CHAPTER – I

INTRODUCTION

1.1 Background of the Study

The history of securities market began with the floatation of shares by Biratnagar jute Mills Ltd. and Nepal Bank Ltd. in 1937. Introduction of the company Act in 1964, the first issuance of Government Bond in 1964 and the establishment of Securities Exchange Centre Ltd. in1976 were other significant development relating to capital markets. When security exchange centre converted into Nepal Stock Exchange (NEPSE) in 1993, the objectives of this institution become; to import free marketability and liquidity to the government and corporate securities by facilitating transactions in its only trading floor through market intermediaries' i.e. brokers as well as market makers. Nepal Stock Exchange, in short NEPSE, is a non –profit organization, operating under securities Exchange Act, 1983. NEPSE opened its trading floor on 13th January 1994.Member of NEPSE are permitted to act as intermediaries in buying and selling of government bonds and listed corporate securities. At present, there are 27 member brokers and 2 market maker, who operate on the trading floor as per the securities Exchange Act,1983, rules and byelaws.

At present Nepal have so many banks and insurance companies performing different tasks. It shows there is perfect competition between these institutions. Commercial banks are working more effectively. It is because the banks have highly skilled personnel, modern banking services, and international network and country suited services. However, two big banks namely, Nepal Banks Ltd. and Rastriya Banijya Bank are going to be run by contracted management, which shows still Nepalese commercial banks have some practical problems and limitations. Besides all these, banks are performing various functions such as money creation and generation, deposit collection, credit extension, credit card issue and cheque transaction, import letter of credit, traveler cheque, export bill, issue of draft, telex transfer and safe keeping of value. If a company has surplus cash, it can buy back outstanding numbers of shares, which is known as repurchase of

shares. In the developed capital market, corporations are allowed to buy shares back for better utilization of their unused cash. However, Nepalese company acts 1997, section 47 has prohibited company from purchasing its own shares and supply loans against the security of its own shares.

People invest their money for satisfactory and expected return. To these objectives, firms distribute the earnings to their shareholders. Earning is that amount which remains after deducting all operational and non operational expenses. Shareholders expectations may vary with their investment priorities some invest for capital appreciation of stock and some for earning as dividend. In the capital market, all firms operate in order to generate earnings. Shareholders make investment in equity capital with the expectation of making earnings either directly in the forms of dividend or indirectly in the forms of capital gains in future. Shareholders wealth can be increased through either dividends or capital gains (Bista, 2009:2).

Nepalese capital market has not efficient communication network even today. 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 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.

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.

Dividend Policy & Market Price of Stock (MPS)

Dividend is the earning of profit distributed to shareholders by a company. It may be in cash, shares and securities or a combination of these. Generally there are two types of shares: preference shares and equity shares. Dividend paid on preference share is called preference share dividend which is generally fixed and payable before payment of equity dividend. There is no choice to management for the preference share dividend. But there is full choice about the rate of equity dividend (Kuikel, 2007: 1).

Once a company makes a profit, it should decide on what to do with the profit. It could continue to retain the profit within the company, or it could payout the profit to the owners of the company in the form of dividend. Dividends are payments made to

stockholders from a firms earning in return to their investment, whether those earnings were generated in the current 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 of earnings to be distributed to shareholders and the amount to be retained or reinvested in the firm. The objective of a dividend policy is maximization of shareholders wealth position.

Dividend policy however is still a crucial as well as controversial area of managerial finance. It is more technical area of finance in the sense that it is complex on having numerous implications for the firm. Dividend policy may affect the areas such as financial structure of the firm, funds flow, stock prices, investors' satisfaction, growth of the firm etc like other major decision of the firm, i.e. investment and financing decision, the dividend decision has major role in any organization. Dividend policy reflects the firm's decision to pay out earnings or to retain them for reinvestment in the firm. The dividend decision is the choice between retention and investment of earnings on the other hand and the payout of earnings to the shareholders as dividend. It determines the division of earnings between payments to stock holders and reinvestment in the firm.

In practice, company pays whole earnings as dividend at the beginning to create better image and existence in the financial market but later they may change their policy and announce a certain percentage of dividend payout term. The dividend payout ratio may be different but the common dividend payout ratio (D/P ratio) is 40% as the different studies reveal. Keeping all these things into consideration, it could be said that the actual owner of the firm or company are not treated rightly by not giving sufficient and reasonable dividend. Moreover in some companies dividend is not announced. But recently the trends of the dividend payment are increasing. In the Nepalese context, dividend policy is less balanced. Theoretical & Practical deviation has proved, everything as written is not practiced and everything practice is not of actual theory. Therefore dividend policy is the practice, strategy or decision made by a firm as per their requirements to establish market reputation as well as to meet general expectations of the shareholders. The payment of the corporate dividend is at the discretions of the Board of Directors. Most corporations

pay dividend quarterly. Dividend may be paid in cash, stock or merchandise. Cash dividend is the most common, merchandise dividends are the least common, Stockholders are not premised a dividend but he/she grows to expect certain payment on historical dividend pattern of the firm. Before dividend are paid to common stockholders the claims of creditors, the government and preferred stockholders must be satisfied. The regularity of dividend payment and the stability of its rate are the two main objectives aimed by the corporate management. They are accepted as desirable for corporation's credit standing and for the welfare of shareholders. High earning may be used to pay extra dividend, but such dividend should be designated as extra and care should be taken to avoid the impression that the regular dividend is being increased. A stable dividend should not be taken to mean inflexible or rigid policy. On the other hand, it entails the payment of fair rate of return, taking into account the normal growth of the business and the gradual impact of external event. Higher the value of dividend higher will be the market value of the share.

Market price of the stock (MPS) is the trading price of the stock listed in authorized or legal stock exchange. In context of Nepal, MPS is the price that is coated for purchasing or selling under Nepal Stock Exchange Act or related laws and regulations, on the stock exchange floor. MPS is the value of stock, which can be obtained by a firm from the market. Market value of a share is one of the variables, which is affected by the dividend per share and earning per share of the firm. If the earning per share and dividend per share is high, the market value per share will also be high. Market value of the share may be high or low than the book values. If the firm is growing concern and it’s earning power is greater than cost of capital, the market value of 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 the stock usually fluctuates by the adequate information. No one can earn more in the inefficiency and inefficiency is legally prohibited in order to regulate the security market in every nation. But being focused in this study, dividend policy and its impact on market price of stock, there should be discussed different models and practices

which have significant effects in MPS or not. So MPS and security valuation are integral parts in it. With out valuation no one can coat the price there is no chance of trading.

Every day in newspaper one can see the market price of the different shares from different companies. The trading of the share definitely requires the MPS which can be obtained by the stock valuation. Share valuation is an economic process generates rational securities prices. Although the price fluctuations may appear to be chaotic, they are random fluctuations that result from the random arrival of the new information.

Dividend policy and MPS has always correlation; if the company pays high dividend the MPS increases and vice-versa. But in some cases out of this interrelation, the price may remain constant or decrease too. Therefore the information lack or flow is also vital in the analysis of MPS (Bista, 2009: 4).

1.2 Statement of the Problem

Shareholders make investment in equity capital with the expectation of making earnings. Dividend is a kind of earnings that the shareholders expected from their investment. 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; Walters's model (1966) and Gordon's model (1963) suggest relevant theory that reads dividend policy is an active variable that influences the value of firm measured in terms of market price of share but Modigliani and Miller Model (1961) advocates just contra to the done by Gordon and Walter. 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 F. Black states "The harder we look at the dividend picture the more it seems like a puzzle with pieces that just don't fit together. 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 is the most inspiring aspect for the investment in the share of various companies for an investor. Even if dividends affected the firm's value. Unless management knows exactly how they affect, there is not much that they can do to increase shareholders wealth. So, it is necessary for management to understand how the dividend policy affects the market price of the stock or the wealth position of the shareholders.

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. There are many empirical studies on dividend policy and its impact on stock prices in developed capital market. However, no simple and conclusive relationship exists between the amount paid out in dividend and market price of share. There is still a considerable controversy concerning the relation between dividends and common stock price.

There is no doubt that when firm got much earning, shareholders would also expect much dividend. But earning is also treated as financing sources for the firm. If the firm retains earning then it decreased leverage ratio, expansion of activities and increase in profit in succeeding years whereas if firm pays dividend, it may need to raise capital through capital market which may dilutes the ownership control of the existing shareholders. On condition debenture, it will affect on risk characteristic of the firm. Therefore, there are many dimensions to be considered on dividend theories, policies and practices. The capital market is an important part of corporate development of a country. Even though capital market is in the early stage of development in Nepal, Nepalese investors made more investment on newly established companies, especially in the financial sector.

Dividend is the most inspiring aspect for the investment in the share of various companies for an investor. Even if dividends affected the firm's value, unless

management knows exactly how they affect, there is not much that they can do to increase shareholders wealth. So, it is necessary for management to understand how the dividend policy affects the market price of the stock or the wealth position of the shareholders.

Thus this study seeks to answer the following questions:

i. What is the trend of dividend payment behavior in Nepalese commercial banks?
ii. What is the impact of dividend policy on market price of stock?
iii. What are the major factors affecting dividend policy of a firm?
iv. Is there any consistency in EPS, DPS, MPS and DPR of the sample firms?
v. What is the stock price behavior after the announcement of dividend?

1.3 Focus of the Study

Economic development of a country largely depends upon the effective mobilization on the internal resources. Banks and other financial institutions play vital role in this regard banks have the objective of collecting the scattered resources and mobilize them in productive sectors. In this context, dividend policy is the key instrument, which reflects the firm's ability of internal financing. The dividend decision affects the overall financing decision of the firm and also affects the shareholders perception to the firm. The earning power, dividend and retention have a significant impact on market price of share. So the main focus of the study is the commercial banks about the impacts of dividend policy on market price of share. For these purpose different other studies are going to be done i.e comparison of earning per share(EPS),dividend per share (DPS),market price per share (MPS) and others as per the requirement with respect to the sample firm. The relationship between different variables will be individually and combine analyzed in this study.

1.4 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:

i. To explore the impact of divided policy on market price of stock
ii. To identify the determinants of the dividend per share(DPS) and market price of stock (MPS)
iii. To analyze the relationship of DPS with EPS and MPS.
iv. To compare dividend practices of selected commercial banks.
v. To examine various aspects of dividend policies and practices in Nepal carried outlay the banking sector.

1.5 Limitation of the Study

Basically the research is done for partial fulfillment of MBS. But the study has its own limitation which is listed below:

i. The study covers the relevant data and information for only six years 2003/04-2008/09.
ii. 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.
iii. The study covers only five commercial banks.
iv. The study only concentrate on dividend policy, it doesn't cover several other aspects of the commercial banks.
v. The data of samples firms analyze limit tools and technique.

1.6 Organization of the Study

This study has organized into five chapters, each devoted to some aspect of the study of dividend policy followed by Commercial Bank in Nepal. The contents of each of these chapters are follows:

Chapter - I Introduction

Introduction chapter is the first chapter, on which include background of the study, objective of the study statement of problems, focus of the study, limitations of the study have been covered in this chapter.

Chapter - II Review of Literature

This chapter deals with review of the different literature 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

The third chapter contains framework and producers of the study. It deals with research methodology used to carryout the research.

Chapter - IV Data Presentation and Analysis

The fourth chapter contains presentation of data, their analysis and interpretations using financial and statistical tools. It also consist the major findings of the study.

Chapter – V Summary, Conclusion and Recommendation

The fifth chapter is last chapter which contains summery of study, conclusion and recommendations.

Finally, bibliography, appendices copies of different sheets having information required for study and different basic calculation are included.

CHAPTER - II

REVIEW OF LITERATURE

In this chapter, an attempt has been made to analyze the theoretical aspect and related literature relating to the topic. To make the review simple and systematic, this chapter has been divided into four sections. Section 1 is the conceptual review, section 2 is the legal provision regarding dividend practice in Nepal, section 3 is review of related studies, related thesis, journals and section 4 is research gap.

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 Commercial Banks

A Bank is a financial institution that trade money. It accepts deposit from the public as fixed deposit; Current account deposit and saving account deposit. The bank gives money in the form of the loan and advances to the needy persons. It provides to the customers a cheap medium of exchange like cheque. It gives the facilities transfer of funds collecting customer's funds, purchase of share, collection dividend and purchase and sell foreign exchange etc.

A bank is an establishment, which makes to individuals such advance of money as may required and safety made and to which individuals in truth money which not required by them for use.

A banker is one who in the ordinary course of his business receives money, which he repays by honoring cheque of persons from whom or on whose account he receives it. Therefore a commercial bank is a financial institution that accepts the demand and time deposit from the business institution and individuals and engages in both business in and consumer landings. It uses fund raise from the public deposits providing loans to different sectors with the prime objectives of profit maximization. Moreover, commercial bank provides technical and administrative to industries, trade and business persons.

Commercial banks are among the base pillar of economic development of any nation. Especially in the least developed countries, the operations of commercial banks record the economic pulses of the economic. Commercial bank not only generates the small saving from the nook and corner of the country. It in border sense, help to promote secondary as well as primary security market. Initial public offering (IPO), underwriting and security collateral loans are the examples, similarly, its draws the different economic activities according to the priorities laid down by the planning authorities in the nation.

The history of banking sectors in our country is not of far time interval. With an establishment of Nepal bank Ltd, in 1937, the commercial banks history was opened. At that time 51% government and 49% by public held equity general. After the Rastriya Banijya Bank came in existence in 1996 as the second commercial bank but with 100% government ownership. After 1990, many foreign joint venture banks were introduced in Nepal. It could be, only when the government applied the financial liberalization policy (Bhattrai, 2008: 13).

2.1.2 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.

2.1.3 Meaning and Significance of Dividend

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 and 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 (Bhattrai, 2008: 340).

2.1.4 Dividend Policy and Market Price of (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 inefficiencies 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).

2.1.5 Theories of Dividend

A. 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).

B. 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).

2.1.6 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 (Bhattarai, 2008: 336).

2.1.7 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. 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.

b. 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.

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 availability 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.

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.

h. Rate of Assets Expansion

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

i. 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.

j. 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.

k. 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.

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.

2.1.8 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. 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).

H. 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;

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

Where, S = Total number of shares outstanding

Pc = current market price per share

n = number of shares to be repurchased.

2.1.9 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;

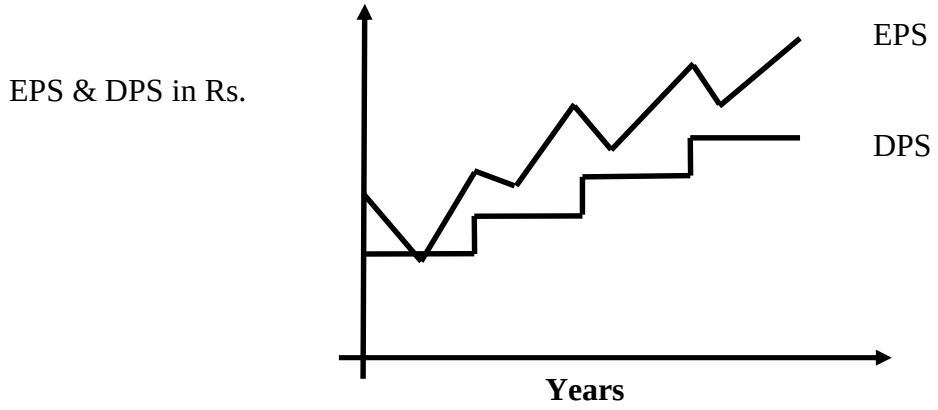
a. Constant Dividend Per Share

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.

Below 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.

Figure 2.1

Constant Dividend Per Share

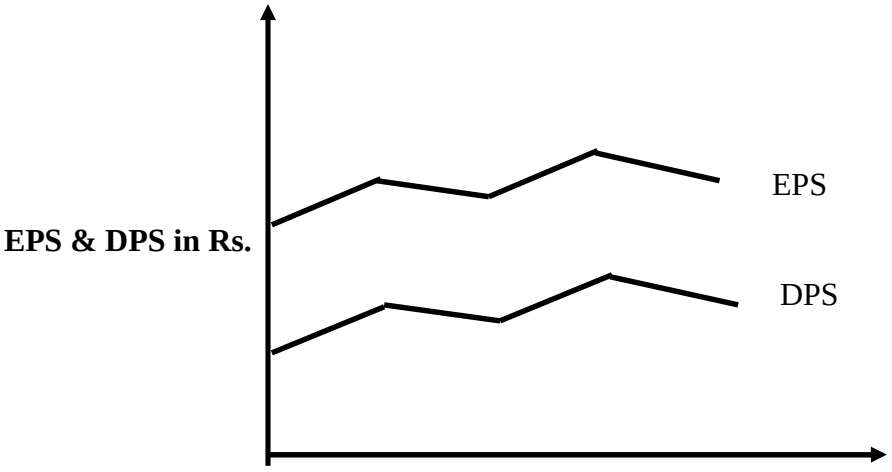


b. Constant Payout Ratio

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



A. 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)

2.1.10 Conflicting Theories of Dividends

"The basic schools of thought on dividend policy have been expressed in the theoretical literature of finance". The existing literature states that the dividend policy has both the

Relevancy and irrelevancy towards the market price fluctuation. On the relationship between dividend and the value of the firm, different theories have advanced. These theories can be grouped into two parts (a) theories which consider dividend decision to be irrelevant and (b) theories which consider dividend to be an active variable influencing the value of the firm

"One school associated with Merton Miller and Franco Modigliani argued that 'the dividend decision will have no impact on market price, rather market price is determined by the earnings power of the firm's asset. MM holds that investors are basically indifferent to returns in the form of dividends or capital gains when firms raise or lower their dividends. If their stock price tends to rise or fall in like manner, does this prove that investors prefer dividends? Miller and Modigliani argue that it does not; that any effect a change in dividends has on the price of a firm's stocks is related primarily to information about expected future earnings conveyed by a change in dividends.

"Recalling that corporate managements dislike cutting dividends, Miller and Modigliani argue that increase in cash dividends raise expectations about the level of future earnings that they have favorable information content. But other is against this argument. The other schools, associated with Myron Gordon and John Linter among others argues that the choice of dividend policies almost always affect the value of the firms. They hold that the capital gains expected to result from earnings retention are riskier than dividend expectations. Accordingly these theories suggest that the earnings ratios are typically capitalize at bigger rates than the earnings of a high payout firm, other things held constant. "The optimum divided policy depends on the relationship between the firm's internal rate of return 'r' and the cost of capital 'k' (Adhikari, 2008: 33).

2.2 Legal Provision Regarding Dividend Practice 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 Act2063 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

The section is devoted to the review of the major studies in general concerning dividends. Therefore now the researcher is going to review the various studies conducted in different places by the different experts an authors. 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.

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;

$DIVt = PEPSt$

$DIVt - DIVt\text{-}_1 = P\ EPSt - DIV_{t-1}$

$DIVt - DIVt\text{-}_1 = b\ (P\ EPSt - DIV_t\text{-}_1)$

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

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

$DIVt = a + bPEPSt - bDIVt\text{-}_1 + e_t$

$DIVt = a + b\ DIV_t\text{-}_1 + (1\text{-}b)\ DIV_t\text{-}_1 + e_t$

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;

1. 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)
2. Firm generally have target payout ratios in view while determine change in dividend per share (or dividend rate) (Bahttarai, 2009:41).

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

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

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

$$np_0 = \frac{nD_1 \Gamma P_1 Z1 \Gamma E Z nD_1}{1 \Gamma Ke}$$

$$np_0 = \frac{P_1 \int n \Gamma m A Z1 \Gamma E}{1 \Gamma Ke} \qquad \ldots\ldots\ldots\ldots\ldots\ldots \text{(v)}$$

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).

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 =br)
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.(Bhattrai;2008;356)

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.

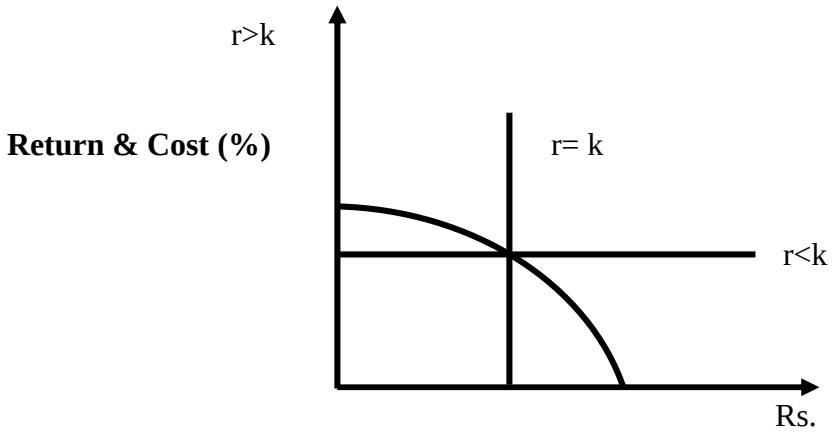
Decaling Firms (r < k)

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.

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).

Figure 2.3

Earning, Investment and New Financing Under Walter's Model



Chawla and Srinivasan's Study (1969-73)

They studied the impact of dividend and retention on share price. They selected 18 chemicals and 13 sugar companies and estimated cross-sectional relationship for the years 1969 and 1973. They collected the required data from the official directory of Bombay stock exchange. They used two stages least square technique for estimation. They also used lagged, earnings price ratio instead of lagged price earnings ratio, i.e. P/E (t-1).

The followings were the prime objectives of their study.

i. To test the hypothesis of dividend and retained earnings.
ii. To estimate a model to explain share price, dividend and retained earnings relationship.
iii. To examine the structural changes in estimated relations over time. In order to achieve (attain) these objectives, they used simultaneous equation model as developed by Friend and Puckett (1964). The following was the model in its unspecified form.

1. Price function,
   Pt= f [Dt, Rt, P/E (t-1)]
2. Dividend supply function,
   Dt= f [Et, D(t-1), P/E (t-1)]
3. Identity,
   Et=Dt+Rt

Where,

P= market price per share.
D= Dividend per share.
R= Retained earning per share.
E= Earning per share (D+R)
P/E= Deviation from the sample,
(Average of price earning ratio)
t= subscript of time.

Van Horne and Mc Donald's Study (1971)

Van Horne and Mc Donald (1971) 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).

Friend and Puckett's Study (1958)

Irwin Friend and Marshall Puckett have conducted a study about the relationship between dividends and stock prices. They used the regression analysis on the data of 110 firms from five industry samples, viz., chemicals (n=20), electronics (n=20), electric utilities (n=25), foods (n=25), and steels (n=20), in each of two years, 1956 and 1958. The industries were selected to permit a distinction to be made between the results for growth and non-growth industries and to provide a basis for comparison with results by other authors for earlier years. Both cyclical and noncyclical industries were covered. The

periods covered include a boom year for the economy when stock prices leveled off after a substantial rise (1956) and a somewhat depressed year for the economy when stock prices, however, rose strongly (1958). They used two-regression model of price function and dividend supply function. In price function, dividends, retained earnings & price earnings ratio are independent variables, whereas, earnings, last year's dividends and price earning ratio are independent variables in dividend supply function. Symbolically, their price function and dividend supply function can be written as :

Price function; $Pt=a+b\ Dt+c\ Rt+ d\ (E/P)\ t-1$

Where,

Pt = Per share price at time t

Dt = Dividends at time t

Rt = Retained earnings at time t

(E/P) t-1 = Lagged earnings price ratio

and, Dividend supply function;

$Dt= e + f\ Et + g\ D\ t-1 + h\ (E/P)\ t-1$

Where,

Et = Earnings per share at time t

P t-1= Last year dividend

The followings were the basic assumptions of their study.

1. Dividends do react to year-to-year fluctuations in earnings.
2. Price does not contain speculative components.
3. Earnings fluctuations may not sum zero over the sample.

The regression $Pt = a + b\ Dt + c\ Rt$ presents the usual simple linear relationships between average prices and dividends and retained earnings to show with the data. They found the customary strong dividend and relatively weak retained earnings effect in three of five industries i.e., chemicals, foods, and steels.

By adding lagged earnings price ratio to the above equation, they got the following results.

$Pt = a + b\ Dt+ c\ Rt + d\ (E/P)\ t-1$

They tested this equation and found the following results. Dividends have a predominant influence on stock prices in the same three out of five industries but the differences between the dividends and retained earnings coefficients were not quite so marked as in the first set of regressions. The dividends and retained earnings coefficients were closer to each other for all industries in both years except for steels in 1956, and the correlations are higher, again except for steels.

They also calculated the dividend supply equation, i.e., $Dt = e + f\,Et + g\,D\,t\text{-}1 + h(E/P)\,t\text{-}1$ and derived price equation for four industry groups in 1958. The derived price equation show no significant changes from those obtained from the single equation approach as explained above, reflecting the fact that stock price, or more accurately the price earnings ratio, does not seem to have a significant effect on dividend payout. On the other hand, they noted that, in three of the four cases tested, the retained earnings effect is increased relatively. Moreover, their result suggested that price effects on dividend supply are probably not a serious source of bias in the customary derivation of dividend and retained earnings effects on stock prices, though such a bias might be masked if the distributing effects of short run income movements are sufficiently great. Further, they used lagged price as a variable instead of lagged earnings price ratio. They found that retained earnings received greater relative weight than dividends in the majority of the cases. The only exceptions were steels and foods in 1958. Chemicals, electronics, and utilities were considered as growth industries and the retained earnings effect was larger than the dividend effect for both years covered.

For the other two industries (steels and foods) there no longer seems to be any significant systematic differences between the retained earnings and dividend coefficients.

Similarly, they tested the regression of $Pt = a + b\,Dt + c\,Rt$ by using normalized earnings again. They obtained normalized retained earnings by subtracting dividends from normalized earnings. That normalization procedure was based on the period 1950-61. Again, they added prior year's normalized earnings price variable and they compared the result. Comparing the result, they found that there was significant role of normalized

earnings and retained earnings but effects of normalized price earnings ratio was constant. After examining the later equation, they found that the difference between dividend and retained earnings coefficients disappeared. Lastly, they come to know a conclusion that management might be able to increase prices somewhat by raising dividends in foods and steel industries.

At last, Friend and Puckett found a conclusion that, it is possible that management might be able, at least in some measure, to increase stock prices in non growth industries by raising dividends, and in growth industries by greater retention, i.e. smaller (lower) dividends.

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;

- The cost-push inflation at exorbitant rate has made the shareholders to expect higher return form their investment.
- Multiple decrease in the purchasing power of the Nepalese currency to the extent that higher return by way of dividend is just a natural economic consequence of it.
- Erosion in the purchasing power of 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.
- 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.
- 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.

- 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:

1. To access the stock market behavior in Nepal.
2. 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:

1. Higher earning in the stock leads to the larger the ratio of dividend per share.
2. Stock with larger ratio of dividend per share to market price have lower leverage ratio.
3. Stock with larger ratio of dividend per share and market price has higher liquidity.
4. Positive relationship between the ratio of dividend per share to market price and interest courage ratio.
5. Dividend per share and market price per share are positively correlated.
6. 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:

- There is significant relationship between changed in dividend policy in terms of dividend per share and change in lagged earning.
- There is relationship between distributed lagged profit and dividends.
- In overall there is a positive relationship between in lagged consecutive earning and dividend share.

- When change in lagged consecutive earning is greater than zero in 65% cases change in dividend per share**.**

2.3.3 Review of Journal

Shiller (1981), published and article on *"Do stock price move to be Justified By Subsequent Changes in Dividends?"* He used to set of data for standard and poor series and 30 stocks from Dow Jones Industries Average. He used the simple efficient market model to justify that the change in dividend how far causes the movement of stock prices.

$$Pt = \sum_{t=0} r^{k+1} \quad Et\ D_{t+k} \quad O< r < 1$$

Where,

Dt = Real dividend paid at the end of time t.

Et = Mathematical expectation conditional on available at time t.

R = Constant real discount factor.

K = Discount factor

He has seen that measure of stock price volatility over the past century appear to be far too high five to thirteen times to be attributed to new information about future real dividend if, uncertainty about future dividends is measured by simple standard deviation of real dividend around their long run exponential growth path. He concluded that, since the market did not know in advance with certainty the growth path and distribution of dividends that was ultimately observed, however one can not possible major events which did not occur such an explanation of volatility of stock price however is academic in that it relies fundamentally on unobservable and can not be evaluated statistically.

Feldstein and Green (1983), Published a paper work on *"Why do not corporations Eliminate their Dividend and their Retained Earnings?*" where they provide a simple model of market equilibrium to explain why firms that maximize the value of their shares pay dividends even though the fund would instead be retained and subsequently distributed to shareholders in a way that would allow them to be taxed more favorable as capital gain.

The each firm is subjectively unique and that both high and low tax investors will want to invest in all firms. Both proportions and portfolio investors can also borrow and that corporations as well as investors can earn that risk free returns. This sturdy indicates that existing tax treatment of dividend distorts corporate financial decisions and many cause a misallocation of total investment. It will be important to see whether these adverse effects remain in the more general analytic framework.

2.3.4 Review of Related Master's Thesis

K.C. (1991), had conducted a study on "*Dividend Policy of Joint Venture Bank in Nepal"*, which has the objectives to provide conceptual framework of dividend models, to analyze the financial variables affecting the stock value and interpret the dividend paying implication under dividend valuation model and to provide suggestions, which will give vision for determination and espousal of dividend policy of joint venture banks. The summary of the major findings of the study were the earning per share of all joint venture banks was raised satisfactorily, there was co-relation between EPS and BVPS ,amount of cash dividend had been rising each year, the P/E ratio, earning yield, dividend yield percentage exposed cyclical behavior, the market value per share of joint venture banks stocks in security exchange center was significantly fluctuated and trading on high price. Joint venture banks in Nepal were seen as growth banks because actual capitalization rate (r) is higher than the normal capitalization rate (k) which is r>k. Under CAPM the Beta Risk of joint venture banks was less riskier. Cash dividend per share (CDPS) of joint venture banks was significantly increasing in each year.

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:

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

Major finding of the study are as follows;

1. Analysis indicates the largest fluctuations in earnings per share and dividend per share. No banks exhibit dividend payout ratio.
2. Share of the financial institution are actively traded and market prices are increasing.
3. Average EPS and DPS of all concerned banks are satisfactory.
4. No Commercial banks seen to be guided by cleanly deigned dividend strategy in spite of the good earnings and potentials.
5. 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.
6. 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.
7. 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 stork"* 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:

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

Major finding of his study are as follows:

1. 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.

2. 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.
3. 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.
4. The lack of financial knowledge and the market inefficiency has affected the market price of the share in all the firms.

Basnet (2004), had conducted a study on *"Dividend Policy of Listed Companies in Nepal: A comparative study of Banking, Finance and Insurance Companies"*. She conducted this study to assess the prevailing practice of Nepalese listing companies regarding dividend; to highlight the prevailing dividend policy adopted by the listed companies; to assess the impact of dividend on market price of share of the selected companies. She analyzed the relationship between dividend with EPS, net profit & net worth and provides a useful workable suggestion.

Her major findings showed that, there was not uniformity of dividend distributing policy and practices in selected companies. A change in DPS and payout ratio affects the share prices differently in different sector companies. The relationship between DPS with EPS, net profit and net worth were positive in all sector companies. She suggests and recommended that there must have clearly defined divided policy, legal rules must be enacted. She suggested that Companies should have long-term vision and establish the organization to promote and to protect activities in favor of investors. Further, she recommended that choice should be given to shareholders whether they prefer stock dividend or cash dividend with using target rate of earnings i.e. profit planning and target payout rates. At last, she suggested that all activities and information regarding performance should be timely provided.

Kharel (2006), An MBS thesis entitled *"Dividend policy commercial banks with respect NABIL, BOK and HBL"* was prepared by Kharel with the data taken from three commercial banks in 2006. She analyzed the data of five years and concluded as:

There is lack of rules and regulations that bind companies to pay dividend every year. Not only the companies do not have dividend policy but also government does not have any clear policy towards dividend policy. Shareholders in Nepal are not conscious. There seems instability and inconsistency in dividend payment by the banks.

Yadav (2007), had conducted a research study entitled *"Dividend Policy and It's Impact on Market Price of Stock"*. He defined once a company makes a profit, they must decide on what to do with those profits. They could continue to retain the profits within the company or they could pay out the profits to the owners of the firm in the form of dividends. Once the company decides on whether to pay dividends, they may establish a somewhat permanent dividend policy, which may in turn impact on investors and perceptions of the company in the financial markets. His Specific objectives of the study are as follows:

- To study the prevailing practices and effort made in dividend policy among the firms.
- To find the impact of dividend policy on market price of stock.
- To analyze the uniformity among DPS, EPS, MPS and DPR.
- To provide suggestion and recommendations.

Yadav concluded that there is not any consistency in the dividend policy of the sample firms, therefore sometimes the result of the different test accept the theoretical assumptions of dividend policy and sometimes do not. The majority of Nepalese firm gives first priority to "earning" to get into the decision of dividend. The second priority goes to the "cash availability" and third priority is given to "pass dividend".

After all, "concern about maintaining or increasing the stock price" priority also influences the dividend policy of the firm in Nepal. Among the sample firms, HBL is a strong company with the financial market reputation, if the result of it compared to other firms, it can be said that although EPS affects DPS it is less concerned with MPS. Therefore the MPS is more or less dependent with DPS in the efficient capital market.

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

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

The findings drawn by the study are as follows;

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

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

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

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

- There is high degree positive relationship between DPS and EPS in most of the banks as they are statically significant.
- Relationship between DPS and MPS is found to be high degree positive in most of banks as they are statically significant also.
- All the selected banks paid dividend in each year which shows that dividend paying practice is established in Nepalese commercial banks.

- The dividend per share of Nepalese commercial bank is depending on current earnings. The banking is following earning based dividend policy.

Baral (2010), computed his master, research on *"Impact of Dividend on Market price Per Share of Selected Commercials Banks"* by using secondary data of six commercial in 2010 has the following objectives;

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

The summary of major findings are;

- 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.
- Correlation between DPS and MPS is positive, 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.
- 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.
- Dividend paid by the companies are not stable.
- In aggregate, the lack of financial knowledge and the market inefficiency has affected the market price of the share in all the firms.

Shrestha (2010), conducted a study on *"Dividend Policy and Practices of Commercials Banks"* by using secondary data of two commercial in 2010 has the following objectives;

- To highlight the dividend practices of the banks.

- To reflect (identify) the relationship between dividend per share and other financial indicators such as earning per share, net profits, net worth and market price of stock.
- To know if there is any uniformity among dividend per share, earning per share and dividend payout ratio of the two commercial banks sampled.
- To examine whether or not dividend influences the liquidity position and share prices of sample banks.
- To provide a possible guideline and a package of suggestion on the basis of finding and analysis to overcome various issues and gaps.

The summary of major findings are;

- The analysis of divided payout ratio is one of the major studies, which helps us to find out dividend policy and practices adopted by the concerned banks. This analysis shows that both banks do not exhibit constant divided payout ratio.
- Relationship between DPS and MPS is found to be high degree positive.
- The lack of financial knowledge and the market inefficiency has affected the market price of the share in all the firms.
- Higher earning in the stock leads to the larger the ratio of dividend per share.

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. But, as the Nepalese capital market is in the early stage of development, the conclusion made by the international studies may not be relevant in the Nepalese context. So far the Nepalese studies concerned, there are some studies done, like Shrestha‘s and Manandhar’s, which can be considered to be landmark in the field of dividend policy; but many more changes have taken place in Nepalese capital market in last few years and the validity of the past results are doubtful in the present context. Besides this, some researchers have taken only few firms of the same sector as sample and so, the results drawn from those studies may not be accurate to represent the present

practices and efforts made in the Nepalese capital markets. So, it is necessary to carryout a fresh study related to dividend pattern of Nepalese companies.

In this study, it is tried to carryout the distinct from other previous studies in items of sample size, nature of the sample firms, and methodology used. The study has covered 5 banks. Six years data have been analyzed with due consideration of EPS, DPS, DPR and MPS. Analyses of financial indicators, standard deviation, regression analysis etc. are used as the main models in the study with a view to obtain the relevant and accurate results. So, it has been believed that this study will be different than earlier one.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

Research Methodology describes the methods and processes applied in the entire aspect of the study. It is systematic way to find research problem. 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. Research methodology is one of the most important parts of every research.

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 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- eight commercial banks in the country on 1st august,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.

List of Commercial Banks in Nepal

1. Nepal Bank Limited
2. Rastriya Banijya Bank
3. NABIL Bank Ltd.
4. Nepal Investment bank
5. **Standard chartered Bank Nepal Ltd.**
6. **Nepal SBI Bank ltd.**
7. Nepal Bangladesh Bank Ltd.
8. **Everest Bank Ltd.**
9. **Bank of Kathmandu Ltd.**
10. Nepal Credit and commercial Bank Ltd.
11. Lumbini Bank Ltd.
12. **Nepal Industrial and commercial Bank Ltd.**
13. Machhapuchhre Bank Ltd.
14. Kumari Bank Ltd.
15. Laxmi bank Ltd.
16. Siddhatha Bank Ltd.
17. Agriculture development bank Ltd.
18. Citizens Banks International Ltd.
19. Prime Commercial bank Ltd.
20. Bank of Asia Nepal Ltd.
21. Sunrise Bank Ltd.
22. Development Credit Bank Ltd.
23. NMB Bank Ltd.
24. Kist Bank Ltd.
25. Himalayan Bank Ltd.
26. Global Bank Ltd.
27. Janata Bank Nepal Ltd.
28. Megha Bank Ltd.

Out of 28 commercial banks that are operating their activities in Nepal, I have selected 5 commercial banks for this study. So, I am going to analysis 5 commercial banks about their operating activities as a sample. The sample selected for study are divided into three category high level, middle level and low Level. Where Standard Chartered Bank Ltd has higher level DPS and MPS and Everest bank Ltd and Bank of Kathmandu Ltd. have middle level in DPS and MPS and Nepal Industrial and commercial Bank Ltd and Nepal SBL Bank Ltd., have lower DPS and MPS.

Table 3.1

Name of Sample Bank

S.No.	Name of Commercial Bank	Abbreviation Used
1	Everest Bank Limited	EBL
2	Standard Charted Bank Limited	SCBL
3	Nepal Industrial and Commercial (NIC) Bank Ltd.	NIC
4	Nepal SBI Bank Limited	SBI
5	Bank of Kathmandu	BOK

Table 3.2

Sampling Description

Population(N)	Sample(n)	Sample Ratio(n/N)
Listed Commercial Bank(N) = **28**	Selected Commercial Banks for Study(n) = **5**	**5/28 = 17.86%**

3.3 Nature and Sources 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 EBL, SCBL, NIC, SBI and BOK as six years data are analyzed.
- Nepal Stock Exchange, website (www.nepalstock.com) and perspective firm's central office and security exchange board.

3.4 Method of Analysis

The data has been analyzed according to the pattern of data available. Wide verities of methodology have been applied according to the reliability and consistency of data. Before using the analytical tools to compare result, the data containing in the financial statements have been grouped and rearranged so as to make comparison easy. For the data of six years were taken as sample from 2003/04-2008/09. The data were analyzed in ways as:

- Financially
- Statistically

The results and the findings from the findings from the two types of analysis were jointly interpreted.

3.4.1 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,

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

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

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

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) Dividend Per Share(DPS)

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

f) 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.

g) 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,

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

h) 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,

$$\text{P/E Ratio} = \frac{\text{Market Price per share}}{\text{Earning per share}}$$

3.4.2 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,

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

where,

X = arithmetic mean return

n = number of observations

$\overline{X}$ = sum of given observation

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.

$$\text{Standard Deviation} = \sqrt{\frac{\int X Z \overline{X} Å}{n}}$$

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:

$$\text{C.V.} = \frac{\text{Standard Deviation}}{\overline{X}} \mid 100$$

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 :

$$\text{Correlation Coefficient (r)} = \frac{\text{Covariance}(X, Y)}{\text{S.D.}_x \mid \text{S.D.}_y}$$

Where

$$\text{Covariance (x, y)} = \frac{\int X Z\bar{X}A\int Y Z\bar{Y}A}{n}$$

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
f) Earning per share and dividend per share
g) Earning per share and dividend payout ratio
h) Earning per share and dividend yield
i) Earning per share and price earning ratio
j) Earning per share and dividend payout ratio
k) Earning per share and dividend yield
l) Dividend per share and price earning ratio

e) Coefficient of determination (r2)

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 r2 and the values lies between zero and unity or the r2 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 variables.
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

3.5 Regression Analysis

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

$MPS_t = a + b_1 (DPS_t) + b_2 (EPS_t)$

Where,

MPS_t = Market price per share for t year

DPS_t = Dividend per share for t year

EPS_t = Earning per share for t year

a, b_1, & b_2 are regression coefficient.

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

Or, $DPSt = a + b_1 (EPSt) + b_2 (DPSt_{-1})$

Where,

DPSt = Dividend per share for t year

EPSt = Earning per share for t year

$DPSt_{-1}$ = Dividend per share for t-1 year

a, b1, & b2 are regression coefficient.

3.6 Hypothesis Development

First Set of Hypothesis

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

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

Second Set of Hypothesis

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

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

Third Set of Hypothesis

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

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

Fourth Set of Hypothesis

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

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

Fifth Set of Hypothesis

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

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

Six Set of Hypothesis

Null Hypothesis (H_{06}): There is no significance difference among mean value of P/E ratio of EBL, SCBL, NIC, SBI and BOK Alternative Hypothesis (H_{16}): There is no significance difference among mean value of P/E ratio of EBL, SCBL, NIC, SBI and BOK.

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

Data Presentation and analysis is one of the important part of the research work. In this chapter the study tries to find out the proof from the mathematical calculation for the theoretical statement. Once the study is completed successful to prove the statement, it would be the concrete and substantial.

The basic objective of this chapter is to analyze and elucidate the collected data following the conversion of unprocessed data to an understandable presentation. In this chapter, data collected from secondary using financial and statistical tools and techniques. The researcher aims to draw conclusion regarding stock price trends of Everest Bank Ltd., Standard Chattered bank Ltd., Nepal Industries and Commerce Bank Ltd., Nepal SBI Bank Ltd and Bank of Kathmandu Ltd.

In this study, to evaluate the stock price behavior various financial variable and statistical tools discussed in “Research Methodology”. This Chapter has divided into four section.

4.2 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.

4.2.1 Analysis of EPS of the Sample

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

Table 4.1

EPS of Sample Banks

Banks / Year	EBL	SCBL	NIC	SBI	BOK	Average
2003/04	45.58	143.55	13.65	14.26	27.50	48.91
2004/05	54.22	143.14	22.75	13.29	30.10	52.70
2005/06	62.78	175.84	16.10	18.27	43.67	63.33
2006/07	78.42	167.37	24.01	39.35	43.50	70.53
2007/08	91.82	131.92	25.75	28.33	59.94	67.55
2008/09	99.99	109.99	27.83	36.18	54.68	65.73
Mean	72.13	145.30	21.68	24.95	43.23	
S.D.	19.65	21.81	5.11	10.33	11.76	
C.V.(%)	27.24	15.01	23.57	41.40	27.20	

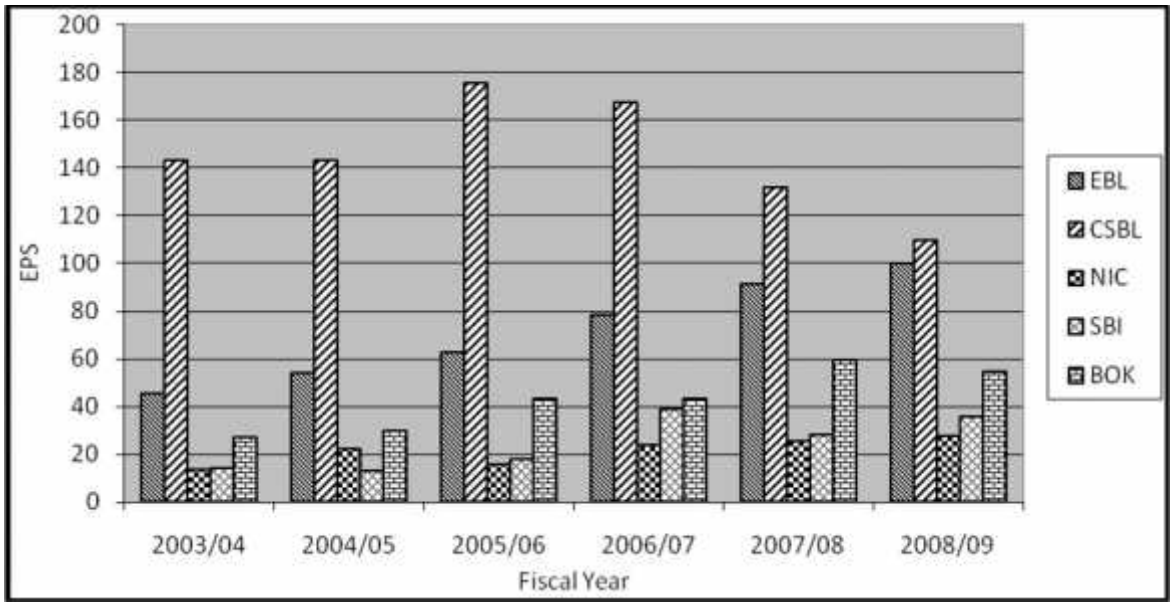
Source: Appendix I and II

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 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, 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, 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, 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%.

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 SCBL 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 SCBL 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



4.2.2 Analysis of the 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	EBL	SCBL	NIC	SBI	BOK	Average
2003/04	20	110	0	0	10	28
2004/05	0	120	10	0	15	29
2005/06	25	130	0.53	5	18	35.71
2006/07	10	80	1.05	12.59	20	24.73
2007/08	20	80	1.05	0	40	28.21
2008/09	30	50	0.79	2.11	47.37	26.05
Mean	17.5	95	2.24	3.28	12.08	
S.D.	9.89	27.54	3.49	4.53	6.22	
C.V.(%)	56.51	28.99	155.80	138.11	51.49	

Source: Appendix I and II

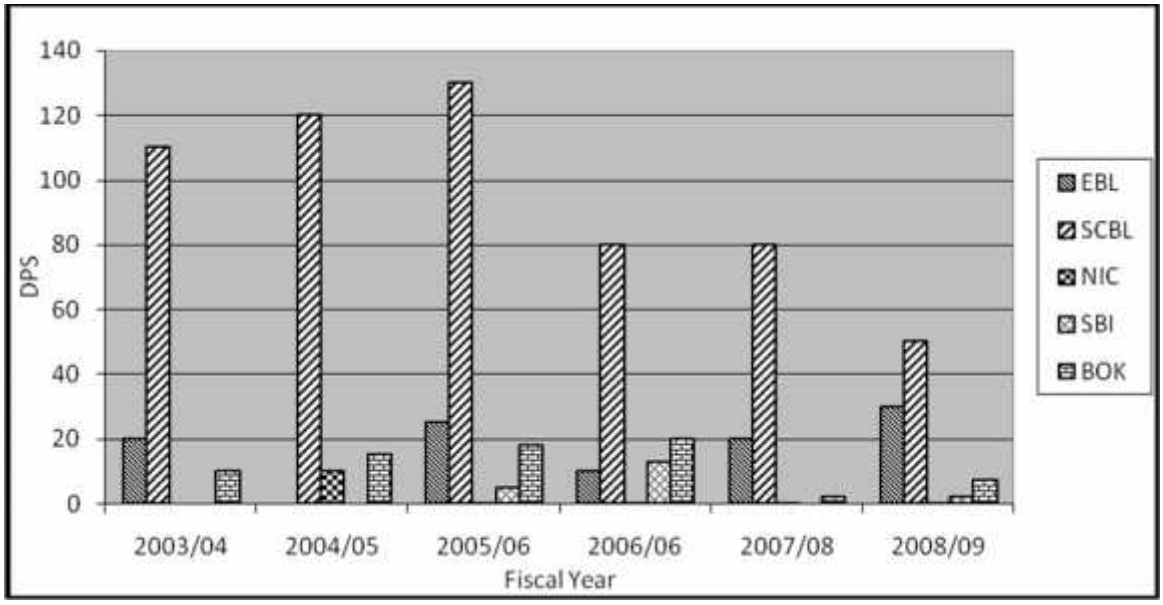
Table 4.2 shows the DPS of the selected banks from the year 2003/04 to 2008/09. In the table mean, standard deviation and coefficient of variation respectively have been presented.

While observing the mean DPS, SCBL in first position with Rs.95. Similarly EBL, BOK, SBI and NIC are in 2nd, 3rd, 4th and 5th position of mean DPS with Rs.17.5, Rs.12.08, Rs.3.28 and 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 SBI, BOK, EBL, and NIC is high fluctuation. Similarly C.V. for EBL, NIC, SBI and BOK are 56.51%, 28.99%, 138.11% and 51.49% 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



4.2.3 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	EBL	SCBL	NIC	SBI	BOK	Average
2003/04	43.88	76.63	0	0	36.36	31.37
2004/05	0	83.83	43.96	0	49.83	35.52
2005/06	39.82	73.93	3.29	27.37	41.22	37.13
2006/07	12.75	47.80	4.37	31.99	45.98	28.58
2007/08	21.78	60.64	3.78	0	3.59	17.96
2008/09	30	45.46	2.84	5.83	13.48	19.52
Mean	24.70	64.71	9.71	10.86	31.74	
S.D.	15.12	14.55	15.38	13.53	17.18/	
C.V.(%)	61.21	22.48	158.39	124.58	54.13	

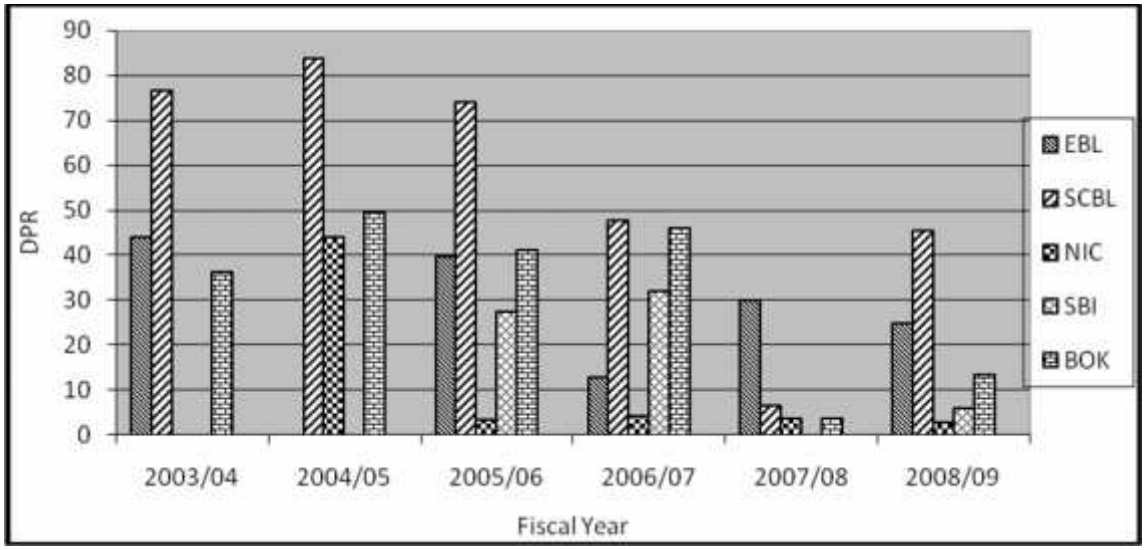
Source: Appendix I and II

An average DPR of 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. 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%. 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. 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.

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



4.2.4 Analysis of the 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	EBL	SCBL	NIC	SBI	BOK	Average
2003/04	680	1745	218	307	295	649
2004/05	87	2345	366	335	430	712.60
2005/06	1379	3775	496	612	850	1422.40
2006/07	2430	5900	950	1176	1375	2366.2
2007/08	3132	6830	1284	1511	2350	3021.4
2008/09	2455	6010	1126	1900	1825	2663.20
Mean	1824.33	4434.17	740	973.5	1187.5	
S.D.	903.06	1932.30	400.19	601.51	733.05	
C.V.(%)	49.50	43.58	54.08	61.79	62.24	

Source: Appendix I and II

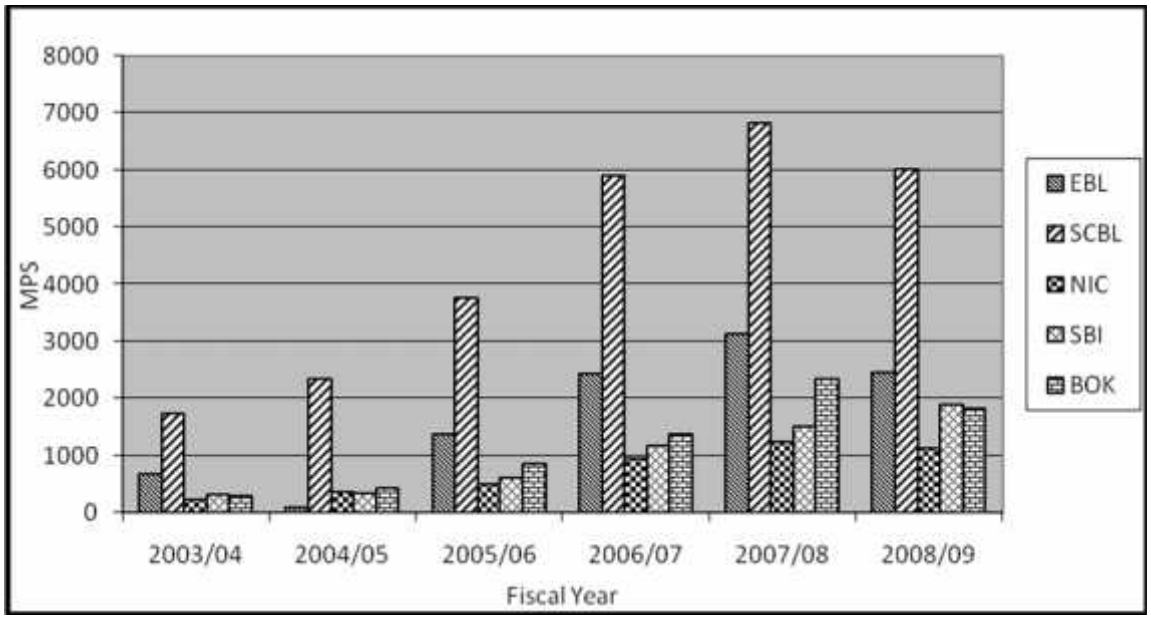
Table 4.4 shows the MPS of selected banks during the study period. Like previous table, MPS of the selected banks has been presented in the top part and mean, standard deviation and coefficient of variation (C.V.) of MPS have been demonstrated in the bottom part.

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 EBL SBI, and BOK are Rs.1824.33, Rs.937.5 and Rs.1187.5 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 EBL, NIC, SBI and BOK, are 49.50%, 54.08%, 61.79%, 62.24% respectively.

Figure 4.4

MPS for the Sample Banks



4.2.5 Analysis of Dividend Yield (D/Y) of Sample Banks

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

Table 4.5

D/Y of Sample Banks

Banks / Year	EBL	SCBL	NIC	SBI	BOK
2003/04	3.39	6.30	0	0	2.94
2004/05	3.49	5.12	2.73	0	0
2005/06	2.12	3.44	0.11	0.82	1.81
2006/07	1.45	1.36	0.11	1.07	0.41
2007/08	0.09	1.17	0.08	0	0.64
2008/09	0.40	0.83	0.07	0.11	1.22
Mean	1.82	3.04	0.52	0.33	1.17
S.D.	1.33	2.09	0.99	0.44	0.98
C.V. (%)	72.53	68.75	190.38	1333.33	83.76

Source: Appendix I and II

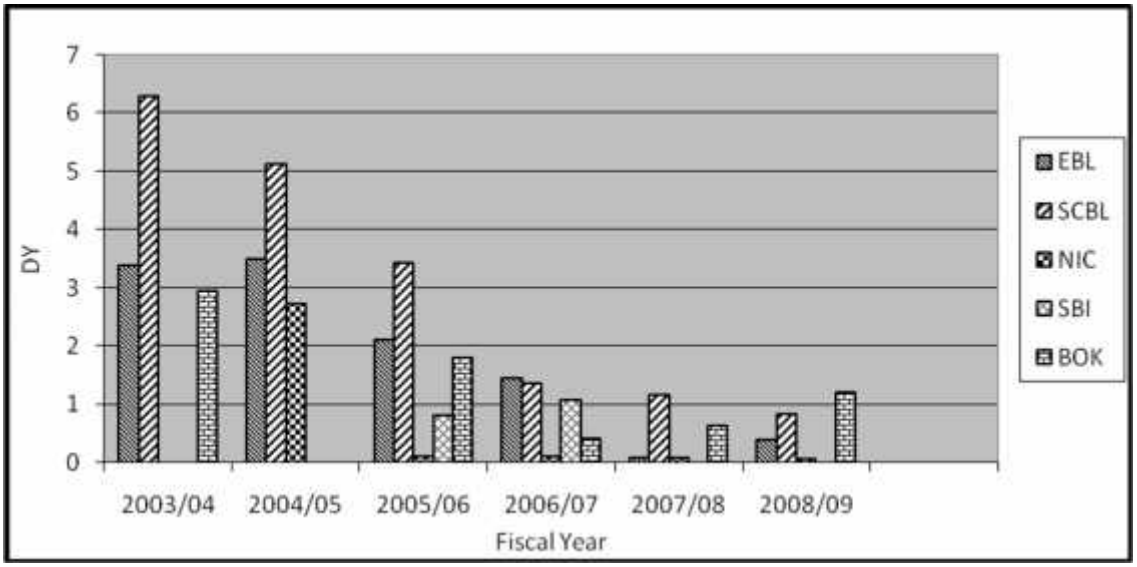
EBL within in the period of study has an average DY of 1.82% ranging between 0.09% to 3.39%, The S.D. is 1.33% where as C.V. is 72.53%. The C.V indicates there is a fluctuation of 72.53%.SCBL within the period of study has an average D/Y 3.04% ranging between 0.83% to 6.3%. The S.D. is 2.09 where as C.V. 68.75. The C.V. indicates there is fluctuation of 68.75% in the Dividend Yield.

The D/Y. of NIC range between 0% to 2.73% during the period of study. The average D/Y. is 0.52% with a S.D. of 0.99. The C.V. shows that there is a fluctuation of 190.38% in the D/Y which is higher fluctuation. Nepal SBI bank has an average D/Y of 0.33% within S.D. of 0.44. The D/Y 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. During the period of study BOK has an average DY is 1.82% with a S.D. of 1.33. The D.Y. range between 0.09 to 3.49%. The C.V. shows that there is a fluctuation of 72.53% in D/Y of BOK.

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

Figure 4.5

Dividend Yield for the Sample Banks



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

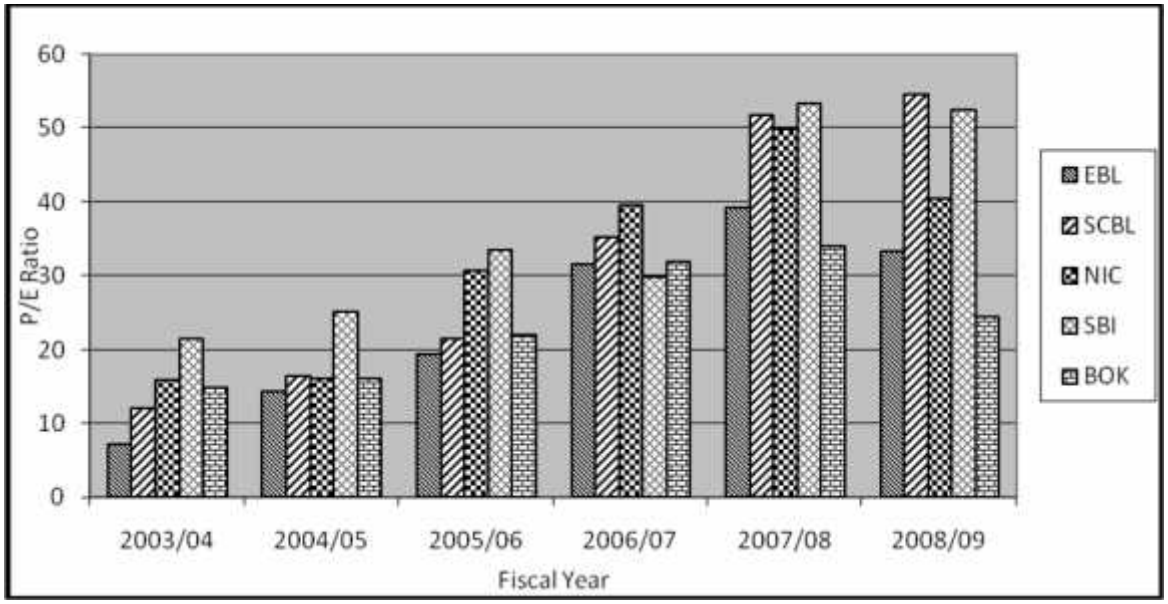
Source: Appendix I and II

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, and DOK are in 2nd, 3rd, and 4th position with 32.13, 31.95 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 SDBL 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



4.3 Statistical Tools

4.3.1 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:

4.3.1.1 Correlation between Financial Variable of EBL

Table 4.7

Correlation Matrix of EBL

	EPS	DPS	MPS	DPR	D/Y	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

Sources: Appendix III

From the above table it is found that the MPS of EBL has negative correlation with its DPR and D.Y. Similarly, the EPS is positive correlated with DPS and PLE ratio. But negative correlation with PR and D.Y. Likewise the DPS has positive correlation with DPR, D.Y> and P/E ratio.

4.3.1.2 Correlation between Financial Variable of SCBL

Table 4.8

Correlation Matrix of SCBL

	EPS	DPS	MPS	DPR	D/Y	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

Sources: Appendix III

The above table indicates that MPS of SCBL have negative correlation with its EPS, DPS, DPR, and D.Y. it means little difference increasing in MPS in each year. So Bank

regular paying dividend but not sound ratio. The MPS has positive correlated with it PLE ratio. On the other hand EPS of SCBL has negative correlation with its PLE ratio and positive correlation with its DPS, DPR and D.Y. Above table also indicate that DPS ahs negative correlation with its P/E ratio and positive correlation with its DPR and D.Y.

4.3.1.3 Correlation between Financial Variable of NIC

Table 4.9

Correlation Matrix of NIC

	EPS	DPS	MPS	DPR	D/Y	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

Sources: Appendix III

The above table indicates that MPS of NIC has negative correlation with its DPS, DPR, and D/Y. But positive correlation with EPS and P/E ratio. Similarly EPS of NIC has positive correlation with its DPS DPR D/Y and P/E ratio. The DPS of NIC has positive correlation with its DPR and D/Y where as negative correlation with its P/E ratio.

4.3.1.4Correlation between Financial Variable of SBI

Table 4.10

Correlation Matrix of SBI

	EPS	DPS	MPS	DPR	D/Y	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

Sources: Appendix III

The above table shows that MPS of the SBI has positive correlation with its EPS, DPS, DPR, D.Y. and PLE ratio. The EPS has also positive correlation with its DPS, DPR, D.Y. and PLE ratio. The DPS has negative correlation with its PLE ratio on the other hand DP has positive correlation with is DPR and D.Y.

4.3.1.5 Correlation between Financial Variable of BOK

Table 4.11

Correlation Matrix of BOK

	EPS	DPS	MPS	DPR	D/Y	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

Sources: Appendix III

The above table indicates that the MPS of BOK has negative correlation with its DPS & D.Y. and MPS of BOK has positive correlation with its EPS, DPR and PLE ratio. Similarly EPS of BOK has negative correlation with its DPS, DPR and DY whereas EPS has positive correlation with its PLE ratio. The DPS has positive correlation with DPR and DY and negative correlation with its P/E ratio.

4.3.2 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.

4.3.2.1 Regression Analysis Between MPS on EPS

Table 4.12

Regression analysis between MPS on EPS

Bank	a	b	r^2	S.E.E	S.b	T
EBL	-1818.42	48.69	0.80	592.99	12.32	3.95
SCBL	7808.07	-23.22	0.01	2384.59	44.64	0.12
NIC	-676.68	65.34	0.22	270.41	21.61	3.02
SBI	-279.07	50.21	0.48	373.51	14.77	3.40

BOK	-1447.47	60.95	0.70	219.34	7.61	8.01

Sources: Appendix IV

The table 4.12 of regression analysis shows that regression constant (a), regression coefficient (b), coefficient of determination (r^2) between MPS on EPS of EBL, SCBL, NIC, SBI, and BOK. The regression constants are -1250.78, 3682.96, -676.68 -279.09, and,-1447.47 of EBL, SCBL, NIC, SBI, and BOK respectively. The regression coefficients are 42.63, 5.17, 65.34, 50.21, and 60.95, of EBL, SCBL, NIC, SBI, and BOK respectively.

The standard error of estimate (SEE) of EBL, SCBL, NIC, SBI, and BOK are 413.14, 2384.59, 270.41, 373.51and 219.34 and respectively. The S.b. of EBL, SCBL, NIC, SBI, and BOK are 8.58 7, 44.64, 21.61, 14.77 and7.61 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 (0.01) which indicates that only 1% in MPS is explained by EPS i.e. 1% 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 EBL, NIC, SBI and BOK, are 0.80, 0.22, 0.48 and0.70 respectively which indicate that 80%, 22%, 48% and 70% variation in the MPS of these banks are explained by to the change in EPS of the respective banks.

4.3.2.2 Regression Analysis Between MPS on DPS

Table 4.13

Regression Analysis Between MPS on DPS

Bank	a	b	r^2	S.E.E	S.b	T-value
EBL	1314.73	29.12	0.23	1116.53	46.06	0.63
SCBL	9538.52	-53.73	0.08	1522.08	22.56	-2.38
NIC	824.86	-37.94	0.20	462.53	54.10	-0.70
SBI	901.66	21.88	0.07	726.62	65.44	0.33
BOK	1991.79	-66.58	0.49	1409.59	93.16	-0.71

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 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 SCBL, BOK and NIC by Rs 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 SCBL, SBI, EBL, BOK and NIC are 1522.08, 726.62, 116.53, 1409.59 and 462.53 respectively. The standard error of b (s.b.) of SCBL, SBI, EBL, BOK and NIC are 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 SBI (0.07) which indicates that only 7% variances in the MPS is explained by DPS i.e. 7% 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 BOK (0.49). This indicates that 49% in variation in MPS of BOK is explained due to changed in the DPS of the bank. The value of r^2 of EBL, SCBL and NIC are 0.23, 0.08, and 0.20 respectively, which indicate that 23%, 8% and 20% variation in the MPS of these banks are explained due to change in DPS of the respective banks.

4.3.2.3 Regression Analysis between MPS on DPR

Table 4.14

Regression Analysis between MPS on DPR

Bank	a	b	r^2	S.E.E	S.b	T-value
EBL	2052.86	-9.25	0.001	1092.53	29.51	-0.313
SCBL	11743.08	-112.94	0.09	1250.78	35.10	-3.22
NIC	830.08	-9.28	0.21	457.89	12.15	-0.76
SBI	953.84	1.81	0.03	736.08	22.21	0.08
BOK	2314.07	-35.49	0.44	512.66	12.18	-0.343

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 SCBL, EBL, BOK and NIC which indicates that with an increase in 1% in DPR the MPS of SCBL, EBL, BOK and NIC will decrease by Rs112.94, 9.25, 35.49 and 9.28 respectively, assuming that other variables are constant.

The standard error of estimate of SCBL, SBI, EBL, BOK and NIC are 1250.78, 1092.53, 512.66 and 457.89 respectively. The standard error of b (s.b.) of SCBL, SBI, EBL, BOK and NIC are 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 EBL (0.001) which indicates that only 0.1% in MPS is explained by DPR i.e. 0.1% 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 BOK which indicate that 44% variation in MPS of BOK is due to the change of DPR of the bank. The value of r^2 of SCBL, NIC and SBI are 0.09, 0.21, 0.03 respectively which indicates that 9%, 21% and 3% variation in the MPS of these banks are explained due to the charge in DPR of the respective banks.

4.3.2.4 Regression Analysis between MPS on D/Y

Table 4.15

Regression Analysis between MPS on D/Y

Bank	a	b	r^2	S.E.E	S.b	T-value
EBL	2293.36	-400.88	0.93	995.59	414.47	-0.98
SCBL	7181.11	-904.59	0.11	466.96	91.02	-9.4
NIC	819.73	-154.32	0.24	451.02	186.0	-0.83
SBI	1096.57	738.13	0.03	738.13	682.40	-0.54
BOK	2188.15	-548.80	0.04	173.08	53.44	-10.27

Sources: Appendix IV

The above table of regression analysis shows that will banks have negative regression relation between MPS on D/Y MPS of EBL, SCBL, NIC and BOK and will decreases by Rs.400.38, Rs.904.59, Rs.154.32 Rs.548.80, 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 EBL, SCBL, NIC, SBI, and BOK are Rs.995.59, Rs.466.96, Rs.451.02, Rs.738.13 and Rs.173.08, respectively. The standard error of b (s.b.) of EBL, SCBL, NIC, SBI, and BOK are Rs.414.47, Rs.91.02, Rs.186, Rs.682.40 and Rs.53.44 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 (0.03) which indicates that only 0.3% in MPS is explained by D.Y i.e. 0.3% variation in MPS of the banks is explained due to the change in value of D.Y. of the banks. The value of r^2 of EBL, SCBL, NIC and BOK are 0.93 0.11, 0.24 and 0.04 respectively. Which indicate that 93%, 11%, 24% and 4% variation in the MPS of these banks are explained due to change in D.Y. of the respective banks.

4.3.2.5 Regression Analysis between DPS on EPS

Table 4.16

Regression Analysis between DPS on EPS

Bank	a	b	r^2	S.E.E	S.b	T-value
EBL	0.908	0.23	0.23	21.88	0.45	0.51
SCBL	122.61	-0.19	0.02	35.40	0.66	-3.47
NIC	-0.37	0.12	0.11	4.21	0.34	0.35
SBI	-3.45	0.27	0.20	4.38	0.17	0.63
BOK	23.75	-0.27	0.25	6.57	0.23	-1.17

Sources: Appendix IV

The regression analysis between DPS and EPS show that among the bank under study, 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 SBI, SCBL and NIC by Rs0.27, 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 SCBL, SBI, EBL, BOK and NIC are 35.40, 4.38, 21.88, 6.57 and 4.21 respectively. The standard error of b (S.B.) are of SCBL, SBI, EBL, BOK and NIC are 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 SCBL (0.02) which indicate that only 2% in DPS is explained due to the change in value of EPS of the bank. The value of r^2 of EBL, NIC, SBI, and BOK are 0.23, 0.11, 0.20 and 0.25 respectively which indication that 23%, 11%, 20% and 25. % variation in the DPS of these bank are explained due to change in EPS of the respective banks.

4.3.3 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.

4.2.3.1 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 = Regression Constant

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

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

Table 4.17

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

Regression Model	a	b_1	b_2	S_1	$R^2y.12$
$Y = a+b_1X_1+b_2X_2$	-1596.93	84.73	-69.35	281.45	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) is -1596.93 that indicate that when EPS and DPS equal to zero, then MPS of the observed banks would be Rs.1596.93. The regression coefficient b_1, for banks is 84.73. Another regression coefficient b_2 is -69.35. 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 is 0.95. It means 95% of variation in MPS is explained by variation in EPS and DPS. The standard error of estimation 281.45, it indicates that the possible error in the predicated value for the respective banks.

4.2.3.2 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 = 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 4.18

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

Regression Model	a	b_1	b_2	S_1	$R^2y.12$
$Y = a+b_1X_1+b_2X_2$	-809.80	73.05	-66.10	85.18	1

Sources: Appendix V

The above table shows the output of multiple regression analysis between MPS and other variables [EPS(X_1) and DPR (X_2)] of the banks in average. The regression constant (a) is -809.80. The regression coefficient b_1 for bank is 73.05, Another regression coefficient b_2 is -66.10. 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. $R^2y.12$ is 1. it means 100% of variation in MPS is explained by variation in EPS and DPR. The standard Error of estimation (S1) is 85.18. it indicates that the possible error in the predicated value for the respective banks.

4.4 Test of Hypothesis

To test the significance difference among mean value of EPS, DPS, MPS, DPR, Dividend yield and P/E 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 EBL, SCBL, NIC, SBI and BOK.

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

Table 4.19

Result of Hypothesis Regarding DPS

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	41.15
Prob. value of F-Statistic	2.76

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 s-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 EBL, SCBL, NIC, SBI and BOK.

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

Table 4.20

Result of Hypothesis Regarding EPS

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	57.33
Prob. value of F-Statistic	2.76

Sources: Appendix VI

Table 4.20 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 EBL, SCBL, NIC, SBI and BOK.

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

Table 4.21

Result of Hypothesis Regarding MPS

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	10.82
Prob. value of F-Statistic	2.76

Sources: Appendix VI

When observe in the table 4.21, 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 EBL, SCBL, NIC, SBI and BOK.

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

Table 4.22

Result of Hypothesis Regarding DPR

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	9.59
Prob. value of F-Statistic	2.76

Sources: Appendix VI

Result of Hypothesis regarding DPR show in the table 4.22, 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 EBL, SCBL, NIC, SBI and BOK.

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

Table 4.23

Result of Hypothesis Regarding D.Y.

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%

Calculated value of F-statistic	12.88
Prob. value of F-Statistic	2.76

Sources: Appendix VI

From the table 4.23, we can conclude the result of hypothesis regarding Dividend yield among banks. From the table 4.23, 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 EBL, SCBL, NIC, SBI and BOK.

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

Table 4.24

Result of Hypothesis Regarding P/E ratio

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	12.69
Prob. value of F-Statistic	2.76

Sources: Appendix VI

Table 4.24 present the result of hypothesis regarding price earning ratio among sample banks. As we see from the table 4.24 that prob. value of F-statistic is 2.76 which is at 5% level of significance. Hence Null hypothesis is rejected and alternative hypothesis is accepted. Because calculated value of F-statistic is higher than prob. value of F-statistic. It implies that there is no similarity among the banks price earning ratio.

4.5 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 Rs24.95, Rs43.23 and Rs73.13 in 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 SCBL i.e., 15.01%, where as there is lower consistency in SBI, BOK, EBL, an NIC. Indicating Coefficient of Variation (CV) by 41.40%, 27.20% 27.24% and 23.57% respectively than that of SCBL.
- 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 EBL,SCBL, NIC SBI and BOK are 24.70%, 64.71%, 9.71% 10.86% and 31.74% 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 SCBL highest among the bank which is 3.04% and lowest one is 0.52% 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 SCBL, NIC and BOK 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 EBL, NIC, SBI, and BOK negative correlation between EPS and MPS in SCBL. Similarly correlation between MPS and DPR is positive in SBI, and BOK and negative in EBL SCBL, and NIC. Where as correlation between MPS and D.Y. is positive in SBI and negative in EBL, SCBL, NIC and BOK. The correlation between MPS and P/E ratio is positive in EBL, SCBL, NIC and BOK.
- The regression analysis of MPS on EPS shows that the regression coefficient (b) is positive for EBL, SCBL, NIC,SBI and BOK. The coefficient of determination of EBL is highest and SCBL is lowest 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 SCBL, NIC and BOK. The coefficient of determinations for the regression analysis of MPS on DPS of BOK is highest and SBI 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 EBL, SCBL, NIC and BOK. The coefficient of multiple determination (r^2) of BOK has highest and EBL is lowest among sample banks.
- The regression coefficient (b) of the regression analysis between mps on D.Y. Shows that EBL, SCBL, NIC and BOK have negative regression coefficient but SBI have positive regression coefficient. The coefficient of multiple determinations (r^2) of EBL is highest and SBI is lowest among sample banks.
- The regression coefficient (b) of the regression analysis between DPS on EPS is positive of EBL, SCBL, NIC and BOK on the other hand SCBL and BOK have

negative regression coefficient. The coefficient of multiple determinations (r^2) of BOK highest and SCBL is lowest among sample banks.

- The multiple regression analysis of MPS on EPS and DPS shows that the regression coefficient (b_1) 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 1. 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 D.Y. among selected banks are rejected and where as null hypothesis and no significant different of P/E ratio is accepted.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATION

This unit is divided into three sections. The first section provides a brief summary of the study. The second section demonstrates conclusions of the study and the third section contains recommendations.

5.1 Summary

Dividends are payment made to stockholders from firm's earnings in return to their investment whether those earnings were generated in the current periods or previous periods and policy refers to the decision about how much earnings at what form should be distributed to shareholders and the amount to be retained or reinvested in the firm. This paper attempts to determine the impact of dividend policy on market price of share .The sample of five commercial banks listed in Nepal Stock Exchange is examined for the period from 2003/04 to 2008/09. To make the research 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 study was conducted with objectives to analyze the dividend practices and its impact on market price of stock of selected Nepalese commercial banks. Following a descriptive and analytical research design. 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.

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 of 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.

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 Conclusion

For the analysis of financial and statistical indicators of all the sample banks, following conclusions are drawn. 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. 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, D.Y. 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. 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 finding the following recommendation made for the further applications of dividend of the banking sector. These recommendations may also have some

repercussions but there is no doubt have these measures to improve the existing conditions.

- The legal rule for treatment of dividends is must for the smooth growth of the banks as well growth of national economy but there is lack of proper legal provisions regarding the dividend payment. The government as well as the Nepal Rastra Bank should pay their attention in this matter for prescribing certain provisions and rules regarding the percentage of earning as payment of dividend. For this purpose, NEPSE, SEBON and other concerned parties should work together in favor of investors and bind their companies' spare rules.
- 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 define 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 a particular company and to build good image, stock market.
- Most of the banks had great fluctuation in DPS, EPS, and Dividend Payout Ratio, Price Earning 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 fluctuations in dividend payout ratio should be minimized. Consistency in dividend payout ratio over the period helps in gaining the shareholders. confidence and then maximizing firms. 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 binding companies to pay dividend. Some of the companies are unable for paying dividend, some are suffering from loss and there is an effort to minimize loss rather than payment of dividend. So, the government should act in favor of investors and bind these companies by special rules. There is not any other organization fully devoted to protect investor's interest. For this purpose GON, NEPSE, SEBON and other

concerned parties should work together in favor of investors and bind their companies by separate rules.

- Current and lagged earnings as well as expected future earnings should be taken in account while changing dividends. Formula 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 payout 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.
- The Market price of the Stock of the commercial banks in the later years is found to be very high in comparison to their earnings of the banks which can be studied from P/E ratio. It implies that the investors should be very careful while investing in such stocks and must be aware of rum ours. Certain specific rules and regulation should be made from SEBON as well from the side of the government side regarding the of the dividend.
- 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.
- 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 favor 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.

- At the end, 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.

Future Scopes

This research study could be useful for other researcher in following aspect.

a. The researcher could further study on the different subject matter to gain the relation of dividend policy and the stock price behavior.
b. For further research finding the researcher could increase the sample size and compare the result in different time frame.
c. The researcher can increase numbers of sample years. (i.e. more than six years)
d. The researcher can include other companies as sample. (i.e. Development Banks, Finance companies, insurance companies, Hydro power, Production companies etc.)

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APPENDICES

APPENDIX

Profile of Sample Commercial Banks

Everest Bank Limited (EBL)

Introduction

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer-friendly services through its Branch Network. All the branches of the bank are connected through Anywhere Branch Banking System (ABBS), which enables customers for operational transactions from any branches. With an aim to help Nepalese citizens working abroad, the bank has entered into arrangements with banks and finance companies in different countries, which enable quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and U K. Bank has set up its representative offices at New Delhi (India) to support Nepalese citizen remitting money and advising banking related services.

Joint Venture Partner: Punjab National Bank (PNB), our joint venture partner (holding 20% equity in the bank) is the largest nationalized bank in India. With its presence virtually in all the important centers at India, Punjab National Bank offers a wide variety of banking services which include corporate and personal banking, industrial finance, agricultural finance, financing of trade and international banking. Among the clients of the Bank are Indian conglomerates, medium and small industrial units, exporters, non-resident Indians and multinational companies. The large presence and vast resource base have helped the Bank to build strong links with trade and industry.

Awards

- The bank has been conferred with “Bank of the Year 2006, Nepal” by the banker, a publication of financial times, London.
- The bank was bestowed with the “NICCI Excellence award” by Nepal India chamber of commerce for its spectacular performance under finance sector

Standard Chartered Bank Nepal Limited (SCBL)

Introduction

Standard Chartered Bank Nepal Limited, formerly know as Nepal Grind lays Bank Limited was incorporated in the year 1985 and has been in operation since 1987. on 31 July, 2000, Standard Chartered Bank concluded that acquisition of ANZ Grind lays Bank from the Australia and New Zealand Banking Group Limited. With this acquisition 50% share of Nepal Grind lays Bank Ltd. (NGBL) previously owned by ANZ. Standard Chartered Bank Nepal Limited now owns grind lays with effecting from 16 July 2001. The equity composition of Standard Chartered Bank Nepal Ltd. Is as follows:

- Standard Chartered Grindlays Bank - 50%
- Nepal Bank Limited - 33%
- General Public - 17%
- Standard Chartered Bank Nepal Ltd. Have Authorized Capital of Rs. 33548800.00, Issued Capital Rs. 339548800.00 and Paid –up Capital Rs. 339548800.00. The par value of share is Rs. 100 and No. Of shareholders are 5037. Its share listing on stock exchange was 1988. The Bank focuses mainly on corporate consumer and commercial banking providing services for international firms, as well as embassies, aid agencies, airline, hotels and government of corporations. The banking services range includes full trade finance capabilities as well as working capital and medium term loan facilities, remittances, deposit services, credit card and ATM. For international firms, Standard Chartered Bank Nepal Limited specializes in foreign trade, bonding, remittances services and foreign exchange.

Nepal Industrial & Commercial Bank Limited (NIC Bank)

Introduction

Nepal Industrial & Commercial Bank Limited (NIC Bank) commenced its operation on 21 July 1998 from Biratnagar. The Bank was promoted by some of the prominent business houses of the country. The current shareholding pattern of the Bank constitutes of promoters holding 51% of the shares while 49% is held by the general public. NIC Bank has over 34,000 shareholders. The shares of the Bank are actively traded in Nepal Stock Exchange with current market capitalization of about NPR 10,493 million.

The Bank has grown rapidly with 26 branches throughout the country while several branches are planned to be opened this year. All branches are inter-connected through V-Sat and are capable of providing real time on-line transactions. NIC Bank was the first commercial bank in Nepal to have received ISO 9001:2000 certification for its Quality Management System standard in the year 2006. The Bank has recently been certified under the upgraded ISO 9001:2008 standards for the Bank's Quality System on Commercial Banking Activities for the first time in Nepal. Furthermore, NIC Bank became the 1st Bank in Nepal to be provided a line of credit by International Finance Corporation (IFC), an arm of World Bank Group under its Global Trade Finance Program, enabling the Bank's Letter of Credit and Guarantee to be accepted/ confirmed by more than 200 banks worldwide.

To add to these achievements, the Bank has also been awarded the "Bank of the Year 2007-Nepal" by the world-renowned financial publication of The Financial Times, U.K.-The Banker. This is the fruit of the Bank's outstanding performance backed by belief and support of its customers towards the Bank. The Bank is run by professionals and believes in the highest standards of corporate governance. The Board of Directors of the Bank is supported by a management team, which comprises of young, enthusiastic professionals. The Bank has successfully embarked on a multi-pronged strategy of consolidation, administrative streamlining, human resource up-skilling, strategic cost management, focused non-performing assets management, balance sheet and treasury management and

controlled asset growth, in tandem with strengthening the credit culture as well as strategic marketing and sales.

NIC Bank's organizational structure is designed to support its business goals. However, it is flexible enough in seeking to ensure effective control and supervision and consistency in standards across all businesses at the same time. The organization structure is divided into five major areas viz Consumer Banking, Business Banking, Special Assets Management, Treasury and Liability Marketing and Transaction Banking all of which are supported by the corporate center.

The Bank is committed towards providing financial services to its patrons by the means of efficient and cost effective service delivery through its Transaction Banking, Consumer Banking, Business Banking and Treasury divisions. Consumer Banking comprises of consumer lending, retail credit products and banking services for individuals with dedicated teams. Consumer Banking services include home loans, auto loans, personal loans, education loans, travel loans, etc. Liability Marketing & Transaction Banking comprises of institutional and personal deposit products and transaction banking services including debit cards, ATMs, safe deposit lockers, payment services, drafts, remittance, SMS Banking, Travelers' Cheques, etc.

Nepal SBI Bank Limited (NSBL)

Introduction

Nepal SBI Bank Ltd. (NSBL) is the first Indo-Nepal joint venture in the financial sector sponsored by three institutional promoters, namely State Bank of India, Employees Provident Fund and Agricultural Development Bank of Nepal through a Memorandum of Understanding signed on 17th July 1992. NSBL was established on7th July 1993 with an Authorized Capital of Rs.12 Crore and commenced operation with one full-fledged office at Durbar Marg, Kathmandu with 18 staff members. The staff strength has since increased to 256. The Authorized and Issued Capital have been increased to Rs. 100 Crore and Rs. 87.45 Crore, respectively. The local promoters are Employees Provident Fund and Agricultural Development Bank/Nepal. The management team and the Managing Director who is also the CEO of the Bank are deputed by SBI. SBI also provides management support as per the Technical Services Agreement. Fifty percent of the bank share, set up in 1993, is held by the State Bank of India, 15 percent by the Employees Provident Fund, five percent by the Agricultural Development Bank Nepal and 30 percent by the general public. Now, the bank has 20 branches in Nepal.It has the following share holding patterns.

1. State Bank of India (SBI) 50%
2. Nepali Public 30%
3. Agriculture Development Bank of Nepal (ADB/N) 5%
4. Employees Provident Fund (EPF) 15%

Bank of Kathmandu Limited

Introduction

Bank of Kathmandu Limited has become a prominent name in the Nepalese banking sector. We would like to express our sincere gratitude to our customers, shareholders, employees and other stakeholders for their support and co-operation for leading the bank to the present height of achievements. We wish to reiterate here that whatever activity we undertake; we put in conscious efforts to glorify our corporate slogan, "We make your life easier". We would also like to elucidate that Bank of Kathmandu is committed to delivering quality service to customers, generating good return to shareholders, providing attractive incentives to employees and serving the community through stronger corporate social responsibility endeavor.

Bank of Kathmandu Limited (BOK) has today become a landmark in the Nepalese banking sector by being among the few commercial banks which is entirely managed by Nepalese professionals and owned by the general public. BOK started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. BOK also aims to facilitate the nation's economy and to become more competitive globally. To achieve these, BOK has been focusing on its set objectives right from the beginning. To highlight its few objectives:

To contribute to the sustainable development of the nation by mobilizing domestic savings and channeling them to productive areas

a. To use the latest banking technology to provide better, reliable and efficient services at a reasonable cost
b. To facilitate trade by making financial transactions easier, faster and more reliable through relationships with foreign banks and money transfer agencies
c. To contribute to the overall social development of Nepal

APPENDIX – I

Table 1
EPS of Sample Banks

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

Source; Annual report of sample banks provided by the SEBON

Table 2
DPS of Sample Banks

Banks / Year	EBL	SCBL	NIC	SBI	BOK
2003/04	20	110	0	0	10
2004/05	0	120	10	0	15
2005/06	25	130	0.53	5	18
2006/07	10	80	1.05	12.59	20
2007/08	20	80	1.05	0	40
2008/09	30	50	0.79	2.11	47.37

Source; Annual report of sample banks provided by the SEBON

Table 3
DPR of Sample Banks

Banks / Year	EBL	SCBL	NIC	SBI	BOK
2003/04	43.88	76.63	0	0	36.36
2004/05	0	83.83	43.96	0	49.83
2005/06	39.82	73.93	3.29	27.37	41.22
2006/07	12.75	47.80	4.37	31.99	45.98
2007/08	21.78	60.64	3.78	0	3.59
2008/09	30	45.46	2.84	5.83	13.48

Source: Annual report of sample banks provided by the SEBON

Table 4

MPS of Sample Banks

Banks / Year	EBL	SCBL	NIC	SBI	BOK	Average
2003/04	680	1745	218	307	295	649
2004/05	87	2345	366	335	430	712.60
2005/06	1379	3775	496	612	850	1422.40
2006/07	2430	5900	950	1176	1375	2366.2
2007/08	3132	6830	1284	1511	2350	3021.4
2008/09	2455	6010	1126	1900	1825	2663.20

Source; Annual report of sample banks provided by the SEBON

Table 5

D/Y of Sample Banks

Banks / Year	EBL	SCBL	NIC	SBI	BOK
2003/04	3.39	6.30	0	0	2.94
2004/05	3.49	5.12	2.73	0	0
2005/06	2.12	3.44	0.11	0.82	1.81
2006/07	1.45	1.36	0.11	1.07	0.41
2007/08	0.09	1.17	0.08	0	0.64
2008/09	0.40	0.83	0.07	0.11	1.22

Source: Annual report of sample banks provided by the SEBON

Table 6

P/E Ratio of Sample Banks

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

Source: Annual report of sample banks provided by the SEBON

APPENDIX – II

Table 1

Earning Per Share of EBL

Year	EPS of EBL(X)	$X-\bar{X}$	$(X-\bar{X})^2$
2003/04	45.58	-26.56	705.17
2004/05	54.22	-17.92	320.95
2005/06	62.78	-9.36	87.52
2006/07	78.42	6.29	39.50
2007/08	91.82	19.69	387.50
2008/09	99.99	27.86	775.90
	$\sum X=432.81$		$\sum(X-\bar{X})^2=2316.53$

Mean $(\bar{x}) = \frac{Sx}{n} = \frac{432.81}{6} = 72.135$

Standard deviation $(\exists) = \sqrt{\frac{S(x-\bar{x})^2}{n}} = \sqrt{\frac{2316.53}{6}} = 19.65$

Coefficient of variance (cv) $= \frac{s}{\bar{x}} \times 100$

$= \frac{19.65}{72.135}$

$= 27.24\ \%$

Note: All mean, Standard deviation and coefficient of variation of EPS, DPS, MPS, DPR, DY and P/E ratio of all sample banks are calculated using above method. Result of the calculations are;

Table 2

Earning Per Share (EPS)

Banks	EBL	SCBL	NIC	SBI	BOK
Mean($\bar{x}$)	72.13	145.30	21.68	24.95	43.23
S.D. (σ)	19.65	21.81	5.11	10.33	11.76
C.V.(%)	27.24	15.05	23.57	41.40	27.20

Table 3

Dividend Per Share (DPS)

Banks	EBL	SCBL	NIC	SBI	BOK
Mean($\bar{x}$)	17.5	95	2.24	3.28	12.08
S.D. (σ)	9.89	27.54	3.49	4.53	6.22
C.V.(%)	56.51	28.99	155.8	238.11	51.49

Table 4

Dividend Payout Ratio (DPR)

Banks	EBL	SCBL	NIC	SBI	BOK
Mean($\bar{x}$)	24.70	64.71	9.71	10.86	31.74
S.D. (σ)	15.12	14.55	15.38	13.53	17.18
C.V.(%)	61.21	22.48	158.39	124.58	54.13

Table 5

Market Price Per Share (MPS)

Banks	EBL	SCBL	NIC	SBI	BOK
Mean($\bar{x}$)	1824.33	4434.17	740	973.50	1187.5
S.D. (σ)	903.06	1932.30	400.19	601.51	739.05
C.V.(%)	49.50	43.58	54.08	61.79	62.24

Table 6

Dividend Yield (DY)

Banks	EBL	SCBL	NIC	SBI	BOK
Mean($\bar{x}$)	1.17	3.04	0.52	0.33	1.82
S.D. (σ)	0.98	2.09	0.99	0.44	1.33
C.V.(%)	83.76	68.75	190.38	133.33	72.53

Table 7

Price Earning Ratio (P/E ratio)

Banks	EBL	SCBL	NIC	SBI	BOK
Mean($\bar{x}$)	23.93	31.95	32.13	36.00	24.19
S.D. (σ)	7.26	16.65	12.64	12.53	11.36
C.V.(%)	30.34	52.11	39.34	34.81	46.96

APPENDIX – III

Table 1

Calculation of correlation coefficient between MPS & EPS of EBL

MPS (X)	EPS (Y)	$X-\bar{x}$	Y- y	$(X-\bar{x})*(y-y)$
680	45.58	-1013.83	-26.56	26922.34
87	54.22	-1606.83	-17.92	28786.42
1379	62.78	-314.83	-9.36	2945.27
2430	78.42	736.17	6.29	4626.81
3132	91.82	3059.87	19.69	60233.44
2455	99.99	761.17	27.86	21202.30
∑X=10163	**∑Y=432.81**			**$\sum(X-\bar{x})*(y-y)=144716.58$**

$$\text{Mean } (\bar{x}) = \frac{Sx}{n} = \frac{10163}{6} = 1693.83$$

$$\text{Mean } (\bar{y}) = \frac{Sy}{n} = \frac{432.81}{6} = 72.135$$

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

$$= \frac{144716.58}{6} = 24119.43$$

$$\text{Correlation coefficient } (r) = \frac{\text{Cov } x.y}{sx.\ sy}$$

$$= 24119.43$$

Note: Correlation coefficient (r) between MPS & DPS, MPS & EPS, MPS & DPR, MPS & DY, MPS & P/E, DPS & EPS of all sample banks are calculated using above method; Result of calculation are as follows;

Correlation between MPS & DPS and other financial variables;

Correlation Matrix of EBL

	EPS	DPS	MPS	DPR	D/Y	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

Correlation between MPS & DPS and other financial variables;

Correlation Matrix of SCBL

	EPS	DPS	MPS	DPR	D/Y	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

Correlation between MPS & DPS and other financial variables;

Correlation Matrix of NIC

	EPS	DPS	MPS	DPR	D/Y	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

Correlation between MPS & DPS and other financial variables;

Correlation Matrix of SBI

	EPS	DPS	MPS	DPR	D/Y	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

Correlation between MPS & DPS and other financial variables;

Correlation Matrix of BOK

	EPS	DPS	MPS	DPR	D/Y	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

APPENDIX –IV

Simple Linear Regression Analysis of EBL

Simple Linear Regression Analysis Between MPS on EPS

Let,

MPS = Y

EPS =X

$Y = a + bX \ldots (i)$

Y = dependent variable

X = independent variable

a = regression constant

b = regression coefficient

$\phi y = na + b\phi x$ …….…….. (ii)

$\phi xy = a\phi x + b\phi x^2$ ……..…… (iii)

r^2= Coefficient of Determination

SEE = Standard Error of Estimation

S.b.= Standard Error of Regression Coefficient

T = t-value

Calculation of Simple Linear Regression Between MPS and EPS

X	Y	XY	X^2	Y^2
45.58	680	30994.4	2077.536	462400
54.22	87	4717.14	2939.808	7569
62.78	1379	86573.62	3941.328	1901641
78.42	2430	190560.6	6149.696	5904900
91.82	3132	287580.24	8430.912	9809424
99.99	2455	245475.45	9998	6027025
∑X=432.81	∑y=10163	∑XY=845901.45	$\sum X^2$=33537.28	$\sum Y^2$=24112959

Putting the calculated value on equation ……. (ii) & (iii)

$\phi y = na + b\phi x$ ……..…….. (ii)

$\phi xy = a\phi x + b\phi x^2$ ……..…… (iii)

10163 = 6a + 432.81 b ……..… (iv)

845901.45 = 432.81a + 3353.28 b ……. (v)

Multiplying equation 5 × equation (v) - 432.81 × equation (iv)

4229507.25 = 2164.05 a + 16766.40 b

- 4398648.03 = _2164.05 a +_187324.49 b

- 169140.78 = - 170557.9 b

Multiplying equation 432.81 × (iv) - 6x (v)

4398648.03 = 2596.86 a + 187324.49 b

- 5075409.00 = _2596.86 a +_201223.69 b

- 676760.70 = - 13899.19 b

$$b = \frac{-676760.70}{-13899.19} = 48.69$$

Putting the value of b in equation (ii)

$\phi y = na + b\phi x$

10163 = 6a + 48.69 × 432.81

a = -1818.47

$$SEE = \sqrt{\frac{\phi y^2 - a\phi y - b\phi xy}{n - 2}}$$

$$= \sqrt{\frac{24112959 - (-1818.47) \times 10163 - 48.69 \times 845901.45}{6 - 2}}$$

= 592.99

$$Sb = \frac{SEE}{\sqrt{\phi(x - \bar{x})^2}}$$

$$= \frac{592.99}{\sqrt{2316.53}} = 12.32$$

$$T = \frac{b}{Sb} = \frac{48.69}{12.32} = 3.95$$

Note: The simple regression analysis between MPS on EPS, MPS on DPS, MPS on DPR, MPS on DY, DPS on EPS and S.E.E., S.b. also T value of all sample banks are calculated using the above model; Result of the Computation are as follows;

Simple regression analysis between MPS on EPS

Bank	a	b	r^2	S.E.E	S.b	T
EBL	-1818.42	48.69	0.80	592.99	12.32	3.95
SCBL	7808.07	-23.22	0.01	2384.59	44.64	0.12
NIC	-676.68	65.34	0.22	270.41	21.61	3.02
SBI	-279.07	50.21	0.48	373.51	14.77	3.40
BOK	-1447.47	60.95	0.70	219.34	7.61	8.01

Simple regression analysis between MPS on DPS

Bank	a	b	r^2	S.E.E	S.b	T-value
EBL	1314.73	29.12	0.23	1116.53	46.06	0.63
SCBL	9538.52	-53.73	0.08	1522.08	22.56	-2.38
NIC	824.86	-37.94	0.20	462.53	54.10	-0.70
SBI	901.66	21.88	0.07	726.62	65.44	0.33
BOK	1991.79	-66.58	0.49	1409.59	93.16	-0.71

Simple regression analysis between MPS on DPR

Bank	a	b	r^2	S.E.E	S.b	T-value
EBL	2052.86	-9.25	0.001	1092.53	29.51	-0.313
SCBL	11743.08	-112.94	0.09	1250.78	35.10	-3.22
NIC	830.08	-9.28	0.21	457.89	12.15	-0.76
SBI	953.84	1.81	0.03	736.08	22.21	0.08
BOK	2314.07	-35.49	0.44	512.66	12.18	-0.343

Simple regression analysis between MPS on DY

Bank	a	b	r^2	S.E.E	S.b	T-value
EBL	2293.36	-400.88	0.93	995.59	414.47	-0.98
SCBL	7181.11	-904.59	0.11	466.96	91.02	-9.4
NIC	819.73	-154.32	0.24	451.02	186.0	-0.83
SBI	1096.57	738.13	0.03	738.13	682.40	-0.54
BOK	2188.15	-548.80	0.04	173.08	53.44	-10.27

Simple regression analysis between DPS on EPS

Bank	a	b	r^2	S.E.E	S.b	T-value
EBL	0.908	0.23	0.23	21.88	0.45	0.51
SCBL	122.61	-0.19	0.02	35.40	0.66	-3.47
NIC	-0.37	0.12	0.11	4.21	0.34	0.35
SBI	-3.45	0.27	0.20	4.38	0.17	0.63
BOK	23.75	-0.27	0.25	6.57	0.23	-1.17

APPENDIX –V

Multiple Regression Analysis

The pooled 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 = MPS (Dependent Variable)

X1 =EPS (1st Dependent Variable)

X2 = DPS (2nd Dependent Variable)

a = Regression constant

b1 & b2 Coefficient (i.e. Regression Coefficient)

Calculation of Multiple (Pooled average analysis). Regression of MPS on EPS and DPS

Y	X1	X2	X1Y	X2Y	X1X2	$X1^2$	$X2^2$	Y^2
649	48.91	28	31742.59	18172.00	1369.48	2392.19	784.00	421201.00
712.6	52.7	29	37554.02	20665.40	1528.30	2777.29	841.00	507798.76
1422.4	63.33	35.71	90080.59	50793.90	2261.51	4010.69	1275.20	2023221.76
2366.2	70.53	24.73	166888.09	58516.13	1744.21	4974.48	611.57	5598902.44
3021.4	67.55	20.63	204095.57	62331.48	1393.56	4563.00	425.60	9128857.96
2663.2	65.73	18.05	175052.14	48070.76	1186.43	4320.43	325.80	7092634.24
∑ Y= 10834.8	∑ X1= 368.75	∑ X2= 156.12	∑ X1Y = 705412.99	∑ X2Y = 258549.67	∑ X1X2= 9483.48	∑ $X1^2$= 23038.08	∑ $X2^2$= 4263.18	∑ Y^2= 24772616.16

$\phi y = na + b_1 \phi x_1 + b_2 \phi x_2$ ……..(i)

$\phi x_1 y = a\phi x_1 + b_1\phi x_1^2 + b2\phi x_1x_2$ ……. (ii)

$\phi x_2 y = a\phi x_2 + b_1\phi x_2 + b_1\phi x_1x_2 + b_2\phi x_2^2$ ……(iii)

Putting above calculated value in equation (i), (ii) & (iii)

$10834.80 = 6a + 368.75b_1 + 156.12b_2$ ……. (iv)

$705412.99 = 386.75a + 23038.08\ b_1 + 9483.48b_2$ ……. (v)

$258549.67 = 156.12\ a + 9483.48\ b_1 + 4263.18\ b_2$ …….. (vi)

Applying 368.75 × equation (iv) - 6 × equation (v)

$3995332.50 = 2212.5a + 135976.56\ b_1 + 57589.25\ b_2$

$4232477.96 = 2212.5a + 138228.49\ b_1 + 56900.91\ b_2$

$-237145.464 = 0 - 2251.49\ b_1 + 668.34\ b_2$ ….. (vii)

Applying 156.12 × equation (iv) - 6 × equation (vi)

$1691528.97 = 936.72\ a + 57569.25\ b_1 + 24373.45\ b_2$

$1551298.03 = 936.72\ a + 56900.91\ b_1 + 25579.06\ b_2$

$140230.94 = 0 + 668.34\ b_1 + 1205.60\ b_2$ ….. (viii)

Applying 668.34 × equation (vii) - 2251.49 × equation (viii)

$-15849493.70 = 1505070.58\ b_1 + 446684.77\ b_2$

$-315791293.40 = -1505070.58\ b_1 + 2714944\ b_2$

$157296355.7 = 0 - 2268259.80\ b_2$ ….. (viii)

$$b_2 = \frac{2268259.80}{157296355.30} = -69.35$$

Putting the value of b_2 in equation (vii)

$-237145.46 = -2251.49\ b_1 + 668.34 \times (-69.35)$

$b_1 = 84.73$

Again putting the value of b_1 & b_2 in equation (i)

$\phi y = na + b_1 \phi x_1 + b_2 \phi x_2$

$10834.8 = 6a + 84.73 \times 368.75 + (-69.35) \times 156.12$

$a = -1596.93$

Coefficient of multiple determination

$$(Ry.12)^2 = \frac{a\phi y + b1\phi x1y + b2\phi x2y - n(\overline{y})^2}{\phi y2 - n(\overline{y})^2}$$

$$= \frac{-1596.93 \times 10834.80 + 84.73 \times 705412.99 + (-69.35) \times 258549.67 - 6 \times (1805.8)^2}{24772616.16 - 6 \times (1805.8)^2}$$

= 0.95

SEE (Sy.12)

$$= \sqrt{\frac{\phi y_2 - a\phi y - b_1 \phi x_1 y - b_2 \phi x_2 y}{n - 3}}$$

$$= \sqrt{\frac{24772616.16 - (-1596.93) \times 10834.8 - 84.73 \times 705412.99 - (-69.35) \times 258549.67}{6 - 3}}$$

= 281.45

Note; Multiple regression analysis (i.e. Bank Pooled averaged) a, b1, b2, (Ry.12)2, Sy.12 of all sample bank related are computed using the above model, Result of the calculations are;

Calculated multiple regression and coefficient of determination analysis of MPS on EPS and DPS;

Regression Model	a	b_1	b_2	S_1	$R^2y.12$
Y = a+b1X1+b2X2	-1596.93	84.73	-69.35	281.45	0.95

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

Regression Model	a	b_1	b_2	S_1	$R^2y.12$
$Y = a+b_1X_1+b_2X_2$	-809.80	73.05	-66.10	85.18	1

APPENDIX –VI

Test of Hypothesis

(F – test) For EPS of all sample banks.

Step 1

Null Hypothesis [H_0]: There is no significance difference among mean value of EPS of EBL, SCBL, NIC ,SBI and BOK.

Step 2

Alternative Hypothesis [H_1]: There is significance difference among mean value of EPS of EBL, SCBL, NIC ,SBI and BOK.

Step 3

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

Test Static: Under $H_{0;}$

Where,

MSB = Mean Sum of square between Sample sub groups (i.e. Six Commercial Banks)

MSE = Mean sum of Square due to Error.

EBL (A)	SCBL (B)	NIC (C)	SBI (D)	BOK (E)
45.58	143.55	13.65	14.26	27.5
54.22	143.14	22.75	13.29	30.1
62.78	175.84	16.1	18.27	43.67
78.42	167.37	24.01	39.35	43.5
91.82	131.92	25.75	28.33	59.94
99.99	109.99	27.83	36.18	54.68
∑A =432.81	∑B =871.81	∑C =130.09	∑D =149.68	∑E =259.39

A^2	B^2	C^2	D^2	E^2
2077.54	20606.60	186.32	203.35	756.25
2939.81	20489.06	517.56	176.62	906.01
3941.33	30919.71	259.21	333.79	1907.07
6149.70	28012.72	576.48	1548.42	1892.25
8430.91	17402.89	663.06	802.59	3592.80
9998.00	12097.80	774.51	1308.99	2989.90
$\sum A^2$=33537.28	$\sum B^2$=129528.8	$\sum C^2$=2977.147	$\sum D^2$=4373.768	$\sum E^2$= 2044.28

Now

Grand Total (T) = Sum of all Observation

$= \sum A + \sum B + \sum C + \sum D + \sum E$

$= 432.81 + 871.81 + 130.09 + 149.68 + 259.39$

$=1843.78$

Correlation factor (CF) $= \frac{T^2}{n} = \frac{1843.78^2}{6} = 566587.45$

Total sum of square (TSS) $= \phi A^2 + \phi B^2 + \phi C^2 + \phi D^2 + \phi E^2 - CF$

$= 33537.28 + 129528.8 + 2977.15 + 4373.77 + 2044.28 - 566587.45$

$= 69143.76$

Total sum of square between sample sub groups (SSB)

$= \frac{\phi A^2}{NA} + \frac{\phi B^2}{NB} + \frac{\phi C^2}{NC} + \frac{\phi D^2}{ND} + \frac{\phi E^2}{NE} - CF$

$= \frac{33537.28}{6} + \frac{129528.8}{6} + \frac{2977.15}{6} + \frac{4373.77}{6} + \frac{2044.28}{6} - 566587.45$

$= 62347.15$

Sum of square due to error (SEE)

$= TSS - SSB$

$= 69143.76 - 62347.15$

= 6796.61

One Way ANOVA Table

Sources of Variation	Sum of Square (S.S.	Degree of freedom (d.f.)	Mean Sum of Squre (MSS)
i) Between	SSB = 62347.15	K-1 = 5-1 =4	MSB = $\frac{SSB}{k-1}$ = $\frac{62347.15}{4}$ = 15586.79
ii) Error	SEE =6796.61	n- k = 30-5 =25	MSE = $\frac{SSE}{n-k}$ = $\frac{679661}{25}$ = 271.86

$$Fcal = \frac{MSB}{MSE}$$

Step 4

Leval of significance ( )= 0.05

Step 5

Degree of freedom (d.f.) = K-1 = 5-1 =4

= n- k = 30-5 =25

Step 6

Critical Value; The Ftab at 5% level of significance for (4,25) degree of freedom is 2.76.

Step 7 Decision; Since Fcal > Ftab, So Null Hypothesis is rejected.

Note: Test of Hypothesis (F- test) of EPS, DPS, MPS, DPR, DY, P/E ratio of all sample bank are calculated using the above model, Result of Calculation are as Follows;

Result of Hypothesis Regarding EPS

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	57.33
Prob. value of F-Statistic	2.76

Result of Hypothesis Regarding MPS

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	10.82
Prob. value of F-Statistic	2.76

Result of Hypothesis Regarding DPR

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	9.59
Prob. value of F-Statistic	2.76

Result of Hypothesis Regarding D.Y.

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	12.88
Prob. value of F-Statistic	2.76

Result of Hypothesis Regarding P/E ratio

Particulars	
Numerator Degree of Freedom	5
Denominator Degree of freedom	29
Significance level	5%
Calculated value of F-statistic	12.69
Prob. value of F-Statistic	2.76