

# CHAPTER I

## INTRODUCTION

### 1.1 General Background

Dividend refers to the portion of net income paid out to stockholders. It is paid in cash or stock for making investment and bearing risk. Dividend decision of the firm is yet another crucial area of financial management as it affects shareholders wealth and value of the firm. The percentage of earnings paid out in form of cash dividend as known as dividend payout ratio. A company may retain some portion of its earnings to finance new investment. The percentage of earning in the firm is called retention ratio. Dividend policy is an integral part of the firm's financing decision as it provides internal financing. Dividend policy is concerned with determining the proportion of firm's earnings to be distributed in the form of cash dividend and the proportion of earnings to be retained.

The payment of the corporate dividend is at the discretion of the board of directors most corporations pay dividend quarterly. Dividends may be paid in cash and stock. Cash dividend is the most common. Stockholders are not promised a dividend. But he \she grows to expect certain payment a historical dividend pattern of the firm. Before dividend is paying to common stockholders the claims of creditors the government and preferred stockholders must be satisfied (Gitrman, 1991:616).

Commercial banks are such financial institutions which mainly deal with the activities of trade, commerce, industry and agriculture that seek regular financial and other help from banks for growing and flourishing. The main objective of commercial bank is to mobilize idle resources in particular productive users after collecting them from scattered sources. Commercial banks as financial institutions transfer monetary sources from savers to users. They furnish necessary capital

required for savings of the individual and institution. Normally banks play at public money therefore, they should pay more attention whether their money is properly utilized or not at running at profit or loss.

For the existence of the business firm, profit is the basic factor. A business firm becomes unable to provide its facilities in the long run if there is no profit. This profit can be distributed among the owners as dividend. Ordinary banking business consists of changing cash for bank deposit and bank deposit for cash transactions, bank deposit from one person to corporations dividing bank deposit in exchange for the services of businessmen to repay. A joint venture is the joining of factors between two or more enterprises for the purpose of carrying a specific operation, industrial or commercial investment production or trade (Gupta, 1984:15).

In a capital structure decision, each and every firm can obtain additional fund by issuing new equity and retention of the earnings. So, after measuring the firm's profit, there is further problem of what amount of these profits should be distributed in terms of dividend. It is a big financial decision because the firm has to choose one between the distribution of profit to the shareholders or retaining it to finance the business. Different firms adopt different approaches to distribute dividend. In order to maximize the shareholders' wealth, the firm should use a large amount of profit for the payment of dividend.

But since the firm's objective is the expansion of its business, the firm retains profit to finance its investment programs. Dividends are distributed out of profits. The alternative to the payment of dividend is the retention of earnings/profits. The retained earnings constitute an easily accessible important source of financing the investment requirement of firms. There is, thus, a type of reciprocal relationship between retained earnings and cash dividends. The larger the retention, the lesser is the dividend; the smaller the retention, the larger the dividends. Thus the

alternative uses of net earning dividend and retained earning are competitive and conflicting (Khan and Jain, 1990: 35).

Dividend policy is a major decision of the firm. Mostly, dividend is paid in cash to its shareholders. Dividend payment reduces the total amount of internal financing. Consequently, it must be consider in relation to the overall financial decision. A commercial Bank is a dealer of money and substitute of money, such as check or a bill of exchange its also provides a variety of financial services(The Encyclopedia of Britannic,1985: 600).

Dividend policy is an integral part of financial decision. The dividend policy is a major decision for the board of directors as the board of directors has to decide between paying out to shareholders and keep them happy in the short run or retain for investment which may be more beneficial to the shareholder in the long run. Dividend policy determines the division of earning between payments to stockholders and reinvestment in the firm. Retained earnings are one of the most significant sources of funds for financial corporate growth, but dividends constitute the cash flows that accrue to stockholders. Dividend can be distributed to shareholders by a company in form of cash, shares or both. Some companies paid dividend whole amount of profit as dividend for good image, some retained all amount for reinvestment and some partially paid the amount as dividend (Dahal, 2010: 3).

In Nepal, there are few numbers of companies which pay stable dividend. Others are not able in the payment of dividends and some companies which are not paying any dividend because they have lack of profit. In case of Joint Venture Commercial banks they are paying dividing to attract the Investors and they are the leading companies in the capital Market as their number of transactions and market price per share is usually high. They bring the new trend to distribute the

dividend which encourages the investors to invest in the companies and mobilize the fund.

So, this study aims to mobilize the fund prevailing practice and policies, relevant factors of some Nepal's listed Commercial banks and financial companies regarding the difference in policy adopted by them considering size of dividend and its impact in compare with the listed manufacturing companies.

## **1.2 A Brief Profile of Sampled companies**

### **Himalayan Bank Limited**

Himalayan Bank Ltd is a joint venture bank with Habib Bank Limited of Pakistan was established 1993 under the Company Act 1964. This is the first Joint Ventures Bank with maximum share holding by the Nepalese private Sector, which managed by Nepali chief executive. An authorized capital of the bank has been Rs 600,000,000, issued capital Rs 300,000,000. Its ownership is composed of founder shareholders 51% Habib Bank Ltd, Pakistan 20%, Karmachari Sanchaya Kosh 14% and Public 15%. ATM and Tele-banking were first introduced by HBL.

### **Everest Bank Limited**

As a policy of Government to open the banking sector for private and foreign participation starting from mid eighties, Everest Bank Limited was established in 1993 under company Act 1964 with an objective of carrying out commercial banking activities under the commercial bank act 1974. United Bank of India Ltd under technical services agreement signed between it and Nepali promoters was managing the bank from the very beginning till November 1996. Later on it handed over the management to Punjab National Bank Ltd, India. It was composed by which holds 20% equity on the bank's share capital, Nepalese promoters 50% and general public 30% hold the balance equity of the bank.

## **Nepal Investment Bank Limited**

Nepal Investment Bank Limited, (NIBL), previously Nepal Indosuez Bank Ltd, was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one the largest banking group in the world. With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, has acquired on April 2002 the 50% share holding of Credit Agricole Indoseuz in Nepal Indoseuz Bank Limited. A group of companies holding 50% of capital Rastriya Banijya Bank holding 15% of the capital. Rastriya Beema Sanstha holding 15% of the capital. The remaining 20% being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange). Now Nepal investment bank is totally invested by Nepalese investor they are general public as well as corporate investor.

### **1.3 Statement of the Problem**

In recent years, the over-subscription of ordinary shares in initial public offering showed that the people are diverting towards investing in shares, bonds rather than other traditional assets. It is also due to the high increase in the bullion price. Generally, people are investing their money in the common stocks. Some investors are being more rational towards the investment process. They are studying background, past history and performance of the organization, market demand of the stock, dividend policy undertaken by the organization etc. before investing their money. But still more investors are investing without knowing the basic concept and process of the investment. Most of the investors are not aware of the risk involved in investing on such securities. Investors should be aware of the policies and decisions taken by the company management towards wealth or profit maximization.

Different financial experts have introduced the Dividend payment models which present their view towards Dividend payment. Among them, MM model tells that Dividends are irrelevant to the value of the firm. It believes that earnings should be retained only for getting benefit from investment opportunities. If there is no investment opportunity, all the earnings should be distributed as dividend (Modigliani & Miller 1961: 89).

Walter (1966) had propounded relevant theory of dividend. He proposed a model for share valuation. According to him, the Dividend policy of the firm affects the value of the shares. His model supports that Dividends are relevant. He argues that the choice of Dividend policies almost always affect the value of an Enterprise. The Investment policy of a firm cannot be separated from its Dividend policies according to him both are interlinked which is just opposite to Modigliani and Miller approach. Walter's model shows clearly the importance of the relationship between the return on a firm's investment or its internal rate of return ( $r$ ) and its cost of capital or the required rate of return ( $k$ ) in determining the Dividend policy. As long as the internal rate greater than the cost of capital, the share price will be enhanced by retention and will vary inversely with dividend payment. In this way Walter's model is also known as "Optimal Theory of Dividend" (Walter, 1966: 76).

In general, the dividend policy will affect the stock price in market. If the dividend policy is shareholder oriented, then the market price of the stock will increase. It's because people want to invest in those stocks, which give more return. But some scholars and experts do not agree with this relationship of dividend and market price of stock. Moreover; the study will be focused on the following problems regarding the subject chosen for the study. This study deals with the following issues;

- Does there exist the positive or negative relationship between dividend and stock price?
- What kind of dividend policies are following by the commercial banks of Nepal?
- Is there any consistency between dividend policies followed by commercial banks?
- Do the Nepalese investors take care about the dividend policies followed by the related companies before investing?
- What is the relationship between dividends with other key variables like earning per share, market price per share, book value per share net profit and net worth of the banks?

#### **1.4 Significance of the Study**

Nowadays, people are very much attracted towards investment in share for the purpose of getting higher return. So dividend policy has become an effective way for attracting the large number of new investors, retain present investors and to maintain goodwill and the desired controlling position of the firm. Despite investor's high expectation, there are almost none of the firms adopting clear dividend policy in Nepal. Therefore this study of the dividend policy of the selected commercial banks in Nepal may be rewarding.

This study also is useful to management to point out the loopholes and suggest the remedies about the appropriate dividend policy and also for stockbrokers, financial agencies, policy makers and other interested person. It may be useful to government as well for policy making, controlling, and supervision and monitoring. Furthermore, students will be able to study about dividend policy and will be helpful as they can take it as reference if they are doing the research in the

similar topics. As mentioned above, researchers can use it as a reference for their research.

### **1.5 Objective of the Study**

There are so many dimensions to be considered in dividend theories, policies and practices and there are still many questions not answered clearly as to impact of dividend policy on market price of share. The following are the objectives of the study:

- To explore the impact of dividend policy on market price of stock.
- To measure uniformity in DPS, EPS, MPS and DPR of the sample firms.
- To determine the major factors affecting dividend policy of the firm.
- To examine the relationship between DPS and other financial indicators i.e. DPS, MPS and DPR.

### **1.6 Limitations of the Study**

The study focuses the sensitive part of the Bank which resultants the management a little bit hesitation to come up with open view regarding the Dividend policy and payment procedure. Therefore the study has been conducted on the basis of annual reports of selected banks, published and unpublished material and NRB publications. Therefore the strength of findings will largely depends upon the correctness of input information. Since the study has been conducted by developing assuming about various factors it has following limitations:

The study is based on secondary data like annual reports of the selected companies, reviews, journals, articles, published and unpublished these works and



various related material from various websites. Hence, the study does not include primary data.

- All the data are based in fiscal year 2062/63 to 2066/67 for sample commercial banks.
- Among the different determinants of the market price of the stock only Cash Dividend and Earning per Share are taken for the analysis.
- Among the various aspect of dividend policy only market price of stock is taken as subject matter.
- Among the various sector only banking sector is considered.
- This study has used only simple financial and statistical tools.

## **1.7 Organization of the Study**

The whole study has been divided into five chapters concentrating over three main folds via-introductory framework, analytical framework and suggestive framework.

The chapter first deals with subject matters of the study consisting background of the study, introduction to selected sample companies, statement of problem, objective of the study, significance of the study limitation of the study and organization of the study. The second chapter deals with review of the different literature of the study field. Therefore it includes conceptual framework, theoretical review along with the review of major books, journals, previous research works and thesis reports on the subject matter.

The third chapter deals with research methodology and it includes research design, population and sample selection, sources of data, data collection procedure and tools for analysis of the study. The fourth chapter deals with analysis and interpretation of collected data using appropriate financial and statistical tools.

This chapter will illustrate the collected data into a systematic format. Similarly, analysis and interpretation of these data will also be included in this chapter.

The fifth chapter deals with summary of the entire study. Conclusions of the study will also be included in this chapter. Acknowledgement, Table of contents, figure, Abbreviation has been included at the beginning of this report where as Bibliography and appendixes have been included at the end.

## **CHAPTER II**

### **REVIEW OF LITRATURE**

For all types of studies, review of literature is essential, which helps to find out what research studies have been conducted in one has chosen field of study and what remains to do. In fact, review of literature begins with a search for a suitable topic and continues throughout the duration of the research work. It is a path to find out what other research in this area has uncovered. It is the process of locating, obtaining, reading and evaluating the research literature in the area of the student's interest. It is also a means to avoid investing problems that are already been positively answered (Wolf and Pant, 2005: 39).

#### **2.1 Conceptual Framework**

Dividend is the residue left after meeting all obligations and adjusting for retention of earnings and other provisions. It is a residue since shareholders get dividends only when there exist balance of earnings after paying fixed obligations such as operating expenses, interest, provisions for depreciation, and setting (Van Horne, 1993: 327).

Dividends refer to that portion of retained earnings that is paid to stockholders while dividend policy refers to the policy or guidelines that management uses in establishing the portion of retained earnings that is to be paid in dividends (Mathur, 1979:297).

##### **2.1.1 Concept of dividend**

###### **a) Discretionary concept**

The power to declare dividends is lodged in the board of directors of the corporation. At a meeting of the board, in accordance with the charter and

corporate by-laws, the board passes a resolution declaring the amount of dividend, the period which it covers, the payable date, and the record date of ownership (Cooke and Bomeli, 1967:180).

**b) Pro-Rata distribution concept**

A dividend is a pro-rata distribution of cash, other assets, promises to pay, or additional stock to the shareholders of a corporation chargeable against its surplus accounts or (for certain liquidating dividends only) against its capital stock accounts (Cooke and Bomeli, 1967:180).

**c) Residual concept**

Under this concept, dividend policy is a residual firm investment policy and dividends are paid only after financing all investment opportunities. So, dividend policy is totally passive in nature. When we treat dividend policy as strictly a financing decision, the payment of cash dividend is a passive residual (Van Horne, 1993: 327).

**d) Liability Concept**

When the board of directors of a solvent corporation declares cash dividend, the amount declared becomes an obligation to pay. If the directors avoid payment of dividend after declaration, the shareholders would have a right to take action against the directors to force payment. The dividends declared are treated as liabilities in the balance sheet if the shareholders do not come to claim in time (Cooke and Bomeli, 1967: 181).

### **2.1.2 Dividend Payment Process**

Dividends are normally paid quarterly. Dividends must be declared or approved by a company's Board of Directors each time they are paid. There are four important dates to remember regarding dividends. The dividend payment procedure follows.

#### **Declaration date**

The declaration date is the day the Board of Directors announces its intention to pay a dividend. On this day, a liability is created and the company records that liability on its books; it now owes the money to the stockholders. On the declaration date, the Board will also announce a date of record and a payment date (Francies, 1983: 112).

#### **Ex-dividend date**

The ex-dividend date is the day after which all shares bought and sold no longer come attached with the right to be paid the most recently declared dividend. This is an important date for any company that has many stockholders, including those that trade on exchanges, as it makes reconciliation of who is to be paid the dividend easier. Prior to this date, the stock is said to be cum dividend (with dividend): existing holders of the stock and anyone who buys it will receive the dividend, whereas any holders selling the stock lose their right to the dividend. On and after this date the stock becomes ex dividend: existing holders of the stock will receive the dividend even if they now sell the stock, whereas anyone who now buys the stock now will not receive the dividend. It is relatively common for a stock's price to decrease on the ex-dividend date by an amount roughly equal to the dividend paid. This reflects the decrease in the company's assets resulting from the declaration of the dividend. The company does not take any explicit action to adjust its stock price; in an efficient market, buyers and sellers will automatically price this in (Joshi, 2006:157).

### **Holder of Record date**

Shareholders who properly registered their ownership on or before the date of record will receive the dividend. Shareholders who are not registered as of this date will not receive the dividend. Registration in most countries is essentially automatic for shares purchased before the ex-dividend date (Western & Bringham, 1987:109).

### **Payment date**

The payment date is the day when the dividend cheque will actually be mailed to the shareholders of a company or credited to brokerage accounts (Joshi, 2006:158).

### **2.1.3 Forms of Dividend**

Corporate firms choose to make the payment of dividends in view of its objectives, needs and policies. The firms may distribute the dividends in various forms. Some are briefly explained below;

#### **Cash Dividend**

Most companies pay dividends in cash. Sometimes cash dividend may be supplemented by a bonus issue (stock dividend). A company should have enough bank balance at the time of paying cash dividend; arrangement should be made to borrow funds. When the company follows a stable dividend policy, it should prepare a cash budget for the coming period to indicate the necessary funds which would be needed to meet the regular dividend payments of the company. It is relatively difficult to make cash planning in anticipation of dividend needs when an unstable policy is followed. The cash account and the reserves account of a company will be reduced when the cash dividend is paid. Thus, both the total assets and the net worth of the company are reduced when the cash dividend is

distributed. The market price of the share drops in most cases by the amount of the cash dividend distributed (Bhattarai, 2007: 81).

### **Script Dividend**

When company has been suffering from the cash problem but has earned profit, script dividend is paid (issued). Script is a form of promissory note promising to pay the holder at specified later date. Under this type of dividend, company issues and distributes to shareholders transferable promissory notes which may be interest bearing or not (Mathur: 1979).

### **Stock Dividend**

Stock dividend is a form of dividend out of two forms; cash and stock. In the stock dividend company distributes shares as dividend to the shareholders' and this dividend is distributed either from past retained earnings or from net profit earned in the respective year. The share price of stock dividend is fixed at market price at the time of dividend declaration. The declaration of stock dividend will increase the paid up share capital and reduce the retained earnings. Therefore, it involves making a transfer from the retained earnings amount to the other shareholders' equity accounts like common stock and additional paid-up capital (share premium or excess of par value) There are number of reasons why company declares stock dividend. The following are the reasons: to increase share capital and to provide tax benefit to the shareholders (Thapa, 2006: 89).

Receipts of stock dividend are not taxable income but cash dividend is a taxable income to conserve cash in the organization. A company having less liquidity pay stock dividend to conserve cash to provide psychological value to the shareholders to decrease the share price at taxable range. The share issued to shareholders as dividend is called stock dividend. This is method of paying dividend without reducing cash balance. The issue of stock dividend is also known

as bonus shares. Payment of stock dividend increases the number of outstanding shares of the company. Simply, it is a recapitalization of the owner's equity portion, i.e. the reserves and surpluses and transfers a portion of retained earnings to the capital accounts (Thapa, 2006:90).

### **Stock Split**

Stock split is also a kind of stock dividend where company breaks (increase or decrease) shares through splitting (breaking) the par value of the share. Split takes place in two ways: Straight split, and Reverse split. Except in accounting treatment the stock dividend and stock split are very similar. A stock split however is usually reversed for occasion when a company wishes to achieve a substantial reduction in the market price of the shares (Van Horne, 1993:256).

In stock split there is no change in the capital account: instead a large numbers of the shares of the common stock are issued. In two-for-one stock split, stockholders receive two shares for each one previously held. The book value per share is cut in a half and par or stated, value per share is similarly changed. Straight stock split: In the straight split company increases number of shares through a proportional reduction in the par value of stock. Straight split takes place to bring the market price in reasonable range (affordable by small investors) and to increase the total dividend without increasing dividend per share. With a stock split, the number of shares increases. Stock splits are similar to stock dividends. As a result of the stock split, the common stock, paid-in capital and retained earnings accounts remain unchanged. Shareholders' equity also stays the same; the only change is in the par value of the stock. Except in accounting treatment, the stock dividend and stock split are very similar. Reverse stock split: In the reverse stock split, company reduces number of shares outstanding through merging the par values of the stocks. This takes place to bring low priced shares up at desirable trading levels. Reverse stock split is the opposite of straight stock split where the par value



increase but the common stock, retained earnings, additional paid-in capital remain unchanged (Van Horne,1993:257).

### **Stock Re-purchase**

Company repurchases its own stock as dividend decision. It is also said that stock repurchase is an alternative of cash dividend. Under this plan, company distributes cash to the shareholders buying back some of its own outstanding stock, thereby decreasing the number of shares, which would increase EPS and the stock price. Company repurchases its own stock due to number of reasons, such as; to bring change in the existing capital structure to increase value of stocks in the future to distribute temporary excess cash to manage excess liquidity (Western & Bringham, 1987:230).

### **Property Dividend**

If the declared dividend is provided in the form of property (assets) instead of cash, the dividend is said to be property dividend. This form of dividend may be followed when there are assets that are no longer necessary in operation of the business or in extra ordinary circumstances. Company's own products and securities of subsidiaries are the examples that have been paid as property dividend (Dahal, 2010: 269).

### **Bond Dividend**

Bond dividend by its name is a dividend that is distributed to shareholders in form of a bond. In other words company declares dividend in form of its own bond with a view to avoid cash out flows. Though there is different forms of dividends, in general, the form of dividends popular in Nepal are cash dividend and stock dividend (Joshi, 2006:78).

## **2.1.4 Theories of Dividend**

### **1) Residual Theory of Dividend**

According to one school of thought, the residual theory of dividends suggests that the dividend paid by a firm should be viewed as a residual amount left after all acceptable investment opportunities have been undertaken. Dividend policy can be viewed as one of a firm's investment decision. A firm that behaves in this manner is said to believe in the residual dividends. According to this theory, dividend policy is a residue after investment whether or not a company pays dividends depends on the availability of investment opportunity (Khan & Jain, 1990: 537).

The starting point in this theory is that investors prefer to have the firm retain and reinvest earning, instead of paying dividends, if the return on reinvestment is higher than the opportunity cost of fund for the investors. The dividend under residual dividend policy equals the amount left over from earning after investment, no dividends are paid and new shares are sold to cover deficit for investment that is not covered. If there is not any investment opportunity then cent percent earning is distributed as dividend to the shareholders. Dividend is therefore merely a residue i.e. percent remaining after all equity investment needs are fulfilled (Van Home, 1993: 327).

As long as there are investment projects with higher returns, the firm retains the earnings to invest in such profitable projects rather than paying dividends. The firm grows at a faster rate when it accepts highly profitable investment projects. External equity could be raised to finance investments. But the retained earnings are preferable because unlike external equity, they do not involve any floatation costs. The distribution of cash dividend causes a reduction in internal funds available to finance profitable investment opportunities and thus, either constrains growth or requires the firm to find other costly sources of financing. Thus, earning may remain undistributed as a part of a long-term financing decision. The

dividend paid to shareholders represents a distribution of earnings that cannot be profitably reinvested by the firm. With this approach, dividend decision is viewed merely as a residual decision.

## **2) Stability Theory of Dividend**

Dividend stability refers to the consistency in stream of dividend. In other words, stability of dividend means regularity in paying dividend even though the amount of dividend may fluctuate from year to year. "Stability of dividends is considered as a desirable policy by the management of most companies. Shareholders also generally favor of this policy and value stable dividends higher than the fluctuating ones. All Investment Opportunity EPS, DPS & Investment Earning Year other things being the same, stable dividend may have a positive impact on the market price of the share (Pandey, 1995:695).

By stability, we mean maintaining the position of the firm's dividend payments in relation to a trend line, preferably one that is upward sloping. There are some reasons to believe that a stable dividend policy does lead to higher stock prices. First, investors are generally expected to value more highly dividends they are sure of receiving, since fluctuating dividends are riskier than stable ones. Accordingly, the same average amount of dividend received under a fluctuating dividend policy is likely to have a higher discount factor applied to it than is applied to dividends under a stable dividend policy. This means that the company with stable dividend policy will have a lower required rate of return or cost of equity capital than one whose dividend fluctuates. Second, many stockholders live on income received in the form of dividends. These stockholders are greatly inconvenienced by fluctuating dividends and they will pay a premium for a stock with a relatively assured minimum dollar dividend. Third, from the stand point of both the corporation and its stockholders is that, stability of dividend is desirable for the requirement of legal listing (Pandey, 1995: 702).

### **2.1.5 Factors Affecting Dividend Policy**

Many variables influence dividends, however. For example, a firm's cash flows and investment needs may be too volatile for it to set a very high regular dividend. Yet, it may desire a high dividend payout to distribute funds not necessary for reinvestment. In such a case, the directors can set a relatively low regular dividend low enough that it can be maintained even in low profit years or in years when a considerable amount of reinvestment is needed – and supplement it with an extra dividend in years when excess funds are available (Sharma, 2001: 336-337).

#### **Liquidity of Funds:**

Availability of cash and sound financial position is also an important factor in dividend decisions. A dividend represents a cash outflow, the greater the funds and the liquidity of the firm the better the ability to pay dividend. The liquidity of a firm depends very much on the investment and financial decisions of the firm which in turn determines the rate of expansion and the manner of financing. If cash position is weak, stock dividend will be distributed and if cash position is good, company can distribute the cash dividend (Francies, 1983:104).

#### **Needs for Additional Capital:**

Companies retain a part of their profits for strengthening their financial position. The income may be conserved for meeting the increased requirements of working capital or of future expansion. Small companies usually find difficulties in raising finance for their needs of increased working capital for expansion programs. They having no other alternative, use their ploughed back profits. Thus, such Companies distribute dividend at low rates and retain a big part of profits (Western & Brigham, 1987:562).

**Stability of earnings:**

The nature of business has an important bearing on the dividend policy. Industrial units having stability of earnings may formulate a more consistent dividend policy than those having an uneven flow of incomes because they can predict easily their savings and earnings. Usually, enterprises dealing in necessities suffer less from oscillating earnings than those dealing in luxuries or fancy goods (Shrestha, 2009: 89).

**Government and Taxation Policy:**

The earnings capacity of the enterprise is widely affected by the change in fiscal, industrial, labor, control and other government policies. Sometimes government restricts the distribution of dividend beyond a certain percentage in a particular industry or in all spheres of business activity as was done in emergency. The dividend policy has to be modified or formulated accordingly in those enterprises.

High taxation reduces the earnings of the companies and consequently the rate of dividend is lowered down. Sometimes government levies dividend-tax of distribution of dividend beyond a certain limit. It also affects the capital formation. In India, dividends beyond 10 % of paid-up capital are subject to dividend tax at 7.5 % (Paudel et. Al, 2007:492).

**Legal Requirements:**

In deciding on the dividend, the directors take the legal requirements too into consideration. In order to protect the interests of creditors and outsiders, the Companies Act 1956 prescribes certain guidelines in respect of the distribution and payment of dividend. Moreover, a company is required to provide for depreciation on its fixed and tangible assets before declaring dividend on shares. It proposes that Dividend should not be distributed out of capital, in any case. Likewise,

contractual obligation should also be fulfilled, for example, payment of dividend on preference shares in priority over ordinary dividend (Paudel et. Al, 2007:492).

### **Past dividend Rates:**

While formulating the Dividend Policy, the directors must keep in mind the dividend paid in past years. The current rate should be around the average past rate. If it has been abnormally increased the shares will be subjected to speculation. In a new concern, the company should consider the dividend policy of the rival organization (Shrestha, 2010: 91).

### **Repayments of Loan:**

A company having loan indebtedness are vowed to a high rate of retention earnings, unless one other arrangements are made for the redemption of debt on maturity. It will naturally lower down the rate of dividend. Sometimes, the lenders (mostly institutional lenders) put restrictions on the dividend distribution still such time their loan is outstanding. Formal loan contracts generally provide a certain standard of liquidity and solvency to be maintained. Management is bound to honor such restrictions and to limit the rate of dividend payout (Paudel et.al, 2007: 492).

### **Policy of Control:**

Policy of control is another determining factor is so far as dividends are concerned. If the directors want to have control on company, they would not like to add new shareholders and therefore, declare a dividend at low rate. Because by adding new shareholders they fear dilution of control and diversion of policies and programs of the existing management. So they prefer to meet the needs through retained earnings. If the directors do not bother about the control of affairs they will follow a liberal dividend policy. Thus control is an influencing factor in framing the dividend policy (Thapa, 2008: 245).

### **2.1.6 Dividend Policy**

A stable dividend policy is a long term policy. It does not affect by variation in earning from year to year. When a firm constantly pays a fix amount of dividend and maintains it for all times to come regardless of fluctuations in the level of its earnings, it is called a stable dividend policy. The dividend will be regular. Stability of dividend means regularity in paying dividend even though the amount of dividend may fluctuate from year to year. By stability we maintaining a position in relation to a dividend trend line, preferably one that is upward slopping (Weston & Brigham: 1964, 686).

The shareholders generally prefer stability or regularity of dividend because the company distributes a stable dividend over the year the market price of the share may be increased. It is suitable for those companies, which have got stable income. All other things being the same stable dividend may have a positive impact on the market price of the share. In other words, the term dividend stability refers to the consistency in the stream of dividends. There are three types of dividend stability which are given below.

#### **Constant Dividend Per share**

Under constant DPS, a fixed amount of dividend per share is distributed each financial year throughout some financial years. The dividend per share for every year is constant. Such as if ABC Company pays Rs.15 per share as dividend to the equity shareholders, the dividend per share for next year will also be Rs. 15 per share under the constant DPS scheme (Pandey, 1995: 702).

#### **Constant Payout Ratio**

Under constant payout ratio companies pay dividend at constant rate of earning each year. Under this policy the payout ratio remains constant but the dividend

fluctuates with earning fluctuations. The variability in dividend signals uncertainty of dividend in the future to the shareholders. Such as if ABC Company pays 20% dividend of total earnings to its shareholders, then the next year also the rate of dividend will be same, but DPS will vary according to the earnings of the Company (Thapa, 2008:198).

### **Low Regular Dividend plus extra Dividend:**

Dividends are usually settled on a cash basis, as a payment from the company to the customer. They can also take the form of shares in the company (either newly-created shares or existing shares bought in the market), and many companies offer dividend reinvestment plans, which automatically use the cash dividend to purchase additional shares for the shareholder.

## **2.2. Review of Related Studies**

### **2.2.1 Review of journals and Articles**

**Friend and Puckett (1964)** conducted the “*Study and the Relationship between Dividends and Stock prices*” by running regression analysis on the data of 110 firms from five industries in the years 1956 and 1958. These five industries were chemicals, electric utilities, electronics, food and steels. These industries were selected to permit a distinction made between the results for growth and non-growth industries and provide the basis for comparison with result by other authors for earlier years. They also considered cyclical and non-cyclical industries that they covered. The study periods covered a boom year for the economy when stock prices, leveled off after rise (1956) and a somewhat depressed year for the economy when the stock prices however, rise strongly (1958).



They used dividends, retained earnings and price earnings ratio as independent variables in their regression model of price function. They used supply function and dividend function as well. In their dividend function earnings last year's dividends and price earnings ratio are independent variables. They quoted that the dividend supply function was developed by adding to the best types of relationship developed by Linter.

Symbolically, their price function and dividend supply function are presented below; Price Function:

$$P_t = a + b \cdot D_t + c \cdot R_t + d (P/E)_{t-1}$$

Where,

$P_t$  = Per share price at time 't'

$D_t$  = Dividends at time 't'

$R_t$  = Retained earnings at time 't'

$(P/E)_{t-1}$  = Lagged price earnings ratio

Dividend Supply Function:

$$D_t = e + f \cdot E_t + g \cdot D_{t-1} + h (P/E)_{t-1}$$

Where,

$E_t$  = Earning per share at time 't'

$D_{t-1}$  = Last year Dividend

Their study based on the following assumptions;

- Price does not contain speculation components.
- Earnings fluctuation may not sum zero over the sample.

Their regression results based on the equation of  $P_t = a + b \cdot D_t + c \cdot R_t$  showed the company's strong dividend and relatively weak retained earnings effects on three of the five industries, i.e. chemicals, foods and steels. Again they tested other regression equation by adding lagged earnings price ratio to the above equation and resulted the following equation,  $P_t = a + b \cdot D_t + c \cdot R_t + d \cdot (E/P)_{t-1}$ . They found that more than 80% of the variation in stock prices could be explained by three independent variables. Dividend have predominant influence on stock prices in the same three industries out of five industries but they found the difference between the dividend and retained earnings coefficients are not quite so market as in the first set of regressions. They also found that the dividends and retained earnings coefficients are closed to each other for all industries in both years except for steels in 1956, and the correlation are higher again except for steel.

They also calculated dividend supply equation i.e.  $D_t = e + f \cdot E_t + g \cdot D_{t-1} + h \cdot (P/E)_{(t-1)}$  and they derived price.

Equation for industry group in 1958 in their derived price equation is seems that there was no significant changes from those obtained from the single equation approach as explained above. They argued that the stock prices more accurately the price earning ratio does not seem to have a significant effect on dividend payout. On the other hand, they noted that the retained earnings effect is increased relatively in three of the four cases tested.

Further, they argued that their results suggested price effects on dividend are probably not a serious source of bias in the customer derivation of dividend and retained earnings affects on stock prices. Though, such a bias might be marked. The disturbing effect of short run income movements is sufficiently great. Further, they used lagged price as a variable instead of lagged earnings price ratio and showed that more than 90% of variation in stock prices can be explained by the three independent variables and retained earnings received greater relative weight

than dividends in the most of the cases. The only exceptions were steels and foods in 1958. They considered chemicals, electronics and utilities as growth industries in their groups and the retained earnings effect was larger than the dividend effect for both years covered. For the other two industries, namely food and steel, there were no significant systematic differences between the retained earnings and dividend coefficients.

Similarly, they tested the regression equation of  $P_t = a + b D_t + c \cdot R$  by using normalized earnings again. They obtained normalized retained earnings by subtracting dividends from normalized earnings. That normalization procedure was based on the period 1950-61. Again, they added the prior year's normalized earnings price variable and they compared the result. Comparing the result they found that there was significant role of normalized earnings. When they examine the later equation they found that the difference between dividends and retained earnings coefficients disappeared. Finally they excluded that management might be able to increase prices some what by raising dividends in foods and steels industries. Finally, Friend and Puckett concluded that it is possible that management might be able, at least in some measure to increase stock prices in non-growth industries by raising dividends and growth industries by greater retention, i.e. low dividends.

**Walter (1966)** study is also based on relevant theory. James E Walter by article "*Dividend policy on common stock prices*" in journal of finance in 1957 advocated that the choice of appropriate dividend policy almost always affect the value of the enterprises i.e. share value. Walter's study is also based on some assumptions:

- The returns on the firm's investment( $R$ ) and the cost of capital ( $k_e$ ) are constant.
- All earning are either distributed as dividend or re invested internally.

- The value of EPS and DPS remain unchanged.
- The firm has an infinite life.

The value of the stock according to Walter can be calculated by the following equation:

$$P = \frac{EPS(1 - b)}{K_e - br}$$

Where,

P= market price of an equity share

D= DPS

E=EPS

R= the rate of return on the firm's investment

$K_e$ = cost of capital

Walter's focus is in internal rate of return(R) and cost of capital ( $k_e$ ) in determining the dividend policy with these two variables: he had tried to conclude some decisions. Therefore he had expected there conditions probably exist:

### **Condition 1 (R>K)**

When internal rate of return is greater than the cost of capital, it will be better to retain all net profits. R exceeding K shows the firm's better performance to earn more than the shareholders are paid in their reinvestment. The market value per share increases by decreasing the dividend in such a situation. Moreover, the market value per share will be highest at zero dividends.

### **Condition 2(R<K)**

When internal rate of return( $R$ ) is less than cost of capital ( $k$ ), it advocates that the shareholders can earn a higher return by investing elsewhere. Increasing the dividend in this condition increases the market price per share. It is happened in the declining firm, generally. By distributing entire as dividend, the value of the shares will be at optimum level. The dividend payout ratio of 100 would be the optimum dividend policy.

### **Condition 3( $K=R$ )**

If the internal rate of return equals to the cost of capital, the dividend payout dose not affect the market value fo the share. In this condition the market value of the share remains constant for the entire dividend payout ratio. This kind of firm is called normal firm. Therefore, there is no any optimum dividend policy for such firm.

### **Conclusion,**

( $R > K$ ) = Dividends are negatively correlated with stock price.

( $R < K$ ) = Dividends are positively correlated with stock price.

( $R = K$ ) = Dividend is indifferent to variation in the market price of the share.

**Van Horne and McDonald (1968)** concluded a comprehensive study of 86 electric utility firms and 39 electronics and electric component industries by using cross sectional regression model in 1968 to know the combined effect of dividend policy and new equity financing decision on the market value of the firm's common stock. They employed two-regression model for electric utilities and one regression mode for electronics component industry.

First model was

$$P_0/E_0 = a_0 + a_1 * (g) + a_2 (D_0/E_0) + a_3 * (lev) + u$$

Where,

$P_0/E_0$  = Closing market price in 1968 dividend by average EPS for 1967 and 1968.

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

$D_0/E_0$  = Dividend payout, measured by cash dividend in 1968 dividend by earnings in 1968.

$Lev$  = Financial Risk, measured by interest charges divided by the difference of operating revenues and operating expenses.

$U$  = Error term.

$$P_0/E_0 = a_0 + a_1 * (g) + a_2 (D_0/E_0) + a_3 * (lev) + a_4 * (Fa) + a_5 * (Fb) + a_6 * (Fc) + a_7 * (Fd) + u$$

Where,  $F_a, F_b, F_c, F_d$  are dummy variables corresponding to “new issue ratio” (NIR) sups A through D. It is noted that they had grouped the firms in five categories A, B, C, D, and E by NIR. For each firm the value of dummy variables presenting its NIR group is one and the value of remaining dummy variables is zero. Again, they tested the following regression equation for electronics components industry.

$$P_0/E_0 = a_0 + a_1 * (g) + a_2 (D_0/E_0) + a_3 * (lev) + a_4 * OR + u$$

Where,

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

From their study they concluded that The market price of share was not affected by new equity financing in presence of cash dividend except for these in the highest new issue group and it made new equity more costly from of financing than retention of earning, They also indicated that the payment of dividend through excessive equity financing reduces the market price of share.

**Pradhan's Study (1992)** *“The study on stock market behavior in a small capital market”* is a popular case study by Pradha. Pradhan's Study was based on the data collected from 17 enterprises from 1986 to 1990. The main objectives of the study are:

- To assess the stock market behavior in Nepal.
- 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.

Findings of his study, among others were as follows:

- Higher earning on stock leads larger of DPS.
- Stock with larger ratio of dividend per share to market price has lower leverage ratio.
- Positive relationship between the ratios of DPS to market price and interest coverage.
- Positive relationship between dividend payout and turnover ratios.
- Positive relationship between dividend payout and liquidity.
- Positive relationship between dividend payout and profitability.
- DPS and MPS are positively correlated,

- Liquidity and leverage ratios are more variable for the stock paying lower Dividends.

Earnings, assets turnover, and interest coverage are more variable for the stock Paying higher dividends.

**Shrestha(2007)**, *NRB Monetary Policy and Stock Market Impact*. According to him monetary policy directly affects stock prices. Taking an example of monetary policy announcement in 2004/05, he writes “NRB Monetary Policy had an impact on the performance of stock market as investors were lured into buying shares of commercial banks at higher market price with the expectation that banks would issues bonus shares to increase its capital base to Rs. 100 million. As a result, there had been tremendous demand for shares of commercial banks in every day transaction raising stock market index to unexpected highs.”

**Chitrakar (2011)**, “*Stock Gained on hope*” The Nepali share market was filled with some optimism after closing the review period at the highest point as the political situation looked like improving. That was supported by the hope that the financial reports for second quarter of the fiscal year from the listed companies will show improvement in their performance. The benchmark Nepse index advanced 12.98 points or 3.21% to settle at 404.33. The session’s high was on 27 December, 2010 with 407.72 while session’s low was at the opening with 391.35 on 20 December, 2010.

### **2.2.2 Review of Thesis**

**Rajbhandari (2001)** has done thesis on the topic “*Dividend Policy: A comparative Study between Banks and Insurance Companies.*” The main objective of Rajbhandari study is to find out the appropriate dividend policies and practices in Nepal.

The specific objectives of her study were:



- To examine the relationship between dividend and market price of the stock.
- To identify the appropriate dividend policy followed by the banks and insurance companies.
- To analyze the relation between dividend policy decision of banks and insurance companies.

In Rajbhandari comparative, she concluded that the sample institutions have average earnings which can be considered satisfactory. However, no consistency in dividend payment is found in all the sample institutions i.e. NGBL, NIBL, KBL, NIC and EIC except NLGI which seems to be paying average DPS Rs. 20 every year.

On Rajbhandari study, she further concluded that none of the six sample institutions have a clearly defined and appropriate dividend policy. The dissimilarity and insignificant relationship between the financial indicators of all three banks and insurance companies' helps to conclude that they don't seem to follow and practice the dividend policy as established and developed in our context. However the analysis based on pooled data of dividend payment ratio between banks and insurance companies concluded that there is a kind of similarity in dividend payment decision of banks and insurance companies.

Rajbhandari further concluded on investors that they are not found to be investing their capital by studying the financial performance of the institutions but rather randomly without properly understanding the stock market. The institutions don't seem to follow the optimal dividend policy of paying regular dividend as per the shareholder's expectation and interest. This would create (increase) uncertainty among the shareholders. But this does not mean that the institutions need to follow liberal dividend policy as the shareholders might even expect higher dividend as always. If the institutions are liberal on shareholders, it might make the company to raise extra capital in the near future.

The major findings of the study also makes conclusion that controversy existed in declaring dividend by the companies in the sense that the major factors like the earning and liquidity position of the firm have been neglected, ignored and disregarded which must have been considered the most.

**Bhattarai study (2002)** has done thesis on the topic “*Dividend policy and its impact on market price of stock*” He has done analysis of five years data from 1995 to 2000) taken from two commercial banks and two insurance companies. In his analysis simple and multiple regression equations are used.

The main objectives of the study are as under:

- To study the prevailing practices and effect made in dividend policy by the Nepalese firms with the help o simple firms.
- To find out the impact of dividend policy on market price of stock.
- To analyze if there is any uniformity among DPS, EPS, MPS and DPR in the sample firms.

Major finding of the study are as follows:

- There is no any consistency in dividend policy of the sample firms. It has indicated the need of dividend strategy as well as need of proper analysis of respective sectors of the firms.
- Most of Nepalese firms from the very past did not have profit planning and investing strategy which has imbalanced the whole position of the firms. It means there is no consistency even in the earnings of the firms.
- The MPS is affected by the financial position and dividend paid by the firms. In this regards, the MPS of the sample firms is seen to be fluctuating. It denotes that Nepalese investors are not treated fairly.
- The lack of financial knowledge and market inefficiency has affected the market price of the share in all the firms.

**Jha (2007)** has performed a thesis on “*Study on Dividend policy*”. A comparative study between banks, insurance companies and financial institution with eight years data relating to dividend policy from 2053/54 to 2061/62

His main objectives of the work are as follows.

- To highlight dividend practice of the bank, insurance and financial companies.
- To analyze the relationship of dividend with various important variables.

Major findings to the study are:

- Nepalese government NRB, SEBON, NEPSE should be conscious to discourage market imperfection.
- Companies should have long term policy regarding the adoption of suitable dividend policy.
- Even if not earning has been increasing, the dividend per share has widely fluctuated. Distribution of bonus share should be pre-evaluated.
- There needs a proper information discloser to the investor.

**Raya (2008)** “*The Study of Dividend Policy of the Commercial Banks in Nepal*”

The main objectives of her study are:

- To study whether the commercial banks are following the suitable dividend policy or not.
- To compare the dividend policy followed by different commercial banks chooses.
- To study the relationship of dividend policy with various financial indicators like EPS, DPS, MPS, DPR, net worth, net profit and book value of share.

The methodology used in the study included, financial tools such as ratio analysis and statistical tools such as correlation analysis and test of hypothesis etc. She used secondary data for the analysis.

The major findings of her study are:-

- There is lack of rules and regulations that bind companies to pay dividend every year. Not only the companies do not have dividend policy but also the government does not have any clear policy towards dividend.
- There seems instability of dividend and inconsistency in dividend payout ratio of the banks.
- Government does not have any clear policy towards dividend and to improve the efficiency of the companies. The number of companies can not earn enough profit and bureaucrats accused the cause of inefficiency to managers which is not sound.

**Maharjan (2008)** “*Dividend Policy of Listed Commercial Banks*” The major objectives of the study are:-

- To examine the dividend policies of listed banks.
- To analyze the relationship between dividends per share (DPS), earning per share (EPS) and market price per share (MPS).
- To analyze the effect of dividend on share price

The methodology used in the study included, financial tools such as ratio analysis and statistical tools such as correlation analysis, regression analysis, trend analysis and test of hypothesis etc. She used secondary data for the analysis.

The researcher selected 9 commercial banks for the research. The major findings of the research are:

- Earning per share of banks is increasing which indicates that banks in Nepal are doing well.
- Commercial banks of Nepal prefer cash dividend rather than stock dividend because it is easy and low operation cost to distribute likewise they prefer to

provide fair return to Shareholders because in the one hand they have to increase their capital base by year 2060 and in the other hand they have to retain the market image as well.

- The share price in Nepal affected by various other factors rather than the earnings and dividend of those banks.

**Singh (2010)** “*The impact of dividend policy on market price of share with reference listed commercial bank in Nepal*”. Singh’s objectives are as follows;

- To major uniformity in DPS, EPS, MPS and DPR of the sample firms.
- To find the major factors affecting dividend policy of the firm.
- To see whether dividend distributions are in proportionate to the earnings of the firms or not.

Singh took six commercial banks and six year data that study. The methodology used in the study included, financial tools and statistical tools such as correlation analysis, regression analysis and test of hypothesis etc. Singh used secondary data for the analysis. The major findings are as follows;

- Average market price per share of NABIL, HBL, BOK, SBI, NB and EBL is Rs. 3558.83, 1391, 1278.33, 1045.833,420 and 1982.67 respectively mean MPS of NBAIL is greater than other companies. Higher market price creates the positive attitude of the investors towards the bank, which consequently attracts the investor to invest in such high valued shares.
- Correlation coefficient between EPS & MPS of three (HBL, BOK, SBI) are significant and three bank are not significant. All are positive relation of EPS and MPS.
- Regression Coefficient (b) is highest between EPS and MPS of BOK and lowest is NB. The highest t-value (5.28) is BOK and lowest T-value (0.56) is NB.

- Correlation coefficient between EPS & DPS of these banks (NABIL, BOK, EBL) are significant but BOK has a negative relation and two banks (SBI, HBL) are insignificant. NB bank has no relation of EPS and DPS because it didn't pay any dividend.
- Regression Coefficient (b) is highest between EPS & DPS of NABIL (1.19), BOK has a negative regression coefficient. In the case of t-value the NABIL bank has the highest t-value (3.94) and the BOK has a negative (-2.3) t-value.

**Gyawali (2011)** “*Dividend policy and its impact on market price of shares*” on the following major objectives are as follows;

- To identify the impact of dividend policy on market price of stock.
- To measure uniformity in DPS, EPS, MPS and DPR of the sample firms.
- To identify the relationship between DPS and other financial indicators.

On that study take five companies as a sample and taken five year data the some major findings are as follows;

- Average Dividend Pay out ratio of NIC, MBL, NIBL, HBL and KBL is Rs 18.26, 2.87, 31.14, 34.37 and 13.24 respectively. Mean DPR of HBL is greater than other companies. Higher DPR indicate the company is greater return on dividend.
- The correlation of DPS & MPS of NIC, NIBL and KBL has negative correlation and HBL has the highest positive correlation.
- Correlation coefficient between EPS & MPS of three (HBL, NIBL, SBI) are significant and three banks are not significant. All are positive relation of EPS and MPS.
- Regression Coefficient (b) is highest between EPS and MPS of HBL and lowest is KBL. The highest t-value (2.367) is HBL and lowest T-value (0.0624) is MBL.

- Correlation coefficients between EPS & DPS of all banks are significant but NIBL is negative relation and other four banks have positive relation.
- Regression Coefficient (b) is highest between EPS & DPS of NIC (1.29), NIBL have negative regression coefficient. In the case of t-value the NIC bank has highest t-value (2.927) and the HBL has a lowest (0.8323) t-value.

### **2.3 Research Gap**

There have been many national and international studies in the field of dividend policy to date. All concepts and practices of foreign author's about the dividend practices are not used our Nepalese dividend policy. Those studies have tried to find out the relationship between dividend policy and market price of the stock. But as the Nepalese capital market is in the early stage of development, the conclusion made by the international studies may not be relevant in the Nepalese context.

So far the Nepalese studies are concerned some studies. Like Pradhan's, Manandhar's can be considered as landmark in the field of dividend policy. But many more changes appear in the market in short time period also. In Nepalese capital market also many changes ate seen in last few years. So it is necessary to carry out a fresh study related to dividend pattern of commercial banks of Nepal.

This is a distinct study form the previous studies in terms of sample, size and methodology used. The study has covered only three commercial banks. Latest five years data have been used to analyzed with due consideration of EPS, DPS, DPR and MPS. In order to assess the impact of dividend on market price of share available information from concerned banks were reviewed and analyzed. Regression analysis has been done taking market price of share (MPS) other variables like DPS, and EPS ratio. Trend analysis of MPS, DPS and EPS is also done which helps to predict the future of the banks.

Among the previous research works done in this topic, the samples were either mixture of banks and finance companies or that of insurance companies and manufacturing units. Here, the research work has been done with special reference to three leading commercial banks of Nepal. Descriptive analysis has incorporated trend analysis with picture demonstrations that the previous researchers have not done.



## **CHAPTER III**

### **RESEARCH METHODOLOGY**

Basically, historical and diagnostic types of research are employed to fulfill the objective of research work. A historical research is concerned with past phenomena. It is a process of collecting, evaluating verifying and synthesizing past evidence systematically and objectively to reach a conclusion (Wolf and Pant: 1975).

#### **3.1 Research Design**

The research design is a mixture of descriptive, exploratory, and analytical. While analyzing the research, both parametric and non-parametric tools will be used wherever and whenever necessary. A research design is the arrangement of condition for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Descriptive and analytical research designs have been used to this study. With the help of maintained research design the study evaluates the dividend policy structure of selected sample commercial banks as well as its impact on the market price of the stocks of the respective banks.

The research design is basically focused on analytical study. Ratio analysis, correlation and regression analysis have been done for analyzing the research. The research examines the relationship of EPS, MPS and DPS with respect to the dividend policy of the banks.

#### **3.2 Population and Sample**

There are 31 banks whose shares are traded actively in stock market. Which are consider to be the population of the study, but it is not difficult to study all of them regarding the study topic. Only following three banks are selected as sample.

These three banks are most of trading in Nepal Stock Exchange (NEPSE) and they paid dividend on different cash and stock dividend. They are as follows;

1. Himalayan Bank Limited
2. Everest Bank Limited
3. Nepal Investment Bank

### **3.3 Sources of Data**

This study based on secondary data. To collect the secondary data, published materials are viewed in various spots like books by different authors, unpublished thesis reports, journals, Internet web sites, online library, AGM reports of listed companies, NEPSE, SEBON etc. To collect these secondary data, the researchers visited campus library of SDC, NCC, TU Central library, SEBON library.

### **3.4 Data Analysis Tools**

The analysis of data has been done according to the pattern of data available. Wide varieties of methodology have been applied according to the reliability and consistency of data. Firstly, the collected data are presented in proper forms, grouped in various tables and charts according to their nature. Then various financial and statistical tools have been applied. And then interpretations and explanations are made wherever necessary with the help of various statistical analyses.

#### **3.4.1 Financial Tools**

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

Apart from the rate of return, the profitability of a firm from the point of view of the ordinary shareholders is the Earning per Share (EPS). It measures the profit

available to the equity shareholders on per share basis. EPS will be useful to evaluate change in the company's earning power on per share basis over certain period of time or year.

$$\text{EPS} = \frac{\text{Earning Available to Common Shareholders}}{\text{No. of Common Stock Outstanding}}$$

**ii) Dividend Per Share(DPS)**

The dividend per share [DPS] is the amount paid as dividend to the holder of one share of the stock.

Mathematically:

$$\text{DPS} = \frac{\text{Total Dividend to ordinary shareholders}}{\text{No. of Common Stock Outstanding}}$$

**iii) Market price of share(MPS)**

It is the value of the stock which is traded in the secondary market of the stock. It is generally believed that if the EPS and DPS are high, the market value of the share (MPS) will also be high.

**iv) Dividend payout ratio**

DPR reflect what percentage of profit is distributed as dividend and what percentage is retained as reserve and surplus for the growth of the company. It is calculated by dividing the DPS by the EPS.

Symbolically,

$$\text{DPR} = \frac{\text{Dividend per Share (DPS)}}{\text{Earning Per Share (EPS)}}$$

**v) Earning Yield Ratio (EYR)**

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

Symbolically,

$$\text{EYR} = \frac{\text{Earning Per Share (EPS)}}{\text{Market Price per Share (MPS)}}$$

**vi) Dividend Yield Ratio (DYR)**

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

Symbolically,

$$\text{DYR} = \frac{\text{Dividend per Share (DPS)}}{\text{Market Price per Share (MPS)}}$$

**vii) Price Earnings Ratio (P/E Ratio)**

This ratio reflects the market value per share for each rupee of currently reported EPS. It is calculated by dividing the market value per share by earning per share.

Symbolically,

$$\text{P/E Ratio} = \frac{\text{Market Price per Share (MPS)}}{\text{Earning Per Share (EPS)}}$$

### 3.4.2 Statistical tools

#### i) Arithmetic mean

Arithmetic mean is the average return over periods. Arithmetic mean of a given set of observation is their sum divided by the number of observations. To illustrate it, let's suppose that  $X_1, X_2, X_3, \dots, X_n$  denote return of given 'n' number of respondents and  $\bar{X}$  is the arithmetic mean of the given observation.

It is calculated by,

$$\bar{X} = \frac{X_1 + X_2 + X_3 + \dots + X_n}{n} \quad \text{Or, } \bar{X} = \frac{\sum^n X_t}{n}$$

Where,

$\bar{X}$  = Arithmetic mean

$X_1 + X_2 + X_3 + \dots + X_n$  = Set of observations

$\Sigma X$  = Sum of all the values of the variable X

n = Number of observation

#### ii) Standard Deviation ( )

The measurement of scatter ness of the data of figure in a series about an average is known as dispersion. The standard deviation measures the absolute dispersion. The greater amount of dispersion reflects the high standard deviation. A small standard deviation means a high degree of uniformity of observation as well as homogeneity of a series and vice-versa.

### iii) Coefficient of Variation (CV)

The coefficient of variation is defined as the ratio of standard deviation to the mean expressed in percentage.

Symbolically,

$$\text{Coefficient of Variation (CV)} = \frac{\text{---}}{\bar{X}} * 100$$

The coefficient of variation is the relative measure and is independent of units. The coefficient of variation is applicable for the comparisons of variability of two or more distributions. The greater the value of the coefficient of variation, the less will be the uniformity (or consistency, stability, etc.) and the smaller the value of coefficient of variation, the more will be the uniformity (or less will be the variability).

### iv) Correlation and Regression

Correlation Analysis is the statistical tools that we can use to describe the degree to which one variable is linearly related to another. Coefficient of Correlation is the measurement of the degree of positive and negative relationship between two casually related sets of figures. Its value lies somewhere ranging between -1 to +1. If both variables are constantly changing in the similar direction, the value of coefficient will be +1 indicating perfect positive correlation. When the value coefficient will be -1 two variables take place in opposite direction. The correlation is said to be perfect negative. In this study, simple coefficient of correlation is used to examine the relationship of different factors with dividend and other variables. The data regarding dividend over different years are tabulated and their relationship with each other are drawn out. In practical life, the possibility of obtaining either perfect positive or perfect negative correlation is very rare.

Regression analysis was first developed by Sir F. Galton which is one of the most powerful tools of statistics. It is concerned with the study of relationship between one variable called the explained or dependent variable and one or more other variable called independent variable. The technique of regression analysis is used to determine the statistical relationship between two or more variables and to make prediction of one variable on the basis of others (Sharma, 2001:156).

There are two types of regression analysis. Simple regression analysis determines the relationship between one variable called the dependent variable and the other variable called independent variable. Multiple regression analysis is concern with the study of relationship between more then two variables.

**v) T-test**

T-test, commonly known as Student’s T-Distribution, is used when sample size is equal to or less than 30, the parent population from which the sample is drawn is normal, the population standard deviation is unknown. In order to test the significance of an observed sample correlation coefficient, the following procedure has been applied:

The following formula is used to test an observed sample correlation coefficient:

$$t = \frac{r * \sqrt{n-2}}{\sqrt{1-r^2}}$$

Where,

t = test of hypothesis

r = simple correlation coefficient

N = number of observation

**iv) Trend Analysis**

This type of statistical analysis interprets the trend of earning per share, dividend per share, market price per share of sample banks from 2062/63 to 2067/68. The projections are based on the following assumptions.

- The main assumption is that other thing will remain unchanged.
- The bank will run in this present position.
- The economy will remain in this present stage.
- The forecast will be true only when the limitation of least square method is carried out.
- Central government will not change its guidelines to the commercial banks.

The trend of related variable can be calculated as  $Y = a + bx$ .

Where,

Y = Dependent variable

X = Independent variable

a = Intercept

b = Slope of the trend line.

The following trend value analysis has been used in this study.

- Trend analysis of EPS.
- Trend analysis of DPS.
- Trend analysis of MPS.



## **CHAPTER IV**

### **PRESENTATION AND ANALYSIS OF DATA**

The main purpose of analyzing the data is to change it from an unprocessed form to an understandable presentation. The analysis of data consists of organizing, tabulating, and performing statistical analysis. This chapter consists of presentation and analysis of data which is collected from different sources. The data is mainly focused on the capital adequacy position and its impact on the performance of the sample banks. To obtain best result, the data and information have been analyzed with the measures of different financial and analytical tools by using appropriate tables, graphs, formulae, hypothesis and other tools.

#### **Presentation of Data**

The collected data and information are presented in this section. Various tables, charts and graphs are used to best present the data. The data and information has been presented in most understandable format. Dividend is a periodic payment made by a company to its shareholders. It is compensation to the shareholders for the use of and risk to their investment funds. Or in other words, it is that portion of the net earning divided by the company among the shareholders as a return for their money invested. For the study of dividend policy of commercial banks in Nepal, 3 commercial banks are selected as sample banks. From the selected sample banks, data related to dividend policy are collected and presented as well as analyzed in this chapter.

#### **4.1 Analysis of Financial Indicators and Variables**

##### **4.1.1 Earning per Share (EPS)**

In business organization performance and success is measure by earning capacity of the company. Lower earning shows weak position and higher earning show strength position of the business organization.

**Table 4.1**  
**Analysis of Earning Per Share (EPS)**

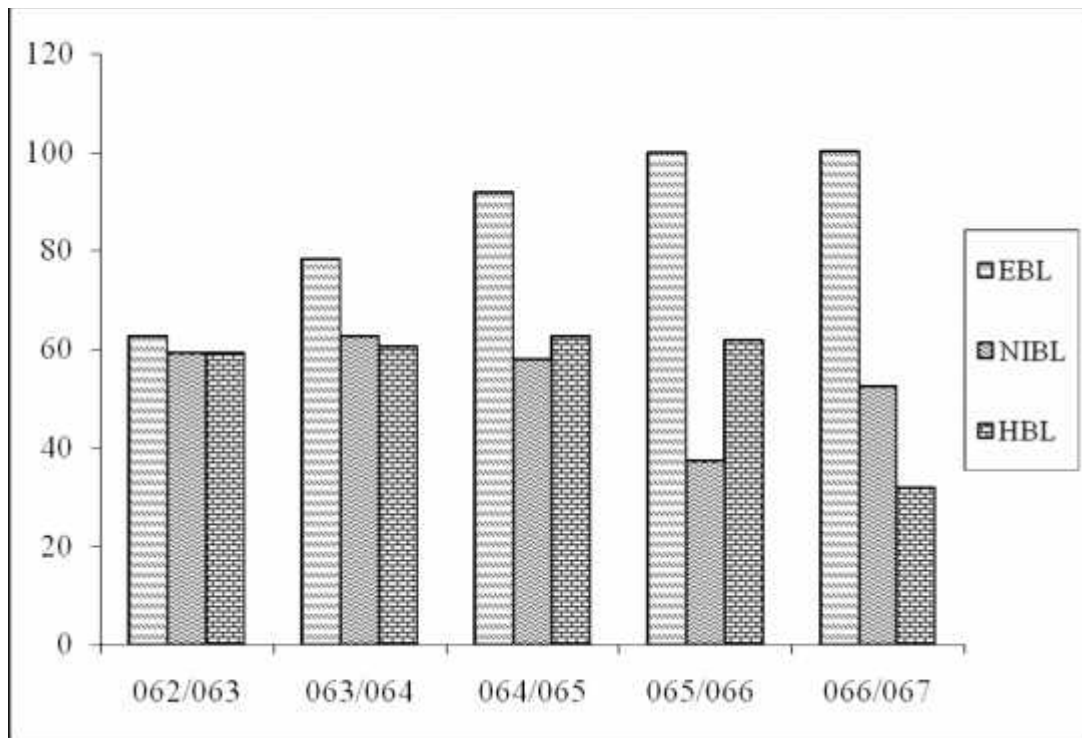
Name Years	HBL	EBL	NIBL
<b>062/063</b>	59.24	62.78	59.35
<b>063/064</b>	60.66	78.42	62.57
<b>064/065</b>	62.74	91.82	57.87
<b>065/066</b>	61.90	99.99	37.42
<b>066/067</b>	31.80	100.16	52.55
<b>Average</b>	55.27	86.634	53.95
<b>SD</b>	11.79	16.01	8.88
<b>CV (%)</b>	21%	18.47%	16%

The table 4.1 presents the EPS of the three sample companies for the period fiscal year starting from 062/063 to 066/067. The average EPS of HBL is Rs.55.27. The EPS of the company is above the average EPS in four fiscal years except 066/067. Standard Deviation of EPS of HBL is 11.79 and its CV is 21%. Its EPS is more volatile than the all sample banks.

The average EPS of EBL is Rs. 86.634. The EPS of the company is below the average EPS in three fiscal years except 064/065 to 066/067. Standard Deviation of EPS of EBL is 16.01 and its CV is 18.47%.

In the same way, the average EPS of NIBL is Rs.53.95. The EPS of the company range from Rs.37.42 to Rs. 62.57.The Standard Deviation of EPS of the NIBL is 8.88 and its CV is 16%. That means the EPS of NIBL is less fluctuating than HBL and EBL.

**Figure No. 4.1: Earning Per Share in fiscal year 062/063 to 066/067**



In above figure shows the EPS of sample Company. The OX axis shows the sampling years and OY axis shows the EPS amount. In above shows the EBL is higher EPS and the HBL is lowest EPS amount in every sampling years. NIBL EPS is less volatile then the other all sampling banks.

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

The common shareholders received the amount from company which is paid on a per share basis is generally Dividend per share (DPS). DPS shows what amount exactly paid to the common shareholders. It is calculated by dividing the dividend provided to equity shareholders by the total number of equity shares of particular company. Below the table 4.2 shows dividend per share of the sample companies 062/063 to 066/067.

**Table 4.2**  
**Analysis of Dividend per Share (DPS)**

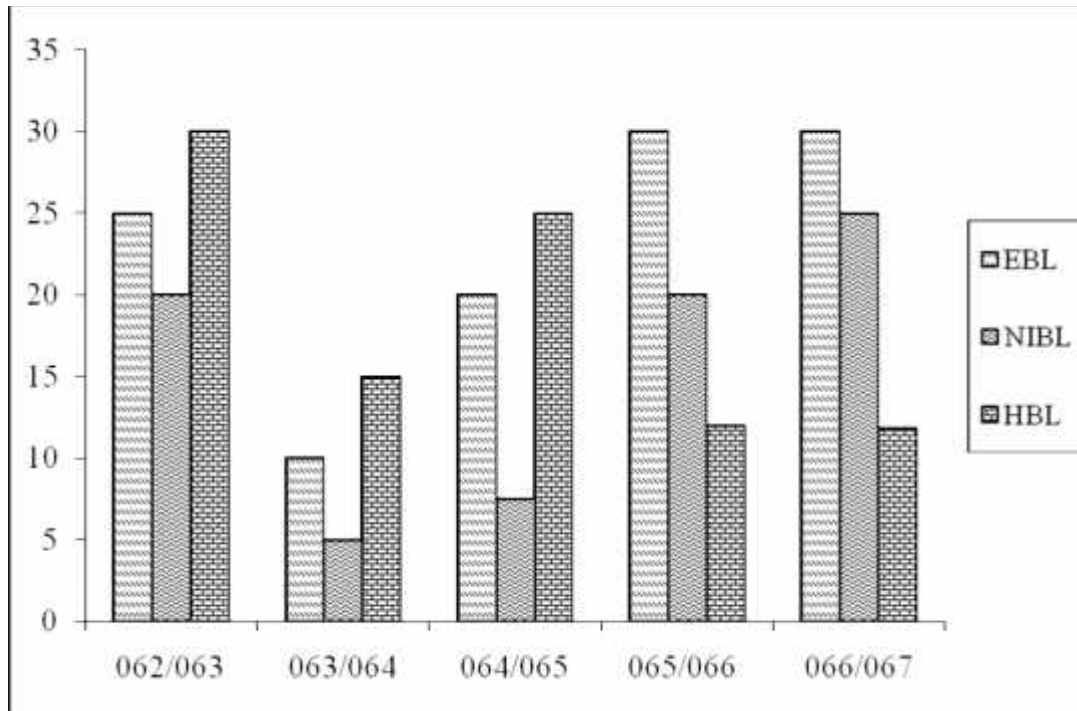
Name Years	HBL	EBL	NIBL
<b>062/063</b>	30	25	20
<b>063/064</b>	15	10	5
<b>064/065</b>	25	20	7.5
<b>065/066</b>	12	30	20
<b>066/067</b>	11.84	30	25
<b>Average</b>	18.77	23	15.5
<b>SD</b>	8.26	8.37	7.81
<b>CV (%)</b>	44%	36.39%	50.39%

The average DPS of HBL is Rs.18.77. The DPS of the company is highest in 062/063 and lowest DPS is 066/067. The DPS is decreasing order after 064/65. Standard Deviation of DPS of HBL is 8.26 and its CV is 44%.

The average DPS of EBL is Rs.23. The DPS of the bank is above average except then 063/064 and 064/065. The EBL was paid dividend in all fiscal year. The DPS of the bank ranges from Rs. 10 to Rs.30. Standard Deviation of DPS of EBL is 8.37 and its CV is 36.39%, which is lower than that of HBL. That means the DPS of EBL is less fluctuating than that of HBL.

Likewise, the average DPS of NIBL is Rs. 15.5. The DPS of the company is above average DPS in two years 063/064 and 064/065. The DPS of the company range from Rs. 5 to Rs. 25. The Standard Deviation of DPS of the NIBL is 7.81 and its CV is 50.39%. That means the DPS of NIBL is more fluctuate than HBL and EBL.

**Figure No. 4.2: Dividend per Share in fiscal year 062/063 to 066/067**



In above figure 4.2, show the DPS of all sample Company. The OX axis indicates the sampling years and OY axis indicates the DPS amount. All bank DPS is decreasing then beginning amount and increasing order. In above figure shows the HBL is higher DPS all fiscal years except year 065/066 and 066/067 and the NIBL is lowest DPS amount in every sampling year except 065/066 and 066/067. EBL EPS is less volatile then the other all sampling banks. And in aggregate EBL and HBL pays higher DPS amount then NIBL.

#### **4.1.3 Market Price per Share (MPS)**

The rate which is treated in secondary markets is known as market price of share (MPS). It is calculated through average price of annual high rate and lower rate of the particular stock. In the case of Nepal MPS is calculated by taking the average of the highest and the lowest market price of Nepal Stock Exchange (NEPSE).

**Table 4.3****Analysis of Market Price per Share (MPS)**

<b>Name</b> <b>Years</b>	<b>HBL</b>	<b>EBL</b>	<b>NIBL</b>
<b>062/063</b>	1100	1379	1260
<b>063/064</b>	1740	2430	1729
<b>064/065</b>	1980	3132	2450
<b>065/066</b>	1760	2455	1388
<b>066/067</b>	816	1630	705
<b>Average</b>	1479.2	2205.2	1506.4
<b>SD</b>	443.01	704.51	575.66
<b>CV (%)</b>	30%	31.95%	38%

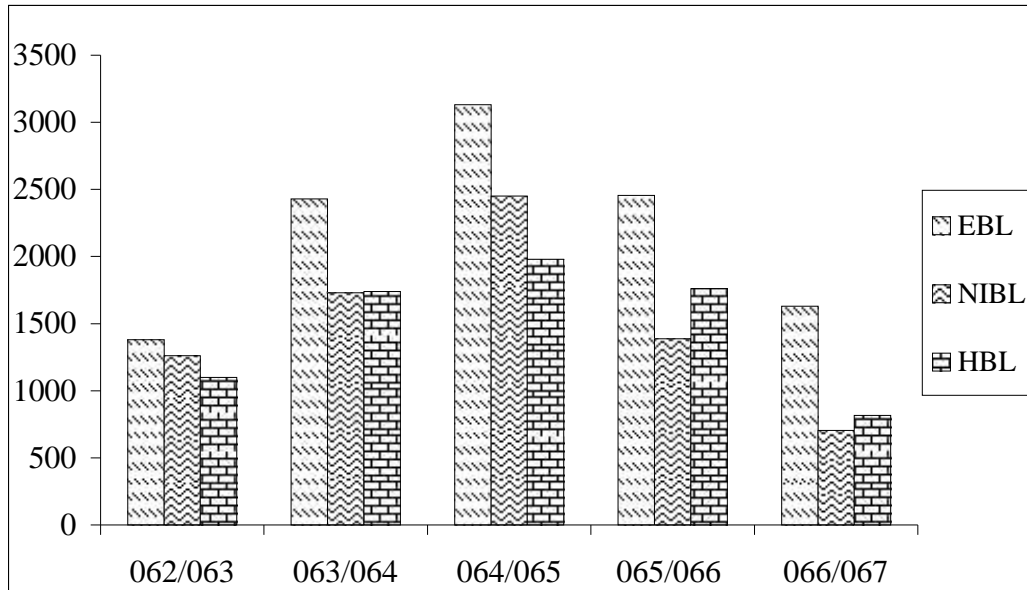
The average MPS of HBL is Rs. 1479.20. The MPS of the company is above the average MPS in three fiscal years except 063/064 to 065/066. The MPS of the company ranges between Rs. 816 to Rs.1980. The highest MPS in fiscal year 064/065 and the lowest MPS in fiscal year 066/067. Standard Deviation of MPS of HBL is 443.01 and its CV is 30%.

The average MPS of EBL is Rs. 2205.2. The MPS of the company is above the average MPS in three fiscal years except 062/063 to 066/067. The MPS of the company ranges between Rs.1379 to Rs.3132. Standard Deviation of MPS of EBL is 704.51 and its CV is 31.95 %.

In the same way, the average MPS of NIBL is Rs. 1506.4. The MPS of the company is above average MPS in 063/064 and 064/065. The MPS of the company range from Rs. 705 to Rs.2450. The MPS increase every year and reach

to Rs.2450 until 064/065 then decrease. The Standard Deviation of MPS of the NIBL is 575.66 and its CV is 38%.

**Figure No. 4.3: Market price per Share in fiscal year 062/063 to 066/067**



The three sample company market price per share value through chart shows in above 4.3. The EBL is always higher market value of share NIBL and HBL are more volatile then EBL. HBL is higher then NIBL in 063/064,065/066 and 066/067. NIBL is higher then HBL is 062/063 and 065/066.

#### **4.1.4 Dividend Payout Ratio (DPR)**

Earning determines the amount of dividend. The greater the earning was more ability of banks to pay dividend. This ratio expresses the amount of dividend as a percentage of earning available for equity shares after meeting all charges. The following table shows the dividend payout ratio of three banks from 062/063 to 2066/067.

**Table 4.4**  
**Analysis of Dividend Payout Ratio (DPR)**

Name Years	HBL	EBL	NIBL
<b>062/063</b>	50.64	39.82	33.7
<b>063/064</b>	24.73	12.75	8
<b>064/065</b>	39.85	21.78	12.96
<b>065/066</b>	19.39	30	53.45
<b>066/067</b>	37.23	29.97	47.57
<b>Average</b>	34.37	26.864	31.14
<b>SD</b>	11.14	10.15	18.11
<b>CV (%)</b>	32.41%	37.8%	58.16%

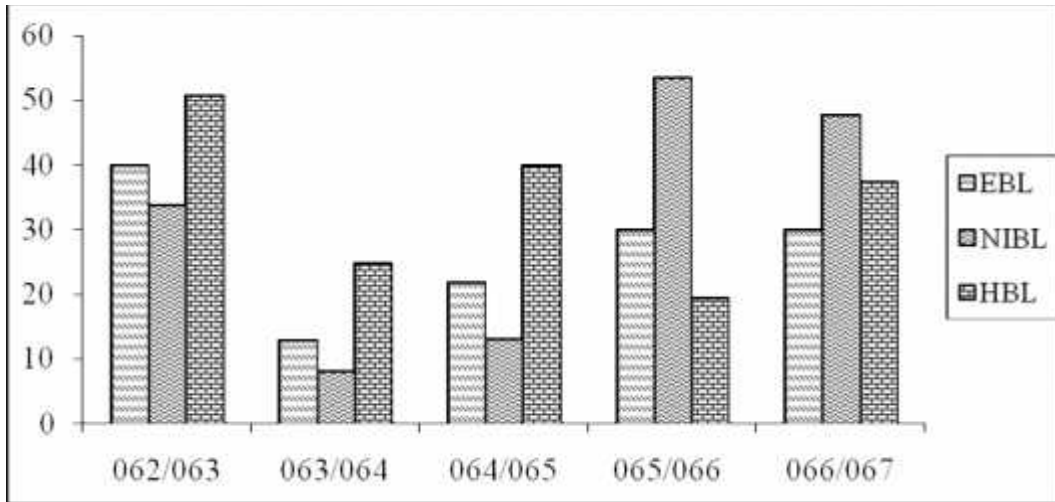
The table 4.4 represents the dividend pay-out ratio (DPR) of three selected sample banks. From the above table it is clear that HBL has the highest average DPR of 34.37 where as EBL has the lowest average DPR of 26.846.

Standard Deviation means total risk in above table 4.4 shows the higher risk on NIBL because its SD. is 18.11 which is higher then other samples bank. The lower SD. is EBL it means lower risk on EBL then other sample bank. CV shows per unit risk it shows higher NIBL and HBL is lower.

Below figure 4.4 shows the DPR of sample banks. Except 065/066 and 066/067 HBL is higher DPR then other EBL and NIBL. HBL is less volatile then other two banks DPR. EBL is increasing order since 063/064 till 066/067.



**Figure No. 4.4: Dividend pay out ratio in fiscal year 062/063 to 066/067**



#### 4.1.5 Earning Yield Ratio (EYR)

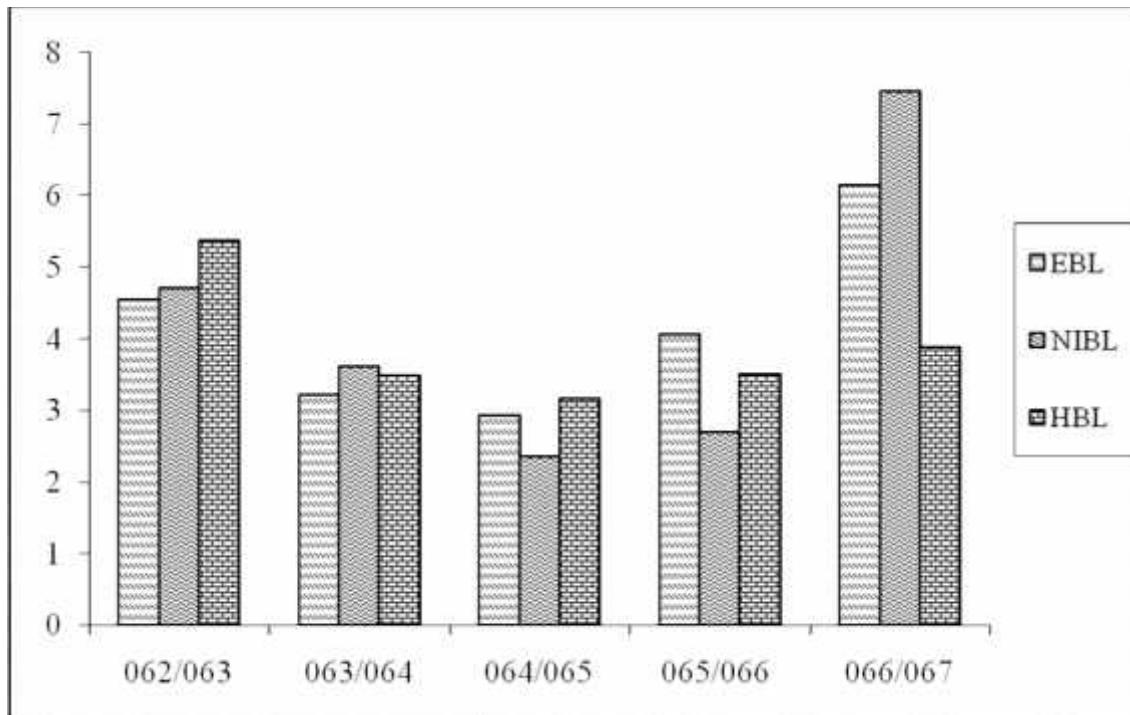
This ratio shows the relationship between earning per share and market value per share. It is calculated by earning per share by market value per share.

**Table 4.5  
Analysis of Earning Yield Ratio (EYR)**

Name Years	HBL	EBL	NIBL
<b>062/063</b>	5.385455	4.552574	4.710317
<b>063/064</b>	3.486207	3.22716	3.618855
<b>064/065</b>	3.168687	2.931673	2.362041
<b>065/066</b>	3.517045	4.072912	2.695965
<b>066/067</b>	3.897059	6.144785	7.453901
<b>Average</b>	3.890891	4.185821	4.168216
<b>SD</b>	0.874481	1.272469	2.050682
<b>CV (%)</b>	22.48%	30.4%	49.2%

The table 4.5 shows three companies earning yield ratio (EYR). The average EYR is higher EBL then HBL and NIBL. In above higher EYR is 7.45 of NIBL on 066/067 and lower is 2.36 of NIBL on 064/065. SD of HBL is lower i.e. 0.87 and NIBL is higher SD i.e. 2.0506. CV shows per unit risk is also same conclusion like SD. Higher CV of NIBL and lower CV of HBL.

**Figure No. 4.5: Earning Yield Ratio (EYR) in fiscal year 062/063 to 066/067**



The figure 4.5 shows the Earning Yield Ratio (EYR) in fiscal year 062/063 to 066/067. HBL and EBL is less volatile then NIBL. NIBL is lower 064/065 and higher 066/067.

#### **4.1.6 Dividend Yield Ratio (DYR)**

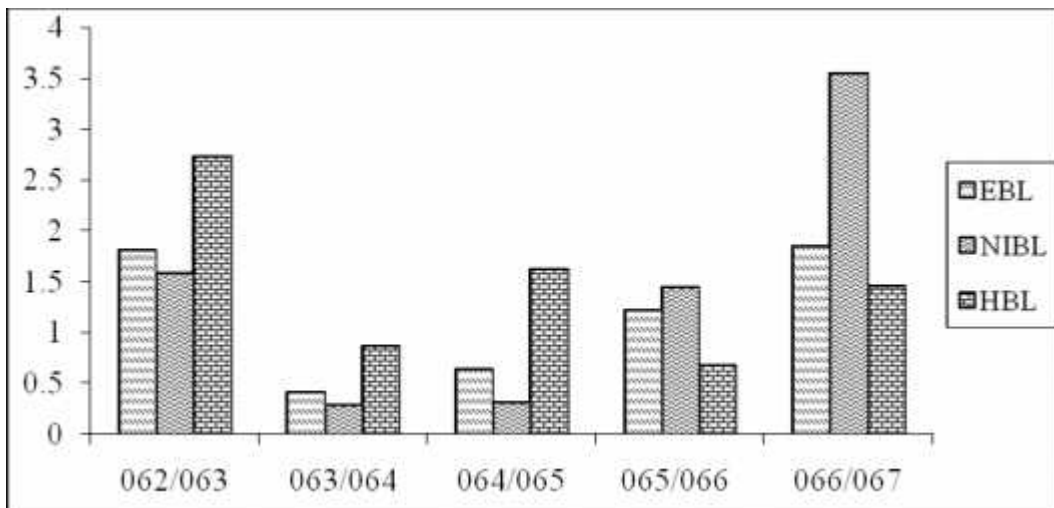
This ratio shows the relationship between dividend per share and market value per share. It is calculated by dividend per share by market value per share. Below table 4.6 shows the DYR.

**Table 4.6**  
**Analysis of Dividend Yield Ratio (DYR)**

Name \ Years	HBL	EBL	NIBL
062/063	2.73	1.81	1.59
063/064	0.86	0.412	0.289
064/065	1.62	0.64	0.306
065/066	0.68	1.22	1.44
066/067	1.45	1.84	3.55
Average	1.47	1.18	1.43
SD	0.81	0.65	1.33
CV (%)	54.99%	55.29%	92.7%

Higher DYR is 3.55 in 066/065 of NIBL. The average DYR of HBL is 1.47, EBL is 1.18 and NIBL is 1.43. SD of HBL is 0.81, EBL is 0.65 and NIBL is 1.33. CV of HBL, EBL and NIBL is 54.99, 55.29 and 92.7.

**Figure No. 4.6: Dividend Yield Ratio (EYR) in fiscal year 062/063 to 066/067**



#### 4.1.7 Price Earnings Ratio (P/E Ratio)

**Table 4.7**  
**Analysis of Price Earnings Ratio (P/E Ratio)**

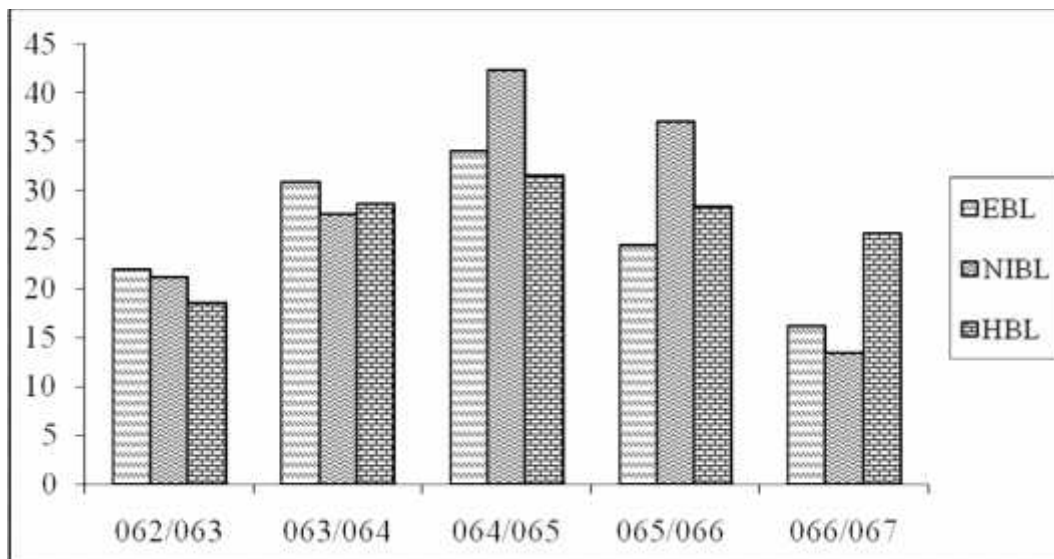
Name \ Years	HBL	EBL	NIBL
062/063	18.56853	21.96559	21.22999
063/064	28.68447	30.98699	27.63305
064/065	31.55881	34.11022	42.33627
065/066	28.43296	24.55246	37.09246
066/067	25.66038	16.27396	13.41579
Average	26.58103	25.57784	28.34151
SD	4.941662	7.119028	11.68637
CV (%)	18.58%	27.83%	41.25%

The table 4.7 presents the P/E ratio of the three sample companies for the period fiscal year starting from 062/063 to 066/067. The average P/E ratio of HBL is Rs. 26.58. The P/E ratio of the company is above the average P/E ratio in three fiscal years except 062/063 and 066/067. Standard Deviation of P/E ratio of HBL is 4.94 and its CV is 18.58%. Its P/E ratio is less volatile than the all sample banks.

The average P/E ratio of EBL is Rs. 25.57. The P/E ratio of the company is below the average P/E ratio in three fiscal years except 064/065 to 063/064. Standard Deviation of P/E ratio of EBL is 7.11 and its CV is 27.83%.

In the same way, the average P/E ratio of NIBL is Rs.28.34. The P/E ratio of the company range from Rs.13.42 to Rs. 42.33.The Standard Deviation of P/E ratio of the NIBL is 11.68 and its CV is 41.25%.

**Figure No. 4.7: Price Earnings Ratio (P/E Ratio) in fiscal year 062/063 to 066/067**



In above figure 4.7, show the P/E ratio of all sample Company. The OX axis indicates the sampling years and OY axis indicates the P/E ratio. All bank P/E ratios is increasing then beginning and decreasing order. EBL P/E ratio is less volatile then the other all sampling banks.

## **4.2 Analysis of Statistical Indicators and Variables**

### **4.2.1 Correlation Analysis**

The correlation analysis is a technique used to measure the closeness of the relationship between the variables. It helps us in determining the degree of relationship between two or more variables. It describes not only the magnitude of correlation but also its direction. The coefficient of correlation is a number which indicates to what extent two variables are related with each other. The correlation coefficient shows the relationship between two variables. Its value ranges from -1 for perfect negative correlation up to +1 for perfect positive correlation. Here we have calculated the relationship between EPS and MPS, MPS and DPS and EPS and DPS.

#### 4.2.1.1 Correlation between DPS and MPS

**Table 4.8**  
**Correlation between DPS and MPS**

<b>Banks</b>	<b>r</b>	<b>r<sup>2</sup></b>	<b>P.E.</b>	<b>Relationship</b>	<b>Significant/ Insignificant</b>
<b>HBL</b>	0.035	0.001	0.301	Positive	Insignificant
<b>EBL</b>	-0.4086	0.1669	0.2513	Negative	Insignificant
<b>NIBL</b>	-0.852	0.726	0.083	Negative	significant

(Source: Appendix I)

The above table 4.8 explains the relationship between dividend of last year  $DPS_{(t-1)}$  and the current MPS of the sample banks. The coefficient of correlation between  $DPS_{(t-1)}$  and MPS of HBL is 0.035, which shows there is low degree of positive correlation between  $DPS_{(t-1)}$  and MPS of HBL. And its coefficient of determination is 0.001 means, MPS is affected by DPS only by 0.1% and the rest 99.9% is affected by other unknown variables. Since  $r < 6PE$ , the value of r is not significant.

Likewise, the coefficient of correlation between  $DPS_{(t-1)}$  and MPS of EBL is -0.4086, which shows there is negative correlation between  $DPS_{(t-1)}$  and MPS of EBL. And its coefficient of determination is 0.1669 which means MPS is affected by DPS only 16.69% and the rest 83.31% is affected by other unknown variables. Since  $r < 6PE$ , the value of r is not significant.

In the same way, coefficient of correlation between  $DPS_{(t-1)}$  and MPS of NIBL is -0.852, which shows there is High degree of negative correlation between  $DPS_{(t-1)}$  and MPS of NIBL. And its coefficient of determination is 0.726 it means, MPS is affected by DPS only 72.6% and the rest 27.4% is affected by other unknown variables. Since  $r < 6PE$ , the value of r is not significant.

#### 4.2.1.2 Regression Analysis between DPS and MPS

Let the dependent variable MPS is denoted by Y and independent variable DPS is denoted by X, and then the regression equation of MPS on DPS is given by:

$$Y = a + bX$$

$$MPS_{HBL} = 1518.61 + 2.1 \times DPS_{HBL}$$

$$MPS_{EBL} = 2129.53 + -3.29 \times DPS_{EBL}$$

$$MPS_{NIBL} = 533.62 + (-62.76 \times DPS_{NIBL})$$

**Table 4.9**  
**Regression analysis between DPS and MPS**

Banks	No. of Obsv. (n)	Constant (a)	Regression Coefficient (b)	T-value
HBL	5	1518.61	2.1	0.0607
EBL	5	2129.53	-3.29	0.7754
NIBL	5	533.62	-62.76	5.386

(Source: Appendix I)

The Table 4.9 depicts the major output of simple regression analysis of average market price per share (MPS) on dividend per share (DPS) of the sample banks.

As far as the regression of MPS and DPS is concerned, the regression coefficient of HBL, EBL and NIBL are 2.1, -3.29 and -62.76 respectively. It indicates that a one-rupee increase in DPS leads to an average of Rs. 2.1 increase in MPS of HBL, Rs.3.29 decrease in MPS of EBL and Rs. 62.76 decrease in MPS of NIBL. If the other variable remain constant. The test of t-statistics aid to conclude that in HBL the relationship between MPS and DPS is insignificant, since the calculated value of t (0.0607) is lower than tabulated value of t (3.182). In EBL the relationship between MPS and DPS is insignificant as the calculated value of t (0.7754) is lower than tabulated value of t (3.182) and in NIBL the result is significant, since

the calculated t-value (5.386) is lower than the tabulated t-value (3.182) at 5% level of significance.

#### 4.2.1.3 Correlation between EPS and MPS

The below table 4.10 explains the relationship between earning per Share of last year  $EPS_{(t-1)}$  and Market price per Share of the sample commercial banks.

**Table 4.10**  
**Correlation coefficient between EPS and MPS**

Banks	r	r <sup>2</sup>	P.E.	Relationship	Significant/ Insignificant
HBL	0.807	0.6512	0.105	Positive	Significant
EBL	0.404	0.1632	0.2524	Positive	Insignificant
NIBL	0.288	0.0829	0.277	Positive	Insignificant

(Source: Appendix I)

The coefficient of correlation between  $EPS_{(t-1)}$  and MPS of HBL is 0.807, which shows that there is very high degree of positive Correlation between  $EPS_{(t-1)}$  and MPS of HBL. Likewise, its coefficient of determination is 0.6512 means, MPS is affected by  $EPS_{(t-1)}$  only by 65.12% and rest 34.88% by other unknown variables. Since  $r > 6PE$ , the value of r is significant.

Similarly, coefficient of correlation between  $EPS_{(t-1)}$  and MPS of EBL is 0.404 which shows that there is the medium degree of positive Correlation between  $EPS_{(t-1)}$  and MPS of EBL. And its coefficient of determination is 0.1632 means, MPS is affected by  $EPS_{(t-1)}$  only by 16.32% and rest 83.68% by other unknown variables. Since  $r < 6PE$ , the value of r is not significant.



In the same way the coefficient of correlation between  $EPS_{(t-1)}$  and MPS of NIBL is 0.288 which shows that there is low degree of positive Correlation between  $EPS_{(t-1)}$  and MPS of NIBL. Its coefficient of determination is 0.0829 its mean, MPS is affected by  $EPS_{(t-1)}$  only 8.29% and rest 91.71% by other unknown variables .Since  $r < 6PE$ , the value of r is not significant.

#### 4.2.1.4 Regression Analysis between EPS and MPS

Let the dependent variable MPS is denoted by Y and independent variable EPS is denoted by X, and then the regression equation of MPS on EPS is given by:

$$Y = a + bX$$

$$MPS_{HBL} = 3153.32 + 30.29 \times EPS_{HBL}$$

$$MPS_{EBL} = 3745.98 + 17.79 \times EPS_{EBL}$$

$$MPS_{NIBL} = 2366.63 + 15.945 \times EPS_{NIBL}$$

**Table 4.11**  
**Regression Analysis between EPS and MPS**

Banks	No. of Obsv. (n)	Constant (a)	Regression Coefficient (b)	T-value
HBL	5	46284.17	30.29	2.367
EBL	5	3745.98	17.79	0.765
NIBL	5	25525.95	15.95	0.521

(Source: Appendix I)

The Table 4.11 depicts the major output of simple regression analysis of average market price per share (MPS) on Earning per share (EPS) of the sample commercial banks.

As far as the regression of MPS and EPS is concerned, the regression coefficient of HBL, EBL and NIBL are 30.29, 17.79 and 15.95 respectively. It indicates that a

one-rupee increase in EPS leads to an average of Rs. 30.29 increase in MPS of HBL, Rs. 17.79 increase in MPS of EBL and Rs. 15.95 increase MPS of NIBL. If the other variable remains constant the test of t-statistics aid to conclude that in HBL the relationship between MPS and EPS is insignificant, since the calculated value of t (2.367) is lower than tabulated value of t (3.182). In EBL the relationship between MPS and EPS is insignificant as the calculated value of t (0.765) is lower than tabulated value of t (3.182) and in NIBL the results are also insignificant, since the calculated t-value (0.521) is lower than the tabulated t-value (3.182) is lower than the tabulated t-value (3.182) at 5% level of significance.

#### 4.2.1.5 Correlation between EPS and DPS

**Table 4.12**  
**Correlation coefficient between EPS and DPS**

Banks	r	r <sup>2</sup>	PE	Relationship	Significant/ Insignificant
HBL	0.433	0.188	0.245	Positive	Insignificant
EBL	0.4325	0.1871	0.245	Positive	Insignificant
NIBL	-0.534	0.285	0.216	Negative	Insignificant

(Source: Appendix I)

Coefficient of correlation between EPS and DPS of HBL is 0.443, which shows there is positive correlation between EPS and DPS of HBL. Its coefficient of determination is 0.188, which means 18.8% of DPS is affected by EPS and rest is due to other unknown factors. Since  $r < 6PE$ , the value of r is not significant.

In the same way, coefficient of correlation between EPS and DPS of EBL is 0.4325, which shows there is medium degree of Positive correlation between EPS and DPS of KBL. Its coefficient of determination is 0.1871, which means 18.71%

of DPS is affected by EPS and rest is due to other unknown factors. Since  $r < 6PE$ , the value of  $r$  is not significant.

Similarly, coefficient of correlation between EPS and DPS of NIBL is -0.534, which shows there is high degree of negative correlation between EPS and DPS of NIBL. And its coefficient of determination is 0.285 which means, DPS is affected by EPS only by 28.5% and the rest 71.5% is affected by other variables. Since,  $r < 6PE$ , the value of  $r$  is not significant.

#### 4.2.1.5 Regression Analysis between EPS and DPS

Let the dependent variable DPS is denoted by  $Y$  and independent variable EPS is denoted by  $X$ , and then the regression equation of DPS on EPS is given by:

$$Y = a + bX$$

$$DPS_{HBL} = 33.75 + 0.271 \times EPS_{HBL}$$

$$DPS_{EBL} = 42.59 + (0.2261 \times EPS_{EBL})$$

$$DPS_{NIBL} = -9.86 + (-0.47 \times EPS_{NIBL})$$

**Table 4.13**  
**Regression Analysis between EPS and DPS**

Banks	No. of Obsv. (n)	Constant (a)	Regression Coefficient (b)	T-value
HBL	5	33.75	0.271	0.8323
EBL	5	42.59	0.2261	0.8308
NIBL	5	-9.86	-0.47	1.294

(Source: Appendix I)

The Table 4.13 depicts the major output of simple regression analysis of average Earning price per share (EPS) on Dividend per share (DPS) of the concerned banks. As far as the regression of DPS and EPS is concerned, the regression coefficient of HBL, EBL and NIBL are 0.271, 0.2261 and -0.47 respectively. It indicates that a one-rupee increase in EPS leads to an average of Rs. 0.271 increase in DPS of HBL, Rs 0.2261 increase in DPS of EBL, Rs. 0.47 decrease DPS of NIBL. If the other variable remains constant the test of t-statistics aid to conclude that in HBL the relationship between DPS and EPS is insignificant, since the calculated value of t (0.8323) is lower than tabulated value of t (3.182), in EBL the relationship between DPS and EPS is insignificant as the calculated value of t (0.8308) is lower than tabulated value of t (3.182) and in NIBL the results are also insignificant, since the calculated t-value (1.294) is lower than the tabulated t value (3.182) at 5% level of significance.

### **4.3 Trend Analysis**

#### **4.3.1 Analysis of Earning Per Share**

Trend line helps to forecast the values of dependent variable for future periods of time. For this purpose, trend line is computed and estimated the trend values of EPS of banks for five years from F/Y 2062/63 to 2066/67. The trend line of EPS for HBL, EBL and NIBL are as follows.

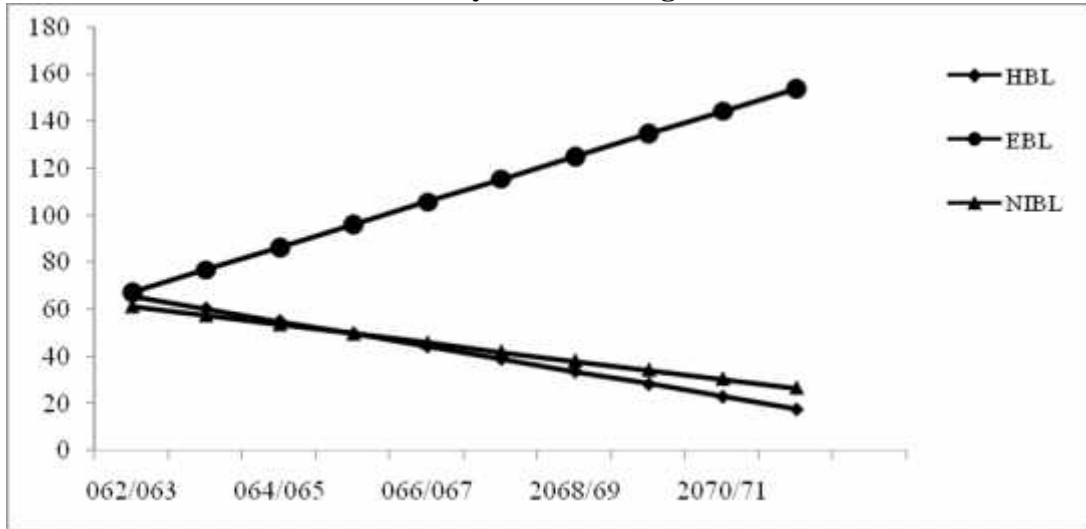
$$\text{HBL } Y = 55.27 + (-5.34 * X)$$

$$\text{EBL } Y = 86.63 + 9.63 * X$$

$$\text{NIBL } Y = 53.95 + (-3.88 * X)$$

Below figure 4.8 shows the earning movement till 2071. Everest bank have positive value of b it helps to future price movement on positive impact. Himalayan bank and Nepal investment bank have negative value of b so it is decreasing in future. Detail shows below figure 4.8,

**Figure 4.8**  
**Trend Analysis of Earning Per Share**

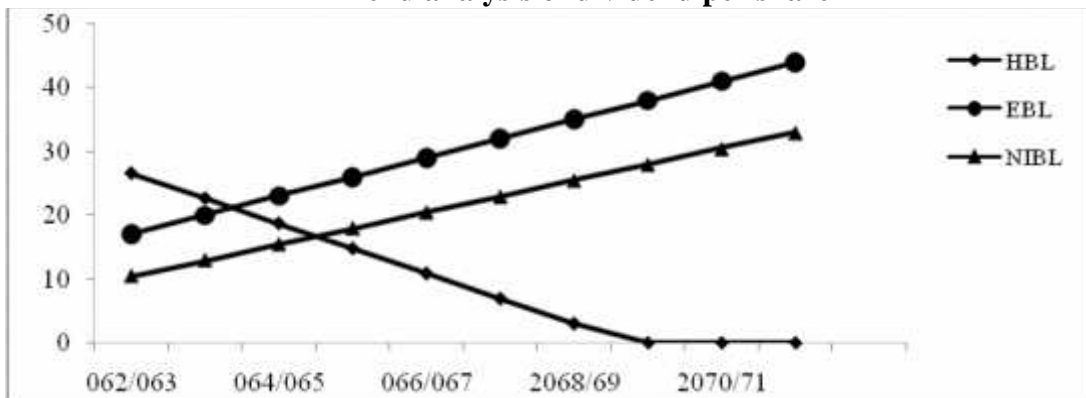


Source: APPENDIX II

#### 4.3.2 Analysis of Dividend per Share

Figure 4.9 shows the dividend per share for next five year. EBL, NIBL is increasing trend and HBL is decreasing trend for next five year. HBL is decreasing and last three year is zero. The trend shows the two banks is increasing and HBL is decreasing order.

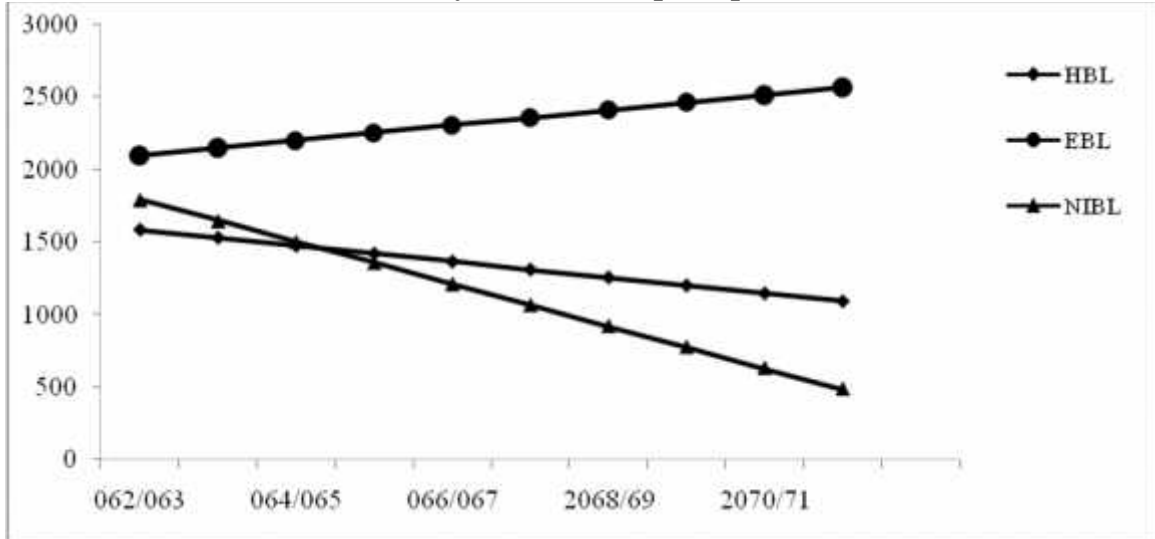
**Figure 4.9**  
**Trend analysis of dividend per share**



Source: APPENDIX II

### 4.3.2 Analysis of Market per Share

**Figure 4.10**  
Trend analysis of market price per share



Source: APPENDIX II

The above figure 4.10 shows the market price of share. Everest bank is increasing trend, both Himalayan bank and Nepal investment bank decrease trend. Nepal investment bank is highly decreasing trend then Himalayan bank.

#### 4.4 Major Findings

The major findings obtained from the secondary data analysis are stated as follows:

- The average earning per share of HBL, EBL and NIBL 55.27, 86.634 and 53.95 respectively mean EPS of EBL is greater than other sample commercial banks and NIBL is lower average EPS. Higher earning per share indicates the company is lower risk to investor then other lower EPS company.
- The average Dividend per share of HBL, EBL and NIBL is Rs. 18.77, 23 and 15.5 respectively mean DPS of EBL is greater than other sample commercial banks and NIBL is lower average DPS, Higher DPS indicate the company is greater return.
- Average market price per share of HBL, EBL and NIBL is Rs. 1479.2, 2205.2 and 1506.4 respectively mean MPS of EBL is greater than other commercial banks. Higher market price creates the positive attitude of the investors towards the bank, which consequently attracts the investor to invest in such high valued shares.
- Average Dividend Pay out ratio of HBL, EBL and NIBL is 34.37%, 26.864% and 31.14% respectively. Mean DPR of HBL is greater than other companies. Higher DPR indicate the company is greater return on dividend.
- The average Earning Yield Ratio of HBL, EBL and NIBL is Rs. 3.89, 4.18 and 4.16 respectively mean EYR of EBL is greater than other sample commercial banks and HBL is lower average EYR, Higher EYR indicate the favorable condition for the owner.
- The average Dividend Yield Ratio of HBL, EBL and NIBL is Rs. 1.47, 1.18 and 1.43 respectively mean DYR of HBL is greater than other sample commercial banks and EBL is lower average DYR, Higher DYR indicate the more paid dividend on the market price of stock.

- P/E Ratio average is higher of NIBL bank i.e.28.34 and lower of EBL bank i.e. 25.58. P/E ratio indicates the total percentage earning on market price of stock. Higher ratio indicate higher earning on market price of stock lower indicate lower earning on market price of stock.
- The correlation of DPS & MPS of NIBL and EBL is negative correlation and HBL have highest positive correlation.
- Correlation coefficient between EPS & MPS of HBL is significant and two other banks are not significant. All are positive relation of EPS and MPS.
- Correlation coefficients between EPS & DPS of all are significant and two banks HBL and EBL are positive and NIBL is negative relation to the EPS & DPS.
- Regression Coefficient (b) is highest between DPS and MPS of HBL and lowest is NIBL. The highest t-value (5.386) is NIBL and lowest t-value (0.0624) is HBL.
- Regression Coefficient (b) is highest between EPS and MPS of HBL and lowest is NIBL. The highest t-value (2.367) is HBL and lowest T-value (0.521) is NIBL.
- In case of regression analysis of dividend per share on earning per share, beta coefficient is positive in two samples HBL and EBL banks. The negative coefficient of NIBL. The highest t-value (1.294) is NIBL and lowest t- value (0.8308) is EBL.
- A trend analysis show of earning per share is increasing only Everest bank limited, Himalayan bank and Nepal investment bank is decreasing trend.
- Dividend per share of trend analysis shows the Himalayan bank is decrease but Everest bank and Nepal investment bank is increasing trend.
- The market price of share of Everest bank is increasing trend then both Himalayan and Nepal investment bank is decreasing trend.



## **SUMMARY, CONCLUSIONS AND RECOMMENDATION**

### **5.1 Summary**

The dividend refers to that portion of the firm's net earnings, which is paid out to the shareholders as a return for their investments. The dividend decision affects the operation, and prosperity of the organization. To attract the new investors and to maintain the existing ones, dividend can be used as an effective tool. Dividend policy is one of the three major decisions of the financial management. Dividend implies paying earning to the equity share holders and theories of dividend policy differ, some prefer residual theory that conveys passive residual earning available for payment whereas MM hypothesis insists on dividend irrelevance in the sense that dividend policy does not affect the stock price (which makes dividend decision, irrelevance). There are others who argue that dividend policy does affect value due to uncertainty factor. Many factors affect the dividend payment depending upon the investors' need and preference on one hand and the financing need of the financial institution to the potential investment on the other hand.

Dividend is an important tool to attract the new investors. Beside this dividend paying ability reflect the financial position of the organization in the market. Due to the division of earning between dividend payout and retention ratio the market price of the share may also reflected so, it is the crucial decision of the organization. In Nepalese Environments after government adopt liberalization and privatization policy. Dividend policy is taking its path, slowly. Every Investor must have knowledge of dividend policy. So they can make better decision before they invest. Only those company pay dividend which are in profit.

Here in the study dividend paying banks have been analyzed to show the implication of the dividend policy. The study covers joint venture banks (HBL,

EBL and NIBL) and only for the last 2062/63 to 2066/67. The available secondary data collected from various sources has been analyzed using various financial and statistical tools. So, the reliability of conclusion of this study is determined on the accuracy of secondary data.

There is the vague practice on distribution of dividend in Nepalese companies. Shareholders have a high expectation that market price of share will be significantly higher than net worth. However, the dividend is paid only in profitable years end in most of the years. Instability of dividend and inconsistent payout ratio is the most applied phenomena of Nepalese dividend distribution practices.

This study mainly aims the prevailing practices of listed companies regarding dividend payment. The study is mainly focused to access the dividend practices of selected commercial banks. Instability of dividend and haphazard payout ratio is the most common practice of Nepalese companies. Companies do not adequately maintain cash balance for dividend payment. So, it covers some specific objectives to find out the relationship between other financial indicators and also to find out the appropriate dividend policies for different companies.

Shareholders have high expectation that market prices of shares will be significantly higher than net worth. The companies invested by foreigners are paying more attractive dividend than the companies promoted by the indigenous promoters of Nepal. The study of relationship between the dividend and stock prices have been accomplished by collecting and calculating the earning per share, dividend per share, dividend payout ratio, dividend yield, earning yield and price earning ratio. To make the research reliable, many more analysis are conducted to find out appropriate relationship between dividend and other variables, which affects the dividend. The consistency of dividend distribution of different

companies is also analyzed by using statistical tools. The relationship also statistically tested at 5% level of significance.

## **5.2 Conclusion**

This dividend payout decision is probably base on the financial performance of the company in the previous year. Because of lack of dividend policies in any of the companies, the results of the analysis show some very strange behaviors in the financial performance indicate of the companies studied. The analysis performed on the financial data of the three commercial banks chosen has failed to establish a concrete relation between dividends polices and practices in Nepal. There appear to be slight general trends but no set of rules apply to all the companies. Moreover, there was a few surprising results that seemed to defy economic logic. By analyzing the financial and statistical indicators of all the three banks, the following conclusions have been drawn regarding the prevalent dividend payout practices of the public listed companies of Nepal.

Dividend practices of the sample banks are neither stable, nor constantly growing; Haphazard way of distribution in growing trend is observed. These banks follow no specific dividend payment strategy. Payment of cash and stock dividend are made without wise managerial decision. There are no legal rules those binding companies to pay dividend when they are running at profit. Not only the companies do not have any clear policy towards dividend decision but also there is no provision in company act.

The study based on secondary data. According to the analysis of the data presented above it can be concluded that banks are performing well among them EBL is showing better performance. All three banks also have good MPS and doing well as they are successful in increasing the share value and also better reputation in the marker due to it. EPS of all these banks are also high and increasing which

encourages the new investors to invest in it and also the existing investors are motivated. All three banks are consistently earning good return. EBL has good EPS every year than that of other two banks. But the distribution of dividend by these commercial banks is not regular and also not consistent. In this study NIBL bank is lower financial performance in EPS and then other banks.

Finally on the basis of the secondary data, it can be concluded that EBL is more successful in gaining good position in the market than other banks. But NIBL is seen more consistent than other banks. Other banks have also shown satisfactory performance. Although, MPS of all banks are growing, none of them have consistency in DPS and DPR. So share holders many not be satisfied with them.

### **5.3 Recommendations**

Although, this study is concerned with dividend practices of Nepalese Financial Institution, it may be appropriate to provide a package of suggestion in the light of major findings and conclusions. These recommendations may also have some repercussions, but there is no doubt of these measures to improve the existing conditions.

All banks have their own resources and on the basis of those resources management try to get the optimal result. This study has tried to find out some real facts about dividend policy and other inter related variables with dividend policy of different commercial banks .Based on the above summary and conclusions following recommendation have been provided hoping that these recommendations will be proved as a milestone to overcome the existing issues in this field.

- Shareholders should be given an opportunity to choose between the cash dividend, stock dividend and any other forms of dividend. So dividend declaration should be presented to the annual general meeting of shareholders

for their approval. For this, banks first of all should make the investors well known about the advantages and disadvantages of different forms of dividends through different media.

- There are no any clear legal provisions about the payment of dividends in our country. So the government should act in favor of the investors. Legal rules should be made in order to protect the rights of the shareholders.
- Each and every company should provide the information regarding their activities and performance, so that investors can analyze the situation and invest their money in the best company.
- The information regarding the secondary market and the capital market is not flashed out. So the concerning body should timely provide all the information about this factor.
- The government should encourage the establishment of organization to promote and to protect activities in favor of investors. Government should be the interference in the daily affairs of the organizations.
- Dividend policy of banks is not defined. They should define their dividend strategy clearly whether they are adopting stable dividend policy, constant payout ratio or low regular plus extra dividend policy.
- The payment of dividend is highly fluctuating, which is neither static nor constantly growing. Such inconsistency and irregularity in the dividend payment may create more confusion and miss-conception about that firm. Due to higher degree of risk and uncertainty, such fluctuations impact the firm's market price per share adversely. So these banks are advised to follow either static or constantly growing dividend payment policy.
- This study has fixed limitations and covered certain sector only above financial and statistical tools so future it is supportive material for researcher.

## BIBLIOGRAPHY

- Bhattacharai, R. (2007). *“Investments Theory and Practice”*. Kathmandu-Buddha Academic Publishers and Distributors.
- Encyclopedia of Britannica. (1985). New Delhi: Impulse Marketing.
- Francis, J.C. (1983). *“Investment: Analysis and management”*. New work: Mc-Graw Hill Publication.
- Francis, J.C. (1983). *“Investment Analysis and management”*. New work: Mc-Graw Hill Publication.
- Gilbert W. Cooke and Edwin C. Bomeli. (1967). *“Business Financial Management”*. New York: Houghton Mifflin Company.
- Gitrman, L.J. (1991). *“Principle of Managerial Finance”*. Singapore: Harper Collins Publications.
- Gupta, O.P. (1984). *“Behavior of Share Prices in India: A Test of Market Efficiency”*. New Delhi: National Publishing House.
- Hastings. P.G. (1996). *“The Management of Business Finance”*, New York: Von Nostrand Company.
- Joshi, P.R. (2006). *“Investment theory and practice”*. Kathmandu: Asmita Books and Distributors.
- Khan, M.Y. and Jain P.K. (1990), *“Financial Management, Test & Problem”*, Tata McGraw-Hill Publishing Com. Ltd.
- Mathur, I. (1979). *“Introduction to Financial Management”* New York: MacMillian Publishing Company.
- Pandey, I.M. (1989). *“Financial Management”*, New Delhi: Vikas Publishing House Pvt. Ltd.
- Pandey, I.M. (1995). *“Financial Management”*, New Delhi: Vikas Publishing House Pvt. Ltd.
- Paudel R.B,Dahal G.B & et. al. (2007)*“Fundamentals of Financial Management”*, Kathmandu: Asmita Publication.
- Sharma, B. (2001). *“Corporate financial management”*, Bhotahiti, Kathmandu: Taleju Prakashan

- Shrestha, M.K. (1980), “*Financial Management Theory and Practice*”, Kirtipur Curriculum Development Center, T.U.
- Shrestha, M.K., Gurung R. and Shrestha D. R. (2008). “*Financial Institutions and Markets*”. Kathmandu: Benchmark Education Support Pvt. Ltd.
- Shrestha, M.S. (2009). “*Fundamental of Banking*”. Kathmandu: Buddha Academic Enterprises Pvt. Ltd.
- Thapa, K. (2006). “*Financial Institutions and Markets*”. Kathmandu: Asmita Publication.
- Van Horne, James C. (1993). “*Financial Management and Policy*”, New Delhi: Prentice Hall of India Pvt. Ltd
- Waring, Jr.W.C. (1931). “*financial Shares under Stock Dividend Declarations*”, Boston: Harvard Law Review.
- Weston, J. Fred and Brigham, Eugene F., (1964). “*Managerial Finance*”, New York: Dryden Press.
- Weston, J. F. & Brigham, E. F. (1987). “*Essentials of Managerial Finance*”. Orlando: The Dryden Press.
- Wolf, H.K. and Pant, P.R. (1975). “*Social Science Research and Thesis Writing*”. Buddha Academic Enterprises Pvt. Ltd.
- Wolf, H.K. and Pant, P.R. (2005). “*Social Science Research and Thesis Writing*” Buddha Academic Enterprises Pvt. Ltd.

### **Articles**

- Chitrakar, B. (2011). “*Stock gained on hope*”. New Business Age.Kathmandu.
- Gordon M. J., “*The Investment Financing and valuation of Corporation*”, Richard D. Irwin 1962.
- Friend I. and Pocket M. (1964). “*Dividend policy and stock prices*”, The American Economic Review Vol, LIV.
- Miller and Modigliani. (1961). “*Dividend Policy, Growth and Valuation of Share*”. Journal of Business, Nepal Rastra Bank
- Miller, M.H. and Modigliani, F. (1966). “*Some Estimates of the cost of capital to the electric unity industry*”, 1954-57, American Economic Review.

Pradhan, R.S. (1993). “*Stock Market Behavior in a Small Capital Market: A Case of Nepal*”, the Nepalese Management Review.

Shrestha, M.K. (2007). “*NRB Monetary Policy and Stock Market impact*”. SEBON Journol, Vol III.

Shrestha, M.K. (1981). “*Public enterprises: Have They Dividend Paying Ability?*” Nepal Journal of Public Administration.

Walter, J.F. (1966). “*Dividend Policy and Common Stock Prices*”, Journal of Finance.

### **Thesis**

Bhattarai M. (2002). “*Dividend policy and its impact on market price of stock*” Unpublished Master's Degree Thesis, Shanker dev campus.

Dahal, B.R. (2010). “*Dividend Policy and its impact on market price of stock*”, A published Master’s Degree Thesis, Shanker Dev Campus.

Gyawali, K.R. (2011). “*Dividend policy and its impact on market price of share*”, A published Master’s Degree Thesis, Kathmandu, Shanker Dev Campus, T.U.

Jha, A. (2007). “*Dividend policy of Listed Commercial Bank & its impact on market price of share*”, A published Master’s Degree Thesis, Kathmandu, Shanker Dev College, T.U.

Maharjan, M. (2008). “*Dividend policy of Listed Commercial Banks*”, A published Master’s Degree Thesis, Kathmandu, Shanker Dev College, T.U.

Rajbhandari, P. L. (2001). “*Dividend Policy: A comparative Study between Banks and Insurance Cos.*” A published Master’s Degree Thesis, Shanker Dev Campus.

Raya, S. (2008). “*The study of dividend policy of the Commercial Banks in Nepal*”, A published Master’s Degree Thesis, Kathmandu, Shanker Dev College, T.U.

Singh, K. (2010). “*The impact on dividend policy of market price of share with reference of commercial bank in nepal*”, A published Master’s Degree Thesis, Kathmandu, Central Library, T.U.

### **Websites**

[www.nepalstock.com](http://www.nepalstock.com)

[www.nrb.com.np](http://www.nrb.com.np)

[www.sebon.com.np](http://www.sebon.com.np)



## APPENDIX I

Calculation of Correlation Coefficient and Regression Analysis between DPS and MPS

### A) HBL

Calculated table of Correlation Coefficient between DPS & MPS

Year	DPS(X)	MPS(Y)	XY	X <sup>2</sup>	Y <sup>2</sup>
062/063	30	1100	33000	900	1210000
063/064	15	1740	26100	225	3027600
064/065	25	1980	49500	625	3920400
065/066	12	1760	21120	144	3097600
066/067	11.84	816	9661.44	140.18	665856
	X=93.84	Y=7396	XY=139381.44	X <sup>2</sup> =2034.185	Y <sup>2</sup> =11921456

Here, N=5

$$\begin{aligned}
 r &= \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{N \sum X^2 - (\sum X)^2} \cdot \sqrt{N \sum Y^2 - (\sum Y)^2}} \\
 &= \frac{5 * 139381.44 - (93.84)(7396)}{\sqrt{5 * 2034.185 - (93.84)^2} * \sqrt{5 * 11921456 - (7396)^2}} \\
 &= \frac{2866.56}{36.95 * 2215.05} \\
 r &= 0.035
 \end{aligned}$$

And,

$$\begin{aligned}
 \text{Probably Error (P.E.)} &= \frac{0.6745 * (1 - r^2)}{\sqrt{n}} \\
 &= \frac{0.6745 * (1 - (0.035)^2)}{\sqrt{5}}
 \end{aligned}$$

$$= 0.3013$$

Regression equation of X on Y

$$Y = a + bX$$

Where, a = Regression constant, b = Regression coefficient (Slope of the Regression line)

According to the principal of least square, two normal equations for estimating two numerical constant a & b are given by

$$Y = na + b \sum X, \quad Y = a \sum Y + b \sum X^2$$

Solving two normal equations we get,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{5 * 139381.44 - (93.84)(7396)}{5 * 2034.185 - (93.84)^2}$$

$$b = 2.1$$

Similarly,

$$a = \frac{\sum Y}{n} + b * \frac{\sum X}{n}$$

$$a = \frac{7396}{5} + (2.1) * \frac{93.84}{5}$$

$$= 1479.2 + 39.4128$$

$$= 1518.613$$

Similarly,

$$t = \frac{r * \sqrt{n - 2}}{\sqrt{1 - r^2}} \quad t = \frac{0.035 * \sqrt{5 - 2}}{\sqrt{1 - (0.035)^2}}$$

$$= 0.0607$$

## B) EBL

Calculated table of Correlation Coefficient between DPS & MPS

Year	DPS(X)	MPS(Y)	XY	X <sup>2</sup>	Y <sup>2</sup>
062/063	25	1379	34475	625	1901641
063/064	10	2430	24300	100	5904900
064/065	20	3132	62640	400	9809424
065/066	30	2455	73650	900	6027025
066/067	30	1630	48900	900	2656900
	X=115	Y=11026	XY=243965	X <sup>2</sup> =2925	Y <sup>2</sup> =26299890

Here, N=6

$$\begin{aligned}
 r &= \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{N \sum X^2 - (\sum X)^2} * \sqrt{N \sum Y^2 - (\sum Y)^2}} \\
 &= \frac{5 * 243965 - 115 * 11026}{\sqrt{6 * 2925 - (115)^2} * \sqrt{6 * 26299890 - (11026)^2}} \\
 &= \frac{-48165}{\sqrt{4325} * \sqrt{9926774}} \\
 &= \frac{-48165}{37.42 * 3150.68}
 \end{aligned}$$

$$r = -0.4086$$

And,

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

$$= \frac{0.6745 \times (1 - (-0.4086)^2)}{\sqrt{5}}$$

$$= 0.2513$$

Regression equation of X on Y

$$Y = a + bX$$

Where,

a = Regression constant

b = Regression coefficient (Slope of the Regression line)

According to the principal of least square, two normal equations for estimating two numerical constant a & b are given by

$$Y = na + b X$$

$$Y = a Y + b X^2$$

Solving two normal equations we get,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$b = \frac{1463790 - 1368040}{6 \times 2925 - (115)^2}$$

$$b = -3.29$$

Similarly,

$$a = \frac{\sum Y}{n} + b * \frac{\sum X}{n}$$

$$a = \frac{11026}{5} + (-3.29) * \frac{115}{5}$$

$$= 2205.2 - 75.67$$

$$= 2129.53$$

Similarly,

$$t = \frac{r * \sqrt{n - 2}}{\sqrt{1 - r^2}}$$

$$t = \frac{-0.4086 * \sqrt{5 - 2}}{\sqrt{1 - (0.4086)^2}}$$

$$= 0.7754$$

### C) NIBL

Calculated table of Correlation Coefficient between DPS & MPS

Year	DPS(X)	MPS(Y)	XY	X <sup>2</sup>	Y <sup>2</sup>
062/063	20	1260	25200	400	1587600
063/064	5	1729	8652	25	2989441
064/065	7.5	2450	18375	56.25	6002500
065/066	20	1388	27760	400	1926544
066/067	25	705	17625	625	497025
	X=77.5	Y=7532	XY=97585	X <sup>2</sup> =1506.25	Y <sup>2</sup> =13003110

Here, N=5

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

$$= \frac{5 * 97585 - (77.5)(7532)}{\sqrt{5 * 97585 - (77.5)^2} * \sqrt{5 * 13003110 - (7532)^2}}$$

$$= - \frac{95805}{39.05 * 2878.28}$$

$$r = -0.852$$

And,

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

$$= \frac{0.6745 * (1 - (-0.852)^2)}{\sqrt{5}}$$

$$= 0.083$$

Regression equation of X on Y

$$Y = a + bX$$

Where, a= Regression constant, b= Regression coefficient (Slope of the Regression line)

According to the principal of least square, two normal equations for estimating two numerical constant a & b are given by

$$Y = na + b X$$

$$Y = a Y + b X^2$$

Solving two normal equations we get,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{-95805}{1524.9}$$

$$b = -62.83$$

Similarly,

$$a = \frac{\sum Y}{n} + b * \frac{\sum X}{n}$$

$$a = \frac{7532}{5} + (-62.83) * \frac{77.5}{5}$$

$$= 1506.4 - 973.87$$

$$= 532.54$$

Similarly,

$$t = \frac{r * \sqrt{n-2}}{\sqrt{1-r^2}}, \quad t = \frac{-0.852 * \sqrt{5-2}}{\sqrt{1-(-0.852)^2}}$$

$$= -5.386 \text{ i.e. } 5.386$$

### Calculation of Correlation Coefficient and Regression Analysis between EPS and MPS

#### A) HBL

Calculated table of Correlation Coefficient between EPS & MPS

Year	EPS(X)	MPS(Y)	XY	X <sup>2</sup>	Y <sup>2</sup>
062/063	59.24	1100	65164	3509.38	1210000
063/064	60.66	1740	105548.4	3679.64	3027600
064/065	62.74	1980	124225.2	3936.31	3920400
065/066	61.90	1760	108944	3831.61	3097600
066/067	31.80	816	25948.8	1011.24	665856
	X=276.34	Y=7396	XY=429830.4	X <sup>2</sup> =15968.171	Y <sup>2</sup> =11921456

Here, N=5

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

$$= \frac{5 * 429830.4 - (276.34)(7396)}{\sqrt{5 * 15968.171 - (276.34)^2} * \sqrt{5 * 11921456 - (7396)^2}}$$

$$= \frac{105341.36}{58.97 * 2215.05}$$

$$r = 0.807$$

And,

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

$$= \frac{0.6745 * (1 - (0.807)^2)}{\sqrt{5}}$$

$$= 0.1052$$

Regression equation of X on Y

$$Y = a + bX$$

Where, a= Regression constant, b= Regression coefficient (Slope of the Regression line)

According to the principal of least square, two normal equations for estimating two numerical constant a & b are given by

$$Y = na + b \sum X, \quad Y = a \sum Y + b \sum X^2$$

Solving two normal equations we get,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$



$$= \frac{105341.36}{3477.46}$$

$$b = 30.29$$

Similarly,

$$a = \frac{\sum Y}{n} + b * \frac{\sum X}{n}$$

$$a = \frac{7396}{5} + (30.29) * \frac{93.84}{5}$$

$$= 1479.2 + 568.48$$

$$= 2047.68$$

Similarly,

$$t = \frac{r * \sqrt{n - 2}}{\sqrt{1 - r^2}}$$

$$t = \frac{0.807 * \sqrt{5 - 2}}{\sqrt{1 - (0.807)^2}}$$

$$= 2.367$$

## B) EBL

Year	EPS(X)	MPS(Y)	XY	X <sup>2</sup>	Y <sup>2</sup>
062/063	62.78	1379	86573.62	3941.33	1901641
063/064	78.42	2430	190560.6	6149.7	5904900
064/065	91.82	3132	287580.24	8430.91	9809424
065/066	99.99	2455	245475.45	9998	6027025
066/067	100.16	1630	163260.8	10032.03	2656900

	X=433.2	Y=11026	XY=973450.7	X <sup>2</sup> =38551.97	Y <sup>2</sup> =26299890
--	---------	---------	-------------	--------------------------	--------------------------

Here, N=6

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

$$= \frac{5 * 973450.7 - 433.17 * 11026}{\sqrt{5 * 38551.97 - (433.2)^2} * \sqrt{5 * 26299890 - (11026)^2}}$$

$$= \frac{91121.13}{\sqrt{5123.6011} * \sqrt{9926774}}$$

$$= \frac{91121.13}{71.58 * 3150.68}$$

$$r = 0.4040$$

And,

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

$$= \frac{0.6745 * (1 - 0.4040^2)}{\sqrt{5}}$$

$$= 0.2524$$

Regression equation of X on Y

$$Y = a + bX$$

Where,

a = Regression constant

b= Regression coefficient (Slope of the Regression line)

According to the principal of least square, two normal equations for estimating two numerical constant a & b are given by

$$Y = na + b X$$

$$Y = a Y + b X^2$$

Solving two normal equations we get,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$b = \frac{5 \times 973450.7 - 433.17 \times 11026}{5 \times 38851.97 - (433.2)^2}$$

$$b = 17.785$$

Similarly

$$a = \frac{\sum Y}{n} + b * \frac{\sum X}{n}$$

$$a = \frac{11026}{5} + 17.785 * \frac{433.17}{5}$$

$$= 2205.2 + 1540.78$$

$$= 3745.98$$

Similarly,

$$t = \frac{r * \sqrt{n - 2}}{\sqrt{1 - r^2}}$$

$$t = \frac{0.4040 * \sqrt{5 - 2}}{\sqrt{1 - 0.4040^2}}$$

$$= 0.765$$

### C) NIBL

Calculated table of Correlation Coefficient between EPS & MPS

Year	EPS(X)	MPS(Y)	XY	X <sup>2</sup>	Y <sup>2</sup>
062/063	59.35	1260	74781	3522.42	1587600
063/064	62.57	1729	108183.53	3915.005	2989441
064/065	57.87	2450	141781.5	3348.94	6002500
065/066	37.42	1388	51938.96	1400.26	1926544
066/067	52.55	705	37047.75	2761.5025	497025
	X=269.8	Y=7532	XY=413732.1	X <sup>2</sup> =14948.12	Y <sup>2</sup> =13003110

Here, N=5

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

$$= \frac{5 * 413732.1 - (269.8)(7532)}{\sqrt{5 * 14948.12 - (269.8)^2} * \sqrt{5 * 13003110 - (7532)^2}}$$

$$= \frac{36831.38}{44.386 * 2878.28}$$

$$= \frac{36831.38}{127756.68}$$

r = 0.288

And,

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

$$= \frac{0.6745 * (1 - (0.288)^2)}{\sqrt{5}}$$

$$= 0.2766$$

Regression equation of X on Y

$$Y = a + bX$$

Where, a = Regression constant, b = Regression coefficient (Slope of the Regression line)

According to the principal of least square, two normal equations for estimating two numerical constant a & b are given by

$$Y = na + b \sum X, \quad \sum Y = a \sum Y + b \sum X^2$$

Solving two normal equations we get,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$
$$= \frac{36831.38}{5 * 14948.12 - (269.8)^2}$$

$$b = 18.90$$

Similarly,

$$a = \frac{\sum Y}{n} + b * \frac{\sum X}{n}$$
$$a = \frac{7532}{5} + (18.90) * \frac{269.76}{5}$$
$$= 1506.4 + 1019.69$$
$$= 2526.09$$

Similarly,

$$t = \frac{r * \sqrt{n-2}}{\sqrt{1-r^2}} \quad t = \frac{0.288 * \sqrt{5-2}}{\sqrt{1-(0.288)^2}}$$
$$= 0.521$$

Calculation of Correlation Coefficient and Regression Analysis between EPS and DPS

**A) HBL**

Calculated table of Correlation Coefficient between EPS & DPS

Year	EPS(X)	DPS(Y)	XY	X <sup>2</sup>	Y <sup>2</sup>
062/063	59.24	30	1777.2	3509.38	900
063/064	60.66	15	909.9	3679.64	225
064/065	62.74	25	1568.5	3936.31	625
065/066	61.90	12	742.8	3831.61	144
066/067	31.80	11.84	376.51	1011.24	140.18
	X=276.34	Y=93.84	XY=5374.91	X <sup>2</sup> =15968.171	Y <sup>2</sup> =2034.185

Here, N=5

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

$$= \frac{5 * 5233.732 - (276.34)(93.84)}{\sqrt{5 * 15968.171 - (276.34)^2} * \sqrt{5 * 2034.185 - (93.84)^2}}$$

$$= \frac{942.8}{58.97 * 36.95}$$

$$r = 0.4331$$

And,

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

$$= \frac{0.6745 * (1 - (0.4331)^2)}{\sqrt{5}}$$

$$= 0.245$$

Regression equation of X on Y

$$Y = a + bX$$

Where, a = Regression constant, b = Regression coefficient (Slope of the Regression line)

According to the principal of least square, two normal equations for estimating two numerical constant a & b are given by

$$Y = na + b \sum X, \quad Y = a \sum Y + b \sum X^2$$

Solving two normal equations we get,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$
$$= \frac{942.8}{3477.46}$$

$$b = 0.2711$$

Similarly,

$$a = \frac{\sum Y}{n} + b * \frac{\sum X}{n}$$
$$a = \frac{93.84}{5} + (0.2711) * \frac{276.34}{5}$$
$$= 18.768 + 14.98$$
$$= 33.75$$

Similarly,

$$t = \frac{r * \sqrt{n-2}}{\sqrt{1-r^2}} \quad t = \frac{0.4331 * \sqrt{5-2}}{\sqrt{1-(0.4331)^2}}$$
$$= 0.8323$$

## B) EBL

Calculated table of Correlation Coefficient between EPS & DPS

Year	EPS(X)	DPS(Y)	XY	X <sup>2</sup>	Y <sup>2</sup>
062/063	62.78	25	1569.5	3941.33	625
063/064	78.42	10	784.2	6149.7	100
064/065	91.82	20	1836.4	8430.91	400
065/066	99.99	30	2999.7	9998	900
066/067	100.16	30	3004.8	10032.03	900
	X=433.17	Y=115	XY=10194.6	X <sup>2</sup> =41491.77	Y <sup>2</sup> =2925

Here, N=6

$$\begin{aligned}
 r &= \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{N \sum X^2 - (\sum X)^2} * \sqrt{N \sum Y^2 - (\sum Y)^2}} \\
 &= \frac{5 * 10194.6 - 433.17 * 115}{\sqrt{5 * 41491.77 - (433.17)^2} * \sqrt{5 * 2925 - (115)^2}} \\
 &= \frac{1158.45}{\sqrt{248950.62 - 237549} * \sqrt{17550 - 13225}} \\
 &= \frac{1158.45}{71.58 * 37.42}
 \end{aligned}$$

$$r = 0.4325$$

And,

$$\begin{aligned}
 \text{Probably Error (P.E.)} &= \frac{0.6745 * (1 - r^2)}{\sqrt{n}} \\
 &= \frac{0.6745 * (1 - 0.4325^2)}{\sqrt{5}} \\
 &= 0.2452
 \end{aligned}$$



Regression equation of X on Y

$$Y = a + bX$$

Where,

a = Regression constant

b = Regression coefficient (Slope of the Regression line)

According to the principal of least square, two normal equations for estimating two numerical constant a & b are given by

$$Y = na + b \sum X$$

$$\sum Y = a \sum Y + b \sum X^2$$

Solving two normal equations we get,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$b = \frac{1158.455}{5123.60}$$

$$b = 0.2261$$

Similarly

$$a = \frac{\sum Y}{n} + b * \frac{\sum X}{n}$$

$$a = \frac{115}{5} + 0.2261 * \frac{433.17}{5}$$

$$= 23 + 19.59$$

$$= 42.59$$

Similarly,

$$t = \frac{r * \sqrt{n - 2}}{\sqrt{1 - r^2}}$$

$$t = \frac{0.4325 * \sqrt{6 - 2}}{\sqrt{1 - 0.4325^2}}$$

$$= 0.8308$$

### C) NIBL

Calculated table of Correlation Coefficient between EPS & DPS

Year	EPS(X)	DPS(Y)	XY	X <sup>2</sup>	Y <sup>2</sup>
062/063	59.35	20	1187	3522.42	400
063/064	62.57	5	312.85	3915.005	25
064/065	57.87	7.5	434.03	3348.94	56.25
065/066	37.42	20	748.4	1400.26	400
066/067	52.55	25	1313.75	2761.5025	625
	X=269.8	Y=77.5	XY=3996.03	X <sup>2</sup> =14948.12	Y <sup>2</sup> =1506.25

Here, N=5

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

$$= \frac{5 * 3996.03 - (269.8)(77.5)}{\sqrt{5 * 14948.12 - (269.8)^2} * \sqrt{5 * 1506.25 - (77.5)^2}}$$

$$= \frac{-926.25}{44.386 * 19.85}$$

$$r = -0.534$$

And,

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

$$= \frac{0.6745 * (1 - (-0.534)^2)}{\sqrt{5}}$$

$$= 0.216$$

Regression equation of X on Y

$$Y = a + bX$$

Where, a = Regression constant, b = Regression coefficient (Slope of the Regression line)

According to the principal of least square, two normal equations for estimating two numerical constant a & b are given by

$$Y = na + b \sum X, \quad Y = a \sum Y + b \sum X^2$$

Solving two normal equations we get,

$$b = \frac{n \sum XY - \sum X \sum Y}{n \sum X^2 - (\sum X)^2}$$

$$= \frac{-926.25}{1970.12}$$

$$b = -0.47$$

Similarly,

$$a = \frac{\sum Y}{n} + b * \frac{\sum X}{n}$$

$$a = \frac{77.5}{5} + (-0.47) * \frac{269.76}{5}$$

$$= 15.5 - 25.537$$

$$= -9.86$$

Similarly,

$$t = \frac{r * \sqrt{n-2}}{\sqrt{1-r^2}}$$

$$t = \frac{-0.534 * \sqrt{5-2}}{\sqrt{1-(-0.534)^2}}$$

$$= -1.2936$$

## APPENDIX II

### Trend Analysis of Earning per share for HBL

<b>Years</b>	<b>EPS (Y)</b>	<b>X = t -2064</b>	<b>X<sup>2</sup></b>	<b>XY</b>	<b>Yc = a + bx</b>
062/063	59.24	-2	4	-118.48	65.996
063/064	60.66	-1	1	-60.66	60.632
064/065	62.74	0	0	0	55.268
065/066	61.9	1	1	61.9	49.904
066/067	31.8	2	4	63.6	44.54
	276.34		10	-53.64	276.34

Where,

$$a = \frac{\sum Y}{N} = \frac{276.34}{5} = 55.268$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{-53.64}{10} = -5.364$$

And  $Y_c = a + b X$

### Projected Trend of EPS

<b>Years</b>	<b>X = t -2064</b>	<b>X<sup>2</sup></b>	<b>EPS Yc = a + bx</b>
2067/68	3	9	39.176
2068/69	4	16	33.812
2069/70	5	25	28.448
2070/71	6	36	23.084
2071/72	7	49	17.72

### Trend Analysis of Earning per share for EBL

Years	EPS (Y)	X = t -2064	X <sup>2</sup>	XY	Yc = a + bx
062/063	62.78	-2	4	-125.56	67.368
063/064	78.42	-1	1	-78.42	77.001
064/065	91.82	0	0	0	86.634
065/066	99.99	1	1	99.99	96.267
066/067	100.16	2	4	200.32	105.9
	433.17		10	96.33	433.17

Where,

$$a = \frac{\sum Y}{N} = \frac{433.17}{5} = 86.63$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{96.33}{10} = 9.633$$

And  $Y_c = a + b X$

### Projected Trend of EPS

Years	X = t -2064	X <sup>2</sup>	EPS Yc = a + bx
2067/68	3	9	115.533
2068/69	4	16	125.166
2069/70	5	25	134.799
2070/71	6	36	144.432
2071/72	7	49	154.065

Trend Analysis of Earning per share of NIBL Bank Ltd.

Years	EPS (Y)	X = t -2064	X <sup>2</sup>	XY	Yc = a + bx
062/063	59.35	-2	4	-118.7	61.702
063/064	62.57	-1	1	-62.57	57.827
064/065	57.87	0	0	0	53.952
065/066	37.42	1	1	37.42	50.077
066/067	52.55	2	4	105.1	46.202
	269.76		10	-38.75	269.76

Where,

$$a = \frac{\sum Y}{N} = \frac{269.76}{5} = 53.952$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{-38.75}{10} = -3.875$$

And Yc = a + b X

**Projected Trend of EPS**

Years	X = t -2064	X <sup>2</sup>	EPS Yc = a + bx
2067/68	3	9	42.327
2068/69	4	16	38.452
2069/70	5	25	34.577
2070/71	6	36	30.702
2071/72	7	49	26.827

### Trend Analysis of Dividend per share for HBL

Years	DPS (Y)	X = t -2064	X <sup>2</sup>	XY	Yc = a + bx
062/063	30	-2	4	-60	26.632
063/064	15	-1	1	-15	22.7
064/065	25	0	0	0	18.768
065/066	12	1	1	12	14.836
066/067	11.84	2	4	23.68	10.904
	93.84		10	-39.32	93.84

Where,

$$a = \frac{\sum Y}{N} = \frac{93.84}{5} = 18.768$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{-39.32}{10} = -3.932$$

And  $Y_c = a + b X$

### Projected Trend of DPS

Years	X = t -2064	X <sup>2</sup>	DPS Yc = a + bx
2067/68	3	9	6.972
2068/69	4	16	3.04
2069/70	5	25	-0.892
2070/71	6	36	-4.824
2071/72	7	49	-8.756



### Trend Analysis of Dividend per share for EBL

Years	DPS (Y)	X = t -2064	X <sup>2</sup>	XY	Yc = a + bx
062/063	25	-2	4	-50	17
063/064	10	-1	1	-10	20
064/065	20	0	0	0	23
065/066	30	1	1	30	26
066/067	30	2	4	60	29
	115		10	30	115

Where,

$$a = \frac{\sum Y}{N} = \frac{115}{5} = 23$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{30}{10} = 3$$

And  $Y_c = a + b X$

### Projected Trend of DPS

Years	X = t -2064	X <sup>2</sup>	DPS Yc = a + bx
2067/68	3	9	32
2068/69	4	16	35
2069/70	5	25	38
2070/71	6	36	41
2071/72	7	49	44

Trend Analysis of dividend per share of NIBL Bank Ltd.

Years	DPS (Y)	X = t -2064	X <sup>2</sup>	XY	Yc = a + bx
062/063	20	-2	4	-40	10.5
063/064	5	-1	1	-5	13
064/065	7.5	0	0	0	15.5
065/066	20	1	1	20	18
066/067	25	2	4	50	20.5
	77.5		10	25	77.5

Where,

$$a = \frac{\sum Y}{N} = \frac{77.5}{5} = 15.5$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{25}{10} = 2.5$$

And Yc = a + b X

**Projected Trend of DPS**

Years	X = t -2064	X <sup>2</sup>	DPS Yc = a + bx
2067/68	3	9	23
2068/69	4	16	25.5
2069/70	5	25	28
2070/71	6	36	30.5
2071/72	7	49	33

### Trend Analysis of Market per share for HBL

Years	MPS (Y)	X = t -2064	X <sup>2</sup>	XY	Yc = a + bx
062/063	1100	-2	4	-2200	1588.8
063/064	1740	-1	1	-1740	1534
064/065	1980	0	0	0	1479.2
065/066	1760	1	1	1760	1424.4
066/067	816	2	4	1632	1369.6
	7396		10	-548	7396

Where,

$$a = \frac{\sum Y}{N} = \frac{7396}{5} = 1479.2$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{-548}{10} = -54.8$$

And Yc = a + b X

### Projected Trend of MPS

Years	X = t -2064	X <sup>2</sup>	MPS Yc = a + bx
2067/68	3	9	1314.8
2068/69	4	16	1260
2069/70	5	25	1205.2
2070/71	6	36	1150.4
2071/72	7	49	1095.6

### Trend Analysis of Market per share for EBL

Years	MPS (Y)	X = t -2064	X <sup>2</sup>	XY	Yc = a + bx
062/063	1379	-2	4	-2758	2099.8
063/064	2430	-1	1	-2430	2152.5
064/065	3132	0	0	0	2205.2
065/066	2455	1	1	2455	2257.9
066/067	1630	2	4	3260	2310.6
	11026		10	527	11026

Where,

$$a = \frac{\sum Y}{N} = \frac{11026}{5} = 2205.2$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{527}{10} = 52.7$$

And Yc = a + b X

### Projected Trend of MPS

Years	X = t -2064	X <sup>2</sup>	MPS Yc = a + bx
2067/68	3	9	2363.3
2068/69	4	16	2416
2069/70	5	25	2468.7
2070/71	6	36	2521.4
2071/72	7	49	2574.1

Trend Analysis of Market per share of NIBL Bank Ltd.

Years	MPS (Y)	X = t -2064	X <sup>2</sup>	XY	Yc = a + bx
062/063	1260	-2	4	-2520	1796.6
063/064	1729	-1	1	-1729	1651.5
064/065	2450	0	0	0	1506.4
065/066	1388	1	1	1388	1361.3
066/067	705	2	4	1410	1216.2
	7532		10	-1451	7532

Where,

$$a = \frac{\sum Y}{N} = \frac{7532}{5} = 1506.4$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{-1451}{10} = -145.1$$

And Yc = a + b X

**Projected Trend of MPS**

Years	X = t -2064	X <sup>2</sup>	MPS Yc = a + bx
2067/68	3	9	1071.1
2068/69	4	16	926
2069/70	5	25	780.9
2070/71	6	36	635.8
2071/72	7	49	490.7

