPS explains 20.00% variation in NWPS, which is considerable low. Similarly, the DPS of NSBIBL explains 91.0% variation in NWPS, which is considerable high than others. The figure 0.62 indicates that the variation in DPS determine 62.0% variation in NWPS in case of BOK. In the same way, the coefficient determination  $(r^2)$  of NBBL and EBL is 0.13 and .0.06 respectively, which indicates that variation in DPS determine 13.0% and 6.0% variation in NWPS respectively, which are considerably low.

The significant of relationship between DPS and NWPS is measured by calculating probable error of correlation from the above table. We can conclude that the relationship between DPS and NWPS of NSBIBL, is significant, since the correlation coefficient (r) is greater than 6PE. which indicates that the dividend per share is major factor of determining the net worth per share. In the case of SCBNL, BOK and EBL, the relationship between DPS and NWPS is insignificant because the coefficient of correlation (r) is smaller than PE. which shows that the dividend distribution is not a major factor for determining NWPS or, NWPS is dependent heavily on other variables than the DPS. In the case of NBBL the relationship between DPS and NWPS is neither significant nor insignificant because the coefficient (r) though greater than PE is still less than 6PE.

	r			-	
Banks	Coefficient of	Relationship	$\mathbf{r}^2$	Probable	Sign./ Insign.
	correlation			error	
SCBNL	0.15	Positive	0.0225	0.29	Insignificant
NSBIB1	0.83	Positive	0.69	0.09	significant
BOK	0.71	Positive	0.50	0.15	Moderate
NBBL	0.84	Positive	0.71	0.09	Significant
EBL	0.65	Positive	0.423	0.174	Moderate

Table 4.19
Correlation between EPS and MPS of Selected Banks.

The table 4.19 shows the relationship between EPS and MPS of concerned banks. The correlation coefficient (r) of all banks (SCBNL, NSBIBL, BOK, NBBL and EBL) is positive. The correlation between EPS and MPS of NBBL is nearly perfect (0.84) whereas the lower degree of correlation between EPS and MPS in case of SCBNK which indicates that there is a little relationship between EPS and MPS of SCBNL . The coefficient of correlations (r) between EPS and MPS of NSBIBL, BOK and EBL are 0.83, 0.71 and 0.68 respectively. The positive correlation coefficient of all banks shows that if the EPS increases the MPS also increases and Vice-versa.

The coefficient of determination  $(r^2)$  for SCBNL is 0.0225, which means that the variation in EPS explains 2.25% variation in MPS which is not considerable. In case of NSBIBL, the coefficient of determination is 0.69, which indicates that the variation in EPS explains 69% variation in MPS which is considerable to an extent. Similarly, in case of BOK the EPS

explains 50% variation in MPS, which is also considerable. The coefficient of determination of NBBL is 0.71, which means that the variation in EPS explains 71.0% variation in MPS which is very considerable. Finally, the coefficient of determination being 0.423 in case of EBL indicates that EPS explains 42.3% variation in MPS, which is considerable.

In the above table, in case of SCBNL the relationship is said to be insignificant because the correlation (r) is less than the probable error (PE). Thus, we can say that the MPS is dependent heavily on other variable than the EPS. And, in case of NSBIBL and NBBL, there is significant relationship between MPS and EPS as coefficient of correlation (r) is greater than 6PE which indicates that the EPS is major factor to determining the MPS. But it is hard to define the relationship being significant or insignificant in case of BOK and EBL, since coefficient of correlation (r) though greater than PE is still less than 6PE. So we can say that there is moderate relationship between EPS and MPS.

Correlation between MPS and DPR of Selected Banks.

Banks	Coefficient of	Relationship	$\mathbf{r}^2$	Probable	Sign./ Insign.
	correlation			error	
SCBNL	-0.84	Negative	0.71	0.09	Insignificant
NSBIB1	0.21	Positive	0.04	0.29	Insignificant
BOK	-0.90	Negative	0.81	0.06	Insignificant
NBBL	0.77	Positive	0.59	0.12	Significant
EBL	-0.22	Negative	0.05	0.29	Insignificant

The table 4.20 depicts the relationship between MPS and DPR of five commercial banks respectively. The above figure clearly shows positive correlation between MPS and DPR for NSBIBL, amd NBBL but shows the negative correlation between MPS and DPR for SCBNL, BOK and EBL. There is the higher degree of positive correlation (0.77) in case of NBBL and higher degree of negative correlation (-0.90) in case of BOK and correlation of SCBNL, NSBIBL and EBL has -0.84,0.21 and -0.22 respectively.

The coefficient of determination  $(r^2)$  for SCBNL NSBIBL, BOK, NBBL and EBL are 0.09, 0.29, 0.06, 0.12 and 0.29 respectively. The coefficient of determination for SCBNL is 0.09,

which means that the variation in DPR explains 9.0% variation in MPS, In case of NSBIBL DPR explains 29% variation in MPS, which is considerable. Similarly, the coefficients of determination are 0.06, 0.12 and 0.29 in case of BOK, NBBL and EBL respectively.

As far as significance of relationship is concerned, the relationship between MPS and DPR of all banks except NBBL, are insignificant because correlation is less than the probable error. This implies that, the MPS is dependent on other variable than the DPR. The coefficient of correlation is higher than 6PE in case of NBBL, it means MPS is dependent on DPR.

### 4.13 Regression Analysis:

The regression analysis is used to determine the statistical relationship between two or more variables and to make prediction of one variable on the basic of the others. The regression analysis can either be simple regression or multiple regressions. When we take only one independent to predict the value of the dependent variable through the appropriate regression time, then the analysis is known as simple regression analysis. But the analysis performed by the use of two or more independent variables is known as multiple regression analysis.

#### Simple Regression Analysis:

Dependent variable dividend per share (DPS) or Y on independent variable earning per share (EPS) or X:

Regression equation,

$$\mathbf{Y} = \mathbf{a} + \mathbf{b}\mathbf{X}$$

# **Table 4.21**

#### Simple Regression Analysis of DPS on EPS of Selected Banks.

Donka	Constant (a)	Reg. Coeff.	Std oppon	$\mathbf{P}^2$	't' value
Daliks	Constant a	ʻb'	Siu, error	N	calculated
SCBNL	84.19	0.13	0.194	0.40	1.41
NSBIBL	-5.11	0.3839	0.412	0.96	8.49
BOK	18.95	-0.13	0.207	0.39	-1.37
NBBL	0.26	0.0155	0.087	0.49	.1.70
EBL	9.76	0.0788	0.051	0.18	0.82

The table 4.21 describes the output of simple analysis between dividend per share Y and earning per share X of the concerned banks.

The regression coefficient (b) of BOK is negative i.e. -0.13 which indicates that negative relation exists between DPS and EPS i.e. on a rupee increase in EPS leads to an average about Rs. 0.13 decrease in DPS of EBL holding other variable constant. The decrease in DPS due to increase in EPS sounds very awkward and ridiculous which means that the DPS of BOK does not depend on EPS but dividend per share has random walk. Similarly, the coefficient of determination (R<sup>2</sup>) of BOK is 0.39, which indicates that 39.0% of DPS variation in explained by variation in EPS of BOK. The value of constant (a) is relatively low i.e. 18.95 of BOK.

In the case of SCBNL, NSBIBL, NBBL and EBL, the regression coefficient (b) is positive i.e. 0.13, 0.3839, 0.0155 and 0.0788 respectively. This implies that the one rupee increase in EPS leads to an average increase of Rs. 0.13 in DPS in case of SCBNL, an average of about Rs. 0.03839 increase of NSBIBL, an average of about Rs. 0.0155 increase of NBBL and an average of about Rs. 0.0788 increase in DPS of EBL.

The coefficient of determination ( $\mathbb{R}^2$ ) of SCBNL, NSBIBL, NBBL and EBL is 0.40, 0.96, 0.49 and 0.18 respectively, which means that 40.0%, 96.0%, 49.0% and 18.0% of DPS variation is explained by variation in EPS of SCBNL, NSBIBL, NBBL and EBL respectively.

The result would be insignificant when the calculated value of t is less or equal to the tabulated value of 't'. Otherwise it is significant. Here our tabulated value of t for two tailed test at 5% level of significance (where the degree of freedom is 4, i.e. n-1=5-1) is 2.776. The result of regression of all the banks are statistically significant, because the tabulated value t is greater than the calculated value.

Dependent variable Market Price Per Share (MPS) Y on Independent Variable Dividend Per Share (DPS) X:

**Regression Equation** 

$$Y = a + bX$$

#### **Table 4.22**

Banks	Constant 'a'	Reg. Coeff.	Std, error	$\mathbb{R}^2$	't' value
		ʻb'			calculated
SCBNL	11936.24	-75.16	16.061	0.98	-12.12
NSBIBL	672.46	32.90	0.160	0.42	1.49
BOK	1811.11	-57.68	22.943	0.62	-2.22
NBBL	588.73	245.70	41.813	0.96	.8.49
EBL	1411.33	19.125	12.626	0.23	0.95

Simple Regression Analysis for MPS on DPS of Selected Banks.

The figure in table 4.22 is the output of simple regression analysis between MPS and DPS of SCBNL, NSBIL, BOK, NBBL, and EBL. As a regression equation of Y on X is concerned, the regression coefficient or the beta coefficient (b) is positive in case of NSBIBL (32.90), NBBL (245.70), EBL (19.125) which indicates that one Rupee increase in dividend leads to Rs. 32.90 increase in MPS of NSBIBL, one rupee increase in dividend leads to increase in MPS of NBBL by Rs. 245.70 and one rupee increase in dividend leads to increase in MPS of EBL by Rs.19.125.. But as far as SCBNL and BOK are concerned, the relationship between MPS and DPS is negative as beta coefficient of -75.16 and -57.68. This implies that one rupee increase in DPS leads to decrease in MPS by 75.16 of SCBNL and by Rs. 57.68 of BOK. The coefficient of determination  $(R^2)$  in case of NSBIBL and EBL is 0.42 and 0.23 respectively, which is small. Thus it implies that DPS explain only 42% variation in MPS of NSBIBL and 23% of EBL. The value of constant (a) is relatively high 11936.24 of SCBNL, 672.46 of NSBIBL 1811.11 OF BOK 588.73 of NBBL and 1411.33 for EBL which means that the MPS is effected by or depends on several other factors besides DPS. In case of NSBIBL, and EBL, R2 is 0.42, and 0.23 respectively, which indicates that variation in DPS explain 42% variation on MPS of NSBIBL and 42% variation on MPS of EBL.

The tabulated value of 't' at 5% level of significant and at 5 degree of freedom is 2.776. The calculated value of 't' of SCBNL, NSBIBL, BOK, and EBL is -12.12, 1.49, -2.22 and 0.95 respectively. The calculated 't' value is less than tabulated 't' value in case of all banks

.except NBBL So the regression relation between MPS and DPS is insignificant. But in case of NBBL "t" value is 8.49 which is greater than tabulated value of "t".

Dependent Variable Market Price Per Share (MPS) Y on Independent Variable Earning Per Share (EPS) X:

**Regression Equation** 

$$Y = a + bX$$

### **Table 4.23**

Banks	Constant 'a'	Reg. Coeff. 'b'	Std, error	$\mathbf{R}^2$	't' value calculated
SCBNL	1394.91	17.88	12.203	0.0225	-12.12
NSBIBL	-124.34	40.20	8.107	0.69	1.49
BOK	-501.91	39.49	17.143	0.50	-2.22
NBBL	263.26	11.94	2.270	0.71	.8.49
EBL	-2168.74	58.16	19.888	1	0.95

#### Simple Regression Analysis of MPS on EPS of Concerned Banks.

The table 4.23 depicts the output of simple regression analysis between Market Price per Share (MPS) on Earning Price per Share (EPS) of five commercial banks i.e. SCBNL, NSBIBL, BOK, NBBL and EBL.

As the above figure helps us to imply that earning per share (EPS) of concerned banks has direct impact on their stock price (MPS) as the regression coefficient (b) of SCBNL, NSBIBL, BOK, NBBL and EBL is 17.88, 40.20, 39.49, 11.94 and 58.16 respectively, which implies that one rupee increase in EPS leads to an average of Rs. 17.88, Rs. 40.20, Rs. 39.49, Rs. 11.94 and Rs. 58.16 increase in MPS respectively. The value of the constant (a) is relatively high 1394.91 of SCBNL, which indicates that MPS is affected by or depend on several other factors besides EPS.

Coefficient of determination (R2) of SCBNL, NSBIBL, BOK, NBBL and EBL are 0.0225, 0.69, 0.50, 0.71 and 1 respectively. This means that 2.25% variation in MPS is explained by variation in EPS in case of SCBNL, 69% variation in MPS is explained by variation in EPS in case of NSBIBL, 50% or very small variation in MPS is explained by variation in EPS in case of BOK, 71% or larger variation in MPS is explained by variation in EPS in case of NBBL and 42.3% variation in MPS is explained by variation in EPS in case of EBL.

The tabulated value of 't' at 5% level of significant and at 5 degree of freedom is 2.776. The calculated value of 't' of SCBNL, NSBIBL, BOK, NBBL and EBL is 0.26, 2.58, 1.74, 5.02 and 1.583 respectively. The calculated 't' value is less than tabulated 't' value in case of SCBNL ,NSBIBL, BOK and EBL. The calculated value of 't' is greater than tabulated value in case of NBBL. So relationship of MPS and EPS of NBBL is significant. It means the value of MPS is related in case of SCBNL, HBL, NABIL and EBL because the calculated 't' value of these banks are less than the tabulated 't' value. So the result of these banks are insignificant.

Dependent variable Market Price per Share (MPS) Y on independent variable Dividend Pay Out Ratio (DPR) X:

Regression Equation,

Y = a + bX

Simple Regression Analysis of MPS on DPR of Selected Banks.

Banks	Constant 'a'	Reg. Coeff. 'b'	Std. Error	$\mathbf{R}^2$	't' value
SCBNL	13017.76	-129.74	30.275,	0.71	-2.70
NSBIBL	703.89	7.10	8.00	0.04	0.37
BOK	2514.43	-38.41	29.581	0.81	-3.58
NBBL	588.74	205.02	28.84	0.59	2.08
EBL	1992.01	-12.43	3.003	0.05	-0.39

The table 4.24 shows the regression analysis of MPS on DPR among the bank under study. The NSBIBL, and NBBL have positive regression relation between MPS and DPR of the bank whereas SCBNL, BOK and EBL have negative relation between MPS and DPR. The regression relation between MPS on DPR of NSBIBL, and NBBL indicate that with an increase of Rs 1 in DPR, the MPS will increase by Rs. 7.10, and Rs. 205.02 respectively, other variable remain constant. In context of SCBNL and BOK and EBL there will be decrease in MPS of by Rs. 129.74, Rs. 38.41 and Rs. 12.43 respectively with an increase in DPS by 1% assuming that the other variables are constant.
The standard error of estimate of SCBNL, NSBIBL, BOK, NBBL and EBL are 30.275, 8.00, 29.581, 28.840 and 3.003 respectively. These values indicate the probable error in the predicated value for the respectively banks.

The coefficient of determination  $(R^2)$  is lowest for NSBIBL (0.04) which is indicates that -4% in MPS is explained by DPR i.e. variation in MPS of the bank is explained due to the change in value of DPR of the bank. The value of (R2) of SCBNL, BOK NBBL and EBL are 0.71, 0.81, 0.59 and 0.05 variation in MPS of these banks are explained due to change in DPR of respective banks.

The tabulated value of 't' at 5% level of significant and at 5 degree of freedom is 2.776. The calculated value of 't' of SCBNL, NSBIBL, BOK, NBBL and EBL is -2.70, 0.37, -0.3.58, 2.08 and -0.39 respectively. The calculated 't' value is less than tabulated 't' value in case of all banks. So the regression relation between MPS and DPR is insignificant. Since we can conclude that the value of MPS is not dependent in the value of DPR.

### **Multiple Regression Analysis**

Dependent Variable Market Price Of Share (MPS) or (X1) on Independent Variable Earning Per Share (EPS) or (X2) and Dividend Per Share (DPS) or (X3):

Regression Equation,

X1 = a1 + b1X2 + b2X3

### **Table 4.25**

Multiple Regression Analysis of MPS on EPS and DPS of Selected Banks.

	Reg.	Reg.	Reg.	S.E.		Multiple	<b>D</b> <sup>2</sup>
Banks	Constant (a)	Coefficient (b <sub>1</sub> )	Coefficient (b <sub>2</sub> )	$S_1$	$S_2$	Correlation	R <sup>2</sup>
SCBNL	7693.40	33.71	-83.75	14.697	23.910	0.6174	0.3812
NSBIBL	272.32	-2.80	23.16	15.070	13.885	1	1
BOK	-494.33	-26.575	48.06	41.069	55.955	0.9308	0.8664
NBBL	235.45	8.96	169.62	1.110	7.181	0.9308	0.8664
EBL	-2128.13	58.49	-4.17	48.511	27.763	1	1

The table 4.25 presented above shows the relationship between MPS, EPS and DPS of selected banks.

The regression coefficient (b<sub>1</sub>) is 33.71 for SCBNL, -2.80 for NSBIBL, -26.575 for BOK, 8.96 for NBBL and 58.49 for EBL. This implies that one rupee increase in EPS leads to Rs. 33.71 increase in MPS in case of the SCBNL, if holding the DPS constant. On the other hands, the same amount of increase in EPS leads to decrease in MPS of NSBIBL by Rs. 2.80. Similarly, the same amount of increase in EPS leads decrease in MPS by Rs. 26.575 in case of BOK bank, when the DPS is constant. Again, in case of NBBL, the same amount of increase in EPS leads decrease in MPS by Rs. 26.575 in case of BOK bank, when the DPS is constant. Again, in case of NBBL, the same amount of increase in EPS leads decrease in MPS by Rs. 58.49 assuming that DPS held constant. From the above data we can say that EPS effects on MPS. Generally, increase in EPS the MPS also increase.

The regression coefficient (b<sub>2</sub>) of SCBNL, NSBIBL, BOKL, NBBL and EBL are -83.75, 23.16, 48.06, 169.62 and -4.17 respectively. It implies that one rupee increase in DPS leads to rupees Rs 83.75 decrease in case of SCBNL, Rs. 23.16 increase in case NSBIBL, Rs. 48.06 increase of BOL, Rs. 169.62 increase in case of NBBL and Rs. 4.17 decrease of EBL when the EPS is remain constant.

The multiple correlations of SCBNL, HBL, NABIL, NBBL and EBL are 0.6174, 1, 0.9308, 0.8303 and 1 respectively. These all are implies positive correlation exists. The coefficient of multiple determination of SCBNL, NSBIBL, BOK, NBBL and EBL are 0.3812, 1, 0.8664, 0.6894 and 1 respectively. Since SCBNL has the lowest R<sup>2</sup> and NSBIBL AND EBL have the highest, it means that the MPS of NSBIBL are highly affected by joint effect of EPS and DPS and the MPS of SCBNL is normally affected by joint effect of EPS and DPS. The R<sup>2</sup> indicates that 38.12%, 100%, 86.64%, 68.94% and 100% variation in MPS is due to the joint effect of change in MPS and DPS.

### 4.14 Test of Hypothesis:

#### F- test:

First ANOVA Test on Dividend per share (DPS) of 5 banks over the 5 years.

### Null hypothesis:

H<sub>0</sub>:  $\hat{\Pi}_A = \hat{\Pi}_B = \hat{\Pi}_C = \hat{\Pi}_D = \hat{\Pi}_E$ , There is no significant difference between DPS of SCBNL, HBL, NABIL, NBBL and EBL.

H<sub>0</sub>:  $\hat{\Pi}_1 = \hat{\Pi}_2 = \hat{\Pi}_3 = \hat{\Pi}_4 = \hat{\Pi}_5$ , There is no significant difference between DPS of 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08.

### Alternative hypothesis:

H<sub>1</sub>:  $\Uparrow_A | \Uparrow_B | \Uparrow_C | \Uparrow_D | \Uparrow_E$ , There is significant difference between DPS of SCBNL, NSBIBL, BOK, NBBL and EBL.

H<sub>1</sub>:  $\hat{\uparrow}_1 | \hat{\uparrow}_2 | \hat{\uparrow}_3 | \hat{\uparrow}_4 | \hat{\uparrow}_5$ , There is significant difference between DPS of 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08.

### Test of statistic:

### For Banks:

Calculated  $F_{0.05} = 55.13$ 

Tabulated  $F_{0.05}$  (4,16) = 3.01

### For Years:

Calculated  $F_{0.05}$  (4,16) = 0.9189

Tabulated  $F_{0.05}$  (4,16) = 3.01

#### **Conclusion:**

**For Bank wise:** Since calculated Fc(4,16) > tabulated F(4,16), it is significant and  $H_0$  is rejected and hence  $H_1$  is accepted, which means that there is significant difference between DPS of SCBNL, NSBIBL, BOK, NBBL and EBL.

**For Year wise:** Since calculated Fr(4,16) < tabulated F(4,16), it is not significant and  $H_0$  is accepted and hence  $H_1$  is rejected, which means that there is no significant difference between DPS of year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 of the concerned banks.

### Second ANOVA test on Market Price per Share (MPS) of 5 banks over the 5 years.

### Null hypothesis:

H<sub>0</sub>:  $\hat{\Pi}_A = \hat{\Pi}_B = \hat{\Pi}_C = \hat{\Pi}_D = \hat{\Pi}_E$ , There is no significant difference between MPS of SCBNL, NSBIBL, BOK, NBBL and EBL.

H<sub>0</sub>:  $\hat{\Pi}_1 = \hat{\Pi}_2 = \hat{\Pi}_3 = \hat{\Pi}_4 = \hat{\Pi}_5$ , There is no significant difference between MPS of 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08.

## Alternative hypothesis:

H<sub>1</sub>:  $\Uparrow_A | \Uparrow_B | \Uparrow_C | \Uparrow_D | \Uparrow_E$ , There is significant difference between MPS of SCBNL, NSBIBL, BOK, NBBL and EBL.

H<sub>1</sub>:  $\hat{\parallel}_1 \mid \hat{\parallel}_2 \mid \hat{\parallel}_3 \mid \hat{\parallel}_4 \mid \hat{\parallel}_5$ , There is significant difference between MPS of 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08.

### Test of statistic:

## For Banks:

Calculated  $F_{0.05} = 9.08$ 

Tabulated  $F_{0.05}$  (4,16) = 3.01

## For Years:

Calculated  $F_{0.05} = 3.89$ 

Tabulated  $F_{0.05}$  (4,16) = 3.01

### **Conclusion:**

**For Bank wise:** Since calculated  $F_c$  (4,16) > tabulated F(4,16), it is significant and  $H_0$  is rejected and hence  $H_1$  is accepted, which means that there is significant difference between MPS of SCBNL, NSBIBL, BOK, NBBL and EBL or, MPS of different five selected banks is not same.

<u>For Year wise:</u> Since calculated  $F_r(4,16) >$  tabulated F(4,16), it is significant and  $H_0$  is rejected and hence  $H_1$  is accepted, which means that there is significant difference between MPS of year 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08.

#### CHAPTER- V

## SUMMARY, CONCLUSION AND RECOMENDATIONS

#### **5.1 SUMMARY**

Dividend policy decision is one of the three decisions of financial management. The divided policy decision affects on the operation and prosperity of the organization because it has the power to influence other two decision of the organization i.e. Capital structure decision and Investment decision. An investor expects two types of return namely capital or ordinary share. So, payment of divided to shareholders in an effective way to attract investors and maintain present investors. It is important to have clearly defined and effectively managed dividend policy so as to fulfill the shareholders' expectations and corporate growth.

Paying divided can be taken as an important tool to affect new investors. Besides this dividend paying ability reflects the financial position of the organization in the market. Due to the division of earnings between divided payout and retention ratio the market price of the share also is affected, which is also crucial for the organization. So, the funds that could not be used due to the lack of investment opportunities would be better to distribute as dividend, since shareholders have investment opportunities elsewhere.

Shareholders have high expectation that market price of share will be significantly higher then net worth. The companies invested by foreigners are paying higher dividend than the companies promoted by the indigenous promoters of Nepal. However, commercial banks are also not guided by an appropriate dividend policy. This has actually affected the market price, goodwill of all such banks in the long run.

Dividend paying banks been analyzed to show the implication of dividend policy they have adopted in their market price per share. Even if market price is governed by various factors, this study is made to analyze one of the important factor i.e. dividend. The study covers five Commercial Banks (SCBNL, NSBIBL, BOK, NBBL and EBL) and only for the last five fiscal years from 2003//04 to 2007/08. The available secondary dates have been analyzed using various financial and statistical tools. So, the reliability of the conclusions of this study

is determined on the accuracy of secondary data. The major findings of this study can be summarized as follows.

### **MAJOR FINDINGS**

The major findings of this study can be summarized as follows:

- The average earning per share (EPS) of the banks under study shows a positive result. But the coefficient of variation indicates that EPS of the banks are not stable. The CV range between 93.98% and 10.81%. Among the banks under study. SCBNL has the highest average EPS with lowest fluctuation and NSBIBL has the highest degree of fluctuation. The EBL has lowest average EPS, which is not so fluctuated.
- 2. The average dividend per share (DPS) of the banks under study shows a positive result except NBBL and NSBIBL. But the coefficient of variation inculcates that DPS of the banks are not stable. The C.V. ranges between 200.40% and 19.79%. Among the banks under study, SCBNL has the highest average DPS with lowest fluctuation. The NBBL has average DPS is Rs. 1.01 and its fluctuation is 200.40% which is greatest fluctuation. Similarly, NSBIBL has also lower average DPS (Rs. 3.50) with higher fluctuation (140.06%).NBBL is not distributing the dividend in 4 years and SBIBL is not distributing dividend in 3 years with in the 5 years study period.
- 3. The average dividend percentage (DP) of the concerned banks shows the highest average DP of SCBNL with lowest fluctuation and the NBBL has lowest average DP with highest fluctuation. The ranges a between C.V. of DP is 200.40 % (NBBL) and 19.79 % (SCBNL).
- 4. By analysis, the data of the concerned banks for divided pay out ratio (DPR), we find that the average DPR are positive except NBBL and EBL. But the coefficient of variation of concerned banks are not stable the C.V ranges between 200.33% and 15.65%. In the study of all five concerned banks we show that the SCBNL has highest average DPR with lowest fluctuation and the NBBL has lowest average DPR with highest fluctuation because the NBBL has not distributed the dividend in four years with in the 5 years study period.
- 5. The average of the average of MPS of 5 concerned commercial banks is Rs. 1700.48 which is standard value of MPS for this study. The SCBNL has greater average MPS

than the standard value of MPS but it is lower in case of all other banks. There is not more different between Standard value of MPS and average MPS of EBL. But this different is highest in case of SCBNL. The coefficient of variation indicates that the market price of banks is not stable. The fluctuation in MPS of SCBNL has lowest and it is highest of NBBL.

- 6. The average price-earning ratio of the banks ranges between 32.70% and 18.07%. The coefficient of variation indicates the P/E ratios of the banks are not stable. The C.V ranges between 68.48% and 32.84%. Among the banks under study, NSBIBL has the highest average ratio and NBBL has lowest P/E ratio. But there is not a big gap between P/E ratio overtime for any stock. The highest fluctuation shows in the NBBL and the lowest in case of EBL.
- 7. The average Earning Yield (EY) of the concerned banks ranges between 4.96 and 3.36 which do not derivate from the average EY of the concerned banks. But the C.V. indicates that the EY of the banks are not stable. The C.V. ranges between 71.63% and 27.68%. The BOK has highest average EY and lower fluctuations in EY than SCBNL and NBBL. The lowest EY was found in case of NSBIBL and its fluctuation is high than the other banks
- 8. The average Divided Yield (DY) ranges between 3.47% and 0.39% and the coefficient of variation indicates that DYs of the banks are not stable. The C.V. ranges between 200% and 58.21%. Among the banks under study SCBNL has highest average DY with the lowest fluctuation and it is lower in case of NSBIBL with the highest fluctuation.
- The average NWPS of SCBNL, NSBIBL, BOK, NBBL and EBL are Rs.428.74, Rs.159.33, Rs.210.05, Rs.149.76 and Rs.244.72 respectively and C.V. are 13.73%, 3.81%, 11.11%,-273.2% and 22.34% respectively. SCBNL has the highest NWPS and NBBL has lowest. The fluctuation in NWPS is highest in case of NBBL and lowest is case of NSBIBL.
- 10. The average ratio between MPS and BVPS ranges is 41.20 to 7.88% but the fluctuation in this ratio range between 76.79% and 47.80%.

By using the major statistical tools i.e. correlation and regression, we can summarize the relationship of various variable as follows.

- The MPS of NSBIBL, NBBL and EBL has positive correlation with their respective DPSs. But MPS of SCBNL and BOK are negatively correlated with DPS. The correlation of NSBIBL, and EBL has moderate significant and it is significant of SCBNL and NBBL. For BOK it is insignificant. The regression analysis of MPS on DPS shows that the regression coefficient (b) is positive of NSBIBL, NBBL and EBL and it is negative of SCBNL and BOK.
- 2. The correlation between dividend per share (DPS) and Earning per Share (EPS) of SCBNL, NSBIB, NBBL and EBL has positive. It is negative in case of BOK. The correlation of SCBNL, NBBL and EBL has moderate significant and it is insignificant in case of BOK and it is significant in case of NSBIBL. The regression analysis of DPS on EPS shows the regression coefficient (b) is positive of SCBNL, NSBIBL, NBBL and EBL and it is negative of BOK.
- 3. The analysis of correlation between EPS and MPS help us to conclude that the all banks have positive relationship. The relationship is insignificant for SCBNL and it is significant for NSBIBL and NBBL And BOK and EBL has moderate significant.
- 4. The regression coefficients (b) of the regression analysis between MPS on EPS of all banks under study are positive.
- 5. The correlation coefficient of NSBIBL and NBBL has positively relationship between DPS and NWPS. But its relationship is negative in case of SCBNL, BOK and EBL. This relationship is significant for NSBIBL and it is insignificant in case of SCBNL, BOK and EBL. This relation is moderate insignificant in case of NBBL.
- 6. The correlation coefficient between MPS and DPR has positive for NSBIBL, NBBL. But it is negatively related in case of SCBNL, BOK and EBL. This relation is insignificant for all banks except NBBL. But it is significant for NBBL The regression analysis of MPS on DPR shows that the regression coefficient (b) is positive for NSBIBL, NBBL and EBL and it is negative for SCBNL and BOK.
- 7. The multiple regression analysis of MPS on EPS and DPS shows the NBBL has positive regression coefficient (b) of both EPS and DPS. The regression coefficient (b) for NSBIBL and BOK has negative relation between MPS and DPS and positive of MPS and EPS. In case SCBNL and EBL the regression coefficient (b) is positive of MPS on DPS and negative of MPS on EPS.

8. Test of hypothesis 2 helps us to conclude that dividend per share of different five banks (i.e. SCBNL, NSBIBL, BOK, NBBL and EBL) are statistical different at 5% level of significant while MPS of these selected Five banks also are significantly differ at 5% level of significant and this test shows the DPS of different years are not significant different at 5% level of significant whereas MPS of different years are significantly different at 5% level of significant.

### **5.2 CONCLUSION OF THE STUDY**

The results of this analysis are strong enough to establish the relationship between dividend policy and market price of share of Nepalese listed banks. However this analysis can not give wholesome conclusion of present dividend payment scenario. After analyzing the financial and statistical indicators of all the sample banks, following conclusion are drawn.

- Dividend practices of all simple banks are neither stable nor constantly growing.
  Dividends are distributed as an ad-hoc or situational basis.
- ) The market price per share is affected by the dividend related financial variable i.e. DPS, DP, DY and DPR either positively or negatively. The nature of effect is different for different banks. In case of same banks, there exist positive relation between dividend and market price per share, while for others exist negative relation. Beside this the market price per share largely depends upon the dividend, which has been shown by the coefficient of multiple determinations.
- ) The study of importance of cash dividend on the market price of share revealed that generally dividend per share has positive import on market price of share in all banks.
- ) Beside dividend, other factors also effects the market price per share i.e. earning per share , net worth per share price earning ratio, earning per bonus share, information value of dividend decision etc. their effect is also different for different banks.
- ) Market price per share (MPS) to book value per share (BVPS) ratio is greater than 1 for all banks in all FY under study. In other word MPS of listed banks is higher then the BVPS. This indicates that the investors are not looking at BVPS but only the transaction price of share which shows the lack of consciousness and knowledge in shareholders.

- Dividend per share is affected by the earning per share, retention ratio and net profit net worth per share differently in different banks.
- ) The situation of capital market of Nepal is improving day by day. As a result, the capital market seems to be more efficient than previous years. But it is reality that capital market of Nepal is still immature.
- Due to inadequate time period, only few numbers of banks have been taken as sample. Hence, if large samples are taken from the whole population the result might have produced more accurate and absolute results.

### **5.3 RECOMMEDATIONS:**

There seems lack of consistent in dividend pay practices of sample banks. This may be due to lack of legal obligation that abides the companies to pay dividend when they are running at profit. There is not clear provision in company ACT 2053, commercial banks ACT 2053, and their regulating acts regarding the dividend policy.

- ) The uniformity and regularity in dividend payment practices should be adopted by the companies. In many cases, a small amount of dividend is paid with out considering what is adequate or desired by the investors. But all respondents say that they should take into account the shareholders expected return, while forming dividend policy. The financial institution should consider the shareholder expectation as far as possible.
- ) The commercial banks should have long term policy/ strategy regarding the adoption of suitable dividend policy.
- ) The shareholder should be taken into confidence while there is a pressing the dividend practice.
- ) Government, Nepal Rastra Bank, security exchange board and Nepal stock exchange should be conscious in discouraging market imperfection in dividend payment practices.
- ) Even if the net earning has been increased the dividend per share has widely fluctuated. There seems to be the need of relating DPS with the long term trend of EPS. Distribution of bonus share should be pre-evaluated.

- ) Most of the banks seem to ignore the dividend expectation of the minority shareholders. There needs an organization as a pressure group to promote and protect shareholder rights as regards dividend.
- ) The organization formed by conscious shareholders like shareholders' Association of Nepal should be encouraged to work against the management ignorance.
- ) The Activities, policies and the financial information should be transparent and within the reach of the shareholders.
- ) In short, to develop a long-term dividend policy the directors should aim to strike a balance between the desire of shareholders and the means of the concerned company.

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# Appendix-I

Year	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	143.55	14.26	20.50	118.48	45.60
2004/05	143.14	13.29	30.10.	83.45.	54.20
2005/06	175.84	18.27	43.67	18.41	62.80
2006/07	167.37	39.35	43.50	19.87	78.40
2007/08	131.92	28.33	59.94	-	91.82
Mean	152.36	22.70	39.54	48.04	66.56
Std. Dev.	16.47	9.88	13.42	45.15	16.64
C.V.	10.81	43.52	33.94	93.98	25.00

## Earning Per Share of Selected Banks

## **Dividend per Share of Selected Banks**

Banks	SCBNL	NSBIBL	вок	NBBL	EBL
2003/04	110	0	10	0	20
2004/05	120	0	15	5.04	0
2005/06	130	5	18	0	25
2006/07	80	12.59	20	0	10
2007/08	80	0	2.11	0	20
Mean	104	3.52	13.02	1.01	15
Std. Dev.	20.59	4.93	6.41	2.62	8.94
C.V.	19.79	140.06	49.23	200.40	59.60

## **Dividend Percent of Selected Banks (of FV)**

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	110	0	10	0	20
2004/05	120	0	15	5.04	0
2005/06	130	5	18	0	25
2006/07	80	12.59	20	0	10
2007/08	80	0	2.11	0	20
Mean	104	3.52	13.02	1.01	15
Std. Dev.	20.59	4.93	6.41	2.62	8.94
C.V.	19.79	140.06	49.23	200.40	59.60

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	76.63	0	48.78	0	43.86
2004/05	83.83	0	49.83	6.04	0
2005/06	73.93	27.37	41.22	0	39.81
2006/07	47.80	32	45.98	0	12.76
2007/08	60.64	0	3.52	0	21.78
Mean	68.57	11.87	37.87	1.21	23.64
Std. Dev.	12.81	14.62	17.43	2.42	16.44
C.V.	18.68	123.17	46	200.33	69.54

# Dividend Payout Ratio of Selected Banks:

## Market Price per Share of Selected Banks:

Banks	SCBNL	NSBIBL	BOK	NBBL	EBL
2003/04	1745	307	295	1260	680
2004/05	2348	335	430	1827	870
2005/06	3775	612	850	683	1379
2006/07	5900	1176	1375	412	2430
2007/08	6830	1511	2350	0	3132
Mean	4119.60	788.20	1060	836.40	1698.20
Std. Dev.	1970.39	477.66	746.95	642.48	939.77
C.V.	47.83	60.60	70.46	76.81	55.34

## **Price Earning Ratio of Selected Banks**

Banks	SCBNL	NSBIBL	BOK	NBBL	EBL
2003/04	12.16	21.54	14.39	10.63	14.91
2004/05	16.38	25.21	14.28	21.89	16.05
2005/06	21.47	33.49	19.46	37.10	21.96
2006/07	35.25	29.89	31.61	20.73	30.99
2007/08	51.77	53.34	39.20	0	34.11
Mean	27.41	32.70	23.79	18.07	23.60
Std. Dev.	14.45	11.09	9.96	12.37	7.75
C.V.	52.72	33.92	41.87	68.46	32.84

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	8.23	4.64	6.95	9.40	6.70
2004/05	6.10	3.97	7.00	4.57	6.23
2005/06	4.66	2.98	5.14	2.70	4.55
2006/07	2.84	3.35	3.16	4.82	3.23
2007/08	1.93	1.87	2.55	0	2.93
Mean	4.75	3.36	4.96	4.30	4.73
Std. Dev.	2.26	0.93	1.84	3.08	1.54
C.V.	47.56	27.68	37.10	71.63	32.56

## Earning Yield of Selected Banks.

## Dividend Yield of Selected Banks.

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	6.30	0	3.39	0	2.94
2004/05	5.11	0	3.49	2.76	0
2005/06	3.44	0.82	2.12	0	1.81
2006/07	1.35	1.07	1.45	0	0.41
2007/08	1.17	0	0.09	0	0.64
Mean	3.47	0.39	2.11	0.55	1.16
Std. Dev.	2.02	0.43	1.27	1.10	1.07
C.V.	58.21	110.26	60.19	200	92.24

## Net worth per Share (NWPS) of Selected Banks.

Banks	SCBNL	NSBIBL	ВОК	NBBL	EBL
2003/04	339.25	146.60	218.78	182.42	171.52
2004/05	422.38	159.54	213.60	(32.59)	219.87
2005/06	468.22	151.78	230.67	(217.07)	217.67
2006/07	512.12	178.04	164.68	(364.54)	292.75
2007/08	401.52	160.57	222.51	(317.03)	321.77
Mean	428.70	159.33	210.05	(149.76)	244.72

Std. Dev.	58.87	6.08	23.33	558.90	54.68
C.V.	13.73	3.81	11.11	(373.20)	22.34

Market Price Per Share (MPS) to Book Value Per Share (BVPS)

Banks	SCBNL	NSBIBL	BOK	NBBL	EBL
2003/04	17.45	3.07	2.95	12.60	6.80
2004/05	23.48	3.35	4.30	18.27	8.70
2005/06	37.75	6.12	8.50	6.83	13.79
2006/07	59	11.76	13.75	4.12	24.30
2007/08	68.30	15.11	23.50	0	31.32
Mean	41.20	7.88	10.60	8.36	16.98
Std. Dev.	19.70	4.78	7.47	6.42	9.40
C.V.	47.80	60.66	70.47	76.79	55.36

# Appendix-II

## Financial Situation of Standard Chartered Bank Nepal Ltd. (SCBNL)

Variables	Min	Max	Mean	S.D.	C.V.
EPS	131.91	175.84	152.36	16.47	10.81
DPS	80	130	104	20.59	19.79
DPR	47.80	83.83	68.57	12.81	18.68
MPS	1745	6831	4119.60	1970.39	47.83
P/E Ratio	12.16	51.77	27.41	14.45	52.72
EY	1.93	8.23	4.75	2.26	47.58
DY	1.17	6.30	3.47	2.02	58.21
NWPS	339.25	512.12	428.70	58.87	13.73

## Financial Situation of Nepal SBI Bank Ltd (NSBIBL)

Variables	Min	Max	Mean	S.D.	C.V.
EPS	13.29	39.35	22.70	9.88	43.52
DPS	0	12.59	3.52	4.93	140.06
DPR	0	32	11.87	14.62	123.17
MPS	307	1511	788.20	477.66	60.60
P/E Ratio	21.54	53.34	32.70	11.09	33.92
EY	1.87	4.64	3.36	0.93	27.68
DY	0	1.07	0.39	0.43	110.26
NWPS	146.80	178.04	159.33	6.08	3.81

## Financial Situation of Bank of Kathmandu Ltd. (BOK)

Variables	Min	Max	Mean	S.D.	C.V.
EPS	20.50	59.94	39.54	13.42	33.94

DPS	2.11	20	13.02	6.41	49.23
DPR	3.52	49.83	37.87	17.43	46
MPS	295	2350	1060	746.93	70.46
P/E Ratio	14.28	39.20	23.79	9.96	41.87
EY	2.55	7	4.96	1.84	37.10
DY	0.09	3.49	2.11	1.27	60.19
NWPS	164.68	230.67	210.05	23.33	11.11

Financial Situation of Nepal Bangladesh Bank Ltd. (NBBL)

Variables	Min	Max	Mean	S.D.	C.V.
EPS	0	118.48	48.04	45.15	93.98
DPS	0	5.04	1.01	2.02	200.40
DPR	0	6.04	1.21	2.42	200.33
MPS	0	1827	836.40	642.48	76.81
P/E Ratio	0	37.10	18.07	12.37	68.46
EY	0	9.40	4.30	3.08	71.63
DY	0	2.76	0.53	1.10	200
NWPS	(364.54)	182.42	(149.76)	558.90	(373.20)

## Financial Situation of Everest Bank LTD. (EBL)

Variables	Min	Max	Mean	S.D.	C.V.
EPS	45.60	91.82	66.56	16.64	25
DPS	0	25	15	8.94	59.66
DPR	0	43.86	23.64	16.44	69.54
MPS	680	3132	1698.20	939.77	55.34
P/E Ratio	14.91	34.11	23.60	7.75	32.84
EY	2.93	6.70	4.73	1.54	32.56
DY	0	2.94	1.16	1.07	92.24
NWPS	171.52	321.77	244.72	54.68	22.34

# Appendix-III

Banks	Coefficient of variation	Relationship	r <sup>2</sup>	Probable error	Sig./Insig.
SCBNL	-0.99	Negative	0.98	0.006	Significant/
NSBIBL	0.6518	Positive	0.4248	0.1735	Moderate
BOK	-0.79	Negative	0.62	0.11	Insignificant
NBBL	0.198	Positive	0.96	0.0121	Significant
EBL	0.48	Positive	0.23	0.23	Moderate

## **Correlation between DPS and MPS of Selected Banks.**

### **Correlation between DPS and EPS of Selected Banks.**

Banks	Coefficient of variation	Relationship	r <sup>2</sup>	Probable error	Sig./Insig.
SCBNL	0.63	Positive	0.40	0.18	Moderate
NSBIBL	0.98	Positive	0.96	0.01	Significant
BOK	-0.62	Negative	0.39	0.18	Insignificant
NBBL	0.70	Positive	0.49	0.15	Moderate
EBL	0.43	Positive	0.18	0.25	Moderate

Correlation between DPS and NWPS of Selected Banks.

Banks	Coefficient of variation	Relationship	r <sup>2</sup>	Probable error	Sig./Insig.
SCBNL	-0.45	Negative	0.20	0.24	Insignificant
NSBIBL	0.95	Positive	0.91	0.03	Significant

BOK	-0.79	Negative	0.62	0.11	Insignificant
NBBL	0.36	Positive	0.13	0.26	Moderate
EBL	-0.25	Negative	0.06	0.28	Insignificant

**Correlation between EPS and MPS of Selected Banks.** 

Banks	Coefficient of variation	Relationship	r <sup>2</sup>	Probable error	Sig./Insig.
SCBNL	0.15	Positive	0.0225	0.29	Insignificant
NSBIBL	0.83	Positive	0.69	0.09	Significant
BOK	0.71	Positive	0.50	0.15	Moderate
NBBL	0.84	Positive	0.71	0.09	Significant
EBL	0.65	Positive	0.423	0.174	Moderate

## Correlation between MPS and DPR of Selected Banks.

Banks	Coefficient of variation	Relationship	$\mathbf{r}^2$	Probable error	Sig./Insig.
SCBNL	-0.84	Negative	0.71	0.09	Insignificant
NSBIBL	0.21	Positive	0.04	0.29	Insignificant
BOK	-0.90	Negative	0.81	0.06	Insignificant
NBBL	0.77	Positive	0.59	0.12	Significant
EBL	-0.22	Negative	0.05	0.29	Insignificant

# Appendix-IV

Banks	Constant 'a'	Reg. Coeff. 'b'	Std, error	$\mathbf{R}^2$	't' value calculated
SCBNL	84.19	0.13	0.194	0.40	1.41
NSBIBL	-5.11	0.3839	0.412	0.96	8.49
BOK	18.95	-0.13	0.207	0.39	-1.37
NBBL	0.26	0.0155	0.087	0.49	.1.70
EBL	9.76	0.0788	0.051	0.18	0.82

## Simple Regression Analysis of DPS on EPS of Selected Banks.

## Simple Regression Analysis of MPS on DPS of Selected Banks.

Banks	Constant 'a'	Reg. Coeff. 'b'	Std, error	$\mathbf{R}^2$	't' value calculated
SCBNL	11936.24	-75.16		0.98	-12.12
NSBIBL	672.46	32.90		0.42	1.49
BOK	1811.11	-57.68		0.62	-2.22
NBBL	588.73	245.70		0.96	.8.49
EBL	1411.33	19.125		0.23	0.95

## Simple Regression Analysis of MPS on EPS of Selected Banks.

Banks	Constant 'a'	Reg. Coeff. 'b'	Std, error	$\mathbf{R}^2$	't' value calculated
SCBNL	1394.91	17.88		0.0225	-12.12
NSBIBL	-124.34	40.20		0.69	1.49
BOK	-501.91	39.49		0.50	-2.22
NBBL	263.26	11.94		0.71	.8.49
EBL	-2168.74	58.16		1	0.95

Banks	Constant 'a'	Reg. Coeff. 'b'	Std. Error	$\mathbf{R}^2$	't' value
SCBNL	13017.76	-129.74	30.275,	0.71	-2.70
NSBIBL	703.89	7.10	8.00,	0.04	0.37
BOK	2514.43	-38.41	29.581	0.81	-3.58
NBBL	588.74	205.02	28.84	0.59	2.08
EBL	1992.01	-12.43	3.003	0.05	-0.39

Simple Regression Analysis of MPS on DPR of Selected Banks.

# Appendix-V

## **Multiple Regression Analysis**

Multiple Regression Analysis of MPS on EPS and DPS of Selected Banks.

Banks	Reg.	Reg.	Reg.	S.E.		Multiple	$\mathbf{R}^2$
	Constant (a)	(b <sub>1</sub> )	(b <sub>2</sub> )	$\mathbf{S}_1$	$S_2$	Correlation	
SCBNL	7693.40	33.71	-83.75	14.697	23.910	0.6174	0.3812
NSBIBL	272.32	-2.80	23.16	15.070	13.885	1	1
BOK	-494.33	-26.575	48.06	41.069	55.955	0.9308	0.8664
NBBL	235.45	8.96	169.62	1.110	7.181	0.9308	0.8664
EBL	-2128.13	58.49	-4.17	48.511	27.763	1	1