Dividend Policy of Joint Venture Banks in Nepal

A THESIS

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RECOMMENDATION

This is to certify that the Thesis

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Entitled:
DIVIDEND POLICY OF JOINT VENTURE BANKS IN NEPAL
has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

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DECLARATION

I hereby declare that the work reported in the thesis entitled **"Dividend Policy of Joint Venture Banks in Nepal"** submitted to Office of Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement of the Master Degree in Business Studies (M.B.S.) under the guidance and supervision of **Asso. Prof. Kishor Maharjan** of Shanker Dev Campus.

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ABBREVIATIONS

A.D.	Anno Domini
AGM	Annual General Meeting
A.M.	Arithmetic Mean
BOD	Board of Directors
C.V.	Coefficient of Variation
EBL	Everest Bank Limited
HBL	Himalayan Bank Limited
NABIL	Nabil Bank Limited
SCB	Standard Chartered Bank Nepal Limited
SBI	Nepal SBI Bank Limited
EPS	Earning per Share
DPS	Dividend per Share
MPS	Market Price per Share
DY	Dividend Yield
EY	Earning Yield
P/E Ratio	Price Earning Ratio
DPR	Dividend Payout Ratio
F/Y	Fiscal Year
Ltd.	Limited
NEPSE	Nepal Stock Exchange
No.	Number
Rs.	Rupees
NRB	Nepal Rastra Bank
S.D.	Standard Deviation
%	Percent
SEBON	Securities Board of Nepal

CHAPTER I

INTRODUCTION

1.1 Background

A portion of a company's earnings are distributed to a class of its shareholders which are generally termed as Dividends. Dividends may be in the form of cash, stock or property. Most secure and stable companies offer dividends to their stockholders. Dividends exist in order to encourage investment in the company and to allow shareholders (who are really co-owners) to participate in the profits. The dividend is paid in a fixed amount for each share of stock held. Corporations may pay part of their earnings as dividends on the investment made by the investors.

Dividends are decided upon and declared by board of directors. A firm’s profits after-tax can either be used for dividends payment or retained in the firm to increase shareholders' fund. This may involve comparing the cost of paying dividend with the cost of retaining earnings. Generally, whichever component has a lower cost that is where the profit after-tax will flow. However, there is a need to strike for a balance because it is a zero sum decision. Although firms do not have obligations to declare dividends on common stock, they are normally reluctant to change their dividend rate policy every year as the firms strive to meet stockholders’ expectation, build a good image among investors and to signal that the firm has stable earnings to the public

Dividend policies are the regulations and guidelines that companies develop and implement as the means of arranging to make dividend payments to shareholders. Establishing a specific dividend policy is to the advantage of both the company and the shareholder. In order to make sure the policy is workable, a company should develop a viable policy and then run this policy through a number of test scenarios in order to determine what impact the dividend policy would have on the operation of the business.

Dividend policy is a major decision of the firm under which it is determined that what percentage of the earnings is retained in the firm which is desirous for the growth of the firm. Dividend policy means distribution versus retention decision, rather than making the decision on purely ad hoc basis from period to period. Retention of earning is desirous for the growth of the firm where as shareholders are interested to get some sort of return in the form of dividend.

Dividend policy is an integral part of the firm's financing decision. The dividend policy of the firm is regarded as a tool to determine the appropriate allocation of profits between dividend payments and the amount to be retained in the firm. Dividend is a portion of earning of a firm which is distributed to its shareholders. Retained earnings are the most significant internal sources of financing for the growth of the firm. When any company makes profit, there is further problem of how much should be retained in the firm. Dividend policy helps to solve this problem.

In the context of Nepal, most of the public enterprises are unable to distribute dividend, as these enterprises mainly focus on minimizing their losses through utilization of capital. Although, there are only few enterprises that pay dividend. Dividend distribution trend has not only attracted the investor's but has also made the management conscious about the policy regarding the payment of dividend which has brought new hopes for productive mobilization of funds. Thus, this study aims to focus on prevailing practice and policies of Nepalese listed companies with reference to commercial Banks in Nepal regarding dividend payments.

1.2 Introduction of Selected Companies

Once a company makes a profit, they must decide on what to do with those profits. They could continue to retain the profits within the company, or they could pay out the profits to the owners of the firm in the form of dividends. Once the company decides on whether to pay dividends, they may establish a somewhat permanent dividend policy, which may in turn impact on investors

and perceptions of the company in the financial markets. What they decide depends on the situation of the company now and in the future. It also depends on the preferences of investors and potential investors.

In any firm, dividend policy is taken as major financial decision which affects the value of the firm. Any investor does not invest in stock without knowing the dividend policy of the firm. This study is mainly focused on the dividend practices of 5 sample companies which include 5 commercial banks. These commercial banks taken under study are already experienced in the practice of dividend distribution. In Nepalese context, most of the investors are investing in the stock without knowledge of company's performances. This is due to the lack of availability of research about these company's performances. In this study it is tried to find out the appropriate dividend policies of banks and their performances regarding to the dividend payment. It is believed that this study will be useful to those investors who are interested to have knowledge about the performances of the banks taken under study.

1. Standard Chartered Bank Ltd

Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987(2043 BS) as Nepal Grindlays bank in collaboration with Grindlays Bank London. After Standard Chartered group acquire world wide operation of Grindlays, it change its name on July 16th, 2001. The bank is an integral part of Standard Chartered Group having an ownership of 75% and the balance owned by the Nepalese public. The bank is the largest international bank currently operating in Nepal. The bank has authorized capital of Rs.2000 million, issued capital of Rs.1398.48 million and paid up capital of Rs.1398.48 million. The bank has net profit of Rs.1085.87million, earning per share of Rs.77.65 and dividend per share of Rs.80 at the end of fiscal year 2009/10.

2. Himalayan Bank Ltd

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan with 20% equity investment. The bank has authorized capital of Rs.3000 million, issued capital of Rs.1600 million and paid up capital of Rs.1600 million. The bank has net profit of Rs.508.798 million, earning per share of Rs.62.74 and dividend per share of Rs.25 at the end of fiscal year 2009/10.

3. NABIL Bank Ltd

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. National Bank limited is the joint venture partner of Nabil Bank with 50% equity investment. The Bank has authorized capital of Rs.1600.00 million, issued capital of Rs.1449.12 million and paid up capital of Rs.1449.12 million. The Bank has net profit of Rs.1139.1 million, earning per share of Rs.79 and dividend per share of Rs.30 at the end of fiscal year 2009/10.

4. Everest Bank Ltd

Everest Bank Limited started its operation in 1994 with a view and objectives of extending professionalized and efficient banking services to various segments of the society. Punjab National Bank is the joint venture partner of Everest Bank Limited with 20% equity in the bank. The bank has authorized capital of Rs.1250 million, issued capital of Rs.1050 million and paid up capital of Rs.830.46 million. The bank has net profit of Rs.831.8 million, earning per share of Rs.91.82 and dividend per share of Rs.20 at the end of fiscal year 2009/10.

5. Nepal SBI Bank Ltd.

Nepal SBI Bank Ltd. (NSBL) is the first Indo-Nepal joint venture in the financial sector sponsored by three institutional promoters, namely State Bank of India (SBI), Employees Provident Fund (EPF) and Agricultural Development Bank Ltd. (ADBL) through a Memorandum of Understanding signed on 17th July 1992. The bank has authorized capital of 2000 million, issued capital of

1869.30 million and paid up capital of 1869.30 million. The bank has net profit of Rs.319.74 million, earning per share of Rs.23.69 and dividend per share of Rs.17.50 at the end of fiscal year 2009/10.

1.3 Statement of Problem

Dividend is the most inspiring factor for the investment on shares of the company is thus desirable from the stockholder's point of view. In one hand the payment of dividend makes the investors happy. But in the other hand the payment of dividend decreases the internal financing required for making investment in golden opportunities. This will hamper the growth of the firm, which in turn affects the value of the stock.

Earnings are also treated as financing sources of the firms. The firm retains the earning; its impact can be seen in many factors such as decreased leverage ratio, expansion of activities and increase in profit in succeeding years. Whereas if firm pays dividend, it may need to raise capital that will affect on risk characteristics of the firm. Therefore there are many dimensions to be considered on dividend theories, policies and practices.

Dividend policy determines the division of earnings between payments to stockholders and reinvestment in the firm. Retained earnings are one of the most significant sources of funds for financing corporate growth, but dividends constitute the cash flows that accrue to stockholders. There is different School of thoughts on dividend policy in the theoretical literature of finance. One school of thought holds that capital gains expected to result from earnings retention are more risky than dividend expectations. Another school of thought holds that investors are basically indifferent to returns in the form of dividends or capital gains.

In the context of Nepal, there are more than 250 companies and public enterprises listed with Nepal Stock Exchange Limited. These companies are not seen so serious regarding dividend decisions since most of them do not have any consistent and clear-cut policy on dividend distribution. Some Nepalese Acts like Nepal Company Act 2053, Commercial Bank Act 2031, and other regulating acts are still silent regarding dividend payments. Because of these reasons, different companies are adopting different dividend decision inconsistently. There is common trend that dividend is decided by company management instead of by shareholders meeting.

In Nepalese context, different companies have adopted different policies and dividends are paid in the different forms such as cash dividend and stock dividend. Nowadays stock dividends are more popular in Nepal especially in banking sector. But there is no uniformity in dividend distribution. The banks taken under study are also not distributing dividend in equal proportion. Under the prevalence of these situations, this study tries to deal with the following problems.

- Whether or not the prevailing dividend policy affects stock prices of selected companies?
- Whether there is any relationship between dividend policy & other financial indicators?
- What is the prevailing practice of the Nepalese listed companies regarding their dividend policies?
- Whether there is significant difference between market price per share dividend per share, earning per share and dividend payout ratio of the selected companies?

1.4 Objectives of the Study

The basic objectives of the study is to assess the prevailing practice of the Nepalese listed companies regarding dividend and to test whether or not

dividend decision is influencing factors of financial structure, the flow of funds, corporate liquidity, stock prices and investors satisfaction.

The objectives of the study are as follows:

- To study whether or not dividend influences the stock prices of selective companies.
- To assess prevailing dividend policy adopted by listed companies under study.
- To examine whether there is significant difference between market price per share, earning per share, dividend per share and dividend payout ratio.
- To provide suggestions for the improvement of sample companies dividend policy on the basis of findings.

1.5 Significance of the Study

Nowadays, people are not attracted to invest in shares due to regular decrease in the value of share. So, a good dividend policy can be an effective way to attract new investors, retain existing investors, and to keep present investors happy and to maintain goodwill of the company. When any new company floats shares through capital market, very big congregation gathers to apply for owner's certificate. It indicates people's expectation on higher of investment in shares.

While investing in shares the investor forgoes opportunity income that he could have earned. In capital market, the return can be earned in two ways

a) By means of dividend

b) By capital gains i.e. increase in price

Due to the lack of enough knowledge, the people are investing hit-or-miss in shares. It is necessary to establish clear conceptions about the return that results from investing in securities. In Nepal, there are almost none of the companies adopting dividend policy. There would be many reasons behind it for which there is not enough study.

Therefore, considering all these facts the study is undertaken which will help the investors to choose a profitable firm, which will provide higher return to their investment. So, this will help them to choose the better company for investment. This research will also useful for management to point out the loopholes and suggest the remedies about the appropriate dividend policy and also for stockbrokers, financial agencies, scholars, policy makers and other interested persons.

1.6 Limitation of the Study

Dividend decision is a major decision area of any business concern. In Nepal, there are few studies on this topic. So, this study aims to highlight some issues regarding dividend decision in Nepalese listed companies. There are some limitations of the study.

They are:

- This study has employed secondary data published by and collected from sample companies. The output may not be accurate one since the secondary data itself induces various limitations.
- Only five commercial Banks are taken as sample due to the lack of time.
- The study covers only a period of 5 fiscal years from 2005/06 to 2009/10.
- The problem of non availability of required data and information may limit the scope of the study.

1.7 Organization of the Study

The study has been organized into five chapters:

Chapter 1 – This chapter deals with the subject matter of the study consisting background of the study, introduction of the companies, Statement of problem, objectives of the study, limitation of the study and organization of the study.

Chapter 2 – This chapter deals with review of literature. It includes conceptual frame work along with review of major books, journals, research works and thesis etc.

Chapter 3 – This chapter deals with Research Methodology. It includes Methodology used to achieve the objectives of the study, sources of data, population and sample, financial and statistical tools used.

Chapter 4 – This chapter deals with analysis and interpretation of data using financial and statistical tools and Major Findings are described in third chapter.

Chapter 5 – This is the last chapter which deals with Summary, conclusions and recommendation of the study.

CHAPTER II

REVIEW OF LITERATURE

A literature review is a critical and in depth evaluation of previous research. A literature review is a survey and discussion of the literature in a given area of study. It is a concise overview of what has been studied, argued, and established about a topic, and it is usually organized chronologically. It is not a summary; rather, it evaluates previous and current research in regard to how relevant and/or useful it is and how it relates to your own research.

A literature review is written to highlight specific arguments and ideas in a field of study. By highlighting these arguments, the writer attempts to show what has been studied in the field, and also where the weaknesses, gaps, or areas needing further study are. In this chapter, an attempt has been made to review the various relevant literatures in relation to support the study to receive some ideas for developing a research design.

2.1 The Conceptual Framework

The term dividend is defined as a return from investment in equity shares. The profit made by the firm which is distributed to the shareholders termed as dividend. Every firm after making profit either retain the money for further investment or distribute it among the shareholders. The firm should decide whether to keep the money as retained earning or pay the dividend. It may be in cash, share and combination of both. The dividend policy is the policy followed by the firm regarding the dividend versus retention decision. Dividend policy of different organization may same or different, but the policy followed by the firm should be suitable for both the shareholders as well as the firm itself.

The dividend decision or dividend policy of a firm is one of the major decision making areas of the financial management. The dividend policy determines the amount of earnings to be distributed to shareholders and the amount to be

retained in the firm. Dividend is a portion of earning which is distributed to shareholders in return of their investment in share capital. Dividend implies to the portion of earnings that is paid to the shareholders while dividend policy refers to the guidelines that management uses in establishing portion of retained earning that is paid to the shareholders in the form of dividend. Dividend conveys pro rata distribution of earnings either in the form of direct cash or additional stock in accordance with the proportionate shareholding. Nowadays, it is mostly interpreted in terms of left-over earnings after financing all acceptable investment opportunities and these are used for the payment of dividend. In this way, dividend is just the means of distributing unused funds or paying out whatever funds left after making all attractive investment. Further more, it is stated simply as the by product of the firm's capital budgeting decision and borrowing decision.

What and how much it is desirable to pay as dividend is always a matter of dispute. Dividends are desirable from shareholders point of view as it tends to increase their current wealth where as retention of earning is desirable for the growth of the firm.

These two objectives of the dividend policy are always in conflict. So, the objective of choosing a dividend policy should be to maximize the value of the firm to its shareholders. There are different theories on the relationship between dividend and the value of the firm; this will be discussed later on this chapter.

2.1.1 Types of Dividend

Corporations need to follow different types of dividend in view of the objective and policies they implement. In Nepalese context, the type of dividend that corporations follow is partly of a matter of attitude of directors and partly a matter of shareholders preferences and partly depending to the various circumstances and financial constraints and corporate plans and policies. Before

considering dividend policy at theoretical level, it is useful to explain major types of dividend.

1. Cash Dividend

A cash dividend is a cash payment that is extended to shareholders by the issuing company. Cash dividend is the dividend which is distributed to the shareholders in cash out of the earnings. The payment of the cash dividend reduces the cash account or the reserve account of the company. So, it may create liquidity problem in company. Both total assets and the net worth of the company are reduced when cash dividend is paid. The market price of the share drops in most cases by the amount of cash dividend distributed. So, the companies should wisely make decision regarding payment of cash dividend.

2. Stock Dividend (Bonus shares)

A stock dividend occurs when the board of directors authorizes a distribution of common stock to existing shareholders. Stock dividend increases the number of outstanding shares of the firm’s stock. Although stock dividend does not have a real value, firms pay stock dividend as a replacement for a supplement to cash dividend. Under stock dividend, shareholders receive additional shares of the company in lieu of cash dividends. Simply it is a recapitalization of the owner's equity portion, i.e. he reserves and surpluses and transfers a portion of retained earnings to the capital accounts. When there is given stock dividend. There is no change in the firm's assets or liability. It does not affect cash and earnings position of the firm. It increases share numbers held by current shareholder reducing par value of stock remains as before their equity.

3. Scrip Dividend

A scrip dividend is a distribution of surplus to the stockholders in the form of notes or promises to pay the amount of dividend at a certain time. The notes are called dividend certificates or scrip. Sometime companies need cash

generated by business earning to meet business requirements or with-hold the payment of cash dividend because of temporary shortage of cash. In such circumstance the company may issue scrip dividend payable at future dates. Such dividend may be interest bearing or non-interest bearing.

4. Bond Dividend

Another aspect of dividend payment is bond dividend. It is rare phenomenon and long term enough to fall the current liability. It is somehow similar to scrip dividend. But different between the two is in respect of date of payment. As in scrip dividend, dividend isn't paid immediately. This issue of bond dividend increases the long-term obligation of the company's current liability.

5. Stock Repurchase

It is the process of repurchasing back outstanding share of any company. A corporation’s repurchase of its stock can serve as a tax advantages substitute for dividend payout. Repurchase have the effect of raising share prices so that shareholders can be taxes at the capital gain rate instead of ordinary dividend rate on cash dividend. Stock is repurchased specially when the firm has abnormally high profits and is not in a position to effectively utilize surpluses.

2.1.2 Forms of Dividend Policy

Dividend policy refers to the issue of how much of the total profit a firm should pay to its stockholders and how much to retain for investment so that the combined present and future benefits maximize the wealth of stockholders. The dividend policy, however, not only specifies the amount of dividend, but also form of dividend, payment procedure etc.

Dividend policy according to the application could be categorized as follows:

1. Stable dividend policy

When the 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. This policy is considered as a desirable policy by the management of companies. Most of the shareholders also prefer stable dividends because all other things remaining same, stable dividends have a positive impact on the market price of the share. By stability, we mean maintaining their positions in relation to a trend live preferably one that is upward sloping.

There are three distinct forms of such stability of dividend payments.

a) Constant dividend per share

Under this policy, dividend is paid in a fixed amount per share every year, irrespective of the fluctuations in the earnings. It is easy to follow this policy when earnings are stable. So this policy is followed by most of the companies. If the earnings pattern of a company shows wide fluctuations, it is difficult to maintain such a policy. Investors who have dividend as the only one source of income prefer this policy.

b) Constant payout ratio

Constant payout ratio means paying a fixed percentage of net earning as dividend payment every year. With this policy the amount of dividend will fluctuate in direct proportion of earnings. Management generally adopts this type of policy because it is directly related to the company's ability to pay dividends. If the company generates profits dividend shall be paid otherwise not. It insures that dividends are paid when profits are earned and avoided when it incurs losses.

c) Low regular dividends plus extras

The low regular dividend per share plus extra dividend policy is a compromise between the first two. Under this policy, a sum of amount is paid regularly as dividend. It gives the companies flexibility but leaves investors some what uncertain about what their dividend income will be if a company's earnings are quite volatile, however, this policy may well be its best choice, under this

policy, the small amount of dividend is fixed to reduce the possibility of ever missing a dividend payment. By paying extra dividend in periods of good profits an attempt is made to prevent investors from expecting dividend amount. This policy enables a company to pay constant amount of dividend regularly without a default and allows a great deal of flexibility.

2. No immediate dividend policy

If the company does not declare dividend unless the company earn large income is called no immediate dividend policy. In other words, if there is not any hurry about dividend payment and if it could be paid only when the company earns more profit is known as no immediate dividend policy. This policy is usually pursued the following circumstances:

- When the firm is new and rapidly growing concern, which needs large amount of funds to finance its expansion program,
- When the firms' excess to capital market is difficult,
- When availability of funds is costlier,
- When stockholders have agreed to accept higher return in future.

In fact, this policy should follow by issue of bonus shares.

3. Regular stock dividend policy

If the company regularly pays dividends to its shareholders in stock instead of cash, then it is called regular stock dividend policy. Regular stock dividend policy is ale designated as bonus shares. Such policy should follow under the following circumstances:

- When the firm needs cash generated by earning to cover its modernization and expansion of projects.

- When the firm is lacking in cash despite high earning, this is particularly true when the firm's sales is affected through credit and entire sales proceeds are tied in receivables.

4. Irregular dividend policy

It is the policy in which, the firm does not pay any fixed amount of dividend every year or dividend varied in correspondence with change in level of earning, i.e. higher earnings means higher dividend and vice-versa. The firm with unstable earnings also adopts this policy, when there are investable opportunities the company retains more and when there is not any investable opportunities, the company distributes the earning as dividend or there is not regularity of dividend payment therefore it is the most used type of dividend policy in the Nepalese context at present.

2.1.3 The Residual theory of Dividends

The residual theory of dividend suggest that dividend paid by a firm should be viewed as a residual amount or left after all acceptable investment opportunities have been under taken. This theory states the profit should be used first in all profitable investment plans, which reflect equal or higher rate of return than investor's opportunity rate of return. If the firm has earnings left after financing all acceptable investment opportunities, these earnings would then be distributed to shareholders in the form of dividend. If not, there would be no dividends. When we treat dividend policy as strictly as financing decision, the payment of cash dividend is a passive residual.

Residual dividend policy can be classified in three approaches:

1) Pure-residual dividend policy:

The firms following this type of dividend policy will set the dividends to be paid only from the left over of the earnings retained after deductions of

the investments. This policy yields volatile dividends. This policy is mostly practices by Nepalese corporations.

2) **Fixed dividend payment policy:**

Under this approach, the firm pays fixed percentage of earnings as dividend.

3) **Smoothed residual dividend policy:**

The dividend is set constant rupees values over years under this approach so that over the long run they will be equal to earnings minus equity investment. This policy provides the benefit of stable dividend policy and minimizes the dependence on external financing.

2.1.4 Factors Influencing Dividend Policy

While making dividend decision, there are many factors that have to be considered. Some factors that influence the dividend policy are explained below.

1. Legal Restrictions

Legal rules are significant because they provide the framework within which the dividend policy can be formulated. Within their boundaries, financial and economic factors have a major influence on the policy. Following are some laws regarding dividend.

i. Capital Impairment Rule

This rule states that dividend should not be paid if a firm's capital has been impaired or if dividend payment will cause capital to become impaired. It means dividends should not be paid out of paid up capital.

ii. The surplus Rule

Dividends should be paid only out of surplus. If there is no surplus or profits, dividends cannot be legally declared.

iii. The Insolvency Rule

According to insolvency rule, dividends cannot be paid if company is insolvent or if a payment would result in insolvency.

2. Stability of Earnings

A firm having relatively stable earnings is more likely to pay out a higher percentage of its earnings than is a firm with fluctuating earnings. The unstable firm is not certain of their earnings in subsequent years. So, it is likely to retain a high proportion of earnings.

3. Access to the Capital Markets

A well-established large firm with a record of profitability and stability of earnings has easy access to capital markets and other forms of external financing. However, a small, new or venturesome firm doesn't have the ability to raise equity or debt funds from capital markets is restricted. So, it must retain more earnings to finance its operation." Larger firms tend to be more mature and thus have easier access to the capital market which reduces their dependence on internally generated funding and follows for higher dividend payout ratios."

4. Liquidity Position

Profits held as retained earnings which are shown up on the right hand side of the balance sheet are generally invested in assets required for the conduct of the business. Retained earnings are not held as cash because they are already invested in plant and equipment, inventories and other assets. Therefore, even if a firm has a record of earnings, it may not be possible to pay cash dividends because of its liquidity position. Even a growing and a profitable firm needs heavy funds. In such a situation the firm may choose another option i.e. not paying dividends.

5. Profit Rate

The expected rate of return on asset determines the relative attractiveness of paying out earnings is the firm of dividend to stockholders. Thus high profits provide high dividend.

6. Control

Another important variable is the effect of alternative sources of financing on the control situation of the firm. Some firm follows a policy i.e. to expand only to the extent of their internal earnings. It is because raising funds by selling additional common stock dilutes the control of the dominant group in that firm. At the same time, selling debt increases the risks of fluctuating earnings to the present owners of the firm. Thus reliance on internal financing in order to maintain control reduces the dividend payout.

7. Contractual Restrictions

A contract made with lenders such as debt-holders, creditors and preference shareholders may restrict to pay cash dividends. Due to such restriction paying certain level of earnings or not paying more than specified sum of amount or setting aside some percentage of earnings to the investment.

8. Others

Only the above mentioned things are not enough to determine a sound dividend policy. Other many insights and considerations have to be taken into account. Such are: change in government policies, prospects of future growth, maturity and age of corporations, informational content of dividend, management sponsorship and control and so on.

2.1.5 Legal Provision Regarding Dividend Practices

In Nepal, "The Company Act 2053" makes some legal provision for dividend payments. These provisions may be seemed as under:

Section 2 states that bonus shares (stock dividends) means share issues on the form of addition shares to stockholders by capitalizing the surplus from the profits or the reserve fund of the company. The term also devotes an increase in the paid up value of the shares after capitalizing surplus or reserve.

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

Section 137 bonus shares and **subsection (1)** states that the company must inform the office before issuing bonus shares under **subsection (1);** this may be done only according to a special resolution passed by the general meeting.

Section 140: Dividends and subsections of this section are as follows.
Subsection (1): Except in the following circumstances, dividend shall be distributed among the shareholders within 45 days from the date of decision to distribute them.

In case of any law forbids the distribution of dividends.
In case the right to dividend is disputed.
In case dividends cannot be distributed with in the time limit mentioned above owing to circumstances beyond anyone's control and without any fault on the part of the company.

Subsection (2): In case dividends are not distributed with in the time limit mentioned in **subsection (1),** this shall be done by adding interest at the prescribed rate.

Subsection B: Only the person whose name stands registers in the register of existing shareholders at the time of declaring the dividend shall be entitled to it.
The above indicates that Nepalese law prohibits repurchase of stock, which is against the theory of finance, the reason for this kind of provision is not known.

2.1 Review of Financial Journals

1. Walter's Study (1963)

The arguments advanced by Professor Walter is of considerable interest in the literature of finance. He holds that the choice of dividend policies almost always affect the value of the enterprise. The main point which he emphasized is that there is significant relationship between the internal rate of return on investment projects and market rate demanded by the investors. As long as the internal rate is greater than the market rate, the stock price will be enhanced by retention of earnings and will inversely dividend payout. This approach is based on that dividend policy can be used to maximize the wealth position of stockholders.

Basic Assumptions:

- The firm finances all investment through retained earnings that is debt or new equity is not issued.
- The firm's internal rate of return, r and its cost of capital, k is constant.
- All earnings are either distributed as dividends or reinvested internally.
- There is no change in values of earning per share and dividend per share.
- The firm has a very long or infinite life.

Based on above assumption, Walter has suggested the following formula:

$$P = \frac{DPS}{K} + \frac{r(EPS - DPS)/K}{K}$$

$$\text{Or } P = \frac{DPS + r/k\ (EPS - DPS)}{K}$$

Where ,

P = Market price per share

r = Internal rate of return

K = Cost of capital

DPS = Dividend per share

EPS = Earning per share

Walter has suggested different dividend policy for different firms based on their growth stage. They are:

Growth Firms

Firms having $r > k$ are referred as growth firms. Growth firms are assumed to have ample profitable investment opportunity. These firms reinvest earnings because they have higher rate of return than the rate expected by shareholders. These firms will maximize the value per share by retaining all earnings for internal investment. Thus the optimum pay out ratio for growth firm is zero. The market price per share increases as pay out ratio declines where $r > k$.

Normal Firms

When the firms do not have unlimited investment opportunities with $r > k$. after exploiting profitable investment opportunities, these firms earn equal to the cost of capital and they have $r = k$. When firms are in this situation dividend policy do not have any effect on market value per share. Thus, there is no unique optimum payout ratio for the normal firms.

Declining Firms

When the firms do not have any profitable investment opportunity to invest, these are referred as declining firms. If these firms invest on unattractive investment, they will earn less internal rate of return that required by the investors. So, investing on these investments worthless. Thus, optimum payout ratio for declining firms is 100%. The market value per share /P' increases as payout ratio increaser.

2. Gordon's Study (1962)

Myron Gordon has recommended the interesting approach relating the market value of the firm to dividend policy. He holds that investors have a strong preference for present dividends to future capital gains under the condition of uncertainty. It is assumed that current0dividend is less risky that the expected capital gain. According to him, market value of a share is equal 4o the present value of an infinite stream of dividends to be received by the share.

Gordon's model is based on the following assumption:

- The firm is an all equity firm.
- No external financing is available, so retained earnings would be used to finance any expansion.
- Internal rate of return (r) and cost of capital (!k) are constant.
- Discount rate, k, for the firm remains constant.
- The firm and its stream of earnings are perpetual.
- The corporate taxes do not exist.
- The retention ratio b, once decided upon is constant. Thus, growth rate g = b.r is constant.
- K > br = g to get meaningful value.

Based on above assumption, the formula advanced by him is as follows.

$$P_0 = \frac{EPS\ (1-b)}{K_e - g}$$

Where,

P_0 = price of a share

EPS = earning per share

b = Retention ratio

K_e = Capitalization rate

g = Growth rate

1-b = Dividend payout ratio

Incase of growth firm's, share price tends to enhance with increase in retention ratio,b , or decrease in pay out ratio 1-b.

Incase of normal firms, share price tends to be constant regardless of changes in retention ratio b, and payout ratio 1-b.

Incase of declining firms, share price tends to enhance with increase in payout ratio, 1-b, or decrease in retention ratio, b.

3. Modigliani and Miller's Study (1961)

Modigliani and Miller (MM) provide the most comprehensive argument for the irrelevance of dividends. According to MM, dividend policy of a firm is irrelevant as it does not affect the wealth of the shareholders. They hold that the value of the firm depends on the earning power of the firm's assets, or its investment policy. When investment decision of the firm is given, dividend decision the split of earnings between dividends and retained earnings is of no significance in determining the value of the firm. According to them the effect of dividend payments on shareholders wealth is exactly offset by other means of financing.

M- M Hypothesis of Irrelevance:

- Perfect capital market, rationale investors, free information, no flotation cost and infinite divisibility of security.
- Taxes do not exist.
- The firm has a fixed investment policy.
- Risks of uncertainty does not exist. Investors are able to forecast future prices and dividend with certainty and one discount rate is appropriate for all securities and all time periods. Thus, r = k = k t for all time. Based on above assumptions.

They have advanced following formulae.

$$r = \frac{\text{Dividends + Capital gain (loss)}}{\text{Purchase price}}$$

$$r = \frac{D1 + (P1 - P0)}{P0}$$

Where ,

r = rate of return

D1 = Dividend per share at time t

P1 = Market price per share at time 1

P0 = Market price per share at time 0

Or

$$P_0 = \frac{D1 + P1}{1 + r}$$

$$P_0 = \frac{D1 + P1}{1 + k}$$ (Since r = k with assumption of certainty)

To obtain the total value of the firm let us multiply both side by number of shares outstanding.

$$V = n P_0 = \frac{n (D1 + P1)}{1+ k}$$

If the firm sells n number of new shares at time 1 at a price of P1, the value of the firm at time 0 will be

$$V = n P_0 - \frac{n(D1 + P1) + mp1 - mp1}{1+ k}$$

$$= \frac{n D1 + nP1 + mp1 - mp1}{1+ k}$$

$$= \frac{n D1 + (n + m) P1 - mp1}{1+ k}$$

If the investment proposals of a firm, in a given period of time can be financed either by retained earning or the issuance of new shares or both. Thus , the amount of new issued will be

$$m P1 = I - (E - nD1)$$

$$= I-E + nD1$$

Where ,

I = investment need

E = earning available

By substituting this equation in above equation, we get

$$n P_0 = \frac{n D1 + (n + m) P1 - (I-E + nD1)}{1+ k}$$

$$= \frac{(n+m) P1 - I + E}{1 + k}$$

In this way, M-M show that the value of the firm is unaffected by its dividend policy. A firm which pays dividends will have to raise funds externally to finance its investment plans. M-M holds that when the firm pays dividends, its advantage is offset by external financing.

4. Van Horne and Mcdonald's Study (1971)

Van Horne and Mcdonald provide a more comprehensive study on dividend policy and new equity financing. The basic objective of the study was to highlight the combined effect of dividend policy and new equity financing decision on the market value of the firm's common stocks.

For the purpose of the study two industries viz 86 electric utility firms included on the compustat utility database and 39 firms in the electronics and their electric component industries listed on the compustat industrial data tape in 1968 were selected.

They employed two regression for electric utilities and one regression model for electronics components industry. From the study it was found that share value of electric firms in 1968 was adversely affected by new equity financing in the presence of cash dividends except for those firms in the highest new issue group and it made new equity a more costly from financing than retention of earning. They also indicated that the payment of dividend through excessive equity financing reduces share prices.

5. Friend and Puckett's Study (1964)

Friend and Puckett conducted a study on the relationship between dividends and stock prices, by running regression analysis on the data of 110 firms from five industries in the year 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 to provide a basis for comparison with result by other authors for

earlier years. They also considered cyclical and non-cyclical industries which 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 stock prices, however, rose strongly (1958).

They used dividends, retained earnings and price earnings ratio as an independent variables in their regression model of price function. They used supply function, i.e. dividend function also. In their dividend function, earnings, last years dividends and price earnings ratio are independent variables. They quoted that the dividend supply function was developed by Lintner. Symbolically, their price function and dividend supply function are price function :

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

Where ,

P_t = per share price at time t

D_t = Dividends at time t

R_t = Retained earnings at time t

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

Dividend supply function:

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

Where,

E_t = Earnings per share at time t

D_{t-1} = Last years dividend

Assumption :

1) Dividend do react to year to year fluctuation in earnings .

2) Price doesn't contain speculative components

3) Earnings fluctuations may not sum zero over the sample.

There regression results based on the equation of $P_t = a + bD_t + cR_t$ showed the customary strong dividend and relatively weak retained earnings effects in three of the five industries. i.e., chemicals, foods and steel. Again they tested other regression equations by adding lagged earnings price ratio to the above equation and resulted the following equation: $P_t = a + bD_t + cR_t + d(E/P)_{t-1}$. They found the following results: they found that more than 80% of the variation in stock prices can be explained by three independent variables. Dividends have a predominant influence on the stock prices in the same three out of five industries but they found the differences between the dividends and retained earnings coefficient are not quite so marked as in the first set of regressions. They also found that the dividends and the retained earnings coefficient are closer to each other for all industries in both years except for steels in 1956 and the correlation are higher again except for steels.

They also calculated dividends supply equation i.e.

$D_t = e + fE_t + gD_{t-1} + h(E/P)_{t-1}$ and the dividend price equation for four industry groups in 1958. in their derived price equation it seems that there was no significant changes from those obtained from the single equation approach as explained above. They argued that the stock prices or more accurately the price earning ratio does not 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 result suggests price effect on the dividend supply are not a serious source of bias in the customary derivation of the dividend and retained earnings effects on the stock prices, though such a bias might be marked if the disturbing effect of short run income movements are sufficiently great.

Further, they 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 then dividends in most of the cases. The only exception was steels and foods in 1958. They considered chemicals, electronics and utilities as growth

industries, in these groups and the retained earnings effect was larger than the dividend effect for both years covered. For the other two industries, namely foods and steels. There were no significant systematic differences between the retained earnings and dividend coefficients.

Similarly, they tested the regression equation of $P_t = a + bD_t + cR_t$ by using normalized earnings again. They obtained normalized retained earnings by subtracting dividends from normalized earnings. That normalized procedure was based on the period 1950-1961. Again they added prior year's normalized earning price variable and they compared the result.

Comparing the result they found that there was significant role of normalized earnings and retained earnings but effects of normalized price earning ratio was constant. When they examined the later equation, they found that the difference between dividend and retained earnings coefficients disappeared.

Finally they concluded that management might be able to increase prices somewhat by raising dividends in foods and steel industries. They conducted more detailed examination of the chemical samples. That examination disclosed that the result obtained largely reflected the undue regression weighting given the three firms with price deviating most from the average price in the sample of 20 firms and retained earnings as a price determinant.

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

2.2 Review of Research works in Nepalese Perspective

1. Kamal Das Manandhar's Study

K.D. Manandhar has carried out latest study on the topic of "Bonus share and dividend changes empirical analysis in Nepalese context" based on the data collected for the period of 11 years from 1987/88 to 1997/98. The analysis covers 35 observations pre bonus dividend rate and 29 observation of post bonus dividend rate of 12 samples of the Nepalese corporate firms selected from the listed corporate firms in NEPSE. The sample corporate firms include 5 from banking, 3 from insurance and finance company and 4 from manufacturing, Trading and Airlines.

The study is made to analyze the actual dividends behavior of Nepalese corporate firms after an issue of bonus share. Moreover, there are some specific research questions.

- Is quantum of the dividends increases directly related to ratio of bonus issue?
- Is there any association between existing dividend rate and bonus issue?
- Does the dividend announcement of the management indicate its intention of increasing future dividend?

Major findings of this study are as follows:

The announcement of bonus share issue has a significant impact in market price of share which ultimately the wealth of the stockholders.

- In overall, corporate management have not found considering its effect on dividend distribution in future as reflected by absence of the systematic dividend paying practice before and after bonus share issue.
- There is no systematic policy of dividend distribution after the issue.
- There is diversity in the increase in dividend rate and the total dividend payment after bonus issue. It means dividend increase doesn't follow the bonus share issue in Nepalese corporate firm's dividend behavior.

- The relationship between existing dividend and various ranges of bonus share issue ratio is not found significant in Nepalese corporate firms.

2. Pradhan's Study (1993)

Radhe Shyam Pradhan conducted a comprehensive study on stock market behavior in a small capital market. The study was based on pooled cross sectional data of 17 enterprises whose stocks are listed in stock exchange centre and traded in the stock market. The results revealed by the study are as follows.

- Stocks with larger Market Value to Book Value have larger P/E ratios and lower dividends. Price – earning ratios are more variable for stock with larger MV to BV ratios and dividend ratios are more variable for stocks with smaller MV to BV.
- Stock with larger MV to BV ratios have lower liquidity, higher leverage, lower earnings, lower turnover and lower interest coverage. However, liquidity and leverage are more variable for stocks with larger MV to BV ratios while earnings, assets turnover and interest coverage are more variable for stocks with smaller MV to BV.
- Stock with larger P/E ratio have larger MV to BV of equity and smaller dividend ratios. But these ratios of MV to BV and dividends are more variable for smaller stocks than for larger stocks.
- Stocks with larger P/E ratio have lower liquidity, higher leverage, lower profitability, lower asset turnover and lower interest coverage. However, liquidity, leverage, earnings, turnover and interest coverages are more variable for stocks with smaller P/E ratios.
- Stocks paying higher dividends have higher liquidity, lower leverage, higher earnings, higher turnover and higher coverages. However, liquidity and leverage ratios are more variable for stocks paying lower dividends while earnings, assets turnover and interest coverage are more variable for the stocks paying higher dividends.

3. Shrestha's Study (1992)

Dr. Manohar Krishna Shrestha has conducted a study to deal with policies and financial performance of some companies in Nepal. A book entitled "Shareholder's Democracy and Annual General Meeting Feedback" contains a paper, presented by Dr. Shrestha, on the occasion of fifth Annual Meeting of Nepal Arab Bank. On this paper, Shrestha has raised the following issues:

- The cost push inflation at exorbitant rate has made the shareholders to expect higher returns from their investment.
- Multiple decrease in the purchasing power of the Nepalese Currency to the extent that higher return by way of dividend is just a natural economic consequence of it.
- Erosion in the purchasing power of people has made it clear that dividend payment must be directed to enhance shareholder's purchasing power by raising dividend payout ratio on the basis of both earning and cost theory.
- Indo- Nepal trade transit deadlock has become a sort of economic warfare putting rise in the cost of living index to a considerable extent. This has caused the shareholders to expect higher dividend.
- The waiting of five years with peanut dividend in previous year is equally a strong enforceable reason of the bank's shareholders to expect handsome dividend already assured and committed in various reports of earlier Annual General Meeting.
- One way to encourage risk – taking and preference is to have proper risk – return trade off by Bank Management in a way that higher return must be the investment rule for higher risk takers that compromise bank's share holders.

In the prevalence of these conditions, Shrestha suggests bank management to rethink the matters related to payment of dividend

2.3 Review of Previous Thesis

1. Bhandari's Study

Bhandari (2004) has conducted a study on "Dividend Policy and practices in Nepalese Joint venture Banks" using secondary data. His main objectives and finding are as follows:

The main objectives of his research were as follows:

- To find out impact on share price.
- To study the current practices of dividend policy of joint venture banks.
- To examine if there uniformity among DPS, EPS, DPR, of the three sample joint venture banks.

The major findings are as follows:

- There is positive relationship of dividend with stock prices.
- There is no uniformity of distribution of DPS among sample banks.

2. Budhathoki's study

Budhathoki (2006) carried on the research on "The Study of Dividend Policy of the Commercial Banks in Nepal" on May 2006 using secondary and primary data of her data.

The main objectives of the study were:

- To highlight the dividend practices of Commercial Banks.
- To compare the dividend policy followed by different commercial bank chosen.
- To provide the sample banks fruitful suggestion that can be implement easily and possible guideline to overcome various issues and gaps based on the findings of the analysis.

Some of the major findings of this study are:

- The average EPS of the banks under study shows positive result. But the coefficient of variation indicates that there is no consistency of EPS.
- The average DPS shows there is no regularity in dividend payment.
- The analysis of DPR shows that the DPR of the bank is no stable.
- The average market price shows that there is quite high level of fluctuation.

3. Katwal's Study

Yagya Bahadur Katwal has conducted a thesis on "A Comparative Study of Dividend Policy in Commercial Banks" in July 2006 based on data collected from 2000/01 to 2004/2005for 6 sample commercial banks.

The main objectives of his study are as follows:

- To study the current practice of dividend policy in commercial banks.
- To find out the impact of dividend on share prices.
- To analyze the relationship of financial indicators.
- To examine if there is any uniformity among DPS, EPS and DPR on the six sample banks.

The major findings of his study are as follows:

- Average EPS and DPS for the period covered by the study of all concerned banks are satisfactory.
- Analysis of coefficient of variation indicates that there is largest fluctuation in EPS and DPS and other are relatively more consistent.
- The analysis of DPR shows that none of the sample banks have consistent dividend policy.
- The market value of shares in the market is fluctuating in all sample banks.

- The most important decision is that no specific dividend payment strategy is following by these banks. Payment of cash dividend and stock dividend are made without wise managerial decision due to unstable and adequate dividend and unequal payout ratio.

4. Kuikel's Study

Kuikel (2007) has studied on "Dividend Policy and Practices of Commercial Banks in Nepal" taking the three commercial banks as sample using secondary data. His main objectives and findings are as follows:

The main objectives of study were:

- To examine dividend policy and practices in Nepalese commercial banks.
- To analyze the effect of dividend in share price.

The major findings of study are as follows:

- The market price of share of all the banks has been fluctuating. The uncontrolled increase in share price may be due to decrease in bank rate of interest.
- The market value per share has positive impact of EPS in case of all selected sample banks.
- The dividend distribution is irregular in those banks except Nabil Bank Ltd.

5. Maskey's Study

Maskey (2008) has studied on "Dividend Policy of selected Commercial Banks in Nepal" taking the three commercial banks as sample using secondary data. His main objectives and findings are as follows:

The main objectives were as follows:

- To access the prevailing dividend policy adopted by the selected banks.
- To access the impact of dividend on market price per share of selected banks.

Major findings of the study are as follows:

- The study of impact of cash dividend on MVPS revealed that DPS has strong positive impact on MVPS.
- A positive relationship is found between DPS and net profit.
- MVPS and DPS revealed that coefficient of dividend have positive impact of MVPS.

6. Shah's Study

Shah (2009) carried out a research on "Cash Dividend Practice and its Impact on Share Price in Nepal." It covered 5 years period (2004-2008) including commercial banks, manufacturing companies, development banks, insurance companies, and financial institutions and hotels sectors.

The Main objectives of the study are:

- Its basic objectives were to evaluate the trend of cash dividend forecasting and payment by the Nepalese financial institution and to see and examine the impact of cash dividend on market price per share.
- To achieve these objectives, the information are interpreted and analyzed by using regression model and hypothesis test.

The Major findings of the study are as follows:

- Commercial banks of Nepal are seen the regular dividend paying financial institution.
- In average 90% companies pay less than 50% cash dividend. The company having good earning only have been paying regular cash dividend.
- The lack of financial knowledge and the market inefficiency has affected the market price of the shares in all the firms. But it is theoretically argued.

7. Timilsina's Study

Daya Sagar Timilsina (2010) carried out a research on "A Study on Dividend Policy and Its Impact on Stock Price of Selected Commercial Banks" concluded that:

This study has covered the period of ten years being from 1999 to 2008. There are 26 commercial banks have been listed in Nepse to date, however only 5 of them have been selected for analysis while conducting this study secondary date have been applied as well as some necessary information for analysis the data has been collected from some financial and managerial experts. Different financial and statistical tools have been applied for analyzing the data.

The major findings mentioned above led this study to conclude that there is notable dividend. Impact on market price of the share in most of the banks. In another words dividend pays an important role to change the market price of the shares. Besides this the following conclusions are made:

- There is high degree positive relationship between DPS and EPS in most of the banks.
- There is normal positive relationship between DPS and EPS in most of the banks.
- While comparing the impact of EPS and lagged DPS on DPS, it is found that there is normal positive role of change in EPS to change the DPS but there is nominal or very less role of lagged DPS. CBL is highest of the firms.
- While observing the effect of dependent variable, i.e., DPS and MPS, on its independent variable, i.e., DPS, EPS and lagged DPS it is not sufficient information and meaning that there is a notable role of others, managerial and environmental factors. Higher dividend payout ratio (D/P ratio) indicates that the firm is paying higher dividend to its shareholders and lower D/P ratio implies that the firm is retaining its profit to profitable investment opportunities.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

Research Methodology is the methods, steps, guidelines which are to be followed in analysis and it is the way of presenting collected data with meaningful analysis. According to C.R. Kothari Research Methodology refers to the various sequential steps (along with a rational, of each step) to be adopted by a researcher in studying a problem with certain object/ objects in view. So, in this study research methodology has been paid due attention to achieve the objectives of the study.

3.2 Research Design

Research design is a plan for the collection and analysis of data. It presents a series of guide posts to enable the researcher to progress in the right direction in order to achieve the goal. The research design of this study will be descriptive as well as analytical using the variables related with the dividend policy. The annual reports, financial statements and other relevant materials of the companies will be studied. This research is based on secondary data. It covers the data from the year 2005/06 to 2009/10. The collected data is analyzed with financial as well as statistical tools and interpreted.

3.3 Population and Sample

This study is based on the data of the companies listed in NEPSE. So, the population is taken from only those companies which are listed in NEPSE. Since, the topic implies the study should be done among the dividend paying practices and actively traded companies, the sampling will be done accordingly. Out of the 31 commercial banks recognized by Nepal Rastra Bank, there are 6

Joint Venture Banks operating in Nepal. For the study purpose out of those 6 Joint Venture Banks only 5 Joint Venture Banks are selected. All the selected Joint Venture Banks are listed by NEPSE.

The selected samples are as follows.

1) Standard Chartered Bank Nepal Limited
2) Himalayan Bank Limited
3) NABIL Bank Limited
4) Everest Bank Limited
5) Nepal SBI Bank Limited

3.4 Source of Data

The study is basically based on secondary data. All the data required for the research is collected from the secondary source like annual reports, newspapers and magazines, internet, the financial statement of the listed companies and trading report published by NEPSE etc.

3.5 Method of Analysis / Analysis Technique

The study employs various financial and statistical tools to analyze the data collected from various sources. The analysis is grouped in 3 parts.

- ❖ General Analysis
- ❖ Correlation Analysis
- ❖ Simple Regression and Multiple Regression Analysis

General Analysis

1) Dividend Per Share Analysis
2) Earning Per Share Analysis
3) Dividend Yield Analysis
4) Earning Yield Analysis
5) Dividend Payout Ratio Analysis
6) Price Earning Ratio Analysis

7) Market Price Per Share Analysis

Correlation Analysis

Correlation Analysis tells us whether variables under study move in the same direction or in reverse direction. Correlation co-efficient between following financial variables has been calculated and analyzed.

Simple Correlation Analysis

1) Between DPS and EPS
2) Between EPS and MPS
3) Between DPR and MPS
4) Between DPS and MPS
5) Between DY and MPS.

Regression Analysis

Simple Regression Analysis

1) Regression Analysis of DPS on EPS
2) Regression Analysis of MPS on DPS
3) Regression Analysis of MPS on EPS
4) Regression Analysis of MPS on DY
5) Regression Analysis of MPS on DPR

Multiple Regression Analysis

1) Multiple Regression of MPS on EPS, DPS and DPR

3.5.1 Financial tools:

Financial tools are those which help to study the financial position of the firms. The financial tools used in this study are as follows:

1) Dividend Per Share (DPS)

Dividend per share indicates the rupee earning actually distributed to common stockholders on per share basis. It measures the dividend distribution to each equity. The DPS simply shows the portion of earning distribution to the shareholders on per share basis. Generally, the higher DPS creates positive attitude of the shareholders toward the bank, which consequently helps to increase the market value of the shares. And it also works as the indicator of better performance of the bank management. It is defined as the result received by dividing the total dividend distributed to equity shareholders by the total number of equity share outstanding. Thus,

$$\text{DPS} = \frac{\text{Net profit that is distributed as dividend (or total dividend)}}{\text{No. of common shares outstaning}}$$

2) Earning per share (EPS)

Earning per share refers the rupee amount earned per share of common stock outstanding. It measures the return of each equity shareholders. Its calculation will be helpful whether the company's earning power on per share basis have changed over the period or not. It is also identified to measure the profitableness of the shareholders investment. The earning per share simply shows the profitability of the banks on a per share basis. The higher earning indicates the funds and vice versa. In other words, higher earning per share denotes the strength and lower earning per share indicates the weakness of the banks. EPS is defined as the result received by dividing the earning available to common shareholders by the total number of common stock outstanding. Thus,

$$\text{EPS} = \frac{\text{Earning available to common shareholders}}{\text{No. of common stock outstanding}}$$

3) Dividend Yield (DY)

Dividend yield is a percentage of dividends per share on market price per share. It shows that how much is the dividend per share on market price per share. It measures the dividend in relation to market value of share. So, dividend yield is the dividend received by the investors as a percentage of market prices per share in the stock market.

This ratio highly influences the market price per share because a small change in dividend per share can bring effective change in the market value of the share. The share with higher dividend yields is worth buying. Dividend has important guidance to commit funds for the buying of shares in the secondary market. Dividend yield reflects percentage relationship between dividend per share and market value per share. It is calculated by dividing the cash dividends per share by the market value per share. Thus,

$$\text{Dividend yield} = \frac{\text{Dividend per share}}{\text{Market value per share}}$$

4) Earning yield (EY)

The earning yield may be defined as the ratio of earnings per share to the market value per ordinary share. Thus,

$$\text{Earning yield} = \frac{\text{Earning per share}}{\text{Market value per share}}$$

5) Dividend payout ratio (DPR)

Dividend payout ratio is calculated to indicate the percentage of the profit that is distributed as dividend and the percentage of profit retained as reserve and surplus for the growth of the company. It is the portion of the earning used for the payment of dividend. The dividend payout ratio is the earning paid to the equity holders from the earning of a firm in a particular year. In other words, the amount of dividend that a bank pays depends upon the

earning capacity of the bank. Higher earning enhances the ability to pay more dividends and vice versa.

There is a reciprocal relationship between dividends and retained earnings. The higher the dividend payout ratio, the lower will be the portion of retained earning and vice versa. The capacity of internal financing of the firm is checked by the retention ratio. It is calculated to indicate the percentage of the profit that is distributed as dividend. This ratio is calculated by dividing dividend per share by the earning per share. Thus,

$$\text{Dividend Payout ratio} = \frac{\text{Dividend per share (DPS)}}{\text{Earning per share (EPS)}}$$

6) Price earning ratio (P/E ratio)

Price earning ratio reflects the price currently paid by the market for each rupee of currently reported earning per share. It is calculated by dividing the market price per share (MPS) by earning per share (EPS). Thus,

$$\text{Price earning ratio} = \frac{\text{Market per share (MPS)}}{\text{Earning per share (EPS)}}$$

7) Market Price Per Share (MPS)

Market price per share is that value of stock, which can be obtained by a firm from the market which is affected by dividend per share of the firm. If the earning per share and dividend per share are high, the market value of the share will be high. The capital market determines the market price per share. In this study the market price of the share means the closing price of the share indicated in the NEPSE index.

3.5.2 Statistical tools :

The research holds various statistical tools which are defined as follows.

1) Mean ($\overline{X}$)

The arithmetic mean or average is the sum of total values to the number of observations in the sample. It represents the entire data which lies almost between the two extremes. For this reason an average is frequently referred to as measure of central tendency. In this study it is used in data related to dividend of sample companies over different years. It is calculated as:

$$\text{Mean } (\overline{X}) = \frac{X}{n}$$

Where,

ε = sum of total values

n = number of items

2) Standard Deviation (S.D.)

The measurement of the scatterness of the mass of figures in a series about an average is known as dispersion. The standard deviation is an absolute measurement of dispersion in which the drawbacks present in other measures of dispersion are removed. The high amount of dispersion reflects high standard deviation. The small standard deviation means the high degree of homogeneity of the observations. It is calculated for selected dependent and independent variables specified. It is the positive square root of mean squared deviation from the arithmetic mean. Generally, it is denoted by small Greek letter σ (read as sigma) and is obtained as follows:

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{fX\ Z\overline{X}A^2}{n}}$$

Where,

X = Variable

$\overline{\varepsilon}$ = Mean

n = number of items in the series

3) Coefficient of variations (C.V)

The coefficient of variations reflect the relation between standard deviation and mean. The relative measure of dispersion based on the standard deviation is known as coefficient of standard deviation. The coefficient of dispersion based on standard deviation multiplied by 100 is known as the C.V. It is used for comparing variability of two distributions. Lower value of coefficient of variation is preferable since it denotes the lower degree of dispersion.

$$\text{Coefficient of Variation (C.V.)} = \frac{\pm}{\overline{X}} \mid 100$$

Where,

σ = Standard Deviation

$\overline{X}$ = Mean

4) Probable Error (P.E)

Probable error of the correlation coefficient denoted by P.E. is the measure of testing the reliability of the calculated value of 'r'.

$$\text{P.E.} = 0.6745 \mid \frac{1Zr^2}{\sqrt{n}}$$

Where,

r = coefficient of correlation

n = number of years

(1) If r < 6P.E., it is insignificant. So perhaps there is no evidence of correlation.

(2) If r > 6 P.E., it is significant. The P.E. of correlation coefficients may be used to determine the limits within which the population correlation lies.

5) Coefficient of correlation (r)

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

correlation measures the direction of relationship between two sets of figure. It is the square root of the coefficient of determination. Correlation can either be positive or it can be negative. If both variables are changing in the same direction, then correlation is said to be positive but when the variations in the two variables take place in the opposite direction the correlation is termed as negative. In this study, coefficient of correlation is calculated between stock prices and dividends, stock prices and retained earnings.

$$(r) = \frac{n \quad XY Z \quad X \quad Y}{\sqrt{n \quad X^2 Z f \quad X A^2} \sqrt{n \quad Y^2 Z(\quad Y ?}}$$

Where,

n=total number of observation

X and Y= two variables

6) Coefficient of Determination (r^2)

The coefficient of determination is a measure of the degree of linear association or correlation between two variables, one of which happens to be independent and being dependent variable.

Coefficient of determination measures the percentage total variation in dependent variable explained by independent variable. Coefficient of determination can have value ranging from zero to one. If coefficient of determination is equal to 0.85 which indicates that the independent variables used in regression model explain 85% of the total variation in the dependent variable. A value of one can occur only if the unexplained variation is zero which simply means that all the data points in the scatter diagram fall exactly on the regression line.

$$\text{Coefficient of determination } (r^2) = \frac{\text{Explained variance}}{\text{Total Variance}}$$

$$\text{Or, } r^2 = 1 - \frac{\text{Unexplained variance}}{\text{Total Variance}}$$

7) Regression Analysis

Regression analysis is concerned with the study of the relationship between one variable called the explained or dependent and one or more other variables called independent variables or explanatory. Regression refers to an analysis which is involving the fitting of an equation to set of data points, generally by the method of least square. In other words the regression is a statistical method for investing relationships between the variables by the establishment of an approximate functional relationships between them .It is considered as a useful tool for determining the strength of relationship between two (Simple regression) or more (Multiple regression) variables. It helps to predict or estimate the value of one variable when the value of other variable is known. The analysis, which is used to explain the average relationship between two variables, is known as simple linear regression analysis. In this study, the following simple regression has been analyzed.

Dividend per Share on Earning per Share

Y= a+bX

Where,

Y = Dividend per share

a= Regression Constant

b= Regression Coefficient

X= Earning per Share

This model has been constructed to examine the relationship between Dividend per Share (Dependent variable) and Earning per Share (Independent variable).

Market Price per Share on Earning per Share

Y= a+bX

Where,

Y = Market Price per share

a= Regression Constant

b= Regression Coefficient

X= Earning per Share

This model has been constructed to examine the relationship between Market Price per Share (Dependent variable) and Earning per Share (Independent variable).

Market Price per Share on Dividend per Share

Y= a+bX

Where,

Y = Market Price per share

a= Regression Constant

b= Regression Coefficient

X= Dividend per Share

This model has been constructed to examine the relationship between Market Price per Share (Dependent variable) and Dividend per Share (Independent variable).

Market Price per Share on Dividend Payout Ratio

Y= a+bX

Where,

Y = Market Price per share

a= Regression Constant

b= Regression Coefficient

X= Dividend Payout ratio

This model has been constructed to examine the relationship between Market Price per Share (Dependent variable) and Dividend Payout ratio (Independent variable).

Market Price per Share on Dividend yield

Y= a+bX

Where,

Y = Market Price per share

a= Regression Constant

b= Regression Coefficient

X= Dividend yield

This model has been constructed to examine the relationship between Market Price per Share (Dependent variable) and Dividend yield (Independent variable).

In order to obtain the value of 'a' and 'b', we have following two equations:

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

$\Sigma XY = a\Sigma X + b\Sigma X^2$

Where,

Y = Market Price per share

a= Regression Constant

b= Regression Coefficient

X= Dividend yield

n = Number of observations in the sample

In the same way following **multiple regressions** are analyzed among one dependent variable and more than one independent variables.

Regression Equation, $Y=a+b_1.X_1+b_2.X_2+b_3X_3$

Where,

Y = Market Price Per Share (dependent variable)

X_1= Earning Per Share (independent variable)

X_2= Dividend Per Share (independent variable)

X_3= Dividend Payout Ratio (independent variable)

a = Regression Constant

b_1, b_2 and b_3 = Coefficient of Net Regression

I. Regression Constant (a)

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

II. Regression coefficients (b_1, b_2, b_3)

The regression coefficient of each independent variable indicates the marginal relationship between independent variable and value of dependent variable, holding constant the effect of all other independent variables in the regression model. It describes how changes in independent variables affect the values of dependent variables estimate.

8) Standard Error of Estimate (S.E.E)

With the help of regression equation perfect prediction is practically impossible. Standard error of estimate is a measure of reliability of the estimating equation, indicating the variability of the observed points around the regression line, that is, the extent to which observed values differs from their predicted values on the regression line. The smaller the values of standard error of estimate, the closer will be the dots to the regression line and the better estimates based on the equation for this line. If standard error of estimate is zero, then there is no variation about the line and the correlation will be perfect. Thus, with the help of standard error of estimate, it is possible for us to ascertain how good and representative the regression line is as a description of the average relationship between two series.

9) T – test

To test the validity of our assumption, if sample size is less than 30, t-test is used. For applying t-test in the context of small sample, the 't' value is calculated first and compared with the table value of ‘t’ at a certain level of significance for given degree of freedom. If the calculated value of ‘t’ exceeds the table value (say $t_{0.05}$) we infer that the difference is significant at 5% level but if ‘t’ value is less than the concerning table value of ‘t’ the difference is not significant.

Test statistic $t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2}$ $\sim t_{n-2}$

Where,

r= observed sample correlation
n= total number of observation
n-2= degree of freedom (d.f)

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The chapter consists presentation and analysis of data related with different variables using the financial and statistical tools explained in previous chapter (Research Methodology). This chapter is the focal part of the study.

4.1 Analysis of Financial Indicators and Variables

4.1.1 Dividend Per Share Analysis

The comparative structure of dividend per share of five sample banks from the year 2005/06 to 2009/10 is shown below on table no.4.1.

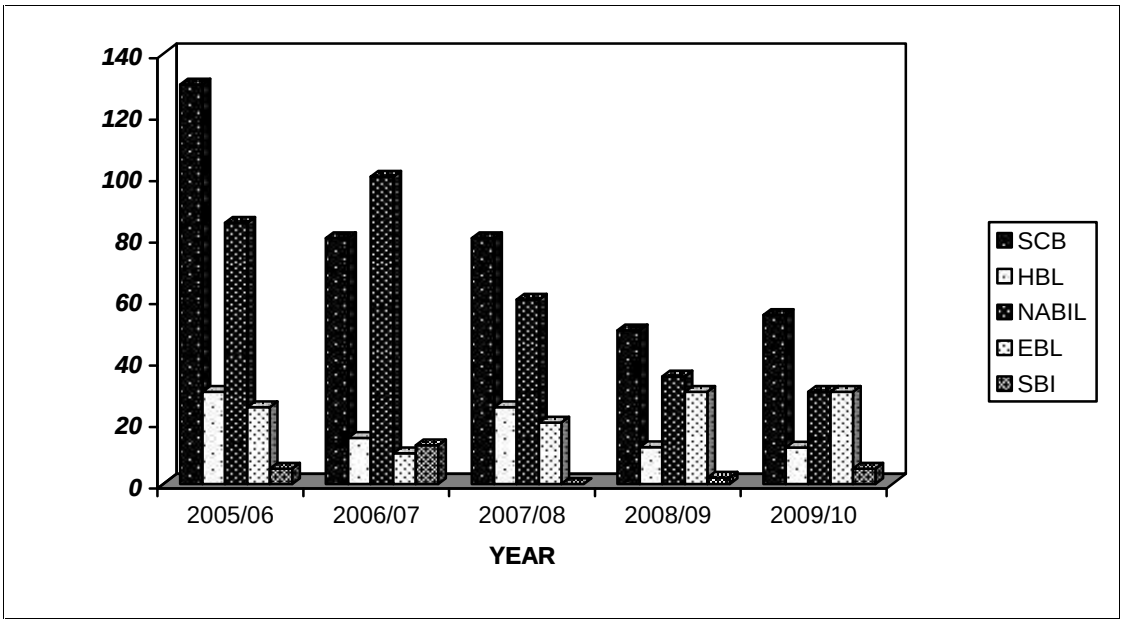
Table No. 4.1: Comparative structure of Dividend Per Share

(In Rs.)

Banks	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	Std.Dev	C.V.
SCB	130	80	80	50	55	79	28.35	35.89
HBL	30	15	25	12	11.84	18.77	7.39	39.37
NABIL	85	100	60	35	30	62	27.31	44.05
EBL	25	10	20	30	30	23	7.48	32.53
SBI	5	12.59	-	2.11	5	4.94	4.26	86.23

Source: Annual Report of SCB, NABIL, HBL, EBL and SBI of F/Y 2009/10

Figure No. 1: Comparative structure of Dividend Per Share



The chart depicts the picture of Dividend Per Share of all the five banks from the fiscal year 2005/06 to 2009/10. Among all the five banks, SCB have paid highest dividend with an average of Rs.79. Whereas HBL has an average dividend payment of Rs.18.77. NABIL has an average of Rs.62 and EBL has an average DPS of Rs.23. SBI paid lowest dividend with an average of Rs.4.94.

Standard Chartered Bank Limited:

SCBNL has average DPS of Rs.79. Its standard deviation is 28.35 and Coefficient of variation is 35.89%. In the year 2005/06 DPS was Rs.130 which was highest dividend paid. In the year 2006/07 and 2007/08 DPS was same Rs.80 which was lower in comparison with last year. In the year 2008/09 DPS was Rs.50 which was lowest among the five years. In the year 2009/10 dividend was Rs.55. It clearly shows there are fluctuations in dividend payments from the year 2005/06 to 2009/10. Its coefficient of variation shows that there is 35.89% fluctuation in DPS except in the year 2006/07 and 2007/08.

Himalayan Bank Limited:

HBL has average DPS of Rs.18.77 and its standard deviation is 7.39. The coefficient of variation is 39.37%. The coefficient of variation shows that there is 39.37% fluctuation in DPS which means that there is no consistency in DPS. In the year 2005/06 Rs.30 dividend was paid which was higher than other four years. In the year 2006/07 DPS was Rs.15. In the year 2007/08 DPS was Rs.25. In the year 2008/09 DPS was Rs.12 which was lower in comparison to last year. In the year 2009/10 DPS was Rs.11.84 which was lowest dividend paid among the five years.

NABIL Bank Limited:

NABIL has average DPS of Rs.62 and its standard deviation is 27.31. The coefficient of variation is 44.05%. The coefficient of variation shows that there is 44.05% fluctuation in DPS which means that there is no consistency in DPS. In the year 2005/06 the DPS was Rs.85 and in the year 2006/07 the DPS was Rs.100 which was highest among five fiscal years. In the year 2007/08 the DPS was Rs.60 and in the year 2008/09 the DPS was Rs.35 which was in decreasing trend. In the same way DPS decreases to Rs.30 in the year 2009/10 which was lowest among five fiscal years.

Everest Bank Limited:

EBL has average DPS of Rs.23. Its standard deviation is 7.48 and its coefficient of variation is 32.53%. In the year 2005/06 the DPS was Rs.25 and in the year 2006/07, the DPS was Rs.10 which was lower than last year. In the year 2007/08, DPS was Rs. 20 higher than previous year. DPS was consistent in the year 2008/09 and 2009/10 Rs. 30 which was highest dividend paid. It clearly shows there was consistency in dividend payments in last two years. There are fluctuations in dividend payments from the year 2005/06 to 2007/08. Its coefficient of variation shows that there is 32.53% fluctuation in DPS except in the year 2008/09 and 2009/10

SBI Bank Limited:

SBI has average DPS of Rs.4.94 and its standard deviation is 4.26. The coefficient of variation is 86.23%. The coefficient of variation shows that there is 86.23% fluctuation in DPS which means that there is no consistency in DPS. The coefficient of variation of this bank is highest among other banks because the bank did not pay dividend in the year 2007/08. In the year 2005/06 Rs 5 dividend was paid. In the year 2006/07 DPS was Rs.12.59 which was more than two times higher than previous year. In the year 2007/08 no dividend was paid. In the year 2008/2009 and 2009/10 DPS was Rs.2.11 and Rs.5.

Above analysis shows that DPS of sample banks are not consistent. Average DPS of SCB bank is highest among the sample banks with Rs.79 and SBI bank has the lowest DPS of Rs.4.94. From the study of coefficient of variation of DPS of SCB, HBL, NABIL, EBL and SBI are 35.89%, 39.37%, 44.05%, 32.53% and 86.23% respectively. It shows EBL has lower fluctuation in dividend payment among other banks. SBI has higher fluctuation in dividend payments. Since, SBI have not paid dividend in year 2007/08.

4.1.2 Dividend Payout Ratio

The comparative structure of dividend payout ratio of five sample banks from the year 2005/06 to 2009/10 is shown below on table no.4.2.

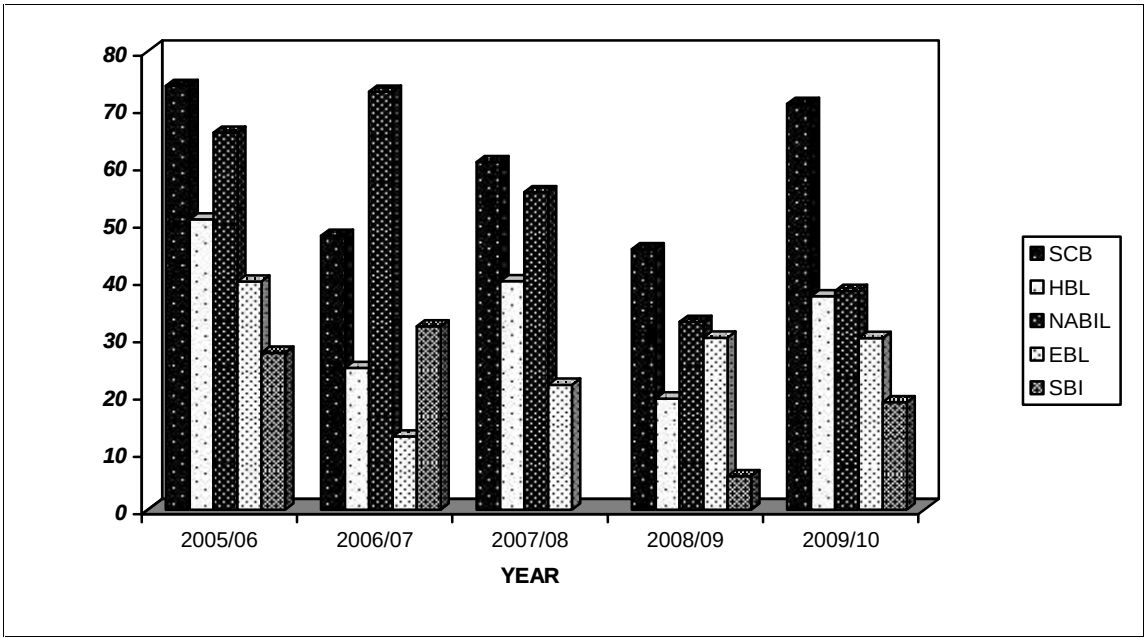
Table 4.2: Comparative structure of Dividend Payout Ratio

(In %)

Company	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	Std.Dev	C.V
SCB	73.93	47.8	60.64	45.46	70.83	59.73	11.59	19.4
HBL	50.64	24.73	39.85	19.39	37.23	34.37	11.14	32.41
NABIL	65.78	72.95	55.4	32.78	38.16	53.01	15.47	29.18
EBL	39.81	12.76	21.78	30	29.95	26.86	9.07	33.78
SBI	27.37	32	-	5.83	18.75	16.79	12.24	72.90

Source: Annual Report of SCB, NABIL, HBL, EBL and SBI of F/Y 2009/10

Figure No. 2: Comparative structure of Dividend Payout Ratio



The chart depicts the picture of Dividend Payout Ratio of all the five banks from the fiscal year 2005/06 to 2009/10. Among all the five banks, SCB has paid highest D/P Ratio with an average of 59.73 %. Rest of the four banks has lower D/P Ratio. HBL has an average D/P Ratio of 34.37 %. NABIL has an average D/P Ratio of 53.01 % EBL has an average D/P Ratio of 26.86 % and SBI has the lowest average D/P Ratio of 16.79 %.

Standard Chartered Bank Limited:

SCB has average D/P Ratio of 59.73 % and its standard deviation is 11.59. The coefficient of variation is 19.4%. This indicates that there is 19.4% fluctuation in D/P Ratio. The D/P Ratio of the bank in the year 2005/06 was 73.93 % decreased to 47.8% in year 2006/07. In the year 2007/08 the D/P ratio increased to 60.64% in comparison to last year. In the year 2008/09 it further decreased to 45.46% and in the year 2009/10 the D/P ratio increased to 70.83%.

Himalayan Bank Limited:

The average D/P Ratio of HBL is 34.37%. Its standard deviation is 11.14 and coefficient of variation is 32.41%. This indicates that there is 32.41% fluctuation

in D/P Ratio. In year 2005/06 the D/P Ratio was 50.64%. In the year 2006/07 the D/P ratio was 24.73% and increases to 39.85% in the year 20007/08. The D/P Ratio decreased to 19.39 in the year 2008/09. In the year 2007/08 the D/P ratio was 37.23%.

NABIL Bank Limited:

The average D/P Ratio of NABIL is 53.01%. Its standard deviation is 15.47 and coefficient of variation is 29.18%. This indicates that there is 29.18% fluctuation in D/P Ratio. In the year 2005/06 the D/P ratio was 65.78% and increases to 72.95% in the year 2006/07 and is the highest D/P ratio after that the D/P ratio decreases to 55.40% in the year 2007/08. The D/P Ratio of the bank in year 2008/09 was 32.78% and followed by 38.16% in the year 2009/10.

Everest Bank Limited:

The average D/P Ratio of EBL is 26.86%. Its standard deviation is 9.07 and coefficient of variation is 33.78%. This indicates that there is 33.78% fluctuation in D/P Ratio. The D/P Ratio of the bank in year 2005/06 was 39.81%. In the year 2006/07, the D/P Ratio was 12.76% which is lower in comparison to previous years. The D/P ratio increases to 21.78% and 30% in the year 2007/08 and 2008/09. The D/P Ratio in 2009/10 was 29.95% which was bit lower than previous year.

SBI Bank Limited:

The average D/P Ratio of SBI is 16.79%. Its standard deviation is 12.24 and coefficient of variation is 72.90%. This indicates that there is 72.90% fluctuation in D/P Ratio. The D/P Ratio of the bank in year 2005/06 was 27.37% and increases to 32% in the year 2006/07. The bank did not paid any dividend in the year 2007/08. The D/P Ratio was 5.83 in the year 2008/09 and increases to 18.75 in the year 2009/10.

Finally, SCB and NABIL have higher D/P Ratio and HBL, EBL and SBI have lower D/P Ratio. There is greater consistency in D/P Ratio of SCB and NABIL. HBL and EBL have high fluctuation in D/P Ratio. But among five banks SBI has highest fluctuation with the C.V Ratio of 72.90%. D/P Ratio of all the banks are fluctuating from year to year.

4.1.3 Dividend Yield

The comparative structure of dividend yield of five sample banks from the year 2005/06 to 2009/10 is shown below on table no.4.3.

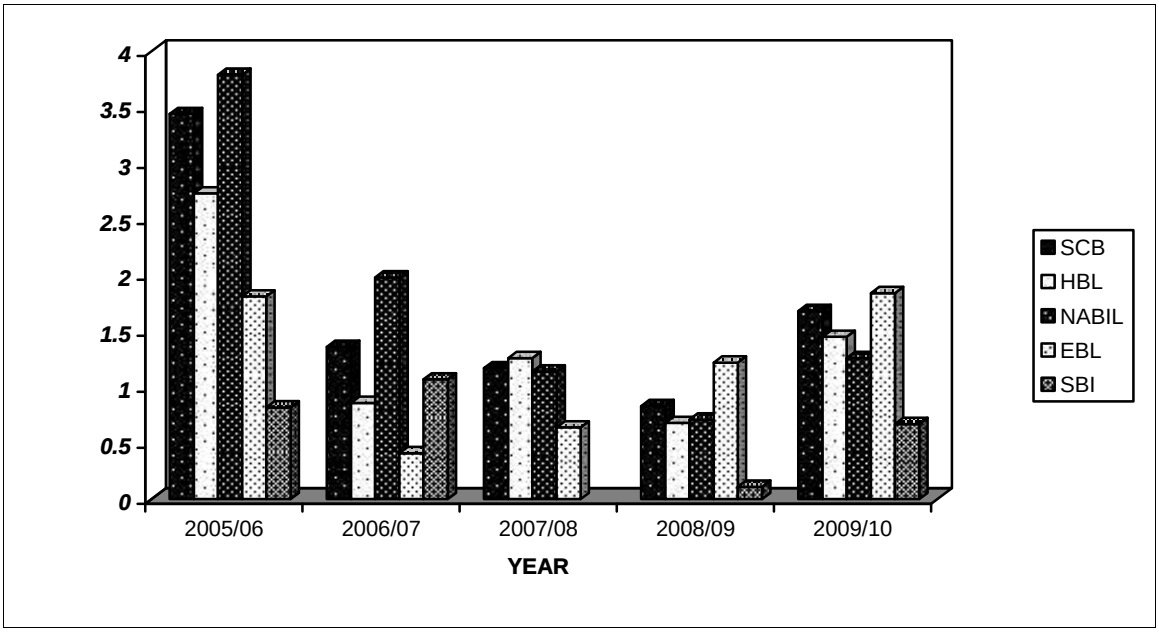
Table 4.3: Comparative Structure of Dividend Yield

(In %)

Company	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	Std.Dev	C.V
SCB	3.44	1.36	1.17	0.83	1.68	1.7	0.91	53.92
HBL	2.73	0.86	1.26	0.68	1.45	1.4	0.72	51.67
NABIL	3.79	1.98	1.14	0.71	1.26	1.78	1.09	61.19
EBL	1.81	0.41	0.64	1.22	1.84	1.18	0.59	49.52
SBI	0.82	1.07	-	0.11	0.67	0.53	0.41	77.36

Source: Annual Report of SCB, NABIL, HBL, EBL and SBI of F/Y 2009/10

Figure No. 3: Comparative Structure of Dividend Yield



The chart depicts the picture of Dividend Yield of all the five banks from the fiscal year 2005/06 to 2009/10. Among all the five banks, NABIL has the highest dividend yield with an average of 1.78%. SCB has an average dividend yield of 1.7%. HBL has an average dividend yield of 1.4 % and EBL has an average dividend yield of 1.18 %. Whereas SBI has an average dividend yield of 0.53%. So, higher the dividend yield, It is more desirable.

Standard Chartered Bank Limited:

SCB has average dividend yield of 1.7% and its standard deviation is 0.91%. The coefficient of variation is 53.92%. This indicates that there is 53.92% fluctuation in dividend yield of the bank. In the year 2005/06, the DY was 3.44%. The DY of the year 2006/07 was decreased to 1.36%. The DY was in decreasing trend in the year 2007/08 and 2008/09 with 1.17% and 0.83%. The DY increases to 1.68 in the year 2009/10.

Himalayan Bank Limited:

The average dividend yield of HBL is 1.4%. Its standard deviation is 0.72%. The coefficient of variation is 51.67% which indicates that there is 51.67% fluctuation in dividend yield. In the year 2005/06, the DY was 2.73%. The DY of the year 2006/07 was 0.86% which was lower in comparison to previous year's DY. In the year 2007/08 the DY was 1.26% which was higher in comparison to last year’s DY. The DY was 0.68% and 1.45% in the year 2008/09 and 2009/10.

NABIL Bank Limited:

The average dividend yield of NABIL is 1.78%. Its standard deviation is 1.09%. The coefficient of variation is 61.19% which indicates that there is 61.19% fluctuation in dividend yield. In the year 2005/06 the DY was 3.79 %. The DY in the year 2006/07 was 1.98% which was lower in comparison to last year’s DY and in the year 2007/08 the DY again decreased to 1.14%. The DY in the year

2008/09 was 0.71% and was the lowest DY among five fiscal years. The DY increases to 1.26% in the year 2009/10.

Everest Bank Limited:

The average dividend yield of EBL is 1.18%. Its standard deviation is 0.59%. The coefficient of variation is 49.52% which indicates that there is 49.52% fluctuation in dividend yield. In the year 2005/06, the DY was 1.81% and the DY of the year 2006/07 was 0.41% which was lower in comparison to previous year's DY. In the year 2007/08 the DY was 0.64% which was higher in comparison to last year's DY. The DY was 1.22% in the year 2008/09 and the DY increases to 1.84% in the year 2009/10.

SBI Bank Limited:

The average dividend yield of SBI is 0.53%. Its standard deviation is 0.41%. The coefficient of variation is 77.36% which indicates that there is 77.36% fluctuation in dividend yield. The fluctuation is highest among other banks and at the same time very low dividend yield. In the year 2005/06 DY was 0.82% and in the year 2006/07 the DY was 1.07% which was higher than last year. The bank did not pay any dividend in the year 2007/08. The DY for the year 2008/09 was 0.11% and the DY for the year 2009/10 was 0.67% which was higher than last year.

Finally, on the average the dividend yield of NABIL has the highest average value. The coefficient of variation shows that the highest fluctuating dividend yield is SBI with 77.36%. The dividend yield of SBI and EBL are lower than other banks.

4.1.4 Earning Per Share

The comparative structure of earning per share of five sample banks from the year 2005/06 to 2009/10 is shown below on table no.4.4.

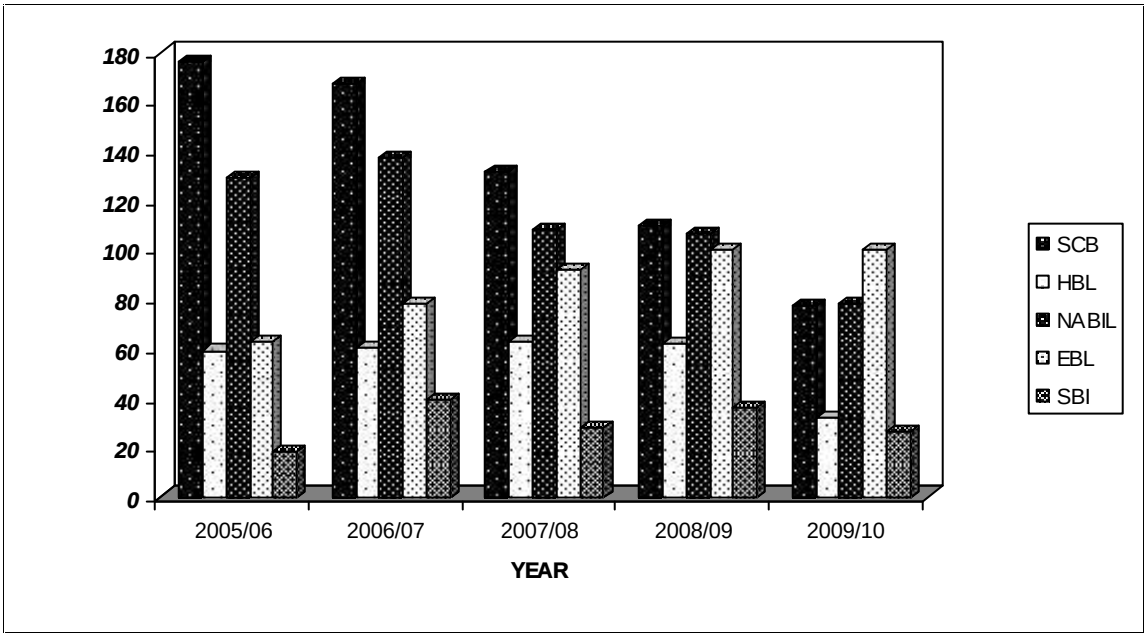
Table 4.4: Comparative Structure of Earning Per Share

(In Rs.)

Company	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	Std.Dev	C.V
SCB	175.84	167.37	131.92	109.99	77.65	132.55	36.36	27.43
HBL	59.24	60.66	62.74	61.9	31.8	55.27	11.79	21.34
NABIL	129.21	137.08	108.31	106.76	78.61	111.99	20.4	18.22
EBL	62.78	78.42	91.82	99.99	100.16	86.63	14.32	16.52
SBI	18.27	39.35	28.33	36.18	26.69	29.76	7.44	24.99

Source: Annual Report of SCB, NABIL, HBL, EBL and SBI of F/Y 2009/10

Figure No. 4: Comparative Structure of Earning Per Share



The chart depicts the picture of Earning Per Share of all the five banks from the fiscal year 2005/06 to 2009/10. Among all the five banks, the average EPS of SCB is the highest of i.e. Rs.132.55. HBL has an average EPS of Rs.55.27. NABIL has an average EPS of Rs.111.99. EBL has an average EPS of Rs.86.63 and SBI has an average EPS of Rs.29.76.

Standard Chartered Bank Limited:

SCB has average EPS of Rs.132.55 and its standard deviation is Rs.36.36. The coefficient of variation is 27.43%. The CV of the bank indicates that there is

27.43% fluctuation in EPS. In the year 2005/06, the EPS was Rs.175.84 which was highest among five fiscal years. The EPS of the year 2006/07 was Rs.167.37 which was lower in comparison to previous year's EPS. In the year 2007/08 the EPS was Rs.131.92 which was again lower in comparison to the last years. EPS was decreasing year by year to Rs.109.99 in 2008/09 and Rs.77.65 in 2009/10.

Himalayan Bank Limited:

The average EPS of HBL is Rs.55.27. Its standard deviation is Rs.11.79. The coefficient of variation is 21.34% which indicates that there is 21.34% fluctuation in EPS. In the year 2005/06, the EPS was Rs.59.24. The EPS of the year 2006/07 was Rs.60.66 which is again higher in comparison to previous year's EPS. In the year 2007/08 the EPS was Rs.62.74 which was again higher than previous year's EPS. In the year 2008/09, the EPS was Rs.61.9 and the EPS was Rs. 31.8 which was lower than previous year.

NABIL Bank Limited:

The average EPS of NABIL is Rs.111.99. Its standard deviation is Rs.20.4. The coefficient of variation is 18.22% which indicates that there is 18.22% fluctuation in EPS of the bank. In the year 2005/06, the EPS was Rs.129.21. In the year 2006/07 the EPS was Rs.137.08 which was higher in comparison to last year's EPS. The EPS in the year 2007/08 was Rs.108.31which was lower in comparison to last year's EPS. In the same way EPS was decreasing in the year 2008/09 with Rs.106.76 and Rs.78.61 in the year 2009/10.

Everest Bank Limited:

The average EPS of EBL is Rs.86.63. Its standard deviation is Rs.14.32. The coefficient of variation is 16.52% which indicates that there is 16.52% fluctuation in EPS of the bank. The EPS in the year 2005/06 was 62.8. In the year 2006/07 the EPS was Rs.74.8 which was higher in comparison to last year's. The EPS was in increasing trend with Rs.91.82 in the year 2007/08, Rs.

99.99 in the year 2008/09 and with Rs.100.16 in the year 2009/10 which was highest among the five fiscal years.

SBI Bank Limited:

The average EPS of SBI is RS.29.76. Its standard deviation is Rs.7.44. The coefficient of variation is 24.99% which indicates that there is 24.99% fluctuation in EPS of the bank. The EPS in the year 2005/06 was Rs.18.27 and the EPS increases to Rs. 39.35 in the year 2006/07. The EPS in the year 2007/08 was Rs.28.33 which was lower than last year. In the year 2008/09 the EPS again increases to Rs.36.18. In the year 2009/10 the EPS was Rs.26.69 which was lower in comparison to last year.

Finally, EPS of the Banks seems encouraging. SCB has the highest EPS among other banks in the study. There seems relative fluctuation of 10.81% to 24.58% fluctuation in EPS of the banks. SCB has the highest fluctuation of EPS. The EPS of SCB and NABIL has been decreasing. SCB has better position in the market due to higher EPS of the company. SBI seems lower position in comparison to five banks. Since, Higher the EPS, better position is seen in the stock market.

4.1.5 Market Price Per Share

The comparative structure of market price per share of five sample banks from the year 2005/06 to 2009/10 is shown below on table no.4.5.

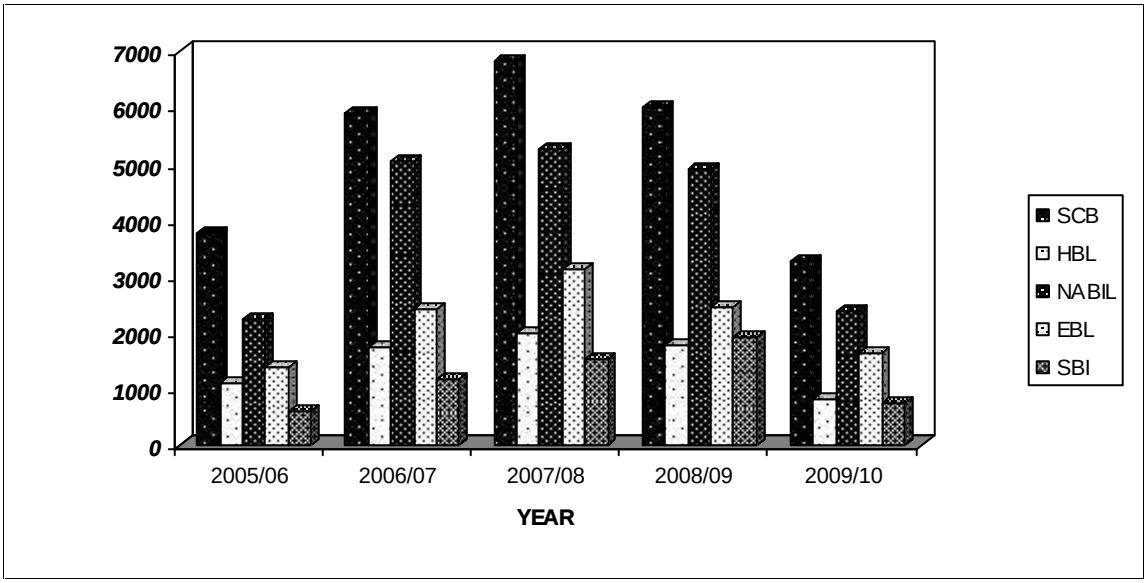
Table 4.5: Comparative structure of Market Price Per Share

(In Rs.)

Company	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	Std.Dev	C.V.
SCB	3775	5900	6830	6010	3279	5158.8	1379.52	26.74
HBL	1100	1740	1980	1760	816	1479.2	443.01	29.95
NABIL	2240	5050	5275	4899	2384	3969.6	1359.47	34.25
EBL	1379	2430	3132	2455	1630	2205.2	630.14	28.57
SBI	612	1176	1511	1900	741	1188	478.12	40.25

Source: Annual Report of SCB, NABIL, HBL, EBL and SBI of F/Y 2009/10

Figure No. 5: Comparative structure of Market Price Per Share



The chart depicts the picture of Market Price Per Share of all the five banks from the fiscal year 2005/06 to 2009/10. Among all the five banks, the average MPS of SCB is the highest of Rs.5,158.8. HBL has an average EPS of Rs.1,479.2. NABIL has an average EPS of Rs.3,969.6. EBL has an average EPS of Rs.2,205.2 and SBI has an average of Rs.1,188.

Standard Chartered Bank Limited:

SCB has average MPS of Rs.5158.8 and its standard deviation is Rs. 1379.52. The coefficient of variation is 26.74%. The CV of the bank indicates that there is 26.74% fluctuation in MPS. In the year 2005/06, the MPS was Rs.3775. The MPS of the year 2006/07 was Rs.5900 which was higher in comparison to previous year's MPS. In the year 2007/08 the MPS was Rs.6830 which was highest among the five fiscal years. The MPS was Rs.6010. The MPS further decreased to Rs.3279 in the year 2009/10.

Himalayan Bank Limited:

The average MPS of HBL is Rs.1479.2. Its standard deviation is Rs.443.01. The coefficient of variation is 29.95% which indicates that there is 29.95% fluctuation in MPS of the Bank. In the year 2005/06, the MPS was Rs.1100. The

MPS in the year 2006/07 was further increased to Rs.1740. In the year 2007/08 the MPS was Rs.1980 which was highest among the five fiscal years. The MPS of the year 2008/09 was Rs.1760 and the MPS of the year 2009/10 was Rs.816 which was lower in comparison to previous year.

NABIL Bank Limited:

The average MPS of NABIL is Rs.3969.6. Its standard deviation is Rs.1359.47. The coefficient of variation is 34.25% which indicates that there is 34.25% fluctuation in MPS of the bank. In the year 2005/06, the MPS was Rs.2240. The MPS of the year 2006/07 was Rs.5050 which was two times higher than previous year. In the year 2007/08 the MPS was Rs.5275 which was again higher in comparison to previous year's MPS. The MPS decreases in the year 2008/09 with Rs.4899 and RS.2384 in the year 2009/10.

Everest Bank Limited:

The average MPS of EBL is Rs.2205.2. Its standard deviation is Rs.630.14. The coefficient of variation is 28.57% which indicates that there is 28.57% fluctuation in MPS of the bank. In the year 2005/06, the MPS was Rs.1379. The MPS of the year 2006/07 further increased to Rs.2430. In the year 2007/08 the MPS was Rs.3132 which was again higher in comparison to previous year's MPS. In the year 2008/09 MPS was RS.2455 which was lower than last year. The MPS was Rs.1630 in the year 2009/10.

SBI Bank Limited:

The average MPS of SBI is Rs.1188. Its standard deviation is Rs.478.12. The coefficient of variation is 40.25% which indicates that there is 40.25% fluctuation in MPS of the bank. In the year 2005/06, the MPS was Rs.612. The MPS of the year 2006/07 further increased to Rs.1176. In the year 2007/08 the MPS was Rs.1511 which was again higher in comparison to previous year's MPS. In the year 2008/09 MPS was RS.1900. The MPS was Rs.741 in the year 2009/10 which was lower than last year.

Finally, the average MPS of SCB, HBL, NABIL, EBL and SBI seems encouraging. So, we can say that SCB is the most appreciable bank among the selected ones since it has the highest average MPS. There is less fluctuation in the MPS of SCB since SCB have lower coefficient of variation. The MPS of the banks has fluctuated in range of 26.74% to 40.25% as indicated by the respective CV of the banks. SBI has the highest fluctuating MPS compared to other banks.

4.1.6 Earning Yield

The comparative structure of earning yield of five sample banks from the year 2005/06 to 2009/10 is shown below on table no.4.6.

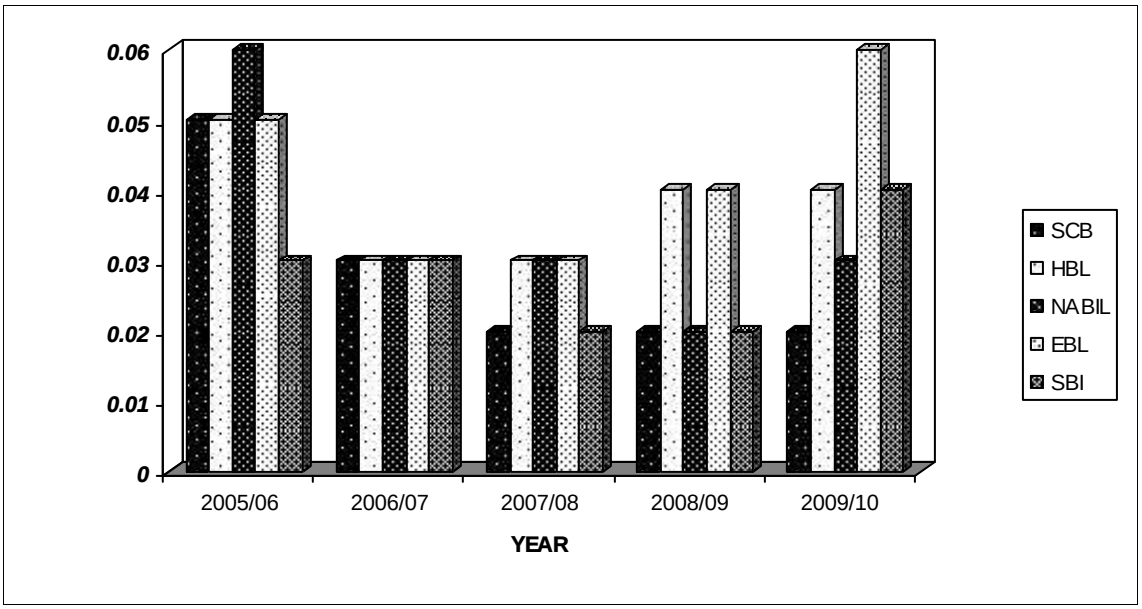
Table 4.6: Comparative Structure of Earning Yield

(In %)

Company	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	Std.Dev	C.V
SCB	0.05	0.03	0.02	0.02	0.02	0.03	0.01	41.65
HBL	0.05	0.03	0.03	0.04	0.04	0.04	0.01	19.69
NABIL	0.06	0.03	0.03	0.02	0.03	0.03	0.01	39.9
EBL	0.05	0.03	0.03	0.04	0.06	0.04	0.01	27.77
SBI	0.03	0.03	0.02	0.02	0.04	0.03	0.01	26.73

Source: Annual Report of SCB, NABIL, HBL, EBL and SBI of F/Y 2009/10

Figure No. 6: Comparative Structure of Earning Yield



The chart depicts the picture of Earning Yield of all the five banks from the fiscal year 2005/06 to 2009/10. Among all the five banks, HBL and EBL has the highest earning yield with an average of 0.04 %. SCB, NABIL and SBI have an average earning yield of 0.03 %.

Standard Chartered Bank Limited:

The average EY of SCB is 0.03% and its standard deviation is 0.01%. The coefficient of variation is 41.65%. The Coefficient of variation of the bank indicates that there is 41.65% fluctuation in EY. The fluctuation is highest among other banks. The EY of the bank in the year 2005/06 was 0.05%. After that EY of the bank decreases to 0.03% in 2006/07. Again the EY of the bank decreases to 0.02% during 2007/08 and the EY remains same in the year 2008/09 and 2009/10 i.e. 0.02%.

Himalayan Bank Limited:

The average EY of HBL is 0.04%. Its standard deviation is 0.01%. The coefficient of variation is 19.61% which indicates that there is 19.61% fluctuation in EY of the Bank. The EY of the bank in the year 2005/06 was 0.05% and in the year 2006/07 and 2007/08 was 0.03% in both the years. Again the EY of the bank increases to 0.04% during 2008/09 and 2009/10 respectively.

NABIL Bank Limited:

The average EY of NABIL is 0.03%. Its standard deviation is 0.01%. The coefficient of variation is 39.9% which indicates that there is 39.9% fluctuation in EY of the bank. The EY of the bank in the year 2005/06 was 0.06%. In the year 2006/07 and 2007/08 was 0.03% in both the years. After that EY of the bank decreases to 0.02% in 2008/09. In the year 2009/10 the EY again increases to 0.03%.

Everest Bank Limited:

The average EY of EBL is 0.04%. Its standard deviation is 0.01%. The coefficient of variation is 27.77% which shows that there is 27.77% fluctuation

in EY of the bank. The EY of the bank in the year 2005/06 was 0.05%. In 2006/07 and 2007/08 the EY again decreases to 0.03%. In the year 2008/09 EY increases to 0.04%. Again the EY of the bank increases to 0.06% in the year 2009/10.

SBI Bank Limited:

The average EY of SBI is 0.03%. Its standard deviation is 0.01%. The coefficient of variation is 26.73% which shows that there is 26.73% fluctuation in the EY of the bank. The EY of the bank in the year 2005/06 and 2006/07 is 0.03%. In 2007/08 and 2009/10 the EY was 0.02% in both the years. After that the EY increases to 0.04% in 2009/10

Finally, the average EY of HBL and EBL is the highest among other banks. There is less fluctuation in the EY of HBL. The EY of the banks has fluctuated in range of 19.69% to 41.65% as indicated by the respective CV of the banks. SCB has the highest fluctuating EY compared to other banks.

4.1.7 Price Earning Ratio

The comparative structure of price earning ratio of five sample banks from the year 2005/06 to 2009/10 is shown below on table no.4.7.

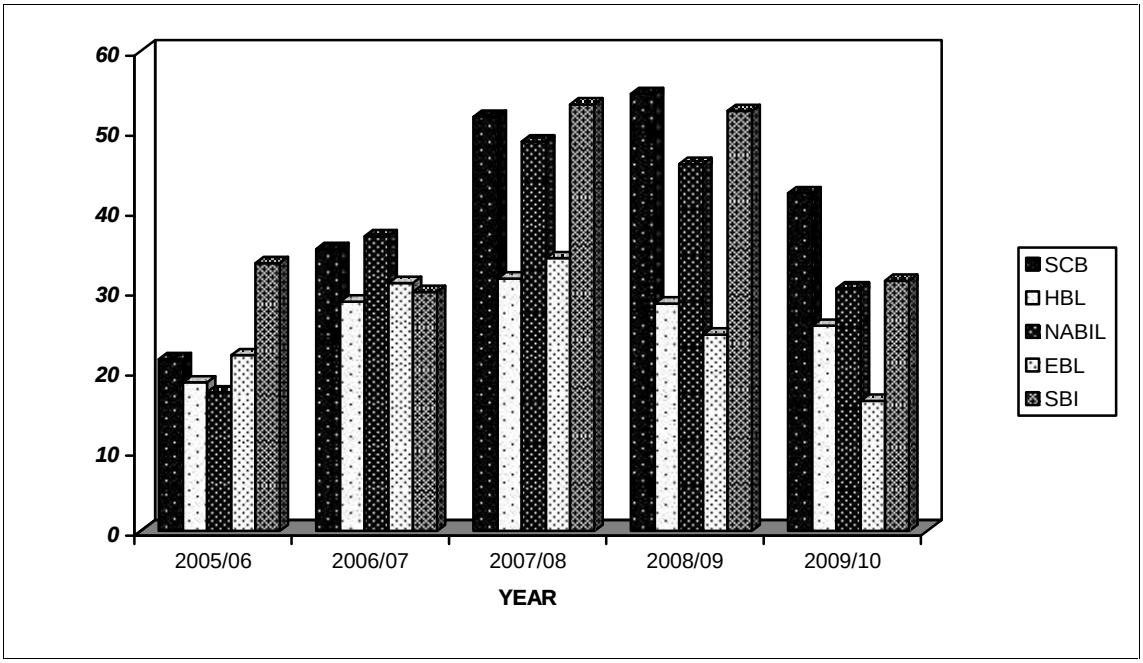
Table 4.7: Comparative Structure of Price earning Ratio

(In %)

Company	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	Std.Dev	C.V
SCB	21.47	35.25	51.77	54.64	42.23	41.07	11.98	29.18
HBL	18.57	28.69	31.56	28.43	25.66	26.58	4.42	16.63
NABIL	17.34	36.84	48.7	45.89	30.33	35.82	11.31	31.58
EBL	21.97	30.99	34.11	24.55	16.27	25.58	6.37	24.9
SBI	33.49	29.89	53.34	52.52	31.28	40.1	10.54	26.28

Source: Annual Report of SCB, NABIL, HBL, EBL and SBI of F/Y 2009/10

Figure No. 7: Comparative Structure of Price Earning Ratio



The chart depicts the picture of Price Earning Ratio of all the five banks from the fiscal year 2005/06 to 2009/10. Among all the five banks, the average P/E Ratio of SCB is the highest of 41.07 %. HBL has an average P/E Ratio of 26.58 %. EBL has an average P/E Ratio of 25.58% and NABIL has an average P/E Ratio of 35.82 %. Whereas SBI has an average P/E Ratio of 40.1%.

Standard Chartered Bank Limited:

SCB has average P/E Ratio of 41.07% and its standard deviation is 11.98%. The coefficient of variation is 29.18%. The CV of the bank indicates that there is 29.18% fluctuation in P/E Ratio. In the year 2005/06, the P/E ratio was 21.47%. In the year 2006/07, the P/E Ratio further increased to 35.25%. The P/E Ratio of the year 2007/08 was 51.77% which is again higher in comparison to previous year's P/E Ratio. The P/E Ratio increased to 54.64% in the year 2008/09. But the P/E Ratio decreased to 42.23% in 2009/10.

Himalayan Bank Limited:

The average P/E Ratio of HBL is 26.58%. Its standard deviation is 4.42%. The coefficient of variation is 16.63% which indicates that there is 16.63%

fluctuation in P/E Ratio of the Bank. . In the year 2005/06, the P/E ratio was 18.57%. In the year 2006/07 the P/E Ratio was 28.69% which were higher than last year. The P/E Ratio of the year 2007/08 was 31.56% which are higher in comparison to previous year's P/E Ratio. In the year 2008/09 the P/E Ratio decreased to 28.43%. in the year 2009/10 the P/E Ratio was 25.66% which was lower than last year.

NABIL Bank Limited:

The average P/E Ratio of NABIL is 35.82%. Its standard deviation is 11.31%. The coefficient of variation is 31.58% which indicates that there is 31.58% fluctuation in P/E Ratio of the bank. In the year 2005/06, the P/E ratio was 17.34%. In the year 2006/07, the P/E Ratio was 36.84% which were higher than last year. The P/E Ratio of the year 2007/08 was 48.7% which are higher in comparison to previous year's P/E Ratio. In the year 2008/09 the P/E Ratio was decreased to 45.89%. In the year 2009/10 the P/E Ratio was 30.33% which were lower than previous year.

Everest Bank Limited:

The average P/E Ratio of EBL is 25.58%. Its standard deviation is 6.37%. The coefficient of variation is 24.9% which indicates that there is 24.9% fluctuation in P/E Ratio of the bank. In the year 2005/06, the P/E Ratio was 21.97%. The P/E Ratio of the year 2006/07 was 30.99% and 34.11% in the year 2007/08 which was higher in comparison to previous year's P/E Ratio. The P/E Ratio decreases in the year 2008/09 by 24.55%. In the year 2009/10 the P/E Ratio was 16.27% which were again lower than last year.

SBI Bank Limited:

The average P/E Ratio of SBI is 40.1%. Its standard deviation is 10.54%. The coefficient of variation is 26.28% which indicates that there is 26.28% fluctuation in P/E Ratio of the bank. In the year 2005/06, the P/E Ratio was 33.49%. The P/E Ratio in the year 2006/07 was 29.89% which were lower in comparison to previous year. In the year 2007/08 the P/E Ratio was 53.34%

which were higher than last year. The P/E Ratio was 52.52% in the year 2008/09. The P/E Ratio decreases to 31.28% in the year 2009/10

Finally, the average P/E Ratio of SCB is in the highest position. NABIL, EBL, SBI and HBL are also in good position. There is less fluctuation in the P/E Ratio of HBL and EBL since they have lower coefficient of variation. The P/E Ratio of the banks has fluctuated in range of 16.63% to 31.58% as indicated by the respective CV of the banks. SCB and NABIL have higher fluctuation in P/E Ratio compared to other banks.

4.2 Correlation Analysis

4.2.1. Correlation between Earning per Share (EPS) and Dividend Per Share (DPS)

Table No. 4.8: Correlation between EPS and DPS

Company	Coefficient of correlation	Relationship	R^2	6P.E	Sig/Insig
SCB	0.817	Direct	0.668	0.5998	Sig
HBL	0.433	"	0.187	1.4688	Insig
NABIL	0.921	"	0.848	0.2746	Sig
EBL	0.433	"	0.187	1.4687	Insig
SBI	0.385	"	0.148	1.5414	Insig

The above table depicts the relationship between EPS and DPS of the five Banks. Coefficient of correlation (r) between EPS and DPS of SCB, HBL, NABIL, EBL and SBI are 0.817, 0.433, 0.921, 0.433 and 0.385 respectively. Coefficient of determination between EPS and DPS of SCB is 0.668 which indicates that 66.8 percent variation is explained in the dependent variable DPS due to the changes in the value of independent variable EPS. Secondly coefficient of determination between EPS and DPS of HBL is 0.187 which

indicates that the variations in the EPS explain 18.7 percent of the variations in DPS. In case of NABIL, the coefficient of determination is 0.848 which shows 84.8 percent variation is explained in DPS due to changes in EPS. In the case of EBL, the coefficient of determination is 0.187 which indicates that the variations in the EPS explain 18.7 percent of the variation in DPS. Finally the coefficient of determination of SBI is 0.148 which indicates that the variations in the EPS explain 14.8 percent of the variations in DPS. To measure the significance of the relationships between EPS and DPS probable error is calculated. The same table depicts that coefficient of correlation of five Banks. Since correlation coefficient of SCB and NABIL are greater than 6P.E. So, we can conclude that there is significant relationship between EPS and DPS. Coefficient of correlation of HBL, EBL and SBI are smaller than 6P.E. which indicates that there is insignificant relationship between EPS and DPS.

4.2.2. Correlation between Earning per Share (EPS) and Market Price Per Share (MPS)

Table No. 4.9: Correlation between EPS and MPS

Company	Coefficient of correlation	Relationship	R^2	6P.E	Sig/Insig
SCB	0.195	Direct	0.038	1.7382	Insig
HBL	0.807	"	0.65	0.6315	Sig
NABIL	0.293	"	0.086	1.6519	Insig
EBL	0.404	"	0.163	1.5118	Insig
SBI	0.674	"	0.454	0.9861	Insig

The above table depicts the relationship between EPS and MPS of the five Banks. Coefficient of correlation (r) between EPS and MPS of SCB, HBL, NABIL, EBL and SBI are 0.195, 0.807, 0.293, 0.404 and 0.674 respectively. There is a direct relationship between EPS and MPS in all the five banks. Coefficient of determination between EPS and MPS of SCB is 0.038 which indicates that 3.8 percent variation is explained in MPS due to the changes in the

value of EPS. In case of HBL, the coefficient of determination between EPS and MPS is 0.65 which indicates that explains 65 percent variations in MPS due to the variations in EPS. In case of NABIL, the coefficient of determination is 0.086 which shows 8.6 percent variation is explained in MPS due to changes in EPS. The coefficient of determination of EBL is 0.163 which indicates that the variations in the EPS explain 16.3 percent of the variation in MPS. Finally the coefficient of determination of SBI is 0.454 which indicates that the variations in the EPS explain 45.4 percent of the variation in MPS.

To measure the significance of the relationships between EPS and MPS probable error is calculated. The same table depicts that coefficient of correlation of five Banks. Since only correlation coefficient of HBL is greater than 6P.E. So, we can conclude that there is significant relationship between EPS and MPS. Coefficient of correlation of SCB, NABIL, EBL and SBI are smaller than 6P.E. which indicates that there is insignificant relationship between EPS and MPS.

4.2.3 Correlation between Dividend Payout Ratio (DPR) and Market price per share (MPS)

Table No. 4.10: Correlation between DPR and MPS

Company	Coefficient of correlation	Relationship	R^2	6P.E	Sig/Insig
SCB	0.75	Direct	0.563	0.7895	Insig
HBL	0.488	"	0.238	1.3762	Insig
NABIL	0.07	"	0.005	1.7979	Insig
EBL	0.684	"	0.469	0.9602	Insig
SBI	0.696	"	0.476	1.3996	Insig

The above table depicts the relationship between DPR and MPS of the five Banks. Coefficient of correlation (r) between DPR and MPS of SCB, HBL, NABIL, EBL and SBI are 0.75, 0.488, 0.07, 0.684 and 0.69 respectively. The

figures indicate that all the banks have direct relationship between DPR and MPS. Coefficient of determination between DPR and MPS of SCB, HBL, NABIL, EBL and SBI are 0.563, 0.238, 0.005, 0.469 and 0.476 respectively. The figure of SCB indicates that there is 56.3 percent variations are explained in MPS due to the changes in the value of DPR. Similarly, the figure of HBL explains 23.8 percent variations in MPS. In case of NABIL there is a 0.5 percent variation in MPS. The figure of EBL explains 46.9 percent variations in MPS. Finally, the figure of SBI explains 47.6 percent variations in MPS due to changes in DPR.

To measure the significance of the relationships between DPR and MPS probable error is calculated. The same table depicts that coefficient of correlation of five Banks. Since correlation coefficient of all five banks is lower than 6P.E. So, we can conclude that there is insignificant relationship between DPR and MPS of all five banks.

4.2.4 Correlation between Dividend Per Share (DPS) and Market price per share (MPS)

Table No. 4.11: Correlation between DPS and MPS

Company	Coefficient of correlation	Relationship	R^2	6P.E	Sig/Insig
SCB	0.244	Direct	0.06	1.6991	Insig
HBL	0.035	"	0.001	1.8045	Insig
NABIL	0.131	"	0.017	1.7757	Insig
EBL	0.409	"	0.167	1.5051	Insig
SBI	0.369	"	0.136	1.5632	Insig

The above table depicts the relationship between DPS and MPS of the five Banks. Coefficient of correlation (r) between DPS and MPS of SCB, HBL, NABIL, EBL and SBI are 0.244, 0.035, 0.131, 0.409 and 0.369 respectively. The

figures indicate that all the banks have direct relationship between DPS and MPS. Coefficient of determination between DPS and MPS of SCB, HBL, NABIL, EBL and SBI are 0.06, 0.001, 0.017, 0.167 and 0.136 respectively. The figure of SCB indicates that there is 6 percent variation is explained in MPS due to the changes in the value of DPS. Similarly, the figure of HBL explains 0.1 percent variations in MPS. In case of NABIL there is 1.7 percent variation in MPS. The figure of EBL explains 16.7 percent variations in MPS. Finally the figure of SBI explains 13.6 percent variations in MPS due to changes in DPS.

To measure the significance of the relationships between DPS and MPS probable error is calculated. The same table depicts that coefficient of correlation of five Banks. Since correlation coefficient of all five banks is lower than 6P.E. So, we can conclude that there is insignificant relationship between DPS and MPS of all five banks.

4.2.5 Correlation between Dividend Yield (DY) and Market price per share (MPS)

Table No. 4.12: Correlation between DY and MPS

Company	Coefficient of correlation	Relationship	R^2	6P.E	Sig/Insig
SCB	0.674	Direct	0.454	0.9871	Insig
HBL	0.595	"	0.354	1.1607	Insig
NABIL	0.577	"	0.333	1.2042	Insig
EBL	0.847	"	0.717	0.5119	Sig
SBI	0.715	"	0.512	0.8834	Insig

The above table depicts the relationship between DPR and MPS of the five Banks. Coefficient of correlation (r) between DY and MPS of SCB, HBL, NABIL, EBL and SBI are 0.674, 0.595, 0.577, 0.847 and 0.715 respectively. The figures indicate that all the banks have direct relationship between DY and MPS.

Coefficient of determination between DY and MPS of SCB, HBL, NABIL, EBL and SBI are 0.454, 0.354, 0.333, 0.717 and 0.512 respectively. The figure of SCB indicates that there is 45.4 percent variation is explained in MPS due to the changes in the value of DY. Similarly, the figure of HBL explains 35.4 percent variations in MPS. In case of NABIL there is 33.3 percent variation in MPS. The figure of EBL indicates that there is 71.7 percent variation is explained in MPS. Finally, the figure of SBI explains 15.2 percent variation in MPS due to the changes in DY.

To measure the significance of the relationships between DY and MPS probable error is calculated. The same table depicts that coefficient of correlation of five Banks. Since correlation coefficient of EBL is greater than 6P.E. So, we can conclude that there is significant relationship between DY and MPS. And rest of the four banks coefficient of correlation is smaller than 6P.E. which indicates that there is insignificant relationship between DY and MPS.

Regression Analysis

Regression Analysis is a statistical device and considered as a useful tool for determining the strength of relationship between two or more variables. With the help of this device we can estimate or predict the value of one variable when the value of other variable is known. The estimation has an important role in various sectors. So, this tool has been used for this study. The analysis has two parts i.e. Simple regression and Multiple regression.

4.3. Simple Regression:

Simple linear regression is performed between one independent variable and one dependent variable. The linear equation for simple regression analysis is: Y= a+bx.

4.3.1 Dependent Variable DPS (Y) on EPS (X)

Table No. 4.13: Regression analysis of DPS on EPS

Banks	No. of observation	Constant (a)	Regression Coefficient B	R^2	S.E. of Estimate	't' Value
SCB	5	-5.5044	0.638	0.668	21.084	2.454
HBL	5	3.7819	0.271	0.187	8.6	0.832
NABIL	5	-76.096	1.233	0.848	13.732	4.0949
EBL	5	3.4119	0.226	0.187	8.711	0.832
SBI	5	-1.6072	0.220	0.148	5.081	0.7229

Tabulated value of 't' for 3 d.f at 5 level of significance = 3.182

The above table depicts the major output of the simple regression analysis between DPS (Y) and EPS (X) of five banks.

From the above regression equation, the regression Coefficient (b) SCB is 0.638 which indicates that one rupee increase in EPS leads to Rs.0.638 increase in DPS. The coefficient of determination is 0.668. This indicates that only 66.8 percent variation in DPS explained by variations in EPS. The value of constant (a) is -5.5044. In case of HBL the regression coefficient (b) is 0.271 which indicates that one rupee increase in EPS leads to Rs.0.271 increase in DPS. The coefficient of determination is 0.187. This indicates that only 18.7 percent variation in DPS explained by variations in EPS. The value of constant (a) is 3.7819. In case of NABIL the regression coefficient (b) is 1.233. It indicates that one rupee increase in EPS leads to increase of Rs.1.233 in DPS. The coefficient of determination is 0.848 which shows 84.8 percent variation in DPS explained by variations in EPS. In case of EBL, its regression coefficient is 0.226 which shows that one rupee increase in EPS leads to Rs.0.226 increases in DPS. In case of SBI, the regression of coefficient is 0.220 which indicates that one rupee increase in EPS leads to Rs.0.220 increase in DPS. The coefficient of

determination is 0.148. This indicates only 14.8 percent variation in DPS explained by variation in EPS.

The T-statistics of SCB, HBL, EBL and SBI are not statistically significant at 5% level of significance since it's 't' value is smaller than tabulated value which means there is no significant relationship between DPS and EPS. Whereas the T-statistics of NABIL is statistically significant at 5% level of significance since it's 't' value 4.0949 is greater than tabulated value which means there is significant relationship between DPS and EPS.

4.3.2 Dependent Variable MPS (Y) on DPS (X)

Table No. 4.14: Regression Analysis of MPS on DPS

Banks	No. of observation	Constant (a)	Regression Coefficient (b)	R^2	S.E. of Estimate	't' Value
SCB	5	6096.8	-11.87	0.06	1727.1	0.4358
HBL	5	1439.79	2.1001	0.001	571.574	0.0607
NABIL	5	3565.54	6.5172	0.017	1739.96	0.2289
EBL	5	2996.48	-34.4	0.167	742.506	0.7763
SBI	5	1392.41	-41.38	0.136	573.672	0.6881

Tabulated value of't' for 3 d.f at 5 level of significance = 3.182

The above table depicts the major output of the simple regression analysis between MPS (Y) and DPS (X) of five banks.

From the above regression equation, the regression Coefficient (b) of SCB is -11.87 which indicate that one rupee increase in DPS leads to Rs.11.87 decrease in MPS. The coefficient of determination is 0.06. This indicates that only 6 percent variation in MPS explained by variations in DPS. The value of constant (a) is 6096.8.

In case of HBL the regression coefficient (b) is positive. i.e. 2.1001 which indicate that one rupee increase in DPS leads to increase of Rs.2.1001 in MPS. The coefficient of determination is .0001 which shows that 0.1 percent variation in MPS explained by variation in DPS. In case of NABIL, The regression coefficient is 6.5172 which indicate that one rupee increase in DPS leads to Rs.6.5172 increase in MPS. The coefficient of determination is 0.017 which shows that 1.7 percent variation in MPS explained by variation in DPS. In the case of EBL and SBI the regression coefficients are -34.4 and -41.38 which indicates that one rupee increase in DPS leads to Rs.34.4 and Rs.41.38 decrease in MPS respectively. The coefficient of determination is 0.167 and 0.136 which shows that 16.7 percent and 13.6 percent variation in MPS explained by variation in DPS.

The t-statistics of SCB, HBL, NABIL, EBL and SBI all the five banks are not statistically significant at 5% level of significance since it's 't' value is smaller than tabulated value which means the relationship between the MPS and DPS of all the banks is not so significant.

4.3.3 Dependent Variable MPS (Y) on EPS (X)

Table No. 4.15 : Regression analysis of MPS on EPS

Banks	No. of observation	Constant (a)	Regression Coefficient B	R^2	S.E. of Estimate	't' Value
SCB	5	4179.18	7.3904	0.038	1746.84	0.3444
HBL	5	-195.21	30.296	0.65	338.136	2.3669
NABIL	5	1785.52	19.502	0.086	1678.22	0.5308
EBL	5	664.439	17.785	0.163	744.142	0.765
SBI	5	-101.28	43.317	0.454	456.023	1.5803

Tabulated value of 't' for 3 d.f at 5 level of significance = 3.182

The above table depicts the major output of the simple regression analysis between MPS (Y) and EPS (X) of five banks.

From the above regression equation, the regression Coefficient (b) of SCB is 7.3904 which indicate that one rupee increase in EPS leads to Rs. 7.3904 increase in MPS. The coefficient of determination is 0.038. This indicates that only 3.8 percent variation in MPS explained by variations in EPS. The value of constant (a) is 4179.18.

In case of HBL the regression coefficient (b) is positive. i.e. 30.296 which indicate that one rupee increase in EPS leads to increase of Rs.30.296 in MPS. The coefficient of determination is 0.65 which shows that 65 percent variation in MPS explained by variation in EPS. In case of NABIL the regression coefficient is 19.502 which indicate that one rupee increase in EPS leads to Rs.19.502 increases in MPS. The coefficient of determination is 0.086 which shows that 8.6 percent variation in MPS explained by variation in EPS. In the case of EBL and SBI the regression coefficient are 17.785 and 43.317 which indicates that one rupee increase in EPS leads to Rs.178.85 and Rs.43.317 increases in MPS respectively. The coefficient of determination are 0.163 and 0.454 which shows that 16.3 percent and 45.4 percent variation in MPS explained by variation in EPS.

The T-statistic of all five banks i.e. SCB, HBL, NABIL, EBL and SBI are not statistically significant at 5 percent level of significance since the value of‘t’ is smaller than tabulated value which means there is no significant relationship between MPS and EPS.

4.3.4 Dependent Variable MPS (Y) on DY (X)

Table No. 4.16: Regression Analysis of MPS on DY

Banks	No. of observation	Constant (a)	Regression Coefficient B	R^2	S.E. of Estimate	't' Value
SCB	5	6882.05	-1016	0.454	1316.39	1.5803
HBL	5	1989.43	-365.5	0.354	459.656	1.2822
NABIL	5	5252.61	-722.4	0.333	1432.84	1.2236
EBL	5	3282.54	-909.9	0.717	433.013	2.7597
SBI	5	1630.42	-825.5	0.512	431.201	1.7740

Tabulated value of 't' for 3 d.f at 5 level of significance = 3.182

The above table depicts the major output of the simple regression analysis between MPS (Y) and DY (X) of five banks.

From the above regression equation, the regression Coefficient (b) of SCB is -1016 which indicate that one rupee increase in DY leads to Rs.1016 decrease in MPS. The coefficient of determination is 0.454. This indicates that only 45.4 percent variation in MPS explained by variations in DY. The value of constant (a) is 6882.05.

In case of HBL the regression coefficient (b) is negative. i.e. -365.5. which indicate that one rupee increase in DY leads to decrease of Rs.365.5 in MPS. The coefficient of determination is 0.354 which shows that 35.4 percent variation in MPS explained by variation in DY. In case of NABIL the regression coefficient is -722.4 which indicates that one rupee increase in DY leads to Rs.722.4 decrease in MPS. The coefficient of determination is 0.333 which indicate that only 33.3 percent variation in MPS explained by variation in DY. In case of EBL and SBI the regression coefficient are -909.9 and – 828.5 which indicates that one rupee increase in DY leads to RS, 909.9 and RS. 828.5 decrease in MPS respectively. The coefficient of determination is 0.717 and

0.512 which shows that 71.7 percent and 51.2 percent variation in MPS explained by variation in DY.

The t-statistics of all the five Banks are not statistically significant at 5 percent level of significance since the value of 't' is smaller than tabulated value which means there is no significant relationship between MPS and DY.

4.3.5 Dependent Variable MPS (Y) on DPR (X)

Table No. 4.17: Regression Analysis of MPS on DPR

Banks	No. of observation	Constant	Regression Coefficient	R^2	S.E. of Estimate	't' Value
		(a)	B			
SCB	5	10493.5	-89.31	0.563	1177.31	1.964
HBL	5	2146.47	-19.42	0.238	499.16	0.9684
NABIL	5	3645.16	6.12	0.005	1750.81	0.1215
EBL	5	3481.9	-47.53	0.469	593.058	1.6241
SBI	5	1644.69	-27.20	0.476	442.975	1.6509

Tabulated value of 't' for 3 d.f at 5 level of significance = 3.182

The above table depicts the major output of the simple regression analysis between MPS (Y) and DPR (X) of five banks.

From the above regression equation, the regression Coefficient (b) of SCB is -89.31 which indicates that one percent increase in DPR leads to 89.31 percent decrease in MPS. The coefficient of determination is 0.563 this indicates that there is 56.3 percent variation in MPS explained by variations in DPR. The value of constant (a) is 10439.5.

In case of HBL the regression coefficient (b) is -19.42 which indicate that one percent increase in DPR leads to decrease of 19.42 percent in MPS. The coefficient of determination is 0.238 which shows that 23.8 percent variation in

MPS explained by variation in DPR. In case of NABIL the regression coefficient is positive i.e. 6.12 which indicate that one percent increase in DPR leads to 6.12 percent increase in MPS. The coefficient of determination is 0.005 which shows that 0.5 percent variation in MPS explained by variation in DPR. In the case of EBL and SBI, the regression coefficient (b) are negative -47.53 and -27.20 which indicates that one percent increase in DPR leads to 47.53 and 27.20 percent decreases in MPS respectively. The coefficient of determination is 0.469 and 0.476 which shows that 46.9 percent and 47.6 percent variation in MPS explained by variation in DPR.

The t-statistics of SCB, HBL, NABIL, EBL and SBI all the five banks are not statistically significant at 5% level of significance since it's 't' value is smaller than tabulated value which means the relationship between the MPS and DPS of all the banks is not so significant.

4.4 Multiple Regression Analysis:

Multiple regression analysis is performed between more than one independent variable and one dependent variable. The regression Equation of multiple regression is $Y= a + b_1X_1 + b_2X_2 + b_3X_3$.

4.4.1 Regression of MPS on EPS, DPS and DPR

Table No. 4.18: Regression Analysis of MPS on EPS, DPS and DPR

Banks	No. of case listed	Constant	Regression Coefficient			R_2	S.E.	T value
		A	b_1	b_2	b_3			
SCB	5	12221	-12.805	28.981	-128.14	0.597	1959.08	2.108
HBL	5	37623	-582.49	1651.3	-1016.7	0.936	250.31	6.627
NABIL	5	-9845.8	142.09	-197.1	190.94	0.257	2620.57	1.019
EBL	5	-17120	259.52	-757.87	531.41	0.821	595.82	3.709
SBI	5	-994.82	85.46	-176.1	30.31	0.935	271.60	6.569

Tabulated value of 't' for 3 d.f at 5 level of significance = 3.182

The above table shows regression equation of market per share on earning per share, dividend per share and dividend payout ratio. In case of SCB, the regression coefficient for EPS and DRP are negative i.e. -12.805 and -128.14 which indicates that one rupee increase in EPS and DPR leads to Rs.12.805 and Rs.128.14 decrease in MPS. The regression coefficient of DPS is 28.981which show that there is positive relationship between MPS and DPS since increase in DPS cause increase in MPS. The value of multiple coefficient of determination is 0.597 which shows 59.7 percent variation in MPS explained by variations in EPS, DPS and DPR.

In case of HBL, the regression coefficient for EPS and DPR are negative. i.e. -582.49 and -1016.7 which indicates that one rupee increase in EPS and DPR lead about Rs.582.49 and Rs.1016.7 decrease in MPS. The regression coefficient of DPS is 1651.3 which indicate one rupee increase in DPS causes Rs.1651.3 increase in MPS. The value of multiple coefficient of determination is 0.936 which shows 93.6 percent variation in MPS explained by variations in EPS, DPS and DPR.

In case of NABIL, the regression coefficient of EPS and DPR are positive i.e. 142,09 and 190.94 respectively. This situation indicates that EPS and DPR have positive relationship with MPS. Thus, one rupee increase in EPS and DPR leads to Rs.142.09 and Rs.190.94 increase in MPS respectively. The regression coefficient of DPS is -197.1. This situation indicates that the relationship between MPS and DPS is negative since one rupee increase in DPS causes Rs.197.1 decrease in MPS. The value of multiple coefficient of determination is 0.257 which shows 25.7 percent variation in MPS explained by variations in EPS, DPS and DPR.

In case of EBL, the regression coefficient of EPS and DPR are positive i.e. 259.52 and 531.41 respectively. Thus MPS has positive relationship with EPS and DPR respectively. One rupee increase in EPS and DPR leads to Rs.259.52 and Rs.531.41 increase in MPS respectively. The regression coefficient of DPS

is negative i.e. -757.87. This situation indicates that DPS has negative relationship with MPS. Thus, one rupee increase in DPS leads to Rs.757.87 decrease in MPS. The value of multiple coefficient of determination is 0.821 which shows 82.1 percent variation in MPS explained by variations in EPS, DPS and DPR.

In case of SBI, the regression coefficient of EPS and DPR are positive i.e. 85.46 and 30.31 which indicates that one rupee increase in EPS and DPR leads to Rs. 85.46 and Rs. 30.31 increases in MPS. But the regression of DPS is negative i.e. -176.12 which indicate that one rupee increase in DPS leads to Rs.176.10 decrease in MPS. The value of multiple coefficient of determination is 0.935 which shows 93.5 percent variation in MPS explained by variations in EPS, DPS and DPR.

SCB and NABIL have relatively high S.E of coefficients but HBL, EBL and SBI has low S.E of coefficients. The constant (a) of SCB and HBL is positive value whereas NABIL, EBL and SBI have negative value.

The T-statistic of SCB and NABIL are not statistically significant at 5% level of significance since it's 't' value is smaller than tabulated value which means there is no significant relationship between MPS, EPS, DPS and DPR of SCB and NABIL Bank. The T-statistic of HBL, EBL and SBI are statistically significant at 5% level of significance since it's 't' value is greater than tabulated value which means the relationship between MPS, EPS, DPS and DPR of these three banks are significant.

4.5 Major Findings

The major findings obtained from the above data analysis are stated as follows.

1. SCB has the highest average dividend per share among other banks. NABIL also pay good dividend so it is in second place among five banks. SBI has lowest DPS. While looking at the CV of the banks SBI has the

highest CV which indicates relative dispersion is also the highest than other banks. Whereas, EBL has the lowest CV. The study shows that SBI do not have stable and consistent dividend payment practice. Dividend payment of all five banks is in decreasing trend.

2. In case of DPR, SCB has the highest average DPR among other banks. NABIL comes in second position. SBI has the lowest average DPR and also it has the highest fluctuation indicated by its CV of 72.90 percent. SCB has the lowest fluctuation in DPR. Whereas HBL, NABIL and SBI has the fluctuation with 32.41 percent, 29.18 percent and 33.78 percent respectively.
3. NABIL has the highest average dividend yield. Similarly, SCB has also highest average dividend yield of Rs.1.7. SBI has lowest average DY and highest fluctuation in DY as indicated by its CV of 77.36 percent. EBL has lowest CV of 49.52 percent which indicated that it has lowest fluctuation in Dividend Yield.
4. SCB has the highest average EPS of Rs.130.55 followed by NABIL with Rs.111.99, EBL with Rs.86.63, HBL with Rs.55.27 and SBI with Rs.29.76 being the lowest. The highest fluctuation in EPS is 27.43 percent of SCB as indicated by its CV. EBL has the lowest fluctuation in EPS as measured by CV of 16.52 percent. SBI seems lower position in comparison to other banks.
5. In case of MPS, SCB has the highest average MPS among other banks. SBI has lowest MPS of Rs.1188. The highest fluctuation in share price in market is 40.25 percent of SBI. The SCB has the lowest fluctuation in share price as measured by its CV of 26.74 percent. The fluctuation of the MPS of the banks ranged from 26.74 percent to 40.25 percent.
6. HBL and EBL have the highest average earning yield. Whereas SCB, NABIL and SBI has lower average earning yield. Standard deviations of all the five banks are same. SCB has the highest fluctuation in EY as indicated by its CV. Whereas HBL has lowest fluctuation in EY.

7. SCB has the highest average P/E Ratio. And EBL has the lowest average P/E Ratio. The CV analysis shows that NABIL has highest fluctuation in P/E Ratio whereas HBL has the lowest fluctuation Ratio as indicated by its CV of 16.63 percent.
8. The DPS and EPS of all the banks are positively correlated which means higher the EPS, higher will be the DPS and there is direct relationship between DPS and EPS. The regression analysis of all the five banks SCB, HBL, NABIL, EBL and SBI shows that increase in EPS causes to increase in DPS.
9. The correlation between EPS and MPS of all the banks are positively correlated which means higher the MPS higher will be the EPS. The regression analysis of all five banks is positive which shows that increase in EPS causes to increase in MPS.
10. The correlation between MPS and DPR of all the five banks are positively correlated which means higher the DPR higher will be the MPS. The regression analysis of SCB, HBL, EBL and SBI is negatively correlated which means higher the DPR lower will be MPS. The MPS and DPR of NABIL bank is positively correlated which means higher the DPR higher will be the MPS.
11. The correlation between MPS and DPS of all the banks are positive which means higher the DPS higher will be the MPS. The regression analysis of HBL and NABIL are positively correlated which indicates higher the DPS higher will be MPS. The MPS and DPS of SCB, EBL and SBI are negatively correlated which means higher the DPS lower will be MPS.
12. The correlation between MPS and DY of all the banks are positive which means higher the DY higher will be the MPS. The regression analysis of all five banks is negative which shows that increase in DY causes to decrease in MPS.
13. The multiple regression analysis of SCB shows that the relationship between MPS with DPS is positive i.e. increase in DPS causes to increase in MPS. At the same time, there is negative relationship between MPS,

EPS and DPR which shows increase in EPS and DPR leads to decrease in MPS. In case of HBL, the regression analysis shows that the relationship of MPS with DPS is positive i.e. increase in DPS causes to increase in MPS. At the same time it also shows that increase in EPS and DPR causes to decrease in MPS due to negative relationship. Whereas in case of NABIL, its regression analysis shows that there is negative relationship of MPS with DPS. It means increase in DPS causes to decrease in MPS. But it also shows that increase in EPS and DPR leads to increase in MPS. It means there is positive relationship between EPS, DPR and MPS. In case of EBL, its regression analysis shows that there is negative relationship of MPS with DPS which means that increase in DPS lead to decrease in MPS. At the same time, it shows that there is positive relationship between MPS with EPS and DPR which shows increase in EPS and DPR leads to increase in MPS. Lastly, the regression analysis of SBI shows that the relationship between DPS with MPS is negative which shows increase in DPS leads to decrease in MPS. Whereas, there is positive relationship between EPS and DPR with MPS it means increase in EPS and DPR leads to increase in MPS.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMENDATION

5.1 Summary

Dividends are decided upon and declared by board of directors. Dividend distribution is the very important factor to any organization for effective goal achievement to satisfy the shareholders. A firm's profits after-tax can either be used for dividends payment or retained in the firm to increase shareholders' fund. This may involve comparing the cost of paying dividend with the cost of retaining earnings.

Dividend policy decision is one of the major decisions of financial management. The dividend policy decision affects on the operation and prosperity of the organization because it has the power to influence other two decisions of the organization i.e. capital structure decision and investment decision. An investor expects two return namely capital gain and dividend by investing in equity capital or ordinary share. So, payment of dividend to shareholders is an effective way to attract new investors and maintain present investors. Besides this dividend paying ability also reflects the financial positions of the organization in the market.

Actually, paying dividend to shareholders is an effective way to attract new investors to invest in shares. Due to decision of earnings of a company between dividends payout and retention of earnings, its effect on market value of shares is a crucial question. So, a wise policy should be maintained between shareholders' interest and corporate. The funds sometimes could not be used in case of lack of investment opportunities. In such a situation distribution of dividend to shareholders is taken as the best because shareholders may have investment opportunities to invest elsewhere.

In Nepal there is more practice of cash dividend and stock dividend. The payment of cash dividend by the financial institutions especially by banks is seen well than other sectors.

Dividend serves as simple, comprehensive signal of management's interpretations of the firm's recent performance and its future prospects. The main objective of the study is to see the relationship of dividend per share, earning per share, dividend payout ratio, dividend yield and market price per share.

This paper attempts to determine the impact of dividend policy on stock price. A sample of five commercial banks listed in Nepal Stock Exchange is examined for a period of 2005/06 to 2009/10. To make the research move reliable, different types of analysis have been conducted to find out the appropriate relationship between market price of common share and other variables, which affect the dividend.

5.2 Conclusions

5.2.1 Out of five banks taken under this study, SCB, NABIL, HBL and EBL have paid dividend regularly and consistently whereas SCB paid the highest dividend among five sample banks. NABIL is also in good position in paying dividend but SBI have not paid dividend regularly.

5.2.2 In case of DPR the CV Ratio of the banks has ranged from 19.4 to 72.90 percent. SBI faces greatest fluctuation in DPR among other banks with 72.90 percent which clearly indicates instability in dividend payout ratio. SCB shows lower fluctuation in DPR. NABIL shows higher fluctuation than SCB but lower than HBL and EBL.

5.2.3 SCB faces greatest fluctuation in EPS as measured by its CV which is higher than other banks i.e.27.43%. Whereas EBL has lower fluctuation

in EPS. At the same time, NABIL, HBL and SBI come in second, third and forth position.

5.2.4 In case of MPS upto 2008 it was in increasing trend of all the five banks but after 2009 MPS of all the five banks are in decreasing trend. This decreasing trend may inversely affect faith of public in the market.

5.2.5 The analysis of DPS shows that there is no consistency in dividend distribution in all the five sample banks. The dividend payment trends of these banks are highly fluctuating.

It is found that only a few banks pay dividend to the shareholders but there is no consistency in dividend distribution in all five sample banks. SBI have not distributed any cash dividend in the fiscal year 2005/06. SCB pays the high cash dividend among the sample banks. The research shows that none of the sample banks have well defined and appropriate policy regarding dividend payment. They don't seem to follow the optimum dividend policy of paying regular dividend as per the shareholder's expectation. It might cause uncertainty among shareholders.

5.3 Recommendations

5.3.1 Every bank has its own dividend practices. Such different policies have different kinds of effect. It means each banks and financial institutions do not have similar effect in its Market Prices of Share from their dividend practices. MPS of all banks are increasing but their DPS is highly fluctuating. So it proves that other many qualitative and quantitative factors also play a great role in the determination of market price of share. DPS is determined on the basis of EPS. EPS of the firm is divided into DPS and Retained Earning, so if the firm wants to retain capital the DPS will be decreased instead of good earning of the firm. Thus it can be concluded that DPS only is not the determining factor of the share price. Banks may provide bonus share, it leads to decrease in share price and dividend payout ratio will not be good, but in the market the reputation and image of that bank will be high.

5.3.2 The analysis shows that there is no clearly defined dividend policy among sample banks and none of the sample banks have followed a relevant and appropriate dividend policy. The DPS of all the five sample banks are fluctuating. This sort of fluctuation in dividend payment may create uncertainty among stockholders. So, it is recommended that the banks should maintain constant dividend payout policy to satisfy stockholders and also to build good image in stock market.

5.3.3 The analysis shows that HBL, EBL and SBI have insignificant relationship between EPS and DPS which indicates that EPS is not taken in account for declaration of dividend. So, it is very important for these above mentioned banks to consider earnings rather than neglecting it while making dividend decision.

5.3.4 The analysis of dividend payout ratio of SBI shows that it has the highest fluctuation in dividend payout ratio. This sort of imbalance causes serious inconvenience and uncertainty among shareholders as well as many other sectors of the company. So, it is recommended that SBI should follow constant dividend payout ratio policy.

5.3.5 Banks should have long term vision regarding earnings and dividend per share which helps them to cope with challenging competitive situation. They should define their vision clearly considering their future plans, expansion in business, future economy of the country. Considering various internal and external factors, companies should choose whether to adopt stable dividend policy, constant payout ratio or low regular plus extras or adopting dividend as residual dividend policy.

5.3.6 There seems a necessity to establish an organization that carries out activities to promote and protect shareholders/investors interest. The Government should recognize that kind of organization. The activities of Nepal Stock Exchange Ltd and Security Board of Nepal should be made wide and these organizations should be revitalized equipping them with competent manpower and other physical facilities.

5.3.7 Banks are playing on the public money. So in this regard, they are advised to follow the policy of target rate of return (earnings) and target payout ratio that will help the banks to build good image in stock market and investors will be benefited on making investment decision.

5.3.8 Banks should have their clearly defined dividend policy. Clearly defined policy helps to determine specific policy regarding stable dividend, constant payout ratio and low regular plus extras. This sort of policy helps the investors to decide whether to buy or not the share of the particular bank. Banks can clearly define their dividend policy discussing in AGM among shareholders in democratic manner.

5.3.9 The decision regarding dividend payment should not be biased and it should always in favour of the prosperity and betterment of the company.

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Appendix I

Everest Bank Limited (EBL)

Calculation of Mean, S.D and C.V of MPS

YEAR	MPS	$\sum(X - \bar{X})^2$
2005/06	1379	682606.44
2006/07	2430	50535.04
2007/08	3132	858958.24
2008/09	2455	62400.04
2009/10	1630	330855.04
n=5	$\sum X$= 11026	$\sum(X - \bar{X})^{2=}$ 1985354.8

Mean $(\bar{X}) = \frac{X}{n} = 2205.20$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\bar{X}Å^2}{n}} = 630.14$

C.V. $= \frac{\pm}{\bar{X}} \mid 100 = 28.57$

Calculation of Mean, S.D and C.V of P/E Ratio

YEAR	EPS	$\sum(X - \bar{X})^2$
2005/06	21.97	13.018
2006/07	30.99	29.289
2007/08	34.11	72.795
2008/09	24.55	1.057
2009/10	16.27	86.639
n=5	$\sum X$= 559.97	$\sum(X - \bar{X})^{2=}$ 202.798

Mean $(\bar{X}) = \frac{X}{n} = 25.58$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\bar{X}Å^2}{n}} = 6.37$

C.V. $= \frac{\pm}{\bar{X}} \mid 100 = 24.90$

Simple Correlation and Regression Analysis between DPS and MPS

Year	DPS (X)	MPS(Y)	XY	X^2	Y^2
2005/06	25	1379	34475	625	1901641
2006/07	10	2430	24300	100	5904900
2007/08	20	3132	62640	400	9809424
2008/09	30	2455	73650	900	6027025
2009/10	30	1630	48900	900	2656900
N=5	$\sum X$= 115	$\sum Y$= 11026	$\sum XY$= 243965	$\sum X^2$= 2925	$\sum Y^2$= 26299890

Coefficient of Correlation (r) = $\frac{n \quad XY\,Z \quad X \quad Y}{\sqrt{n \quad X^2\,Z(\quad X)^2}\sqrt{n \quad Y^2\,Z(\quad Y)^2}}$ = 0.409

Coefficient of Determination (r^2) = 0.167

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1Zr^2}{\sqrt{n}}$ = 0.3719

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1Zr^2}{\sqrt{n}}$ = 1.5051

Independent Variable (X): DPS
Dependent Variable (Y): MPS
Regression Equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

$\sum Y = n.a + b.\sum X$
$\sum XY = a.\sum X + b.\sum X^2$
Solving these two normal equations, we get

b = $\frac{n. \quad XY\,Z \quad X \quad Y}{n. \quad X^2\,Z\int \quad X\,\text{Å}}$ = -34.4

a = Y ─ bX = 2996.48

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\,Za \quad Y\,Zb \quad XY}{n\,Z2}}$ = 742.506

Test statistic t = $\frac{r}{\sqrt{1Zr^2}} \times \sqrt{n\,Z2}$ ~ t_{n-2} = 0.7763

Simple Correlation and Regression Analysis between EPS and DPS

Year	EPS (X)	DPS(Y)	XY	X^2	Y^2
2005/06	62.78	25	1569.5	3941.33	625
2006/07	78.42	10	784.2	6149.7	100
2007/08	91.82	20	1836.4	8430.91	400
2008/09	99.99	30	2999.7	9998	900
2009/10	100.16	30	3004.8	10032	900
N=5	$\sum X$= 433.17	$\sum Y$= 115	$\sum XY$= 10194.6	$\sum X^2$= 38552	$\sum Y^2$= 2925

Coefficient of Correlation (r) = $\frac{n \quad XY\,Z \quad X \quad Y}{\sqrt{n \quad X^2\,Z(\quad X)^2}\sqrt{n \quad Y^2\,Z(\quad Y)^2}}$ = 0.433

Coefficient of Determination (r^2) = 0.187

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1\,Z\,r^2}{\sqrt{n}}$ = 0.3629

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1\,Z\,r^2}{\sqrt{n}}$ = 1.4687

Independent Variable (X): EPS
Dependent Variable (Y): DPS
Regression equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

$\sum Y = n.a + b.\sum X$
$\sum XY = a.\sum X + b.\sum X^2$
Solving these two normal equations, we get

b = $\frac{n. \quad XY\,Z \quad X \quad Y}{n. \quad X^2\,Z\int \quad X\,\text{Å}}$ = 0.226

a = Y ─ bX = 3.4119

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\,Z\,a \quad Y\,Z\,b \quad XY}{n\,Z2}}$ = 8.711

Test statistic t = $\frac{r}{\sqrt{1\,Z\,r^2}} \times \sqrt{n\,Z2}$ ~ t_{n-2} = 0.832

Appendix II

Nabil Bank Limited

Calculation of Mean, S.D and C.V of DY

YEAR	DY	$\sum(X - \overline{X})^2$
2005/06	3.79	4.056
2006/07	1.98	0.042
2007/08	1.14	0.404
2008/09	0.71	1.136
2009/10	1.26	0.267
n=5	$\sum X$= 8.88	$\sum(X - \overline{X})^{2=}$ 5.905

Mean $(\overline{X}) = \frac{X}{n} = 1.78$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\overline{X}Å^2}{n}} = 1.09$

C.V. $= \frac{\pm}{\overline{X}} \mid 100 = 61.19$

Calculation of Mean, S.D and C.V of EPS

YEAR	EPS	$\sum(X - \overline{X})^2$
2005/06	129.21	296.39
2006/07	137.08	629.31
2007/08	108.31	13.57
2008/09	106.76	27.39
2009/10	78.61	1114.49
n=5	$\sum X$= 559.97	$\sum(X - \overline{X})^{2=}$ 2081.16

Mean $(\overline{X}) = \frac{X}{n} = 111.99$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\overline{X}Å^2}{n}} = 20.40$

C.V. $= \frac{\pm}{\overline{X}} \mid 100 = 18.22$

Simple Correlation and Regression Analysis between DY and MPS

Year	DY (X)	MPS(Y)	XY	X^2	Y^2
2005/06	3.79	2240	8489.6	14.3641	5017600
2006/07	1.98	5050	9999	3.9204	25502500
2007/08	1.14	5275	6013.5	1.2996	27825625
2008/09	0.71	4899	3478.29	0.5041	24000201
2009/10	1.26	2384	3003.84	1.5876	5683456
N=5	∑X= 8.88	∑Y= 19848	∑XY= 30984.2	$\sum X^2$= 21.6758	$\sum Y^2$= 88029382

Coefficient of Correlation (r) = $\frac{n \quad XY\,Z \quad X \quad Y}{\sqrt{n \quad X^2\,Z(\quad X)^2}\sqrt{n \quad Y^2\,Z(\quad Y)^2}}$ = 0.577

Coefficient of Determination (r^2) = 0.333

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1Zr^2}{\sqrt{n}}$ = 0.2978

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1Zr^2}{\sqrt{n}}$ = 1.2042

Independent Variable (X): DY
Dependent Variable (Y): MPS
Regression Equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

∑Y = n.a + b.∑X
$\sum XY = a.\sum X + b.\ \sum X^2$
Solving these two normal equations, we get

b = $\frac{n. \quad XY\,Z \quad X \quad Y}{n. \quad X^2\,Z\int \quad X\,\text{Å}}$ = -722.4

a = Y ─ bX = 5252.61

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\,Za \quad Y\,Zb \quad XY}{n\,Z2}}$ = 1432.84

Test statistic t = $\frac{r}{\sqrt{1Zr^2}} \times \sqrt{n\,Z2}$ ~ t_{n-2} = 1.2236

Simple Correlation and Regression Analysis between DPR and MPS

Year	DPR (X)	MPS(Y)	XY	X^2	Y^2
2005/06	65.78	2240	147347	4327.01	5017600
2006/07	72.95	5050	368398	5321.7	25502500
2007/08	55.4	5275	292235	3069.16	27825625
2008/09	32.78	4899	160589	1074.53	24000201
2009/10	38.16	2384	90973.4	1456.19	5683456
N=5	$\sum X$= 265.07	$\sum Y$= 19848	$\sum XY$= 1059542	$\sum X^2$= 15248.6	$\sum Y^2$= 88029382

Coefficient of Correlation (r) = $\frac{n \quad XY\,Z \quad X \quad Y}{\sqrt{n \quad X^2\,Z(\quad X)^2}\sqrt{n \quad Y^2\,Z(\quad Y)^2}} = 0.07$

Coefficient of Determination (r^2) = 0.005

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1\,Z\,r^2}{\sqrt{n}} = 0.4442$

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1\,Z\,r^2}{\sqrt{n}} = 1.7979$

Independent Variable (X): DPR
Dependent Variable (Y): MPS
Regression equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

$\sum Y = n.a + b.\sum X$
$\sum XY = a.\sum X + b.\sum X^2$
Solving these two normal equations, we get

b = $\frac{n. \quad XY\,Z \quad X \quad Y}{n. \quad X^2\,Z\int \quad X\,\text{Å}} = 6.12$

a = Y ─ bX = 3645.16

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\,Z\,a \quad Y\,Z\,b \quad XY}{n\,Z2}} = 1750.81$

Test statistic $t = \frac{r}{\sqrt{1\,Z\,r^2}} \times \sqrt{n\,Z2} \quad \sim t_{n-2} = 0.1215$

Appendix III

State Bank of India (SBI)

Calculation of Mean, S.D and C.V of DPR

YEAR	DPR	$\sum(X - \overline{X})^2$
2005/06	27.37	205.35
2006/07	32	359.48
2007/08	-	170.04
2008/09	5.83	51.98
2009/10	18.75	3.84
n=5	$\sum X$= 83	$\sum(X - \overline{X})^{2=}$ 790.65

Mean $(\overline{X}) = \frac{X}{n} = 16.79$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\overline{X}A^2}{n}} = 12.24$

C.V. $= \frac{\pm}{\overline{X}} \mid 100 = 72.90$

Calculation of Mean, S.D and C.V of EPS

YEAR	EPS	$\sum(X - \overline{X})^2$
2005/06	18.27	132.11
2006/07	39.35	91.89
2007/08	28.33	2.06
2008/09	36.18	41.17
2009/10	26.69	9.45
n=5	$\sum X$= 148.82	$\sum(X - \overline{X})^{2=}$ 276.67

Mean $(\overline{X}) = \frac{X}{n} = 29.76$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\overline{X}A^2}{n}} = 7.44$

C.V. $= \frac{\pm}{\overline{X}} \mid 100 = 24.99$

Simple Correlation and Regression Analysis between DPS and MPS

Year	DPS (X)	MPS(Y)	XY	X^2	Y^2
2005/06	5	612	3060	25	374544
2006/07	12.59	1176	14805.8	158.508	1382976
2007/08	0	1511	0	0	2283121
2008/09	2.11	1900	4009	4.4521	3610000
2009/10	5	741	0	0	549081
N=5	∑X= 24.7	∑Y= 5940	∑XY= 25579.84	$\sum X^2$= 212.96	$\sum Y^2$= 8199722

Coefficient of Correlation (r) = $\frac{n \quad XY\,Z \quad X \quad Y}{\sqrt{n \quad X^2\,Z(\quad X)^2}\sqrt{n \quad Y^2\,Z(\quad Y)^2}}$ = 0.369

Coefficient of Determination (r^2) = 0.136

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1\,Z\,r^2}{\sqrt{n}}$ = 0.3862

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1\,Z\,r^2}{\sqrt{n}}$ = 1.5632

Independent Variable (X): DPS
Dependent Variable (Y): MPS
Regression Equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

∑Y = n.a + b.∑X
$\sum XY = a.\sum X + b.\sum X^2$
Solving these two normal equations, we get

b = $\frac{n. \quad XY\,Z \quad X \quad Y}{n. \quad X^2\,Z\int \quad X\,\text{Å}^{R}}$ = -41.38

a = Y ─ bX = 1392.41

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\,Z\,a \quad Y\,Z\,b \quad XY}{n\,Z\,2}}$ = 573.672

Test statistic t = $\frac{r}{\sqrt{1\,Z\,r^2}} \times \sqrt{n\,Z\,2}$ ~ t_{n-2} = 0.6881

Simple Correlation and Regression Analysis between DY and MPS

Year	DY (X)	MPS(Y)	XY	X^2	Y^2
2005/06	0.82	612	501.84	0.6724	374544
2006/07	1.07	1176	1258.32	1.1449	1382976
2007/08	0	1511	0	0	2283121
2008/09	0.11	1900	209	0.0121	3610000
2009/10	0.67	741	0	0	549081
N=5	∑X= 2.67	∑Y= 5940	∑XY= 2465.63	$\sum X^2$= 2.2783	$\sum Y^2$= 8199722

Coefficient of Correlation (r) = $\frac{n \quad XY\,Z \quad X \quad Y}{\sqrt{n \quad X^2\,Z(\quad X)^2}\sqrt{n \quad Y^2\,Z(\quad Y)^2}}$ = 0.715

Coefficient of Determination (r^2) = 0.5119

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1\,Z\,r^2}{\sqrt{n}}$ = 0.2183

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1\,Z\,r^2}{\sqrt{n}}$ = 0.8834

Independent Variable (X): DY
Dependent Variable (Y): MPS
Regression equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

∑Y = n.a + b.∑X
∑XY = a.∑X + b. $\sum X^2$
Solving these two normal equations, we get

b = $\frac{n. \quad XY\,Z \quad X \quad Y}{n. \quad X^2\,Z\int \quad X\,\AA}$ = -828.5

a = Y ─ bX = 1630.42

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\,Z\,a \quad Y\,Z\,b \quad XY}{n\,Z2}}$ = 431.20

Test statistic t = $\frac{r}{\sqrt{1\,Z\,r^2}} \times \sqrt{n\,Z2}$ ~ t_{n-2} = 1.7740

Appendix IV

Standard Chartered Bank Limited (SCB)

Calculation of Mean, S.D and C.V of DPS

YEAR	DPS	$\sum(X - \overline{X})^2$
2005/06	130	2601
2006/07	80	1
2007/08	80	1
2008/09	50	841
2009/10	55	576
n=5	$\sum X$= 395	$\sum(X - \overline{X})^{2=}$ 4020

Mean $(\overline{X}) = \frac{X}{n} = 79$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\overline{X}A^2}{n}} = 28.35$

C.V. $= \frac{\pm}{\overline{X}} \mid 100 = 35.89$

Calculation of Mean, S.D and C.V of DPR

YEAR	DPR	$\sum(X - \overline{X})^2$
2005/06	73.93	201.53
2006/07	47.8	142.37
2007/08	60.64	0.824
2008/09	45.46	203.69
2009/10	70.83	123.17
n=5	$\sum X$= 298.66	$\sum(X - \overline{X})^{2=}$ 617.64

Mean $(\overline{X}) = \frac{X}{n} = 59.73$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\overline{X}A^2}{n}} = 11.59$

C.V. $= \frac{\pm}{\overline{X}} \mid 100 = 19.40$

Simple Correlation and Regression Analysis between EPS and MPS

Year	EPS (X)	MPS(Y)	XY	X^2	Y^2
2005/06	175.84	3775	663796	30919.7	14250625
2006/07	167.37	5900	987483	28012.7	34810000
2007/08	131.92	6830	901014	17402.9	46648900
2008/09	109.99	6010	661040	12097.8	36120100
2009/10	77.65	3279	254614	6029.52	10751841
N=5	∑X= 662.77	∑Y= 25794	∑XY= 3467947	$\sum X^2$= 94462.6	$\sum Y^2$= 142581466

Coefficient of Correlation (r) = $\frac{n \quad XY\,Z \quad X \quad Y}{\sqrt{n \quad X^2\,Z(\quad X)^2}\sqrt{n \quad Y^2\,Z(\quad Y)^2}}$ = 0.195

Coefficient of Determination (r^2) = 0.038

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1\,Z\,r^2}{\sqrt{n}}$ = 0.4295

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1\,Z\,r^2}{\sqrt{n}}$ = 1.7382

Independent Variable (X): EPS
Dependent Variable (Y): MPS
Regression Equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

∑Y = n.a + b.∑X
$\sum XY = a.\sum X + b.\ \sum X^2$
Solving these two normal equations, we get

b = $\frac{n. \quad XY\,Z \quad X \quad Y}{n. \quad X^2\,Z\int \quad X\,\text{Å}}$ = 7.3904

a = Y ─ bX = 4179.18

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\,Z\,a \quad Y\,Z\,b \quad XY}{n\,Z\,2}}$ = 1746.84

Test statistic t = $\frac{r}{\sqrt{1\,Z\,r^2}} \times \sqrt{n\,Z\,2}$ ~ t_{n-2} = 0.3444

Simple Correlation and Regression Analysis between EPS and DPS

Year	EPS (X)	DPS(Y)	XY	X^2	Y^2
2005/06	175.84	130	22859.2	30919.7	16900
2006/07	167.37	80	13389.6	28012.7	6400
2007/08	131.92	80	10553.6	17402.9	6400
2008/09	109.99	50	5499.5	12097.8	2500
2009/10	77.65	55	4270.75	6029.52	3025
N=5	∑X= 662.77	∑Y= 395	∑XY= 56572.7	$\sum X^2$= 94462.6	$\sum Y^2$= 35225

Coefficient of Correlation (r) = $\frac{n \quad XY\,Z \quad X \quad Y}{\sqrt{n \quad X^2\,Z(\quad X)^2}\sqrt{n \quad Y^2\,Z(\quad Y)^2}}$ = 0.817

Coefficient of Determination (r^2) = 0.668

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1\,Z\,r^2}{\sqrt{n}}$ = 0.1482

Probable Error f Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1\,Z\,r^2}{\sqrt{n}}$ =

0.5998

ijdependent Var▪ able (X): EPS

Dependen▪ Variable (Y): ⊎PS

Regr▪ sskon equation f Y on X is, Y = a + bX

Where,

a =▪ Regressioj con3tant

b = Regression c/efficient (Slope of the Regression Li.e!

According to the principle of least squere瞙, ôwo normal equAtions fos estimatinɲ dwo numerical constants a aƷd b are given y,

∑Y"= n.a + b.∑X

∑XY =‘a.∑X +粭b. ∑▪ 2

Solving these two n瞵rmal equ瞏t瞄o聯s, wd get

b = $\frac{n. \quad XY\,Z \quad X \quad Y}{n. \quad X^2\,Z\int \quad X\,Å}$ = 0.638

a = Y ─ bX = -5.5044

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\,Z\,a \quad Y\,Z\,b \quad XY}{n\,Z2}}$ = 21.084

Test statistic t = $\frac{r}{\sqrt{1\,Z\,r^2}} \times \sqrt{n\,Z2}$ ~ t_{n-2} = 2.454

Appendix V

Himalayan Bank Limited (HBL)

Calculation of Mean, S.D and C.V of DPS

YEAR	DPS	$\sum(X - \overline{X})^2$
2005/06	30	126.16
2006/07	15	14.20
2007/08	25	38.84
2008/09	12	45.81
2009/10	11.84	48
n=5	$\sum X$= 93.84	$\sum(X - \overline{X})^{2=}$ 273.01

Mean $(\overline{X}) = \frac{X}{n} = 18.77$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\overline{X}\AA^2}{n}} = 7.39$

C.V. $= \frac{\pm}{\overline{X}} \mid 100 = 39.37$

Calculation of Mean, S.D and C.V of DPR

YEAR	DPR	$\sum(X - \overline{X})^2$
2005/06	50.64	264.78
2006/07	24.73	92.89
2007/08	39.85	30.05
2008/09	19.39	224.34
2009/10	37.23	8.19
n=5	$\sum X$= 171.84	$\sum(X - \overline{X})^{2=}$ 620.25

Mean $(\overline{X}) = \frac{X}{n} = 34.37$

Standard Deviation $(\sigma) = \sqrt{\frac{fX\ Z\overline{X}\AA^2}{n}} = 11.14$

C.V. $= \frac{\pm}{\overline{X}} \mid 100 = 32.41$

Calculation of Mean, S.D and C.V of EY

YEAR	EY	$\sum(X - \overline{X})^2$
2005/06	0.05	0.00014
2006/07	0.03	0.00006
2007/08	0.03	0.00006
2008/09	0.04	0.0000
2009/10	0.04	0.0000
n=5	$\sum X$= 0.19	$\sum(X - \overline{X})^{2=}$ 0.00028

Mean ($\overline{X}$) = $\frac{X}{n}$ = 0.04

Standard Deviation (σ) = $\sqrt{\frac{\int X \, Z \overline{X} \AA^2}{n}}$ = 0.1

C.V. = $\frac{\pm}{\overline{X}} \mid 100$ = 19.69

Simple Correlation and Regression Analysis between EPS and MPS

Year	EPS (X)	MPS(Y)	XY	X^2	Y^2
2005/06	59.24	1100	65164	3509.38	1210000
2006/07	60.66	1740	105548	3679.64	3027600
2007/08	62.74	1980	124225	3936.31	3920400
2008/09	61.9	1760	108944	3831.61	3097600
2009/10	31.8	816	25948.8	1011.24	665856
N=5	$\sum X$= 276.34	$\sum Y$= 7396	$\sum XY$= 429830	$\sum X^2$= 15968.2	$\sum Y^2$= 11921456

Coefficient of Correlation (r) = $\frac{n \quad XY \, Z \quad X \quad Y}{\sqrt{n \quad X^2 \, Z(\quad X)^2}\sqrt{n \quad Y^2 \, Z(\quad Y)^2}}$ = 0.807

Coefficient of Determination (r^2) = 0.65

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1 Z r^2}{\sqrt{n}}$ = 0.1563

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1 Z r^2}{\sqrt{n}}$ = 0.6315

Independent Variable (X): EPS
Dependent Variable (Y): MPS
Regression Equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

$\sum Y = n.a + b.\sum X$
$\sum XY = a.\sum X + b.\sum X^2$
Solving these two normal equations, we get

$$b = \frac{n.\quad XY\ Z\quad X\quad Y}{n.\quad X^2\ Z\int\quad X\,\text{Å}} = 30.296$$

$a = Y - bX = -195.21$

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\ Za\quad Y\ Zb\quad XY}{n\,Z2}} = 338.136$

Test statistic $t = \frac{r}{\sqrt{1Zr^2}} \times \sqrt{n\,Z2} \quad \sim t_{n-2} = 2.3669$

Simple Correlation and Regression Analysis between EPS and DPS

Year	EPS (X)	DPS(Y)	XY	X^2	Y^2
2005/06	59.24	30	1777.2	3509.38	900
2006/07	60.66	15	909.9	3679.64	225
2007/08	62.74	25	1568.5	3936.31	625
2008/09	61.9	12	742.8	3831.61	144
2009/10	31.8	11.84	376.512	1011.24	140.1856
N=5	$\sum X$= 276.34	$\sum Y$= 93.84	$\sum XY$ =5374.91	$\sum X^2$=15968.2	$\sum Y^2$=2034.19

Coefficient of Correlation (r) = $\frac{n\quad XY\ Z\quad X\quad Y}{\sqrt{n\quad X^2\ Z(\quad X)^2}\sqrt{n\quad Y^2\ Z(\quad Y)^2}} = 0.433$

Coefficient of Determination (r^2) = 0.187

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1Zr^2}{\sqrt{n}} = 0.3629$

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1Zr^2}{\sqrt{n}} = 1.4688$

Independent Variable (X): EPS
Dependent Variable (Y): DPS
Regression equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

$\sum Y = n.a + b.\sum X$
$\sum XY = a.\sum X + b.\sum X^2$
Solving these two normal equations, we get

$$b = \frac{n.\quad XY\ Z\quad X\quad Y}{n.\quad X^2\ Zf\quad X\AA} = 0.271$$

$a = Y - bX = 3.7819$

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^2\ Za\quad Y\ Zb\quad XY}{n\ Z2}} = 8.6$

Test statistic $t = \frac{r}{\sqrt{1Zr^2}} \times \sqrt{n\ Z2} \quad \sim t_{n-2} = 0.832$

Simple Correlation and Regression Analysis between DPR and MPS

Year	DPR (X)	MPS(Y)	XY	X^2	Y^2
2005/06	50.64	1100	55704	2564.41	1210000
2006/07	24.73	1740	43030.2	611.573	3027600
2007/08	39.85	1980	78903	1588.02	3920400
2008/09	19.39	1760	34126.4	375.972	3097600
2009/10	37.23	816	30379.7	1386.07	665856
N=5	∑X= 171.84	∑Y= 7396	∑XY= 242143	∑X2= 6526.05	∑Y2= 11921456

Coefficient of Correlation (r) = $\frac{n\quad XY\ Z\quad X\quad Y}{\sqrt{n\quad X^2\ Z(\quad X)^2}\sqrt{n\quad Y^2\ Z(\quad Y)^2}} = 0.488$

Coefficient of Determination (r^2) = 0.238

Standard error of Correlation Coefficient, S.E. (r) = $\frac{1Zr^2}{\sqrt{n}} = 0.8938$

Probable Error of Correlation Coefficient, 6 X P.E. (r) = 6 X 0.6745 X $\frac{1Zr^2}{\sqrt{n}} = 1.3762$

Independent Variable (X): DPR
Dependent Variable (Y): MPS
Regression equation of Y on X is, Y = a + bX

Where,
a = Regression constant
b = Regression coefficient (Slope of the Regression Line)
According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

$\sum Y = n.a + b.\sum X$
$\sum XY = a.\sum X + b.\ \sum X^2$
Solving these two normal equations, we get

$$b = \frac{n.\quad XY\ Z\quad X\quad Y}{n.\quad X^{2}\ Z\int\quad X\,\AA} = -19.42$$

$a = Y - bX = 2146.47$

Standard error of Estimate (SE_e) = $\sqrt{\frac{Y^{2}\ Z a\quad Y\ Z b\quad XY}{n\,Z2}} = 499.16$

Test statistic $t = \frac{r}{\sqrt{1 Z r^{2}}} \times \sqrt{n\ Z2}$ $\sim t_{n-2=} 0.9684$

<u>Note:</u> In this thesis all above calculation are made by using both calculator and excel worksheet.