IMPACT OF DIVIDEND ON STOCK PRICE OF SELECTED COMMERCIAL BANK: THE NEPALESE EVIDENCE

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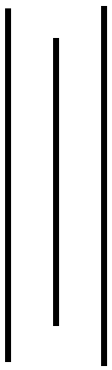

In partial fulfillment of the requirement for the degree of

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RECOMMENDATION

This is to certify that the thesis

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IMPACT OF DIVIDEND ON STOCK PRICE OF SELECTED COMMERCIAL BANK: THE NEPALESE EVIDENCE

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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And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for the degree of

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DECLARATION

I hereby declare that the work reported in this thesis entitled "**Impact of Dividend on Stock Price of Selected Commercial Bank: The Nepalese Evidence**" submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (MBS) under the supervision of **Asso. Prof. Achyut Raj Bhattarai** and **Pitri Raj Adhikari** of Shanker Dev Campus, T.U.

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INTRODUCTION

1.1Background of the Study

The price of share is highly influenced by the company`s dividend policy and the dividend decision itself is also affected by other financial variables as well the expected dividend of a company paying higher dividend is higher eventually the price of share of the company goes up but contradictional, a company paying higher cash dividends can suffer from the scarcity of funds for financing the corporate growth as a result the share price comes down. The effect of dividend policy on stock price is developed stock market has also been widely suited by finance scholars. They have stressed on the important of dividend behavior by corporate firms. So need has been felt to study and understand corporate dividend behavior and practices of corporate firms in developing stock market like Nepal *(Bhattarai; 2002:1).*

Bank has always been the most important and the largest of financial intermediaries, almost everywhere. Nepal is enlisted in the list of the least developed countries of the world. Majority people here are engaged in their day to day survival various factors like landlocked situation, poor resource mobilization, lack of education as well as entrepreneurship, irrational government policy political instability are responsible for the regarding pace of development in Nepal. Nepal is a country trying to develop its economy through global trend and of course with country suited economic liberalization. Development in the financial terms is the efficient flow and generation of the funds in the most productive sectors *(Bhattrai; 2002:2).* In Nepal the growing influencing of economic liberalization and globalization first of all appeared in the form of Nepal's liberal policies in the banking sector. The encouraged the healthy competition in the financial sector as well as it allowed the entry of foreign banks in the Nepalese market in the form of joint venture banks. In other aspect, industrialization is an important factor for achieving the basic objective of country's economic and social progress. Now a day's industrialization is considered as an essential for the economic development of the country. It facilitates on effective mobilization of resource such as capital and skill.

The growth of commercial banks increased dramatically after the restoration of democracy when government adopted liberal and market oriented policy. There are 26 commercial banks in the country. This development has helped to mobilize the internal resources as well as the external funds of foreign investors for the economic development of the nation. The economic development history of Nepal has very slow track record .It has very short history of industrial development. Nepal has very short history of security market. it was in 1937 A.D when the history of security market began with the flotation of shares by the first industrial body of the country. Biratnagar jute mill limited and the first commercial bank of Nepal, Nepal bank limited. In 1951 A.D company act-1951 was introduced followed by the issuance of government bond in 1964A.D for the first time. The security exchange centre limited was established in 1976A.D with the objective of facilitating and promoting the growth of capital market. Then it was the only capital market institution in the country undertaking the job of brokering underwriting managing public issues, market making for the government bond and other financial services *(Dongol; 2006:2).*

In 1996 A.D the security exchange centre was converted into Nepal stock exchange (NEPSE) with the objective of providing free marketability and liquidity to the government and corporate securities by facilitating transactions in its own trading floor through the market intermediaries i.e. broker as well as market maker. Economic leaders at the present scenario are the countries which have been successfully collecting the wide spread funds and making investments in the good prospects. Capital market generates and liquidates securities as per requirements of the corporate groups *(Bhattarai; 2002:1).*

Capital market is place where financial claims and obligations are brought and sold that have maturity period more than one year. Nepalese capital market has not efficient communication network even today. Even if capital market is in the early stage of development. In Nepal, Nepalese investors have heavily made investment of newly established companies especially in the financial sector. It is hoped that Nepalese capital market will be moving towards efficiently in the days to come. It has made capital market less efficient and efficiency in results the risk. Even though, it is hoped that Nepalese capital market will be moving towards efficiency in the days to come. In capital market all firms operate in order to generate earning, shareholders

make investment in equity capital with the expectation of making earning either directly in the form of dividend or indirectly in the form of capital gains in future. The sole objective of each and every business is maximizing the shareholders wealth. Financial management is the heart of management and the numbers of decisions are made by the financial decision in order to run the company smoothly. The common stock represents ownership in a company. The common stocks are the permanent and vital sources of capital since they do not have maturity date. For the capital contributed by the shareholders by purchasing common stocks they are entitled to dividends. The amount or rate of dividend fixed by the company's board of directors. Most of investors are wise to invest their saving funds in stocks, with the expectation of future cash inflow as dividend and maximization of value of their holding in the market. The dividend and value of the firm are linked with the earning power of the firm, which ultimately affects the market price of shares.

In the theory of finance, dividend decision plays a very vital role. Dividend decision however is still a crucial as well as controversial area of managerial finance. Dividend decision is one of three major decision of managerial finance. The relationship between dividend and value of firm is considered as the criterion for decision making. One of the major reason, people invest their hard money on the shares of any company is for dividend. The amount which distributed as dividend should be adequate to meet the normal expectations of the shareholders. The main controversy and agency problem between the shareholders and the management is the rate of dividend, because shareholders want more dividends and the management wants more amounts to retain in the company. Dividend policy decision is the major financial decision of the firm, which may affect the areas such as financial structure, flow of funds, stock price growth of firm etc. The dividend decision is the most controversial decision which requires a lot of expertise knowledge as well as the institution power in such decision maker. Dividends are payment made to shareholders from a firms earning in return to their investment. Whether those earning were generated in the current period or previous periods and policy refers to the decision about how much earnings at what form should be distributed. Thus dividend policy is to determine the amount to be retained or reinvested in the firm. The objective of a dividend policy should be to maximize shareholders wealth position.

In the context of Nepal, people are interesting with the views and expectations of more capital appreciation and dividend on stocks. But there are not any consistency and regular practices of dividend announcement in different firm. Recently commercial banks and some other public limited companies have showed new trend of paying dividend to the shareholders. Price of stock usually fluctuates with references to the adequate information. No one can earn more in the efficiency and inefficiency is legally prohibited in order to regulate the security market in every nation. But being focused in this study, Impact of dividend on stock price, there should be discussion on different models and practices so as to conclude about the impact of dividend policy on stock price, Dividend policy and price of stock are always correlated. If a company pays dividend market price of stock increases and vice versa, but in some cases dividend decision may have no impact at all upon the price of stock i.e. market price of stock may remain constant or even decrease sometimes in response to the dividend distribution. Therefore information gap also plays vital role in the analysis of market price of stock.

Every firm after making profit either retain the money for further investment or distribute it among the sharehlders. The profit made by the firm which is distributed to the shareholders is termed as dividend. The firm should decide whether to keep the money as retain earning or pay the dividend. The dividend policy is the policy followed by the firm regarding the dividend versus retention decision *(Dongol; 2006:1).* The price of share is highly influenced by the company's dividend policy and the dividend decision itself is also effected by other financial variables as well. Dividend policy may affect the areas such as financial structure of the firm funds flow, stock price, investors' satisfaction, growth of firm etc. Like other major decisions of the firm i.e. investment and financing decision the dividend decision has major role in any organization *(Regmi; 2006:2).*

According to duration effect and arbitrage effect the dividend yield ands not the payout ratio is the relevant measure. The rate of return effect implies that both dividend yield and payout ratio matters. Dividend policy may serve as a proxy for growth and investment opportunities. After the establishment of joint venture companies there is a new trend of distributing dividends. Dividend distribution trend has not only attracted the investors but has also made the management conscious

about the policy regarding the payment of dividend. The present study attempts to analyze the dividend behavior of the joint venture and other major commercial banks. It will also try to justify the dividend decision adopted by the banks and to relate them on the ground of similar fiscal period.

1.2 Statement of the Problem

Dividend policy however being one of the major decisions to be taken by firm has not become a well known phenomenon or a matter or practice to a larger number of financial communities even today. Since long time back there has been heated controversy regarding relevancy and irrelevancy of dividend policy. Scholars have not been able to define simple and conclusive relationship between dividend policy and market price of the stock. Some experts stand with a belief that there is positive relationship between dividend distribution by a firm and its price of share where as at the same there are others who put upon their view against this. There is no relation at all in between dividend distribution and market price of stock. Walter's model and Gordon's model suggest relevant theory that reads dividend policy is an active variable that influences the value of firm measured in terms of market price per share. But Modigalni and Miller model advocates just contra to that done by Gordon and Walter *(Dongol; 2006:7).*

Dividend policy is most controversial type of decision making. Since long time back there has been heated controversy regarding relevancy and irrelevancy of dividend policy. Scholars have not been able to define simple and conclusive relationship between dividend policy and market price of stock. In Nepal different companies seem to hold different policies regarding dividend. There are only few companies that have sufficient earnings and are capable to pay dividend every year. Dividend distribution does not match with the earnings of the companies. "The harder we look at the dividend picture the more it seems like a puzzle with pieces that just don't fit together *(Black and Scholes; 1974:352).* The capital market is an important part of corporate development of a country. Even though the capital market is in the early stage of development in Nepal. Nepalese investors have heavily made investment a newly established company especially in financial sector.

Dividend decision is crucial as well as controversial area of financial management. Besides it is not clearly understood by a larger segment of the financial community .No matter how many studies have been conducted in this regard the effect of dividend policy on a corporation's market value has remained a subject of long standing controversy. The main focus of the study is to deal with the following problems;

1. What are the major factors affecting dividend policy of a firm?
2. Is DPS proportionate to the firm's EPS?
3. What is the impact of dividend policy on market price of stock?
4. Is there any consistency in EPS, DPS, MPS and DPR of the sample firms?

1.3 Objectives of the Study

The major objective of the study is to obtain the depth knowledge about the impact of dividend policy adopted by the firms to its market price of share as well as the overall valuation of the firm. The following are the specific objectives of this study.

a. To find out the impact of divided policy on market price of stock
b. To explain the prevailing policies and practices regarding dividend in the Nepalese firms with reference to the sample firm.
c. To examine various aspects of dividend policies and practices in Nepal carried outlay the banking sector.
d. To analyze if there is any uniformity in DPS EPS MPS and DPR of the sample firms.

1.4 Significance of the Study

Now a day's people are attracted to invest in shares for the purpose of getting more return as well as to maximize their wealth. So the dividend policy has become as effective way to attract new investors, to keep present investors happy and to maintain goodwill of the company. The important aspect of the dividend policy is to determine the amount of earnings to distribute to the shareholders and the amount to be retained in the firm. The financial manager must very carefully decide the allocation of earnings between dividends and retain earnings as this decision affects the value of firm. The objective in choosing dividend policy should be to maximize the value of the firm to its shareholders.

The dividend is most sensitive element in the area of investment in the common stock. If the market doesn't receive its expected dosage, stock price will suffer. Dividend payout of course reduce the amount of earning retain in the firm and affect the total amount of internal financing. The study may deliver crucial information for those respective commercial banks are made. The main significance of study is as follows;

1. The study aims to provide important and useful information to the investor.
2. It will be useful for the management.
3. It will useful for stock broker, financial agencies, policy makers and various stakeholders.
4. This study helps to formulate dividend policy to the policy maker while making their dividend policy.
5. This study will beneficial also to those parties who are directly or indirectly related to the financial institution.
6. This study covers the partial fulfillment of the requirement of MBS, T.U.

1.5 Limitation of the Study

Dividend policy is the vital aspect of the financial management. For a corporate manager it is the most challenging and crucial part of the decision making process because it has the signaling effect towards market price of stock. This study has been carried out with in certain limitations which are as follows.

a. This study is based on especially on secondary data like annual reports of the banks under review, journals unpublished as well as published thesis works other published articles and reports and related materials from various websites.
b. Data taken for analysis covers only 6 years.
c. The study covers only six commercial banks.
d. The study only concentrate on dividend policy, it doesn't cover several other aspects of the commercial banks.
e. The data of samples firms analyze limit tools and technique

1.6 Organization of the Study

The whole study has been classified into five chapters.

Chapter I: Introduction

This chapter deals with the general idea about the study consisting background of the study, Statement of problem, Objective of the study, significance of the study, Limitation of the study and organization of the study.

Chapter II: Review of Literature

This chapter deals with review of the different literate of the study field, therefore it includes conceptual framework along with the review of major books, journals, research works and thesis etc.

Chapter III: Research Methodology

This chapter describes the research methodology with the matter and source of data population and sample of the model analysis, meaning and definition of statistical tools.

Chapter IV: Data Presentation and Analysis

Analytical framework starts from this chapter. It contains presentation and analysis of the data using financial and statistical tools. Similarly this chapter also includes the major finding of the study so it is main part study.

Chapter V: Summary, Conclusion and Recommendation

This chapter deals with suggestive framework, which is evocated to summary conclusion and recommendations.

CHAPTER - II

REVIEW OF LITERATURE

The purpose of literature review is to find out what research studies have been conducted in one's chosen field of study and what remain to be done. Review of literature is a way to discover what other researches in the area of problem has done and what has been left uncovered. This chapter deals with the reviewing of the different sources of dividend policy literature such as books, journals research works and unpublished thesis. Similarly this chapter includes two main heading like conceptual framework and review of related studies. Review of national and international studies and related theory to the dividend and dividend policy will absolutely help to this research.

2.1 Conceptual Framework

2.1.1 Meaning of Dividend

Companies that earn a profit can decide either of three ways: pay the profit out to shareholders, reinvest it in the business through expansion debt reduction or share repurchase or both. When a portion of the profit is paid out to the shareholders the payment is known as dividend. Dividend is paid in cash or stock. There is an ongoing debate about whether a company should payout its earnings as dividend or returns them for firm growth. There is further debate about which policy investors prefers. Firms that are growing generally pay low or no dividends matures firms that are no longer in growth phase often pay high and increasing dividends *(Gautam and Thapa; 2008:336).*

The dividend decision is regarded as a financing decision any cash dividend paid reduces the amount of cash available for investment by the firm. Dividend is periodic cash payments by the company to its shareholders. The dividend payable to the preference shareholders is usually filed by the terms of the issue of preference shares. But the dividend on equity share is payable at the discretion of the board of director of company. For payment of dividends a company must earn distributable profit from which the actual payment of dividend will be made. A company in general meeting

may declare dividends, but no dividend shall exceed the amount of recommended by the board. The shareholders have no right to declare more dividend than what has been recommended by the board of directors *(Gautam and Thapa; 2008:336).*

"Dividend refers to that portion of firm's net earning, which are paid to the shareholders" *(Bhattrai; 2002:12).* In theory of finance, dividend decision plays a very crucial role. Dividend decision however is still a crucial as well as controversial area of managerial finance. It is more technical area of finance in the it is complex on having numerous implications for the firm.

In the other words dividend is a periodical payment made to shareholders to compensate them for the use of and risk to their investment. Higher the dividend means higher the immediate cash flows to investors, which is good but lower future growth for firms, which is bad. Thus how much of dividend is to be paid corporate dividend is at the directors of the board of directors. Before dividend is paid to common stockholders must be satisfied. Shareholders wealth includes not only market price of shares quoted in stock market but also current dividends. Thus dividend are more than just a means of distributing unused funds and dividend is the part of earning which distributed to the shareholders.

2.1.2 Meaning and Significance of Dividend Policy

Dividend policy is the policy of any firm regarding the division of its profit between shareholders as dividend and retention for the profit making investment."Dividend policy determines the division of earning between payments to stockholders and reinvestment in the firm. Retained earning corporate growth, but dividends constitute the cash flows that accrue to stockholders" *(Wasten & Copeland; 1990: 657).* Management may decide retaining earning as opposed to paid out as dividends. The process of paying at "what's left" to shareholders is called dividend policy. Dividend policy involves the decision the decision to pay out earning versus retaining them for investment in the firm. Any change in dividend policy has both favorable and unfavorable effects on the firm's stock price. Higher the dividends mean higher the immediate cash flows to investors, which are good but lower future growth, which is bad. The dividend policy should be optimal which balances the opposing forces and maximizes stock price.

The decision to keep some portion of earning of pay some portion of earning as dividend is dividend policy. Dividend policy involves the decision to payout earning versus, retaining them, for reinvestment in the firm. The policy of company on the decision about the allocation of its profit between distributions of its profit between distributions to shareholders as dividend policy. The dividend policy includes all aspects related to the payment of dividend. There is inverse relationship between cash dividend and amount retained. In other words, if retained earning is kept more by the company less will be dividend and vice versa. The dividend policy adopted by the firm should be such that if strikes a proper balance the financing decision and investment decision. The dividend policy should be optimal which balances the opposing forces and maximizes stocks price. Dividend policy may have a critical influence on the value of the firm. If the value of the firm is a function of its dividend payment ratio, the dividend policy will affect directing the firm's cost of capital *(Gautam and Thapa; 2008:339).*

A company which wants to pay dividends and also needs funds to finance its investment opportunities will have to depend on external source of finance such as issuing debentures and equity shares. Dividend policy of the firm they affects both long-term financing and the wealth of shareholders. Dividend policy which involves returning of earning is a long term financing decision related to management of capital structure of the firm. In view of this management should decide policy carefully. So that the net earning are dividend between dividend and retained earnings in an optimum way to achieve the objective of maximization the wealth of shareholders. Thus a firm's decision regarding the size of dividends it will pay to its shareholders is called dividend policy *(Gautam and Thapa;2008:340).*

2.1.3 Dividend Policy and Market Price of Share (MPS)

MPS is that value which can be obtained by a firm from the market. Market value is one of the variables which are affected by the dividend per shareholders earning per share of the firm. If the earning per share and the dividend value is high the market per share will also be high market value of share may be high or low than book value. If the firm is growing concern and its earning power is greater than the cost of capital the market value of share the share will be higher than the book value. If the firm's

earning capacity is lower than cost of capital MPS will also be lower MPS is determined by capital market. Market price of stock usually fluctuated by the adequate information. No one can earn more in the inefficiency and inefficienes is legally prohibited in order to regulate the security in every nation. But being focused is this study, dividend policy and its impact on market price of stock there should be discussion on different models and practices, which have significant effects in MPS or not. So MPS and security valuation are integral parts. Without valuation no one can quote the price and without price there is no chance of trading. Market price of the stock (MPS) is the trading price of the stock listed in authorized of legal stock exchanges. Dividend policy and MPS has always correlation, if the company pays dividend and the MPS increases and vice versa. But in some cases out of this interrelation, the price may remain constant of decrease too. Therefore the information lack or flow is also vital in the analysis of MPS. In the context of Nepal, MPS is the price is quoted for purchasing or selling under Nepal stock exchange Act or related laws and regulation on the stock exchange floor *(Adhikari; 2008:16).*

Greater the perfection aviating in the stock market the highest will be relevancy of dividend policy over the market price. The cash dividend of the normal firm will have significant effect on the market price since the company is viewed as a firm of the future prospect and growth. The following framework will clear the relationship between the variable:

Cash Dividend Stock Divided Earning Per Share Net Worth	Market Price of Share
Independent Variable	Dependent Variable

"Share variable is an economic process which generates rational securities prices. Although the price fluctuation may appear to be chaotic, they are random arrival the new information" *(Francis;1990: 207).*

2.1.4 Theories of Dividend

There are two fundamental theories of dividend;

A. Residual Theory

Residual theory of dividend suggest that the first priority should be given to the profitable investment opportunities, if there are any profitable opportunities the firm invites in those and the only the residual (remaining) amount of earnings (if any) would be distributed to the shareholders. Under this theory the firm first determines the optimum level of investment opportunity schedule (IOS) and weighted average cost of capital (WAAC). Using the optimum capital structure proportion, the firm estimates the investment opportunities. Since the cost of internal equity (retained earning is less than the cost of new common stock to meet the equity financing requirement. If retained earning are not sufficient to meet the requirement, new common stock are to be sold. Any retained earnings left this would be distributed as dividend *(Bhattarai; 2002: 19-20).*

B. Wealth Maximization Theory

Larger dividend is announced and distributed to shareholders under this theory in order to maximize their wealth this theory is generally adopted by the newly established and declining companies to up keep its image and retain the shareholders' positive attitude towards the company stock" *(Bhattarai; 2002: 20).*

2.1.5 Payment Procedure of Dividend

Company makes dividend decision with considering number factors. Now, how does the company distribute such dividend? Dividend includes a systematic process and every company follows it. The process includes different dates and such are declaration date, holder (Shareholder) of record date, ex-dividend date and payment date.

a) Declaration Date

Managers manage the company. However, the crucial decision is made by the representative of the shareholder and those are called board of directors. Board of directors controls the firm. Board of directors meet and with the help of the management, declares dividend what the company is going to distribute. Thus this is the date on which the board of directors declares the dividend. At this time they set the amount payment of the dividend of paid.

b) Holder of Record Date

It is a date until which a person who has bought shares before ex-dividend date, must register his/her name in the company Holder of record date is a final date to transfer the title, meaning that the sellers' name should be replaced by the buyer's name in the company's register till this date.

c) Ex-Dividend Date

This date is four days prior to the record date share purchased after the ex-dividend date are not entitled to the dividend.

d) Payment Date

It is the date on which company starts to pay dividend *(Gautam and Thapa; 2008:336).*

2.1.6 Major Forms of Dividend

Depending upon the objective and polices, they implement the firm can give various type of dividend to the shareholders. Before adoption and dividend, the firm must ensure the smooth growth of the shareholders. There should be consistency in dividend policy and financial plans, shareholders preference and attitude of the directors *(Bhattrai; 1996:24).*

The corporations in Nepal are in the early stage of development due to which they need to pay extensive concentration in the dividend. The empirical observation in case of public limited companies in Nepal shows that only few corporations are paying dividend to the government due to suffering from regular losses and not having risk of ownership transfer. Some of the major forms of dividends the corporation can adopt are discussed below.

A. Cash Dividend

Cash dividend is the dividend, which is distributed to the shareholders is cash out of the earnings of the company. When cash dividend is distributed both total assets and net worth of the company decrease as cash and earnings decrease. The market price of the share drops in most cases by the amount of the cash dividend distributed. The market price after cash dividend is calculated as follows:

Market Price Per Share After Cash Dividend = Market Price Per Share Before Cash Dividend – Dividend Per Share

Cash dividend has the direct impact on the shareholders. It is one of the most interesting matters of the study and the volume of the cash dividend depends up on earning of firms and on the psychological value for stockholders. Cash and everyone like to collect their return in cash rather than non-cash means. So cash dividend is not only a way to earning distribution but also a way of perception improvement the capital market. The objectives of the cash dividend are;

- To distributes the earning to shareholders as the they hold the proportion of the shares.
- To build and image in the capital market so as to create favorable condition to raise the fund at the needs.
- To make distribution easy and to account easily.

B. Stock Dividend

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 share of the firm's stock. Although stock dividends do no have a real value, firms pay stock dividend as a replacement for a supplement to cash dividend. Under stock dividend, stockholders of cash dividends. Stock dividend requires and account to the common stock and paid in capital account.

Rupees Transferred from Retained Earnings = Number of Share Outstanding × Percentage of Stock Dividend × Market Price of the Stock

There is no cash involved in a stock dividend. Net worth remains unchanged and the number of shares in increased. With a stock dividend, retained earnings decrease but common stock and paid in capital on common stock increase by the same total amount. Therefore, issue of stock dividend has no change in stockholders, wealth. Stock dividend increase the share held, but the proportion of the company each stockholder owns remains the same.

$$\text{Market Price Per Share After Stock Dividend} = \frac{\text{Stock Price Before Stock Dividend}}{1 + \text{Stock Dividend in Fraction}}$$

C. Stock Split

A stock split (also known as straight stock split) is essentially when a company increases the number of shares. In case of stock splits, a company may double, triple of quadruple the number of shares outstanding. The market price of each shares of merely lowered; economic reality does not change at all. It is, therefore completely irrational for investors to get excited over stock splits.

The effect of a stock split is an increase in the number of shares outstanding and a reduction in the par or stated value of share. The total net worth of the firm remains uncharged. The stock split does not involve and cash payment only additional certificates representing new shares.

D. Reverse Split

A method that is used to raise the market price of a firms stock by exchanging certain number of outstanding shares for one new shares of stock. The effect of a reverse split is a decrease in the number of shares outstanding and an increase in the par, or stated, value of shares. The total net worth of the firm remains uncharged. The reverse split does not involve any cash payment, only additional certificates representing new shares. Reverse split is used to stop the market price per share below a certain level.

E. Bond Dividend

Bond is a payment of dividend by the corporation if the form of bone to the shareholders. In other words, the corporation declares dividend in the from of its own bond with a view of avoiding cash out flow. Bond dividend does not change its liquidity position.

F. Scrip Dividend

A dividend paid in promissory notes is called scrip dividend. When earning of the firms justify dividend but the company's cash position is temporarily weak and does not permit cash dividend. It may declare dividend in the form of scrip dividend may bear a definite maturity date or it may be left to the directors such dividends may be interest bearing or non-interest bearing.

G. Repurchase of Stock

When a company wants to pay cash to its stockholders if usually declares a cash dividend. But an alternative method is for the firm to repurchase its own stock. In a stock repurchase, the company pays cash to repurchase shares form its shareholders. These shares are usually kept in the company's treasury and than resold if or when the company needs money. Stock repurchase is a method, in which a firm buys back shares of its own stock, there by decreasing shares outstanding, increasing EPS, and often, increasing the price of the stock. Stock repurchases are an alternative to cash dividends for transmitting cash to stockholders. Share price for repurchase or the equilibrium price is calculated from the following equation;

$$\text{Repurchase Price } (p^*) = \frac{S \times P_C}{S - n}$$

Where,

S = Total number of shares outstanding

Pc = current market price per share

n = number of shares to be repurchased.

H. Interim Dividend

Generally dividend is declared in the last of financial year. This is called a regular dividend. Many times directors can declare the dividend the before the end of the financial year. This called interim dividend *(Gautam and Thapa; 2008:344)*.

2.1.7 Dividend Payout Schemes

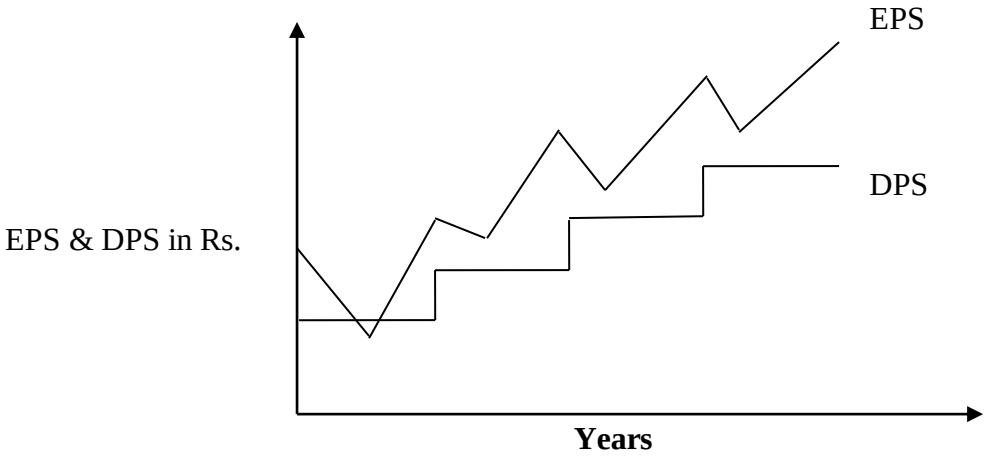
Stability of regular of dividends is considered as a describe policy by the management of companies. Most of the shareholders also prefer stable dividend because all other things being the same, stable dividends have a positive impact on the market price of the share. By stability preferable one that is upward sloping. Three of the commonly used dividend policies are;

a. Constant Dividend Per Share

Constant dividend policy is based on the payment of a fixed rupee dividend in each period. A number of companies follow the policy of paying fixed amount per share as dividend every period, without considering the fluctuation in the earning of the company. This policy does not imply that the dividend per share or dividend rate will never be increased. When the company reaches new level of earning and expects to maintain it the annual dividend per share may be increased. Investors who have dividends as the only source of their income prefer the constant dividend policy.

Figure 2.1

Constant Dividend Per Share



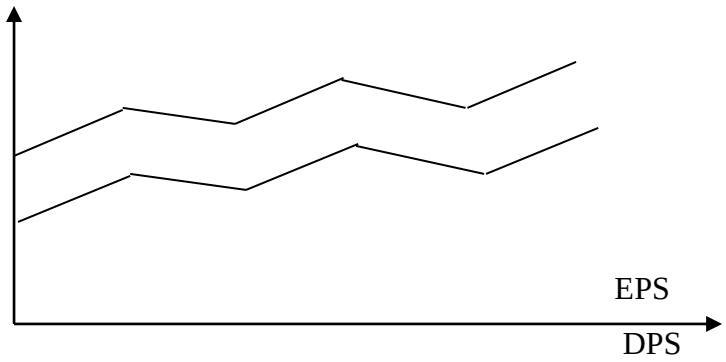
Above figure shows that earnings may fluctuate from year to but dividend per share remains relating stable over the years and it increasing along with the increase in earning.

b. Constant Payout Ratio

The ratio of the dividend to earning is known as dividend payout ratio. When fixed percentage of earning is paid as dividend in every period, the policy is called constant payout ratio. For example if dividend payout ratio is so percent, firm always pays 50 percent of its annual earning as dividend. Since earning fluctuates, following these policy necessaries means that the rupee amount of dividend will fluctuate. It ensures that dividends are paid when profit are earned and avoided when it incurs losses.

Figure 2.2

Constant Payout Ratio



EPS & DPS in Rs.

Years

C. Low Regular Dividend Plus Extras

The policy of paying a low regular dividend plus extras is a compromise between a stale dividend (or stable growth rate) and constant payout rate. Such a policy gives the firm flexibility, yet investors can count on receiving at least a minimum dividend. It is often followed by firms with relatively volatile earnings forms year to year. The low regular dividend can usually be maintained even when excess funds are available *(Gautam and Thapa; 2008:339).*

2.1.8 Factors Affecting Dividend Policy

Dividend policy is concerned with deciding the part of profit to be distributed to the share holder. Many considerations may affect a firm's decision about its dividends, some of them are unique to that company and some of the more general consideration is given subsequently, they are as follows;

a. Size of the Earnings

A firm that has high level of earning will generally pays a larger portion of its earnings in dividends. It the size of earning is small a smaller amount of the profit may be distributed to shareholders. Thus, size of earnings affects the dividend policy of the firm.

b. Investment Opportunity

The available profitable investment opportunities of firm affect the dividend decision,. If the company has lot of such opportunities, it needs excess fund to finance. So, the company retains more profit paying fewer amounts as dividend.

c. Liquidity Position

The cash or liquidity position of the firm influences its ability to pay dividend. A firm may have sufficient retained earnings, but if they are invested in fixed assets, cash may not be available to make dividend payment. Thus the company must have adequate cash available as well as retained earning to pay dividends.

d. Legal Rules

Certain legal rules may limit the amount of dividends a firm may pay. These legal constraints fall into two categories, first, statutory restrictions may prevent a company from paying dividend. While specific limitations vary by state, generally a corporation may not pay a dividend (i) If the firm's liabilities exceed its assets, this provision is known as 'the insolvency Rule' (ii) if the amount of the dividend exceeds the accumulated profit (retained earning). This legal provision is known as the Net Profit Rule" (iii0 If the dividend is proposed from capital invested. In the firm this provision is also known as 'The capital impairment rule.' The second type of legal restrictions is unique to each firm and results from restriction debt and preferred stock contracts.

e. Desire of Shareholders

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

In a closely held company, management usually knows the desires of shareholders. So they can easily adopt a dividend policy that satisfied all customers. But in widely held company, number of shareholders is very large and they have diverse desires,

regarding dividends and capital gains some shareholders want cash dividends, while other prefer bonus share.

f. Growth Prospects

A rapidly growing firm usually has a substantial need of funds to finance the abundance of attractive investment opportunities. Instead of paying large dividends and than attempting to sell new shares to raise the equity investment capital it need. This type of firm usually retains larger portions of its earnings and avoids the expense and in convenience of public stock offerings.

g. Need to Repay Debt

The need to repay debt also influences the availabity of cash flow to pay dividend. If the company has to repay the debt in the current year. It needs more fund and retains more profit paying fewer amounts as dividend.

h. Restriction in Debt Contracts

Restriction in debt contract may specify that dividends may be paid only out of earnings generated after. Signing the loan agreement and only when net working capital is above a specified amount. Also, preferred dividends take precedence to common stock dividends.

i. Rate of Assets Expansion

A high rate of asset expansion creates a need to retain funds rather than to pay dividends.

j. Stability of Earning

A firm that has a stable earnings trend will generally pay a larger portion of its earnings in dividends. It earning fluctuate significantly, a larger amount of the profits available for investment projects when needed.

k. Profit Rate

A high rate of profit on net worth makes if desirable to retain earnings rather than to pay out if the investor will earn less on them.

l. Control

For many small firms and certain large ones, maintaining the controlling vote is very important. These owners would prefer the use of debt and retained profit to finance new investments than issue new stock. As a result dividend payout will be reduced.

m. Access to the Capital Markets

A firm's access to capital markets will be influenced by the age and size of the firm, therefore a well-established firm is likely to have a higher payout ratio than a smaller, newer firm *(Bhattarai;2008:377).*

2.2 Legal Provision Regarding Dividend Practices in Nepal

There are some legal provisions in company Act of Nepal regarding the dividend payment. The responsibility to protect shareholders' interest is handed to stock exchange centre by the security exchange Act 1983-1984 AD. Only this is not enough to protect shareholders interest because the attitude of board of directors plays dominant role in public limited companies. In many cases, long term debt debentures and preferred stock agreements contain restrictions on the maximum common stock dividend that can be paid by a firm such covenants are designed to protect senior claimholder from executive withdrawals by real owners. Dividend is paid only out of certain earnings. In present situation, it is advisable to intact separate shareholders protection act safe guard shareholders right as an interest. Shareholders association of Nepal has been established for the purpose. The responsibilities to undertake required action to protected shareholder interests was given to SEC by security exchange Act 1983-1984. Recently, Nepal government has issued company Act 2063. The Act marks some legal provision for dividend payments. those provision are as follow;

Section 179

Subsection-1 of section 179 states that the company can issue the bonus share from its portion of dividend after passing special resolution by the general meeting.

Subsection-2 of section 179 states that company should inform to the office before issuing the bonus shares.

Section-182

Subsection-1 of section 182 states that dividend should be distributed within us days from the decision dividend distributed except the following circumstances.

- In case of any law forbids the distribution of dividend
- Incase the right to dividend disputed.
- Incase dividend can not be distributed within the time limit mentioned about owing to circumstances any one control and without any fault on the part of company. The company can distributed the dividend after taking the prior consent if Nepal government holds fall or parties ownership of the company.
- Incase dividend are not distributed within the time limit mentioned in the subsection-1 dividend and extra interest should be distributed.

Only the person whose name stands shall be entitled to get dividend. In addition to this, the company Act 2063 makes other provision regarding dividend and interim dividend payments. The company Act 2063 has made a new prohibited by the provision company Act-2053.

Section-61

The section states that no company shall purchase its own shares or supply loans against the security of its own shares. In the following circumstances the company can purchase its own shares from its retained earnings to be distributed as dividend.

- If all amount against shares issued by the company is paid.
- If issued shares of public company is registered in security board.
- If there is provision regarding the purchase of own share in the article of association of respective company.
- If the special resolution is passed by the general meeting of respective company regarding the purchase its own shares.
- If loan amount of the company shall not be doubled by its capital reserve funds after purchasing its own shares.
- If the purchased own share amount will not exceed by 20% of company's total paid-up capital and general reserve funds.
- The direction of the office issued by time will not be against.
- Regarding the purchase of own shares will not be against the directing of the office.
- Other provision also has been made in the company Act 2063 regarding the purchase of its own share *(Bhattarai; 2009:39).*

2.3 Review of Related Studies

This section is dedicated to the review o the major studies in general concerning dividends and stock price, management views on dividend policy and management views on stock dividends.

2.3.1 Review of Major International Studies

There have been so many studies made by the different persons and institution for dividend policy and stock price. There are two opinions regarding to dividend payout and market price of stocks. One point of views is that dividends are irrelevant and the amount of dividend payout does not affect the market relevant and the amount of stocks. Always a critical and confused question has arisen, weather dividend policy affects the market value of the shares or not. To put light in these matter different studies made by different international scholars and researchers are going to be discussed below.

a) Modigliani and Miller's Model (1961)

Modigliani and Miller have propounded the MM hypothesis to explain the irrelevance of a firm's dividend policy. This model was based on a few assumptions, sidelined the importance of the dividend policy and its effect on the share price of the firm. According to the model it, it is only the firm's investment policy that will have an impact on the share value of the firm and hence should be given more importance.

The assumption of this model is:

- The essence of a perfect market is that all investors are rational. In perfect market condition there is easy access to information and the flotation and the transaction costs do not exist. The securities are infinitely divisible and hence no single investor is large enough to influence the share value.
- It is assume that there are no taxes, implying that there are no differential tax rates for the dividend income and the capital gain.

- There is neither a constant dividend policy of firm, which will not change the risk completion nor the rate of return even in cases, where the investments are funded by the retained earnings.
- It was also assumed that the investors are able to forecast the future earnings the dividend and the share value of the firm with certainty. This assumption was however, dropped out of the model.

Modigliani and Miller provided the proof in support of their argument in the following manner.

Step-1

In the first step the market price of shares equal to the sum of the present value of dividend paid and the market price at the end of the period.

Symbolically;

$$Po = \frac{(D_1+P_1)}{1+Ke}$$

Where,

Po = Current market price of the share

P1 = Market price of the share at the end of the period (t=1)

D1 = Dividend per share to be paid at the end of the period (t=1)

Ke = cost of equity capital

Step-2

If no new external financing exists market value of a firm can be computed by multiplying both sides by the number of outstanding share as follows

$$np_0 = \frac{n(D_1+P_1)}{1+Ke} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(ii)}$$

Where,

N = number of equity share at zero period

Step-3

If retained earning is not sufficient to finance the investment opportunities. Issuing new share is the other alternative. Assuming that 'm' is the number of newly issued equity share at the price of p1, the value of firm at time zero will be:

$$np_0 = \frac{nD_1 + P_1 (n+m) - mp_1}{1+ Ke}$$

Where,

n = no of shares at the begging

m = no of new equity share issued at the end of the period

Step-4

If the firm were to finance all investment proposals, it may finance either by retained earning or by the issuance of new shares or both. Thus total value of the newly issued stock will be as follows;

$mp_1 = I-(E-nD_1)$

Or $mp_1 = I - E + nD_1$……. (iv)

Where,

I = total investment amount required

E =Total amount of earning

nD_1= Total amount of dividend paid

$E-nD_1$ = Amount of retained earning

mp_1= value of newly issued stock

Step-5

Substituting the value of mp1 from equation (iv) to equation (iii), we get

$$np_0 = \frac{nD_1 + P_1 - 1 + E - nD_1}{1+ Ke}$$

$$np_0 = \frac{P_1(n+m) - 1 + E}{1+ Ke} \quad \text{…… (v)}$$

Conclusion:

Since dividend does not appear directly in expression and E, I, P1 (n+m) and Ke are assumed to be independent of dividend. In other words, MM reach into conclusion that dividend does not matter and hence irrelevant. Therefore, dividend policy of firm has no impact on market value of the firm.

MM conclude that the current value of the firm is independent of its current dividend decision. The gainer by stockholders in increased dividend is offset exactly by the decline in the terminal value of their stock. MM shows that the NPo is unaffected not only by current dividend decision but future dividend decision as well. Thus the stockholders are indifferent between retention and the payment of dividends in all future periods and stockholders wealth is unaffected by current and future dividend decisions.

It does not seem to apply MM approach in Nepalese context because when we apply this approach the assumption supposed by mm are significantly deviated. In Nepal, we are enabling to find the rational investors as well as perfect capital market, which are considered by MM. It does not seem so sound to neglect the flotation cost transaction cost and tax effect on capital gain as neglected by MM. Arbitrage arguments as explained by mm applies only when there are very sensitive investors and which are lacking in Nepal. A conscious in use for always finds different between dividend and retained earning. Thus, MM proposition is not relevant in the case of Nepal *(Gautam and Thapa; 2008:350).*

b) Walter's Model (1966)

Professor Jams E. Walter conducted a study on dividend and stock prices in 1966. He proposed a model for share valuation. According to him the dividend policy of a firm cannot be looked a side from investment policy. His argument is just opposite of what Modigliani and Miller said. He argued that dividend policy affects the stock prices. In this model he studied the relationship between the internal rate of return (r) and the cost of capital of the firm (k), to give a dividend policy that maximizes the shareholder's wealth. Walter's model is based on the following assumptions:

- Retain earnings constitute the exclusive source of financing. The firm does not resort to debt or equity financing.
- The firm's internal rate of return and its cost of capital are constant.
- All earning of the firms are either distributed as dividend of reinvested internally.
- There is no change in value of earning per share and the dividend per share.
- The firm has perpetual or infinite life.

According to Walter, the market price of the share is taken as the sum of the present value of the future cash dividends and capital gains. His formula is based on the share valuation model and is arrived at in the following manner;

$$P = DPS/K_e + r/k\ (EPS-DPS)/k_e$$

or,

$$P=DPS+r/k_e\ (EPS-DPS)/k_e$$

Where,

p = market price per share

EPS =Earning per Share

DPS = dividend per share

Ke = cost of capital or capitalization rate

r = internal rate of return.

The model studies the relevance of the dividend in three situations.

Firms	Nature	Optimal payout ratio
Growth	r > ke	0%
Normal	r = ke	DPR does not affect
Decline	r < ke	100%

According to Walter's model, the optimum dividend policy depends on the relationship between the firm's internal rate of return (r) and its cost of capital (k), Walter's view on the optimum dividend payout ratio can be summarized as follows;

Growth Firms (r > k)

If the firm's internal rate of return exceeds the cost of capital, the relationship between dividends and stock price is negative i.e. more dividends to lead low stock prices. This kind of firm is referred to as growth firms. Walter argued that zero dividends would maximize the market value of shares for growth firms.

Normal Firms (r = k)

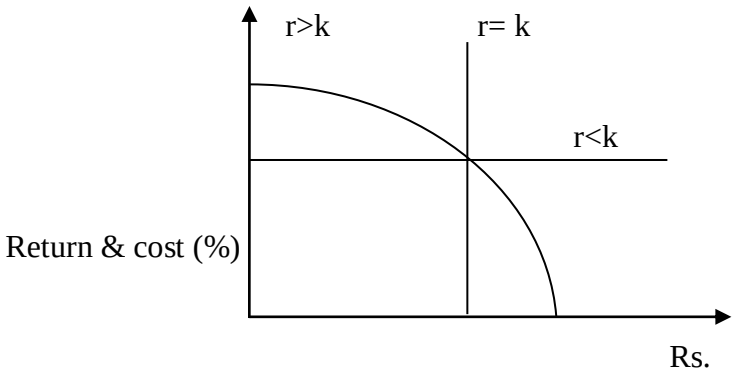
Firm having r = k may be referred as normal firm. There is no unique optimum payout ratio for a normal firm. One dividend policy is as goof as the other. The market price per share is not affected by the payout ratio. Where r = k.

Decaling Firms (r < k)

If the firm's internal rate of return (r) is less than the cost of capital (k) the relation between dividends and stock price positive i.e. increase in dividend per share yield increase in stock prices. This kind of firm is referred to as deckling firm. He argued, 100% dividend policy would maximize the market price of share for declining firm.

Figure 2.3

Earning, Investment and New Financing under Walter's Model



Thus the Walter's model the dividend policy of the firm depends on the available of investment opportunities and the relationship between the firm's internal rate of return (r) and its cost of capital (k). The firm should use earning to finance investment if r>1; should distributed all earning when r <k and would remain indifferent when r = k *(Regmi; 2006:21).*

c) Gorden's Model (1962)

This approach was developed by Myron Gorden in 1962. Gorden uses the dividend capitalization approach to study the effect of the firms' dividend policy on the stock price. The conclusion of his study is that investors value the present dividend more than capital gain. His argument insisted that an increase in dividend payout ratio leads to increase in the stock price for the reason that investors consider the dividend yield (D1/Po) is less than the expected capital gain.

Hence, investors required rate of return increase as the amount of dividend decrease. This shows that there exists a positive relationship between the amount of dividend and the stock prices.

The following are the assumption based on which Gorden based the dividend policy model for firms;

1. The firm will be an all- equity firm with the new investment proposals being financed solely by the retained earnings.
2. Return o investment (r) and the cost of equity capital (ke) remain constant.
3. No external financing is available.
4. Firm has an infinite life.
5. The retains ratio remains constant and hence the growth rate also is constant (g =br0
6. K> br, i.e. cost of equity capital is greater than the growth rate.

Based on the above assumption, Gorden provided the following formula, which is a simplified version of the original formula (Franc, 1972) to determine the market value of a share,

$$Po = \frac{EPS(1-b)}{Ke-br}$$

Where,

Po = market price per share
EPS = earning per share
b = retention ratio
1-b = dividend payout ratio
Ke = cost of equity capital or cost of capital of the firm
Br =g = growth rate (g) in the rate of return on investment.

Therefore, Gorden correlated that the firm, share value is positive with the payout ratio where re > ke and decrease with an increase in the payout ratio when r > ke. Thus firms with rate of return greater than the cost of capital should have a higher retention and those firms, which have a rate of return less than the cost of capital, should have a lower retention ratio. The dividend policy of firms which have a rate of

return equal to the cost of capital will however not has any impact on its share price *(Gautam and Thapa;2008:356).*

d) Linter's Model (1956)

Linter made an important study focusing on the "Behavioral aspect of dividend policy" in the American context. He investigated a partial adjustment model as he tested the dividend patterns of 28 companies. He concluded that a major portion of the dividend of a firm could be expressed in the following way;

$DIVt = PEPSt$

$DIVt - DIV_{t-1} = P\ EPSt - DIV_{t-1}$

$DIVt - DIV_{t-1} = b\ (P\ EPSt - DIV_{t-1})$

$DIVt - DIVt\text{-}_1 = a+b\ (P\ EPSt - DIV_{t-1}) + e_t$

$DIVt = a + bPEPSt - b\ DIV_{t-1} + e_t$

$DIVt = a + bPEPSt - bDIV_{t-1} + e_t$

$DIVt = a + b\ DIV_{t-1} + (1-b)\ DIV_{t-1} + e_t$

Where,

EPSt = earning per share

DIVt = dividend in time t

P = target payout ratio

A = constant relation to dividend

(1-b) = safety factors

e_t = error term

B = the adjustment factor relation to the previous period's dividend and new desired level of dividends where $b < 1$.

The major finding of this study was as follows;

- Forms generally think in terms of proportion of earnings to be paid out. Investment requirement are not considered for modifying the pattern of dividend per share (or dividend rate)

- Firm generally have target payout ratios in view while determine change in dividend per share (or dividend rate) *(Bahttarai; 2009:41).*

e) **Van Horne and Mc Donald's Study (1971**)

Van Horne and Mc Donald conducted a comparative study on dividend policy and new equity financing. The purpose of this study was to investigate the combined effect of dividend policy and new equity financing decision the market value of the firm's common stocks.

Empirical tests were preferred with tear end cross. Section for two industries, using a well known valuation model. For there investigation, they employed two samples of firms Viz. the 86 electric utilizes in the continental U.S., which were included on the COMUSTAT utility data, tape; and 39 companies if the electronics and electronic component industries as listed on the COMUSTAT industrial data tape in 1968.

The First Model was

$Po/Eo = a_{g\,o}\, a_1 (g) + a_2 (Do/Eo) + a_3 (Lev) + U$

Where,

Po/Eo = Closing market price in 1968 dividend by the compound annual rate of growth in assets per share for 1960 through 1968.

Do/Eo = Dividend payout, measured by the cash dividend in 1968 dividend by earning in 1968.

Lev = Financial risk, measured by interest charge dividend by the different of operating revenues and operating expenses.

U = error term

The Second Model was

$Po/Eo = a_0 + a_1 (g) + a_2 (Do/Eo) + a_3 (Lev) + a_4 (fa) + a_5 (f_b) + a_6 (f_c) + a_7 (f_d) + U$

Where,

Fa, fb, fc and fd are dummy variables corresponding to new issue ratio (NIR) group A through D.

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

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

$Po/Eo = a_0 + a_1 (g) + a_2 (Do/Eo) + a_3 (lev) + a_4 (OR) + U$

Where,

Lev = financial risk, measured by long term debt plus preferred stock dividend by net worth as offend of 1968. Or operating risk, measured by the standard error for the regression of operating earning per share on time for 1960 through 1968, and rest are as in first model above.

By using these models they compared the result obtained for the firms which both pay dividend and engage in new equity financing with other firms in an industries sample. they concluded that for electric utility firms in 1968, share value was not 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 amore costly form of financing than remain of earnings. They also indicated that the payment of dividend through excessive equity financing reduces share prices. For forms in the electronics electronic component industry, a significant relationship between new equity financing and value was not demonstrated *(Adhikari; 2008:46).*

2.3.2 Review of Related Studies in Nepal

Shrestha (1992), presented a paper on " *Shareholder's Democracy and Annual General Meeting Feedback"* on fifth annual general meeting of Nepal Arab Bank limited, Which has been presented here.

In this view the common problems and constraints of the shareholders are as follows;

a. The cost-push inflation at exorbitant rate has made the shareholders to expect higher return form their investment.

b. 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.
c. Erosion in the purchasing power of the income 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 earnings and cost theory.
d. Indo-Nepal trade and transit deadlock has become a sort of economic welfare putting rise in the cost of living index to a considerable extent. This is the reason, which made shareholders to expect higher demand for satisfactory dividend.
e. The waiting of 5 years with payment of dividend in previous years in equally a strong enforceable reason at the bank's share holders' to expect handsome dividend already assumed and committed In various reports of the earlier annual general meeting.
f. One way to encourage risk taking ability and preference is to have proper risk return trade off by bank's management board is a way that higher return must be the investment rue for higher risk taker's that comprise bank's shareholders.

Pradhan (1993), conducted a land mark study in the field of dividend policy in Nepal. He studies stock market behavior of 17 firms converting, the period 1986 to 1990 with the following objectives:

a. To access the stock market behavior in Nepal.
b. To examine the relationship of market equity market value, price earning and dividend with liquidity profitability, leverage assets turnover and interest turnover.

Finding of his study are as follows:

a. Higher earning in the stock leads to the larger the ratio of dividend per share.
b. Stock with larger ratio of dividend per share to market price have lower leverage ratio.
c. Stock with larger ratio of dividend per share and market price has higher liquidity.
d. Positive relationship between the ratio of dividend per share to market price and interest courage ratio.

e. Dividend per share and market price per share are positively correlated.
f. Positive relationship of dividend payout with liquidity profitability assets turnover and interest coverage ratio.

Manandhar (2000), conducted a study on *"Bonus Share and Dividend Charge Empirical, Analysis in Nepalese Context."* To test the lagged structure of dividend payout and other financial features were tested. He carried out his study based on the data taken from 17 Nepalese corporate firms and covered the period of 1987 to 1998. The conclusions of this study are as follows;

a. There is significant relationship between changed in dividend policy in terms of dividend per share and change in lagged earning.
b. There is relationship between distributed lagged profit and dividends.
c. In overall there is a positive relationship between in lagged consecutive earning and dividend share.
d. When change in lagged consecutive earning is greater than zero in 65% cases change in dividend per share**.**

2.3.3 Review of Related Master's Thesis

Gautam (1996), conducted his master's research on "*A Comparative Study of Dividend Policy of Commercial Banks* "by using the secondary data of three banks is 1996 has following objectives;

a. To identity what type of dividend policy is being followed and find out whether the policy followed is appropriate or not.
b. To examine the impact of dividend on shares prices.
c. To identify sample commercial banks.

Major finding of the study are as follows;

a. Analysis indicates the largest fluctuations in earnings per share and dividend per share. No banks exhibit dividend payout ratio.
b. Share of the financial institution are actively traded and market prices are increasing.
c. Average EPS and DPS of all concerned banks are satisfactory.
d. No Commercial banks seen to be guided by cleanly deigned dividend strategy in spite of the good earnings and potentials.

e. Correlation between DPS and EPS of all sample banks is fairly positive but it is fairly safe to say that the relationship is not significant.
f. Theoretically, issue of bonus share has equal impact on EPS impact on EPS, MPS and DPS, but in case of sample banks a significant variation in the degree of impact is observed.
g. Positive relationship of dividend payout with liquidity, profitability, assets turnover and interest coverage ratios.

Bhattrai (2002), conducted his masters research on "*Dividend Policy and Its Impact on Market Price of Stock*" with data taken from two commercial banks and two insurance companies in 2002. He analyzed the data multiple regression equations. The main objective of the study is as follows;

a. To study the prevailing practices and efforts made in the dividend policy in the Nepalese firms with the help of sample firms.
b. To find out the impact of dividend policy on market price of stock.
c. To analyze if there is any uniformity among DPS, MPS and DPR in the sample firms.

Major finding of his study are as follows;

a. There is not any consistency in dividend policy in the sample firms. It has indicated the need of dividend strategy as well as the need of proper analysis of the respective sector of the firms.
b. The MPS is affected by the financial position and the dividend paid by the firms in this regard, the MPS of the sample firms is seemed to be fluctuated. It denotes that Nepalese investors are not treated fairly.
c. Most of the Nepalese firms from the very past did not have profit planning and investment strategy, which has imbalanced the whole position of the firms, if means there is no consistency even in the earnings.
d. The lack of financial knowledge and the market inefficiency has affected the market price of the share in all the firms.

Regmi (2006), conducted a study on "*Impact of Dividend on Market Price of Share With Reference to Five Commercial Banks Listed in NEPSE"* the specific objectives where as follows;

a. To examine the relationship between dividends and stock prices.
b. To determine the impact of dividend policy on stock prices.
c. To analyze the financial variable affecting the stock value and impact the dividend paying implication under dividend valuation model.

The main findings of his study are as follows:

a. The MPS is affected by the financial position and the dividend paid by the firms, in this regard the MPS of the sample firms are seen to be fluctuated. It denotes Nepalese investors are not treated fairly.
b. There was correlation between EPS and DPS.
c. In aggregate, dividend paid by the company is not stable.

Bhurtel (2006), conducted a study on "*Dividend Policy and Its Impact on Stock Price*". The basic objective of the study was to identify the relationship between dividend and market price per share the major objective other this study can be stated as follows;

a. To analyze the properties of portfolio on dividend
b. To examine the relationship between dividend and stock price
c. To survey the opinion of financial executive's on corporate dividend practices

These are the major finding of his study:-

a. From the descriptive analysis the researcher found there is not any consistency in dividend policy in the sample banks, which has maintained stable dividend per share policy. It has indicated the need of dividend policy as well as the need of proper analysis of the banks.
b. The MPS is affected by the financial position and the dividend paid by the firms, in this regards the mps of the sample firms are seen to be fluctuated. It denotes Nepalese investors are not treated fairly.
c. Most of the Nepalese firm from the very past have not profit planning and investing strategy, which have imbalanced the whole position of the firms. It means there is not consistency even in the earning.

Adhikari (2008), has conducted a study on "*Impact of Dividend on Market Price of Share.*" The specific objectives of his study are as follows;

a. To examine the practices and effort made in dividend policy in the Nepalese firms with the help of sample firms.
b. To analyzed if there is any uniformity among DPS, EPS, MPS, net worth and DPS in the sample firms.
c. To examine the impact of dividend on market price of stock.

The findings drawn by the study are as follows;

a. Dividend per share affected the share price validity in different sectors.
b. The relationship between dividend per share and stock price was positive in the sample companies.
c. Changing the dividend policy of dividend per share right help to increase the market price of shares.

Bhattrai (2009), conducted a study on "*Dividend Practices of Commercial Banks and Its Impact on Stock Prices*." The specific objectives of the study are as follows;

a. To analyze the impact of dividend on stock price.
b. To identify the determination of the dividend per share (DPS) and market price of stock (MPS).
c. To analyze the relationship of DPS with EPS and MPS.
d. To compare dividend practices of selected commercial banks.

The summary of the major finding of the study was as follows;

a. There is high degree positive relationship between DPS and EPS in most of the banks as they are statically significant.
b. Relationship between DPS and MPS is found to be high degree positive in most of banks as they are statically significant also.
c. All the selected banks paid dividend in each year which shows that dividend paying practice is established in Nepalese commercial banks.
d. The dividend per share of Nepalese commercial bank is depending on current earnings. The banking is following earning based dividend policy.

Bista (2009), conducted a study on *"Impact of Dividend on Market Price of Share of Selected Commercial Banks*." The specific objectives of the study are as following;

a. Highest the aspect of dividend policy of selected commercial banks.

b. To examine at the relationship of dividend with various factors like, DPS, MPS, Net worth, Net earning.
c. To identify the uniformity among DPS, EPS and DPR of the selected commercial banks.

The summary of the major finding of the study are as follows;

a. The market price per share is affected by the dividend related financial variable i.e. DPS and DPR either positively or negatively changes are DPS affected the market price per share differently in different bank.
b. Beside dividend, others factors also affected the market price per share i.e. earning per share price earning ratio, net worth per share etc. Their effect is also different banks.
c. In case of same banks, there exists negative relationship besides the MPS. Largely depends upon the dividend which been shown by the coefficient of multiple determination.

2.4 Research Gap

There have been many national and international studies in the field of dividend policy to date. Those studies have tried to find out the relationship between dividend policy and market price of the stock. Nepalese capital market is in the early stage of development so the conclusion made by the international studies concerned like Pradhan's and Manadhar's which can be considered to be landmark in the field of dividend policy.

In this study, it is tried to taken new thesis, journals and articles from different researchers which are related to dividend policy that helps to know about dividend practice and its effect on financial indicators, relationship among them and shows actual dividend behavior in Nepal. This study has covered six leading commercial bank that listed in NEPSE. Six years data have been analyzed with due consideration of EPS, DPS, DPR and MPS. Analyses of financial indicators, standard devotion, regression analysis etc. Are used as the main models in the study with a view obtain

the relevant and accurate results. So, it has been believed that this study will be different and comprehensive as compared to previous research and study.

CHAPTER - III
RESEARCH METHODOLOGY

3.1 Introduction

Research Methodology indicates the methods and processes employed in the entire aspect of the study. In other words, research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives. Research methodology is a way fro systematically solving the research problem. So, it is the methods, steps, and guidelines which are to be followed in analysis and it is a way of presenting the collected data with meaningful analysis. In other words, it is a systematic way to find research problems.

This chapter has been divided into four sections. Section one represent the research design, while section two describes the nature and source of data, section three represent the population and sample and section four explains the method of analysis.

3.2 Research Design

The research design of this study basically follows the impact of dividend on stock price. In other words, this research is designed so as to find out the impact on the market price of common stock of a company when dividend is paid to the shareholders and also how the market price of stock responds when dividend is not paid to the shareholders. In other words, the study is closely related to the impact of dividend on market price of common stock and wealth position of shareholders. Therefore, the descriptive as well as the analytical approach design are adopted here to make the analysis more effective, financial tools, statistical tools and testing models are also used.

3.3 Population and Sample

There are twenty- seven commercial banks in the country on 30th June, 2010 (including government owned, private and joint venture) due to time and resource factors it is not possible to study all of them regarding the study topic. Therefore, sampling will be done selecting form population.

Out of 27 commercial banks that are operating their activities in Nepal, we have selected 6 commercial banks for this study. So, we are going to analysis 6 commercial banks about their operating activities as a sample.

S.No	Selected Banks	Abbreviation Used
1	NABIL Bank Limited	NABIL
2	Standard Chartered Bank Limited	SCBL
3	Nepal SBI Bank Limited	SBI
4	Everest Bank Limited	EBL
5	Bank of Kathmandu Limited	BOK
6	Nepal Industrial and Commercial Bank	NIC

Table 3.1

Sampling Description

Population(N)	Sample(n)	Sample Ratio(n/N)
Listed Commercial Bank(N) = 27	Selected Commercial Banks for Study(n) = 6	$\frac{6}{27} \times 100$ = 22.22%

3.4 Nature and Source of Data

This study is based on the secondary data. The data relating to the dividend decision, which are directly obtained from commercial bank. Annual reports, balance sheet, profit and loss account of commercial banks are main source of data. Beside the data are also collected from various journals, articles, newspapers and magazines published by commercial firms. Main sources of secondary data are:

- Annual report published by commercial bank
- Data are collected for the year 2003/2004 to 2008/2009 in case of NABIL, SCBL, SBI, EBI, BOK, and NIC as six years data are analyzed.
- Nepal Stock Exchange, website (www.nepalstock.com) and perspective firm's central office and security exchange board.

3.5 Methods of Analysis

Various Financial and Statistical tools have been used to analyze the data of this study.

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.

a) Earning Per Share(EPS)

The profitability of common stockholder's investment can be measured in many other ways. The income of per share is calculated by dividing the earning available to common shareholders by the total number of common stock outstanding, thus,

$$EPS = \frac{\text{Earning Availble to Common Shareholders}}{\text{Number of Common Stock Outstanding}}$$

The higher earning indicates the better achievements in turns of profitability of the bank by mobilizing their funds and vice versa. In other words, the Earning per share indicates the strength and weakness of the bank.

b) Dividend Per Share (DPS)

The whole amount of earning may or may not be distributed to shareholders by a company. How much per share the dividend is distributed to common shareholder's can be known from this ratio. The dividend distributed among the common shareholders on a per share basis can be determined by this rated

Formula for calculating this ratio is as under

$$DPS = \frac{\text{Total Dividend Amount}}{\text{No of Outstanding Shares}}$$

Generally, the higher DPS creates positive attitude of the shareholders toward the bank is common stock, 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.

c) Dividend Pay Out Ratio (DPR)

The purpose of calculating this ratio is to know the portion of dividend distributed out of total earning. This ratio shows the relation between the returns belonging to equity shareholders and the dividend paid to them.

It can be calculated as under:

$$\text{Dividend Payout Ratio (DPR)} = \frac{\text{Dividend per share}}{\text{Earning per share}}$$

The higher the dividend payout ratio, the lower will be the proportion of retained earning and vice versa.

d) Market Price per Share (MPS)

Market values of share are one of the variables, which is affected by the dividend per share and earning per share of firm. So, the MPS is that value of stock, which can be obtained by a firm from the market. If the EPS and DPS are high, the MPS will also be high. In this study, MPS can be obtained from capital market and it is the closing price of share indicated in the NEPSE Index.

e) Dividend Yield (DY) Ratio

It defined the relationship between dividend per share and market value per share. It is very useful for the investors. So, dividend yield is the dividend received by the investors as a percentage of market prices per share in stock market. Thus,

$$\text{Dividend Yield Ratio} = \frac{\text{Dividend per share}}{\text{Market price per share}}$$

f) Price Earning Ratio(P/E)

This ratio is closely related to the earning yield. The reciprocal of the earning yield is called the price earning ratio. It is very useful to prospective investors. The higher P/E ratio implies the high market price of a stock given the earning per share and greater confidence of investor in the firms future. Thus,

$$\text{P/E Ratio} = \frac{\text{Market Price Per Share}}{\text{Earning Per Share}}$$

3.5.2 Statistical Tools

Besides the financial tools, various statistical tools have been used to conduct this study. The result of analysis has been properly tabulated, compared, analyzed and

interpreted. In this study, the following statistical tools are used to analyze the relationship between dividend and other variables.

a) Arithmetic Mean or Average

Arithmetic Mean is the average return over periods. Arithmetic mean of a given set of observation is their sum divided by the numbers of observations. In general, X_1, X_2 ……X_n are given 'n' observation and observation. It is calculated by,

$$\overline{X} = \frac{\sum X}{n}$$

b) Standard Deviation

Standard deviation is quantitative measure of total risk. It provides more information about the risk of the assets. The standard deviation of a distribution is the square root of the variance of returns around the mean. It measures the absolute dispersion; the following formula is applied to calculate the standard deviation, using historical returns.

$$\text{Standard Deviation} = \sqrt{\frac{\sum\left(X-\overline{X}\right)^2}{n}}$$

c) Coefficient of Variation

The coefficient of variation is the relative measure of dispersion, comparable across distribution which is defined as the ratio of standard deviation to the mean expressed in percent. The risk per unit of expected return can be measured by coefficient of variation. It should be used to compare investments when both the standard deviation and the expected values differ. C.V. is computed as follows

$$\text{C.V.} = \frac{\sigma}{\overline{X}} \times 100$$

The higher C.V. denotes the higher variability of variable and vice versa.

d) Correlation Coefficient (r)

Correlation Coefficient measures the relationship between two variables. It is the statistical tool, which can be used to describe the degree to which one variable is linearly related to another and measures the directions of relationship between two set

and figures. Correlation coefficient can be either positive or negative which range from +1 to -1 more preciously, if both variables are changing in the same direction, the correlation is said to be positive, on other hand, if both variables are changing oppositely to each other, then correlation is known as negative. Correlation can be seen between or among several variables. The correlation coefficient can be calculated as:

$$\text{Correlation Coefficient (r)} = \frac{\text{Co var iance } (X, Y)}{\text{S.D.}_x \times \text{S.D.}_y}$$

Where

$$\text{Covariance (x, y)} = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{n}$$

r = Karl Pearson's Correlation coefficient

Under this study, correlation between the following variables is analyzed:

a) Market price per share and earning per share
b) Market price per share and dividend per share
c) Market price per share and dividend payout ratio
d) Market price per share and dividend yield
e) Market price per share and price earning ratio

e) Coefficient of Determination (r^2)

The coefficient of determination is the primary way to measure the extent or strength of the association that exists between two variables, x and y. It refers to a measure of the total variance in a dependent variable that is explained by its linear relationship to an independent variable. The coefficient of determination is denoted by r^2 and the values lies between zero and unity or the r^2 is always a positive number. The r^2 is defined as the ratio of explained variance to the total variance. Thus,

$$\text{Coefficient of Determination} = \frac{\text{Explained Variance}}{\text{Total Variance}}$$

f**) Regression Analysis**

Regression analysis studies the statistical relationship between the variables. The main objective of regression analysis is to predict or estimate the value of dependent variable corresponding to a given value of independent variables. There are two types of regression analysis.

I) Simple Regression Analysis

Simple regression analysis, concerned with the study of the relationship between one variable called dependent variable and another variable called independent variable. Regression analysis has been developed to study and measure the statistical relationship between two variables only, and then the process is known as simple regression analysis. In simple linear regression, a mathematical regression equation is developed to describe the functional relationship that exists between the two variables. In this study the following simple regression have been analyzed.

a) Market Price Per Share on Dividend per Share (DPS)

$$y = a + bx$$

Where,

y = Market price per share (MPS)

a = Regression constant

b = Regression coefficient

x = Dividend per share (DPS)

This model has been constructed to examine the relationship between market price per share (dependent variable) and Dividend per share (independent variable)

b) Market Price Per Share on Earning Per Share

$$y = a + bx$$

Where,

y = Market price per share (MPS)

a = Regression constant

b = Regression coefficient

x = Earning per share (EPS)

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

c) Market Price Per Share (MPS) on Dividend Payout Ratio (DPR)

$y = a + bx$

Where,

y = Market price per share (MPS)

a = Regression constant

b = Regression coefficient

x = Dividend payout ratio (DPR)

d) Market Price Per Share (MPS) on Dividend Yield

$y = a + bx$

Where,

y = Market price per share (MPS)

a = Regression constant

b = Regression coefficient

x = Dividend yield

The relationship between MPS (dependent variable) and Dividend yield(independent variable) can be explained through this model

e) Dividend Per Share on Earning Per Share

$y = a + bx$

Where,

y = Dividend price per share (DPS)

a = Regression constant

b = Regression coefficient

x = Earning per share

The relationship between DPS (dependent variable) and EPS (independent variable) can be explained through this model.

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

$$\sum Y = na + bx$$
$$\sum XY = a\sum x^2$$

Where,

'a' and 'b' are unknown

n = number of observation in the sample.

II) Multiple Regression Analysis

In multiple regression analysis, two or more independent variables are used to estimate the values of dependent variable. It is extension of simple regression technique, thus multiple regression analysis consists of the measurement of the relationship between the dependent variable and two or more independent variables. The main objectives of multiple regression analysis are;

1. To derive an equation which provide estimates or the dependent variable from values of the two or more independent variable.
2. To obtain a measure of the proportion of variance in the dependent variable which is explained by the independent variable
3. To obtain a measure of error involved in using the regression equation as a basis for estimation using this regression equation as a basis for estimation of the dependent variable.

In this study, the following multiple regression analysis have been analyzed.

a) Market price per share on Earning price per share and Dividend per share

$$y = a + b_1x_1 + b_2x_2$$

Where,

y = Market price per share

a = Regression constant

$b_{1\&}\ b_2$ = Regression coefficient of 1st and 2nd variable

$X_{1\&}\ X_2$ = EPS and DPS respectively

This model helps to predict the MPS on EPS and DPS

b) Market Price Per Share on Earning Per Share and Dividend Payout Ratio

$$y = a + b_1x_1 + b_2x_2$$

Where,

y = Market price per share

a = Regression constant

b_1 & b_2 = Regression coefficient of 1st and 2nd variable

x_1 & x_2 = EPS and DPR respectively

It helps to predict the MPS on EPS and DPR

Regression Constant

The value of constant which is intercept of the model indicates the average level o f dependent variable when independent variables are 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 committed from the model.

Regression Coefficient

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

Standard Error of Estimate (SEE)

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 differ form their predicted values on the regression line. The smaller the value of SEE, the closer will be the dots to the regression line and the better the estimates based on the equation for this line. If SEE is zero, then there is on variation about the line and the correlation will be perfect. Thus, with the help of SEE, it is possible for us to ascertain how well the representative the regression line is as a description of the average relationship between two series.

Hypothesis Test

Hypothesis means the presumption or quantitative statement of the population parameter which may be true or false. In order to make proper decision about the quantitative statement of the population, hypothesis is an assumption about unknown result while testing of hypothesis, an assumption is made about the population parameter to test whether the assumption is right or not, a sample is selected from the population, sample statistic is obtained, observe the difference between the sample mean and the population hypothesized value and test whether the test is significant or insignificant.

F- Test

T test generally known as variance ratio test and is mostly used in context of analysis of variance. F- Statistics is used to test the significance of mean value of EPS, DPS, MPS, DY, DPR and P/E ratio. F test is considered to be more appropriate, for test of hypothesis of quality among several sample meant test initially used to verify the hypothesis of equality between two variance. In fact F test is a test of significance concerning two sample variance. The fundamental assumptions of F- test are;

1. The population is normal
2. The observation is independent and sample are drawn randomly
3. There is no measurement error

The objective of F- test is to test hypothesis where the two samples are from same normal population with same variance.

3.6 Regression Analysis Development

a. Simple Regression Analysis

Three simple regression analyses would be done which are as follows:

i) $Y = a + bx$

Or, MPS = a+b (DPS)

Where,

MPS = market price per share

DPS = Dividend per share

a & b is regression coefficient.

ii) $Y = a + bx$

Or MPS = a+b (EPS)

Where,

EPS = earning per share

iii) $Y = a + bx$

or, DPS = a+b (EPS)

b. Multiple Regression Analysis

Two multiple regression analysis would be done which are as follows;

i) $Y = a + b_1 x_1 + b_2 x_2$

MPSt = a+ b_1 (DPSt) + b_2 (EPSt)

Where,

MPSt = Market price per share for t year

DPSt = Dividend per share for t year

EPSt = Earning per share for t year

a, b1, & b2 are regression coefficient.

ii) $Y = a + b_1 x_1 + b_2 x_2$

Or, DPSt = a + b_1 (EPSt) + b_2 (DPS_{t-1})

Where,

DPSt = Dividend per share for t year

EPSt = Earning per share for t year

DPS_{t-1} = Dividend per share for t-1 year

a, b_1, & b_2 are regression coefficient.

3.7 Hypothesis Development

First set of Hypothesis

Null Hypothesis (H_{01}): There is no significance difference among mean value of DPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Alternative Hypothesis (H_{11}): There is significance difference between among mean value of DPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Second set of Hypothesis

Null Hypothesis (H_{02}): There is no significance difference among mean value of EPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Alternative Hypothesis (H_{12}): There is significance difference between among mean value of EPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Third set of Hypothesis

Null Hypothesis (H_{03}): There is no significance difference among mean value of MPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Alternative Hypothesis (H_{13}): There is significance difference between among mean value of MPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Fourth set of Hypothesis

Null Hypothesis (H_{04}): There is no significance difference among mean value of DPR of NABIL SCBL, SBI, EBL, BOK and NIC.

Alternative Hypothesis (H_{14}): There is significance different among mean value of DPR of NABIL, SCBL, SBI, EBL, BOK and NIC.

Fifth set of Hypothesis

Null Hypothesis (Ho_5): There is no significance difference among mean value of Dividend yields of NABIL, SCBL, SBI, EBL, BOK and NIC.

Alternative Hypothesis (H_{15}): There is significance difference among mean value of Dividend yield of NABIL, SCBL, SBI, EBL, BOK and NIC.

Six set of Hypothesis

Null Hypothesis (H_{06}): There is no significance difference among mean value of P/E ratio of NABIL, SCBL, SBI, EBL, BOK and NIC.

Alternative Hypothesis (H_{16}): There is no significance difference among mean value of P/E ratio of NABIL, SCBL, SBI, EBL, BOK and NIC.

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

In this chapter, to achieve the objective, which is set in introduction chapter, the relevant data and information on dividend policy and its impact on market price of stock of commercial banks are presented. Presentation and analysis of data is the study. Using the various financial variable and statistical tools discussed in "Research Methodology". This Chapter has divided into four section.

4.1 Presentation of Financial Variables

Before observing the impact of different financial indicators and variables on dividend as well as value of firm, we need to present and analyze them systematically. For this purpose DPS, EPS, DPR, MPS, DY, P/E ratio have been selected as an effecting variables. However these variables show the dividend status of the banks as well as their strength. Consequently, helps to identify the banks' position regarding dividend payout. These variables have been presented by the help of table, figure and analyzed by using statistical tools as specified in chapter three.

4.1.1 Analysis of EPS of the Sample Banks

The Earning per share of the sample banks under study are tabulated as follows:

Table 4.1

EPS of Sample Banks

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC	Average
2003/04	92.61	143.55	14.26	27.50	45.58	13.65	56.19
2004/05	105.49	143.14	13.29	30.10	54.22	22.75	61.50
2005/06	129.21	175.84	18.27	43.67	62.78	16.10	74.31
2006/07	137.08	167.37	39.35	43.50	78.42	24.01	81.62
2007/08	108.31	131.92	28.33	59.94	91.82	25.75	74.34
2008/09	106.76	109.99	36.18	54.68	99.99	27.83	72.57
Mean	113.24	145.30	24.95	43.23	72.13	21.68	
S.D.	14.97	21.81	10.33	11.76	19.65	5.11	
C.V. (%)	13.22	15.01	41.40	27.20	27.24	23.57	

Source: Annual Report of Sample Bank provided by SEBON

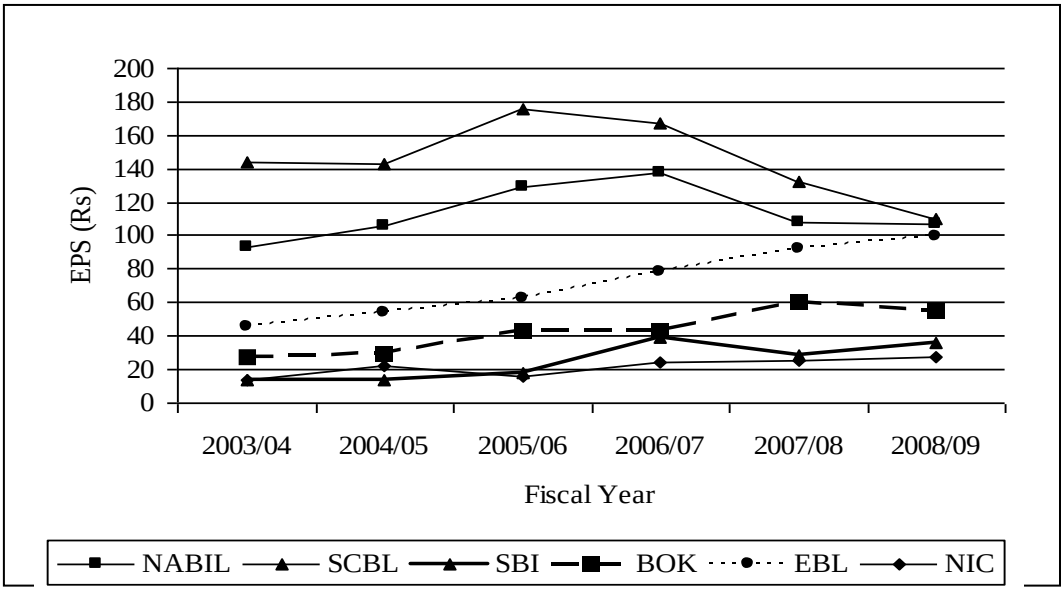
Table 4.1 shows the EPS of the selected banks from the year 2003/04 to 2008/09. In the table mean, standard deviation and coefficient of variation respective have been

presented. The EPS of NABIL range between 92.61 to Rs.137.08 during the period of study. During this period, the average EPS is Rs.113.24, the S.D. of the EPS is 14.97 and the C.V. of sample bank is 13.22% SCBL with in the period of study, has an average EPS of Rs.145.30 ranging between Rs.109.99 to Rs.175.84. The S.D. is 21.81 and the fluctuation of 15.01% in shown by the C.V. of the bank. During the period of study SBI has an average EPS of Rs.24.95 with the S.D. 10.33. The EPS range between Rs.13.29 to Rs.39.35. The C.V. shows there is period of study which is 41.40%. The average EPS of BOK, during the period of study is Rs.43.23. It stayed with in the range of Rs.27.50 to Rs.59.94. The S.D. of EPS is Rs.11.76 where as C.V. is 27.20%. EBL has the EPS range between Rs.45.58 to Rs.99.99. The average EPS is Rs.72.13. The S.D. of EPS is Rs.19.65 where as C.V. of EPS is 27.24% During the period of study, NIC has an average EPS is Rs.21.68 and S.D. of EPS is Rs.5.11. The EPS range between Rs.13.65 to Rs.27.83. The C.V. shows period of study is 23.57&

From the above analysis, it can be seen that the average EPS of SCBL is the highest and average EPS of NIC is the lowest under the period of study. The C.V. of SBI is higher among the sample bank and NABIL has lowest among the sample banks. It indicates that SBI has the most consistent EPS among all sample bank during the period of study. The C.V. of SBI is higher among the sample bank and NABIL has lowest among the sample banks. It indicates that SBI has the most consistent EPS among all sample bank during the period of study.

Figure 4.1

EPS of Sample Banks



4.1.2 Analysis of DPS of Sample Banks

The dividend per share of the banks under the study are tabulated as follows:

Table 4.2

DPS of Sample Banks

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC	Average
2003/04	65	110	0	10	20	0	34.17
2004/05	70	120	0	15	0	10	35.83
2005/06	85	130	5	18	25	0.53	43.92
2006/07	100	80	12.59	20	10	1.05	37.27
2007/08	60	80	0	2.11	20	1.05	27.19
2008/09	35	50	2.11	7.37	30	0.79	20.88
Mean	69.17	95	3.28	12.08	17.5	2.24	
S.D.	20.29	27.54	4.53	6.22	9.89	3.49	
C.V. (%)	29.33	28.99	138.11	51.49	56.51	155.80	

Source: Annual Report of Sample Bank provided by SEBON

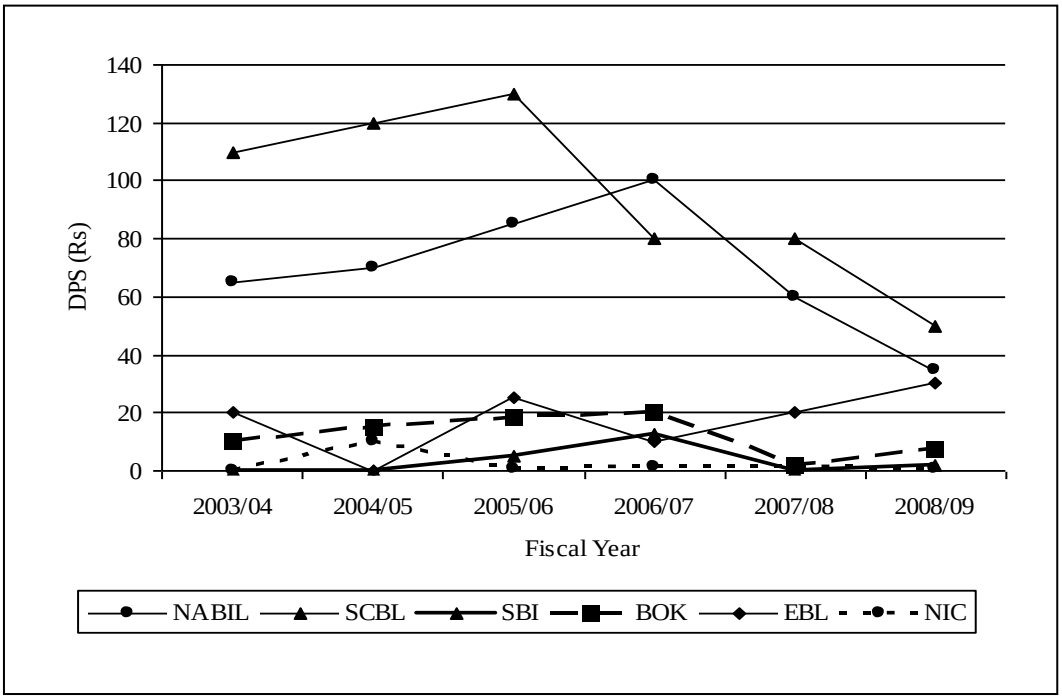
Table 4.2 shows the DPS of the selected banks from the year 2003/04 to 2008/09. In the table mean, standard deviation and coefficient of variation respectively have been presented.

While observing the mean DPS, SCBL in first position with Rs.95. Similarly NABIL, EBL, BOK, SBI and NIC are in 2^{nd}, 3^{rd}, 4^{th}, 5^{th} ad 6^{th} position of mean DPS with Rs.69.17, Rs.17.5, Rs.12.08, Rs.3.28, Rs. 2.24 respectively. This result indicates that SCBL is better than that of other banks with respect to dividend per share.

Using the C.V. criterion, we can say that consistency in DPS for SCBL is highest than other banks. C.V. of SCBL is lowest than other banks i.e., 28.99. It indicates the bank is following. Stable dividend policy in comparison to other banks policy. In another words, as it is less volatile than others are, there is more stability in dividend payment in SCBL. Where as the DPS of NABIL, SBI, BOK, EBL, and NIC is high fluctuation. Similarly C.V. for NABIL, SBI, BOK, EBL and NIC are 29.33%, 138.11%, 51.44%, 56.51% and 155.80% respectively. From above analysis we can see also that SBI, EBL and NIC have not paid cash dividend regularly during the period of study.

Figure 4.2

DPS for the Sample Banks



4.1.3 Analysis of Dividend Payout Ratio (DPR) of Sample Banks

The DPR of the sample banks under the study are tabulated as follows.

Table 4.3

DPR of Sample Banks

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC	Average
2003/04	70.19	76.63	0	36.36	43.88	0	37.84
2004/05	66.36	83.83	0	49.83	0	43.96	40.66
2005/06	65.78	73.93	27.37	41.22	39.82	3.29	41.90
2006/07	72.95	47.80	31.99	45.98	12.75	4.37	35.97
2007/08	55.40	60.64	0	3.59	21.78	3.78	24.20
2008/09	32.78	45.46	5.83	13.48	30	2.84	21.73
Mean	60.58	64.71	10.86	31.74	24.70	9.71	
S.D.	13.57	14.55	13.53	17.18	15.12	15.38	
C.V. (%)	22.40	22.48	124.58	54.13	61.21	158.39	

Source: Appendix I and II

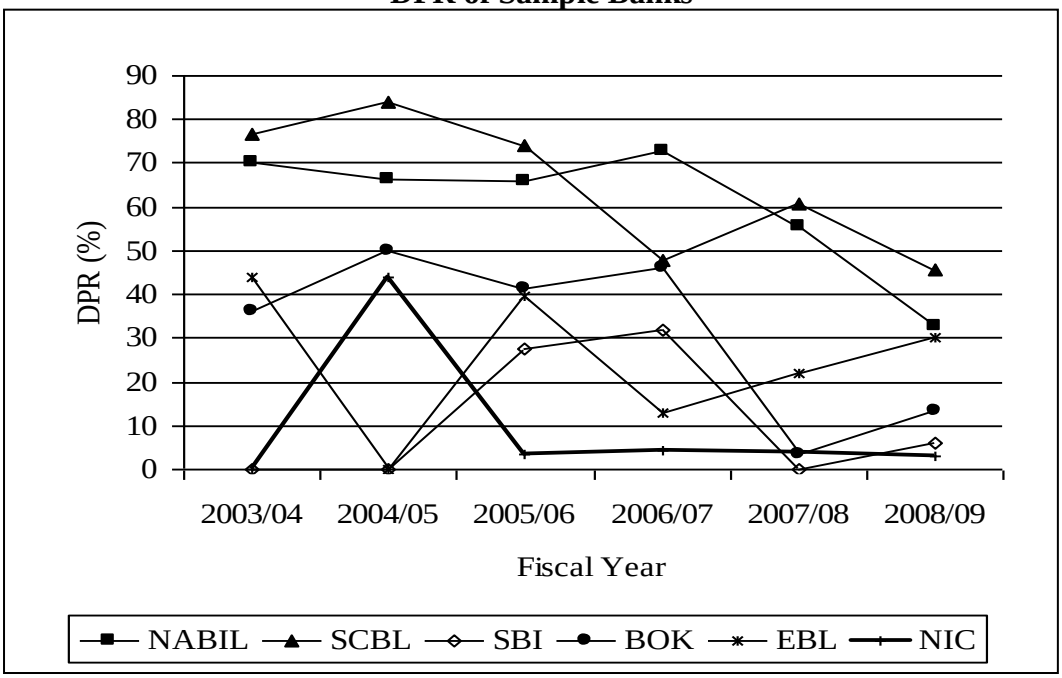
An average DPR of NABIL is 60.58%. It shows that NABIL generally pay 60.58% of its total earning as dividend to its shareholders. The S.D. of DPR is 13.57. The C.V. is

22.40%. Which indicates that there is only about 22.40% fluctuations in the DPR of the bank over the study period. SCBL has an average DPR is 64.71% it means SCBL is generally paying 64.71% it means SCBL is generally paying 64.71% of its earning as dividend to its shareholders. The S.D. of DPR is 14.55% and the C.V. is 22.48%. An average DPR of SBI indicates that SBI generally payout 10.86% of its total earning as dividend to its shareholders. The S.D. of DPR is 13.53% and C.V. is 124.58%. The C.V. indicates that the DPR of SBI highly inconsistency during the period of study. BOK has an average DPR is 31.73%. It means that BOK generally paying 31.73% of its earning as dividend to its shareholders. The S.D. of DPR is 17.18% and C.V. is 54.14% which is indicates that there is 54.14% fluctuation in the DPR during the period of study. EBL has an average DPR is 24.70 during the study period. The Bank generally payout 24.70% of its total earning as dividend. The S.D. is 15.12% and the C.V 61.21% fluctuation during the period of study. NIC has an average DPR is 9.71%. The S.D. of DPR is 15.38% and C.V is 158.39% which is indicates that there is 158.39% fluctuation in the DPR of NIC highly inconsistency during the period of study.

The above calculation shows that an average DPR of SCBL is higher among the all bank and its C.V. has also lowest among all banks under study. It shows SCBL has the consistent dividend payment.

Figure 4.3

DPR of Sample Banks



4.1.4 Analysis of MPS of Sample Banks

The MPS of the sample banks under the study are tabulated as follows:

Table 4.4

MPS of Sample Banks

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC	Average
2003/04	1000	1745	307	295	680	218	707.5
2004/05	1505	2345	335	430	87	366	975.17
2005/06	2240	3775	612	850	1379	496	1558.67
2006/07	5050	5900	1176	1375	2430	950	2813.5
2007/08	5275	6830	1511	2350	3132	1284	3397
2008/09	4899	6010	1900	1825	2455	1126	3035.83
Mean	3328.17	4434.17	973.5	1187.5	1824.33	740	
S.D.	1786.56	1932.30	601.51	733.05	903.06	400.19	
C.V. (%)	53.68	43.58	61.79	62.24	49.50	54.08	

Source: Annual Report of Sample Bank Provided By SEBON.

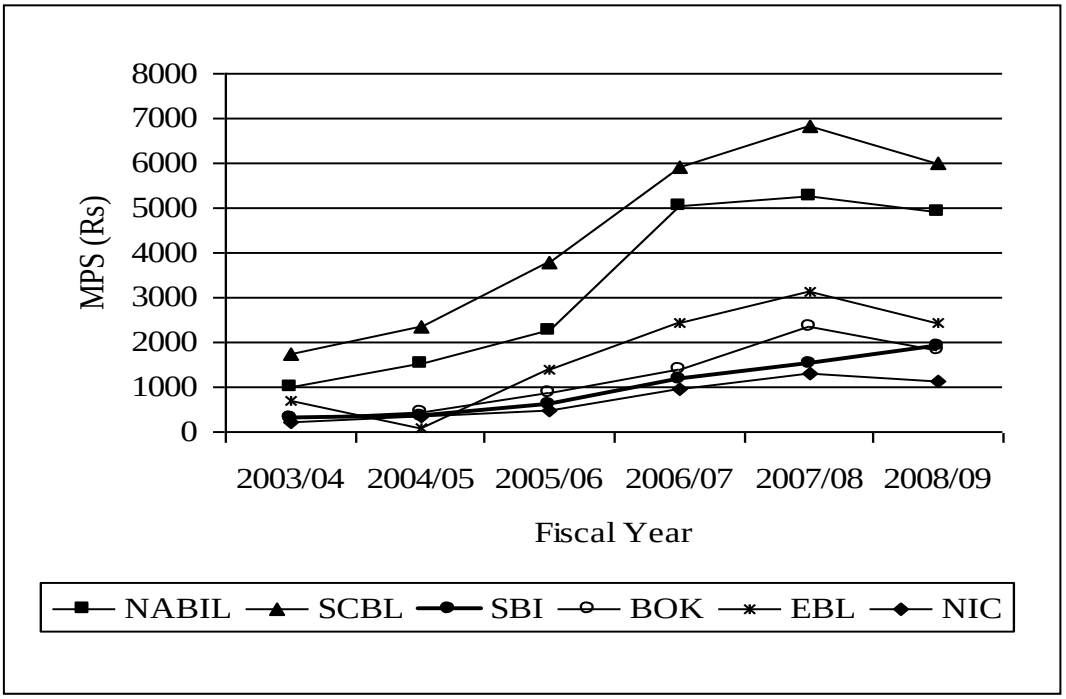
Table 4.4 shows the MPS of selected banks during the study period. Like previous table, MPS of the selected banks has been presented in the top part and mean, standard deviation and coefficient of variation (C.V.) of MPS have been demonstrated in the bottom part.

As per the table, highest mean MPS is Rs.4434.17 of SCBL and the lowest one is Rs.740 of NIC. Mean MPS of NABIL, SBI, BOK and EBL are Rs.3328.17, Rs.937.5, Rs.1187.5 and Rs.1824.33 respectively. By this result we can say that SCBL is best than others i.e. Rs.4434.17. As we observe in figure 4.4 MPS of all banks generally in increasing trend. When the capital rate increases, there is also increase in MPS. Here the analysis of MPS trend shows that capital increasing rate of all banks is not similar to each other.

When we take the CV criterion, consistency in MPS is highest in SCBL over the study period that is why is has lowest C.V. (i.e., 43.58%). Similarly C.V. for NABIL, SBI, BOK, EBL, NIC are 53.68%, 62.35%, 49.50%, 62.24%, 54.08% respectively.

Figure 4.4

MPS for the Sample Banks



4.1.5 Analysis of Dividend yield (DY) of the Sample Banks

The Dividend Yield (DY) of the Sample banks under study are tabulated as follows:

Table 4.5

DY of Sample Banks

Banks / Year	NABIL	SCBL	SBI	EBL	BOK	NIC
2003/04	6.5	6.30	0	2.94	3..39	0
2004/05	4.65	5.12	0	0	3.49	2.73
2005/06	3.79	3.44	0.82	1.81	2.12	0.11
2006/07	1.98	1.36	1.07	0.41	1.45	0.11
2007/08	1.14	1.17	0	0.64	0.09	0.08
2008/09	0.71	0.83	0.11	1.22	0.40	0.07
Mean	3.13	3.04	0.33	1.17	1.82	0.52
S.D.	2.05	2.09	0.44	0.98	1..33	0.99
C.V. (%)	65.50	68.75	1333.33	83.76	72.53	190.38

Source: Appendix I and II

The DY of NABIL range between 0.71% to 6.5% during the period of study. The average of DY is 3.13% The S.D. of the DY under the period of study 2.05. The C.V. of bank is 65.50, which indicators that the fluctuation of DY of NABIL is 65.50%. SCBL within the period of study has an average DY 3.04% ranging between 0.83% to 6.3%. The S.D. is 2.09 where as C.V. 68.75. The C.V. indicates there is fluctuation of 68.75% in the Dividend Yield.

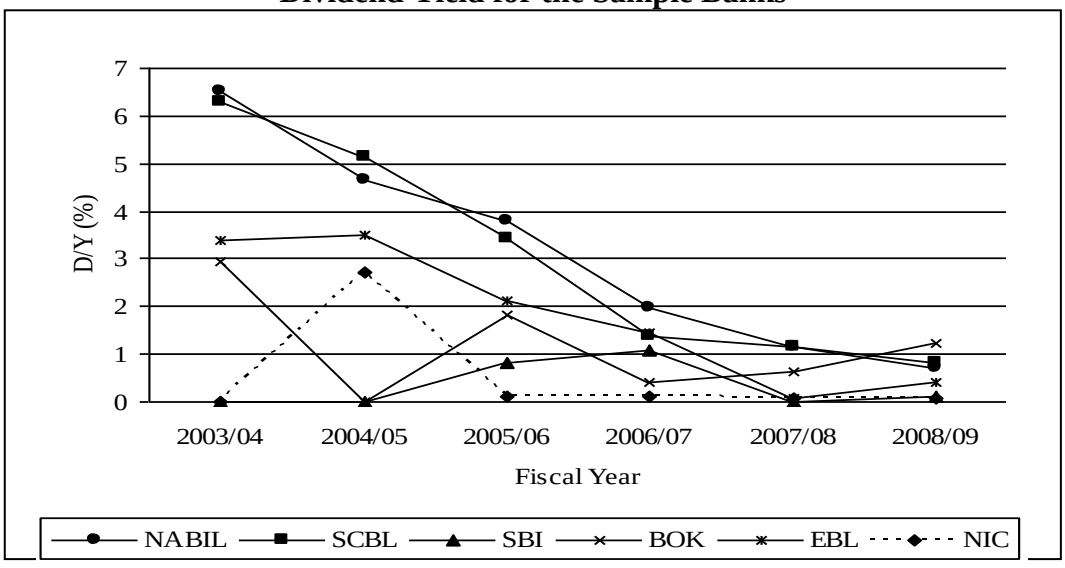
Nepal SBI bank has an average DY of 0.33% within S.D. of 0.44. The DY range between 0 to 1.07%. The C.V. shows that there is a fluctuation of 133.33% in dividend in FY 2003/04, 2004/05 and 2007/08.

EBL with in the period of study has an average DY of 1.17% ranging between 0% to 2.94%, EBL has not paid dividend in FY 2004/05. The S.D. is 0.98% where as C.V. is 83.76%. The C.V. indicates there is a fluctuation of 83.76%. During the period of study BOK has an average DY is 1.82% with a S.D. of 1.33. The DY range between 0.09 to 3.49%. The C.V. shows that there is a fluctuation of 72.53% in DY of BOK. The DY. of NIC range between 0% to 2.73% during the period of study. The average DY. is 0.52% with a S.D. of 0.99. The C.V. shows that there is a fluctuation of 190.38% in the DY which is higher fluctuation.

From the above data and calculation it can be seen that the average DY of NABIL is the highest and SBI is the lowest. The C.V. of these banks shows a high level of fluctuation in DY if compared NABIL has the most consistent DY among all sample banks.

Figure 4.5

Dividend Yield for the Sample Banks



4.1.6 Analysis of P/E Ratio of Sample Banks

Price earning ratio reflects the price which is currently paid by the market for each rupees of price which is currently reported earning per share. The price earning ratio could be calculated by dividing the market price per share by earning per share.

Table 4.6

P/E Ratio of Sample Banks

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC
2003/04	10.80	12.16	21.54	14.93	7.20	15.97
2004/05	14.27	16.38	25.21	16.04	14.29	16.09
2005/06	13.34	21.47	33.49	21.97	19.46	30.81
2006/07	36.84	35.25	29.89	31.99	31.61	39.56
2007/08	48.70	51.77	53.34	34.11	39.21	49.86
2008/09	45.89	54.64	52.52	24.55	33.37	40.46
Mean	28.31	31.95	36.00	23.93	24.19	32.13
S.D.	15.94	16.65	12.53	7.26	11.36	12.64
C.V. (%)	56.30	52.11	34.81	30.34	46.96	39.34

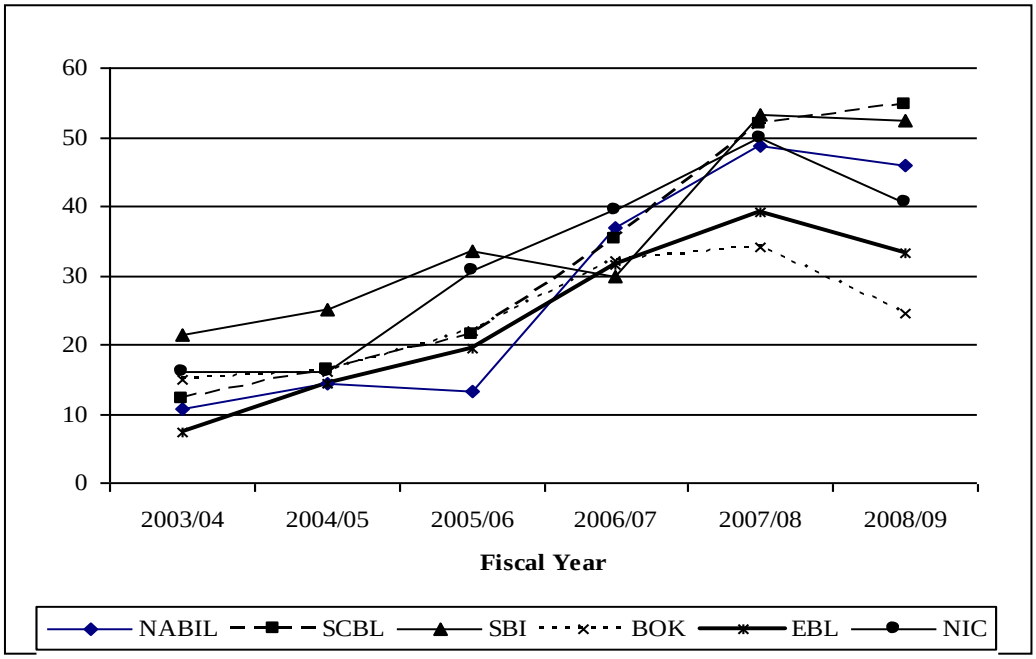
Source: Annual Report of Sample Bank Provided By SEBON

P/E ratio of selected banks has been presented table 4.6 It is clear from the table that mean P/E ratio of SBI (i.e., 36.00) is the highest position throughout the study period where as EBL is lowest position with 23.93. Similarly NIC, SCBL, NABIL and BOK are in 2^{nd}, 3^{rd}, 4^{th} and 5^{th} position with 32.13, 31.95, 28.31 and 24.19 times respectively. P/E ratio of all bank is in increasing trend. It means that the stocks to their earnings and dividend payout.

From the above data and calculation it can be soon that the C.V. of NABIL is the highest and C.V. of EBL is lowest. So the consistency in P/E is highest EBL over the period of study.

Figure 4.6

P/E Ratio of Sample Banks



4.2 Statistical Tools

4.2.1 Correlation Analysis

The correlation analysis is generally used to describe the degree to which one variable is related to another. Hence, in statistics, it is used in order to depict the co-variation between two or more variable. It helps to determine whether a positive or a negative relationship exists. The positive correlation indicates that increase in value of one variable leads to decrease in the value of the other. The correlation coefficient lies between +1 and –1. The +1 coefficient indicates that if the correlation coefficient is 0, it means that the variable are not related to each other. The number indicates the degree of correlation between the variable.

Correlation matrix for selected banks among seven variables has been presented bellows:

4.2.1.1 Correlation between Financial Variable of NABIL

Table 4.7

Correlation between Financial Variable of NABIL

	EPS	DPS	MPS	DPR	DY	P/E
MPS	0.412	-0.126	1	-0.488	-0.955	0.964
EPS	1	0.732	-	0.279	-0.276	0.148
DPS	-	1	-	0.863	0.253	-0.3117
P.E.	0.229	0.27	-	0.210	0.024	0.019
6 ×P.E.	1.374	1.626	-	1.26	0.144	0.114

Source: Appendix III

The table 4.7 indicates that the MPS of NABIL has moderate of positive correlation with its EPS, high degree of positive correlation with its P/E ratio, and perfectly positive correlation with itself. The MPS is low degree of negative correlation with its DPS, moderate negative correlation with its DPR and high degree of positive correlation with its P/E ratio and perfectly positive correlation with its P/E ratio and perfectly positive correlation with itself. The EPS is moderate negative correlation with its DY the DPS of NABIL has high degree of positive correlation with its DPR, moderate positive correlation with its DY and perfectly positive correlation with itself. The DPS has low degree of negative correlation with its P/E. ratio.

The correlation between MPS on EPS MPS on DPR, MPS on DY and MPS on P/E ratio are greater than probable error (P.E). So it is nothing can be concluded. The correlation between MPS on DPS is less then P.E, so it is insignificant. Again the correlation between MPS on EPS, MPS on DPS and MPS on DPR are less than 6 × P.E. So it is also nothing can be concluded the correlation between MPS on DY and MPS on P /E ratio are greater than 6 × P.E., so it is significant.

4.2.1.2 Correlation between Financial Variable of SCBL

Table 4.8
Correlation Matrix of SCBL

	EPS	DPS	MPS	DPR	DY	P/E
MPS	-0.262	-0.766	1	-0.847	-0.982	0.952
EPS	1	0.679	-	0.305	0.249	-0.572
DPS	-	1	-	0.898	0.775	-0.880
P.E.	0.256	0.114	-	0.078	0.010	0.026
6 ×P.E.	1.536	0.684	-	0.468	0.06	0.156

Sources: Appendix III

The above table indicates that MPS of SCBL have high degree of positive correlation with its P/E ratio and perfectly positive correlation with itself. The MPS of SCBL has moderate negative correlation with its EPS, and high degree of negative correlation with its DPS, DPR and DY. The EPS of SCB has moderate positive correlation with its DPS DPR and DY. The EPS has moderate negative correlation with its P/E ratio. The DPS of SCBL has high degree of positive correlation with its DPR & DY and perfectly positive correlation with itself. The DPS has high degree of negative correlation with its P/E ratio.

The correlation between MPS on EPS, MPS on DPS, MPS on DPR, MPS on DY and MPS on P/E ratio are greater that probable error (P.E) so, it is nothing can be concluded. Again correlation between MPS on EPS is less than 6 × P.E. So it is also nothing can concluded. The correlation between MPS on DPS, MPS on DPR, MPS on D.Y and MPS on P/E ratio are greater than 6 × P. E. So it is significant.

4.2.1.3 Correlation between Financial Variable of SBI

Table 4.9
Correlation between Financial Variable of SBI

	EPS	DPS	MPS	DPR	DY	P/E
MPS	0.862	0.165	1	0.041	0.084	0.903
EPS	1	0.611	-	0.410	0.409	0.584
DPS	-	1	-	0.919	0.977	-0.160
P.E.	0.071	0.268	-	0.275	0.273	0.051
6 ×P.E.	0.426	1.608	-	1.650	1.638	0.306

Sources: Appendix III

The above table shows that MPS of SBI has high degree of negative correlation with its EPS and P/E ratio and low degree of positive correlation with its DPS, DPR and DY the EPS has moderate positive correlation with its DPS, DPR, DY and P/E ratio. The DPS has high degree of positive correlation with its DPR and DY, the DPS has low degree of negative correlation with its P/E ratio. The correlation of SBI MPS on MPS, EPS with EPS and DPS with DPS are respectively positive correlation.

The correlation between MPS on EPS and MPS on P/E ratio are greater than probable error (P.E.). So it is nothing can be concluded. The correlation between MPS on DPS, MPS on DPR & MPS on DY are less than probable error (P.E). So it is insignificant. The correlation between MPS on EPS and MPS on P/E ratio are greater than 6 × P.E, So it is significant. The correlation between MPS on D PS, MPS on DPR and MPS on P/E ratio are less than 6×P.E. So it is also nothing can be concluded.

4.2.1.4 Correlation between Financial Variable of EBL

Table 4.10

Correlation between Financial Variable of EBL

	EPS	DPS	MPS	DPR	DY	P/E
MPS	0.928	0.319	1	-0.157	-0.436	0.903
EPS	1	0.452	-	-0.108	-0.397	0.779
DPS	-	1	-	0.827	0.596	0.171
P.E.	0.38	0.247	-	0.268	0.223	0.051
6 ×P.E.	0.228	1.482	-	1.608	1.338	0.306

Sources: Appendix III

From the above table it is found that the MPS of EBL has high degree of positive correlation with its EPS and P/E ratio and moderate degree of positive correlation with its DPS. The MPS has low degree of negative correlation with its DPR, and moderate negative correlation with its DY. The EPS of EBL has moderate positive correlation with its DPS and high degree of positive correlation with its P/E. ratio. The EPS has low degree of negative correlation with its DPR and moderate negative correlation with its DY. The DPS of EBL has high degree of positive correlation with

its DPR, moderate positive correlation with its DY and low degree of positive correlation with the P\E ratio. The correlation of EBL MPS with MPS, EPS with EPS and DPS with DPS are perfectly positive.

The correlation between MPS on EPS, MPS on DPS, MPS on DY and MPS on P/E ratio are greater than probable error (P.E), So it is nothing can be concluded. The correlation between MPS on DPR is less than probable error (P.E.), So it is in significant. Again the correlation between MPS on EPS, & MPS on P/E ratio are greater than 6× P.E so it is significant. The correlation between MPS on DPS, MPS on DPR and MPS on DY are less than 6× P.E, So it is also nothing can be concluded.

4.2.1.5 Correlation between Financial Variable of BOK

Table 4.11

Correlation between Financial Variable of BOK

	EPS	**DPS**	**MPS**	**DPR**	**DY**	**P/E**
MPS	0.971	-0.574	1	0.835	-0.976	0.972
EPS	1	-0.504	-	-0.810	-0.978	0.949
DPS	-	1	-	0.903	0.492	0.106
P.E.	0.016	0.185	-	0.083	0.013	0.015
6 ×P.E.	0.096	1.11	-	0.498	0.078	0.09

Sources: Appendix III

The above table indicate that the MPS of BOK has high degree of positive correlation with its EPS, DPR and P/E ratio of positive correlation with it's EPS, DPR and P/E ratio. The MPS has mode rate negative correlation with it's DPS, and high degree of negative correlation with it's DY The EPS of Bok has high degree of positive correlation with it's P/E ratio and perfectly positive correlation with itself. The EPS has mode rate negative correlation with it's DPS and high degree of negative correlation with its DPR and DY The DPS of Bok has high degree of positive correlation with it's DPR and perfectly positive correlation with itself. The DPS has mode rate positive correlation with it's DY and low degree of positive correlation with it's P/E ratio.

The correlation between MPS on EPS, MPS on DPS, MPS on DY greater than probable error (P.E) So it is nothing can be concluded. The correlation between MPS on DPS, EPS on DPR, MPS on DY and MPS on P/E. ratio are greater than 6× P.E. So it is significant. Again the correlation between MPS on DPS is less than 6× P.E., So it is also nothing can be concluded.

4.2.1.6 Correlation between Financial Variable of NIC

Table 4.12

Correlation between Financial Variable of NIC

	EPS	DPS	MPS	DPR	DY	P/E
MPS	0.834	-0.331	1	-0.358	-0.401	0.961
EPS	1	0.181	-	0.152	0.109	0.673
DPS	-	1	-	0.999	0.997	-0.484
P.E.	0.084	0.245	-	0.240	0.231	0.021
6 ×P.E.	0.504	1.47	-	1.44	1.386	0.126

Sources: Appendix III

The above table indicate that MPS of NIC has high degree of positive correlation with it's EPS and P/E ratio, It is perfectly positive correlation with itself. The MPS of NIC has moderate negative correlation with it's DPS; DPR and DY The EPS of NIC has low degree of positive correlation with it's DPS, DPR and DY The EPS has moderate positive correlation with it's P/E ratio. The DPS of NIC has high degree of positive correlation with it's DPR and DY and perfectly positive correlation with itself. The DPR has moderate negative correlation with it's P/E ratio.

The correlation between MPS on EPS, MPS on DPS, MPS on DPR, MPS on DY and MPS on P/E ratio are greater than probable error (P.E.), So it s nothing can be concluded. The correlation between MPS on EPS, and MPS on P/E ratio are greater than 6× P.E, So it is significant. Again the correlation between MPS on DPS, MPS on DPR and MPS on DY are less than 6× P.E, So it is also nothing can be concluded.

4.2.2 Regression Analysis

The regression analysis is used to determine the statistical relationship between two or more variables and to make predication of one variable on the basis of the others. The

regression analysis can either be simple regression or multiple regression. When we take only one independent to predict the value of the dependent variable through the appropriate regressions time then the analysis is known as simple regression analysis. But the analysis performed by the use of two more independent variable is known as multiple regression analysis.

4.2.2.1 Regression Analysis between MPS on EPS

Table 4.13

Regression Analysis between MPS on EPS

Bank	a	b	r^2	S.E.E	S.b
NABIL	3542.20	-1.89	0.170	1957.39	53.37
SCBL	3682.96	5.17	0.069	2384.59	44.64
SBI	-279.07	50.21	0.743	373.51	14.77
EBL	-1250.78	42.63	0.861	413.14	8.58
BOK	-1447.47	60.95	0.943	219.34	7.61
NIC	-676.68	65.34	0.696	270.41	21.61

Sources: Appendix IV

The table 4.13 of regression analysis shows that regression constant (a), regression coefficient (b), coefficient of determination (r^2) between MPS on EPS of SCBL, NABIL, SBI, EBL, BOK and NIC. The regression constants are 3542.20, 3682.96m -279.09, -1250.78, -1447.47, -676.68 of NABIL, SCBL, SBI, EBL, BOK and NIC respectively. The regression coefficients are -1.89, 5.17, 50.21, 42.63, 60.95, and 65.34 of NABIL, SCBL, SBI, EBL and NIC respectively.

The standard error of estimate (SEE) of NABIL, SCBL, SBI, EBL, BOK AND NIC are 1957.39, 2384.59, 373.51, 413.14, 219.34 and 270.41 respectively. The S.b. of NABIL SCBL, SBI, EBL, BOK and NIC are 53.37, 44.64, 14.77, 8.58 7.61 & 21.61 respectively. These values indicate the probable error in the predicates value for the respective banks.

The coefficient of determination(r^2) is lowest for SCBL (0.069) which indicates that only 6.9% in MPS is explained by EPS i.e. 6.9% variation in MPS of the banks is explained due to the change in value of EPS of the bank. The value of r^2 of NABIL,

SBI, EBL, BOK, and NIC are 0.170, 0.743, 0.861, 0.943 and 0.696 respectively which indicate that 17%, 74.3%, 86.1%, 94.3% and 69.6% variation in the MPS of these banks are explained by to the change in EPS of the respective banks.

4.2.2.2 Regression Analysis between MPS on DPS

Table 4.14

Regression Analysis between MPS on DPS

Bank	a	b	r^2	S.E.E	S.b
NABIL	4097.30	-11.12	0.016	2170.56	43.67
SCBL	9538.52	-53.73	0.587	1522.08	22.56
SBI	901.66	21.88	0.027	726.62	65.44
EBL	1314.73	29.12	0.102	1116.53	46.06
BOK	1991.79	-66.58	0.329	1409.59	93.16
NIC	824.86	-37.94	0.109	462.53	54.10

Sources: Appendix IV

The above regression analysis of MPS on DPS shows that among the banks under study, SBL & EBL have positive regression relation between MPS and DPS of the banks where as NABIL SCBL, BOK and NIC have negative relation between MPS and DPS. The regression relation between MPS and DPS of SBI and EBL indicate that with an increase of Rs 1 in DPS the MPS will increased by Rs 21.88 and Rs 29.12 respectively, other variable remaining constant. In contrast there will be decreases MPS of NABIL, SCBL, BOK and NIC by Rs 11.12, 53.73, 66.58 and 37.94 respectively with an increase on DPS by Rs 1 assuming that the other variables are constant.

The standard error of estimate of NABIL, SCBL, SBI, EBL, BOK and NIC are Rs 2170.56, 1522.08, 726.62, 116.53, 1409.59 and 462.53 respectively. The standard error of b (S.b.) of NABIL, SCBL, SBI, EBL, BOK and NIC are 43.67, 22.56, 65.44, 46.06, 93.16 and 54.10 respectively. These values indicates the probable error in the predicated values for the respective banks there S.E. of b is lowest in SCBL (22.56) which shows the estimation of DPS can be predicted nearer to accuracy.

The coefficient of determination (r^2) is lowest for NABIL (0.016) which indicates that only 1.6% variances in the MPS is explained by DPS i.e. 1.6% variation in MPS of the bank is explained due to the change in value of DPS of the bank the coefficient of determination in highest in case of SCBL (0.587). This indicates that 58.7% in variation in MPS of SCBL is explained due to changed in the DPS of the bank. The value of r^2 of SBI, EBL, BOK and NIC are 0.027, 0.102, 0.329, and 0.109 respectively, which indicate that 2.7%, 10.2%, 32.9% and 10.9% variation in the MPS of these banks are explained due to change in DPS of the respective banks.

4.2.2.3 Regression analysis between MPS on DPR

Table 4.15

Regression Analysis between MPS on DPR

Bank	a	b	r^2	S.E.E	S.b
NABIL	7219.61	-64.24	0.238	1909.72	57.44
SCBL	11743.08	-112.94	0.717	1250.78	35.10
SBI	953.84	1.81	0.0017	736.08	22.21
EBL	2052.86	-9.25	0.025	1092.53	29.51
BOK	2314.07	-35.49	0.697	512.66	12.18
NIC	830.08	-9.28	0.128	457.89	12.15

Sources: Appendix IV

The regression analysis between MPS and DPR shows positive relation between MPS and DPR of SBI. The regression relation between MPS and DPR of SBI indicates that with an increase of 1% in DPR, the MPS will increase by Rs 1.81 assuring that the other variables constant in the other hand the regression analysis between MPS and DPR of NABIL, SCBL, EBL, BOK and NIC which indicates that with an increase in 1% in DPR the MPS of NABIL, SCBL, EBL, BOK and NIC will decrease by Rs 64.24, 112.94, 9.25, 35.49 and 9.28 respectively, assuming that other variables are constant.

The standard error of estimate of NABIL, SCBL, SBI, EBL, BOK and NIC are 1909.72, 1250.78, 1092.53, 512.66 and 457.89 respectively. The standard error of b (s.b.) of NABIL, SCBL, SBI, EBL, BOK and NIC are 57.44, 35.10, 22.21, 29.51, 12.18 and 12.15 respectively which indicate the possible error in the predicated value

for the respectively banks. Here S.E. of b is lowest in NIC (12.15), which shows the estimation of DPR can be predicated nearer to accuracy.

The coefficient of determination (r^2) in lowest for SBI (0.0017) which indicates that only 0.17% in MPS is explained by DPR i.e. 0.17% variation in MPS of the bank is explained due to the change in the value of DPR of the bank. The coefficient determination is highest in cased of CBL which indicate that 71.7% variation in MPS of BOK is due to the change of DPR of the bank. The value of r^2 of NABIL, EBL, BOK and NIC are 0.238, 0.025, 0.697, 0.128 respectively which indicates that 23.8%, 2.5%, 69.7% and 12.8% variation in the MPS of these banks are explained due to the charge in DPR of the respective banks.

4.2.2.4 Regression Analysis between MPS on DY

Table 4.16

Regression Analysis between MPS on DY

Bank	a	b	r^2	S.E.E	S.b
NABIL	5874.41	-813.93	0.071	718.60	143.01
SCBL	7181.11	-904.59	0.964	466.96	91.02
SBI	1096.57	738.13	0.007	738.13	682.40
EBL	2293.36	-400.88	0.190	995.59	414.47
BOK	2188.15	-548.80	0.953	173.08	53.44
NIC	819.73	-154.32	0.161	451.02	186.0

Sources: Appendix IV

The above table of regression analysis shows that will banks have negative regression relation between MPS on DY MPS of NABIL, SCBL, EBL, BOK and NIC will decreases by Rs.813.93, Rs.904.59, Rs.400.38, Rs.548.80, Rs.154.32 respectively only MPS on DY of SBI is positive which is increases by Rs.738.13 with an in DY by 1% assuming that other variables are constant.

The standard error of estimate of NABIL, SCBL, SBI, EBL, BOK and NIT are Rs.718.60, Rs.466.96, Rs.738.13, Rs.995.59, Rs.173.08 and Rs.718.60, Rs.466.96, Rs.738.13, Rs.995.59, Rs.173.08 and Rs.451.02 respectively. The standard error of b

(S.b.) of NABIL, SCBL, SBI, EBL, BOK and NIC are Rs.143.01, Rs.91.02, Rs.682.40, Rs.414.47, Rs.53.44 and Rs.186.0 respectively.

The values indicate the probable error in the predicated value for the respective banks. Here S.E. of b lowest in BOK, which shows the estimation of DY can be predicated nearer to accuracy.

The coefficient of determination (r^2) is lowest for SBI (0.007) which indicates that only 0.7% in MPS is explained by D.Y i.e. 0.7% variation in MPS of the banks is explained due to the change in value of DY of the banks. The value of r^2 of NABIL, SCBL, EBL, BOK and NIC, 0.071, 0.964, 0.190, 0.953 and 0.161 respectively. Which indicate that 7.1%, 96.4%, 19%, 95.3% and 16.1% variation in the MPS of these banks are explained due to change in DY of the respective banks.

4.2.2.5 Regression Analysis between DPS on EPS

Table 4.17

Regression analysis between DPS on EPS

Bank	a	b	r^2	S.E.E	S.b
NABIL	75.89	0.54	0.536	517.66	14.11
SCBL	122.61	-0.19	0.461	35.40	0.66
SBI	-3.45	0.27	0.373	4.38	0.17
EBL	0.908	0.23	0.204	21.88	0.45
BOK	23.75	-0.27	0.254	6.57	0.23
NIC	-0.37	0.12	0.033	4.21	0.34

Sources: Appendix IV

The regression analysis between DPS and EPS show that among the bank under study, NABIL, SBI, EBL and NIC have positive relation but SCBL and BOK have negative relation between DPS and EPS. The regression relation between DPS and EPS indicates that with an increase of Rs.1 and EPS, there will be increase in DPS of NABIL, SBI, SCBL and NIC by Rs.0.54, 0.27, Rs.0.23 and Rs.0.12 respectively. On the other hand SCBL and BOK will decrease by Rs.0.19 and Rs.0.27 respectively.

The standard error of estimate of NABIL, SCBL, SBI, EBL, BOK and NIC are 517.66, 35.40, 4.38, 21.88, 6.57 and 4.21 respectively. The standard error of b (S.b.) are of NABIL, SCBL, SBI, EBL, BOK and NIC re 14.11, 0.66, 0.17, 0.45, 0.23 and 0.34 respectively. These values indicates the possible error in the predicated value for the respective banks. Here S.b. is lowest in SBI which shows the estimation of EPS can be predicated nearer to accuracy.

The coefficient of determination (r^2) is lowest for NIC (0.033) which indicate that only 3.3% in DPS is explained due to the change in value of EPS of the bank. The value of r^2 of NABIL, SCBL, SBI, EBL and BOK are 0.536, 0.461, 0.373, 0.204 and 0.254 respectively which indication that 53.6%, 46.1%, 37.3%, 20.4% and 25.4% variation in the DPS of these bank are explained due to change in EPS of the respective banks.

4.2.3 Multiple Regression Analysis

To see the impact of more than one independent variable the multiple regression have been used. It examines the relationship between one dependent variable and more independent variables. The market price of stock depends on more than one variable. So, the results of simple regression analysis are not reliable as far the multiple regression analysis eliminates all the limitations of simple regression analysis. This part of the study is designed to examine the relationship between two independent variables and one dependent variable. The regression results are presented. As, in this study, the pooled average data of the observed banks are used for multiple regression and coefficient of determination analysis.

1. Multiple regression and coefficient of Determination Analysis of MPS on EPS and DPS;

   The model developed for this purpose;

   $y = a + b_1X_1 + b_2X_2$

Where,

Y = market price per share (Dependent variables)

X_1 = Earning per share (Independent variables)

X_2 = Dividend per share (Independent variables)

a_1 = Regression Constant

b_1 & b_2 = Coefficient of Net Regression (or Simply regression constant)

Multiple Regression and coefficient of determination Analysis of MPS or EPS and DPS.

Table 4.18

Multiple Regression and Coefficient of Determination Analysis of MPS or EPS and DPS

Regression Model	a_1	b_1	b_2	$S_{y.12}$	$(R_{y.12})^2$
NABIL	-1955.20	96	-81.06	4619.98	0.95

Sources: Appendix V

The above table shows the output of multiple regression analysis between MPS (Y) and other variables (EPS (X_1) and DPS (X_2) of the banks in average. The regression constant (a_1) is -1955.20 that indicate that when EPS and DPS equal to zero, then MPS of the observed banks would be Rs.1955.20. The regression coefficient b_1, for banks is 96. Another regression coefficient b_2 is -81.06. EPS has positive impact in MPS where as another independent variable DPS has negative impact in MPS of the observed banks in average. As the coefficient of multiple determinations $(R_{y.12})^2$ is 0.95 it means 95% of variation in MPS is explained by variation in EPS and DPS. The standard error of estimation ($S_{y.12}$) is 4619.98, it indicates that the possible error in the predicated value for the respective banks.

Multiple Regression and Coefficient of Determination Analysis of MPS on EPS and DPR

The model developed for this purpose is as;

$Y = a + b_1X_1 + b_2X_2$

Where,

Y = Market price per share (Dependent variable)

X_1 = Earning per share (in dependent variable)

X_2 = Dividend payout ratio (independent variable)

a_1 = Regression constant

b_1 & b_2 = Coefficient of net regression (or simply, regression constant)

The following results have been obtained from the multiple.

Multiple Regression and Coefficient of Determination Analysis of MPS on EPS and DPR.

Table 4.19

Multiple Regression and Coefficient of Determination Analysis of MPS on EPS and DPR

Regression Model	a_1	b_1	b_2	$S_{y.12}$	$(R_{y.12})^2$
$Y = a+b_1X_1+b_2X_2$	-263.10	73.17	-82.57	211.13	0.98

Sources: Appendix V

The above table shows the output of multiple regression analysis between MPS (Y) and other variables [EPS(X_1) and DPR (X_2)] of the banks in average. The regression constant (a_1) is -263.10. The regression coefficient b_1 for bank is 73.17, Another regression coefficient b_2 is -82.57. EPS has positive impact in MPS where as another independent variable DPR has negative impact in MPS of the observed banks in average. As the coefficient of multiple determination. $(R_{y.12})^2$ is 0.98 it means 98"% of variation in MPS is explained by variation in EPS and DPR. The standard Error of estimation ($S_{y.12}$) is 211.13 it indicates that the possible error in the predicated value for the respective banks.

4.3 Test of Hypothesis

To test the significance difference among mean value of EPS, DPS, MPS, DPR, Dividend yield and PLE ratio in the sample banks, there are altogether six sets of hypothesis formulated and then tested in the study. Under the first set, significant differences among DPS of the banks are tested. The same are tested for EPS, MPS, DPR, DY and P.E. ratio respectively.

First set of Hypothesis

Ho_1 : There is no significance difference among mean value of DPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

H_{11} : There is a significance difference among mean value of DPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Table 4.20

Result of Hypothesis Regarding DPS

Particulars	
Numerator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	34.31
Prob. value of F-Statistic	2.53

Sources: Appendix VI

The above table 4.20 shows that prob. value of F-statistic is less than calculated value of F-statistic which implies that F-static is significant at 5% level of significance. That means null hypothesis is rejected and alternative hypothesis is accepted. It reveals that the Dividend per share among the banks is not same but they are significantly different.

Second set of Hypothesis

Null Hypothesis ($H0_2$) : These is no significance different among mean value of EPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Alternative Hypothesis (H_{12}) : There is significance different many mean value of EPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Table 4.21

Result of Hypothesis Regarding EPS

Particulars	
Numerator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	55.71%
Prob. value of F-Statistic	2.53

Sources: Appendix VI

Table 4.21 conclude that prob. value of F-statistic is less that calculated value of F-statistic which implies that F-statistic is significant at 5% level of significance. That

means null hypothesis is rejected and alternative hypothesis is accepted. It reveals that the Earning per share among the banks is not same but they are significantly different.

Third set of Hypothesis

$H0_3$: There is no significance difference among mean value of mps of NABIL, SCBL, SBI, EBL, BOK and NIC.

H_{13} : There is significance difference among mean value of MPs of NIBL, SCBL, SBI, EBL, BOK and NIC.

Table 4.22

Result of Hypothesis Regarding MPS

Particulars	
Numerator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	7.71%
Prob. value of F-Statistic	2.53

Sources: Appendix VI

When observe in the table 4.22, it is clear that the prob. value of F- statistic is less than calculated value of F-Statistic is less than calculated value of F-statistic. It implies that the F-statistic is significant at % level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that the market price per share among the banks is not same but they are significantly different.

Fourth Set of Hypothesis

$H0_4$: There is no significance difference among mean value of DPR of NABIL, SCBL, SBI, EBL, BOK and NIC.

H_{14} : There is no significance difference among mean value of DPR of NABIL, SCBL, SBI, EBL, BOK and NIC.

Table 4.23

Result of Hypothesis Regarding DPR

Particulars	
Numerator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	12.82%
Prob. value of F-Statistic	2.53

Sources: Appendix VI

Result of Hypothesis regarding DPR show in the table 4.23, it is clear that the prob. value of F-statistic less than calculated value of F-statistic. It implies that the F-statistic is significant at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means the Dividend payout Ratio among the banks is not same but they are significantly different.

Fifth set of Hypothesis:

Ho_5 : There is no significance difference among mean value of Dividend yield (D.Y) of NABIL, SCBL, SBI, EBL, BOK and NIC.

H_{15} : There is significance difference among mean value of Dividend Yield (DY) of NABIL, SCBL, SBI, EBL, BOK and NIC.

4.24

Result of Hypothesis Regarding D.Y

Particulars	
Numberator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	3.61
Prob. value of F-Statistic	2.53

Sources: Appendix VI

From the table 4.24, we can conclude the result of hypothesis regarding Dividend yield among banks. From the table 4.24, we can conclude that the F-Statistic is significant at 5% level of significance with prob. value 2.53. Hence, null hypothesis is

rejected and alternative hypothesis is accepted which implies that there is no similarity among the banks Dividend yield. They are significantly different to each other.

Sixth set of Hypothesis:

$H0_6$: There is no significance difference among mean value of P/E ratio of NABIL, SCBL, SBI, EBL, BOK and NIC.

H_{16} : There is significance difference among mean value of P/E ratio of NABIL, SCBL, SBI, EBL, BOK and NIC.

Table 4.25

Result of Hypothesis Regarding P/E ratio

Particulars	
Numerator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	0.637
Prob. value of F-Statistic	2.53

Sources: Appendix VI

Table 4.25 present the result of hypothesis regarding price earning ratio among sample banks. As we see from the table 4.25 that prob. value of F-statistic is 2.53 which is at 5% level of significance. Hence Null hypothesis is accepted and alternative hypothesis is rejected. Because calculated value of F-statistic is less than prob. value of F-statistic. It implies that there is similarity among the banks price earning ratio.

4.4 Major Findings

This section includes the key findings of the study obtained from the analysis of data. Conclusion derives from the findings are presenting in the next chapter.

- The SCBL has the highest mean EPS among the banks which is Rs 145.30 and NIC has the lowest, which is Rs 21.68 the same result is seen to be Rs 113.24, Rs24.95, Rs43.23 and Rs73.13 in NIBIL, SBI, BOK and EBL respectively. Most of the firm always seeks to have more earning so that they can sustain efficiently in the competitive capital market. Therefore, earning is the indicator

of firm's. Again these is higher earning consistency in NABIL i.e., 13.22%, where as there is lower consistency in SCBL, SBI, BOK, EBL, an NIC. Indicating C.V. by 15.01%, 41.40%, 27.20% 27.24% and 23.57% respectively than that of NABIL.

- The SCBL has the highest mean DPS among selected banks where as it is lowest in NIC (i.e. Rs95 and Rs2.24). If DPS of any firm is high, it will create positive attitude of its shareholders towards the firm, which is consequently helps to increase the market value of the share. In another words the firm is paying higher dividend implies that it is performing better. Consistency in DPS is also highest in SCBL than that other banks representing (C.V. = 28.99%) which is lower than others.
- Higher DPR indicates that the firm is paying higher dividend to its shareholders and lower Dividend payout ratio implies that the firm is retaining its profit to profitable investment opportunities. The mean DPR of NABIL, SCBL, SBI, BOK, EBL and NIC are 60.58%, 64.71%, 10.86% 31.74%, 24.70% and 9.71 respectively. This evidence shows that NIC is retaining more its earning and it might be the consequences of the higher growth opportunities.
- The SCBL has the highest mean MPS among the selected banks which is Rs4434.17 and NIC has the lowest, which is Rs740. Increase in MPS is the indication of better performance MPS trend over the sample period. Consistency in mps in SCBL in higher than that of others as its C.V. (i.e. 43.58%) is smallest as compared to other banks.
- The average Dividend yield of NABIL highest among the bank which is 3.13% and lowest one is zero.52% in NIC. Dividend yield defined the relationship between dividend per share and market value per share. It is very useful for the investors.
- Correlation matrix of selected banks shows that correlation between DPS and mps is positive in SBI and EBL. It implies that there is a positive impact of dividend of market price of stock. It means if dividend increase, market price of share also increases and vice-versa. Correlation between DPS and mps in NIBL, SCBL, BOK and NIC is negative. It implies that there is a negative impact of dividend on market price of stock. It means if dividend increase, market price of stock decrease and vice-versa. Correlation between EPS and MPs is positive in

NABIL, SBI, EBL, BOK and NIC and negative correlation between EPs and MPs in SCBL. Similarly correlation between MPS and DPR is positive in SBI, and BOK and negative in NABIL, SCBL, EBL and NIC. Where as correlation between MPS and DY is positive in SBI and negative in NABIL, SCBL, EBL, BOK and NIC. The correlation between MPS and P/E ratio is positive in NABIL, SCBL, EBL, BOK and NIC.

- The regression analysis of mps on EPs shows that the regression coefficient (n) is positive for SCBL, EBL, BOK and NIC while negative for NABIL. The coefficient of multiple determination of BOK is highest among sample banks in the regression analysis of mps on EPS.
- The regression analysis of MPS on DPS indicates that the regression coefficient (b) is positive for SBI and EBL while negative for NABIL, SCBL, EBL, BOK and NIC. The coefficient of multiple determinations for the regression analysis of mps on DPS of SCBL is highest and NIBL has lowest among sample Banks.
- The regression coefficient (b) of the regression analysis between mps on DPR is positive for SBI. The regression coefficient (b) for relation between mps on DPR is negative for NABIL, SCBL, EBL, BOK and NIC. The coefficient of multiple determinations (r^2) of SCBL has highest among sample banks. The regression coefficient (b) of the regression analysis between mps on DY Shows that NABIL, SCBL, EBL, BOK and NIC have negative regression coefficient but SBI have positive regression coefficient. The coefficient of multiple determinations (r^2) of SCBL is highest and SBI is lowest among sample banks. The regression coefficient (b) of the regression analysis between DPS on EPS is positive of NABIL, SCBL, EBL, BOK and NIC on the other hand SCBL and BOK have negative regression coefficient. The coefficient of multiple determinations (r^2) of NABIL highest among sample banks.
- The multiple regression analysis of mps on EPs and DPS shows that the regression coefficient (b) is positive, which is shown from pooled average analysis of multiple regressions. The coefficient of multiple determination r^2 is 0.95. Again the regression coefficient (b_2) is negative. Where as the multiple regression analysis of MPS on EPS and DPR shows that the first regression coefficient (b_1) is positive and second regression coefficient (b_2) is negative. The

multiple determinations (r^2) is 0.98. It is shown from the bank pooled average analysis of multiple regressions.

- From the test of hypothesis, it is found null hypothesis of no significant difference of EPs, DPS, MPs, DPR and DY among selected banks are rejected and where as null hypothesis and no significant different of P/E ratio is accepted.

CHAPTER - V

SUMMARY, CNCLUSION AND RECOMMENDATION

This chapter focuses on summarizing the study held with the conclusions and some recommendation on the basis of findings. For this purpose, the chapter has been divided into three parts as summary, conclusion and recommendation.

5.1 Summary

The study was conducted with objectives to analyze the dividend practices and its impact on market price of stock of selected Nepalese commercial banks over the study period 2003/04 to 2008/09. Following a descriptive and analytical research design. The sample for the study of six commercial banks listed in Nepal Stock Exchange (NEPSE). The Study is based on secondary data and the data obtained were analyzed using various descriptive statistical tools, correlation analysis and multiple regression models and various financial tools.

Dividend services as simple, comprehensive signal of management's interpretation of the firm's recent performance and its future prospects. Dividend policy constitutes one of the most critical issues of the public limited companies. Dividend police 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 decision of the organization i.e. capital structure decision and investment decisions.

Theories of dividend policies do differ some prefer resident theories that convey passive residual earning available for payment whereas M.M. Hypothesis insists on dividend irrelevance in the sense that dividend does not affect the stock price. There are other who argue that dividend policy does affect value to the factors of uncertainty. Many factors affect the dividend payment depending upon investors need and preference on one hand and the financing need of the financial institutions potential investment opportunities on the other hand. Dividend policy involves many

aspects such as selecting the types o dividend and other forms as well as selecting stable or fluctuating or extra dividend payment.

The stockholders have a high desire and expectation that market price of share will be higher than net worth and getting high percent of dividend from earning. So distributing dividend to the share holder is effective way to achieve the trust of investors and encourage them to invest in shares. Besides this dividend paying ability reflects the financial position of the organization in the market. So the funds that could not be used due to the lack of investment opportunities would be better as dividend. Since share holders have investment opportunities elsewhere.

Dividend paying banks have been selected for the study, so the references can be made about implication of dividend policy they have adopted in their market price per share. Even if market price is governed by various factors, this study is made to analyze one of the important fact i.e. Dividend. The study covers six commercial banks and only for last six fiscal years from 2003/04 to 2008/09. The available secondary data have been analyzed using various financial and statistical tools. So, the reliability of the conclusion of this study is determined on the accuracy of secondary data.

To make the study more reliable, different types of analysis have been conducted to find out the appropriate relationship between market price and other Variables, which affect the dividend. The theoretical statement is to study of the impact of dividend on stock price, therefore it is concluded that none of the sample firm have adopted consistent dividend policy except SCBL. More or less the dividend policy depends on the earning per share of the company: the earning per share and dividend per share having the positive relation may also impact on market price of stock.

5.2 Conclusions

Based on major findings, this study concludes that there is higher dividend impact on market value of the banks share in most of the banks. In another words, dividend plays an important role to change the market price of stock. Besides this, the following conclusions are made;

The market price per share is affected by the dividend related financial variable i.e. DPS and DPR either Positively or negatively changes are DPS affected the market price per share differently in different bank. In case of some banks, there exist positive relation between dividend and mps while for other there exist negative relation besides the mps. Largely depends upon the dividend which been shown by the coefficient of multiple determination. Besides dividend other factors also affected the market price per share i.e. EPS, DY P/E ration etc. Their effect is also different for different banks.

An analysis of the average DPR of the sample banks shows that out of the total income generated 33.72% is distributed as dividend in general if the individual DPR of the banks are compared to this figure. SCNL has the average DPR of all banks. The individually average DPR of NIC has 9.71% which is less than the average DPR of all banks. The individually average DPR of NIC has 93.71% which is less than other sample banks. On the other hand the average DPR of NABIL, SBI, BOK and NIC are 60.58%, 10.86%, 31.74% and 24.70%.

The coefficient of variation of the average DPR of the banks in function in the payment of dividend is 73.83 which is in high level. This it can be conducted that dividend policy of the banks are not stable. There is no strategy of calculating growth in the dividends paid by banks. This shows that the dividend policy of the commercial banks is not uniform and consistent. There is fluctuation in the dividend payment even if the banks are making profit regularly the dividend payout ratio also does not show any stability and coordination with others variables.

There is large fluctuation in dividend in each year. There is not certain criterion for paying dividends. This study concludes that there is no long term vision regarding the dividend policy. All the selected commercial banks paid a dividend which's shows that dividend paying practice is established in Nepalese commercial bank is depending on current earnings. The banks are following earning based dividend policy. Only two variables earning and dividend is not sufficient to explain the change in dividend and market price of share meaning that it necessary to add other more variables in the regression model.

5.3 Recommendations

On the basis of findings, of the study, following recommendation made for the further applications of dividend of the repercussion but there is not doubt have these measures to improve the existing conditions;

The sample Banks are not adopting a fixed or defined dividend policy they are adopting the dividend policy according to their requirement with the change of time and situation. But most of the investors prefer defined dividend policy; therefore, companies should clearly desire their dividend policy and communicate to investors. Clearly defined dividend policy help to determine specific policy i.e. stable dividend or constant payout or low regular plus extra. This helps to investors in deciding whether to buy or not the share of the particular company and to build good image, stock market.

Most of the banks had great fluctuation in DPS, EPS, Dividend pay out ratio, P/E ratio and share price in terms of coefficient of variation. Such fluctuation increase in risk position of investors. Therefore, company should try to stabilize these variables. Wide fluctuation in dividend payout ratio should be minimized. Consistency in dividend payout ratio over the period helps in gaining the payout ration over the period helps in gaining the share holders confidence and then maximizing firm value.

The legal rule regarding dividend should be clear for the smooth growth of the enterprises as well as growth of the national economy. There is lack of rules finding companies to pay dividend. Some of the companies are unable for paying dividend, some are suffering from less and there is an effort to minimize loss rather than payment investors and bind these companies by special rules. This is not any other organization fully devoted to protect interest. For this purpose, NEPSE, SEBON and other concerned parties should work together in favour of investors and bind their companies spare rules.

Formulae of dividend policy will clearly guide the way of dividend distribution. The policy should determine whether the company is going to adopt stable dividend

policy, constant payout ratio or low regular plus extra dividend. What should be the long run dividend pay out ratio, either it is pure residual ratio theory, fixed dividend payout policy of smooth residual dividend policy, should have been clearly explained by the dividend policy.

Certain specific rules and regulation should be made from SEBON as well from the side of the government side regarding of the dividend. The legal rules and regulations must be in favour of investors to exercise the dividend practice and to protect the shareholders right.

Companies should have long term vision regarding earning and dividend payment, also companies should define their vision clearly considering their future plans, expansion in business, future economy of the country etc various internal and external factors should be considered before taking decision.

Lastly, after making this study it is realized that dividend payment practices of the commercial banks are not regular in Nepal. Banks organizations establish to run for long periods in the small economy of Nepal there are already over a two dozen banks and have neck to neck competition. So even a small wrong decision can lead to bank runty. So it is necessity of legal provisions and rules for preserving certain policy regarding the dividend payment in the banking sectors for this purpose the concerned authority. i.e. Nepal Government, Nepal Rastra Bank, Security Board, Nepal Stock Exchange and also commercial institution should be can serious about the formulation and implication of rules regarding dividend payment this will help to regularized the dividend policy of the financial sector in Nepal.

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APPENDICES

APPENDIX - I

EPS of Sample Banks

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC
2003/04	92.61	143.55	14.26	27.50	45.58	13.65
2004/05	105.49	143.14	13.29	30.10	54.22	22.75
2005/06	129.21	175.84	18.27	43.67	62.78	16.10
2006/07	137.08	167.37	39.35	43.50	78.42	24.01
2007/08	108.31	131.92	28.33	59.94	91.82	25.75
2008/09	106.76	109.99	36.18	54.68	99.99	27.83

Source: Annual Report of Sample Bank provided by the SEBON

DPS of Sample Banks

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC
2003/04	65	110	0	10	20	0
2004/05	70	120	0	15	0	10
2005/06	85	130	5	18	25	0.53
2006/07	100	80	12.59	20	10	1.05
2007/08	60	80	0	2.11	20	1.05
2008/09	35	50	2.11	7.37	30	0.79

Source: Annual Report of Sample Banks Provided by the SEBON

$$DPR = \frac{DPS}{EPS} \times 100$$

DPR of Sample Bank

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC
2003/04	$\frac{65}{92.61} \times 100 = 70.19$	$\frac{110}{143.55} \times 100 = 76.63$	$\frac{0}{14.26} \times 100 = 0$	$\frac{10}{27.50} \times 100 = 36.36$	$\frac{20}{45.58} \times 100 = 43.88$	$\frac{0}{13.65} \times 100 = 0$
2004/05	$\frac{70}{105.49} \times 100 = 66.36$	$\frac{120}{143.14} \times 100 = 83.83$	$\frac{0}{13.29} \times 100 = 0$	$\frac{15}{30.10} \times 100 = 49.83$	$\frac{0}{54.2} \times 100 = 0$	$\frac{10}{22.75} \times 100 = 43.96$
2005/06	$\frac{85}{129.21} \times 100 = 65.78$	$\frac{130}{175.84} \times 100 = 73.93$	$\frac{5}{18.27} \times 100 = 27.37$	$\frac{18}{43.67} \times 100 = 41.22$	$\frac{25}{62.78} \times 100 = 39.82$	$\frac{0.53}{16.10} \times 100 = 3.29$
2006/07	$\frac{100}{137.08} \times 100 = 72.95$	$\frac{80}{167.37} \times 100 = 47.80$	$\frac{12.59}{39.35} \times 100 = 31.99$	$\frac{20}{43.50} \times 100 = 45.98$	$\frac{10}{78.42} \times 100 = 12.75$	$\frac{1.05}{24.01} \times 100 = 4.37$
2007/08	$60/108.31 \times 100 = 55.40$	$\frac{80}{131.92} \times 100 = 60.64$	$\frac{0}{28.33} \times 100 = 0$	$\frac{2.11}{59.94} \times 100 = 3.59$	$\frac{20}{91.82} \times 100 = 21.78$	$\frac{1.05}{25.75} \times 100 = 3.78$
2008/09	$\frac{35}{106.76} \times 100 = 32.78$	$\frac{50}{109.99} \times 100 = 45.46$	$\frac{2.11}{36.18} \times 100 = 5.83$	$\frac{7.37}{54.68} \times 100 = 13.48$	$\frac{30}{99.99} \times 100 = 30$	$\frac{0.79}{27.83} \times 100 = 2.84$

Source : Annul Report of Sample Banks provided by the SEBON.

MPS of Sample Bank

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC
2003/04	1000	1745	307	295	680	218
2004/05	1505	2345	335	430	87	366
2005/06	2240	3775	612	850	1379	496
2006/07	5050	5900	1176	1375	2430	950
2007/08	5275	6830	1511	2350	3132	1284
2008/09	4899	6010	1900	1825	2455	1126

Source : Annual Report of Sample Banks provided by the SEBON.

Dividend Yield(D.Y)= $\frac{DPS}{MPS} \times 100$

DY of Sample Banks

Banks / Year	NABIL	SCBL	SBI	EBL	BOK	NIC
2003/04	$\frac{65}{1000} \times 100=6.5$	$\frac{110}{1745} \times 100=6.30$	$\frac{0}{307} \times 100=0$	$\frac{20}{680} \times 100=2.94$	$\frac{10}{295} \times 100=3.39$	$\frac{0}{218} \times 100=0$
2004/05	$\frac{70}{1505} \times 100=4.65$	$\frac{120}{2345} \times 100=5.12$	$\frac{0}{335} \times 100=0$	$\frac{0}{870} \times 100=0$	$\frac{15}{430} \times 100=3.49$	$\frac{10}{366} \times 100=2.73$
2005/06	$\frac{85}{2240} \times 100=3.79$	$\frac{130}{3775} \times 100=3.44$	$\frac{5}{612} \times 100=0.82$	$\frac{25}{1379} \times 100=1.81$	$\frac{18}{850} \times 100=2.12$	$\frac{53}{496} \times 100=0.11$
2006/07	$\frac{100}{5050} \times 100=1.98$	$\frac{80}{5900} \times 100=1.36$	$\frac{12.59}{1176} \times 100=1.07$	$\frac{10}{2340} \times 100=0.41$	$\frac{20}{1375} \times 1001.45$	$\frac{1.05}{950} \times 100=0.11$
2007/08	$\frac{60}{5275} \times 100=1.14$	$\frac{80}{6830} \times 100=1.17$	$\frac{0}{1511} \times 100=0$	$\frac{20}{3132} \times 100=0.64$	$\frac{2.11}{2350} \times 100=0.09$	$\frac{1.05}{1284} \times 100=0.08$
2008/09	$\frac{35}{4899} \times 100=0.71$	$\frac{50}{6010} \times 100=0.83$	$\frac{2.11}{1900} \times 100=0.11$	$\frac{30}{2455} \times 100=1.22$	$\frac{7.37}{100} \times 100=0.40$	$\frac{79}{1126} \times 100=0.07$

Source : Annual Report of Sample Banks provided by the SEBON.

P/E Ratio of Sample Banks

Banks / Year	NABIL	SCBL	SBI	BOK	EBL	NIC
2003/04	10.80	12.16	21.54	14.93	7.20	15.97
2004/05	14.27	16.38	25.21	16.04	14.29	16.09
2005/06	13.34	21.47	33.49	21.97	19.46	30.81
2006/07	36.84	35.25	29.89	31.99	31.61	39.56
2007/08	48.70	51.77	53.34	34.11	39.21	49.86
2008/09	45.89	54.64	52.52	24.55	33.37	40.46

Source : Annual Report of Sample Banks provided by the SEBON.

APPENDIX II

Year	EPS of SCBL (x)	X- $\overline{X}$	$\left(\mathrm{X}-\overline{\mathrm{X}}\right)^2$
2003/04	143.55	-1.75	3.06
2004/05	143.14	-2.16	4.67
2005/06	175.84	30.54	432.69
2006/07	167.37	22.07	487.08
2007/08	131.92	-13.38	179.02
2008/09	109.99	-35.31	1246.80
	$\sum \mathrm{x} = 871.81$		$\sum\left(\mathrm{X}-\overline{\mathrm{X}}\right)^2 = 2853.32$

$$\overline{\mathrm{X}} = \frac{\sum \mathrm{x}}{\mathrm{N}} = \frac{877.81}{6} = 145.30$$

$$S.D.(\sigma) = \sqrt{\frac{\sum\left(x-\overline{x}\right)^2}{N}} = \sqrt{\frac{2853.32}{6}} = 21.81$$

C.V. = $\frac{S.D.}{\overline{x}} \times 100 = \frac{21.81}{145.30} \times 100 = 15.01\%$

Note: Mean $\left(\overline{x}\right)$, standard deviation (S.D.) and coefficient of variation (C.V) of EPS, DPS, MPS, DPR, DY an P/E ratio of all the Sample Bank are computed using the above model, Result of the computation are as follows.

EPS

EPS	NABIL	SCBL	SBI	BOK	EBL	NIC
Mean	113.24	145.30	24.95	43.23	72.13	21.68
S.D.	14.97	21.81	10.33	11.76	19.65	5.11

C.V. (%)	13.22	15.01	41.40	27.20	27.24	23.57

DPS

DPS	NABIL	SCBL	SBI	BOK	EBL	NIC
Mean	69.17	95	3.28	12.08	17.5	2.24
S.D.	20.29	27.54	4.53	6.22	9.89	3.49
C.V. (%)	29.33	28.99	138.11	51.49	56.51	155.80

DPR

DPR	NABIL	SCBL	SBI	BOK	EBL	NIC
Mean	60.58	64.71	10.86	31.74	24.70	9.71
S.D.	13.57	14.55	13.53	17.18/	15.12	15.38
C.V. (%)	22.40	22.48	124.58	54.13	61.21	158.39

MPS

MPS	NABIL	SCBL	SBI	BOK	EBL	NIC
Mean	3328.17	4434.17	973.5	1187.5	1824.33	740
S.D.	1786.56	1932.30	601.51	733.05	903.06	400.19
C.V. (%)	53.68	43.58	61.79	62.24	49.50	54.08

DY

DY	NABIL	SCBL	SBI	BOK	EBL	NIC
Mean	3.13	3.04	0.33	1.17	1.82	0.52
S.D.	2.05	2.09	0.44	0.98	1.33	0.99
C.V. (%)	65.50	68.75	1333.33	83.76	72.53	190.38

P/E Ratio

P/E	NABIL	SCBL	SBI	BOK	EBL	NIC
Mean	28.31	31.95	36.00	23.93	24.19	32.13
S.D.	15.94	16.65	12.53	7.26	11.36	12.64
C.V. (%)	56.30	52.11	34.81	30.34	46.96	39.34

APPENDIX III

Calculation of Correlation Coefficient MPS and DPS

NABIL

Calculated table of correlation coefficient between MPS and DPS

Year	MPS (x)	DPS (Y)	$x-\bar{x}$	$(X-\bar{x})^2$	$Y-\bar{Y}$	$(Y-\bar{Y})^2$	$(X-\bar{X})(Y-\bar{Y})$
2003/04	1000	65	-2328.17	5420375.5	-4.17	17.39	9708.47
2004/05	1505	70	-1823.17	3323948.85	0.83	0.69	-1513.23
2005/06	2240	85	1088.17	1184113.95	15.83	250.59	-17225.73
2006/07	5050	100	1721.83	2964698..55	30.83	950.49	53084.021
2007/08	5275	60	1946.83	3790147.05	-9.17	84.09	-17852.43
2008/09	4899	35	1570.83	2467506.89	-34.17	1167.59	-53675.26
	$\sum X = 19969$	$\sum Y = 415$		$\sum(X-\bar{x})2$ =19150790.84		$\sum(Y-\bar{Y})^2$ =2470.84	$\sum(X-\bar{X})(Y-\bar{Y})$= -27474.16

$\bar{X} = \frac{\sum X}{N}$ = $\frac{19969}{6}$ = 3328.17

$\bar{Y} = \frac{\sum Y}{N}$ = $\frac{415}{6}$ = 69.17

S.D(σ_x)= $\sqrt{\frac{\sum(X-\bar{X})^2}{N}} = \sqrt{\frac{19150790.84}{6}}$ = 1786.56 S.D(σ_y)== $\sqrt{\frac{\sum(Y-\bar{Y})^2}{N}} = \sqrt{\frac{247084}{6}}$ =20.29

COV (X, Y) = $\frac{\sum(X-\bar{X})(Y-\bar{Y})}{N}$

= $\frac{-27474.16}{6}$

= -4579.03

r = $\frac{Cov(X, Y)}{\sigma_x \times \sigma_y}$

= $\frac{-4579.03}{1786.56 \times 20.29}$

= - 0.126

Probable Error (P.E.) = $0.6745 \times \frac{1-r^2}{\sqrt{N}}$

NABIL

MPS on EPS

Probable Error (P.E.) = $0.6745 \times \frac{1-(0.412)^2}{\sqrt{6}} = 0.229$

6 × P.E = 6×0.229 = 1.374

MPS on DPS

Probable Error (P.E.) = $0.6745 \times \frac{1-(-0.126)^2}{\sqrt{6}} = 0.271$

6 × P.E = 6×0.271 = 1.626

MPS on DPR

Probable Error (P.E.) = $0.6745 \times \frac{1-(-0.488)^2}{\sqrt{6}} = 0.210$

6 × P.E = 6×0.210 = 1.26

MPS on DY

Probable Error (P.E.) = $0.6745 \times \frac{1-(-0.955)^2}{\sqrt{6}} = 0.024$

6 × P.E = 6×0.024 = 0.144

MPS on P/E Ratio

Probable Error (P.E.) = $0.6745 \times \frac{1-(0.964)^2}{\sqrt{6}} = 0.019$

$6 \times P.E = 6 \times 0.019 = 0.114$

Note: Correlation coefficient (r) between MPS and DPS, MPS and EPS, MPS and DPR, MPS and DY MPS and P/E, DPS and EPS, DPS & DPRS, DPS and DY, DPS and P/E ratio, EPs and DPR, EPS and DY and EPS and P/E ratio, also probable error (P.E.) between MPS with other financial indicators of all the sample banks are computed using above model Results of the computation are as follows.

Calculated table of correlation coefficient between MPS and DPS and MPS and other financial variables:

NABIL

	EPS	DPS	MPS	DPR	DY	P/E
MPS	0.412	-0.126	1	-0.488	-0.955	0.964
EPS	1	0.732	-	0.279	-0.267	0.148
DPS	-	1	-	0.863	0.253	-0.117
P.E	0.229	0.27	-	0.210	0.024	0.019
6× P.E	1.374	1.626	-	1.26	0.144	0.114

SCBL

	EPS	DPS	MPS	DPR	DY	P/E
MPS	-0.262	-0.766	1	-0.847	-0.982	0.952
EPS	1	0.679	-	0.305	0.249	-0.572
DPS	-	1	-	0.898	0.775	-0.880
P.E	0.256	0.114	-	0.078	0.010	0.026
6× P.E	1.536	0.684	-	0.468	0.06	0.156

SBI

	EPS	DPS	MPS	DPR	DY	P/E
MPS	0.862	0.165	1	0.041	0.084	0.903
EPS	1	0.611	-	0.410	0.409	0.584
DPS	-	1	-	0.919	0.977	-0.16
P.E	0.071	0.268	-	0.275	0.273	0.051
6× P.E	0.426	1.608	-	1.650	1.638	0.306

EBL

	EPS	DPS	MPS	DPR	DY	P/E
MPS	0.928	0.319	1	-0.157	-0.436	0.903
EPS	1	0.452	-	-0.108	-0.397	0.779
DPS	-	1	-	0.827	0.596	0.171
P.E	0.38	0.247	-	0.268	0.223	0.051
6× P.E	0.228	1.482	-	1.608	1.338	0.306

BOK

	EPS	DPS	MPS	DPR	DY	P/E
MPS	0.971	-0.574	1	0.835	-0.976	0.97
EPS	1	-0.504	-	-0.810	-0.978	0.90
DPS	-	1	-	0.903	0.492	-0.1
P.E	0.016	0.185	-	0.083	0.013	0.015
6× P.E	0.096	1.11	-	0.498	0.078	0.09

NIC

	EPS	DPS	MPS	DPR	DY	P/E
MPS	0.834	-0.331	1	-0.358	-0.401	0.96
EPS	1	0.181	-	0.152	0.109	0.67
DPS	-	1	-	0.999	0.997	-0.481
P.E	0.084	0.245	-	0.240	0.231	0.021
6× P.E	0.504	1.47	-	1.44	1.386	0.126

APPENDIX IV

Simple linear Regression Analysis between MPs on Es

Let MPS = Y

EPS = X

Simple linear Regression equation Y on X is given by:

Y = dependent variable

X = independent variable

a = Regression constant

b = Regression coefficient

$$\sum Y = na + b\sum X ----(ii)$$

$$\sum XY = a\sum X + b\sum X^2 ---- (iii)$$

r^2 = Coefficient of determination

S.E.E = Standard Error of Estimation

S.b. = Standard error of regression coefficient

T = t-value

Calculation of Simple Linear Regression between MPS on EPS

Year	X	Y	XY	X^2	Y^2
2003/04	92.61	1000	92610	8576.61	1000000
2004/05	105.49	1505	158762.45	11128.14	2265025
2005/06	129.21	2240	289430.4	16695.22	5017600
2006/07	137.08	5050	692254	18790.93	25502500
2007/08	108.31	5275	571335.25	571335.25	27825625
2008/09	106.76	4899	523017.24	523017.24	24000201
	$\sum X = 679.46$	$\sum X = 19969$	$\sum XY = 237409.34$	$\sum X^2 = 114954339$	$\sum Y^2 = 85610951$

Putting the calculated value on eq^{n} (ii) and (iii)

19969 = 6a+679.46 b --------- (iv)

237409.34 = 679.46a + 1149543.39b -------- (v)

multiplying eq^{n} 6 ×eq^{n} (v) - 679.46 × eq^{n} (iv)

13568136.74 = 4076.76a + 461665.89 b

- 1424456.04 = 4076.76a ± 6897260.34 b

12143680.7 = -6435594.45 b

$$b = \frac{12143680.7}{-6435594.45}$$

b = 1.89

Putting the value of b in eq^{n} (ii)

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

19969 = 6a -1.89 ×679.46

19969 + 1284.179 = 6a

a = 3512.20

$$\text{S.E.E.} = \sqrt{\frac{\sum Y^2 - a\sum Y - b\sum XY}{n-2}}$$

$$= \sqrt{\frac{85610951 - 3542.20 \times 19969 (-1.89 \times 237409.34)}{6-2}}$$

$\therefore$ S.E.E. = 1957.39

$$\text{S.b.} = \frac{\text{S.E.E.}}{\sqrt{\sum \left(X - \bar{X}\right)^2}}$$

$$= \frac{1957.39}{\sqrt{1345.34}}$$

= 53.37

Note: The simple regression analysis between MPS on EPs, MPS on DPS, MPS of DPR, MPs of DY, DPS on EPs and S.E.E. and S.b. of all sample banks are calculate using the above model ; Results of the computation are as follows:

Simple Regression analysis between MPS on EPS

Bank	a	b	r^2	S.E.E	S.b
NABIL	3542.20	-1.89	0.170	1957.39	53.37
SCBL	3682.96	5.17	0.069	2384.59	44.64
SBI	-279.07	50.21	0.743	373.51	14.77
EBL	-1250.78	42.63	0.861	413.14	8.58
BOK	-1447.47	60.95	0.943	219.34	7.61
NIC	-676.68	65.34	0.696	270.41	21.61

Regression analysis between MPS on DPS

Bank	a	b	r^2	S.E.E	S.b
NABIL	4097.30	-11.12	0.016	2170.56	43.67
SCBL	9538.52	-53.73	0.587	1522.08	22.56
SBI	901.66	21.88	0.027	726.62	65.44
EBL	1314.73	29.12	0.102	1116.53	46.06
BOK	1991.79	-66.58	0.329	1409.59	93.16
NIC	824.86	-37.94	0.109	462.53	54.10

Regression analysis between MPS on DPR

Bank	a	b	r^2	S.E.E	S.b
NABIL	7219.61	-64.24	0.238	1909.72	57.44
SCBL	11743.08	-112.94	0.717	1250.78	35.10
SBI	953.84	1.81	0.0017	736.08	22.21
EBL	2052.86	-9.25	0.025	1092.53	29.51
BOK	2314.07	-35.49	0.697	512.66	12.18
NIC	830.08	-9.28	0.128	457.89	12.15

Regression analysis between MPs of DY

Bank	a	b	r^2	S.E.E	S.b
NABIL	5874.41	-813.93	0.071	718.60	143.01
SCBL	7181.11	-904.59	0.964	466.96	91.02
SBI	1096.57	738.13	0.007	738.13	682.40

EBL	2293.36	-400.88	0.190	995.59	414.47
BOK	2188.15	-548.80	0.953	173.08	53.44
NIC	819.73	-154.32	0.161	451.02	186.0

Regression analysis between DPS on EPS

Bank	a	b	r^2	S.E.E	S.b
NABIL	75.89	0.54	0.536	517.66	14.11
SCBL	122.61	-0.19	0.461	35.40	0.66
SBI	-3.45	0.27	0.373	4.38	0.17
EBL	0.908	0.23	0.204	21.88	0.45
BOK	23.75	-0.27	0.254	6.57	0.23
NIC	-0.37	0.12	0.033	4.21	0.34

APPENDIX V

Multiple Regression Analysis

The poled average data of the observed banks are used the multiple regression and coefficient of determination analysis;

Multiple Regression Analysis of MPS on EPS and DPS

$$y = a + b_1X_1 + b_2X_2$$

Where,

- Y = market price per share (Dependent variables)
- X_1 = Earning per share (1^{st}Independent variables)
- X_2 = Dividend per share (2^{nd} Independent variables)
- a_1 = Regression Constant
- $b_1 \& b_2$ = Coefficient of Net Regression (i.e. regression constant)

Calculation of Multiple (Pooled Average Analysis) Regression of MPs on EPS and DPS

Y	X_1	X_2	X_1Y	X_2Y	X_1X_2	X_1^2	X_2^2	Y^2
707.5	56.19	34.17	39754.43	24175.27	1920.01	3157.32	1167.59	50056.25
975.19	61.50	35.83	59972.96	34940.34	2230.	3782.25	1283.79	950956.53
1558.67	74.31	43.92	115824.77	68456.77	3263.69	5521.98	1928.97	2429452.17
2813.5	81.62	37.27	229637.87	104859.14	3041.98	6661.82	1389.05	7915782.25
3397	74.34	27.19	252532.98	92364.43	2012.30	5526.44	739.30	11539609
3035.83	72.57	20.88	220310.18	63388.13	1515.26	5266.44	435.97	921626.79
ΣY = 12487.67	ΣX_1= 420.53	ΣX_2 = 199.26	ΣX_1Y= 918033.19	ΣX_2Y= 388184.08	5 X_1X_2= 13965.79	$\Sigma X1^2$= 29916.21	$\Sigma X2^2$= 6944.67	ΣY^2 = 32552619.93

$\Sigma Y = na + b_1 \Sigma X_1 + b_2 \Sigma X_2$ ---------- (i)

$\Sigma X_1Y = a\Sigma X_1 + b_1\Sigma X_1^2 + b_2\Sigma X_1X_2$ ---------- (ii)

$\Sigma X_2Y = a\Sigma X_2 + b_1\Sigma X_1X_2 + b_2\Sigma X_2^2$ -------- (iii)

Putting above calculated value in eq^n (i), (ii) and (iii)

$12487.67 = 6a + 420.53b_1 + 199.26b_2$

$918033.19 = 420.539 + 29916.21\ b_1 + 13965.75\ b_2$

$3888184.08 = 199.26\ a + 13965.\ b_1 + 6944.67\ b_2$

Appling [420× eqn (i) -6 ×eqn (ii)]

$5251439.86 = 2523.18\ a + 176845.48\ b_1 + 83794.81\ b_2$

$5508199.14 = 2523.18\ a \pm 179497.26\ b_1 \pm 83794.5 b_2$

$- 256759.28 = -2651.78\ b_1 + 0.31\ b_2$ ------- (iv)

Again applying (199.26 × eqn (i) - 6× eqn (iii))

$2488293.12 = 1195.56a + 83794.81\ b_1 + 39704.55\ b_2$

$2329104.48 = 1195.56\ a \pm 83794.5\ b_1 \pm 41668.02\ b_2$

$159188.64 = 0.31 b_1 - 1963.47\ b_2$ ---------- (v)

Applying 0.31 × eqn (iv) -2651.78 × eqn (v)

$-79595.38 = -822.05\ b_1 + 0.0961\ b_2$

$42213325.8 = 822.05\ b_1 - 520669048\ b_2$

$422053656.4 = -5206690.38\ b_2$

$b_2 = \frac{422053656.4}{-5206690.38}$

$= -81.06$

Putting the value of b_2 in eqn (v)

$159188.64 = 0.31\ b_1 - 1963.47 \times 81.06$

$b_1 = \frac{159188.64 - 159158.88}{0.31}$

$= 96$

Again putting the value of b_1 and b_2 in eqn (i)

$12487.67 = 6a + 420.53 \times 96 + 19926 \times -81.06$

$a = \frac{12487.67 - 4037088 + 16152.02}{6}$

$= -1955.20$

Coefficient of multiple determination

$$(R_{y.12})^2 = \frac{a\sum Y + b_1\sum X_1 Y_1 + b_2\sum X_2 Y - n(\overline{Y})^2}{\sum Y^2 - n(\overline{Y})^2}$$

$$= \frac{-1955.20 \times 12487.67 + 96 \times 918033.19 - 81.06 \times 388184.08 - 6(2081.28)^2}{32552619.99 - 6 \times (2081.28)^2}$$

$= 0.95$

S.E.E ($S_{y.12}$)

$$= \sqrt{\frac{\sum Y^2 - a\sum Y - b_1\sum X_1 Y - b_2\sum X_2 Y}{n-3}}$$

$$= \sqrt{\frac{32662619.99 - (-1955.20 \times 12487.67) - 96 \times 918033.19 - (-81.06 \times 388184.08)}{6-3}}$$

= 4619.98

Note: Multiple regression analysis (i.e. Bank pooled average) a, b_1, b_2 $(R_{y.12})^2$, $S_{y.12}$ of all sample bank related are computed using the above model, Result of the computations are as follows;

Calculated multiple regression and coefficient of determination on analysis of MPS and EPs and DPS:

Regression Model	a	b_1	b_2	$S_{y.12}$	$(R_{y.12})^2$
$Y = a+b_1X_1+b_2X_2$	-1955.20	96	-81.06	4619.98	0.95

Calculated multiple regression coefficient of determination analysis of MPS on EPS and DPR

Regression Model	a	b_1	b_2	$S_{y.12}$	$(R_{y.12})^2$
$Y = a+b_1X_1+b_2X_2$	-263.10	73.17	-82.57	211.13	0.98

APPENDIX VI

Test of Hypothesis

(F-test) F or EPS of All Sample Banks

Step I : Null Hypothesis (Ho)

There is not significance difference among mean value of EPS of NABIL, SCBL, SBI, EBL, BOK and NIC

Step II : Alternative Hypothesis (H_1)

There is significance difference among mean value of EPS of NABIL, SCBL, SBI, EBL, BOK and NIC.

Step III : Test Statistic Under Ho;

$$F_{cal} = \frac{MSB}{MSE}$$

Where,

MSB = mean sum of square between sample sub group (i.e. six companies)

MSE = mean sum of square due to error.

EPS

Banks / Year	NABIL (A)	SCBL (B)	SBI (C)	BOK (D)	EBL (E)	NIC (F)
2003/04	92.61	143.55	14.26	27.50	45.58	13.65
2004/05	105.49	143.14	13.29	30.10	54.22	22.75
2005/06	129.21	175.84	18.27	43.67	62.78	16.10
2006/07	137.08	167.37	39.35	43.50	78.42	24.01
2007/08	108.31	131.92	28.33	59.94	91.82	25.75
2008/09	106.76	109.99	36.18	54.68	99.99	27.83

The given data can be coded by subtracting 99.99

X_A	X_B	X_C	X_D	X_E	X_F	X_A^2	X_B^2	X_C^2	X_D^2	X_E^2	X_F^2
-7.38	43.56	-85.73	-72.49	-54.41	-86.34	54.46	1897.47	7349.63	5254.80	2960.45	7454.60
5.5	43.15	-86.7	-69.89	-45.77	-77.24	30.25	1861.92	7516.89	4884.61	2094.89	5966.02
-29.22	75.85	-81.72	-56.72	-37.21	-83.99	853.81	5753.22	6678.16	3171.94	1384.58	7037.53
37.09	67.38	-60.64	-56.49	-21.57	-75.24	1375.67	1540.06	3677.21	3191.12	465.26	5759.29
8.32	31.93	-71.66	-40.05	-8.17	74.24	69.22	1019.52	5135.16	1604.0	66.75	5511.58
6.77	10	-63.81	-45.31	0	72.16	45.83	100	4071.72	2053.0	0	5207.06
ΣXA= 79.52	ΣXB= 271.87	ΣXC=- 450.26	ΣXD = -340.55	ΣXE= -167.13	ΣXF= -469.85	ΣXA^2= 2429.24	ΣXB^2= 15172.19	ΣXC^2= 34428.77	ΣXD^2= 20159	ΣXE^2= 697.93	ΣXF^2= 36936.08

Now, Grand Total (T) = Sum of all observation

$= \Sigma X_A + \Sigma X_B + \Sigma X_C + \Sigma X_D + \Sigma X_E + \Sigma X_F$

= 79.52 + 271.87 -450.26 -340.55 - 167.13 - 469.85

= -1076.4

Correction Factor (C.F) = $\frac{T^2}{n}$

$= \frac{(-1076.4)^2}{36}$

= 32184.36

Total sum of square (TSS)

$= \sum X_A^2 + \sum X_B^2 + \sum X_C^2 + \sum X_D^2 + \sum X_E^2 + \sum X_F^2$

= 2429.24 + 1572.19 + 34428.77 + 20159.47 + 6971.93 + 36963.08-32184.36

= 83913.32

Sum of square between sample sub groups

$$(S.S.B) = \frac{(\sum X_A)^2}{n_A} + \frac{(\sum X_B)^2}{n_B} + \frac{(\sum X_C)^2}{n_C} + \frac{(\sum X_D)^2}{n_D} + \frac{(\sum X_E)^2}{n_E} + \frac{(\sum X_F)^2}{n_F}$$

$$= \frac{(79.52)^2}{6} + \frac{(271.87)^2}{6} + \frac{(450.26)^2}{6} + \frac{(340.55)^2}{6} + \frac{(167.13)^2}{6} + \frac{(469.85)^2}{6}$$

= 75755.07

Sum of square due to error

S.E.E. = TSS - SSB

= 83913.32-75755.07

= 8158.25

One way ANOVA Table

Source of Variation	Sum of Square (S.S)	(d.f)	Mean Sum of Square (MSS)
i) Between	SSB = 75755.07	k-1=6-1=5	MSB = $\frac{SSB}{K-1}$ = $\frac{75755.07}{5}$ =15151.01
ii) Error	SEE = 8158.25	n-K =36-6=30 n-1 = 35	MSE = $\frac{SSB}{K-1}$ = $\frac{8158.25}{30}$ = 271.94

K = no. of sample sub group (i.e. 6 bank)

$F_{cal} = \frac{MSB}{MSE}$

$= \frac{15151.01}{271.94}$

= 55.71

Step IV : level of significance (α) = 0.05

Step V : Degree of freedom (d.f) = (k-1, n-k)

= (5, 30)

Step VI : Critical value : The F_{tab} at 5% level significance for (5,30) degree (of freedom is 5.53)

Step VII : Decision : Since $F_{cal} > F_{tab}$ so null hypothesis is rejected.

Note : Test of Hypothesis (F-test) of EPS, DPS, MPS, DPR, DY and P/E ratio of all sample bank are computed using the above model, Results of computation are as follows:

Result of Hypothesis Regarding EPS

Particulars	EPS
Numberator Degree of Freedom	6
Denominator Degree of freedom	35

Significance level	5%
Calculated value of F-statistic	55.71
Prob. value of F-Statistic	2.53

Result of Hypothesis Regarding DPS

Particulars	DPS
Numerator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	34.31
Prob. value of F-Statistic	2.53

Result of Hypothesis Regarding MPS

Particulars	MPS
Numerator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	7.71
Prob. value of F-Statistic	2.53

Result of Hypothesis Regarding DPR

Particulars	DPR
Numerator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	12.82
Prob. value of F-Statistic	2.53

Result of Hypothesis Regarding DY

Particulars	
Numberator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	3.61
Prob. value of F-Statistic	2.53

Result of Hypothesis Regarding P/E Ratio

Particulars	P/E ratio
Numerator Degree of Freedom	6
Denominator Degree of freedom	35
Significance level	5%
Calculated value of F-statistic	0.637
Prob. value of F-Statistic	2.53