

CHAPTER- I

INTRODUCTION

1.1 Background

Every firm after making profit either retains the money for further investment or distributes it amounts the shareholders. The profit made by the firm, which is distributed, to the shareholders is termed as dividend. The firm should be decide whether to keep the money as retained earning or pay the dividend. The dividend policy is the policy followed by the firm regarding the dividend versus retention decision.

Dividend policy determines the division of earning between payments to the shareholders and reinvest in the firm. It fixes what proportion of earnings is paid to shareholders by way of dividends and what proportion is ploughed back in from reinvestment purposes. Dividend refers to that portion of firm's earning, which are paid out to the shareholders. Since dividends are distributed out of the profit, the alternative to the payment of dividend is the retention of the profit. Retained earning is the significant internal source of financing corporate growth. There is inverse relationship between retained earning and cash dividend.

Banking plays significant role into the economic development of a country. Bank is a resource for the economic development, which maintains the self-confidence of various segment of society and extends credit to the people. So commercial banks are those financial institutions mainly dealing with activities of the trade. Commerce, industry and agriculture are that seek regular financial and other helps from for growing and flourishing. They furnish necessary capital required for trade and commerce in mobilizing, the disperse saving of the individual and institutions. Normally banks play at public money, therefore banks should pay more attention whether their money is properly utilized or not and running at profit or not. If there is not profit a business firm becomes unable to provide its facilities in the long run. These profits which can be distributed among on the owners as dividend, which is the

main reason where public, are interested to invest their money on the shares of bank or other institutions.

It is not necessary that all business organization follow same dividend policy. Dividend policy of different organization may be same or different. But the policy followed by the firm should be suitable for both the shareholders as well as the firm itself. The dividend and retained earning have reciprocal relationship. The dividend is paid retained earning decrees while if the profit is returned shareholder's wealth is minimized.

Nepal is a developing country with very low per capital income very small parts of the population have spare money whereas a big part is under line poverty. Among the small part of population with spare money only few people are interested to invest the money in business due to the fear of not getting back. So the people who invest money in the business expect return from the money they invest. So the most important thing to attract the people to invest in the business is dividend. People are encouraged to invest in the business, which pay high amount of dividend. They do not care whether the business is actually running in profit or not. So paying dividend is very important to attract the shareholders who are very important constituent of the business.

But satisfying the shareholders should not only be the firm. Sometime the firm may get the good investment opportunity in which retained earning is needed. In such a case, a firm should be involved in maximization of company's wealth. So the dividend policy are followed by the firm should be able to satisfy the shareholders as well as maximize the company's wealth. The dividend policy also depends upon the objective of the firm. But the policy should be formulated considering the legal aspects of the country. The dividend payment is the major decision of the firm, which affects the running of the business. One the company decides to pay dividend, they may establishes somewhat permanent dividend policy, which may in turn impact on the position of the company in the financial market. What they decide affects the investors and the potential investors.

Banks play the very important role in the economic development of the country. Banks are the financial institutions, which mobilize idle saving of the people in the productive sectors. Banks help to connect the savers and users through the monetary resource. The money is carried from savers to users by banks. The idle saving of the people is transferred to the industries, trades, and commerce. The savers are beneficiate in the form of interest. At the same time, trade, commerce and industries are also beneficiated by money for business.

Government permitted the establishment of joint venture banks in 1980's when there banks namely Nepal Grindlays Bank Limited, Nepal Arab Bank Limited and Nepal Indosuez Bank Limited (now Investment Bank Limited) was established. But now Nepal has experienced the dramatic increase in joint ventures banks. Banks have attracted people to invest their money by providing various facilities. Many people and organizations are beneficiated through the commercial banks through loans provided for housing vehicles, education etc. Commercial bank has also attracted customers through their various savings schemes. People invest in the banks for dividend.

1.2 Statement of the Problem

Dividend decision is a very important part of the managerial finance in the sense that the investors may require to rethink about investing in the shares of the company in absence of dividend payment. There is different school of thought on dividend policy in the theoretical literature of finance. One schools of thoughts hold that capital gains. Many theories are empirical finding. Dividend policy is still a crucial and probably a most controversial topic in finance. It is more technical area of finance in the sense that it is complex one having numerous implications for the firm.

In the context of Nepalese Commercial banks and public enterprises listed in Nepal Stock Exchange are not seen so serious regarding dividend decision. Since most of them do not have any consistent and clear-cut policy on dividend distribution. There is no limit to the identification of the problem about dividend policy that is visible in Nepalese commercial bank. Even if there is policy that dividend policy of

commercial bank is not matching with the earning. Retained earning of the firm is taken as financial source. If the firm retains its earning it will result in decrease in leverage ratio, expanding activities and increasing profit in succeeding years. Whereas if the firm pays dividend it may need to raise capital through capital market, which reduced ownership controls of the existing shareholder. Another way of raising capital is through debentures, which ultimately affects on risk of the firm. However, dividend is the most important factor for the attraction and motivation of the investors and it also reflects firm's healthy position in the market. There is no limit to the identification of the problems about the dividend policies and the practices that are occurring in the different publicly listed companies. This study focuses on the following problem, which are being affected by the dividend policy makers of any companies.

- i. In this research, the main problem is whether the selected bank are paying the dividend uniformly or not and whether the expectations of shareholder are fulfilled or not?
- ii. To find the impact of value of stock on dividend policy is affecting?
- iii. Do the companies paying larger dividend have a good financing position?
- iv. What is the relationship of the dividend policy with various financing indicators like earning per share (EPS), dividend per share (DPS), Market price of share (MPS), dividend payout ration (DPR), net worth and book value per share.
- v. Does the dividend policy affect the market price of the share differently in different companies.

1.3 Focus of the Study

Dividend is the major decision, which affects the value of the firm. So the study is based on the dividend policy of the commercial bank in Nepal. There are eighteen commercial banks in Nepal but it is not possible to cover all the banks for our study. So only five commercial banks are chosen. The study is focused on the dividend policy followed by five chosen bank. Which will be represents all the commercial banks of Nepal. So we analyses the financial statements of the chosen banks and find whether the dividend policy followed by them is relevant or not. In this study, it has

tried to find out the appropriate dividend policies of the sample companies and their performance regarding dividend payment. It is believed that this study will be useful to those investors who are interested to have knowledge about the companies taken under study.

1.4 Objective of the Study

The objectives are as follows:

- i. To find out which dividend policy of selected commercial bank are used.
- ii. The study whether the dividend policy affects the value of firm or not.
- iii. To compare the dividend policy followed by different commercial banks chosen.
- iv. To study the relationship of dividend policy with various financing indicators like EPS, DPS, MPS, DPR, Net profit and book value of share.

1.5 Significance of the Study

The study will be very helpful since we can know about the dividend policy of the chosen companies which will represents all the commercial banks of Nepal. The study is not only helpful to the researchers but the final outcome of the study will prove to be a valuable tool for the following groups.

- (i) **Shareholder:-** the shareholder will be able to know whether the dividend policy of the company where they invested their money is relevant or not. They will also be able to know the position of the company in the financial market.
- (ii) **Banks:-** The bank will know the dividend practices followed by other banks and will be able to improve their dividend policy.
- (iii) **Finance companies:-** The finance companies will also be able to compare their own dividend practices with those of the banks and find out whether they need to improve their dividend policy.
- (iv) **Students:-** Student will be able to study about dividend policy and will be helpful as they can take it as reference if they are doing the research in the similar topics.

- (v) **Teacher:-** Teacher can use it as a toll in teaching.
- (vi) **Researchers:-** As maintained above, researchers can use it as a reference for their research.

Beside, it will prove to be a very important tool for stockbrokers, policy maker, potential investors, general public and enthusiasts, since it will provide information about dividend policy.

1.6 Limitation of the Study

Dividend is the most important topic in financial management. There are several aspects of decision that be undertaken by financial manager to achieve the managerial goal. Areas of financial management decision are investment, capital structure, liquidity, leverage, dividend and others. I have concentrated my scope of study on dividend policy to be more specific. The research is for the partial fulfillment of the requirement of masters in business studies program.

There are certain limitations which are as follows:

- (i) Only secondary data are used which is the limitation of study. Most of the organization refuses to give their primary data. So we have to use only secondary data for our studies.
- (ii) Only joint venture banks are taken as sample for studies because of the time factor.
- (iii) Only banks are chosen for the study although there are other organizations that are involved in distributing the dividend to the shareholder.
- (iv) The data of only five years are taken for the study.
- (v) The name of Indosuez bank limited has been changed to Nepal Investment bank limited and the name of Grindlays bank limited to Standard Chartered bank limited.

1.7 Organization of the Study

The thesis is presented in five chapters which are as follows:

Chapter I:	Introduction
Chapter II:	Review of Literature
Chapter III:	Research Methodology
Chapter IV:	Presentation and analysis of Data
Chapter V:	Summary, Conclusion and Recommendation

The first chapter contains short introduction of the research. The outline of the research is presented in the chapter. The whole research will be based on the introduction chapter.

In the second chapter, various books, journals and other thesis are reviewed so that we can obtain the detail information of the work we are going to do. This chapter will be divided into two headings:-

- (i) Conceptual Framework
- (ii) Review of various studies

In the third chapter the methods used in the research are described; various financial and statistical tools are discussed in this chapter.

In the fourth chapter, the collected data are analyzed using various statistical and financial tools this is the main part of the study.

In the last chapter the conclusion is drawn from the analysis in the previous chapter. Suggestions are given by the writer to the sample companies.

CHAPTER- II

REVIEW OF LITERATURE

In this section various published and unpublished studies regarding dividend policy are reviewed. Most of the book and journals are studies from Mahendra Multiple Campus Library and T.U. Library. Some studies are taken from web sites. Most of the thesis report related to the subject reviewed the details of which are mentioned below:

2.1 Meaning of Dividend and Dividend Policy

When the company makes the profit, they must decide what to do with that profit. There are two options for the company; either to pay the dividend to the shareholders or retain the money in order to invest it into more profitable sector. Some company pays all the earnings to the shareholders but some company pay some portion of earning to the shareholders while keep the other portion for further investment.

"What and how much it is desirable to pay dividends is always a controversial topic because shareholder expect higher dividend from corporation but corporation ensure towards setting aside funds for maximizing the overall shareholder's wealth." (Shrestha, 1980, p 640)

The portion of money that is paid to the shareholder is called dividend and the policy of the company regarding what to do with earning and how to pay the dividend is called dividend policy.

".....By the dividend policy we mean some kind of consistent approach to the distribution versus retention decision, rather than making the decision on the purely adhoc basis from period to period." (Shrestha, 1980, p640)

Commercial banking in Nepal commenced in a formal manner in 1994 with the establishment of Nepal Bank Ltd. From that day forward banking in Nepal has taken many strides forward, with a myriad of banks and multitude of financing product entering the market. The entry of joint venture banks in the country opened the doors

to international standard banking services and with it heightened customer expectations.

2.2 Concepts of Dividend

The various concepts that have inherently gained popularity in modern world of financial management are discussed below:

- (i) **Residual Concepts:-** Dividend is the residue left after meeting all obligations and adjusting for retention of earning and other provisions. " for many small investors dividend prospects represent of principle criterion for or against buying given common stock." (Raymond, 1967, p 352)
- (ii) **Discretionary concept:-** "Dividend payment is one of directors' decisions and so they use discretions in declaration of dividend. Corporation's Figureer vested power to board of directors and it is up to their discretion that determines what and how much to pay by way of dividends to stockholders." (Shrestha, 1980 p643)
- (iii) **Liability concept:-** Dividend once declared by the board of director becomes a liability of the corporation. The dividends declared are treated as liabilities in the balance sheet if the shareholders do not come to claim in time.
- (iv) **Pro- Rata distribution concept:-** A pro rata distribution conveys the meaning that all shares of outstanding stock, or all share of given participation equally in whatever is distributed. Thus, all shareholders enjoy equal rights according to their proportionate shareholding on the profits or gains distributed by the corporations.

2.3 Forms of Dividends

It is necessary that the companies always pay the dividends in the form of cash. The dividend may be paid in various forms. Some of the common forms of dividend are as follows:-

- i. **Cash Dividend:-** When the company pays the dividend in the form of cash, this is called cash dividend and this is most common form of dividend and moist

preferred by the shareholder. Although cash dividend reduces company taking opportunity of having strong position of liquidity. It is a popular way of fulfilling investor's desire. Beside this if cash dividend has given company's net worth and total assets also would be reduced. "Both total asset and he net worth of company are reduced when cash dividend is distributed. The market price of the share drops inmost cases by the amount of cash dividend distributed." (Hasting. 1966, p 370)

- ii. **Stock Dividend:-** Some times when there is good investment opportunity for the company and the whole portion of the profits is needed for reinvestment, the company prepares to retain the whole portion of the profit. But in order to satisfy the shareholder the company should also pay the dividend. In such a case, the company decides to pay the dividend in form of stock. Such dividends is called stock dividend
- iii. **Script Dividend:-** Sometimes, even if the company has earned the profit, there is scarcity of cash. In such a situation, dividend is paid in the form promissory notes which called script dividend. Shareholder are providing with promissory notes with specified date. the promissory notes may be interest bearing or not. This is not as common as cash dividend. But script dividend is very helpful for the company when there is lack of cash in the company.
- iv. **Bond Dividend:-** When the dividend is paid in the form of bond, it is called bond dividend bond dividends are always interest bearing.
- v. **Liquidation Dividend:** When the dividends are paid in the form of assets it is called liquidating dividend. The shareholders are provided with assets other than cash. When the company is in liquidity position, then this sort of dividends is paid.
- vi. **Stock Split:-** Stock splits is closely related to stock dividend from a practical stand point there is little different between stock dividend and stock split. In a stock split. Total rupee amount on either side of the balance sheet is not affected but stock split tends to bring changes in the number of shares through a proportionate change in the par value of stock. As for instance, two-for-one stock split implies that each shareholder receives two shares for each one previously held. The objectives of issuing stock split are to prepare the way new offerings of common stock. By means of lowering the price of stock through split, marketability of new issues is considerably improved. Stock splits are usually welcomed by the investors. Along with heir enhancement of probability increase

trading activity, they are milestones in the corporation overall growth progress. But in actual practice the stock split does not represent a thing of value to the ancestors, since the market value of stock gets reduced proportionately so that the total holdings remains the same.

"The stock splits may, however have informational content. the announcement of split may indicate the ancestors that management believes that earning will coatings will continue to grow. As a result the market price per share may increase upon the announcement of the split or the rumor fan embouchement and higher" (Johnson, 1966,p .683)

Sometimes Corporations undertake reverse split of increasing pa[r value through rededication in shares. As for instance, the corporation may one – to - ten split instead of tow - to - one split. For each ten shares hold the corporation pays only one share in exchange.The purpose of reverse split is to enhance the market price of the share. Reverse split is regarded as an admission by a corporation that it is in financial handicap. In context of our corporation, Agricultural developments bank and cooperative societies have greatly recognized to us of stock split to encourage subsistence farmers to contribute minor capital of membership. But stock splits if carried too much ten to shake out the corporation's financial reputation by causing a sharp decline in market value of shares.

2.4 Factors Affection Dividend Policy

There are various factors that affect dividend policy. Some factors favors high payout ration whereas some favors low payout ratios. Or we can interpret that some factors have positive impact on dividend policy and some have negative impact. The various factors affecting dividend policy are as follows:

- 1. Legal Restriction:-** Dividend policy should be formulated within the boundary of some legal rules. Although legal rules are not only the determining factors of the firm's dividend policy they play the significant role in formulation the

dividend policy. There are three basic legal rules which the company should follow:

- i. **The net profit rule:** According to this rule dividend should be paid from the net profit of the firm and not more than that. The company should not pay the dividend more than the sum total of earnings of present year and balance of the retained earnings of the past year.
- ii. **The capital impairment rule:** According to this rule the dividend should not be paid from the paid up capital, which causes an adverse effect on the creditors. "The capital impairment rule is very similar, stipulating that dividends may not be paid if a firm's Capital has been impaired or if dividend payment will cause capital to become impaired. (Kreps and Wracht, 1975, p.237)
- iii. **The insolvency rules:** According to this rule, the company should not pay dividend to the shareholders when the company is in the bankruptcy position with liabilities exceeding the assets.

2. **Liquidity Position;-** The Liquidity or the cash position of the company is the important factor which decides the payment of dividend. When the retained earnings of the company are invested in assets then the company will not be in the position to pay dividend. So, greater will be the ability to pay the dividend. "Indeed, a growing firm, even a very profitable one, typically had a pressing need for funds." (Brigham, 1974, p511)

".....the National Construction Company Nepal in 2029-2031 have undertaken a large volume of contracts and after completion of contract, it is faced with liquidity crises due to pending A/C receivables. This is why this company finds it difficult to pay dividends to government even during the period of prosperity."(Shrestha, 1980, p.656)

3. **Need to repay the debt:-** When the company has to repay the debt, then the company can do nothing but retain the earnings instead of paying the dividend. So in such a case, the company can not pay the dividend to the shareholders.
4. **Restrictions in debt contracts:-** Sometimes the company may not be restricted to pay the dividend due to the agreement with the lenders.

"Such restriction which are designed to be protect the position of leader, usually state that (1) future dividends can be paid only out of earnings generated after signing of the loan agreement (that is, they cannot be paid out of past retained earning) and (2) that dividends cannot be paid when net working capital (Current assets minus Current Liabilities) is below the specified amount." (Western and Copland)

- 5. Growth and Investment opportunity:-** When the firm growing very rapidly, there I need of expansion of fixed assets for which fund is required. In such a case the firm prefers to retain earning rather then paying the dividend. So we can say that the growing firm need large amount of fund for which the money is retuned rather then paying the dividend. So growth firms have low payout retained rations.

"The more rapid the rate at which the firm is growing, the greater will be the needs for financing asset expansion. The greater the future needs for funds, the more likely the firm is retained earning rather then pay them out." (Brigham, 1974, p.512)

Whether earning should be used for distribution or retention depends largely on the corporate management policy of expansion. The cash requirement for growth relates to the multiplicity of growth opportunities and the growth in relation to favor opportunities tempt corporate managers to be very generous in their retained earnings.

- 6. Profit rate:-** If the expected rate of return on asset in high, then it is the better to use the money by the firm then to pay the dividend to the shareholders who will earn less by using the same money elsewhere.
- 7. Stability of Earning:-** The firm which has stable earning is able pay higher rate of dividend then those firms which does not have stable earning. The firm with stable earning has approximately the same earning the next years too. So they can have high payout ratio. But other firms are not able to predict the next years earning so they prefer to have low payout ratio and retain more amount for coming years.

- 8. Access to the capital market:-** Some reputed companies have easy access to capital markets than other. So they have high payout ratio. But those companies which do not have easy access to capital market have to use the retained earning. So they prefer to retain the earning rather than paying the dividend.
- 9. Control:-** When the company pay high dividend then new shares have to be issued to raise fund for investment. By doing this the dominant groups of shareholders are unable to maintain their control over the company. In such a situation, the earning is retained rather paying the dividend.
- 10. Tax position of Stockholders:-**To the extent regarding how much cost dividend to be paid depends not only on the corporations own decisions but also on the various preferential needs of stockholders. The stockholders with high income tax brackets prefer to receive low dividend and high rate of earning retention, since appreciations in the value of common stock benefit them. But low income tax brackets stockholders' forced corporate directors in annual general meeting to pay high rate of dividends as their derive form corporations .

"The extent of share distribution also determines the payment of dividend. A corporation with shareholders widely distributed would easily reduce dividend. But it will exactly off set the reduction in the stockholders current cash income because earnings have been retained, the equity shareholders will be quite indifferent the size of the cash dividend and the distribution

Vs retention will be trivial..... Ideally management should survey the needs and desires of shareholders and use them as bases for dividend policy, provided this is within the bounds of good financial practices, "

- 11. The Clientele Effect:** - There are groups of individuals with different preferences for how they get the cash flows from the firm. Some shareholders may prefer stocks that so not pay dividends. Other shareholders may prefer stocks that pay regular dividend. Although we have seen how people can construct their own dividend policy, there are some that "prefer " for whatever reasons a certain type of dividend policy.

Companies whose earning is relatively incentive to business cycle can usually afford high payout ratios. " (George , 1976.p.330)

12. Others Consideration: - Including among these considerations are:

1. Government's taxation policy: - The imposition of higher taxes can lower the earning of corporation become unable to pay high dividend to Shareholders.
"That fact that corporation income tax would apply only to retained earning means that it would be differential tax on growing companies which need to retain all profit for expansion." (Smith,1977, p88.)
2. Changes in government policy.
3. Prospects for future growth.
4. Maturity and age of corporation.
5. Information context of dividend management
6. Sponsorship and control and so on.

Investors will form their well-diversified portfolios of stock to have the desired divided policy in equilibrium, no firm can affect its value be changing its dividend policy. Of a firm did change the policy, it would be dropped by one clientele and picked up by another. Clearly, one clientele is as good as another. All clienteles would prefer not to be constantly rebalancing their portfolios as firm switch policies. Rebalancing is expensive due to transition costs. Hence, all investors transactions costs are minimized if the maintain a sable dividend policy.

2.5 General Types of Dividend Policies

First, let us see the general types of policies being followed in the real world. The assumption is that policy makers take into account the factors that affect the value of the firm in whatever policies they make. But it is very difficult to say which policy, among all those being adopted by firms is correct and optimal. We can simply group them into the following four general categories.

1. **Stable Rupees Amount Policy:** The stable rupees dollar amount implies a steady change in dividend amount which increases at a certain constant growth rate to compensate for inflationary effect (or remains constant or

decreases at a stable decreasing rate depending on the trend of earning) irrespective of short term fluctuation in earning Since steady rise in dividend reflects low risk, this policy is believed to be the one that affects stock price favorably.

2. **Constant Payout Ratio:-** The policy to distribute a certain percentage of profit every period is called constant payout ratio. The payout ratio is the ratio of dividend to profit. There are many companies which use a constant percentage of profit for dividend distribution. When a company uses a constant payout ratio, amount of dividend fluctuates as a earning do. In other words, the amount of dividend increases or decreases proportionately with earnings.
3. **Low regular plus extras: -** This type of policy is mostly followed by those companies whose stockholders prefer at least a creation amount of regular dividend plus extra dividend based on company performance Management fixes a minimum regular dividend to be paid in any case unless a long run trend of losses is expected. The amount of extra dividend depends on level of earnings. Thus, a total dividend per stock is based on a fixed amount plus a certain percentage of profit.
4. **Residual Dividend Policy:-** There are factors, as noted before, which influence dividend policy. However, among all, earnings and investment opportunities are considered as determining factors in the residual dividend policy. The residual policy is the outcomes of the belief that stockholders are better off in reinvesting company profits and they prefer so. If the expected return on the reinvestment is higher than what individual investors can realize on their own it is to the shareholders advantage to first invests profits in those projects that promise higher profit and then distribute only the leftover as dividends.

The residual dividend policy stage that the profit should be used first in all profitable projects which reflect equal or higher rate of return than investors

opportunity rate of return and only the balance of the profit that could not be utilized should be distributed as dividends.

This type of dividends policies discussed here are fairly general and some variations in practice are common. However, one thing that must be considered by financial managers in formulating a dividend policy is value maximization. It is easy to point which type of policy is the best from the view point of maximizing stock prices. In general, the policy that maintains a stable dividend singles a low risk and help increase stock prices steadily. The constant payout ratio reflects a greater fluctuation and higher risk. However, stock price increase depends on company performance, market conditions and optimal dividend decisions.

2.6 Stability of Dividend

The stability of dividend is very important since, the shareholders favor the stable dividend policy. The stability of dividend means consistency in dividend. If the dividend is paid regularly, then the dividend policy is stability.

Dividend can be stable in any of the following forms:

- i. **Constant dividend per share:** According to this form of dividend the company follows the policy of paying certain fixed amount per share as dividend. The fixed amount is paid as the dividend irrespective of the firm's earning. The dividend payment is not affected even if the earning is fluctuated. By following this policy, the company has to pay the dividend if there is loss. The dividend per share is increased over the years when the earning of the firm increase and it is expected that the new level of earning is maintained.
- ii. **Constant payout ration:-** According to this form, constant percentage of earning is paid as dividend by company to the shareholders. Each year same percentage of earning is paid as dividend. The dividend payment increase with the increase in earning.
- iii. **Stable rupee dividend plus extra:-** Under this policy, a firm usually pays a fixed dividend to the shareholders and in years of marked prosperity, additional dividend is paid over and above the regular dividend. As soon as the

normal condition returns, the firm plus extra dividend and pays the normal dividend per share.

2.7 Reasons for Following Stable Dividend Policy

There are several reasons why investors prefer stable dividend:

- a. **Desire for current income:** The investor always has desire for current income. The investors such as retired persons and widows view dividends as the sources of income. So they are ready to pay high price for their shares to avoid erratic dividend payments, which disrupt their investment.
- b. **Information contents:-** The investors prefer stable dividend because they use dividend and change in dividend as the source of information about the firm's profitability. If the investors know that the firm will change dividend only if the management foresees a permanent earning change then the level of dividend informs investors about management's expectations concerning the company's earnings.
- c. **Requirements of institutional investors:** - The institutional investors such as life insurance companies, general insurance companies prefer to invest in those companies that have stable dividends. So, Stable dividend policy is desirable.

2.8 Legal rules regarding dividend policy in Nepalese context

Corporation as creatures of laws incorporation under the corporation law or statute must conform to prescribe regulation in the declaration of dividend. If the board of directors declares dividend in violation of legal rules, they are held personally liable. "A few states hold the directors criminally liable but the usual practice is to permit the directors to be guided by audited financial statements. Some states permit a civil suit for the recovery to corporations by directors who may have become personally liable." (Baker and Carry, 1959,p.9)

The legal rules are imposed by corporations Act of by to accomplish various purposes

- a. Maintain the liquidity of the corporation to meet the fixed obligations.

- b. Strengthen the financial position of the corporations to assure increased net worth.
- c. Enable the corporations to exploit opportunities for its continuous growth and survival.

"Although there are many others purpose that sets Limitations on the payment of dividend, but yet among all the maintenance of sound financial health is the dominant objective of imposing legal restrictions on dividend, but yet among all the maintenance of sound financial health is the dominant objective of imposing legal restriction on dividend." (Shrestha 1980, p.666)

Some of the legal rules regarding dividend policy can be found in Company Act of Nepal. According to the Section 64 of the Company Act 1997," debates shall be held and decision to be taken on accounts, balance sheets, and profit and loss accounts of company, the reports of the directors and auditors, the dividends to be distributed among the shareholders, the appointment of directors and auditors, the remunerations of the auditors etc, at the general meeting provided that, which debating on the dividend to be distributed among the shareholders, no decision may be made so as to increase the rate of dividend recommended by the Board of Directors," Similarly, according to the Section 140 of the Company Act there some rules regarding the dividend distributing which are as follows:

Except the following circumstances, dividends shall be distributed among the shareholder within 45 days from the date of decision to distribute them:

- a. In case any law forbids the distribution of dividends
 - b. In case the right to dividend is disputed.
 - c. In case dividends can not be distributed within the time limit mentioned above owing to circumstances beyond anyone's control and with out any fault on the part of the company.
1. In case of dividend are not distributed within the time limit mentioned in sub section 1, this shall be done by adding interest at the prescribed rates.
 2. Only the person whose name stands registered in the register of existing shareholder at the time of declaring shall be entitled to it.

2.9 Directives issued by Nepal Rasta Bank for Financial Institutions

To make the net profit and dividend system more regular, transparent and systematic, the central bank has issued this directives under Nepal Rasta Banks Act 2058 (section 79)

1. Net profit distribution (appropriation)

The company can distribute the net earning only for the following purpose, remaining within the boundary of existing law.

- a. To transfer into ordinary reserved capital.
- b. To declare and distribute dividend.
- c. To distribute bonus share.
- d. To create surplus and reserve for the company.
- e. To transfer into balance sheet as the retained earning.

2. Restrictions for declaring and distributing dividend:

The company can not declare dividend unless and until the following conditions are fulfilled.

- a. The company can not pay the dividend until the price of the share in promoter's name is paid.
- b. Unless the company is registered in Nepal Stock Exchange after selling the shares to the general public as mentioned in memorandum and articles of association. (Explanation: In this case dividend only confines to cash but also include bonus share and other profit capitalization).

3. Restrictions for providing facilities

The company can not provide other financial facilities except dividend without the prior consent of Bank and financial institution regulation division of Nepal Rastra Bank.

4. The action to be taken for not following the directives for net profit and dividend

If the company does not follow the directives the bank can take any action mentioned in Nepal Rastra Bank Act. 2058, section 100.

2.10 Ordinance Related to Banks and Finance Companies

Ordinance No. 46- Nepal Gazette (2062/04/21)

1. Restriction in distributing the dividend:- The registered companies cannot distribute the dividend unless and until all the initial expenses, the loss occurred until previous year, capital fund, risk management fund and reserve fund are fulfilled as mentioned in section 44. Furthermore if the share is to be allocated to the public, the dividend cannot be distributed and the full payment of share is made.
2. The registered company should get the approval of Nepal Rastra Bank before dividend is declared and distributed.

2.11 Dividend Payment Procedure

It is necessary to clearly outline the payment procedure in the dividend policy so that market knows when the company declares dividend and pay, how they pay and whom they pay, Specifically, the policy needs to specify the following:-

1. Declaration Date:- The date that company normally declares dividends.
2. Recorded holders of shares:- The stockholder to whom dividends to be paid.
3. Payment date:- The date the dividend is actually paid or mailed and
4. Method of payment: pay by mail, or credit stockholders account.

Generally, dividends are declared weeks or even months before actual payment are to be made. The company's board of directors declares dividends normally during predetermined period. The administrative procedure then is to finalize the list of the holders of shares for dividend payment. Normally, a "holder or record date" is fixed to decide who is entitled to dividend. Since stock are traded every day (except holidays), the information of buying and selling of stocks does not reach to the company immediately upon completion of transactions, and the company record may not show the genuine owners of stock at particular point of time. It is a difficult task to figure out who are the genuine owners of share on the "holder or record date" To overcome this problem the practice is not security markets set up a date called : ex-dividend date which is generally four days period to the "holder of record date" Those who are listed

as the owners of share in the company record on the "ex-dividend date" the buyers are entitled to receive dividend; but if the transactions takes place after such date, the sellers right of dividends no longer goes to buyers. The dividend is paid on the payment date fixed by the company.

Claims on Assets

When the firm becomes bankrupt, assets are sold and the proceeds distributed in this order:

1. To employees and customers
2. to tell government
3. To secured creditors
4. To unsecured creditors and
5. Finally to equity shareholders. This is because equity holders are last to receive any distribution of assets during bankrupt proceeding they expects greater compensation in the form of dividend or rising stock prices.

Stock rights and other consideration

Stock rights provide stockholders with the privilege to purchase additional share of stock based on their number of owned shares.

Preemptive rights allow common shareholders to maintain their proportionate ownership in the corporation when new issues are made.

Dilution of ownership occurs when a new stock issues result in each present stockholders having a claim on a smaller part of the firm earning than previously.

Date of record (Right), the last date on which the recipient of right must be legal owner shown in company's stock ledger.Ex-rights, the condition under of which stock is sold for a period without announced right being attached to the stock. Holders of record owner of the firm's shares on the date of record, who may exercise their rights sell them let them expire. Subscription price the price below the prevailing market price at which stock rights may be exercisable for specific period of time.

Effects of Dividend policy Decision on Stock Value.

In particular, the effects of stock dividend, stock split, or stock purchase, are visible in earning per share, dividend per share, stock price, and value of stock. A dividend policy decision to pay cash and/or stock dividend, stock split or reverse split, and stock repurchase should be evaluated with reference to the effect of decision on earning per share (EPS), dividend per share (DPS) stock price and value of stock value tells us whether a particular decision is in the best interest of stockholders. Let us see how these parameters are calculated.

1.
$$\text{EPS} = \frac{\text{Total Earnings}}{\text{Number of outstanding stocks}}$$
2.
$$\text{Stock Price} = (\text{Price/Earning ration}) \times \text{EPS}$$
3.
$$\text{Value of Stock} = \text{Stock price} + \text{DPS}$$
4.
$$\text{DPS} = \frac{\text{Earning available for dividend}}{\text{Number of outstanding stocks}}$$

2.12 Review of various Studies

2.12.1 Review of Studies in International Context

1. Modigliani and Miller Approach

Franco Modigliani and Miller provided the most comprehensive argument regarding the irrelevance of dividend in their article in 1961. They implies that dividend policy does not affect the value of the firm i.e. share price of the company. The value of the firm is affected by the company's earning which depends upon the investment policy. This theory is also known as M-M approach or dividend irrelevance mode. This model is based on the following assumptions.

- a) The firm operates in perfect capital market in which all investors inceptors are rational information is available to all free for cost, there are no transaction costs; securities are indefinitely divisible; no investor is large enough to influence the market price of securities there are no flotation costs.
- b) There are no taxes. Alternatively there are no differences in tax rates applicable to capital gains and dividends.

- c) The firm has fixed investment policy. The operational implication of this assumption is that financing of new investment out of retained earnings will not change the business risk complexion of the firm and therefore, no change in the required rate of return.
- d) Risk of uncertainty does exist. (This assumption is dropped by MM later.)
On the basis of the assumption MM of formula to determine the value of firm is as follows:-

Step 1

The market price of the share in the beginning of the period is equal to the present value of dividend paid at the end of the period plus the market price of the share at the end of period.

$$P_0 = \frac{1}{1+k_e} \times (D_1 + P_1)$$

Where,

P_0 = Market price at the beginning or at zero period

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

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

K_e = Cost of equity capital.

Step 2

Assuming that firm does not resort to any external financing the market value of the firm can be computed as follows;

$$n P_0 = \frac{n(D_1 + P_1)}{1+k_e}$$

Where,

n = Number of equity share at zero period.

Step 3

If the firm's internal sources of financing on its investment opportunities fall short of funds required. Then.

$$np_0 = \frac{nd_1(n+\Delta n) p_1 - \Delta np_1}{1+k_e}$$

Where,

Δn = the number of new share issued at the end of year 1 at price p_1 .

Step 4

If the firm were to finance all the investment proposals, the total amount of new shares issued would be given by the following equation.

$$\Delta np_1 = I - (E - nD_1)$$

Where,

ΔnP_1 = amount obtained from the sale of new shares to finance capital budget.

I = the total number of required budget

E = Earning of the firm during the period.

eD_1 = Total Dividend paid

$E - Nd_1$ = Retained Earning

Conclusions

We can obtain the value of firm from the above equation but there is role of dividend in the above equation. Therefore Modigliani and Miller concluded that dividend policy does not affect the value of firm.

Walter's study

Professor James E Walter's study contradicts with that of Modigliani and Miller. According to Walter dividend policy can not be looked separately from that of investment policy. According to him, relationship between internal rate (r) of return and cost of capital (k) is very important in determining the dividend policy. As long as

the internal rate is greater than the cost of capital, the stock price will be enhanced by retention and will vary with dividend payout.

Assumptions of this model are as follows:

- All the investments are financed through retained earnings and debt or equity are not issued.
- The firm's internal rate of return and cost of capital are constant.
- The entire earnings are either distributed as dividend or retained for reinvestment immediately.
- The value of EPS and DPS are kept constant forever in determining the given value.
- The firm has perpetual life.

Based on the above assumption, Walter to determine the market value per share is as below:-

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

Where,

P= Market price per share

DPS= Dividend per share

EPS= Earnings per share

r= Internal rate of return

K= Cost of capital

There are three conditions of the firm:

1. $r > k$ If the firm's internal rate of return exceeds the cost of capital, the relation between Dividend and stock price is negative. It implies that high dividend payout results in low stock prices. Such characteristics of a firm show growth share. So they are called growth firms. In this case, it is better to retain the earnings. By doing this, the shareholder's wealth is maximized, since firms are able to earn more than what the shareholders could earn reinvesting the earnings paid to them. Market value of share increases by dividend in case of growth firms. The market value per share will be maximum at zero dividends.

2. $r=k$ If firm's internal rate of return is equal to the cost of capital, there is no relation between dividend and stock price. Such firm's are termed as normal firms. So it doesn't matter whether the firm distribute dividend or retain the earning. The market price per share will remain constant whatever will be the dividend payout ratio.
3. $r < k$ in this situation, there is positive between stock price and dividend. This type of firm called declining firm. By distributing the entire earning as dividend value of share will be increased to optimum level.

Van Horne and Mac Donald's Study

Van Horne and Mac Donald conducted the most comprehensive study on dividend policy & new equity financing. The study was conducted for investigating the combined effect of dividend policy and new equity financing on market value of firm's common stock. They used a valuation model called cross-section regression model. The required data were collected from 86 utility firms included on the COMPUSTAT Utility data tape 39 firms in electronics and electronic-component industries listed on the COMPUSTAT industrial data.

They tested regression model for the utilities industries. They compared the results obtained for firms, which both pay the dividend and engage in new equity financing with other firms in the industry sample. They conclude that for electric utility firm in 1968 share value is not adversely affected by new equity financing in the presence of cash dividend, more costly form of financing than the retention of earning. They also indicate that payment of dividend through excessive equity financing reduces share prices. For electronics, electric- components, industries a significant relationship between new equity financing and value was not demonstrated.

Gordon's Model

Gordon concluded that dividend policy of a firm affect its value even in the situation where the return on investment and required rate of return are equal. This model explains that investors are not indifferent between current dividend and retention of earning. The conclusion of this study is that the investors give more emphasis to the present dividend more then future capital gain. "His argument insists that on increase in dividend payout ratio lead to increase in the stock price for the reason that investor consider the dividend yield ($D1/P0$) is less risky then the expected capital gain.

This model is based on the following assumptions:-

- The firm is an all equity firm.
- Internal rate of return (r) and cost of capital (k_e) are constant.
- The firm and its stream of earning are perpetual.
- The corporate taxes do not exist.
- The retention ration ‘ b ’ once decided upon is constant. Thus the growth rate $g = br$ is constant.
- ‘ k_e ’ must be greater then ‘ g ’ (br)
- No external financing is available, so earning would be used to finance for any expansion.

Based on the above assumption, Gordon has provided following formula to determiner the market value of a share, which is simplified version of the original formula:-

$$P = \frac{E(1-b)}{K-br}$$

Where,

P = Price if the share

E = Earning per share

B = Retention ratio

$1-b$ = percentage of earning distributed as dividend

$E(1-b)$ = Dividend per share

K = Capitalization rate or cost of capital

$b.r.$ = Growth rate in r,e, rate of return on investment of an all equity financing.

The above mode reveals the following facts:

In the growth firms, the share price tends to decline in correspondence with increase in payout ratio or decreases with the retention ratio. i.e, high dividend corresponding is to the earning lead to the decrease in share price. Therefore dividends and share price are inversely correlated in the case of growth firms. But in the case of normal firm, share value remains constant regardless of changes in dividend policies. It means dividend and stock prices are free form each other in normal firms i.e. $r=k$ firm. In decline firm, share price tend to rise in correspondence with rise in dividend and stock price are positively correlated with each other in declining firm.

Gerald R. Jensen and james M. Johnson's Study

The study made by jensen and Johnson explains about the corporate dividend reeducations. The objective for this study is to provide evidence regarding the motivation for a dividend drop, the information conveyed by a drop and managerial action takes both before and after a drop. Their study extended prior research by examining 19 firms characteristics in addition to firm earning and stock price to provide a more complete picture of firm's behavior three years before (t-3) and three years after (t-2) a dividend drop. To evaluate financial characteristics' of dividend reductions companies for six years around a dividend drop, the sample consisted of firms that reduced their dividend in the period from 1974 to 1989 after establishing a stable dividend payment policy. A firm is defined as meeting the conditions that it paid a positive non decreasing dividend for a least 12 consecutive quarters and then dropped its dividend reductions and 50 cases of dividend omissions. Their study grouped the financial variables into six categories, they are:

Performance	Firm's earning stock price and dividend level
Cost Structure	Sales, Cost of sales and selling, general and administrative expenses
Financial Conditions	Cash position, current assets, current liabilities and debt ratio
Financing	Equity (common and preferred stock) and debt securities

Reconstructing	Purchasing of fixed assets, sales of fixed asset, number of employees and labor expenses.
Discretionary	Research and development and advertising expenses.

Information about dividend reduction is particularly relevant in light of recent research findings indicate that firm's generally increase after the dividend is reduced and earning increase there after. Furthermore, stock price follow a similar pattern, however, the rebound in stock prices following the dividend drop is not significant.

There finding supported that dividend reductions are the consequence of reduced earning and deteriorating liquidity positions and levels. Although earning displays as strong trend, first down and then up, sales did not follow the same pattern. In particular, after a dividend reduction dividend drop firm tends do sell more fixed assets, purchased fewer fixed assets, spent less on research and developed (R and D) and reduce employees at a faster pace. In addition selling and general (SG) and advertisement (A) expenses continue to enchase as do current liabilities finally, the evidence was consistent with the view that dividend drop firms found it difficult to raise external financing. Overall, their result suggested that a dividend drop mark the end of a firm's financial decline and the beginning of the firm restructuring.

Mark E. Holder, Fredrick W Langrehr and J. Lawrence Heater's Study

In dividend policy literature, 8 Mark E. Holder, Fedric W. Langrehr and Lawrence Hexter investigated on influences of stakeholders on the firm's dividend and investment policies by examining the interaction between the dividend and investment policies. They proposed that both non-investor (customers, employees, supplier's distributors and other firms providing complimentary foods and services) and capital suppliers have and impact in firm's dividend policy. They developed the model with data from 477 firms and over an eight year period (1983- 1990) and used a pooled time series cross sectional analysis to test it.

To examine the interaction between dividend and investment polices of a firm, they used the regression equation given below as the basis for testing their hypothesis of relationship between the net organizational capital (NOC) and its dividend payout. To

specify the model more fully, they include other variables based on the previous research.

Rony Michaely, Richard H. Thaler and Kent L. Womack's Study.

Rony Michnely, Richard H. Thaler and Kent L. Womack investigate market reaction to dividend initiations and omissions of cash dividend payment. They also investigate both the immediate (Three day) reaction to initiation of omission announcement price performance. Using the Center for Research in Security price (CRSP) tapes. They collected all New your Stock Exchange (NYSE). American stock exchange (ASEX) companies that initiated dividend during 1964 to 1988 they define a dividend initiation as the first cash dividend payment reported to the CRSP master file. Reinvestment of a cash dividend is not considered dividend initiation for this purpose. The following criteria are used for inclusion in their initiation sample.

- i. The company must have traded on the NYSE for two years before initiation the first cash dividend.
- ii. All companies paying at the end of years wear excluded.
- iii. All foreign companies traded in American Depository Recess (DRS) were excluded from the sample.

The resulting sample contains 561 cash dividend initiation events. Unlike initiation, declarations of dividend initiation are not recorded on the CRSP tapes. The CRSP files contain announcements dates for the dividend declaration, but no dated for the subsequent omissions of irregular payout. Hence, their sample construction strategy is to select from CRSP master files. These master companies that had existed on the SYSE or ASEX for more them one year and had paid regular Periodic cash and they omitted such payment during 1964-1968. Especially for companies potential are omission even in their sample. One of the following must have occurred.

- i. The company declared at least six consecutive quarterly cash payment and then paid no cash payment in calendar quarter.
- ii. The company declared at least three consecutive semi-annual cash payment and then paid to cash payment is the next six months.
- iii. The company declared at least two consecutive annual cash payment and then paid no cash payments in the next year.

The above search identified more than 1500 potential omission events in 1994-1968 periods.

By using different statistical tools they concluded that:

- a. The short run impact of dividend is negative and that of the initiation is a positive initiation reaction are about one and half the magnitude of the market reaction to omission announcements.
- b. It is apparent that both the immediate and the long term reaction to omission announcement is greater than the initiation.
- c. They were able to explain short run reaction but unable to find explanation for the long term differences in price behavior and omission.

Shlomo Benrtzi, Roni Michaely and Recharad Thaler's study:

Shlomo Beanrtize, Roni Michaely and Recharad Thaler conducted a research on 'change in dividends signals future or past' in the year 1977. Using the centre research in security prices (CRSP) and COMPUSTAT tapes. They collected all companies that trade on New York Stock Exchange (NYSE) or on the American Stock Exchange for at least two years, excluding all foreign countries. They conclude that: Even though paying dividend is costly many companies do so, since dividend payment has good market reaction. Many theories assumed that dividend provide information to the market. They also found some evidence that firms with increasing dividend payment are to have decrease earning than the firms that do not increase their earning despite similar increase in earning.

Nil H. Hankinson Study

Nil H. conducted the comprehensive study on to pay or not to pay the dividends. The study was conducted on daily share price changes with the announcement of a dividend change. He found that dividend are not able to improve the efficiency when the investors have homogeneous belief utility is additive and market exhibit full allocation efficiency. On the other hand, dividends are able to improve the efficiency when they are informative, provided the investors have heterogeneous belief, utility is not additive or market in incomplete.

Robert H. Litzenberg and Krishna Ramashwamy Study

Robert H. Litzenberg and Krishna Ramashwamy study have founded positive relationship between expected before tax returns and dividend yields. They have discovered that stock with high dividend provide high expected before tax returns then stock with low dividends. However by adding default risk premium variable to the extended capital assets pricing model, it can be found that dividend coefficient is not significantly different from Zero and conclude that the dividend yield measure is likely to be correlated with a number of economic phenomena, this tax effect on dividend is unsettled state.

Deepak Chawla and G. Shrinivasan's Study

Deepak Chawla and G. Shrinivasan took 18 chemicals and 13 sugar companies and estimated cross section relationship for the year 1969 and 1973. The required were collected from the official directory of Bombay stock exchange. The objective of the study was:

- To establish the model to explain the share price, dividend and retained earning relationship.
- To test the dividend retained earning hypothesis.
- To examine the structural changes in the estimated relationship overtime.
- To achieve the aforementioned objective they used the simultaneous equation model developed by Fird and Puckett (1964) (ibid LP 138)

R.P. Mahapatra and P.K. Sahu's study

R.P. Mahapatra and P.K Sahu studies are on determinants of corporative dividend behavior in India. An econometric analysis their study was important in the sense that it was in the sharp contradistinction with the findings of the earlier studies. The objectives of their studies were:

- To examine the relative significance of some know dividend models in explaining the corporate dividend behavior in India context.

- To enquire a few more determinants which were not used in previous studies, with the regression model of good fit?

They selected Britain's cash flow model for further study in the India context. Based in this model, their study attempted to examine the impact of few more determinants of dividend behavior with the help of their sample data.

After applying the regression model in their study, they concluded that dividend decision is primarily governed by cash flow, a measure of company's capacity to pay and dividend paid in previous year, in majority of the sample companies. Among other determinants investment demand has been found giving significant impact on the dividend decision of electrical goods and chemical industries. The impact of flow of net debt on dividend decision found significant of new companies at the aggregate level and prepare industry at the industry group level of their study. Similarly, they found that liquidity factors turned out to be significant determinants of the dividend payout in the cotton and general engineering industry of their study. They found that determinants, like interest payment changes in sales and behaviors of share price in general did not have any significant bearing on the dividend decision of the sample companies.

Miller and Rock's study

Some researcher's emphasize the informational content of dividends. Miller and Rock, for instance, develop a model in which dividend announcement defects emerge from the asymmetry of information between owners and managers. The dividend announcement provides shareholders and the market place the missing piece of information about current earnings upon which their destination of the firms future (expected) earning is based. The latter of course determines the current market value of the firm. In this respect, we can clearly see the role played by dividend. The dividend announcement provides the missing piece of information and allows the market to establish the firm's current earning. These earnings are then used in predicting future earning.

2.12.2 Review of Studies in Nepalese Context.

Radhe Shyam Pradhan's study

He conducted a comprehensive study on dividend policy. He studies the stock market of 17 firms covering the year 1986-1990. The main objectives of his study are as follows:-

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

The major findings of his study are:

- The higher earning on stock leads to the larger ration of dividend per share.
- Stocks with large ratio of dividend per share to market prices have lower leverage ratio.
- Stock with large ratio of dividend per share to market price has higher liquidity.
- The positive relationship between the ratio of dividend per share to market price and interest coverage ratio.
- Dividend per share and market price per share are positively co-related.
- Positive relationship of dividend payout with liquidity, profitability, assets turnover and interest coverage ratios.

K.D Manandhar's study;

Dr. K.D. Manandhar carried out his study on he topic preliminary test of lagged structure of Dividend: The empirical Test, case of Corporate Firms in Nepal, based on data of seven banks, five financial companies and one manufacturing company. Major findings of his study are:-

- i. There is significant relationship between change in dividend policy in terms of dividend per share and change in lagged structure.
- ii. There is positive relationship between change in lagged consecutive earning and dividend per share.
- iii. There is relationship between distributed lagged profit and dividend.

- iv. When change in lagged consecutive earning is greater than zero, then there was change in dividend per share in sixty five percent cases.
- v. There is relationship between distributed lagged profit and dividends.
- vi. Overall increase in earning per share has resulted to the increase in the dividend payout in sixty six point six percent of the cases while decrease in EPS has resulted decrease in dividend payment.
- vii. Nepalese corporate firms have followed the practices of maintaining constant dividend payment per share.
- viii. Corporate firms do not take account the one year and two years lagged earning.

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

2.12.3 Review of Master's Degree Thesis

Anjani Raj Bhattari's Study

Mr. Anjani Raj Bhattari has conducted the thesis with the title "Share markets in Nepal" in the year 1990. His study is based on the dividend performance of some Nepalese companies. His findings are summarized as follows:

1. Most of the companies were paying less than the expected cash dividend per share while some of them were paying more than average cash dividend per share while higher among and low priced. So, most of the companies are disappointing the investors resulting the low marketability of the shares in the trading floor of the stock exchange.
2. Wide gap was recorded in the percentage of cash dividend by the listed public LTD companies. The expected percentage of dividend of investors did not match with the actual percentage.

3. Majority of the companies declaring less percentage of dividend then the risk free rate of return plus risk premium are unable to maintain investor psychology in the marketing.
4. Majority of the companies displaying lower price earning rate indicates the erosion of believes of investors on the share of listed companies. As a result, market price of the share is highly skewed.
5. There were mismatch between the calculated price and quoted price of share which was merely the actual price of the share. It clearly suggests that pricing of shares and market price were guided by various technical factors.

According to the author, the dividend policy was not so relevant. So, he had provided with some suggestions to improve the dividend policy which are as follow:

Fixation of dividend:- Dividend is the strongest financial variables that determine the price of the shares. Higher the dividend, higher the price of shares. The practices of non-paying and paying the minimum dividend should be abolished. For this, a proper balanced policy must be evolved. So it is necessary to lay down the following minimum targets.

- i. Minimum dividend payment.
- ii. Regular dividend payment.
- iii. Regular an extra dividend payment.

Pramesh K.C.'s study

Pramesh K.C. conducted his study on Dividend policy of joint Venture Banks in Nepal.

According to his findings:

- Joint venture banks are the growth banks.
- Their market value per share are significantly fluctuated and traded on high rate.
- They are less risky and their DPS is correlated with EPS.
- Retained earning ration of these banks are fluctuated in very small proportion.
- EPS of these banks are raised the satisfactorily level.
- These banks are declaring higher dividend return on paid up capital.

Bishnu Hari Bhattari's Study.

Bishnu Hari Bhattari has studies on "dividend decision and its impact in stock valuation." The conclusion draw by him are summarize in the following points:

- There is positive relationship between cash flow and current profit and dividend percentage shares. The degree of relationship is almost perfect.
- In aggregate, there is no stable dividend paid by companies over the years. Some companies. Have steadily increased dividend. It can be inferred that they adopted low regular plus extra dividend. Stable dividend influence considerable impact on valuation of share if there is rational investor. However, this is yet to be realized by Nepalese Company management.
- Accounting to him, there are no criteria to adopt payout ratio and it is observed that there is negative relationship between the payout ratio and valuation of shares.
- Inflation rate in recent years are decreasing and the market price of share are increasing. Nevertheless, the companies are not able to give required rate of retune to the investors.
- There was negative relationship between market price of the share and stockholder's required rate of return.
- The positive relationship was observed on foreign investment and payment of dividend i.e. the companied invested by foreign investors are paying regular dividend than the companies financed by indigenou investor.

Hari Ram Aryal's Study

Hari Ram Aryal has compared the dividend policy of Nabil Bank Ltd and Standard Chartered Bank Ltd. in his study. The conclusions drawn by him are summarized as follows;-

- The relationship between dividend per share and earning par share, net profit, net worth and stock price were found positive in these banks.
- A change in dividend pare share affects the price differently in different Banks.
- There is no uniform dividend distribution policy in both the banks.

Rishi Raj Gautam's Study

Rishi Ram Gautam has compared the dividend policy of three commercial banks via NGBL, NIBL and NABIL, the objective of this study are as follows:-

- To identify what type of dividend policy is being followed and find out whether the policy followed is appropriate or not.
- To study the impact of dividend on stock price.
- To study the relationship between DPS and other financial indicators.
- To know if there is any uniformity among DPS, EPS and DPR of the three commercial banks sampled.

The conclusions drawn by him from his studies are as follows:-

- There is very much fluctuation between EPS and DPS.
- Relationship between DPS and EPS is though positive, not significant.
- There may be various other factors except EPS affecting MPS.
- The growth rate of dividend is inconsistent.
- No commercial Bank sampled has clearly defined dividend policy.

Sandakhar Timilsina's Study

Sandakhar Timilsina used the multiple regression models of three independent variables. Besides: he also tried to highlight the relationship between stock and other independent variables setting separate simple linear regression equations. The sectors chosen for the study were manufacturing and trading sector and banking and insurance sector. The major findings of his study are as follows.

- The relationship between dividend per share and stock price is positive.
- Dividend per share affects the stock price differently in different sectors.
- Changing the dividend policy of dividend per share might help to increase the market price of the share.
- The relationship between stock price and retained earnings per share is not prominent.

Yaga Bahadur Katwal's Study

Yaga Bahadur Katwal has compared the dividend policy between different commercial banks in Nepal. The objective of his study is as follows:-

- To study the current practices of dividend policy in commercial banks.
- To find out the impact of dividend on share prices.
- To analyze uniformity among indicators such as DPS, EPS and DPR if any, on the simple joint venture banks.
- To analyze the relationship of DPS, EPS, DPR, P/E Ratio, Liquidity ratio and profitability ratio on Market value per share.

Major findings of his study are:

- Dividend per share of all the concerned banks is satisfactory.
- Acreage earning per share is also satisfactory.
- Relationship between DPS and MVPS is fairly positive in the other hand, relationship between EPS and MPS is also positive.

Preana Rajbhandari's Study

Preana Rajbhandari conducted a study on dividend policy in 2001 taking three commercial banks and three insurance companies. The main objective of her study is a followings:-

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

Major findings are:

- The averse DPS of the sample banks are satisfactory expect NABIL and EPS are satisfactory
- The analysis of coefficient of variations shows that there is largest fluctuation in EPS and DPS.
- The analysis of dividend payout ratio shows that none of the banks are insurance companies share constant payout ratio each year. It is fluctuation from year to year.

Suvas Kunwar's Study

Suvas Kunwar conducted his study on "The Dividend policy, the comparative study between Nepal Insurance Company Limited and National Life and General Insurance Company" in July 2001. The main objectives of the study are:-

- To examine the influence of financial indicators on share price.
- To show the relationship between dividend per share and other financial indicators.
- To check the consistency between DPS, EPS & DPR.
- To identify the dividend policy undertaken by each company and the appropriateness of the policy undertaken.

The major findings are:-

- There is no consistency in dividend payment and earning per share in sample companies.
- Due to the high fluctuation in the dividend yields and earning yields, market value of share is decreasing.
- Relationship between dividend per share with EPS and dividend per share with P/E ratio is not consistent in both companies.
-

Limitations:-

- The Sample size taken is very small.
- Only some financial indicators are taken for the study whereas there are so many factors which affect the dividend policy.

Pujan dhungel's study

Pujan Dhungel studies on the study of dividend policy of the commercial bank in Nepal. The main objectives of this study are:-

- To find out the impact of dividend policies on value of firm.
- To study are relationship of dividend policy with various financial indicators like EPS, DPS, MPS, DPR, net worth, net profit and book value of these.

The major findings and conclusions drawn from his studies are as follows:-

- Among the four sample bank, only standard Chartered bank is paying dividend regularly.

- The Nepal Bangladesh bank is paying interest percentage of earning as dividend.
- The regression analysis of DPS on MPS shows that increase in MPS leads to decrease in DPS in all the sample banks except in case of SBI Bank.
- It is found the chose in dividend per share affects the value of offers different in different bank.
-

Subarnal Lal chitrakar's study

Subarna Lal Chitrakar studies on dividend policy and practices of commercial banks of Nepal. The main objectives of his studies are:-

- To examine relationship of dividend with various important variables store is earning per share, dividend per ratio, P/E. ratios and profitability ratio on market value per share.
- To analyze the impact of dividend on them price.
- To examine if there is only uniformity many DPS, EPS, and DPR on the three sample.

The major finding and conclusions drawn from his studies are as follows:

- The sample banks have got sufficient earning but some of the banks are paying first dividend while other are paying loss dividend.
- Market price of share is affected by dividend.

CHAPTER III

RESEARCH METHODOLOGY

Research methodology is the method, which the researcher uses in the course of his research. This is the steps, guideline and tools used in the research. Research methodology is described the methods used to solve the research problems. It is the guidelines followed by the researcher in order to give the result to his study. In fact, it is the outline of the research, which the researcher is going to do. So, research methodology is very important as it represent the method of entire research.

3.1 Research design

Research design is the plan and structure to fulfill the objective of research. Both analytical and descriptive approaches are used in this research. The annual reports and other financial statements are studies. The data are analyzed by using financial as well as statistical tools.

3.2 Population and Sample

There are altogether 32 commercial banks in Nepal. It is not possible to taken all the commercial banks. Although, the shares of many commercial banks are traded actively in the stock market only five commercial banks are taken for the study. The banks which are chosen as the sample are:-

1. Nepal Investment bank limited.
2. Standard Chartered bank limited
3. Nepal SBI bank limited
4. Nepal Bangladesh bank limited
5. Everest bank limited.

3.3 Source of data

The data are mostly secondary in nature. The data are collected from respective banks. Nepal stock exchange (NEPSE), security Board Nepal (SEBO), newspaper,

magazines, websites. (www.nepalstock.com, www.studyfinance.com) journals published and unpublished reports, etc.

3.4 Method of Analysis

Various statistical and financial tools are used to analyze the data. The data are tabulated under different headings.

Data analysis tools

3.4.1 Financial Tools

Earning per share (EPS):- Earning per share is calculated in order to determine the earning capacity of the company. "Apart from the rate of return, the profit ability of the firm in the point of view of shareholder is EPS. "EPS explains the profit available to the shareholder in per share basis. EPS is obtained by dividing net profit after tax by the number of share. EPS is most widely used ratio.

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

Dividend per share (DPS):- The part of the earning distributed to the shareholder in the proportion to the number of shares they possess is known as DPS. A part of net earning belonging to the shareholder is retained as retained earning and remaining is paid to them as dividend. In per share basis, DPS shows how much exactly is received by the shareholder. DPS can be calculated by dividing the total dividend by the number of share outstanding.

$$\text{DPS} = \frac{\text{Total dividend}}{\text{No. of shareholder outstanding}}$$

Dividend pay-out ratio (DPR):- DPR is the percentage of profit per share which is distributed as dividend. It measures the relationship between earning belonging to the shareholder and dividend paid. DPR can be calculated by dividing total dividend paid to the shareholder by earning available to them. DPR subtracted from 100 gives the percentage of the earning that is retained in the business.

$$\text{DPR} = \frac{\text{Total Dividend to the shareholder}}{\text{Total net earning belonging to shareholder}}$$

Alternatively, DPR can also be calculated by dividing DPS by EPS

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

Market price per share (MPS):- MPS is the value of share in the market, which is indicated by the NEPSE index. The MPS is determined by the capital market. MPS is closely related to the EPS and DPS.

Dividend yield and Earning yield (DY and EY):- DY is the proportionate of dividend per share and market per share. EPS and DPS are based in book value of share while dividend yield is expressed in terms of market value per share. So dividend yield is closely related to EPS and DPS. DY can be calculated by dividend per share by market value per share.

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

Similarly, earning yield is proportionate of EPS and Market value per share.

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

Price earning ratio (P/E ration):- P/E ratio is the ratio between market price per share and earning per share. So it is reciprocal of earning yield. The P/E ratio reflects the price currently being paid by market for each rupee of currently reported EPS. So, higher the P/E ratio better is for owners.

$$\text{P/E ratio} = \frac{\text{Market price per share (MPS)}}{\text{Earning per share (EPS)}}$$

3.4.2 Statistical Tools

The statistical tools are very important tools in the research, which helps to determine the relationship between the variable. Various statistical used in the research are as follows:-

(i) Arithmetic Mean

The arithmetic mean is also as average or measure of central tendency. Mean can be obtained by dividing the sum of all the observations by the no. of observations.

Suppose, $X_1, X_2, X_3, \dots, X_n$ given n of observations then mean can be calculated as:-

$$\bar{X} = \frac{\sum X}{N}$$

Where

$\sum X$ = Sum of all observations

N = number of observations

(ii) Standard deviations (†)

The measurement of scatter ness of the figures in a series is known as dispersion. The absolute dispersion is called standards dividend. The greater the amount of dispersion,

greater will be the standard deviation. The small standard deviation indicates that there is high degree of homogeneity in the series.

$$\sigma = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

(iii) The Coefficient of Variation(C.V)

The Coefficient of variation reflects the relationship between mean and standard deviation. "the relative measure of dispersion comparable across which is defined as ratio of standard deviation to mean expressed in percentage "

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

Where,

σ = Standard Deviation

\bar{X} = Mean

(iv) Probable Error

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

$$P.E = 0.6745 \frac{1-r^2}{n}$$

- (i) if $r < 6 P.E.$ it is insignificant, so perhaps there is no evidence of correlations.
- (ii) if $r > 6 P.E.$ It is significant

(v) Coefficient of Determination (R^2)

The coefficient of determination is a measure of degree of linear association of correlation between two variables, one dependent and another independent variable. Coefficient of determination measures the percentages of total variation independent

variables explained by independent variables. R^2 can have value ranging from 0 to 1. if the coefficient of determination is 0.75 it indicates that independent variables in the regression model explains the 75% the total variation in the dependent variables. The coefficient of determination is square of correlation coefficient.

(vi) Correlation Analysis

Correlation is defined as the relationship between dependent variable and independent variable. If the two or more variables are so related that the change in the value of dependent variable then they are said to have correlation. Correlation analysis is defined as the statistical technique, which measures the degree and direction of relationship between the variables. The most important methods of measuring correlations is "Karl Pearson's Coefficient of correlations."

$$R = \frac{\text{Co v (x, y)}}{(\sigma_x)(\sigma_y)}$$

Where,

R = Coefficient of Correlation

σ_x = Standard deviation of X

σ_y = Standard deviation of Y

(vii) Regression Analysis

Regression analysis is the tool, which is used to determine the statistical relationship between two or more variables and to make the estimation of one variable on the basis of other variable.

- a. **Simple Regression Analysis:-** The analysis used to describe the average mathematical relationship between two variables is called simple regression.
- b. **Multiple Regressions Analysis:-** Multiple regressions are the statistical tool, used is used to estimate the value of one dependent variable when the value of two or more independents variable is known.

(viii) Regression coefficient (b_1, b_2, b_3)

The regression coefficient of each independent variable indicated the marginal relationship between the variables and value of dependent variable holding the effects of other independent variables in the regression model as constant. It describes how changes in independent variables affect the value of dependent variable estimate.

(ix) Standard Error Estimate (S.E.E)

The perfect prediction with regression equations is impossible. The standard error of estimate measures the accuracy of the estimated figures. It is the extent to which observe value differs from the predicted value on the regression line. The smaller value of S.E.E the closer will be the dots to the regression line and better estimates based on the equation for this line. If the S.E.E. is zero then there is no variation about the line and correlation will be perfect.

$$\text{S.E.E} = \frac{\sqrt{\sum (y - \bar{Y})^2}}{N-2}$$

Where,

Y = value of depended variable

\bar{Y} = estimated value from the estimating equation that corresponds to each y value

N = Number of pairs observations

$(y - \bar{Y})$ = Error

(x) t-test

To test the validity of our assumptions when the sample size is less than 30, t-test is used. The value of it is calculated and compared with the tabulated value of that 5% level of significance for given degree of freedom. If the calculate value of exceeds the tabulated value, it can conclude that there is significance difference but if the value of 't' is less than tabulated value, there is no significance difference.

CHAPTER- IV

PRESENTATION AND ANALYSIS OF DATA

The fourth chapter of the Thesis, presentation of data, is divided into three parts. The first part of chapter is descriptive analysis where comparative analysis of variable related to dividend policy of selected commercial Banks of Nepal. The second part is Correlation Analysis, the section tries to describe relationship, direction and amount between variable. The third and last part of the chapter is regression analysis, show how much and which direction would dependent variable depend in independent variable.

4.1 Description Analysis

In this section comparative study on variables related to dividend policy has done. For this eight years data of eight commercial Banks were collected and will be presented below. The study has done on Earning per share (EPS), dividend per share (DPS), dividend payout ratio(DPR), market value per share(MVPS), Price earning Multiple (P/E multiple), book value per share(BVPS), dividend yield (DY), return on equity (ROE), or internal rate of return (r), Retention ratio (b), growth of firm(g), cost of equity (Ke) and one year holding return (HPR). Further, the mean of each variable of each Bank of eight years period, standard deviation (SD) and coefficient of variance (CV) also calculated. And the data of Banks are compared with each other. Market averages of particular year and overall average. Presentation and analysis of dividend and related variables are below.

4.1.1 Presentation and analysis of EPS of selected commercial Banks of Nepal

Table - 4.1

Presentation and analysis of EPS of selected commercial Banks of Nepal

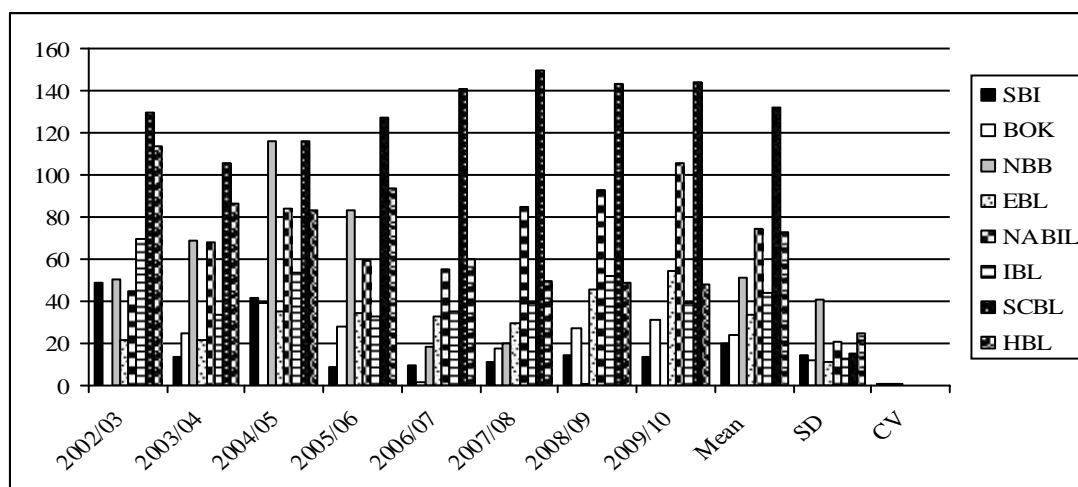
FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	49.17	-	50.66	21.29	44.5	69.33	129.61	113.31	68.27
2003/04	13.98	24.7	68.94	21.3	67.84	33.76	105.86	86.07	52.81
2004/05	41.74	39.29	116.28	34.84	83.79	53.68	115.62	83.08	71.04
2005/06	8.69	27.97	82.81	34.56	59.26	33.18	126.88	93.57	57.99
2006/07	9.61	2	18.27	32.91	55.25	35.59	141.13	60.26	44.13
2007/08	11.47	17.72	19.86	29.9	84.66	39.56	149.3	49.45	50.24
2008/09	14.26	27.5	0.73	45.58	92.61	51.7	143.55	49.05	53.12
2009/10	13.29	31.1	-	54.22	105.49	39.5	143.93	47.91	62.06
Mean	20.28	24.18	51.09	33.95	74.18	44.29	131.99	72.84	57.46
SD	14.79	11.71	41.16	11.28	20.79	12.9	15.32	24.61	9.2
CV	0.78	0.84	0.81	0.33	0.28	0.29	0.12	0.34	0.16

Source: Related Banks

The table 4.1 shows Earning per share (EPS) of eight commercial Banks of Nepal from Fiscal 2002/03 to 2009/10. Further the table shows the average EPS of each Bank on studied eight years period, Standard Deviation (SD) and coefficient of Variance of EPS of each Bank. Beside this, Market Average EPS for every year, mean EPS of market Average, SD, and CV of market Average is calculate based on these eight Banks. From the study of table following evidences are found. Standard Chartered Bank is the highest earning Bank, average EPS about Rs. 132, among the studies eight Banks while Nepal SBI Bank is the least earning Bank having average EPS Rs. 20.28 NABIL and HBL are other highest earning Banks. Average EPS of the Banks are about Rs. 74 and 73 respectively. NBB and IBL are moderate earning Banks having EPS about Rs 51 and 44 respectively. On the other hand BOK and EBL are least earning Banks having average EPS about Rs. 24 and 34 respectively.

EPS of Banks for a particular Fiscal Year is difference from Rs. 0.73 (NBB on FY 2008/09) to Rs 149.3 (SCBL on FY 2007/08)

Figure 4.1
Presentation and analysis of EPS of selected commercial Banks of Nepal



Market average EPS on FY 2004/5 is Rs. 71.04 which is the maximum ever and Rs. 44.13 on RF 2006/7 which is lowest Market average EPS for ever. Hence average market average EPS of the banks is Rs 57.46. EPS of NBB is found most inconsistency where EPS on FY 2008/9 is Rs. 0.73 and Rs 116.28 on FY 2004/5 while EPS of SCBL is found more consistent, Rs. 105.86 FY 2003/4 to Rs 149.3 on FY 2007/8. Hence, CV of NBB is found 81 percent on the other hand it is only 12 percent for SCBL. Similarly, SBI bank is another bank having inconsistency earning since CV of EPS is 78 percent. And EPS of the banks have Moderate Consistency.

4.1.2 Presentation and analysis of DPS of selected commercial banks of Nepal

Table - 4.2

Dividend per share (DPS in Rs) of selected commercial banks of Nepal

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	20	0	15	0	30	50	70	50	29.38
2003/04	10	0	15	15	50	30	80	50	31.25
2004/05	15	0	0	0	55	25	100	50	30.63
2005/06	0	0	5	0	40	0	100	27.05	21.51
2006/07	0	10	0	0	30	0	100	25	20.63
2007/08	8	5	0	20	50	-20	110	1.32	26.79
2008/09	0	10	0	20	65	15	110	0	27.5
2009/10	0	15	0	0	70	12.5	120	11.58	28.64
Mean	06.63	5	4.38	6.88	48.75	19.06	98.75	26.87	27.04
SD	7.91	5.98	6.78	9.61	14.82	16.47	16.42	21.44	3.98
CV	1.19	1.2	1.55	1.4	0.3	0.86	0.17	0.8	0.15

Source: Related Banks

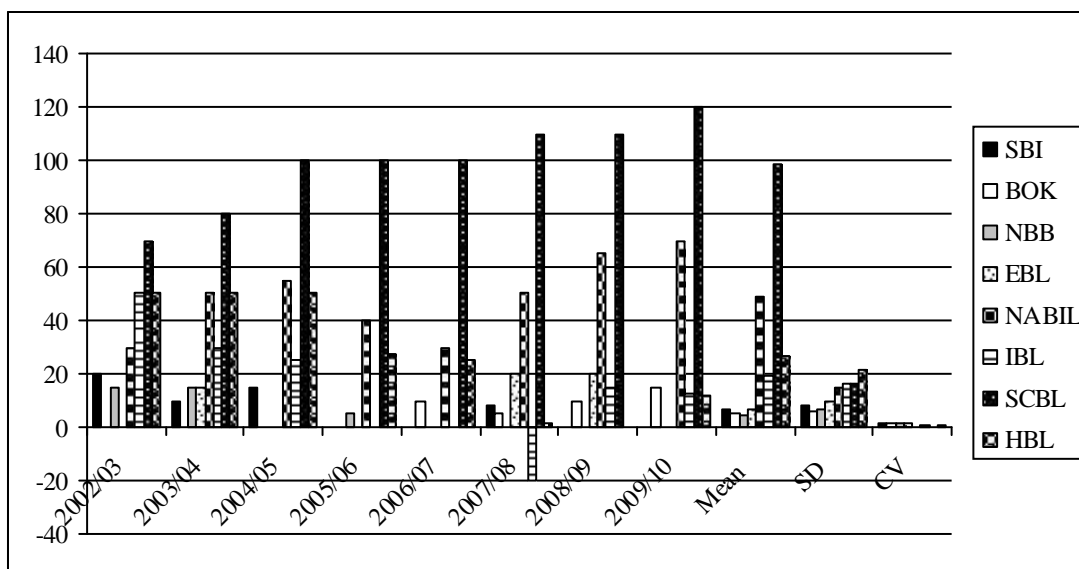
The table 1.4.2 shows dividend per share (DPS) of eight commercial Bank of Nepal from Fiscal year 2002/03 to 2009/10. Further the table shows the average DPS of each Bank on studied eight year period, Standard Deviation (SD) and Coefficients of Variance of DPS of each Bank. Beside this, market average, DPS for every year, Mean DPS of market average, SD and CV of market average is calculated based on these eight Banks. From the study table following evidences are found.

Standard Chartered Bank is the highest cash Dividend paying Banks, having average DPS Rs.98.75, among the studies eight banks while NBB is the least Dividend paying Bank having average DPS only Rs.4.38.

NABIL and SCBL are paying Dividend Regularly while HBL has not paid one time and IBL has not paid two times. On the other hand SBI, BOK and NBB have paid four times and EBL paid only three times. In FY 2003/04 all Banks paid Dividend except BOK. Similarly, In FY 2007/08 all paid except NBB.

Figure 4.2

Comparative study on dividend per share of selected commercial bank of Nepal



FY 2003/04 is the highest Dividend paying year of Banks where Market Average DPS for the year was Rs. 31.25. On the other hand FY 2006/07 is lower dividend

paying year having Market Average DPS was only Rs. 20.63. Hence the Mean of Market Average DPS is Rs. 27.04

Average DPS of HBL (Rs. 26.87) NABIL (Rs.48.75) and SCBL are either near Mean Market Average or above it while Average DPS of other Banks are either less or far less than Mean Market Average.

If we see the consistence on paying DPS, SCBL and NABIL are most consistent having CV of DPS 17 percent ad 30 percent respectively. All other Banks have not consistency on paying dividend further SBI, BOK, NBB and EBL have very most inconsistent dividend paying history having then 100 percent CV.

4.1.3 Presentation and analysis of MVPS of selected commercial Banks of Nepal

Table 4.3

Market Value per Share (MVPS in Rs) of selected Commercial Banks of Nepal

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	440	153	252	-	430	600	840	755	495.71
2003/04	526	285	616	-	700	822	1162	1000	735.29
2004/05	562	998	1502	995	1400	1401	1985	1700	1317.88
2005/06	1500	850	1100	650	1500	1150	2144	1500	1299.25
2006/07	401	254	490	405	700	760	1575	1000	698.13
2007/08	255	198	360	445	740	795	1640	836	658.63
2008/09	307	295	354	680	1000	940	1745	840	770.13
2009/10	335	430	265	870	1505	800	2345	920	933.75
Mean	545.25	432.9	617.38	674.17	996.88	908.5	1679.50	1068.88	863.59
SD	401.64	316.17	451.19	231.03	420.45	253.89	498.76	342.46	300.24
CV	0.74	0.73	0.17	0.34	0.28	0.30	0.32	0.35	0.35

Source: www. Nepal stock .com

The table 4.3 shows Market value per share (MVPS) of eight commercial Banks of Nepal from Fiscal Year 2002/03 to 2009/10. Further, the table shows the Average MVPS of each Bank on studied eight years period, standard Deviation (SD) and Coefficient of variance of MVPS of each Bank. Beside this, Market Average MVPS

for every year, Mean of market Average MVPS, SD and CV of Market Average is calculated based on these Banks. From the study of table following evidences are found.

MVPS of SBI Bank has dramatically increased from Rs. 440 in FY 2002/03 to Rs. 1500 in FY 2003/04 while the trend became reverse next year reached to Rs. 401. The decreasing trend further hit to the lowest point Rs. 255 in Fy 2007/08. Hence Mean MVPS of SBI Bank Become Rs. 545.25 which is one of the least Mean MVPS and the CV become 74 percent shows the most inconsistent MVPS among the eight studied Banks.

MVPS of BOK has increased considerably from Rs. 153 in FY 2002/03 to Rs. 998 in FY 2004/05. The price falls slightly next year, further decreased drastically reached to Rs. 198 in FY 2007/08. After then started to recover and reached to Rs. 430 in F Y 2009/10. Hence, Mean MVPS of BOK become Rs. 432.88, which is the least average price among Banks. And the CV of MVPS of BOK, 73 percent, shows the one of the inconsistency market price.

MVPS of NBB Bank has risen dramatically from Rs. 252 in FY 2002/03 to reach a peak, Rs. 1502 in FY 2004/05. On the next years the price has caught reverse order as dramatic as rise, reached to Rs. 490 in FY 2006/07. After then the price has been decreasing steadily have reached to Rs. 265 in FY 2009/10. Hence, Mean MVPS of NBB has become Rs. 674.38 which is one of the least MVPS among the studied Bank. Further, CV 73 percent shows the one of most inconsistent Market price.

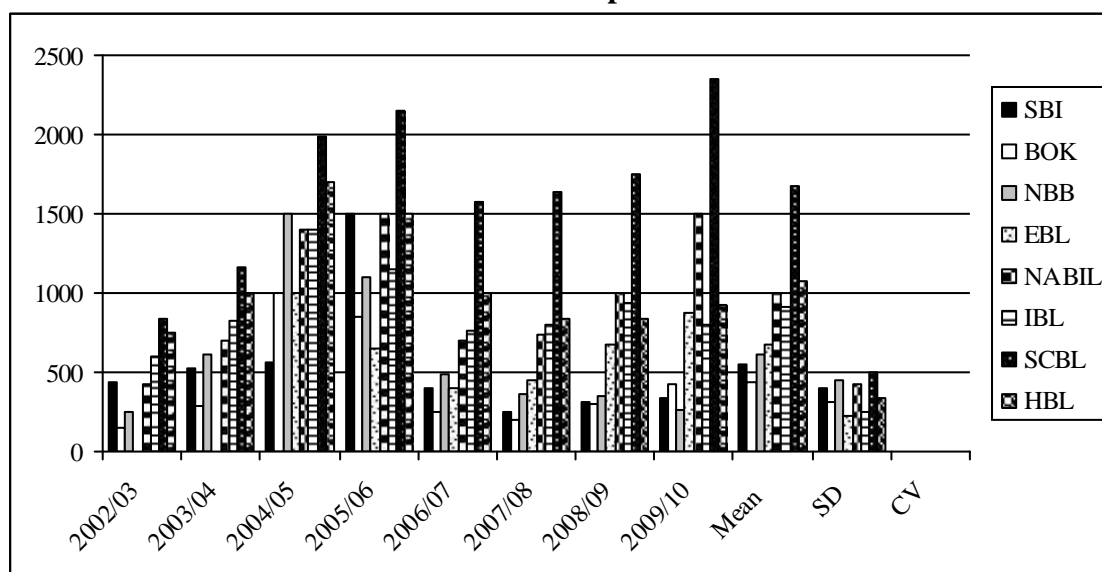
MVPS of EBL has gradually decline form Rs. 995 in FY 2004/05 reach a plateau, Rs. 405, in FY 2006/07. After then the price has been increasing gradually and has become Rs. 870 in FY 2009/10. Hence, the average MVPS has become Rs. 674.17 which is less then mean Market Average, Rs. 863.59. Further, CV 34 percent shows the moderate Consistent on MVPS of EBL.

MVPS of NABIL Bank increased considerably in FY 2003/04 from Rs. 430 to Rs. 700. Then the Price increased by second fold and reached to Rs. 700 in FY 2004/05. Before showing the reverse order of drastic increase, the price one increased slightly

in FY 2005/06 and reached to Rs. 700 again in FY 2006/07 from Rs. 1500. One again, the price, caught the increasing trend, has been gradually increasing and has reached to maximum ever, Rs. 1505 in FY 2009/10. Hence the Average MVPS of NABIL become Rs. 996.88 which is moderate price among the studied Bank. Further, CV 42 percent shows the moderate inconsistent on Market price of NABIL Bank.

Figure 4.3

Comparative study con Market value per share (MVPS) of selected commercial bank of Nepal



MVPS of IBL has risen considerably in FY 2003/04 from Rs. 600 in FY 2002/03 to 822. Then the price increased drastically to reach a peak, Rs. 1401, in FY 2004/05. Before showing the (IBB-BRO) trend the price fell considerably to Rs. 760 in FY 2006/07 from 1150 in FY 2005/06. Hence, the average MVPS of IBL become Rs. 908.50 which is slightly above Mean of market average. Although the MVPS shows the moderate price, CV 28 percent shows the most consistent market price among the studies Banks.

MVPS of SCBL has increased considerably in the second, third and fourth year of studied period from Rs. 840 in FY 2002/03 to Rs. 1162 in 2003/04, Rs. 1995 in 2004/05 and Rs 2144 in 2005/06. After then the price decreased sharply to become Rs. 1575 in FY 2006/07. Once again, the Market price of SCBL increased steadily in FY 2007/08 and 2008/09. Further, the trend did not remain same. In FY 2009/10 the

MVPS of SCBL increased dramatically to reach a peak, Rs. 2345 which is the maximum price ever in Market price history of Commercial Banks of Nepal. Hence, average MVPS of SCBL of eight years period becomes Rs. 1679.50 which is the maximum average among the studied Banks. Further, CV 30 percent shows the one of the Consistent market price.

MPVS of HBI Bank has increased considerably in second and third year of studied period from Rs. 755 in FY 2002/03 to Rs. 1000 2003/04 and Rs. 1700 in 2004/05. After then the price showed the reverse trend to reach the price Rs. 836 in 2007/08. Now the MVPS has been increasing steadily and has reached Rs. 920.in FY 2009.10 Hence. Mean MVPS of HBL becomes Rs. 1068.88, which is second most average MVPS among the student Banks. Further, CV 32 percent shows the one the consistent market price.

4.1.4 Presentation and analysis of P/E multiple pf selected commercial Banks of Nepal

Table 4.4

Price Earning (P/E) Multiple of selected Commercial Banks of Nepal

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	8.95	-	4.97	-	9.66	8.65	6.48	6.66	7.56
2003/04	40.20	11.54	8.94	-	10.32	24.35	10.98	11.62	16.85
2004/05	13.16	25.40	12.92	28.56	16.71	26.10	17.17	20.46	20.10
2005/06	172.61	30.39	13.28	20.60	25.31	34.66	16.90	16.03	41.22
2006/07	41.73	127.00	26.82	12.31	12.67	22.63	11.16	16.59	33.86
2007/08	22.23	11.17	18.13	14.8	8.74	20.10	10.98	16.91	15.39
2008/09	21.53	10.73	484.93	14.92	10.80	18.18	12.16	17.13	73.80
2009/10	25.21	14.29	-	16.05	14.27	20.25	16.29	19.20	17.94
Mean	43.24	32.93	81.43	17.88	13.56	21.86	12.76	15.58	28.34
SD	13.52	42.20	178.06	5.89	5.42	7.39	3.74	4.43	21.28
CV	1.24	1.28	2.19	0.33	0.40	0.34	0.29	0.28	0.75

Source: Related Banks

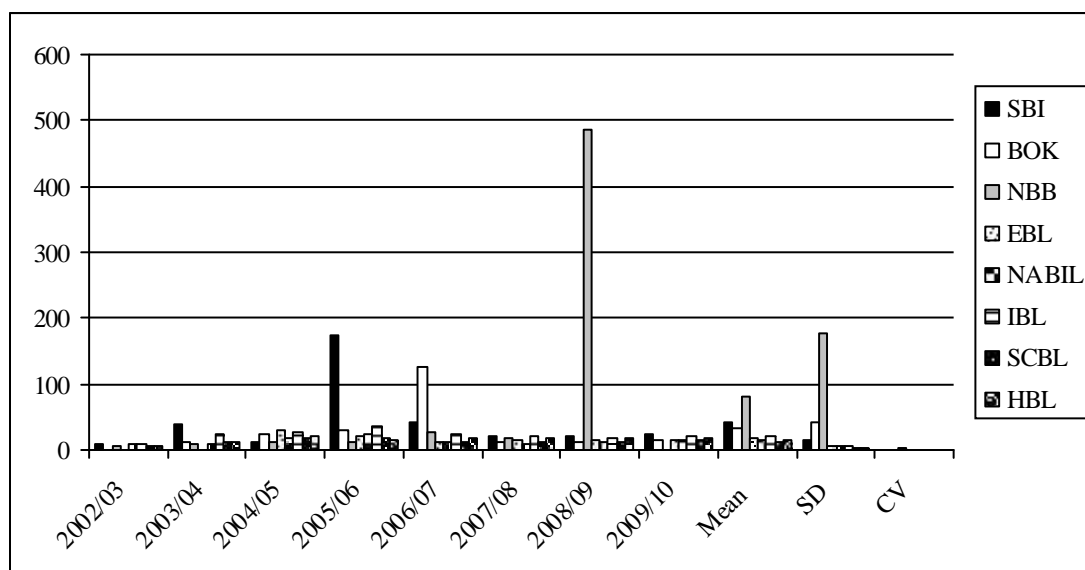
The table 4.4 shows price Earning (P/E) Multiple of eight commercial Banks of Nepal from Fiscal Year 2002/03 to 2009/10. Further the table shows the Mean P/E Multiple

of eight years period for each Bank, standard Deviation (SD) and coefficient of Variance of P/E Multiple of each Bank. Beside this, Market Average P/E Multiple for every year, Mean of Market Average P/E Multiple, SD and CV of Market Average is calculated based on this eight Banks. From the study of table following evidences are found.

P/E Multiple of NBB is found most inconsistent among the studied Banks. The Multiple of the Bank for FY 2002/03 was only 4.97 which is the lowest point ever while it was 484.93 for FY 2008/09 which is highest point ever and among the eight Banks. Hence, Mean P/E Multiple of NBB Banks has become 81.43 which is the highest point among the Banks.

Figure 4.4

Comparative Study of Price Earning (P/E) Multiple of commercial bank of Nepal



P/E Multiple of HBL is found most consistent among the student Banks. The P/E Multiple of HBL vary from 6.66 in FY 2002/03 to 20.46 in FY 2004/05. Hence, Mean P/L Multiple has become 15.58, SD 4.43 percent and CV 28 percent.

Similar, SBI and BOK have inconsistency P/E Multiple having CV 1.24 and 1.28 respectively. On the other hand EBL, NABIL and IBL have moderate Consistence having CV 33,40 and 34 percent respectively and SCBL have consistency P/E Multiple having CV 29 percent.

4.1.5 Presentations and analysis of BVPS of selected commercial Banks of Nepal

Table 4.5

Book value per share (BVPS in Rs) of selected Commercial Banks of Nepal

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	160.66	80.41	150.00	108.37	211.04	272.04	389.61	-	196.01
2003/04	164.22	96.33	207.00	122.61	224.00	273.63	282.26	-	195.72
2004/05	187.54	195.38	330.00	171.24	251.00	303.10	298.88	362.70	262.48
2005/06	165.73	207.72	248.00	144.57	216.00	275.96	327.50	240.19	228.21
2006/07	131.88	171.83	174.00	170.76	233.00	307.95	363.86	220.02	221.61
2007/08	134.03	192.52	190.00	150.10	267.00	216.24	403.15	247.81	225.11
2008/09	146.80	218.38	182.00	171.52	301.00	246.89	399.25	246.93	239.10
2009/10	159.54	213.60	-	219.87	337.00	200.80	422.38	239.59	256.11
Mean	156.30	172.02	211.57	157.38	255.00	262.08	360.86	259.54	228.05
SD	18.28	53.77	60.44	34.44	44.56	38.36	52.12	51.52	24.54
CV	0.12	0.31	0.29	0.22	0.17	0.14	0.20	0.11	0.11

Source: www. Nepal stock .com

The table 4.5 shows Book value per share (BVPS) of eight commercial Banks of Nepal from Fiscal Year 2002/03 to 2009/10. Further, the table shows the Mean BVPS of eight years period for each Bank, Standard Deviation (SD) and coefficient of variance of (BVPS) of each Bank. Beside this, Market Average BVPS for every year, Mean of Market Average BVPS, SD and CV of Market Average calculated based on these eight Banks. From the study of table following evidences are found

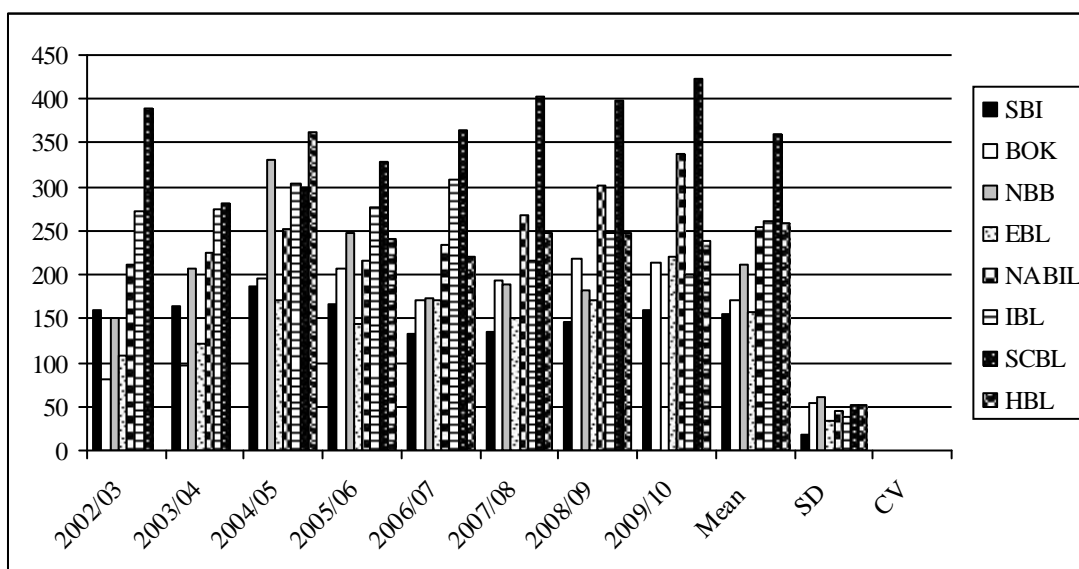
Book value of all Banks except SCBL was in increasing trend in first three years FY 2002/03, 2003/04 and 2004/05, of studied period. The trend was prolonged next one year for BOK but the value of all other Bank has decreased in FY 2005/06.

In case of SCBL the Book was fall sharply in the Second Year from Rs. 389.61 in FY 2002/03 to Rs. 282.26 in 2003/04. But the Bank caught it's way to growth up to the final years studied period except slightly negative growth of Book value in FY 2008/09.

Similarly, Book value of NABIL has been increasing from FY 2005/06. Book value of all other Banks, beside NABIL and SCBL has slightly positive or negative growth from FY 2005/06.

If we see the average, SCBL has highest Average Book value, Rs. 360.86 among the studied Banks. And Average Book Value of NABIL, IBL and HBL are higher than mean of Market Average, Rs. 288.05 while other Banks, SBI, BOK, NBB and EBL, have Mean Book value per share less than Mean of Market Average.

Figure 4.5
Comparative study on book value per share of selected bank of Nepal



If we see the consistency of Book Value, SBI has least inconsistent Book Value having 12 percent.

CV while BOK has the most inconsistent BVPS having 31 percent among the studied Bank. NBB is another Bank having least consistency BVPS with 29 percent CV. NABIL, EBL and HBL have moderate consistency on BVPS with 17, 22 and 20 percent CV respectively. And IBL and SCBL have comparatively least inconsistent BVPS with CV 15 and 14 percents respectively.

4.1.6 Presentation and analysis of Dividend Yield (DY) of selected commercial Banks of Nepal

Table 4.6

Dividend Yield of selected Commercial Banks of Nepal

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCB L	HBL	Market Average
2002/03	0.052	0.00	0.06	-	0.07	0.08	0.08	0.07	0.06
2003/04	0.02	0.00	0.02	-	0.07	0.04	0.07	0.05	0.04
2004/05	0.03.	0.00	0.00	0.00	0.04	0.02	0.05	0.03	0.02
2005/06	0.00	0.00	0.00	0.00	0.03.	0.00	0.05	0.03	0.01
2006/07	0.00	0.04	0.00	0.00	0.04	0.00	0.06	0.03	0.02
2007/08	0.03	0.03	0.00	0.04	0.07	0.03	0.07	0.00	0.03
2008/09	0.00	0.03	0.00	0.03	0.07	0.07	0.00	0.03	0.03
2009/10	0.00	0.03	0.00	0.00	0.05	0.07	01.05	0.01	0.02
Mean	0.02	0.02	0.01	0.01	0.05	0.02	0.06	0.03	0.03
SD	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.02	0.01
CV	1.18	1.09	1.93	1.60	0.32	1.10	0.02	0.91	0.05

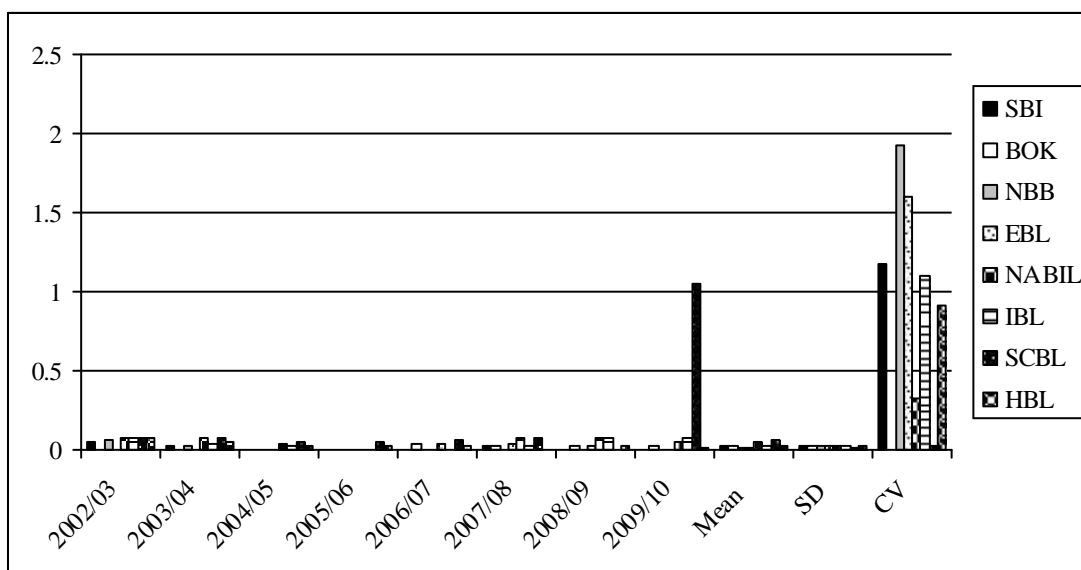
Source: Related Banks

The table 4.6 shows dividend yield of eight commercial Banks of Nepal from Fiscal year 2002/03 to 2009/10. Further, the table shows the Mean Dividend Yield of eight years period for each Bank, Standard Deviation (SD) and Coefficient of Variance of Dividend Yield of each Bank. Beside this, Market Average Dividend Yield for every year. Mean of Market Average dividend Yield, SD and CV of Market Average is calculated based on these eight Banks. From the study of table following evidences are found.

Over all dividend yield of eight Commercial Banks of Nepal on the studied eight period is only 3 percent. FY 2002/03 and 2003/04 had most dividend yield with 6 and 4 percent respectively. In FY 2005/06 the dividend yield is least only 1 percent. Hence standard deviation is 1 percent and Coefficient of Variation (CV) is 51 percent shows the moderate inconsistent in market average dividend yield.

Figure 4.6

Comparative study on dividend yield of selected commercial bank of Nepal



Comparative study of Banks shows that SCBL has maximum dividend Yield with Average 6 percent and NABIL is in second most position with average 5 percent Dividend Yield. Similarly, HBL has moderate Dividend Yield with 3 percent equal to Mean of Market average. And SBI, BOK and IBL have comparatively less dividend Yield average 2 percent. On the other hand NBB and EBL have the least dividend Yield average 1 percent only.

If we see the consistency on Dividend Yield, SCBL has most consistencies Dividend Yield with 20 percent CV and NABIL has moderate consistence Dividend Yield with 32 percent CV. All other Banks have inconsistency on Dividend yield CV of all Banks except HBL, 91 percent crosses 100 percent.

4.1.7 Presentation and Analysis of ROE of selected commercial Banks of Nepal

Table 4.7

Presentation and Analysis of ROE of selected commercial Banks of Nepal

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	0.31	-	0.34	0.2	0.21	0.25	0.33	-	0.27
2003/04	0.09	0.265	0.33	0.17	0.3	0.12	0.38	-	0.24
2004/05	0.22	0.2	0.35	0.2	0.33	0.18	0.39	0.23	0.26
2005/06	0.05	0.13	0.33	0.22	0.27	0.12	0.39	0.39	0.24
2006/07	0.07	0.01	0.11	0.19	0.24	0.11	0.39	0.27	0.17
2007/08	0.09	0.09	0.1	0.2	0.32	0.18	0.37	0.2	0.19
2008/09	0.1	0.13	0	0.27	0.31	0.21	0.36	0.2	0.2
2009/10	0.08	0.14	-	0.25	0.31	0.2	0.34	0.2	0.22
Mean	0.13	0.14	0.22	0.21	0.29	0.17	0.37	0.25	0.22
SD	0.09	0.08	0.15	0.03	0.14	0.05	0.02	0.08	0.03
CV	0.71	0.57	0.66	0.14	0.15	0.30	0.06	0.30	0.16

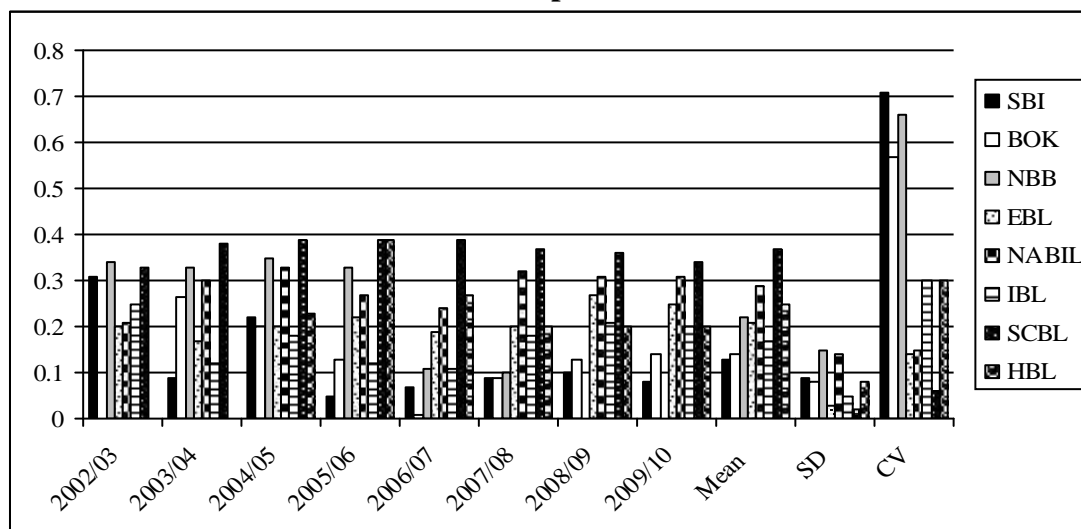
Source: Related Banks

The table 4.7 shows Return on Equity (ROE) of eight commercial Banks of Nepal from Fiscal year 2002/03 to 2009/10. Further, the table shows the Mean ROE of eight years period for each Bank, Standard Deviation (SD) and coefficient of Variation of ROE of each Bank. Beside this Market Average ROE for every, Mean of Market Average ROE, SD and CV of Market Average is calculated based on these Banks. From the study of table following evidences are found. Overall ROE of eight Banks on studied eight years period is 22 percent. On which FY 2002/03 has maximum ROE. With 27 percent market average and FY 2006/07 has minimum with 17 market ROE. Hence standard deviation 3 percent and CV is 16 percent show the consistency of Market Average ROE during the studied eight years period.

Comparative study on ROE of Banks shows that SCBL has maximum ROE among the studied eight Banks with Average 37 percent while SBI has Least ROE with average 13 percent. Similarly, NABIL, HBL and NBB have moderate ROE with average 29,25 and 22 percent respectively. On the other hand, BOK, EBL and IBL have comparatively less ROE with average 14, 21, and 17 percent respectively.

Figure 4.7

Comparative study on return on equity (ROE) of selected commercial banks of Nepal



If we see the consistency on ROE of Banks, SCBL has most consistency ROE with only 6 percent CV while SBI has most inconsistency ROE with 71 percent CV. Similarly, BOK and NBB have inconsistency ROE with 57 and 66 percent CV and IBL and HBL have moderate consistency ROE with 30 percent CV each. On the other hand EBL and NABIL have comparatively more consistent ROE with 14 and 15 percent CV.

4.1.8 Presentation and analysis of Retention ratio (b) of selected commercial Banks of Nepal

Table 4.8
Retention ratio (b) of selected Commercial Banks of Nepal

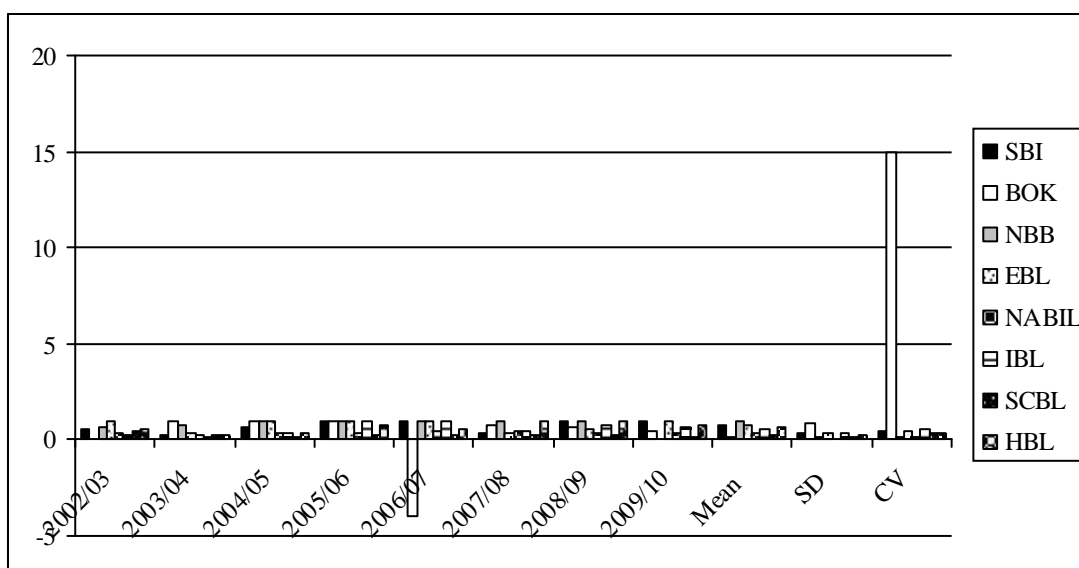
FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	0.59	-	0.70	1.00	0.33	0.28	0.46	0.56	0.56
2003/04	0.28	1.00	0.78	0.30	0.26	0.11	0.24	0.24	0.43
2004/05	0.64	1.00	1.00	1.00	0.34	0.35	0.14	0.40	0.63
2005/06	1.00	1.00	0.94	1.00	0.33	1.00	0.21	0.71	0.77
2006/07	1.00	-4.00	1.00	1.00	0.46	1.00	0.29	0.59	0.17
2007/08	0.30	0.72	1.00	0.33	0.41	0.49	0.26	0.97	0.56
2008/09	1.00	0.64	1.00	0.56	0.30	0.71	0.23	1.00	0.68
2009/10	1.00	0.50	-	1.00	0.34	0.68	0.17	0.76	0.64
Mean	0.73	0.12	0.92	0.77	0.34	0.60	0.25	0.68	0.55
SD	0.32	0.83	0.12	0.32	0.06	0.32	0.10	0.23	0.19
CV	0.43	14.96	0.13	0.42	0.18	0.52	0.39	0.34	0.34

Source: Related Banks

The table 4.8 shows percent Retained of Earning (b) of eight commercial Banks of Nepal from Fiscal Year 2002/03 to 2009/10. Further, the table shows the Mean Retained Earning of eight years period for each bank, standard Deviation (SD) and Coefficient of variance of Retuned Earning of each Bank. Beside this, Market Average Retained Earning for every year, Mean of Market Average Retained Earning SD and CV of Market Average is calculated based on these eight Banks. From the study of table following evidences are found.

Figure 4.8

Comparative study on retained earning of selected commercial bank of Nepal



Overall retained earning of eight Banks over eight years period is 55 percents. FY 2005/06 is highest retained year with 77 percent market average and FY 2006/07 is least retained year with 17 percent market average. Hence, 19 percent SD and 34 percent CV show the moderate inconsistency on market average remained earning.

Comparative study of Banks shows that BOK has least retained with average 12 percent while NBB has most retained with average 92 percent. Similarly, SBI and EBL have comparatively more retained with average 73 and 77 percent remained while NABIL and SCBL have comparatively less retained with average 34 and 25 percent respectively. On the other hand, IBL and HBL have moderate with average 60 and 68 percent.

If we see the consistency on percent retained by Banks during studied eight years period we will found that BOK has most inconsistent retained earning. Due to which is cause of minus 400 percent retained earning in FY 2006/07 that is the Bank has paid dividend from last years retained earning. NBB has most consistent retained among the studied eight banks with 13 percent CV and NABIL has comparatively more consistent retained earning with 18 percent CV. on the other hand SBI, EBL, IBL and SCBL have comparatively more inconsistent Retained Earning with 43, 42, 52 and 39 percent CV respectively. And HBL has moderate consistency on retained earning having 34 percent equal to market average CV.

4.1.9 Presentation and analysis of growth rate (g) of commercial Banks of Nepal

Table.4.9

Growth rate (g) of Selected Commercial Banks of Nepal

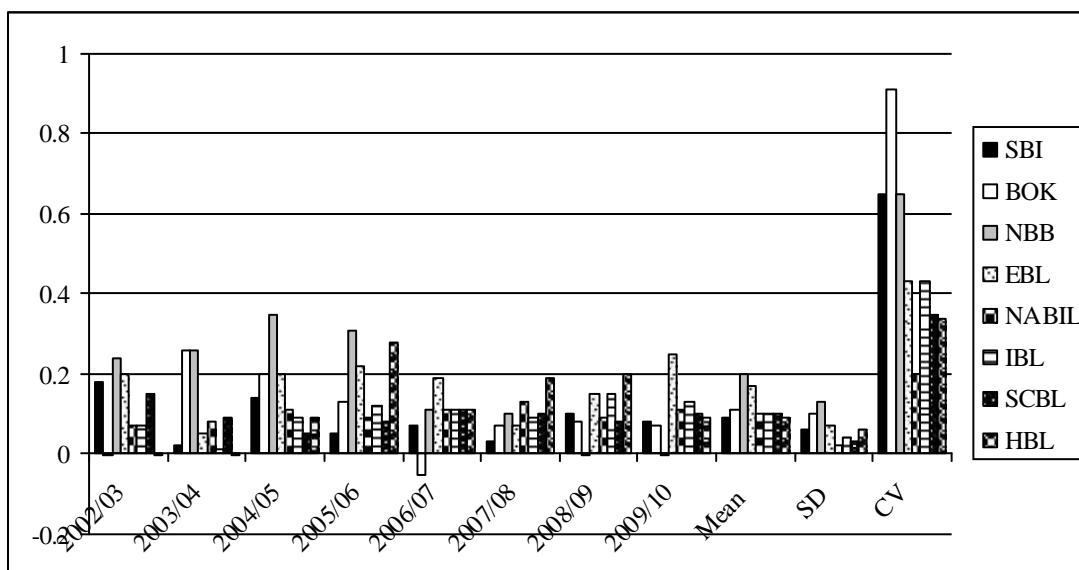
FY	SBI	BO K	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	0.18	-	0.24	0.20	0.07	0.07	0.15	-	0.15
2003/04	0.02	0.26	0.26	0.05	0.08	0.01	0.09	-	0.11
2004/05	0.14	0.20	0.35	0.20	0.11	0.09	0.05	0.09	0.16
2005/06	0.05	0.13	0.31	0.22	0.09	0.12	0.08	0.28	0.16
2006/07	0.07	- 0.05	0.11	0.19	0.11	0.11	0.11	0.11	0.10
2007/08	0.03	0.07	0.10	0.07	0.13	0.09	0.10	0.19	0.10
2008/09	0.10	0.08	0.00	0.15	0.09	0.15	0.08	0.20	0.11
2009/10	0.08	0.07	-	0.25	0.11	0.13	0.10	0.09	0.18
Mean	0.09	0.11	0.20	0.17	0.10	0.10	0.10	0.09	0.18
SD	0.06	0.10	0.13	0.07	0.02	0.04	0.03	0.06	0.03
CV	0.65	0.91	0.65	0.43	0.20	0.43	0.35	0.34	0.21

Source: Related Banks

The table 4.9 shows rate (g) of eight commercial Banks of Nepal from Fiscal Year 2003/04 to 2009/10. Further the table shows the Mean Growth of eight years period for each Banks, standard Deviation (SD) and Coefficient of Variance of Growth of each Banks. Beside this, Market Average Growth rate for every year. Mean of market Average Growth. SD and CV of Market Average is calculated based on these eight Banks. From the study of table following evidences are food.

Overall Growth of rate eight Banks over the eight years is 13 percent variation from 16 percent market average in FY 2004/06 to 10 percent in FY 2006/07 and 2007/08 Hence, Standard deviation (SD) 3 percent and 21 percent CV show the consistent of market average growth.

Figure 4.9
Comparative study on growth rate (g) of selected banks of Nepal



Comparative study of Banks shows that NBB is the most growth Banks having average 20 percent growth rate while SBI and SCBL are the least growth Banks with 9 percent average growth rate each. Similarly, EBL and HBL are comparatively growth Banks with 17 and 18 percent average growth rate. And BOK, NABIL and IBL are comparatively less growth Banks with 11, 10, and 10 percent growth rate.

If we see the consistency of growth rate of Banks, BOK has the most inconsistent growth with 91 percent CV while the NABIL has the most consistent growth among the studied eight Banks with 20 percent CV. The main cause of inconsistency of BOK is negative growth of Bank in FY 2006/07.

If we see the consistency of growth rate of Banks, BOK has the most inconsistent growth 91 percent CV while the NABIL has the most consistent growth among the studied eight Banks with 20 percent CV. The main cause of inconsistency of BOK is negative growth in FY 2006/07.

Similarly other inconsistent growth Banks are SBI and NBB with 65percent C V. And EBL and IBL have comparatively less inconsistent growth with 43 percent CV each on the other hand; SCBL and HBL have comparatively less consistent growth with 35 and 34 percent CV.

4.1.10 Presentation and analysis of cost of equity (Ke) of selected commercial Banks of Nepal

Table 4.10
Cost of equity (Ke) of Selected Commercial Banks of Nepal

FY	SBI	BOK	NBB	EBL	NA BIL	IBL	SCBL	HB L	Market Average
2002/03	0.23	-	0.30	-	0.14	0.15	0.24	-	0.21
2003/04	0.04	0.26	0.28	-	0.15	0.05	0.16	-	0.18
2004/05	0.17	0.20	0.35	0.20	0.15	0.11	0.10	0.12	0.18
2005/06	0.05	0.13	0.32	0.22	0.12	0.12	0.13	0.29	0.17
2006/07	0.07	-0.01	0.11	0.19	0.15	0.11	0.18	0.19	0.12
2007/08	0.06	0.09	0.10	0.11	0.20	0.12	0.16	0.20	0.13
2008/09	0.10	0.11	0.00	0.18	0.16	0.16	0.15	0.20	0.13
2009/10	0.08	0.11	-	0.25	0.15	0.15	0.11	0.16	0.14
Mean	0.10	0.13	0.21	0.19	0.15	0.12	0.15	0.19	0.16
SD	0.06	0.08	0.14	0.05	0.02	0.04	0.04	0.06	0.03
CV	0.65	0.66	0.65	0.24	0.15	0.30	0.28	0.30	0.19

Source: Related Banks

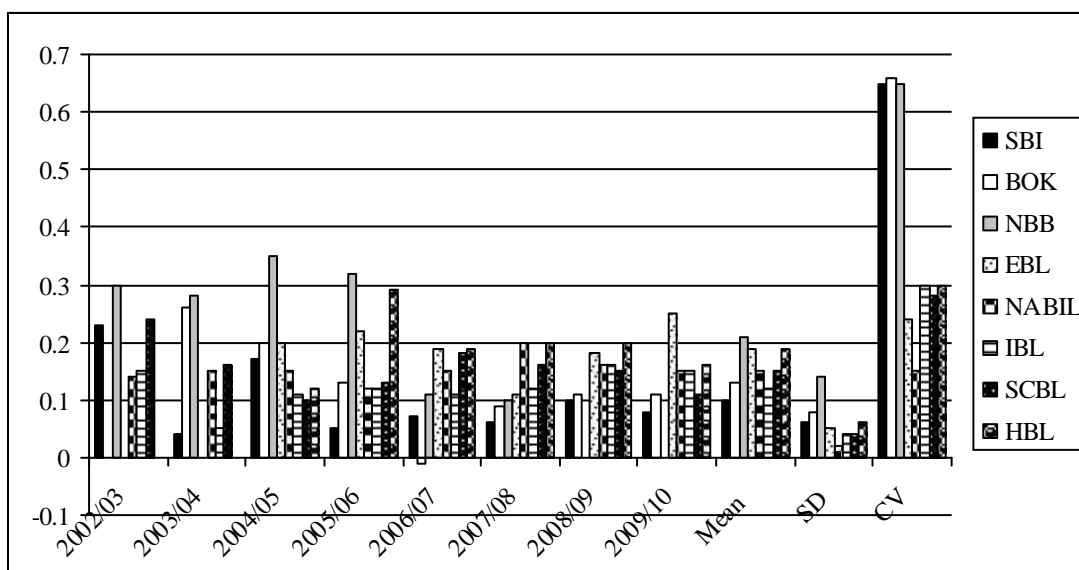
The table 4.10 shows Cost of Equity (Ke) of eight commercial Banks of Nepal from Fiscal Year 2002/03 to 2009/10. Further, the table shows the Mean Cost of Equity of eight years period for each Bank, Standard Deviation (SD) and Coefficient of Variance of Cost of Equity of each Bank. Beside this, Market average Cost of Equity for every year, Mean of Market Average cost of Equity's SD and CV of Market Average is calculated based on these eight Banks. From the study of table following evidences are found.

Overall Cost of Equity of eight studied Banks over the eight years period is 16 percent. The rate is differs from 21 percent Market Average in FY 2002/03 to 12 percent Market Average in FY 2005/06. Hence, SD 3 percent and CV 19 percent show the moderate consistency of Market Average Cost of Equity.

Comparative study of Banks shows that NBB has the highest point. 21 percent, of Average Cost of Equity among the eight studied Banks while SBI has the least, 10 percent. Similarly, EBL and HBL have comparatively higher, more then overall point,19 percent each while BOK and IBL have comparatively less,13 and 12 percent respectively, average cost of equity. On the other hand, NABIL and SBI have moderate 15 percent each, average cost of equity, slightly below the Mean Market Average.

Figure 4.10

Comparative study on cost of equity (ks) of selected commercial banks of Nepal



If we see the consistency of Cost of equity, we will found that NABIL has most consistent,15 percent CV, Cost of Equity While BOK has least consistent,66 percent CV. Similarly, SBI and NBB have comparatively less consistent Cost of Equity with 65 percent CV each. On the other hand EBL, IBL, SCBL and HBL have moderate consistent Cost having 24, 30, 28 and 30 percent CV respectively.

4.1.11 Presentation and analysis of one year HPR of selected commercial Banks of Nepal

Table 4.11
One year holding return (HPR) from selected commercial Banks of Nepal

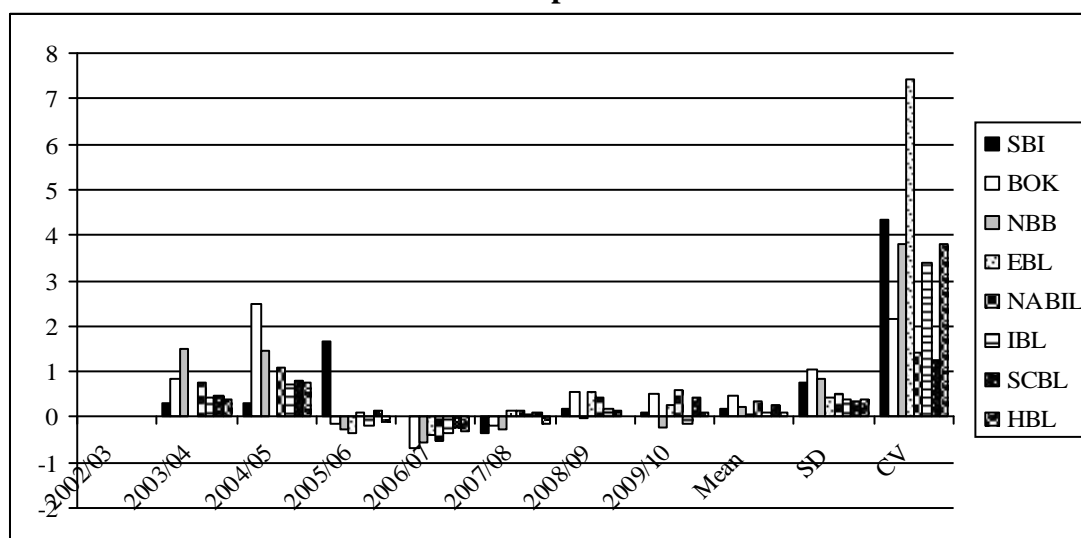
FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	-	-	-	-	-	-	-	-	-
2003/04	0.30	0.86	1.50	-	0.74	0.42	0.48	0.39	0.67
2004/05	0.30	2.50	1.44	-	1.08	0.73	0.79	0.75	1.05
2005/06	1.67	-0.15	-0.26	-0.35	0.10	-0.18	0.13	-0.10	0.11
2006/07	-0.73	-0.69	-0.55	-0.38	-0.51	-0.34	-0.22	-0.32	-0.47
2007/08	-0.34	-0.20	-0.27	0.15	0.13	0.07	0.11	-0.16	-0.06
2008/09	0.20	0.54	-0.02	0.57	0.44	0.20	0.13	0.00	0.26
2009/10	0.09	0.51	-0.25	0.28	0.58	-0.14	0.41	0.11	0.20
Mean	0.17	0.48	0.23	0.06	0.36	0.11	0.26	0.10	0.22
SD	0.75	1.04	0.86	0.41	0.52	0.37	0.33	0.37	0.49
CV	4.32	2.15	3.80	7.42	1.42	3.39	1.24	3.79	2.22

Source: Related Banks

The table 4.11 shows One year holding return (HPR) of eight commercial Banks of Nepal from Fiscal Year 2002/03 to 2009/10 for every year. Further, the table shows the Mean HPR of eight year period for each Bank, Standard Deviation (STD) and Coefficient of variance (CV) of HPR for each Bank. Beside this, Market Average HPR for every year, Mean of Market Average HPR, SD and CV of Market Average is calculated based on these eight Banks. From the study of table following evidences are found.

Figure 4.11

Comparative study on one year holding return of selected commercial banks of Nepal



Overall HPR of these eight Banks over eight years period is 22 percent. FY 2004/05 is the year having Maximum HPR with 105 percent While FY 2006/07 has Least HPR with negative 47 percent.

Most of the have best return in FY 2006/07 Further BOK tremendous return, 250 percent of the Banks have negative HPR in FY 2006/07 with 73 negative percent return of SBI to 22 percent negative return of SCBL.

Comparative study of Banks shows that BOK has maximum average HPR with 48 percent while EBL has minimum average with 6 percent among the eight Banks. HPR of NBB, NABIL: and SCBL are more then overall average, respectively 23, 36 and 26 percent while HPR of SBI, IBL and HEL are less then overall average HBL respectively 17, 11 and 10 percent.

If we see consistency, we will found that there is so much inconsistent on HPR of all Banks with 49 percent overall SD and 222 percent overall CV. Here the question is not which Banks has consistent HPR and which has inconsistent but the questions is which Banks has least inconsistent HPR? If we see from this side, we will found SCBL has least inconsistent HPR with 124 percent CV while EBL has most inconsistent HPR with 742 percent CV.

4.2 Correlation Analysis

In this part of data presentation and analysis chapter, correlation analysis has done. For this EPS, DPS, DRP, MVPS, BVPS, DY, Rt, ROE, Ke, HPR, Lagged DPS and Lagged P/E multiple are taken into consideration .First of all correlation matrix is derived from SPSS program then the output is split as per requirement to analysis which is done as follows.

Table 4.12
Correlation Matrix

	EPS	DPS	DPR	MVPS	P/Et	BVPS	DY	Rt	ROE	g	Ke	HPR	Dt-1	P/Et-1
EPS	1	866**	0.089	.760**	322*	848**	.626**	-0.089	.860**	0.173	.415**	0.216	869**	307*
DPS		1	.301*	.702**	-0.197	.742**	.776**	.301*	.686**	.280*	-0.014	0.115	.945**	-0.203
DPR			1	0.034	0.069	0.121	.432**	-1**	-0.028	-.495**	-.359**	-.151	.207	-.071
MVPS				1	-.115	-.069	.249	-.034	0.039	.595**	0.059	-.151	.207	-.071
P/Et					1	-.184	-.239	-.069	-.450**	-.328*	-.432**	-.019	-.184	.014
BVPS						1	.536**	-.121	.508**	-.063	.126	.137	.800**	-.320**
DY							1	-.432**	.543**	-.325*	.017	.073	.719**	-.220
Rt								1	.028	.495**	.359**	.151	-.207	.071
ROE									1	.449**	.675**	.251	.693**	-.369*
G										1	.938**	.196	-.181	-.149
Ke											1	.228	.019	-.242
HPR												1	.116	-.211
Dt-1													1	-.211
P/Et-1														1

Where.

** . Correlation is significant at 0.01 levels (2-tailed)

* . Correlation is significant at 0.05 levels (2-tail)

4.2.1 Correlation between EPS and DPS, BVPS and other Variables

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
EPS	1	.0866		.760	-.322	.848	.626		.860		.415		.869	.307

Correlation of EPS with DPS, BVPS, ROE and, Dt-1 are highly positive, with DY and MVPS upper moderately positive and with ke lower moderately positive while with P/E and P/E t-1 are considerable negative. On the other hand correlation of EPS with DPR, RT, G and HPR insignificant.

4.2.2 Correlation between DPS and MVPS, BVPS, ROE and other Variables

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
DPS	1	.301	.702	.760	.742	.776	.776	-.301	.686	-.280	.415		.945	

Correlation of DPS with MVPS, BVPS, DY and ROE are upper moderately positive. With EPS highly Positive, with Dt-1 extreme highly positive and with DPR considerable positive while the correlation of DPS with Rt and G are considerable negative. On the other hand correlation of DPS with P/Et Ke, HRP and P/Et - 1 are insignificant.

4.2.3 Correlation between DPR and G and other Variables

EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
	.301	1				.432	-1		-.495	-.359			

Correlation of DPR with G is moderately negative, means as the DPR is decreased the growth of a firm would be increased and vice-versa. Similarly, correlation between DPR and Ke is lower moderate negative while with DY moderately positive and with DPS considerable positive. On the other hand correlation between DPR and MVPS, P/Et, BVPS, ROE, HPR, Dt01 and P/Et-1 is insignias.

4.2.4 Correlation between MVPS and EPS, DPS, Dt-1 and other variable

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
MVPS	.760	.702		1		.696	.432		.595	-.495		.315	.813	.287

Correlation between MVPS and EPS, DPS and Dt-1 is highly positive with BVPS upper high positive and with ROE moderately positive. Similarly correlation between MVPS and HPR is considerable positive while the correlation is considerable negative between P/E t-1. On the other hand correlation between MVPS and DPR, P/Et, G and Ke is insignificant.

4.2.5 Correlation between E/Et and EPS, MVPS and other Variables.

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
P/Et	322	702			1				-450	-328	-432			

Correlation between P/Et and EPS is considerable negative while the correlation between P/Et and MVPS is insignificant. Correlation between P/Et and ROE and Ke is moderately negative and P/Et and G is considerable negative. On the other hand correlation between P/Et and DPS, DPR, MVPS, BVPS, DY, Rt, HPR, Dt-1 and P/Et-1 is insignificant.

4.2.6 Correlation between BVPS and EPS, DPS, Dt-1 and other variable

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
BVPS	848	742		696		1	536		508				800	-320

Correlation between BVPS and EPS and between BVPS and Dt-1 are highly positive while correlation of BVPS with P/Et-1 is considerable negative. Similarly correlation of BVPS with DPS and MVPS is upper moderate positive and with ROE moderate positive. On the other hand, correlation of BVPS with DPR, P/Et, Rt, G, Ke HPR are insignificant.

4.2.7 Correlation between DY and DPS, Dt - 1 and other Variavles

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
DY	.626	.776	.432				1	-.432	.543	-.325			.719	

Correlation of DY with DPS and Dt-1 are highly positive. Similarly correlation of DY with DPR and ROE are respectively lower moderate positive and moderate positive while the relationship is lower moderate negative with Rt and considerable negative

with G. on the other hand, correlation of DY with MVPS, P/Et, BVPS, Ke, HPR and P/Et-1 are insignificant.

4.2.8 Correlation between Rt and DPR, G, Ke, and other variable

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
Rt		-.301	-1					1		.495	.359			

Correlation between Rt and DPR is absolute negative that is -1 while the relationship is considerable negative with DPS. On the other hand correlation of Rt with G and Ke are moderate positive and lower moderate positive respectively while correlation of Rt with EPS, MVPS, P/Et, BVPS, DY, ROE, HPR, Dt-1 and P/Et-1 are insignificant.

4.2.9 Correlation between ROE and EPS, DPS, Ke, Dt-1 and other variable

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
ROE	.806	.686		.595	-.450	.508	.543		1	.449	.675		.693	-.369

Correlation between ROE and EPS is highly positive. Similarly correlation of ROE with DPS, MVPS and Dt-1 are upper moderate positive and with BVPS, DY and G moderate positive while the relationship is lower moderate negative and considerable negative with P/Et. and P/Et-1 respectively. On the other hand, correlation of ROE with DPR, Rt and HPR are insignificant.

4.2.10 Correlation between G and Ke and other variable

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
G	-.280	-.495			-.328		-.325		.495	.449	1	.938		

Correlation between G and Ke is extreme high positive. Similarly, Correlation of G with Rt and ROE are moderate positive and lower moderate positive while the relationship with DPR is moderate negative and with DPS, P/Et and DY are considerable negative. On the other hand correlation of G with EPS, MVPS, BVPS, HPR, Dt-1 and P/Et-1 are insignificant.

4.2.11 Correlation between Ke and ROE, G and other variable

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
Ke	.415		-.359		-.432			.359	.675	.938	1			

Correlation between Ke and ROE is upper moderately positive and relationship between Ke and G is extreme positive. Similarly, Correlation between Ke and EPS and Rt are lower moderation positive while the correlation and Ke and DPR and P/Et are lower moderate negative. On the other hand, correlation between Ke and DPS, MVPS, BVPS, DY, Dt-1 and P/Et-1 are insignificant.

4.2.12 Correlation between HPR and MVPS and other variable

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
HPR				.315										

Correlation between HPR and MVPS is considerable positive with 0.315 while the correlation between HPR and EPS, DPS, DPR, P/Et. BVPS, DY, Rt, ROE, G, Ke, Dt-1 and P/Et-1 are insignificant.

4.2.13 Correlation between Dt-1 and EPS, MVPS, and other variable

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
Dt-1	.869	.945		.813		.800	.719		.693				1	

Correlation between Dt-1 and EPS, MVPS, DY, ROE and BVPS is highly positive. Similarly, Correlation between Dt-1 and DPS is extreme positive. On the other hand, Correlation between Dt-1 and DPR, P/Et, Rt, G, Ke, HPR and P/Et-1 are insignificant.

4.2.14 Correlation between P/Et-1 and EPS, MVPS, and other variable

	EPS	DPS	DPR	MVPS	P/E1	BVPS	DY	Rt	ROE	G	Ke	HPR	Dt-1	P/Et1
P/Et-1	-307			-320		-320			-369					1

Correlation between P/Et-1 and EPS, MVPS, BVPS and ROE are considerable negative while the correlation between P/Et-1 and DPS, DPR, P/Et, DY, Rt, G, Ke, HPR and Dt-1 are insignificant.

4.3 Regression Analysis

This part of the chapter is dividend into two sections, one is simple regression analysis and another is multiple regression analysis.

4.3.1 Simple Regression Analysis

In this simple Regression analysis section, regression analysis has done having one independent variable for the depended variable. For this DPS, MVPS, EPS, g, ROE, Ke and HPR is analyzed as depended variable. Before analysis of the regression model, variable as depended and independent are inter into the SPSS program, The output result come from the program is tabulated on table 4.3.1 as per our requirement. Analysis of simple models is given below.

Table 4.13
Simple & Regression Analysis

Regression Model	No of Obser	Constant (a)	Regression Coefficient (b)	S.E. of 'b'	R ²	S.E. of Estimate	't' Value	Significant
$D_1=a+b_1$	62	-13.761	.728	.054	.750	16.9091	13.433	**
$D_1=a+b D_{t-1}$	54	-.544	1.016	.049	.891	11.5769	20.650	**
$D_1=a+bP/E_{t-1}$	52	35.780	-.330	.176	.066	34.3595	-1.877	#
$P_1=a+bE_t$	60	327.304	9.679	1.113	.567	342.0194	8.716	*
$P_1=a+bD_1$	60	591.929	10.554	1.439	.481	374.3330	7.337	*
$P_1=a+bp/E_{t-1}$	53	998.133	-2.205	1.031	.082	513.8589	-2.138	#
$P_1=a+b(DPR)$	60	881.746	26.489	100.810	.001	519.3987	.263	#
$P=a+b(g)$	60	861.528	258.277	876.836	.001	519.4780	.295	#
$E_1=a+b D_{t-1}$	54	26.352	1.080	.086	.752	20.2499	12.556	**
$B_t=a+bDPR$	62	229.912	15.354	16.225	.051	84.0232	.946	#
$B_t=a+bD_1$	62	184.967	1.856	.742	.551	56.7415	80575	*
ROE=a+bE	62	9.560	2.231	.000	.740	5.320	13.070	**
		E-02	E-03			E-02		
ROE=a+b DPR	62	.225	-4.36	.020	.001	.1043	-.217	#
			E-03					
ROE= a+b D _t	62	.164	2.116	0	0.47	7.593	7.302	*
			E-03			E-02		
(g)=a+bD _t	62	0.142	-6.42	0	0.08	7.459	7.302	*
			E-04			E-02		
(g)=a+b(ROE)	62	4.990	0.334	0.086	0.2	6.942	3.892	#
		E-02				E-02		
K _e =a+b(DPR)	60	0.172	-3.92	0.013	0.13	6.897	-2.926	#
			E-02			E-02		
K _e =a+b(g)	60	4.304	0.891	0.043	0.88	2.577	20.64	**
		E-02				E-02		
HPR=a+bD _t	53	0.815	1.835	0.002	0.01	0.6164	0.753	#
			E-03					
HPR=a+b(DPR)	53	0.295	-0.131	0.12	0.02	0.6164	0.753	#
HPR=a+bK _e	53	-4.68	1.928	1.151	0.05	0.6034	1.676	#

** 5% level of significance at 1 degree of freedom (if 't' value is greater than or equal to 12.706, here near in the point too)

* 10% level of significance at 1 degree of freedom (if 't' value is greater than or equal to 6.314)

Insignificant

4.3.1.1 Regression Analysis for DPS on EPS

Regression Equation:

$$D_t = a + bE_t$$

Where,

D_t = DPS (dependent variable)

E_t = EPS (independent variable)

No. of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	significance
62	-13.761	0.728	0.054	0.75	16.9019	13.433	Significant at 5% level of significance

The split table 4.3.1.1 above shows the regression analysis for DPS on EPS. From the 62 observed data, it is found that constant (a) is -----13.76 1 means the average DPS would not decrease below negative Rs. 13.76, even if average EPS became zero, Similarly, Regression coefficient (b), 0.728 shows that one rupee increases in average EPS leads to 73 paise increase the average DPS. On the other hand, R^2 .728 shows the proportion of variation in DPS explained by regression model. Also, high proportion of R^2 shows the model is well fits the population. The tabulated value of 13.433 which is above the calculated value of 't', 12.706 at 5% level of significance on 1 degree of freedom. That is, the slope of correlation is significant at 95 degree of confidence.

Hence the estimated model is $DPS - 13.761 + .728 EPS$

4.3.1.2 Regression Analysis for DPS on DPSt-1

Regression Equation:

$$D_t = a + bD_{t-1}$$

Where,

D_t = DPS (dependent variable)

D_{t-1} Lagged DPS (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	significance
54	-0.544	1.016	0.49	0.891	11.5796	20.65	Significant at 5% level of significance

The split table 4.3.1.2 above shows the regression analysis for DPS and last year DPS. From the 54 observed data, it is found that constant (a) is 0.544 mean the average DPS would not decrease below negative Rs. -.544, even if average Lagged DPS were zero, Similarly, Regression coefficient (b), 1.016 shows that one rupee increases in average DPS leads to 1 Rupees increase in average Lagged DPS. On the other hand, R^2 .891 shows the proportion of variation in DPS explained by regression model. Also, high proportion of R^2 shows the model is well fits the population. The tabulated value of 20.650 which is above the calculated value of 't', 12.706 at 5% level of significance on 1 degree of freedom. That is, the slope of correlation is significant at 95 degree of confidence.

Hence the estimated model is $DPS = -544 + 1.016 \text{ DPS}_{t-1}$

4.3.1.4 Regression Analysis for DPS on P/E_{t-1}

$$D_t = a + bP/E_{t-1}$$

Where,

D_t = DPS (dependent variable)

P/E_{t-1} = Lagged Price earning ratio (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R ²	S.E. of Estimate	't' value	significance
52	35.78	-0.33	0.176	0.066	34.3595	-1.877	Insignificant

The split table 4.3.1.3 above shows the regression analysis for DPS and last year P/E. From the 52 observed data, it is found that constant (a) is ----.35.780 mean the average DPS would not decrease below rupee Rs. 35.78, even if P/E_{t-1} multiple became zero. Similarly, Regression coefficient (b), -.330 shows that one time increases in Lagged P/E multiple leads to 33 paisa decreases the DPS. On the other hand, R^2 .066 shows the proportion of variation in DPS explained by regression model. Also, high proportion of R^2 shows the model is not model fit the population. . The tabulated value of 't' -1.877 which is not above or below the calculated value of 't', +/-12.706, at 5% level of significance on 1 degree of freedom. That is, the slope of correlation is significant at 95 degree of confidence.

Hence the estimated model is $DPS=35.78 - .33 P/E_{t-1}$
(but insignificant now average Mean DPS is 27.04)

4.3.1.4 Regression Analysis for MVPS on EPS

Regression Equation:

$$P_t = a + b E_t$$

Where,

P_t = MVPS (depended variable)

E_t = EPS (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	significance
60	327.304	9.697	1.113	0.567	342.0194	8.716	Significant at 10% level of significance

The split table 4.3.1.4 above shows the regression analysis for MVPS on EPS. From the 60 observed data it is found that constant (a) is 327.304 means average MVPS of selected Banks would not decrease below rupee 327, even if average EPS become zero. Similarly regression coefficient (b) 9.697 shows that one rupee increases in average EPS leads to 9 rupee 70 paise increases the average MVPS. On the other hand, $R^2 .567$ shows the proportion of variation in MVPS explained by regression model. Also, moderate proportion of R^2 shows the model is moderate well fits the population. The tabulated value of 't' 8.716 which is above the calculated value of 't' 6,314 at 10% level of significance on degree of freedom. That is the slope of correlation insignificant at 90 degree of confidence.

Hence the estimated model is average MVPS $327.30+9.70$ EPS

4.3.1.5 Regression Analyses for MVPS on DPS

Regression Equation

$$P_1=a+bD_1$$

Where,

P_1 =MVPS (dependent variable)

$D_1 = \text{DPS}$ (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R ²	S.E. of Estimate	't' value	Significance
60	591.	10.554	1.439	0.481	374.33	7.337	Significant at 10% level of significance

The split 4.3.1.5 above the regression analysis for MVPS on DPS. From the 60 observed data it is found that constant (a) is 591.929 means average MVPS of selects Bank would not decrease below rupee 591.93 paisa even if average EPS become zero. Similarly, Regression coefficient (b) 10.554 shows that one rupee increase in DPS leads to 10 rupee 55 paisa increase the MVPS. On the other hand, R^2 .481 shows the proportion of variation in MVPS explained by regression model. Also moderate proportion of R^2 show the model is moderation fit the population. The tabulated value of 't' 7.337 which is above the calculated value of 't' 3.3 14 at 10% level of significance on 1 degree of freedom. That is, the slope of correlation is significant at 90 deree of confidence.

Hence, the estimated model is average $\text{MVPS} = 591.93 + 10.55 \text{ DPS}$

4.3.1.6 Regression Analysis for MVPS on P/E_{t-1}

Regression Equation:

$$P_t = a + b P/E_{t-1}$$

Where

$P_t = \text{MVPS}$ (dependent variable)

$P/E_{t-1} = \text{Legged price earning ratio}$ (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R ²	S.E. of Estimate	't' value	Significance
53	998.133	-2.205	1.031	0.82	513.8589	-2.138	Insignificant

The split table 4.3.1.6 above shows the regression analysis for MVPS on last year P/E multiple. From the 53 observed data, it is found that constant (a) is 998.133 means the

MVPS would not increase above rupees 998.13 paisa, even if P/E became zero. Similarly, Regression coefficient (b) -2.205 shows that one time increase in Lagged P/E multiply leads to decrease the MVPS by 2 rupee 21 paisa. On the other hand, R^2 0.82 shows the proportion of variation in DPS explained by regression model. Also, very narrow proportion of R^2 0.82 shows the model is not fit the population. The tabulated value of 't' -2.138 which is not above/ below calculated value of 't' +/- 6.314, at 10% level of significance on 1 degree of freedom. That is the slope of correlation is insignificant even at 90 degree of confidence.

Hence, the estimated model is average $MVPS = 998.13 - 2.205P/E_{t-1}$ (but insignificant)

4.3.1.7 Regression Analysis of MVPS on DPR

Regression Equation:

$$P_t = a + b(\text{DPR})$$

where

$$P_t = \text{MVPS (dependent variable)}$$

DPR = Dividend payout ratio (in depended variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R ²	S.E. of Estimate	't' value	significance
60	881.746	26.489	1.031	0.82	613.8589	-2.138	Insignificant

The split table 4.3.1.7 above the shows the regression analysis for MVPS on DPR. From the 60 observed data. it is found that constant (a) is 881.746 means the MVPS would not decrease below rupee 881.75, even if DPR were zero. Similarly Regression coefficient (b) 26.489 shows that if the proportion of DPR were 1, MVPS would be increase by 26 rupee 49 paisa. On the other hand R^2 .001 shows the proportion of variation in DPS explained by regression model. Also negligence proportions of R^2 show the model is not fit the population. The tabulated value of 't' .263 which is far below the calculated value of 't' 6.314 at 10% level of significance on 1 degree of freedom. That is the slope of correlation is insignificant even at 90 degree of confidence.

Hence, the estimated model is average MVPS=881.75 +26.49 DPR

4.3.1.8 Regression Analysis for MVPS on g

Regression Equation:

$$P_t = a + b(g)$$

Where

P_t = MVPS (depended variable)

g = growth rate (in depended variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R ²	S.E. of Estimate	't' value	Significance
60	881.746	26.489	1.031	0.82	613.8589	-2.138	Insignificant

The split table 4.3.1.8 above shows the regression analysis of MVPS on growth rate, (g). From the 60 observed data, it is found that constant (a) is 861.528 means the MVPS would not decrease below 861 rupee 53 paisa, even if g were zero. Similarly Regression coefficient (b) 258.277 shows that if the proportion of g were 1 (i.e, 100%), MVPS would be increased by 258 rupee 28 paisa. On the other hand, R² 001 shows the proportion of variable in MVPS explained by regression model. Also negligence proportions of R² shows the model is not fit the population. The tabuated value of 't' .295 which is far below the calculated value of 't', 6.314 at 10% level of significance on 1 degree of freedom. That is, the slope of correlation is insignificant even at 90 degree of confidence.

Hence, the estimated model is average MVPS= 861.53+258.28g

4.3.1.9 Regression Analysis for EPS on D_{t-1}

Regression Equation:

$$E_t = a + b D_{t-1}$$

Where,

E_t = EPS (dependent variable)

D_{t-1} = Lagged DPS (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R ²	S.E. of Estimate	't' value	significance
54	26.352	1.080	.086	.752	20.2499	12.556	Significant at 5% level of significant

The split table 4.3.1.9 above shows the regression analysis for EPS on Last year DPS. From the 54 observed data, it is found that constant (a) is 26.352 means the EPS would not decrease below 26 rupee 35 paise, even if Lagged DPS were zero. Similarly Regression coefficient (b) 1.080 shows that if then amount of lagged DPS were increased by 1 rupee, average MVPS would be increased by 1 rupee 8 paise. On the other hand, R^2 .752 shows the proportion of variation in DPS explained by regression model. Also, high proportions of R^2 shows the model is well fit the population. The tabulation value of 't' 12.556 which is near equal to the 't' distribution table, 12.706 at 5% level of significance on 1 degree of freedom. That is the slope of correlation is significant even at 95 degree of confidence.

4.3.1.10 Regression Analysis for BVPS on EPS

Regression Equation:

$$E_t = a + b D_{t-1}$$

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	significance
62	134.672	1.785	.144	.720	44.7959	12.419	Significant at 5% level of significant

The split 4.3.1.10 above shows the regression analysis for BVPS on EPS. From the 62 observed data. it is found that constant (a) is 134.672 means the EPS would not decrease below 134 rupee 67 paise, even if EPS were zero. Similarly, Regression coefficient (b) 1.785 shows that if the amount of EPS were increased by 1 rupee, average BVPS would be increased by 1 rupee 79 paise. On the other hand, R^2 .720 shows the proportion of variation in BVPS explained by regression model. Also, high proportion of R^2 shows the model is well fit the population. The tabulated value of 't' 12.419 which is near equal to the t-distribution table. 12.706 at 5% level of significance on 1 degree of freedom. That is the slope of correlation is significant at 95 degree of confidence.

Hence, the estimated model is $BVPS = 134.67 + 1.79 \text{ EPS}$

4.3.1.11 Regression Analysis for BVPS on DPR

Regression Equation:

$$B_t = a + b \text{ DPR}$$

Where,

B_t = BVPS (dependent variable)

DPR = dividend payout ratio (in dependent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	Significance
62	299.912	15.354	16.225	.015	84.0232	.946	Insignificant

The split table 4.3.1.11 above shows the regression analysis for BVPS on DPR. From the 62 observed data, it is found that constant (a) is 229.912 means the BVPS would not decrease below 229 rupee 91 paise, even if DPR were zero. Similarly, Regression coefficient (b) 15.354 shows that if the proportion of DPR were 1, average BVPS would be increased by 15 rupee 34 paise. On the other hand R².015 shows the proportion of variation in BVPS explained by regression model. Also very narrow proportions of R² shows the model is not fit the population. The tabulated value of 't' .946 which is far below the t- distribution table. 6.314 at 10% level of significance on 1 degree of freedom. That is the slope of correlation is insignificant even at 90 degree of confidence.

Hence, the estimated model is average BVPS = 229.91 + 15.34 DPR

4.3.1.12 Regression Analysis for BVPS on DPS

Regression Equation:

$$B_t = a + b D$$

Where,

B_t = BVPS (dependent variable)

D = DPS (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	significance
62	184.967	1.856	.742	.551	56.575	8.575	Significant at 10% level of Significance

The Split 4.3.1.12 above shows the regression analysis for BVPS on DPS. From the 62 observed data, it is found that constant (a) is 184.967 means the BVPS would not decrease below 184 rupee 97 paisa even if DPS were zero. Similarly, Regression coefficient (b) 1.856 shows that if the proportion of DPS were increased by 1 rupee, average BVPS would be increased by 1 rupee 86 paisa. On the other hand, R^2 .551 shows the proportion of variation in BVPS explained by regression model. Also, moderate proportions of R^2 shows the model is moderate fit the population. The tabulated value of 't' 8.575 which is above to the distribution table, 6.3 14, at 10% level of significance on 1 degree of freedom. That is the slope of correlation is significant even at 90 degree of confidence.

Hence, the estimated model is average BVPS $184.97 + 1.86 \text{ DPS}$

4.3.1.13 Regression Analysis for ROE on DPR

Regression Equation:

$$\text{ROE} = a + b D_1$$

Where,

ROE=Return of Equity (dependent variable)

D_1 =DPS (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	Significance
62	.164	2.116 E-03	.000	.471	7.593 E-02	7.302	Significant at 10% level of significance

The split table 4.3.1.13 above shows the regression analysis for ROE on DPR. From the 62 observed data, it is found that constant (a) is .225 means the ROE would not above 22 percent, even if DPR were zero. Similarly, Regression coefficient (b) -.00436 shows that if the proportion of DPR were 1, ROE would be decreased by 0.44 percent. On the other hand, R^2 .001 shows the proportion of variation in, DPS explained by regression model. Also, negligence proportions of R^2 shows the model is not fit population. The tabulated value of 't' -0.217 which is not above ! below to the t-

distribution table value, +/-6.314, at 10% level of significance in 1 degree of freedom. That is the slope of correlation is Insignificant at 90 degree of confidence.

Hence, the estimated model is $ROE = .225 + .004 \text{ DPR}$

4.3.1.14 Regression Analysis for g on DPR

Regression Equation

$$g = a + b (\text{DPR})$$

g= growth rate(dependent variable)

DPR= dividend payout ration (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R ²	S.E. of Estimate	't' value	Significance
62	.150	-5.75 E-02	.013	.245	6.752 E-02	-4.407	Insignificance

The split table 4.3.1.14 above shows the regression analysis for g on DPR. From the 62 observed data, it is found that constant (a) is .150 means the ROE would not above 15 percent, even if DPR were zero. Similarly, Regression coefficient (b) .0575 shows that if the proportion of DPR were 1, g would be increased by 5.75 percent. On the other hand, R².245 shows the proportion of variation in g explained by regression model. Also, narrow proportions of R² shows the model is not well fit the population. The tabulated value of 't' 4.407 which is well below to the 't'- distribution table value. 6.314, at 10% level of significance ion 1 degree of freedom. That is the slope of correlation is insignificant even at 90 degree of confidence.

Hence, the estimated model is $g = 15 + .0575 \text{ DPR}$

4.3.1.15 Regression Analysis for g on DPS

Regression Equation:

$$g = a + b D_t$$

Where, g= growth rate (dependent variable)

D_t= DPS (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	Significance
62	-042	-6.42 E-04	.000	.078	7.459 E-02	-2.255	Insignificance

The split table 4.3.1.15 above shows the regression analysis for g on DPS. From the 62 observed data, it is found constant (a) is .142 means the ROE would not below 14.2 percent, even if DPS were zero. Similarly, Regression coefficient (b) .000642 shows that if the amount of DPS increased by 1 rupee; g would be decreased by.06 percent. On the other hand, R^2 .078 shows the proportion of variation in g explained regression model. Also, narrow proportions of R^2 shows the model is not well fit the population. The tabulated value of 't' -2.255 which is not above below to the t-distribution table value,+ /- 6.14,at 10% level of significance on 1 degree of freedom. That is even at 90 degree of confidence

Hence, the estimated model is $g = .142 + .0006 \text{ DPS}$

4.3.1.16 Regression Analysis for g on ROE

Regression Equation:

g= growth rate (dependent variable)

ROE= return -n equity (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	Significance
62	4.990 E-02	.334	.086	.202	6.942 E-02	3.892	Insignificance

The split table 4.3.1.16 above shows the regression analysis for g on ROE. From the 62 observed data, it is found that constant (a) is .0499 means the g would not below 4.99 percent, even if ROE were zero. Similarly, Regression coefficient (b) .086 shows that if the proportion of ROE were 1 percent g would be increased by 33.4 percent. On the other hand, R^2 .202 shows the proportion of variation in g explained by regression model. Also, narrow proportions of R^2 shows the model is not well fit population. The tabulated value of 't' 3.892 which is below to the t- distribution table value, 6.314,at 10% level of significance on 1 degree of freedom.

Hence, the estimated model is $g = .0499 + .334 \text{ ROE}$

4.3.1.17 Regression Analysis for K_e on DPR

Regression Equation:

$$K_e = a + b (\text{DPR})$$

Where,

K_e = Cost of equity (dependent variable)

DPR = dividend payout ratio (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R ²	S.E. of Estimate	't' value	Significance
60	.172	-3.92 E-02	.013	.129	6.897 E-02	- 2.926	Insignificance

The split table 4.3.1.17 above shows the regression analysis for K_e on DPR. From the 60 observed data, it found that constant (a) is .172 means the K_e would not above 17.2 percent, even if DPR were zero. Similarly, Regression coefficient (b) -0.0392 shows that if DPR increased by 1 percent, K_e would be decreased by 3.92 percent. On the other hand, R^2 .129 shows the proportion of variation in K_e explained by regression model. Also narrow proportions of R^2

Shows the model is not well fit the population. The tabulated value of 't' -2.926 which is not above/below to the t-distribution table value, +/-6.314 at 10% a level of significance in 1 degree of freedom. That is, the slope of correlation is insignificance even at 90 degree of confidence. Hence, the estimated model is $ke.172 = - 0.0392 \text{ DPR}$

4.3.1.18 Regression Analysis for k_e on g

Regression Equation:

$$K_e = a + b(g)$$

Where,

k_e = Cost of equity(dependent variable)

g= growth rate (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	Significance
60	4.304 E-02	.891	.043	.880	2.577 E-02	20.643	Significant at 5% level of Significance

The Split 4.3.1.18 above shows the regression analysis for ke on g. From the 60 observed data, it is found that constant (a) is .04304 means the ke would not below 4.30 percent ,even if g were zero.

Similarly Regression coefficient (b) .892 shows that if g were 1 percent ke would be decreased by 89.1 percent. On the other hand R^2 .889 shows proportion of variation in ke explained by regression model. Also, high proportion of R^2 shows the model is well fit the population. The tabulated value of 't' 20.643 which is well above to the t-distribution table value, 12.706 at 5% level of significance on 1 degree of freedom. That is the slope of correlation is significant at 95 degree of confidence.

Hence, the estimated model is $ke = .04304 + .891 g$

4.3.1.19 Regression Analysis for HPR on DPS

Regression Equation:

$$HPR = a + b D_t$$

Where,

HPR = one year holding return (dependent variable)

D_t = DPS) independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	significance
53	.185	1.835 E-03	.002	.011	.6164	.753	Insignificance

The split table 4.3.1.19 above shows the regression analysis for HPR on DPS. From the 53 observed data, it is found that constant (a) is .185 means the HPR would not below 18.5 percent, even if DPS were zero. Similarly, Regression coefficient (b) .001835 shows that if DPS were increased by rupee 1, HPR would be increased by .18 percent. On the other hand, R^2 .011 shows the proportion of variation in HPR explained by regression model. Also, very narrow proportions of R^2 shows the model

is not fit the population. The tabulated value if 't' .753 which is far below to the t-distribution table value,6.314 at 10% level of significance on 1 degree of freedom. That is the slope of correlation is insignificant even at 90 degree of confidence.

Hence, the estimated model is $HPR = .185 + .0018 \text{ DPR}$

4.3.1.20 Regression Analysis for HPR on DPR

Regression Equations:

$$HPR = a + b \text{ (DPR)}$$

Where,

HPR = one year holding return(dependent variable)

DPR = dividend payout ratio (independent variable)

No of Observation	Constant (a)	Regression Coefficient (b)	S.E. of b'	' R2	S.E. of Estimate	't' value	significance
53	.295	-.131	.120	.023	.6127	-1.093	Insignificance

The split table 4.3.1.20 above shows the regression analysis for HPR on DPR. From the 53 observed data, it is found constant (a) is .295 means the HPR would not above 29.5 percent, even if DPR were zero. Similarly, Regression coefficient (b) negative.131 shows that if DPR were 1. HPR would be decreased by 13.1 percent. On the other hand, R^2 .023 shows the proportion of variation in HPR explained by regression model. Also, very narrow proportions of R^2 shows the model is not fit the population. The tabulated value of 't' -.1 .093 which is not above or below the t-distribution table value, +/-6.314 at 10% level of significance on 1 degree of freedom. That is the slope of correlation is insignificant even at 90 degree of confidence.

Hence, the estimated model is $HPR = .295 - .131 \text{ DPR}$

4.3.2 Multiple Regression Analysis

In this multiple Regression analysis section, regression analysis has done having two or more then two independent variables for the dependent variable. Multiple regression model with DPS, MVPS as dependent variable are analyzed. For this, DPS,

EPS, lagged DPS, Lagged P/E multiple. ROE, g ke are taken as independent variable. Before analysis of the regression model, variable as dependent and independent are enter into the SPSS program. The output result come from the program is tabulated on table 4.3.2 per our requirement. Analysis of simple regression models are give below.

Table 4.14
Multiple Regression Analysis

Regression Model	No of observations	Constant (a)	Regression Coefficient			R ²	SEE	F	Degree of freedom	Significant
			(b ₁)	(b ₂)	(b ₃)					
D _t = f (E _{t-1} , P/E _{t-1})	54	-4.720	0.158	0.844	-	0.900	11.2346	228.621	2/51	**
D _t = f (E _{t-1} , P/E _{t-1})	52	-5.335	0.161	0.849	1.185 E-02	0.905	11.1636	153.009	3/48	**
P _t = f (D _{t-1} , R _t , P/E _{t-1})	52	393.756	10.871	9.111	-1.111	0.682	307.1598	34.252	3/48	**
P _t = f (D _{t-1} , ROE _t , P/E _t)	60	437.734	1.852	-911.323	10.403	0.582	341.8848	26.022	3/56	**
P _t = (E _t - DPR, g)	60	466.926	10.177	-84.332	-1041.379	0.585	340.6543	26.345	3/56	**

**5% level of significance at given degree of freedom (if F is greater then or equal to the calculated value of F at particular degree of freedom table below.)

Calculation of the F-distribution at a 5% Level of significance, a =.05

Calculating -F at Numerator Denominator Degree of freedom		Pic up from F- distribution table				Calculation
		Degree of freedom	F- Distribution	Degree of freedom	F- distribution	
2/51	3.18	2/40	2.23	2/60	3.14	=3.14+(3.23-3.14)/20 *)60-51)=3.18
3/48	2.81	3/40	2.84	3/60	2.76	=2.76+(2.84- 2.76)/20*(60-48)=2.81
3/56	2.78	3/40	2.84	3/60	2.75	=2.76+(2.84- 2.76)/20*(60-56)=2.78

4.3.2.1 Regression Analysis of DPS on EPS and Lagged DPS

Regression Equation:

$$D_t = a + b_1 E_t + b_2 D_{t-1}$$

Where,

$$D_t = \text{DPS (dependent variable)}$$

E_t =EPS (independent variable)

D_{t-1} = Legged DPS (independent variable)

No of observation	Constant (a)	Regression Coefficient			R^2	SEE	F	Degree of freedom	Significant
		(b ₁)	(b ₁)	(b ₁)					
54	-4.720	.158	0.844	-	0.900	11.234 6	228.64 1	2/51	Significant at 5% level of significance

The Split table 4.3.2 above shows the regression analysis for DPS on EPS and lagged DPS. From the 54 observed data, it found that there is positive relationship of DPS with both EPS and lagged DPS. Further, constant (a) is minus 4.720 means the DPS would not below minus 4 rupee 72 paisa, even if EPS and lagged DPS were zero. Regression coefficients b_1 .158 shows that if EPS increased by 1 rupee, DPS would be decreased by 16 paisa. Similarly b_2 .844 shows that if lagged DPS is increased by 1 rupee, DPS would be increased by 84 paisa. On the other hand, R^2 .900 shows the proportion of variation in DPS explained by regression model, that is 90% variation in DPS is explained by variation in EPS and lagged DPS. Also, very high proportion of R^2 shows the model is well fit the population. The tabulated values of F, 228.621 which is well above F-distribution table value, 3.18 at 5% level of significance on 2/51 degree of freedom. That is the slope of correlation is significant at 95 degree of confidence.

Hence, the estimated model is $DPS = -4.720 + .158 EPS + .844 \text{ lagged DPS}$

4.3.2.2 Regression Analysis for DPS on EPS, Lagged BVPS and Lagged P/L multiple

Regression equation (taken from Deepak Chawal and G. Shrinibvasan's study):

Dividend Supply Function,

$$D_t = f(E_t, D_t, P/E_{t-1})$$

Where,

D_t = Dividend per share

E_t = Earning per share

D_{t-1} = Lagged Dividend per share

P/E_{t-1} = Lagged price earning ratio.

t = subscript for time.

Hence, regression equation is,

$$D_t = a + b_1 E_t + b_2 D_{t-1} + b_3 P/E_{t-1}$$

Where,

D_t = DPS (depended variable)

E_t = EPS (independent variable 1)

D_{t-1} = lagged DPS (independent variable 2)

P/E_{t-1} = Lagged P/E multiple (independent variable 3)

No of observation	Constant (a)	Regression Coefficient			R ²	SEE	F	Degree of freedom	Significant
		(b ₁)	(b ₂)	(b ₃)					
52	-5.335	.161	.894	1.1851 E-02	.905	11.1636	153.009	3/48	Significant at 5% level of significance

The split table 4.3.2.2 above shows the regression analysis for DPS on EPS and lagged DPS and lagged P/E multiple. From the 52 observed data, it is found that there is positive relationship of DPS with all EPS, lagged DPS and lagged P/E multiple. Further, constant (a) is minus 5.335 means the DPS would not below minus 5 rupee 34 paisa, even if EPS, lagged DPS and lagged P/E multiple all were zero. Regression coefficient b₁ .161 shows that if EPS increased by 1 rupee, DPS would be decreased by 16 paisa. Similarly, b₂ .849 shows that if lagged DPS by 1 rupee, DPS would be decreased by 85 paisa. Similarly, b₃ .01185 shows that if P/E1 increased by 1 rupee, DPS would be increased by 1 paisa. On the other hand, R² .905 shows the proportion of variation in DPS explained by regression model, that is 91 % variation in DPS is explained by variation in EPS lagged DPS and lagged P/E multiple. Also, very high proportion of R² shows the model is well fit the population. The tabulated values of F, 153.009 which is well above F-distribution table value, 2.81 at 5% level of significance on 3/48 degree of freedom. That is the slope of correlation is significant at 95 degree of confidence.

Hence, the estimated model is $DPS = -5.335 + .161 EPS + .849 \text{ lagged DPS} + .0119 P/E_{t-1}$

4.3.2.3 Regression Analysis for MVPS on DPS, Retained Earning and P/E_{t-1}

Regression equation (taken from Deepak Chawal and G. Shrinibvasa's study):

Price Function

$$P_t = f(D_t, R, P/E_{t-1})$$

Where,

P_t = Market price per share.

D_t = DPS (dependent variable)

R_t = Retained earning per share.

P/E_{t-1} = Lagged P/F multiple (independent variable 3)

t = Subscript for time.

Hence, regression equation is,

$$P_t = a + b_1 D_t + b_2 R_t + b_3 P/E_{t-1}$$

Where,

P_t = MVPS (dependent variable)

D_t = DPS (independent variable 1)

R_t = Retained Earning per share (independent variable 2)

P/E_{t-1} = Lagged P/F multiple (independent variable 3)

The split table 4.3.2 above shows the regression analysis for MVPS on DPS, Retained Earning and lagged P/E multiple. From the 52 observed it is found that there is positive of MVPS with DPS and retained earning R while the relationship is negative with lagged P/F, multiple. Here constant (a) is minus 393.756 means MVPDS would not below 393 rupee 76 paise, even if DPS and R were zero or would not decrease below the amount even if P/E_{t-1} were zero. Regression coefficients b_1 10.871 shows that if DPS increased by 1 rupee, would be decreased by 10 rupee 76 paise. Similarly, b_2 9.111 shows that if R1 is increased by 1 rupee, MVPS would be increased by 9 rupee 11 paise. Similarly, b_3 minus 1.111 shows that if P/E_{t-1} increased by 1 time, DPS would be decreased by 1 rupee 11 paise. On the other hand R^2 .682 shows the proportion of variation in MVPS explained by regression model, that is 68% variation

in MVPS is explained by variation in DPS, R_t and lagged P/E multiple. Also very moderate proportion of R^2 shows the model is moderate fit the population. The tabulated value of F, 34.252 which is well above F- distribution table value, 2.81 at 5% level of significance on 3/48 degree of freedom. That is the slope of correlation is significant at 95 degree of confidence.

Hence, the estimated model is $MVPS = 393.76 + 10.87 \text{ DPS} + 1 R_t - 1.11 \text{ P/E}_{t-1}$

4.3.2.4 Regression Analysis for MVPS on DPS, ROE and EPS

Regression equation (taken from Walter model)

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

or

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

Where,

P= Market price per share

DPS= Dividend per share

R= Internal rate of return share

EPS= Earning per share

K= cost of capital

Hence, Regression equation is,

$$P_t = a + b_1 D + b_2 ROE + b_3 E_t$$

Where,

P_t = MVPS (dependent variable)

D_t = DPS (independent variable)

ROE = return on equity (independent variable 2)

E_t = EPS (independent variable 3)

No of observation	Constant (a)	Regression Coefficient						Degree of freedom	Significant
		(b ₁)	(b ₂)	(b ₃)	R ²	SEE	F		
60	437.734	1.852	-911.232	10.403	.582	341.8848	26.022	3/56	Significant

The split table 4.3.2.4 above shows the regression analysis for MVPS on DPS, ROE and EPS. From the 60 observed data, it is found that there is positive relationship of MVPS with DPS and EPS while the relationship is negative with ROE. Here constant (a) is 437.734 means MVPS would not decrease below 437 rupee 73 paise, even if DPS and EPS were zero or would not increase below the amount even if ROE were zero. Regression coefficients b₁ 1.852 shows that if DPS increase by 1 rupee MVPS would be decreased by 1 rupee 85 paise. Similarly, b₂ minus 911.323 shows that if ROE is increased by 1 percent, MVPS would be decreased by 9 rupee 11 paise. Similarly b₃ 10.403 shows that if EPS increased by 1 rupee, MVPS would be decreased by 10 rupee 40 paise. On the other hand R² .582 shows the proportion of variation in MVPS is explained by regression model, that is 58% variation in MVPS is explained by variation in DPS, ROE, and EPS. Also moderate proportion of R² shows the model is moderate fit the population. The tabulated value of F, 26.022 shows the model is moderate fit the population. The tabulated value of F, 26.022 which is well above F-distribution table value, 2.78 at 5% level of significance on 3/56 degree of freedom. That is, the slope of correlation is significant at 95 degree of confidence.

Hence, the estimated model is $MVPS = 437.73 + 1.85 \text{ DPS} - 911.32 \text{ ROE} + 10.40 \text{ EPS}$

4.3.2.5 Regression Analysis for MVPS on EPS, DPR and g

Regression equation (taken from Gordon model)

$$P = \frac{E(1-b)}{K-br}$$

Where,

P = price of the share

E = Earning per share

B = Relation ratio

1-b = Percentage of earning distributed as dividend

$E(1-b)$ = Dividend per share

K = Capitalization rate or cost of capital

$b.r.$ = Growth rate (multiple of retention ration of earning, b and internal rate of return, r)

Hence, regression equation:

$$P_t = a + b_1 E_t + b_2 DPR + b_3 g$$

Where,

P = (dependent variable)

E_t = EPS (independent variable 1)

DPR = dividend payout ratio (independent variable 2)

g = growth rate of firm (independent variable 3)

The split table 4.3.2.5 above about shows the regression analysis for MVPS on EPS, DPR and g . From the 60 observed data, It is found that there is positive relationship of MVPS with EPS while the relationship is negative with DPR and g . Here constant (a) is 466.926 means MVPS would not decrease below 466 rupee 93 paisa, even if EPS were zero or would not increase below the amount even if DPR and g were zero. Regression coefficients b_1 10.177 shows that if EPS increased by 1 rupee MVPS would be decreased by 10 rupee 18 paisa. Similarly, b_2 -84.33 shows that if the DPR increased by 1 percent, MVPS would be decreased by 84 paisa. Similarly, b_3 1041.379 shows that if g increased by 1 rupee, MVPS would be decreased by 10 rupee 41 paisa. On the other hand, R^2 .585 shows the proportion of variation in MVPS explained by regression model, that is 59% variation in MVPS is explained by variation in EPS, DPR and g . Also moderate proportion of R^2 show the model is moderate fit the population. The tabulated value of F , 26.345 which is well fit about F -distribution tables value, 2.78 at 5% level of significance on 3/56 degree freedom.

4.4 Major Findings of the Aanalysis

From the chapter data presentation and analysis, we can compare the dividend policy followed by different commercial bank chosen and also to study the relationship of dividend policy with various financial indicators like EPS, DPS, MVPS, DPR, HPR, ROE, K_e , g etc.

4.4.1 Findings from analysis of financial indicators

The mean dividend per share of SCBNL is 98.75 which is highest among the eight sample banks and that of NBBL is 4.38 which is lowest among the eight sample bank. The coefficient of variation of SCBNL is lower i.e. 11.18% so has least variation. So we can conclude that the DPS is most consistent in case of SCBNL and most fluctuating in NBBL.

NBL and SBIBL have paid no dividend in the year 2006/07 NBBL has paid no dividend in the year 2005/06/07/08. EBL has paid no dividend in the year 2006/07/08.

The analysis of EPS shows that average EPS is highest in SCBNL, which is 127.758 and lowest in SBIBL which is 20.28.. The coefficient of variation is lowest in SCBNL, so the EPS is most consistent in case of SCBNL.

SCBNL shows increasing trend in EPS which is very favorable for the organization. No other banks show the increasing trends in EPS since EPS is haphazard.

The analysis of DPR shows that SCBNL has highest mean DPR (77.082) and NBBL has lowest (5.56). The coefficient of variation is lowest in SCBNL, (7.78) and highest in NBBL (137.003). The DPR of SCBNL is most consistent and that of NBBL is most fluctuating.

The analysis of MPS shows that the average MPS is highest in case of SCBNL which is 1696.2 and lowest in case of BOK, which are 432.88. The coefficient of variation is lowest in case of SCBNL 28% and highest in case of SBIBL 74%, So the MPS of SCBNL is most consistent and that of SBIBL is most fluctuating. None of the banks show the increasing trend in MPS.

The analysis of DY shows that the average DY is highest in case of SCBNL and lowest in case of NBBL. Similarly coefficient of variation is highest in case of NBBL, which mean the DY is not consistent. In case of SCBNL the DY is quite consistent

since coefficient of variation is only 20.00 which are lowest among the eight sample banks.

The Major analyses of P/E ratio show that the average P/E ratio is highest in case of NBB which is 81.43 and lowest in case of SCBNL which is 12.76. The NBB is found most inconsistent among the studied bank.

4.4.2 Findings from Correlation Analysis

The correlation of EPS with DPS, BVPS, ROE and Dt-1 are highly positive with DY and MVPS whereas the correlation of DPS with MVPS, BVPS, DY and ROE are upper moderately positive, with EPS highly positive. Correlation of DPR with G is moderately negative, means as the DPR is decreased the growth of a firm would be increased and vice-versa. Similarly correlation between DPR and Ke is lower moderate negative and on the other hand Correlation between DPR and MVPS, P/Et, BVPS, ROE and HPR is insignificant.

The correlation between MVPS and EPS, DPS and Dt-1 is highly positive with BVPS upper high position with ROE moderately positive. On the other hand correlation between MVPS and DPR, P/Et, DY, Rt, g and Ke is insignificant. Correlation between P/Et and EPS is considerable negative while the correlation between P/Et and MVPS is insignificant.

Correlation between Rt and DPR is absolute negative that is -1 while the relationship is considerable negative with DPS. On the other hand correlation of Rt with G and Ke are moderate positive and lower moderate positive. Correlation between Ke and ROE is upper moderate positive and the relationship between Ke and G is extremely positive while correlation Ke between DPR and P/Et are lower moderate negative.

Correlation between HPR and MVPS is considerable positive with 0.315 while the correlation of HPR between with EPS, DPS, DPR, P/Et, ROE, G and Ke are insignificant.

4.4.3 Finding from Regression Analysis

The regression analysis for DPS on EPS is found to be constant i.e. -13.761 means the average DPS would not decrease below negative Rs. 13.76 even if average EPS become zero. The regression analysis for DPS on last year DPS from the 54 observed data is found constant is -0.544 means the average DPS would not decrease.

From the 52 observed data, the regression analysis for DPS on the last year P/E multiple is found to be constant i.e. 35.780 means the average DPS would not decrease below Rs. 35.78 even if P/E_{t-1} Multiple become zero. From the 60 observed data, the regression analysis for MVPS on Growth rate is found to be constant i.e. 851.528 means the MVPS would not decrease 861.53 rupee even if g were zero.

From the 60 observed data, the regression analysis for K_e on g is found be constant which is 0.4304 means the k_e would not be below 4.30 percent, even if g were zero. From the 53 observed data, the regression analysis for HPR on DPS is found to be constant which is at 0.185 which means that the HPR would not be below 18.5 percent even if DPS were zero.

CHAPTER -V

SUMMARY, CONCLUSION AND RECOMMEDATIONS

In this chapter, conclusion is drawn from the study on the basis of study and analysis made in the previous chapters. This is the concluding of the research, which is very important since this is an output of the research. Suggestions are provided to the sample banks so that they can improve them.

Every investor apparently expects handsome earning on his/her share capital investment. The firm is not able to distribute fair dividend, will not be able to raise further equity from capital market. The total earning that a shareholder can give from share investment may be classified into dividend yield and capital gain yield. The company therefore needs to device a proper balance between retention and dividend distributions.

5.1 Summary

The main objective of the research is to know whether the banks are following suitable policy or not. For the purpose of study, five banks are taken as the samples, which represent other commercial banks. Both analytical and descriptive models are used. The data are mostly secondary in nature. The collected data are analyzed using various financial and statistical tools the analysis of DPR shadowed that the banks are not following stable dividend policy.

From the study it is found that none of the banks are following suitable dividend policy. Among the eight sample banks only standard Chartered Banks is paying dividend regularly. The DPS of SCBNL shows the increasing trend and has very good payout ratio in comparison to other sample Bank. NIBL, SBIBL, NBBL and EBL are not paying dividend regularly. The NIBL is paying lowest percentage of earning as dividend. The regression analysis of DPS on MPS shows that increase in MPS leads to decrease in DPS in all the sample banks except in case of SBIBL it is also found that change in dividend per share affects the value of share differently in different banks.

SO, the dividend policy following by SCBNL is most appropriate in every aspect. The payout ratio is highest in case of SCBNL and the banks is paying dividend regularly. There is not much fluctuation in dividend payment. NBBL and EBL have followed most unsuitable dividend policy since the average payout ratios are lowest and the dividend payment is most irregular. There is no consistency in dividend payment in case of these banks. The dividend policy Followed by NIBL and SBIBL are not so satisfactory but better then that of NBBL and EBL. Their mean payout ratios and coefficient of variations are almost same. So, on the basis of analysis of dividend policy of the sample banks, we can conclude that the dividend policy of the commercial banks in Nepal is not so satisfactory. Only one banks among the eight sample banks i.e. SCBNL is following quite satisfactory dividend policy. The remaining sample banks need to improve their dividend policy and following more stable policy, which is favorable for the shareholders as well as the banks themselves. Government should also introduce new plans and policies in order to make dividend policy more stable.

5.2 Conclusion

- The analysis of DPR shadowed that the banks are not following stable dividend policy.
- The Nepal Investment Bank Ltd. is paying lowest in MVPS leads to decrease in DPS in all the sample banks except in case of SBIBL it is also found that change in dividend per affects the value of share differently in different banks.
- There is no consistency in dividend payment in case of these banks.
- Standard Chartered bank is the highest earning bank, average EPS and SBI bank is the least earning bank having average EPS.
- Standard Chartered bank is the highest cash dividend paying banks having DPS and Nepal Bangladesh Bank is the least dividend paying bank having average DPS.
- P/E Multiple of Nepal Bangladesh Bank is found most inconsistent among the studied banks and Himalya Bank Ltd. is found most consistent among the studied banks.

- SCBL has highest average book value among the studied banks and SBI has least inconsistent book value.
- SCBL has maximum dividend yield. NBB and EBL have the least dividend yield.
- SCBL has maximum ROE among the studied banks while SBI has least ROE.
- BOK has least retained earning while NBB has most retained earning.
- The consistency of growth rate of banks, BOK has the most inconsistent growth rate while NABIL has the most consistent growth rate among the studied eight banks.
- NABIL has most consistent of the cost of equity while BOK has least consistent.
- SCBL has least inconsistent HPR while EBL has most inconsistent HPR.

5.3 Recommendations

- The legal provision of are country are not enough for protecting the shareholder's right. There must be some legal provision so that the companies are compelled to follow stable dividend policy which is appropriate for the shareholders and the company itself.
- The shareholders take the stability of dividend as the information about the company's profitability. So, company should follow stable dividend policy which conveys positive information about the company to the shareholders. If the dividend policy doesn't convey any information, then investors are compelled to think that the dividend policy of the firm's is erratic, which creates risk in the market. SCBNL shows stability and increasing trend in DPR which inform the investors that the company is expecting increased earning the following year. So the bank has change to acquire good position in the market. But other sample banks do not shows stability in dividend nor are they able to convey any information to the shareholders. NBBL is a greatest market risk. So NBBL need to improve the dividend policy the most.
- The institutional investors are interested to invest in the companies with stable dividend policy. So, in this case institutional investors will certainly not be interested to invest in the sample banks, except SCBNL.

- The Nepal Rastra Bank has issued the directive regarding the dividend payment and the bank has right to take the action to companies not following the directive. But there is no provision of stable dividend policy in the directive in which there is compulsion for the banks to follow the stable dividend policy.
- Analysis of financial indicators shows that there is high level of fluctuation in DPS, EPS, MPS, dividend yield and P/E ratio. Only SCBNL has low coefficient of variation which denotes that there is consistency in dividend payment in case of SCBNL. So, other banks should also have consistency in dividend payment.
- The average DPR is high in case of SCBNL and dividend is also paid regularly. But NBBL has lowest average payout ratio and irregular dividend payment. So NBBL need to improve the dividend policy. NIBL, SBIBL and EBL are almost same which is lower than SCBNL. So they should try to follow stable dividend policy which is favorable for shareholders and the banks.
- The correlation analysis between EPS and DPS shows that there is insignificant relationship between EPS and DPS of NIBL, NBBL and EBL, which indicates that EPS is not considered in making dividend decisions. But it is very necessary to take EPS into account in making dividend decisions.
- None of the banks have clearly defined policy which makes it difficult for the shareholders to make the decision regarding investing in the loans. So the banks should formulated dividend policy is suitable for the shareholders and banks themselves.
- So, comparing the eight commercial banks, SCBNL is best in every respect and NBBL need to improve the dividend policy. Other banks also need to improve their dividend policy to attract the potential investors and acquire the place in the market.
- Since these eight sample banks represent all the commercial banks in Nepal, we can conclude that the commercial banks of Nepal are not following suitable dividend policy.

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APPENDICES

APPENDIX-I

EPS

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	49.17	-	50.66	21.29	44.5	69.33	129.61	113.31	68.27
2003/04	13.98	24.7	68.94	21.3	67.84	33.76	105.86	86.07	52.81
2004/05	41.74	39.29	116.28	34.84	83.79	53.68	115.62	83.08	71.04
2005/06	8.69	27.97	82.81	31.56	59.26	33.18	126.88	93.57	57.99
2006/07	9.61	2	18.27	32.91	55.25	33.59	141.13	60.26	44.13
2007/08	11.47	17.72	19.86	29.9	84.66	39.56	149.3	49.45	50.24
2008/09	14.26	27.5	0.73	45.58	92.61	51.7	143.55	49.05	53.12
2009/10	13.29	30.1	--	54.22	105.49	39.5	143.93	47.91	62.06
Mean	20.28	24.18	51.08	33.95	74.18	44.29	131.99	47.91	57.46
SD	15.79	11.71	41.16	11.28	20.79	12.9	15.32	24.61	9.2
CV	0.78	0.48	0.81	0.33	0.28	0.29	0.12	0.34	0.16

DPS

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	20	0	15	0	30	50	70	50	29.38
2003/04	10	0	15	15	50	30	80	50	31.25
2004/05	15	0	0	0	55	25	100	50	30.63
2005/06	0	0	5	0	40	0	100	27.05	21.51
2006/07	0	10	0	0	30	0	100	25	20.63
2007/08	8	5	0	20	50	-20	110	1.32	26.79
2008/09	0	10	0	20	65	15	110	0	27.5
2009/10	0	15	0	0	70	12.5	120	11.58	28.64
Mean	6.93	5	4.38	6.88	48.75	19.06	98.75	26.87	27.04
SD	7.91	5.98	6.78	9.61	14.82	16.47	16.42	21.44	3.98
CV	1.19	1.2	1.55	1.4	0.3	0.86	0.17	0.8	0.15

MVPS

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	440	153	252	-	430	600	840	755	495.71
2003/04	562	285	616	-	700	822	1162	1000	735.29
2004/05	562	998	1502	995	1400	1401	1985	1700	1317.88
2005/06	1500	850	1100	650	1500	1150	2144	1500	1299.25
2006/07	401	254	490	405	700	760	1575	1000	698.13
2007/08	255	198	360	445	740	795	1640	836	658.63
2008/09	307	295	354	680	1000	940	1745	840	770.13
2009/10	335	430	265	870	1505	800	2345	920	933.75
Mean	545.25	432.9	617.38	674.17	996.88	908.5	1679.50	1068.88	863.59
SD	401.64	316.17	451.19	231.03	420.89	253.89	498.76	342.46	300.24
CV	0.74	0.73	0.73	0.34	0.28	0.30	0.32	0.35	0.35

P/E Multiple

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	8.95	-	4.97	-	9.66	8.65	6.48	6.66	7.56
2003/04	40.20	11.54	8.94	-	10.32	24.35	10.98	11.62	16.85
2004/05	13.46	25.40	12.92	22.56	16.71	26.10	17.17	20.46	20.10
2005/06	172.61	30.39	13.28	20.60	25.31	34.66	16.90	16.03	41.22
2006/07	41.73	127.00	26.82	12.31	12.67	22.63	11.16	16.59	33.86
2007/08	22.23	11.17	18.13	14.88	8.74	20.10	10.98	16.91	15.39
2008/09	21.53	10.73	484.93	14.92	10.80	18.18	12.16	17.13	73.80
2009/10	25.21	14.29	-	16.05	14.27	20.25	16.29	19.20	17.94
Mean	43.24	32.93	81.43	17.88	13.56	21.86	12.76	15.58	28.34
SD	53.52	42.20	178.06	5.89	5.42	7.39	3.74	4.43	21.28
CV	1.24	1.28	2.19	0.33	0.40	0.34	0.29	0.28	0.75

BVPS

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	160.66	80.41	150.00	108.37	211.00	272.04	389.61	-	196.01
2003/04	164.22	96.33	207.00	122.61	224.00	273.63	282.26	-	195.72
2004/05	187.54	195.38	330.00	171.24	251.00	303.10	298.88	362.70	262.48
2005/06	165.73	207.72	248.00	144.57	216.00	275.96	327.50	240.19	228.21
2006/07	131.88	171.83	174.00	170.76	233.00	207.95	363.86	220.02	221.61
2007/08	134.03	192.52	190.00	150.10	267.00	216.24	403.15	247.81	225.11
2008/09	146.80	218.38	182.00	171.52	301.00	246.89	399.25	246.93	239.10
2009/10	159.54	213.60	-	219.87	337.00	200.80	422.38	239.59	256.11
Mean	156.30	172.02	211.57	157.38	255.00	262.08	360.86	259.54	228.05
SD	18.28	53.77	60.44	34.44	44.56	38.36	52.12	51.52	24.54
CV	0.12	0.31	0.29	0.22	0.17	0.14	0.20	0.11	0.11

Dividend Yield

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	0.05	0.00	0.06	-	0.07	0.08	0.08	0.07	0.06
2003/04	0.02	0.00	0.02	-	0.07	0.04	0.07	0.05	0.04
2004/05	0.03	0.00	0.00	0.00	0.04	0.02	0.05	0.03	0.02
2005/06	0.00	0.00	0.00	0.00	0.03	0.00	0.05	0.02	0.01
2006/07	0.00	0.04	0.00	0.00	0.04	0.00	0.06	0.03	0.02
2007/08	0.03	0.03	0.00	0.04	0.07	0.03	0.07	0.00	0.03
2008/09	0.00	0.03	0.00	0.03	0.07	0.07	0.00	0.03	0.03
2009/10	0.00	0.03	0.00	0.00	0.05	0.07	0.05	0.01	0.02
Mean	0.02	0.02	0.01	0.01	0.05	0.02	0.06	0.03	0.03
SD	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.02	0.01
CV	1.18	1.09	1.93	1.60	0.32	1.10	0.02	0.91	0.05

ROE

	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	0.31	-	0.34	0.2	0.21	0.25	0.33	-	0.27
2003/04	0.09	0.26	0.33	0.17	0.3	0.12	0.38	-	0.24
2004/05	0.22	0.2	0.35	0.2	0.33	0.18	0.39	0.23	0.26
2005/06	0.05	0.13	0.33	0.22	0.27	0.12	0.39	0.39	0.24
2006/07	0.07	0.01	0.01	0.19	0.24	0.11	0.39	0.27	0.17
2007/08	0.09	0.09	0.01	0.2	0.32	0.18	0.37	0.2	0.19
2008/09	0.1	0.13	0	0.27	0.31	0.21	0.36	0.2	0.2
2009/10	0.08	0.14	-	0.25	0.31	0.2	0.34	0.2	0.22
Mean	0.13	0.14	0.22	0.21	0.29	0.17	0.37	0.25	0.22
SD	0.09	0.08	0.15	0.03	0.04	0.05	0.02	0.08	0.03
CV	0.71	0.57	0.66	0.14	0.15	0.30	0.06	0.30	0.16

Growth (g)

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	0.18	-	0.24	0.20	0.07	0.07	0.15	-	0.15
2003/04	0.02	0.26	0.26	0.05	0.08	0.01	0.09	-	0.11
2004/05	0.14	0.20	0.35	0.20	0.11	0.09	0.05	0.09	0.16
2005/06	0.05	0.13	0.31	0.22	0.09	0.12	0.08	0.28	0.16
2006/07	0.05	-0.05	0.11	0.19	0.11	0.11	0.11	0.16	0.10
2007/08	0.03	0.07	0.10	0.07	0.13	0.09	0.10	0.19	0.10
2008/09	0.10	0.08	0.00	0.15	0.09	0.15	0.08	0.20	0.11
2009/10	0.08	0.11	-	0.25	0.11	0.13	0.06	0.15	0.12
Mean	0.09	0.11	0.20	0.17	0.10	0.10	0.09	0.18	0.13
SD	0.06	0.10	0.13	0.07	0.02	0.04	0.03	0.06	0.03
CV	0.65	0.91	0.65	0.43	0.20	0.43	0.35	0.34	0.21

Ke

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	0.23	-	0.30	-	0.14	0.15	0.24	-	0.21
2003/04	0.04	0.26	0.28	-	0.15	0.05	0.16	-	0.16
2004/05	0.17	0.20	0.35	0.20	0.15	0.11	0.16	0.12	0.18
2005/06	0.05	0.13	0.32	0.22	0.12	0.12	0.13	0.29	0.17
2006/07	0.07	-0.01	.11	0.19	0.15	0.11	0.18	0.19	0.12
2007/08	0.06	0.09	0.10	0.11	0.20	0.12	0.16	0.20	0.13
2008/09	0.10	0.11	-	0.25	0.15	.15	0.11	0.16	0.13
2009/10	0.08	0.11	-	0.25	0.15	0.15	0.11	0.16	0.14
Mean	0.10	0.13	0.21	0.19	0.15	0.12	0.15	0.19	0.16
SD	0.06	0.08	0.05	0.02		0.04	0.04	0.06	0.03
CV	0.65	0.66	0.65	0.24	0.15	0.30	0.28	0.30	0.19

HPR

FY	SBI	BOK	NBB	EBL	NABIL	IBL	SCBL	HBL	Market Average
2002/03	-	-	-	-	-	-	-	-	
2003/04	0.30	0.86	1.50	-	0.74	0.421	0.48	0.39	0.67
2004/05	0.03	0.50	1.44	-	1.08	0.73	0.79	0.75	1.05
2005/06	1.67	-0.15	-0.26	-0.35	0.10	-0.18	0.13	-0.10	0.11
2006/07	-0.73	-0.69	-0.55	-0.38	-0.51	-0.34	-0.22	-0.32	-0.47
2007/08	-0.34	-0.20	-0.27	0.15	0.13	0.07	0.11	-0.16	-0.06
2008/09	0.20	0.54	-0.02	0.57	0.44	0.20	0.13	0.00	0.26
2009/10	0.09	0.51	-0.25	0.28	0.58	-0.14	0.41	0.11	0.20
Mean	0.17	0.48	0.23	0.06	0.36	0.11	0.26	0.10	0.22
SD	0.75	1.04	0.86	0.41	0.52	0.37	0.33	0.37	0.49
CV	4.32	2.15	3.80	7.42	1.42	3.39	1.24	3.79	2.22

APPENDIX-II

For getting the actual from the analysis, following are the main formulas that are being used in the study:

(i) Mean

$$\bar{x} = \frac{\sum x}{N}$$

Where,

$$\begin{aligned} \sum x &= \text{Sun of all observations} \\ N &= \text{number of observations} \end{aligned}$$

(ii) Standard Deviation (†)

$$\dagger = \sqrt{\frac{\sum (x-\bar{x})^2}{N}}$$

(iii) The Coefficient of Variation (C.V.)

$$\text{C.V.} = \frac{\dagger}{\bar{X}}$$

Where,

$$\begin{aligned} \dagger &= \text{Standard Deviation} \\ \bar{X} &= \text{Mean} \end{aligned}$$

(iv) Probable Error

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

(i) if $r < \text{P.E.}$ it is insignificant, so perhaps there is no evidence of correlation.

(ii) if $r > \text{P.E.}$ it is significant.

APPENDIX-III

Calculation of Means, Standard Deviation & CV of NABIL Bank in case of EPS

YEAR	X	X-X	(X-X) ²
2002/03	44.40	-29.68	880.90
2003/04	67.84	-6.34	40.20
2004/05	83.79	9.61	92
2005/06	59.26	-14.92	222.61
2006/07	55.25	18.93	358.34
2007/08	84.66	-10.48	109.83
2008/09	92.61	-10.48	109.83
2009/10	105.49	31.31	980.32
Total			3024.21

$$(i) \text{ Mean} = \frac{593}{8} = 74.18$$

$$(ii) \text{ Standard Deviation } (\dagger) = \frac{3024.21}{8} = \sqrt{378.026}$$

$$= 20.79$$

$$(iii) \text{ C.V.} = \frac{20.79}{74.18} = 0.28$$

* Similarly, The Mean, SD & CV of all banks can