DIVIDEND POLICY OF JOINT VENTURE COMMERCIAL BANKS IN NEPAL

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RECOMMENDATION

This is to certify that the thesis

Submitted by

Bal Kumar Thapa

Entitled

Dividend Policy of Joint Venture Commercial Banks in Nepal has been approved by this Department in prescribed format of Faculty of Management.

This thesis is forwarded for examination.

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VIVA-VOCE SHEET

We have conducted the viva voce examination of the thesis

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Dividend Policy of Joint Venture Commercial Banks in Nepal

And found the thesis to be original work of the student and written in according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for the Master's Degree in Business Studies (M.B.S.).

Viva-Voce committee:

Chairman of Research Department: **…….**

Member (Thesis Supervisor): **…….**

Member (External Expert): **…….**

Date : ……

DECLARATION

I hereby declare that the work reported in this thesis entitled "**Dividend Policy of Joint Venture Commercial Banks in Nepal**" submitted to Global College of Management, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of requirement for Master's Degree of Business Study (MBS) under the supervision of Pro. Dr. Madhav Raj Koirala, lecturer of Global College of Management.

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Moreover, it is needless to say that to error is human and I am also no exception, so I apologize for any errors and mistakes committed in this thesis work.

Bal Kumar Thapa

Lalitpur

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ABBREVIATIONS

ANOVA: Analysis of Variance
C.V. : Covariance
d.f. : degree of freedom
DPR : Dividend Payout Ratio
DPS : Dividend Per Share
DYR : Dividend Yield Ratio
EPS : Earning Per Share
EBL : Everest Bank Limited
Fig :Figure
GON : Government of Nepal
HBL : Himalayan Bank Limited
i.e. : that is
JVBS : Joint Venture Banks
MVPS : Market Value Per Share
NEPSE : Nepal Stock Exchange
NPV : Net Present Value
PE : Probable Error
PE Ratio : Price Earning Ratio
Rs. : Rupees
SCBNL : Standard Chartered Bank Nepal Limited
S.D. : Standard Deviation
SEBON : Security Board of Nepal
& : and
$: Dollar

CHAPTER-I

INTRODUCTION

1.1 General Background

A Company is established with the capital which is invested by promoters and general shareholders. The shareholders are the real owner of company. The shareholders invest their money in company expecting adequate return. Dividend is the return that the shareholders receive on their investment. Dividend refers to the portion of net earning which is distributed to shareholders. In other words, dividend is the part of company's profit distributed to shareholders. It may be in the form of cash and shares and or a combination of both.

Generally there are two types of shares - common stock and preferred stock. Common stock popularly known as equity which is generally issued before and after the incorporation of company. Equity shareholders are the really owner of the company. They have right to elect the board of directors, apex body of company. Preferred stock is a type of security that has the features of both fixed income bonds and equity securities. So, it is known as hybrid security. Preferred stock provides the specific dividend and that is paid before dividends paid to common stockholders. It takes the preference over common stock in the time of liquidation of company. Therefore this type of stock is known as preferred stock.

The company earns profit from its activities and the earned profit should be distributed to its shareholders considering the funds required for its development and diversification. In order to finance its development and diversification the required fund will be retained and the rest of the fund can be distributed .The policy of a company on the division of its profits between distribution to shareholders as dividend and retention for its investment is known as dividend policy. In this case the company should made decision regarding the payment of dividend as cash dividend and stock dividend; secondly it has to determine how much it should be. All aspects and questions related to payment of dividend are contained in a dividend policy. The percentage, timing and method of payment of dividends are included in dividend and stability of dividend.

There is a reciprocal relationship between retained earnings and cash dividends. It retains more earnings by the company less will be dividend and vice versa. Dividend decision is the major decision of financial management. It is in the sense that the firm has to choose between distributing profits to shareholders and plugging them back into the business. The decision depends upon the objective of the management for wealth maximization. The firm will use the net profit for paying dividend to the shareholders if the payment will lead to maximization of the wealth of the owners. If not it is better to retain them to finance investment programmes. The relationship between dividend and value of the firm should therefore be the criteria for decision making.

As a result of the liberalization policy of Government of Nepal, foreign investors and internal investors were attracted to invest in Nepal in joint venture especially in banking business. Establishment of commercial banks contributes significantly in the formation and mobilization internal capital and development efforts. They furnish necessary capital needed for trade and commerce of mobilization the dispersed saving of the individuals and institutions. The increase in the opening of the joint venture bank (JVBs) caught a dramatic way after the liberalization and market oriented economic policy. Though, JVBs are enjoying liberalization, Nepal Rastra Bank (NRB) has been managing them through its directives and guidelines.

One of the major reason for which public are interested to invest money (as the shares) in banks or other institutions to get dividend. Normally, business running at profit is capable to pay it. The amount which is distributed as dividend should be adequate to meet the normal expectation of shareholders.

There is no uniformity in the dividend distribution practices in Nepal among the different companies. Recently joint venture banks and some other public limited companies have shown new trend of paying dividend to shareholders. There is also growing practice of paying bonus shares among some companies of Nepal. Stock split is another aspect of dividend policy which is popular in the developed capital market but this aspect is almost neglected in the capital market of Nepal. An alternative form of dividend is share repurchase. If a firm has excess cash and insufficient profitable investment opportunities to justify the use of these funds, it is in the

shareholders' interests to distribute the funds. The distributions can be accomplished either by the repurchase of share or by paying the funds out in increased dividends. It is thus share repurchase is often viewed as an alternative to paying dividends.

Some companies may pay whole earnings as dividend at the beginning to create good image in financial sector but later they may change their policy and announce a certain percentage of dividend payout term. The decision to keep some portion of earnings and to pay some portion of earnings as dividend is known as dividend policy.

"Although the actual owners of the company are shareholders, they are paid low dividends in some companies whereas in some companies the dividend is not announced. But recently the trend of payment of dividend is increasing" *(Adhikari, 1999:10).*

Dividend policy is one of the major decisions of financial management because it affects the financial structure, the flow of funds, corporate liquidity and investors' attitudes. After the successful completion of fiscal year having sufficient profit management decide to declare dividend to shareholders. The important aspect of dividend policy is to determine the amount of earning to be distributed to shareholders and the amount to be retained in the firm. It also determines the forms of dividend.

Having given overall dividend implication among companies and financial institutions, this study is more specific in assessing the dividend policy and practices of Joint Venture Commercial Banks of Nepal. In this study, Standard Charterd Bank Nepal, Everest Bank Limited and Himalayan Bank Limited are taken as sample among the Joint Venture Commercial Banks of Nepal.

1.2 Statement of the Problem

Dividend, the most inspiring factor for the investment on shares of the corporation, is an important aspect of financial management. Because the dividend policy determines the division of earnings between payment to stockholders and reinvestment in the firm to exploit growth opportunities. It affects the value of firm as well as overall financing decision such as financial structure, the flow of funds, corporate liquidity and investor's satisfaction.

The dividend decision, however, is still a crucial as well as controversial area of managerial finance. There is no consensus among the financial scholars on this subject matter and its relation with stock price. Some financial scholars say that stock prices are least influenced by dividend per share while some others believe that its relevance to the stock prices is quite significant.

Dividend behavior in Nepalese companies is relatively a recent phenomenon. There are various empirical studies on the corporate dividends in the capital market other than Nepal. A study made by H. K. Baker, G. E. Farrelly, and Richard B. Edema in America by surveying the opinions of financial official officers of 562 New York Exchange firms. This study revealed that the major determinates of dividend policy in order of their importance are: anticipated level of a firm's future earnings, pattern of past dividend, availability of cash and concern about maintaining or decreasing stock price. *(Baker, et. al.1985:78-84).*

A study on Stock market behaviour in a small capital market in Nepal *(Pradhan, 1993)* attempted to verify the above mentioned results. It mainly indicated that stock paying higher dividend have higher liquidity, lower leverage, higher earnings, higher turnover and higher coverage. Another such attempt was made by the study on 'Dividend and Stock Prices" *(Timilsina- 1997)* which revealed that the relationship between dividend per share and stock price is positive and dividend per share affects the share price variedly in different sector. However pertinent question arises as to what extend these finding are still relevant in the present day context.

In Nepal, only a small number of companies are paying regular dividend and other companies are not stable in the payment of dividends. There are still some companies not having the practice of paying dividends in their historical background. Thus, there is not smooth practice of dividend payments in Nepal. The expectation of shareholders has yet to be met by paying regular dividends. It is in the sense that the study devoted to dividend behaviour in Nepal may help to develop capital market in one way or another.

The Study deals with the following issues:

1. What are the dividend policies in Nepalese Joint Venture Commercial banks?
2. What is the trend of dividend payout behavior in Nepalese Joint Venture Commercial banks?
3. What relationship does exist between dividend per share and other financial indicators such as earnings per share, retained earning per share and market price per share, dividend payout ratio, and dividend yield and liquidity ratio?
4. What are the factors that affect the dividend policies of Nepalese Joint Venture Commercial Banks?

1.3 Objectives of Study

The basic objective of the study is to analyze the dividend behaviour of Nepalese joint venture commercial banks. The specific objectives of the study have been the following:

1. To examine dividend policy and practices in Nepalese Joint Venture Commercial banks.
2. To examine the relationship between earnings, dividends, retained earnings and market price of stocks, dividend payout ratio, dividend yield and liquidity ratio.
3. To analyze the effect of dividend in share price.

1.4 Significance of Study

The finding of this research will be of worth to the shareholders to see the dividend policy of the three joint venture commercial banks in comparison. So, this may be helpful for them in identifying the productivity of their investment and justify the rational of their investment decision. Then it will also benefitted by the management to point out the loopholes and suggest the remedies about the appropriate dividend policy.

Similarly, this research will also be beneficial to the policy makers from the comparative study of dividend policy. They can get important findings which are useful in policy making about dividend policy formulation.

Finally, the dividend policies of the joint venture banks are of great interest to the several outsiders. They are customers, financial agencies, stock brokers, interested person and scholars. It is believed that except those, other banks will be benefited with this study.

1.5 Limitations of the Study

A research is a vast study investigating the subject matter for solving perceived research problems. Each and every study has its own limitations. No study can be free from constraints, such as economic resources, time etc. And this study too is not an exception. Therefore, the following are the main limitations of the study.

1. The study is mainly based on the secondary data.
2. The methodology used in the study may not help draw premise conclusion of study.
3. The study covers only three joint venture commercial bank of Nepal

In addition, there are couples of limitations, which weaken the generalization e.g. time constraint, reliability of statistical tools. Thus, while using the findings of the study one should be careful and use the same judiciously be considering the various limitations.

1.6 Organization of the Study

The study has been organized into five chapters; each chapter deals some important factors of dividend behaviour. The titles of each of these chapters are listed below:

Chapter 1	Introduction
Chapter 2	Review of Literature
Chapter 3	Research Methodology
Chapter 4	Presentation and Analysis of Data
Chapter 5	Summary, Conclusion and Recommendation

Chapter 1. This is the introduction chapter of the study. This chapter includes general background, statement of problems, objectives of study, importance of the study and limitations of the study and organization of the study.

Chapter 2. This chapter is the review of literature deals with conceptual framework of the dividend policy. In this part research history of dividend policy will present in brief. Review of major studies will be also presented.

Chapter 3. This chapter contains the research methodology. This chapter deals with research design, sources of data, data collection techniques data processing and data analysis tools.

Chapter 4. This chapter deals with the presentation and analysis and major findings of the study on dividend.

Chapter 5. This chapter includes summary, conclusion and recommendations.

CHAPTER-II

REVIEW OF LITERATURE

Dividend policy has great importance in financial management because it affects the financial structure, the flow of fund, corporate liquidity requirement and investors attitude. Thus it is one of crucial decision and firm attempts to maximize the value of firm's common stocks by means of dividend decision. Due to its increasing importance, many thoughts, provoking ideas in this area are upcoming which needs to review. This chapter highlights upon the literature that are concerned to this subject. Similarly, what others have said, done or written etc. About the dividend policy are reviewed, which provides useful input in this study. The review of literature is divided into two parts one is conceptual framework and other one is review of different studies.

2.1 Conceptual Framework

Every investor invests their money to buy shares of firm with the hope of sharing profit earned by firm since they want to receive maximum returns on their investment. It depends upon management policy that how much total profit to distribute as dividend and how much to retain in the business. But this is fact that all the profit made by firms actually belong to stockholders. Whether profit are distributed in the firm of dividend or reinvested in the business, benefits go to shareholders directly or indirectly.

"Dividend decision can't be taken in isolation as well as in vacant, rather various factor like investment opportunities, financing decisions, shareholders expectation, legal provisions is to be taken into consideration so that it maximize the value of the firm or shareholders' wealth. There are two sources of financing in an existing firm." *(Gitman 1976: 89)*

a. Internal source (i.e. retained earnings),
b. External source of financing (i.e. external share, debenture)

But the retention of net profit widely effected by the dividend policy. If the firms adopt sound dividend policy, then less funds will be available. On the contrary, if the firms adopt tight

dividend policy then excess fund will be available for financing. So, external sources of financing and internal sources of financing affect the company's capital structure. Therefore controversial question arise of taking dividend decision for the financial manager.

In the course of retaining the portion of earning, how much of earnings to be retained to exploit growth opportunities of firm and how much earnings to be paid to the shareholders for their contribution in capital structure, to be decided. This is the difficult question in dividend policy.

Dividend policy determines the division of earnings between payments to stockholders and reinvestment in the firm. Retained earnings are one of the most significant sources of funds for financing corporate growth, but dividends constitute the cash flows that accrue to stockholders. *(Pandey; 1989: 67)*

Many variables influence dividends, however for example, a firms cash flows and investment needs may be two volatile for it to set a very high regular dividend. Yet, it may desire a high dividend payout to distribute funds not necessary for reinvestment. In such a case, the directors can set a relatively low regular dividend – low enough that it can be maintained even in low profit years or in years when a considerable amount of reinvestment is needed-and supplement it with an extra dividend in years when excess funds are available. *(Weston and Brigham; 1964: 172)*

In corporate finance, dividends represent a distribution of the book surplus, accompanied by a distribution of assets, or by a change in the form of equities, or an increase in the liabilities of the corporation. The corporate form of business organization entails separation between ownership and control of a company. The shareholders entrust their money to corporate Managers in expectation of a return on their capital. Dividend policies are determined by the board of directors. But they have to take into consideration of a number of factors in determining their dividend policies and variations there in. *(Gilbert and Edwin 1967: 230)*

The Board of Directors are also subject to a series of legal restrictions which are intended to maintain the capital of the corporation and to safe corporation. There are some legal considerations to distribute dividend to shareholders. The Board of Directors of company has to take the decision about dividend on the considerations various facts except concerned legal

provisions. Except legal considerations, the various principles underlying the policies of dividend distribution are as follows.

a. Type of Industry

The nature of the business conducted by a company has an influence upon its dividend policy. Industries that are characterized by stability of earnings may formulate a more consistent policy as to dividends than those having an uneven flew of income Usually, enterprises dealing in necessities suffer less from oscillating earnings than those dealing in luxuries or fancy goods. For instance, public utilities are in much better position to adopt a relatively fixed dividend rate than the industrial concerns. *(Mathur 1999: 74)*

b. Age of a Corporation

Closely related to the type of industry, the age of a company goes far to determine the dividend policy. Newly established enterprises require much of their earnings for plant improvement and expansion, while companies which have attained a longer earning experience can formulate a clear-cut dividend programmed and may even by liberal in the distribution of earnings. *(Mathur 1999: 73)*

c. Extent of Share Distribution

A closely held company is likely to get the acquiescence of the shareholders for the suspension of dividend or for following a conservative dividend policy. But a company with a large number of shareholders and also with shareholders widely distributed would face a great difficulty in securing such asset. Reduction in dividends can be effected but not ordinarily with the hearty Co-operation of the shareholders. *(Mathur 1999: 74)*

d. Need for Additional Capital

The company retains a part of their earnings for strengthening their financial position. The extent to which the profits are ploughed back into the business has got a conditioning influence on the dividend policy. The income may be conserved for meeting the increased requirement of working capital or for future expansion. Small companies possessing no other alternatives to raise finance for their growth have to depend upon this source. *(Hestings 1996:27)*

e. Business Vicissitudes

With the cyclic variation in the business, the earnings, demand for capital investment and money market conditions also vary from stage to stage. The dividend policy is adjusted in accordance with the business oscillations. During the boom, prudent corporate management creates good reserves for facing the crisis which follows the inflationary period. Higher rates of dividend are used as a tool for marketing the securities in an otherwise depressed market. The dull years become easier to be weathered and financial solvency to be maintained more successfully if the adequate reserves have been built up through conservation of earnings. *(Hestings 1996:29)*

f. Change in Government Policies

With the variation in the fiscal, industrial, labour, control and other government policies the earning capacity of the different enterprises is affected favorably or adversely. The dividend policy has to be modified accordingly. Sometimes government limits the rate of dividend declared by concerns in a particular industry or in all the spheres of business activity. In a capitalistic society such a step taken by Government leads to wasteful expenditure by the business unit besides discouragement of capital formation. *(Rao 1992:43)*

g. Taxation Policy

High taxation is said to be the cause of lowering the earnings of the corporations and, consequently, their rates of dividend. Some recent studies have shown that the rates of dividend may not be affected by high rates of taxes because the incidence may be shifted to consumers. This is claimed to be the case in respect of some Indian companies where the indices of taxes and the rates of dividend move in similar directions to show that the dividend distribution was not adversely affected by the alleged high rates of taxes.

Corporate taxes affect dividends, both directly and indirectly – directly, in as much as they reduce the residual profits after tax available for shareholders, and indirectly, as the distribution of dividends beyond a certain limit is itself subject to tax. For instance dividend beyond 10 percent of the paid-up capital are subject to 7.5 percent by way of dividend tax. *(Rao 1992:43)*

After examining the various factors which determine the dividend policy of the companies, we may study the importance of stability in the rate of dividend. The regularity of dividend payment and the stability of its rate are the two main objectives made at by the corporate management. They are accepted as desirable for the corporation's credit standing and for the welfare of shareholders. High earnings may be used to pay extra dividends but such dividend distributions should be designated as "extra" and care should be taken to avoid the impression that the regular dividend is being increased. A stable dividend policy should not be taken to mean an inflexible or rigid policy. On the other hand, it entails the payment of a fair rate of return, taking into account the normal growth of the business and the gradual impact of external events. A stable dividend records makes future financing easier. It not only enhances the credit standing of the company but also stabilizes market value of the securities outstanding. The confidence of shareholders in the corporate management is also strengthened.

2.1.1 Types of Dividend

The firm uses different types of dividend to the shareholders to implement their objectives and policies. Before distribute the dividend, they first ensure that what is the current situation of the firm? What is the growth rate of the firm? How much dividend will need to meet the expectation of the shareholders? "The type of dividend that corporation follow is partly a matter of attitude of directors and partly a matter of a various circumstances and financial constraints that bound corporate plans and policies *(Shrestha,1980:670)* Some of the major types of dividends are as follows.

a. Cash Dividend

The portion of earnings paid in cash to the investors in the proportion of their share is called cash dividend. Most of the firms pay dividend in cash. The cash account and reserve account of company will be reduced when cash dividend is paid."Both the total assets and net worth of the company are reduced when the cash dividend is distributed. The market price of the share drops in most cases by the amount of the cash dividend distributed *(Hesting, 1996:370)*

The company has to maintain required level of cash for distribution of cash dividend, otherwise it may be difficult and fund must be borrowed for this purpose. When the company follows stable dividend policy, they use to prepare cash budget to indicate necessary funds which would

be needed to meet regular dividend payment of company. When unstable dividend policy is followed, it is difficult to manage cash.

In the context of Nepal, Cash dividend is the most popular form of dividend so it is very popular in commercial banks and other firms. However it depends upon the earning of firm, management decision, Government policy, Nepal Rastra Bank policy and other various internal and external factors.

b. Stock Dividends

If additional shares are issued to existing shareholders instead of cash dividend, it is known as stock dividend. Stock dividend is only the paying stock equaling to the dividend that is to be received by shareholders. In stock dividend, additional shares are issued to existing shareholders instead of cash dividend. A stock dividend represents a distribution of shares in lieu of cash dividend.

A stock dividend is paid in additional shares of stock instead of in cash and simply involves a book-keeping transfer from retained earning to the capital stock account. *(Weaston & Copland 1986:680)*

Firm pays stock dividend instead of cash dividend. It represents nothing more that a bookkeeping shift within the share holders' equity account on the firm's balance sheet, a shareholder's proportional ownership in the firm remains unchanged. It is simply the payment of additional shares of common stock to shareholders. Stock dividend increases the number of shares as a result; EPS, DPS and market price of share of company decrease. Accounting authorities make a distinction between small-percentage stock dividends and large-percentage stock dividends.

i. Small-Percentage Stock Dividends

If a stock dividend represents an increase of less then 10 percent of the previously outstanding common stock, it is referred to as a small-percentage stock dividend. Accounting for this type of stock dividend entails transferring on amount from retained earnings to common stock and additional paid-in capital.

ii. Large-Percentage Stock Dividends

Large-percentage stock dividends (typically 20 percent or higher of previously outstanding common stock) Must be accounted for differently while small-percentage stock dividends are not expected to have much effect on the market value per share of stock, large-percentage stock dividends are expected to materially reduce the market price per share of stock. In the case of large percentage stock dividends, therefore, conservatism argues for reclassifying an amount limited to the par value of additional shares rather than an amount related to the pre-stock dividend market value of the stock.

The effects of stock dividend are as follows.

i. Firm's assets or liabilities are same, it doesn't change
ii. It doesn't affect the shareholders proportional ownership.
iii. Theoretically it is valueless to shareholders.

c. Bond Dividend

It is a kind of dividend in which stockholders receive bond. It is distributed only that condition when the company declares dividend in the form of its own bond. Bond dividend helps to postpone the payment of cash. These are given when the firms are unable to take the burden of interest of loans. *(Van Horne; 1971: 273)*

d. Property Dividend

Property dividend is a kind of dividend which is given in the form of property instead of cash. This method is rarely used in practical. Company is own products and securities of subsidiaries are the examples that have been paid as property dividend. *(Van Horne; 1971: 273)*

e. Interim Dividend

Generally dividends are declared in the end of the financial year. This is called regular dividend. But when management declares dividend before the end of financial years, it is called interim dividend. *(Van Horne; 1971: 274)*

f. Script Dividend

Script dividend is a form of promissory note promising to pay the holder at a specified later date. The scrip may be interest bearing or not. Issuing of this note indicates that the company has shortage of cash to distribute as a dividend. This type of dividend is very unpopular to use. *(Van Horne; 1971: 275)*

2.1.2. Types of Dividend Policy:

The dividend paid out of profit by company, is guided by dividend policy that is followed by company. Generally, dividend policy can be categories as conservative, liberal, moderate and progressive dividend policy. Whatever dividend policy followed by the corporate firm, it is the concept that resolves the apparent conflict by finding optional dividend payout that balance the need of shareholders for their current incomes and expected future growth of the firm so as to maximize the value of firm. The optional dividend policy is the dividend policy that sticks a balance between current and future growth and maximizes the firm's stock price.

2.1.2.1 Residual Theory of Dividend

This theory assumes that external sources of finance are not available or even if it is available, the same cannot be used due to its excessive cost. Accordingly, how much dividend a company should distribute will be depended on how much investment opportunities it has available at present. If there are positive NPV projects available then instead paying dividends to shareholders, the same can be used in financing the positive projects. In the case, shareholders wealth is maximized by reducing dividend or not paying dividend at all. Shareholders will be compensated for this reduction on nil dividends now by a gain in the form of higher dividend in the future.

Dividends are thus residual payment in the sense that this is paid provide sufficient earnings are retained in the company to finance new investments. Thus residual theory treats dividends as a passive decision which is completely depended on how much amount or whether company employs earnings is in financing profitable projects. Thus the divided will vary from year to

year. But such fluctuations in dividend have no effect on shareholders as they are compensated of present loss, if any, of dividend by future capital gain.

2.1. 2.2 Dividend Stability

The major aspect of the dividend policy of a firm is the stability of dividends. Stability of dividend payments is an attractive feature to many investors. The investors favor a stable dividend as much as they do the payment of dividends (D/P ratio). By stability we mean maintaining the position of the firm's dividend payments in relation to a trend line.

Preferably one that is upward sloping. All other things being the same, a share of stock may command a higher price of it pays at a fixed percentage of earnings. The term dividend stability refers to the consistency or lack of variability in the stream of dividends *(Van horne, 1971:507-519).* In more precise terms it means that a certain minimum amount of dividend is paid out regularly. The stability of dividends can be any of the following three forms.

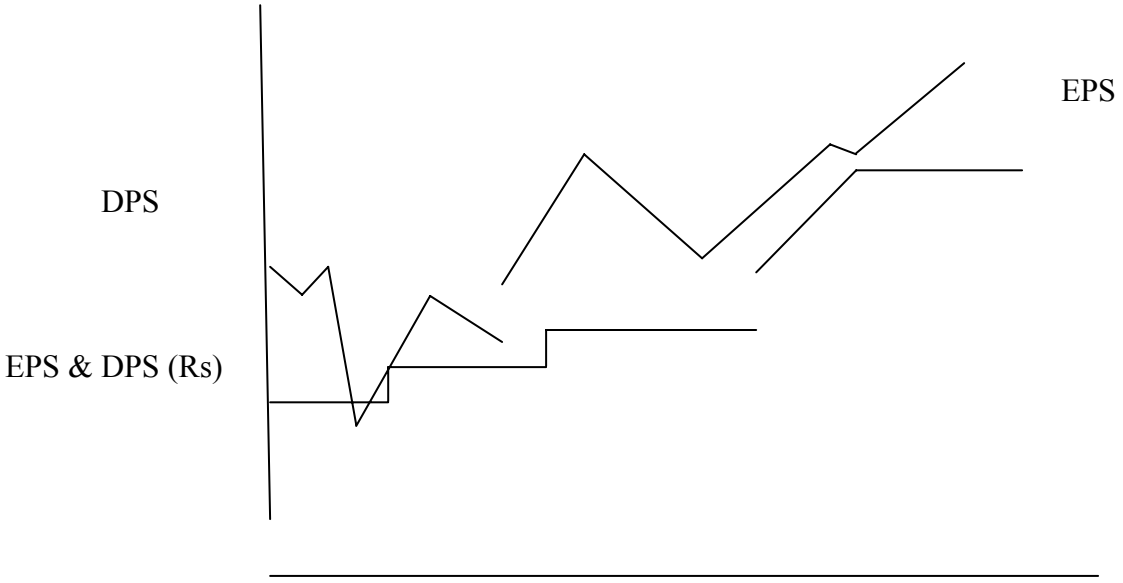
i. Constant Dividend Per Share

According to this form of stable dividend policy, a company follows a policy of paying a certain fixed amount per share as dividend. For instance, on a share of face value of Rs. 10, a firm may pay a fixed amount of, say, Rs. 2.50 as dividend. This amount would be paid year after year, irrespective of the level of earrings. In other words, fluctuations in earnings would not affect the dividend payment. In fact, when a company follows such a dividend policy, it will pay dividends to the shareholders even when it suffers losses. It should be clearing noted that a stable dividend policy in terms of a fixed amount of dividend per share does not mean that the amount of dividend is fixed for all times to come. The dividends per share are increased over the years when the earnings of the firm increase and it is expected that the new level of earnings can be maintained.

The relationship between the earnings per share (EPS) and dividends per share (DPS) with a constant dividend policy per share is shown in Figure1.

Figure 1

Stable Dividend Policy of Constant Rupee Dividends.



It can, thus, be seen that while the earning, may fluctuate from year to year, the dividend per share is constant. To be able to pursue such a policy, a firm whose earnings are not stable would hare to make provisions in years when earnings are higher for payment of dividends in lean years.

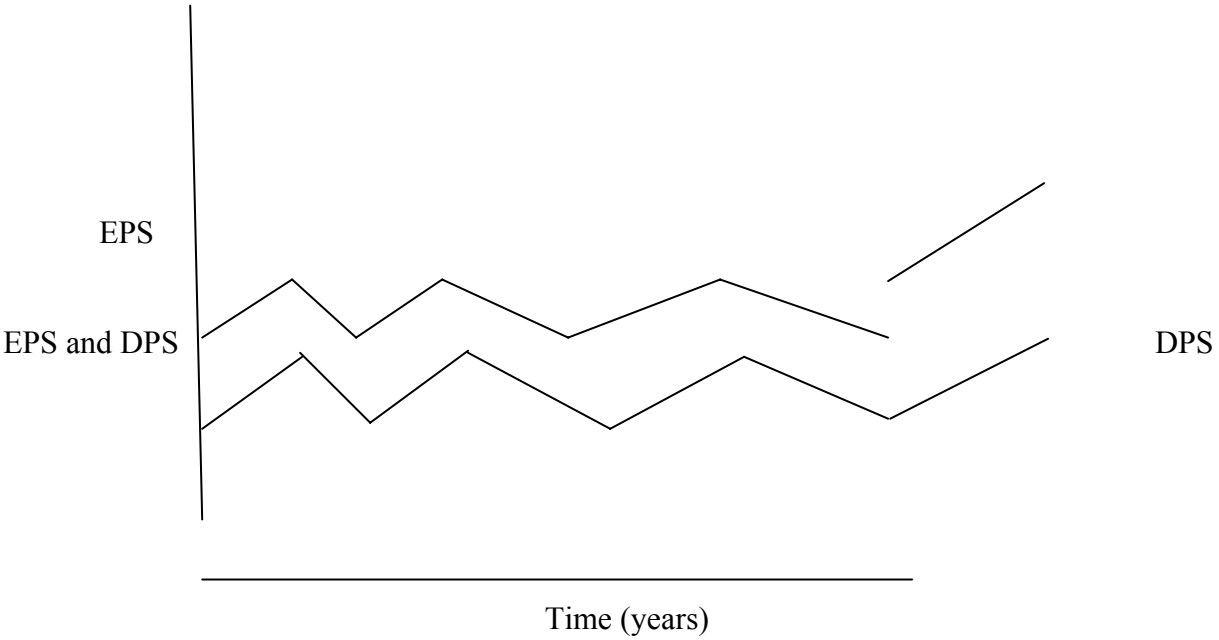
ii. Constant Payout Ratio

Another form of stable dividend policy is constant/target payout ratio. The term payout ratio refers, as already mentioned, to the ratio of dividend to earnings or the percentage share of earnings used to pay dividend. A stable dividend payout ratio implies that the percentage of earnings paid out each year is fixed. Accordingly, dividends would fluctuate proportionately with earnings and are likely to be highly volatile in the wake of wide fluctuations in the earnings of the company. As a result, when the earnings of a firm decline substantially or there is a loss in a given period, the dividends, according to the target payout ratios, would be low or nil. To

illustrate, if a firm has a policy of 50% target payout ratios, its dividends will range between Rs. 5 and zero per share on the assumption that the earnings per share are Rs. 10 per share and zero (or loss) per share respectively. The relationship between the earnings per share (EPS) and dividend per share (DPS) under the policy of constant payout ratio is shown in Figure 2.

Figure 2

Stable Dividend Policy Under Target Payout Ratio.



iii. Low Regular Plus Extra

Under this policy, both dividend policy (constant dividend per share and constant dividend payout ratio) are included. Under this policy, a firm usually pays a constant dividend to the shareholders and when profits of the firm swell, additional or extra dividend is paid over and above the regular dividend. In normal condition the firm cuts the extra dividend and pays normal dividend per share. Generally this type of policy is mostly followed by those companies whose stockholders prefer at least a certain account of regular dividends.

2.1.3. Factors Influencing Dividend Policy

Dividend decision is the critical decision for the management. Various factors should be considered while taking dividend decision. Following factors influenced in dividend policy decision directly or indirectly.

a. Legal Rules

The legal rules are important in establishing the legal boundaries with in which a firm's finalized dividend policy can operate. These rules have to do with capital impairment, insolvency and undue retention of earnings.

i. Capital Impairment Rule

Some states define capital as the total par value of the common stock. If a firm's shareholders' equity consists of $4 million in common stock (at par), $3 million in additional paid-in capital and $ 2 million in Retained earnings, total capital would be $ 4 million. This company could not pay a cash dividend to telling more than $ 5 million without impairing capital (i.e., reducing shareholders equity below $ 4 million).

Other states define capital to include not only the total par value of the common stock but also the additional paid in capital. Under such state statutes, dividends can be paid only to the extent of retained earnings. Notice, we did not say that dividends can be paid "Out of retained earnings." A Company pays dividends "Out of cash," while incurring a corresponding reduction in the retained earnings account.

ii. Insolvency Rule

Some states prohibit the payment of cash dividends if the company is insolvent. Insolvency is defined either in a legal sense, as total liabilities of a company exceeding its assets "at a fair valuation" or, in an "equitable" (technical) sense, as the firm's inability to pay its creditors as obligations come due. As the firm's ability to pay its obligations is dependent on its liquidity rather than on its capital, the equitable (technical) insolvency restriction gives creditors a good

deal of protection. When cash is limited, a company is restricted from favoring shareholders to the determent of creditors.

iii. Undue Retention of Earnings Rule

The internal Revenue code prohibits the undue retention of earnings. Although undue retention is vaguely defined, it is usually though to mean retention significantly in excess of the present and future investment needs of the company. The purpose of the law is to present companies from retained earnings for the sake of avoiding taxes.

b. Liquidity Position of company

Profits held as retained earnings are generally invested in assets required for the conduct of the business, retained/earnings from preceding years are already invested in plant and equipment, inventories, and other assets; they are not held as cash. Thus, even if a firm has a record of earnings, it may not be able to pay cash dividends because of its liquidity position. Indeed, a growing firm, even a very profitable one, typically has a pressing need for funds, in such a situation the firm may elect not to pay cash dividends.

c. Need to Repay Debt

When a firm has issued debt to finance expansion or to substitute for other forms of financing, it is faced with two alternatives. It can refund the debt at maturity by replacing it with another form of security, or it can make provisions for paying off the debt. If the decision is to retire the debt, this will generally require the retention of earnings.

d. Restrictions in Debt Contracts

Debt contracts, particularly when long-term debt is involved, frequently restrict a firm's ability to pay cash dividends such restrictions, which are designed to protect the position of the lender, usually state that (1) future dividends can be paid only out of earnings generated after the signing of the loan agreement (that is, they cannot be paid out of past retained earnings) and (2) that dividends cannot be paid when net working capital (current assets minus current liabilities) is below a specified amount. Similarly, preferred stock agreements generally state that no cash dividends can be paid on the common stock until all accrued preferred dividends have been paid.

e. Stability of Earnings

A firm that has relatively stable earnings is often able to predict approximately what its future earnings will be such a firm is therefore more likely to pay out a higher percentage of its earnings than is a firm fluctuating earnings. The unstable firm is not certain that in subsequent years the hoped-for earnings will be realized, so it is likely to retain a high proportion of current earnings. A lower dividend will be easier to maintain if earnings fall off in the future.

f. Profit Rate

The expected rate of return on assets determines the relative attractiveness of paying out earnings in the form of dividends to stockholders (who will use then elsewhere) or using them in the present enterprise.

g. Rate of Asset Expansion

The more rapidly a firm is growing, the greater its needs for financing asset expansion. The greater the future need for funds, the more likely the firm is to retain earnings rather than pay then out. If a firm seeks to raise finds externally, natural sources are the present share holders, who already know the company. But if earnings are paid out as dividends and are subjected to high personal income tax rates, only a portion of them will be available for investment.

h. Access to the Capital Markets

A large, well established firm with a record of profitability and stability of earnings has easy access to capital markets and other forms of external financing. A small, new, or venturesome firm, however, is riskier for potential investors. Its ability to raise equity or debt funds from capital markets is restricted, and it must return more earnings to finance its operations. A well established firm is thus likely to have a higher dividend payout rate than is a new or small firm.

i. Control

Another important variable is the effect of alternative sources of financing on the control situation of the firm. As a matter of policy, some corporations expand only to the extent of their internal earnings. This policy is defended on the ground that raising funds by selling additional

common stock dilutes the control of the dormant group in that company. At the same time, selling debt increases the risks of fluctuating earnings to the present owners of the company. Reliance on internal financing in order to maintain control reduces the dividend payout.

j. Inflation

"In an indirect way inflation can act as a constraint on playing dividends. Out accounting system is based on historical costs. Depreciation is charged on the basis of original cost at which assets were acquired as a result, when prices rise, funds saved on account of depreciation would not be Adequate to replace assets or to maintain the capital intact and preserve the earning power of the fine earning would be retained" *(Pandey, 1991:770).*

2.1.4. Rules Regarding Dividend Practices in Nepal

In Nepal company act always has some legal provisions for dividend payment. Nepal Company Act 2063 has some provisions about payment of dividend of company. Those provisions are mentioned as below:

Section 2 (Q) sates that bonus share (stock dividend) mean share issued in the form of additional shares to share holders by capitalizing the surplus from the reserve find or the profit of the company. The term also indicates an increase in the paid up values of the shares after capitalizing surplus or reserve funds.

Section 61 has prohibited company form purchasing, its own share. This section states that no company shall purchase its own shares or supply loans against the security of its own shares.

Section 179 is about bonus share bonus. Under subsection (1) of this section, this may be done only according to a special resolution passed by the general Meeting.

Subsection (2) of same section states that the company must inform the office of company registrar before issuing bonus shares.

Section 182 is about dividends and sub section of this section as follows:-

Sub section (1) states that except in the following circumstances, dividends shall be distributed among the shareholders within 45 days from the date of decision to distribute them.

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

Sub section (3) in case dividends are not distributed with the time limit, mentioned in sub section (1) this will be done by adding interest at the prescribed rate sub section (3) states only the person whose have stands registered in the register of existing shareholders at the time of declaring the dividend shall be entitled to it.

Sub section (4) states that dividend will be paid to the registered shareholders in the book of the company at the time of decision of the dividend or right holders as per the law.

Subsection (5) states that dividend can be paid to shareholders after deducting depreciation, payments/ provisions as per the law and all the loss of previous years. Dividend can be distributed without reserves or provisions as per existing law.

2.2 Review of Major Related Studies

2.2.1 Linter's Study (1956)

Linter (1956) made an important study on corporate dividend policy in the American context. He made fifteen readily observably factors and characteristics that appeared reflect or Might be expected to have on important beaming on dividend payments and policy (Linter, 1956:97-113). Then, he reviewed the available information on over 600 listed, will established companies and selected 28 for dividend investigation.

The Objectives of the Study were;

- To identify occasions when a change in dividends might well have been under active consideration even though no change was made.

- To determine the factors which existed must actively into dividend decision. Different views were collected with regard to occasion companies responsible official including presidents, financial vice presidents, treasurers, controllers and directors.

He concluded that a Major portion of dividend of a firm could be expressed in following equations.

$Div^*t = P\ EPS_t$ …… (i)

And $DIV_t - DIV_{t-1} = a + b\ (DIV_1 - DIV_{t-1}) + e_q$

Where

Div^* =Firm's desired pay: lent

$P\ EPS_t$ = Earnings

p= targeted payout ratio

a= constant relating to dividend growth

b = Adjustment factor and new desired level of dividends were $b < 1$.

The Major findings of this study were;

- Firm's generally think in terms of proportion of earnings to be payout.
- Investment opportunities, liquidity position, funds flow are not considered for modifying the pattern of dividend.
- Firms generally have target payout ratio in view which determining change in dividends per share.

2.2.2 Modigliani and Miller's Study (1961)

The must comprehensive argument in support of the irrelevance of dividends is provided by the MM hypothesis. MM maintain that dividend policy has no effect on the share prices of the firm and is the investment policy through which the firm can increase its earnings and there by the value of the firm. Given the investment decision of the firm, the dividend decision splitting the earnings into packages of retentions and dividends-is a matter of detail and does not matter. "Under conditions of perfect capital Markets, rational investors, absence of the discrimination between dividend income and capital appreciation, given the firm's investment policy, its

dividend policy may have no influence on the market price of the shares" (Modigliani & Miller, 1961:411-433).

The MM hypothesis of irrelevance of dividends is based on the following critical assumptions.

a. Perfect capital Markets in which all investors are ration Information is available to all free of cost, there are no transaction costs; securities are infinitely divisible; no investors 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. A firm has given investment policy which does not change. The operational implication of this assumption is that financing of new investments out of retained earnings will not change the business risk compression of the firm and, therefore, no change in the required rate of return.
d. There is perfect certainty by every investor as to future investments and profits of the firm. In other words, investors are able to forecast future prices and dividends with certainty.)But this assumption is dropped by MM later. Modigliani and miller provide the proof in support of their argument in the following manner.

Step 1

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

Symbolically,

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

Where,

P_0 = The prevailing market price of a share

K_e = The cost of equity capital.

D_1 = The dividend to be received at the end of period one

P_1 = The market price of a share at the end of period one.

Step 2

Assuming no external financing, the total capitalized value of the firm would be simply the number of shares (n) times the price of each share (P_0).

Thus we take,

$$nP_0 = \frac{1}{(1 + k_e)} \ (nD_1 + nP_1)$$

Where,

n = No. of equity share at zero period

Step 3

If the firm's internal sources of financer its investment opportunities fall short of the funds required, and A, is the number of new shares issued at the end of year 1 at price of P, then.

Symbolically,

$$nP_0 = \frac{1}{(1 + k_e)} \ [nD_1 + (n + \Delta_n)P_1 - \Delta_n P_1]$$

Where,

n = The number of shares outstanding at the beginning of the period.

Δ_n = The change in the number of shares outstanding during the period.

Equation of step 3 implies that the total value of the firm is the capitalized value of the dividends to be received during the period plus the value of the number of shares outstanding at the end of the period, considering any newly issued shares, less the value of the newly issued shares. Thus, in effect, equation of step 3 is equivalent of equation of step

Step 4

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

$$\Delta_n P_1 = I - (E - nD_1)$$

Or, $\Delta_n P_1 = I - E + nD_1$

Where,

$\Delta_n P_1$ = The amount obtained from the sale of new shares to finance capital budget.

I = The total amount requirement of capital budget.

E = Earnings of the firm during the period.

nD_1 = Total dividends paid.

$(En–D_1)$ = Retained earnings.

Step 5

If we substitute equation of step 4 in to equation of step 3, we derive equation of step 5.

$$nP_0 = \frac{nD_1 +(n+\Delta_n)\, p_1 – 1 + E– nD_1}{(1+ ke)}$$

There is a positive nD_1 and negative nD_1.

Therefore, nD_1 cancels. We then have,

$$nP_0 = \frac{(n+\Delta_n)\, p_1 – 1 + E}{(1+ ke)}$$

Step 6

Since dividends are not found in above equation. So Modigliani and miller conclude that dividends do not count and that dividend policy had no effect on the share price.

In this way, according to Modigliani and Miller study, It seems that under conditions of perfect capital markets, rational investors, absence of tax discrimination between dividend income and capital appreciation, given the firms investment policy, its dividend policy may have no influence on the market price of the shares.

2.2.3 Gordon's Study (1962).

Another theory which contends that dividends are relevant is the Gordon Model (Gordon, 1959:99-105) This Model, which opinions that dividend policy of a firm affects its value, is based on the following assumptions.

i. The firm is an all equity firm. No external financing is used and investment programs are financed exclusively by retained earnings.

ii. Internal rate of return(r) and appropriate discount rate (ke) are constant.

iii. The firm and its stream of earning have perpetual life.

iv. The retention ratio (b), once decided upon, is constant.

Thus, the growth rate, (g=br) is also constant.

The discount rate is greater than growth rate i.e. ke > br.

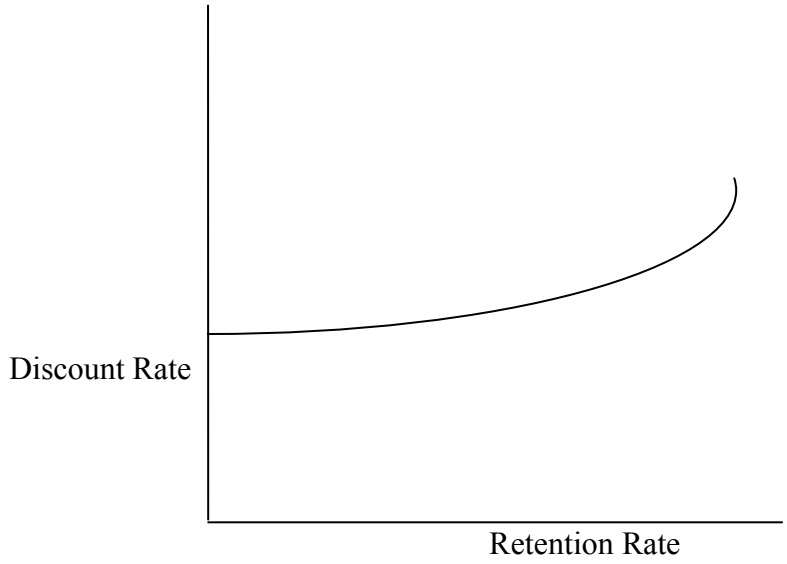
It can be seen from the assumptions of Gordon's Model that they are similar to those of Walter's Model. As a result, Gordon's Model, like Walter's, contends that divided policy of the firm is relevant and that investors put a positive premium on current incomes/dividends. But Gordon goes one step further and argues that dividend policy affects the value of shares even in a situation in which the return on investment of a firm is equal to the required/capitalization rate, while Walter's approach is of the view that the investors are indifferent between dividends and retention. Crux of Gordon's arguments is a two-fold assumption.

a. Investors are risk-averse, and
b. They put a premium on a certain return and discount/penalize uncertain returns.

The investors are rational. Accordingly, they want to avoid risk. The term risk refers to the possibility of not getting a return on investment. The payment of current dividends removes any chance of risk. If, however, the firm retains the earrings (i.e current dividends are with held), the investors can expect to get a dividend in future. The future dividend is uncertain, both with the respect to the amount as well as timing. The rational investors can reasonably be expected to prefer current dividends, i.e. they would place less importance on it as compared to current dividend. The retained earnings are evaluated by the investors as a risky promise. In case the earnings are retained, therefore, the market price of the shares would be adversely affected.

Basing Model on this argument, Gordon argues that the future is uncertain and the more distant the future, the more uncertain it B likely to be Fig.3.

Fig.3. Retention Rate and Discount Rate.



If, therefore, current dividends are with held to retain profits, whether the investor would at all receive them later is uncertain. Investors would naturally like to avoid uncertainty. In fact, they would be inclined to pay a higher price for shares on which current dividends are paid. Conversely, they would discount the value of shares of a firm which postpones dividends. The discount rate would vary, as shown in above figure, with the refection rate or the level of retained earnings. The term retention ratio means the percentage of earnings retained. It is the inverse of D/P ratio. The omission of dividends, or payment of low dividends, would lower the value of the shares. According to Gordon, the Market value of a share is equal to the present value of future streams of dividends.)

A simplified version of Gordon's Model can be symbolically expressed as,

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

Where,

P = price of shares

E= Earnings per share

b= Retention ratio or percentage of earnings retained

1-b= D/P ratio, i.e. percentage of earnings distributed as dividends.

Ke = Capitalization rate/cost of capital.

br = g = Growth rate in r, i.e. rate of return on investment of an all equity firm.

Gordon contends that the dividend decision has a bearing on the market price of the share in situations where r>ke, the market price of the share is favorably affected with more retentions. The reverse holds true when r < ke, i.e, more retentions lead to decline in market price. Retentions do not affect the market price of the share when r=ke.

According to this Model following facts are revealed.

a. Growth Firm (r >ke)

Share price tends to decline in correspondence with increase in payout ratio or decrease in retention ratio i.e. high dividends corresponding to earning leads to decrease in share price. Therefore, dividends and stock prices are negatively correlated in growth firm.

Negatively correlate in growth firm.

b. Normal Firm (r = ke)

Share value remains constant regardless of changes in divided policies which mean dividends and stock prices are free from each other.

c. Declining Firm (r < ke)

Share price tends to rise in correspondence with rise in dividend payout ratio. It means dividend and stock prices are positively correlated with each other in declining firm.

2.2.4 Walter's Study (1966)

Walter's study supports the doctrine that dividends are relevant. The investment policy of a firm cannot be separated from its dividend policy and both are, according to Walter, interlinked. The choice of an appropriate dividend policy affects the value of an enterprise (Walter, 1963:280-291)

The key argument in support of the relevance proposition of Walter's model is the relationship between the return on a firm's investment or its internal rate of return (r) and its cost of capital or the requited rate of return (k).

The firm would have an optimum dividend policy which will be determined by the relationship of r and k. In other words, if the return on investments exceeds the cost of capital, the firm should retain the earnings, where as it should distribute the earnings to the shareholders in case the required rate of return exceeds the expected return on the firm's investments.

Walter's model are based on following critical assumptions:-

i. All financing is done through retained earnings external sources of funds like debt or new equity capital are not uses.

ii. With additional investments undertaken, the firm's business risk does not change. It implies that r and k are constant.

iii. There is no change in the key variables, namely, begin earnings per share, E, and dividends per share, D. The values of D and E may be changed in the model to determine results, but, any given value of E and D are assumed to remain constant in determining a given value.

iv. The firm has perpetual (or very long) life considering the above assumption, Walter's formula determines the market price per share in the following way.

$$P = \frac{D}{ke - g}$$

Where,

P = The prevailing market price of a share.

D = Dividend per share

E = Earnings per share

r = The rate of return on the firm's investment

The above equation shows that the value of a share is the present value of all dividends plus the present value of all capital gains.

According to Walter's optimum dividend policy dependent on the relationship between the firm's return ® and its cost of capital (k). He suggests various types of firm they are:

i. When the firm is able to earn a return on investment exceeding the required rate of return (i.e. r>ke). The value of shares is inversely related to the D/P ratio. If a firm

has adequate profitable investment opportunities, it will be able to earn more than what the investor expect so that r>k. Such firms may be called growth firms. For growth firms, the firms should plugh back the entire earnings within the firm. The market value of the shares will b e maximized as a result.

ii. When r>ke, N when the firm does not have large size sample profitable, investment opportunities, the value of shares are positively correlated. If a firm does not have profitable investment opportunities(when r<k), the shareholders will be better-off if earning are paid out to them so as to enable then to earn a higher return by using the funds elsewhere. In such a case, the market price of shares will be maximized by the distribution of the entire earnings as dividends. a D/p ratio of 100 would give an optimum dividend policy, In other words, as the payout ratio increases, the market.

Where,

P = Price of equity shares

D = Initial dividend

k_e = Cost of equity capital

g = Expected growth rate of earnings.

To reflect earnings retentions, we have

$$P = \frac{D}{ke - rb}$$

Where,

r = Expected rate of return on firm's investments.

b = Retention rate (E – D) /E

Thus, r_b measures growth rate in dividends, which is the product of the rate of profitability of retained-earnings (r) and the earnings retention percentage (b). From the above equation, we derive an equation for determining k_e.

$$k_e = \frac{D}{P} + g$$

Since $g = \frac{\Delta P}{P}$, we have

$$k_e = \frac{D}{P} + \frac{\Delta P}{P}$$

And since $\Delta P = \frac{r}{k_e}(E - D)$

Substituting the value of AP, we have

$$k_e = \frac{D + \frac{r}{ke}(E - D)}{P}$$

$$\text{or,} \qquad P = \frac{D + \frac{r}{ke}(E - D)}{ke}$$

Price of the shares also increases. With 100% D/p ratio the value is the highest, while it is the lowest with D/p ratio being zero. When r < ke, the firm would be well and wised to distribute the entire earnings to the shareholders.

For a situation in which r = ke (normal firms)

The market value of shares is constant irrespective of D/P ratio, no optimum dividend policy D/P ratio. It is a matter of indifference whether earnings are retained or distributed. This is so because for all D/P ratios (ranging between zero and 100) market price of shares will remain constant for such firms, there is no optimum dividend policy (D/P ratio). In other words, the market price of shares is not affected by the D/P ratio). Whether the firm retains the profits or distributes dividends is a matter of indifference. This is a hypothetical situation. In real practice, the two values (r and ke) are different and Walter concludes that dividend policy does matter as a variable maximizing share prices.

2.2.5. Holder Langreh and Hexter's Study (1998)

M.E. Holder, F.W Langreh and Hexter's studied on "Dividend policy determinates. An Investigation of the influences of stakeholders on firm" dividend policy by examining the interaction between the dividend and investment policies (Holder, et. al.1998:73-82).

The Model used in the study was:

$$Dpit = \beta_0 + \beta_1 F\,sit + \beta_2\,LSALE\,sit + \beta_3 Inist + \beta_4\,LCSHR\,it + \beta_5 + FCfit + \beta_6 + GROW\,it + \beta_7\,STDit + Et$$

Where,

Dpit = smoothed dividends payout ratio for firm in fiscal year t.

Fsit = Measure of the focus of firm i in year t.

LSALESit = Natural log of sales of firm I in year t.

INSit = Residual of insider ownership for firm I in year regressed LSALES

LCSHRit = Residual of Natural log of number of common shareholders for firm I in year regressed on LSALES.

FCFit = Free cash flow for firm I year t.

GROWit = Sales growth of firm I in using prior five years.

STD = Standard deviation of Monthly returns of firm in year t.

They used above Mentioned regression equation as the basis for testing their hypothesis of relationship between the NOC (Net Organizational Capital) of a firm and its dividends payout. They developed Model with data from 477 firms over an eight year period (i.e. 1983-1990) for a total of 3816 observation, and used a pooled time series cross sectional analysis.

The Major findings of the study were:

The coefficient of corporate focus on NOC is negative and statistically significant indicating a negative inference on dividend payout ratio.

- Large firms tend to have higher payout ratios, compared to smaller firms larger firms have easier access to the capital Markets and are therefore less dependent on internal funds. Therefore, they can afford to pay higher dividends.
- Insider ownership negatively and pay out. Firms with a higher percentage of stock held by insider will have lower agency costs and lower dividend payout ratio.
- Insider levels of free cash flow have higher agency costs and need higher dividend payout ratios to reduce those agency costs.
- Dividend payout ratios is lower for higher risk firms.
- Sales growth is negatively and significantly related to dividend payout ratio. The findings of the above Mentioned studies conducted in developed and big capital Market May or May not applicable in Nepal where capital Market is small and is emerging one as well as may not be directly comparable to that of Nepal. So here, attempts are made to review same Major studies that are being Carried out in Nepal.

2.2.6. Pandey's Study.

I.M. Pandey studied on corporate Dividend behavior and Analysis of Dividend policy in practice: Case of CARSEN and TOUBRO. It has been conducted based on the data from 1976 to 1987.

A stable payout ratio results fluctuating dividend per share pattern, which could be a cause of uncertainty for investors. In practice; firms express their dividend policy either in terms of dividend per share or dividend rate. Does this mean that payout ratio is not considered important by firms while determining their dividend policies? Winter in this study conducted in context of U.S.A, found that forms generally think in terms of proportion of earnings to be paid out. Investment requirements are not considered for modifying the pattern of dividend behavior. Thus firms generally have target payout ratios in view while determining change in dividend per share (or dividend rate). Let us assume that a firm has EPS, as the expected earnings per share in the current year and p as the payout ratio. If the firm strictly follows stable payout policy, the expected dividend per share DIV, is:

$DIV, = pEPS_t$ …….. (i)

And dividend change (as compared to the dividend per share of the previous year, DIV_0) will be:

$DIV_1 – DIV_0 = pEPS_t — DIV_0$ …….. (ii)

But in practice, firms do not change the dividend per share (or dividend rate) immediately with change in the earnings per share. Shareholders like a steadily growing dividend per share. Thus the firm change their dividends slowly and gradually even when there are large increases in earnings. This implies that firms have standards regarding the speed with which they attempt to move to wards the full adjustment of payout to earnings. Linter has therefore suggested the following to explain the change in dividends of firms in practice.

$DIV_t – DIV_0 = b (pEPS_t – DIV_0)$ …….. (iii)

Where b is the speed of adjustment. A conservative company will move slowly towards its target payout.

The implication of equation (iii) are (a) that firms stabiles their dividends in accordance with the level of current earnings and (b) that the change in dividends over time do not correspond exactly with changes in earnings in the immediate time period. Iii other words, dividend per share depends on the firm's current earnings (EPSI) as well as the dividend per share of the previous year (DIVo): the previous year's dividend per share depends on the year's earning per share and the dividend per share in the year before.

2.3 Review of Major Studies in Nepalese Perspective.

2.3.1. Manandhar's Study (1998)

Manandhar studied on dividend policy and value of the firm in 1998. The aim of study was to identify some important financial variable that are significant to the value of the firm (Manandhar 1998: 15-20).

The study was based on the secondary financial data of tea leading companies of the year 1995/96 published by Nepal Stock Exchange Ltd. in trading report 2052/53, Vol.2.

The selected ten companies taken for the study were as:

a. Nepal Bank Ltd.
b. Standered Chartered Bank Ltd.
c. Nepal SBI Bank-, Ltd.
d. Himalayan Bank Ltd.
e. Nepal Indosuez Bank Ltd.
f. Nabil Bank Ltd.
g. Bishal Bazar Company Ltd.
h. Harishidhi Brick and Tiles Factory.
i. National Life and General Insurance Com. Ltd.
j. Soaltee Hotel Ltd.

He used multiple regressions to achieve the objective. The regression equation was:

$$y = f(X_1, X_2, X_3, X_4, X_5)$$

Where,

X_1 = represents DPS Equity dividend divided by number of equity shares.

X_2 = represents EPS Net income divided by number of equity shares.

X_3 = represents P/E Closing price divided by EPS.

X_4 = represents ROE = EPS divided by paid up price Multiplied by 100.

X_5 = represents D/P = DPS divided by closing Market price.

After analysis, the result was found as DPS and ROE have positive impact on Market capitalization. EPS, P/E, and D/P has negative impact on market capitalization. Specially, for dividend it was concluded that there is significant relationship between market capitalization end DPS. DPS was regarded as one of the significant determinant of market capitalization. In conclusion that dividend policy is relevance in stock valuation based on DPS.

2.3.2 Adhikari's Study (1999)

Navaraj Adhikari (1999) carried out a research on "Corporate Dividend Practices in Nepal." using primary and secondary data.

The main objectives of his research are:

- To analyze the properties of portfolios formed on dividend.
- To examine the relationship between dividend and stock prices.
- To survey the options of financial executive son corporate dividend practices.

Major findings are

1. Financial positions of high dividend paying companies are comparatively better than that of low dividend paying companies.
2. Market price of stock both finance and non-finance are affected by dividends.
3. There is positive relationship between dividend and stock price.
4. There is a negative relationship between dividend payout and earnings before tax to net worth.
5. Stock with larger ratio of DPS to book value per share has higher profitability. These profitability ratios of stocks paying smaller dividend.
6. Companies paying higher dividend are reluctant to employ higher degree of leverage in their capital structure.
7. The stocks with large ratio of dividend per share to book value per share have also higher turnover ratio and higher interest coverage.

2.3.3 Budhathoki's Study(2006)

Kishor Kumar Budhathoki has carried on a research on " The study of Dividend Policy of Commercial Banks in Nepal". The main objectives of study were :

- To highlight the dividend practices of commercial banks.

- To compare the dividend policy followed by selected commercial banks.
- To provide some fruitful suggestions to selected banks that can be implemented easily and possible guidelines to overcome various issues and gaps based on the findings of analysis.

Major findings of this study are:

1. The average EPS of banks under study shows a positive result. But the coefficient of variation indicates that there is no consistency of EPS.
2. The average DPS shows that there is no regularity in dividend payment.
3. The analysis of DPR shows that the DPR of banks is not stable.
4. The average market price shows that there is quite high level of fluctuation.

2.3.4 Jha's Study(2007)

Pawan Kumar Jha has performed a thesis on Dividend Policy: a comparative study between banks, insurance companies and financial institution, with eight years data relating to dividend policy from 2053/54 to 2061/62. The main objectives of study were :

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

Major findings of this study are:

1. Government of Nepal, NRB, SEBON and NEPSE should be conscious to discourage market imperfection.
2. Companies should have long term policy regarding the adoption of suitable dividend policy.
3. Even if earning has not been increased, the DPS has been widely fluctuated. Distribution of bonus share should be pre-evaluated.
4. It needs a proper information discloser to the investors.

2.3.5 Bista's Study (2008)

Surendra Bista has presented the thesis entitled "Dividend Poliies and Practices in Nepal: A comparative studies of listed joint venture banks and manufacturing companies". He has analysed the data of three joint venture companies and three manufacturing companies. The major objectives of the study were:

- To examine the relationship between dividend and market price of the stock.

- To identify the appropriate dividend policy followed by listed banks and manufacturing companies.
- To analyse the similarities and differences of dividend policy decision of banks and manufacturing companies.

Major findings of this study are:

1. The banks and manufacturing companies do not follow any specific dividend policy. DPR are fluctuating over the periods of those selected companies.
2. MPS do not any specific trend, it fluctuates the future price.
3. There is not any specific trend of EPS in these companies.
4. There is great difference between market value per share and book value per share.

2.3.6. Kafle's Study (2009)

Kafle has presented an MBS thesis entitled "Dividend Policy of Commercial Banks in Nepal" with special reference to HBL, EBL and NIBL. The main objectives of this study are as follows:

- To study dividend procedures followed by sample banks.
- To identify, whether DPS affected by the EPS in sample banks.
- To analyse the relationship between DPS with various important variables such as EPS, net profit, net worth and book value per share.

Major findings of this study are:

1. In HBL, DPS trend is increasing even in fiscal year 2004/05, when EPS is decreased. In EBL, EPS is in increasing trend, DPS is also in increasing trend except fiscal year 2004/05.
2. In NIBL, EPS and DPS both trend is fluctuating. The implications of fluctuating earning per and dividend per share could not make clear to the public.
3. MPS is much higher than net worth per share in case of EBL. This indicates that the investors either have a optimastic view on the future performance of company or that they are not investigating the performance indicators of the companies in which they are investing properly.
4. DPS is positively correlated with EPS, net profit, market price per share and net worth in all sample banks. It means the higher EPS, net worth and net profit, higher will be dividend per share and vice versa.

2.3.7 Dhungel's Study (2009)

Dhungel has presented an MBS thesis entitled "A study on Dividend Policy of Everest Bank Limited and Bank of Kathmandu". The main objectives of this study are as follows:

- To identify what type of dividend policy being followed by selected companies.
- To highlight dividend practices of Bank of Kathmandu and Everest Bank Limited.
- To analyse the relationship between dividend per share and other important variables such as earning per share, net profit, net worth and stock prices.

Major findings of this study are:

1. EBL has higher earning capacity than BOK and paying more dividend than BOK.
2. On the basis of DPR, it can be considered that BOK has paid higher portion of its earnings as dividend since average DPR of BOK is higher than that of EBL.
3. Average dividend yeild indicates that BOK is providing more percentage of its market value per share than EBL.
4. Average earning yeild ratio of BOK is greater than that of EBL, which means BOK is more efficient to generate earning on the basis of market price.
5. EBL remained more successful than BOK in satisfying its shareholders through distributing cash and bonus share dividend, generating higher amount of earning per share, maintaining higher market value of its share.

2.3.8 Silwal's Study (2010)

Shambhu Sharma Silwal has presented an MBS thesis entitled "A study on Dividend Policy of Commercial Banks in Nepal and It's Effect to Market Price of Share". He has taken NABIL Bank, Standard Chartered Bank Nepal Limited, Everest Bank Limited, Nepal Industrial and Commerce Bank Limited and Bank of Kathmadu as Sample cosidering the data period FY 2003/04 to 2007/08. The main objectives of this study are as follows:

- To examine whether, the commercial banks are following the suitable dividend policy or not.
- To analyse and evalute the application of dividend decision on selected banks.
- To analyse the relationship of dividend policy with various financial indicators like EPS, DPS, MPS, DPR, P/E ratio and net profit of sample banks.

Major findings of this study are:

1. DPS of sample banks in average shows that there is not regularity in dividend payment.
2. The average highest DPR is 68.57% of SCBNL and lowest is 11.25% of NIC. The analysis of CV of DPR indicates that SCBNL has least fluctuation i.e. 17.02% and NIC has most fluctuation i.e. 146.13% among the sample banks.
3. The average EPS of the banks under study shows positive result. However, the CV indicates that there is no consistency in EPS. The CV of EPS range is in between 10.84% to 69.09%. Among the sample banks, SCBNL has highest average EPS with low fluctuation and NIC has lowest EPS.
4. The study of impact of cash dividend on market price of share revealed that DPS has positive impact on MPS in NABIL, SCBNL and EBL. But negative impact has been found in BOK, NIC and bank pooled average, which indicates the MPS of NIC and BOK is influenced by any other factors.
5. With respect to impact of DPR on valuation of share, negative impact has been found of sample commercial banks. DPR affects the market price of stock differently.
6. The multiple regression analysis of MPS on EPS and DPS, it has been found that there is positive relation between MPS and EPS, but negative between MPS and DPS.
7. The DPS and EPS are positively correlated in sample banks which mean higher the EPs higher will be DPS.

2.4. Research Gap

There have been several researches done in past about dividend policy and practices about various banks and financial institutions taking consideration of various financial and statistical tools. In this context, previous studies cannot be ignored because they provide the foundation of the present study. The purpose of this study is to draw some ideas concerning to the dividend policy and practices in Nepalese commercial banks and receive some new ideas, knowledge and suggestions in relation. It is expected that the uncovered area of past research will be studied in this research. Moreover the earlier studies on dividend have become old and need to be updated and validated because of the rapid changes taking place in financial market of Nepal. So this study on dividend policy in the context of Nepalese commercial banks is based on secondary data of three joint venture banks.

CHAPTER-III

RESEARCH METHODOLOGY

Research methodology is related to the specific problem of limited scope for which management has need of additional information on which to base a decision. Research has one feature. It concerns the seeking of solutions as to what should be done to solve a given problem and how to implement the solution. Research tends to be future and present oriented as opposed to taking an interest in the effectiveness of prior actions. According to the F.N. Kerlinger,"Research methodology is a vital and absolutely indispensable part of social scientific and educational research. Without methodology research, modem social scientific and educational research would still be in the dark age." Research Methodology mainly describes the technique, method and process applied in the entire process of a scientific research." Research Methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view."Research methodology explains the methods used in the study including presentation of research design." *(Pant; 2009: 328)*

Research methodology describes the method and process applied in the entire aspect of the study. Research methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain objectives in view. So the purpose of this chapter is to outline the methods and sequential steps adopt in analyzing the problem.

3.1 Research Design

The research design is the plan, structure and strategy of investigation conceived so as to obtained answers to reason questions and to control variance *(Kerlinger; 1994).*The analysis of the study is based on certain research design keeping in mind on the objective of the study. "Research design describes the general plan for collecting, analyzing and evaluating data. It is integrated systems that guides the researcher in formulating, implementation and control the study." *(Pant; 2009).* Research design refers to a series of stage in conducting study. The research design of this study will be more exploratory and analytical, using various phenomena related and influencing the dividend decision and market price of stock. Descriptive and analytical research design is used in this study. The annual reports published by the relative

banks and the financial statements of banks published by Nepal stock exchange Ltd. where collected from the year 2004/5 to 2008/2009 to analyze, interprets and get the conclusion.

3.2 Population and Sample

There are 30 commercial banks incorporated (till Dec 2010) and doing there transaction in Nepalese financial market. Among them, 23 banks' shares are traded in stock market; hence it is not possible to study all of them regarding the study topic. Therefore sampling will be done selecting from population. The population is as follows:

1 Nepal Bank Ltd.
2 Rastriya Banijya Bank.
3 Agricultural Development Bank
4 Nepal Arab Bank Ltd.
5 Nepal Investment Bank Ltd.
6 Nepal SBI Bank Ltd.
7 Nepal Bangladesh Bank Ltd.
8 Nepal Industrial & Commercial Bank Ltd.
9 Nepal Credit & Commerce Bank Ltd.
10 Standard Chartered Bank Ltd.
11 Himalayan Bank Ltd.
12 Everest Bank Ltd.
13 Bank of Kathmandu Ltd.
14 Lumbini Bank Ltd.
15 Machhapuchre Bank Ltd.
16 Kumari Bank Ltd.
17 Laxmi Bank Ltd.
18 Siddhartha Bank Ltd.
19 Global Bank Ltd.
20 Citizen Investment Bank.
21 Prime Bank Ltd.
22 Bank of Asia Ltd.
23 Sunrise Bank Ltd.

24 Development and Credit Bank Ltd.

25 Nepal Merchant Bank Ltd.

26 KIST Bank Ltd.

27 Janata Bank Limited

28 Megha Bank Limited

29 Commerze and Trust Bank Limited

30 Civil Bank Limited

The selected samples are as follows:

Due to constraints of time and resources, only three joint venture commercial banks of Nepal are selected as sample in this study.

Selected sample banks of this study are as follows:

1 Standard Chartered Bank Ltd. (Joint-venture with Standard Chartered Bank Ltd U.K.)

2 Himalayan Bank Ltd.(Joint-venture with Habib Bank Ltd. Pakistan)

3 Everest Bank Ltd.(Joint-venture with Punjab National Bank Ltd. India)

3.3 Sources of Data

The study is based on secondary and primary data. The required data has been collected from the "Financial statement of listed companies published by Nepal stock exchange Limited". The related data are obtained from the annual reports published by concerned banks. Besides this further data are collected from published and unpublished reports, journals, thesis etc. This study is based on secondary data. The other various necessary informations were collected from various institutions.

3.4 Method of Analysis

Various financial and statistical tools have been used in this study. The analysis of data will be done according to pattern of data available. Financial tools and simple regression analysis will do mainly the analysis. The relationship between different variables related to study topic would be drawn out using financial and statistical tools. The main financial indicators EPS, DPS, MVPS, D/P Ratio, P/E Ratio, Profitability Ratio, Liquidity Ratio and Market Value Per Share will be calculate in this research, likewise statistical tools arithmetic mean, Simple regression analysis, standard deviation, coefficient of correlation,t test, and F-test will be calculate in this

research.

3.6 Data Analysis Tools

A. Financial Tools

Under the financial tools, the following ratios has been calculated and interpreted:

1. Dividend Per Share (DPS)

DPS indicates ¯the part of earning distributed to the shareholders on per share basis. It is calculated by dividing the total dividend to equity shareholder, the number of equity shares.

Total dividend to ordinary shares.

$$\text{DPS} = \frac{\text{Total dividend to ordinary shares}}{\text{No. of common ordinary share outsthanding}}$$

2. Earning Per Share (EPS)

EPS calculations made over the years indicate whether the banks earning power on per share basis have changed over the period or not. EPS is calculated by dividing the net profit after tax by the total number of common share outstanding.

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

3. Dividend Payout Ratio (D/P Ratio)

D/P ratio is percentage of profit that is distributed as dividend. This ratio reflects percentage of profit is distributed as dividend and what percentage of profit is remained as reverse & surplus for the growth of the company. It is calculated by DPS divided by the EPS.

$$\text{D/P Ratio} = \frac{\text{Dividend per share}}{\text{Earning per share}}$$

4. Price Earning Ratio (P/E Ratio)

This ratio reflects the price currently paid by the market for each rupee of current reported earning per share (EPS). It is calculated by dividing the market value share (MVPS) by earning per share.

$$\text{P/E Ratio} = \frac{\text{Market Value Per share}}{\text{Earnings Per Share}}$$

5. Dividend Yield Ratio (D/Y Ratio)

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

$$\text{Dividend Yield Ratio} = \frac{\text{Dividend per share(DPS)}}{\text{Market value per share(MVPS)}}$$

6. Profitability Ratio

Profitability ratio is calculated by dividing gross profit by total assets.

$$\text{Profitability ratio} = \frac{\text{Gross profit}}{\text{Total assets}}$$

7. Liquidity Ratio

This ratio is calculated through dividing current assets by current liabilities.

$$\text{Liquidity Ratio} = \frac{\text{Current Assets}}{\text{Current Liability}}$$

B. Statistical Tools

In the present study, certain statistical tools have been used to compare the Figures and draw one meaningful conclusion there from. Short descriptions of the statistical tools have been presented here.

1. Mean

The most popular and widely used measure of representing the entire data by one variable is the arithmetic mean. The number of items obtains by adding together all items and by dividing this total its value. Mean values of the different variable represent the average value for the study period.

$$\text{Arithmatic Mean } (\overline{X}) = \frac{\sum X}{N}$$

2. Standard Deviation

The measurement of the scatter necessary of the data from mass of Figure in a series able an average is known as dispersion. The standard deviation - measures the absolve dispersion. The greater the amount of dispersion greater the standard deviation. The small standard deviations means a high degree of uniformity of the observation well as homogeneity of a series and vice-versa. In this study, standard deviation calculated for dividend per share, earning per share, dividend payout ratio, dividend yield and price earning ratio, profitability ratio, liquidity ratio

and market value per share.

$$S.D\ (\sigma) = \sqrt{\frac{\Sigma(X - \overline{X})^2}{N}}$$

3. Coefficient of Variation

The coefficient of variation is the relative measure of dispersion, comparable across which is defined as the ratios of the standard deviation to the mean expressed percent.

$$C.V. = \frac{\sigma}{\overline{X}} * 100\%$$

4. Correlation Analysis

Correlation analysis is the statistical tools that can be used to describe the degree which one variable is nearly related to another. In the present study simple correlation has been used. Correlation co-efficient between the following financial variables has been calculated and presented in matrix form and thereby interpreted throughly.

$$\text{Correlation coefficient } (r) = \quad r = \frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

Simple correlation coefficient

- Between Earning Per Share and Dividend Per Share.
- Between Earning Per Share and Market Value Per Share.
- Between Dividend Payout Ratio and Market Value Per Share.
- Between last year dividend per share and Market Value Per Share.

5. Regression Analysis

Correlation analysis tells the direction of movement but it does not tell the relative movement in the variables under study. Regression analysis helps us to know the relative movement in the variables. Regression analysis of the following variable.-, have been calculated and interpreted.

Simple Regression Analysis

I. Market Value Per Share on Earning Per Share.

This analysis enables us to known whether EPS is the influencing factor of market value per share or not. At what extent the EPS affects the MVPS.

$Y = a + bX$

Where,

Y = market value per share

a = Regression constant

b = Regression coefficient

X = Earning per share

II. Market Value Per Share on last year Dividend Per Share

This analysis is examine the market value per share as depended variable on last year dividend per share as independend variable.

Y= a + bX

Where,

Y = Market value per share

a = Regression constant

b = Regression coefficient

X = Last year Dividend per share

III. Dependent Variable Dividend per Share (DPS) on Earning per Share (EPS)

This analysis is examine the dividend per share as depended variable on earning per share as independend variable.

Y= a + bX

Where,

Y = Dividend per share

a = Regression constant

b = Regression coefficient

X = Earning per Share

6. Coefficient of Correlation (r)

Correlation analysis is the statistical tools that we can use to describe the degree which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between two sets of Figures. In this study, simple coefficient of correlation is used to determine the relationship of different factors with dividend and other variables. The data related to dividend over different years are tabulated and their relationship with each other's is drawn out.

7. Coefficient of Determination (r^2)

The coefficient of determination is a measure of the degree of liner association or correlation between two variable one of which happens to be independent and other being dependent variable. In other word r measures the percentage total variation in dependent variables. The coefficient of determination value can have ranging from zero to one. A value or one can occur only if the unexpected variation is zero which simply means that all the data point ¡n the scatters diagram fall exactly on the regression line.

8 Regression Constant (a)

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

9. Regression Coefficient (b)

The regression coefficient of each independent variable indicates the marginal relationship between the variable and value of dependent variable, holding constant the effect of all other independent variables in the regression model. In other words the coefficient describes how change in independent variables affects the values of dependent variables estimative.

C. Test of Hypothesis

Hypothesis is usually considered as the principal instrument in research. It can also be considered as suggested solution of the research problems. Its main function is to suggest new experiments and observations. With the available data decision-makers applied the hypothesis testing and give the decision accordingly. It may not be proved absolutely but in practice it is accepted if it has withstood a critical testing. Usually the statistical hypothesis is tested at 1%, 5% and 10% Level of significance. Thus, the significance test will be conducted in the analysis of the data.

The hypothesis tests of this research work are:

I. First Hypothesis

Null Hypothesis (H_0) :$\mu 1 = \mu 2 = \mu 3$

There is no significant different in DPS on sample commercial banks.

Alternative hypothesis (H_1): $\mu 1 \neq \mu 2 \neq \mu 3$

There is significant difference in DPS on sample commercial banks.

II. Second Hypothesis

Null Hypothesis (H_0) :$\mu 1 = \mu 2 = \mu 3$

There is not significant difference in EPS on sample commercial banks.

Alternative Hypothesis (H_1) $\mu 1 \neq \mu 2 \neq \mu 3$

There is significant difference in EPS on sample commercial banks.

3.6 Limitations of Methodology

- The analysis is based on secondary data.

CHAPTER-IV

PRESENTATION AND ANALYSIS OF DATA

The presentation and analysis of data is the major part of the research study. The analysis of data has been done according to the available data.The analysis includes several tools and techniques such as financial tools and statistical toolsand attitude of management towards dividend decision.

In this chapter, collected data and other information on dividend policy and its impact on market price of share of commercial banks are presented. This chapter concentrated in presentation and analysis of data as important financial indicators. This chapter attempts to analysis of dividend per share, earning per share, dividend payout ratio, dividend yield ratio price earning ratio, profitability ratio, liquidity ratio, market value per share, correlation between financial variables and regression equations of financial variables of selected commercial banks. Presentation and analysis of data is the major part of the research study. So, that to achieve our objective of the study, we analyze the data with the help of above financial and statistical tools. This chapter will attempt to make a comparison among the concerned banks.

4.1 Analysis of Financial Indicators of Sample Banks

4.1.1. Dividend per Share Analysis

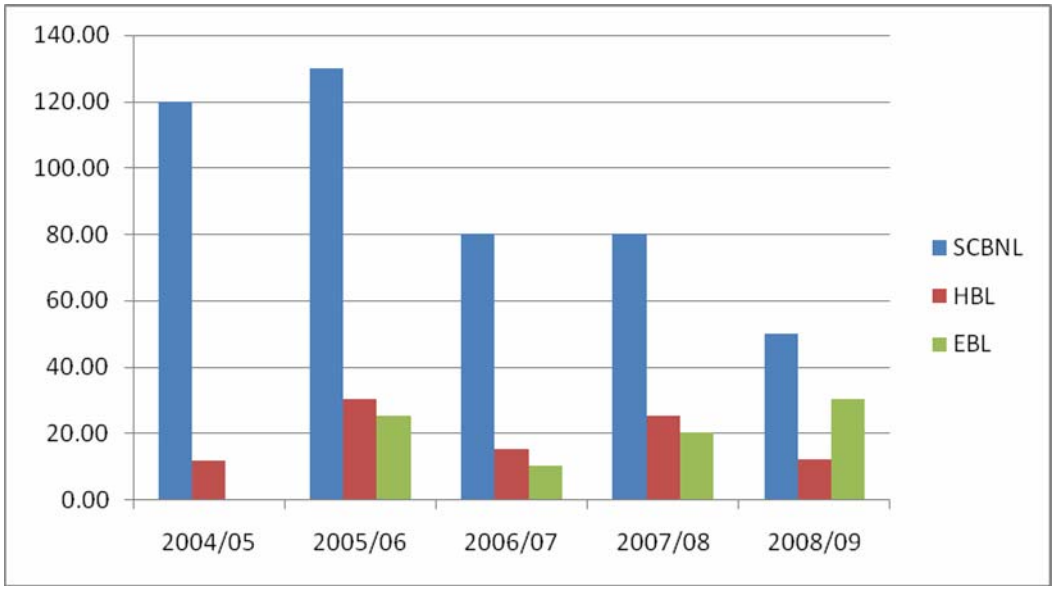
Table 1

Dividend per share (cash)

Year	SCBNL	HBL	EBL
2004/05	120.00	11.58	0.00
2005/06	130.00	30.00	25.00
2006/07	80.00	15.00	10.00
2007/08	80.00	25.00	20.00
2008/09	50.00	12.00	30.00
Average	92.00	18.72	17.00
S.D.	32.71	8.32	12.04
C.V.	0.3556	0.4443	0.7083

Source : Annual Reports of the concerned banks

Figure 4.



Fiscal Year

The study topic concerned to the dividend of the banks. It has taken the dividend paid by three sample banks for the five different fiscal years. So it is very important at this stage to look over the relevant data on dividend for the purpose of this analysis.

Above table shows the impact on dividend per share of the concerned JVBS from the year 2204/05 to 2008/09. In analysis period, SCBNL has paid the highest and EBL has paid lowest dividend to its shareholders in average. In this period, SCBNL has paid Rs. 92.00 as DPS and HBL and EBL has paid Rs. 18.72 and 17.00 DPS in average. Standard deviation of SCBNL is the highest and HBL is the lowest among three banks for five years. In same way, CV of SCBNL is 35.56% which is lowest and EBL is 70.83% that is highest among sample baks. This shows that DPS of SCBNL is more consistent and stable than other two banks. In same way, DPS of EBL is less consistent and less stable than others.

4.1.2. Earning per share (EPS) Analysis

All the business firms always seek to have and more earning so that they could sustain efficiently in the competitive market. The following table shows all the details relating to earning per share of respective banks.

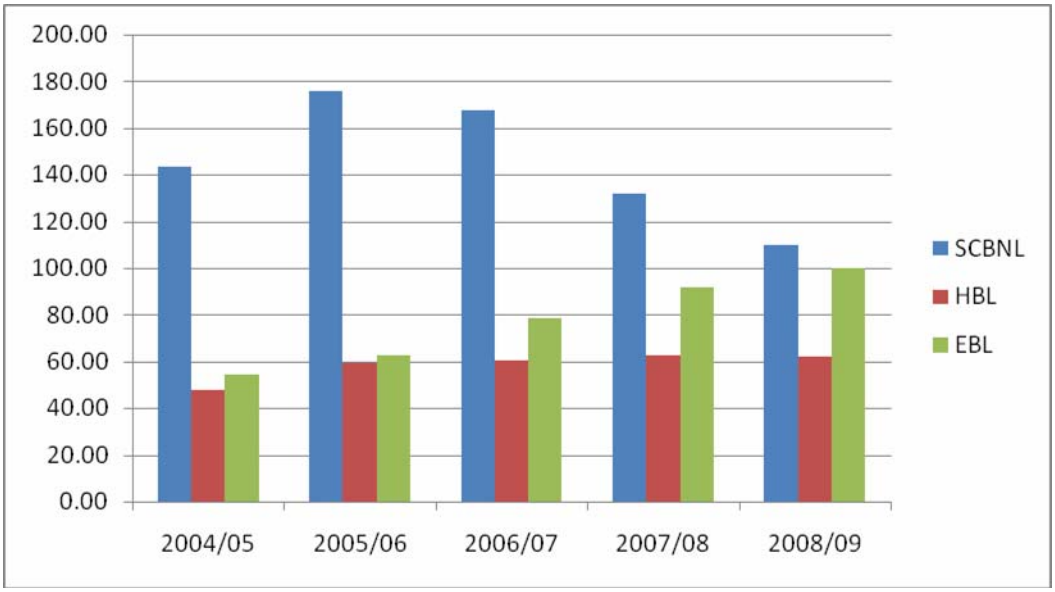
Table 2

Earning Per Share (In Rs.)

Year	SCBNL	HBL	EBL
2004/05	143.14	47.91	54.22
2005/06	175.84	59.24	62.78
2006/07	167.47	60.66	78.42
2007/08	131.92	62.74	91.82
2008/09	109.99	61.90	99.99
Average	145.67	58.49	77.45
S.D.	26.71	6.06	19.17
C.V.	0.1834	0.1036	0.2476

Source : Annual Reports of the concerned banks

Figure 5



Fiscal Years

Above table shows that EPS of the concerned banks from 2007/05 to 2007/08. Normally, the performance and the achievement of business organization are measured in terms of its capital to

generate earning. Higher earning shows higher strength while lower earning shows weaker strength of business organization.

The table shows that the EPS of SCBNL is highest in every year while EPS of EBL & HBL are lower respectively. The average EPS of SCBNL is Rs. 145.67 and average EPS of other two banks HBL and EBL is Rs. 58.49 and Rs. 77.45 respectively. The EPS of SCBNL is highly fluctuated but other two banks EPS is in increasing trend.

Standard deviation of SCBNL is the highest and HBL is the lowest among three banks for five years. In same way, CV of HBL is 10.36% which is lowest and EBL is 24.76% which is the highest among sample baks. This shows that EPS of HBL is more consistent and stable than other two banks. In same way, EPS of EBL is less consistent and less stable than others.

4.1.3. Relationship between EPS and DPS

All earnings of business are not distributed as dividend. The organisation should have to retain the earnings and create different types of funds for future growth and risk management. In this study, how much earnings are distributed by selected JV banks to their shareholders. The following table shows the relationship between earning per share and dividend per share of selected companies.

a) Relationship between EPS and DPS of SCBNL

Table 3

Relationship between EPS and DPS of SCBNL

year	EPS	DPS cash	Stock dividend	Total DPS	% Change in EPS	% Change in DPS
2004/05	143.14	120.00	0.00	120.00	0.00	0.00
2005/06	175.84	130.00	10.00	140.00	22.84	16.67
2006/07	167.47	80.00	50.00	130.00	-4.76	-7.14
2007/08	131.92	80.00	50.00	130.00	-21.23	0.00
2008/09	109.99	50.00	50.00	100.00	-16.62	-23.08

Source : Annual Reports of the concerned banks

Above table shows the relationship between EPS and DPS of SCBNL of analysis period.

In the year 2004/05 EPS of SCBNL is Rs.143.14 and it gives Rs.120 cash dividend per share and no stock dividend.

Likewise in 2005/06 EPS has increased to Rs.175.84 and gives cash dividend of Rs.130 per share and stock dividend 10%. The total dividend per share is Rs. 140. In this fiscal year, EPS of company is increased by 22.84% and DPS also incerased by 16.67% consequently in comparision to previous year.

In year 2006/07, the EPS of company is decrease by 4.76% in coparision to previous year. In this year, company has distributed the cash dividend of Rs. 80 and stock dividend of 50%. The total dividend per share is Rs. 130. In this year, DPS has decreased by 7.14% as decreased of EPS.

In same way, company has taken the decision to distribute dividend as per its earnings. There is legal provision to increase the paid up capital of comercial banks up to Rs. 2000 million. So, company has distributed the stock dividend by 50% and cash dividend as per earnings of company in last two fiscal years.

b) Relationship between EPS and DPS of HBL

Table 4

Relationship between EPS & DPS of HBL

year	EPS	DPS cash	Stock dividend	Total DPS	% Change in EPS	% Change in DPS
2004/05	47.91	11.58	20.00	31.58	0.00	0.00
2005/06	59.24	30.00	5.00	35.00	23.65	10.83
2006/07	60.66	15.00	25.00	40.00	2.40	14.29
2007/08	62.74	25.00	20.00	45.00	3.43	12.50
2008/09	61.90	12.00	31.56	43.56	-1.34	-3.20

Source : Annual Reports of the concerned banks

Above table shows the relationship between EPS & DPS of HBL during the period of 2004/05 to 2008/09.

In the year 2004/05 EPS of HBL is Rs.47.91 and it gives Rs.11.58 cash dividend per share and 20% of stock dividend (total DPS is Rs. 31.58).

Likewise in 2005/06 EPS has increased to Rs.59.24 and gives cash dividend of Rs.30 per share and stock dividend 5%. The total dividend per share is Rs. 35. In this fiscal year, EPS of company is increased by 23.65% and DPS also incerased by 10.83% consequently in comparision to previous year.

In year 2006/07, the EPS of company is increase by 2.40% in coparision to previous year. In this year, company has distributed the cash dividend of Rs. 15 and stock dividend of 25%. The total dividend per share is Rs. 40. In this year, DPS has increased by 14.29% as increased of EPS.

In same way, company has taken the decision to distribute dividend as per its earnings. There is legal provision to increase the paid up capital of comercial banks up to Rs. 2000 million. So, company has distributed the stock dividend and cash dividend as per earnings of company in last two fiscal years respectively.

c) Relationship between EPS and DPS of EBL

Table 5

Relationship between EPS & DPS of EBL

year	EPS	DPS cash	Stock dividend	Total DPS	%Change in EPS	%Change in DPS
2004/05	54.22	0.00	20.00	20.00	0.00	0.00
2005/06	62.78	25.00	0.00	25.00	15.79	25.00
2006/07	78.42	10.00	30.00	40.00	24.91	60.00
2007/08	91.82	20.00	30.00	50.00	17.09	25.00
2008/09	99.99	30.00	30.00	60.00	8.90	20.00

Source : Annual Reports of the concerned banks

The above table 7 shows the relationship between EPS & DPS of EBL during the period 2004/05 to 2008/09.In the year 2004/05 EPS of EBL is Rs.54.22 and it gives 20% of stock dividend and no cash dividend.Likewise in 2005/06 EPS has increased by 15.79% and reached to Rs.62.78 and gives cash dividend of Rs.25 per share and no stock dividend. In this fiscal year, EPS of company is increased by 15.79% and DPS also incerased by 25% consequently in comparision to previous year.

In year 2006/07, the EPS of company is increase by 24.91% in coparision to previous year and reached to Rs. 78.42. In this year, company has distributed the cash dividend of Rs. 10 and stock

dividend of 30%. The total dividend per share is Rs. 40. In this year, DPS has increased by 60% as increased of EPS.

In same way, company has taken the decision to distribute dividend as per its earnings. The company has paid the cash dividend of Rs. 20 and Rs. 30 and stock dividend 30% equally in 2007/08 and 2008/09 respectively. There is legal provision to increase the paid up capital of comercial banks up to Rs. 2000 million. So, company has distributed the stock dividend and cash dividend as per earnings of company in last two fiscal years respectively.

4.1.4. Retained Earning Analysis

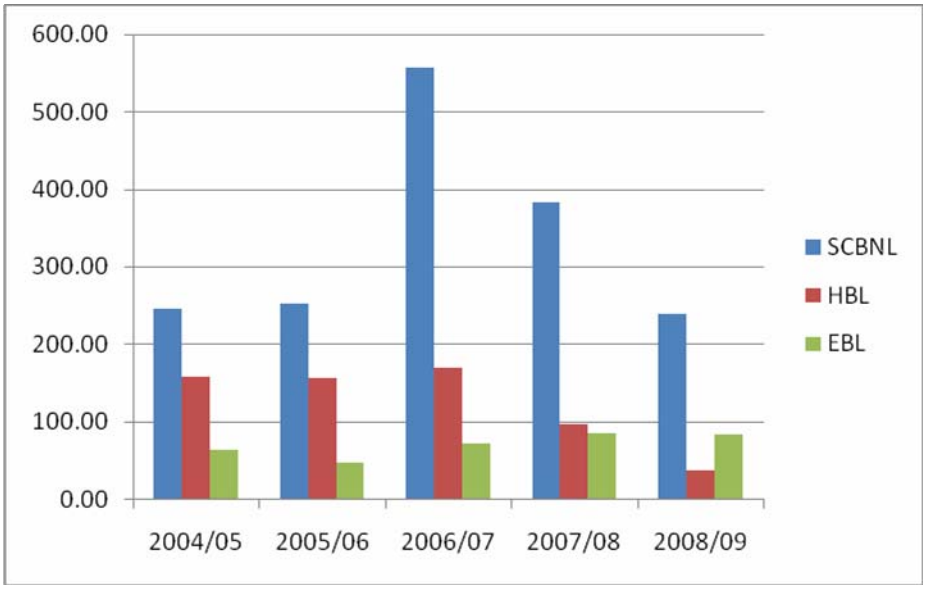
Table 6

Retained Earning Analysis (In mill.)

Year	SCBNL	HBL	EBL
2004/05	245.20	158.17	62.50
2005/06	251.30	156.55	46.90
2006/07	557.72	168.38	70.50
2007/08	383.28	96.84	83.74
2008/09	239.49	36.52	82.44
Average	335.40	123.29	69.22
S.D.	137.95	56.09	15.25
C.V.	0.4113	0.4549	0.2204

Source : Annual Reports of the concerned bank

Figure 6



Above table shows that the Retained earning of the concerned banks from the year 2004/05 to 2008/09.

Retained earning means the earnings that retained by organisation to invest in profitable projects. In the year 2004/05 RE of SCBNL, HBL & EBL are Rs. 245.20, 158.17 and 62.50 million respectively. In the year 2005/06, RE of all banks is Rs. 251.30, 156.55 and 46.90 million respectively. In same way, RE of all banks is Rs. 557.72, 168.38 and 70.50 million in 2006/07 and 383.28, 96.84 and 83.74 million in 2007/08. In year 2008/09, RE of all banks is Rs. 239.49, 36.52 and 82.44 million respectively.

The average analysis shows that RE of SCBNL is 335.40 m., HBL is 123.29 m. and EBL is 69.22 respectively. The volume of retained earning is affected by dividend pay out ratio of company.

4.1.5. Market Value per Share Analysis

Table 7

Market value per share analysis (In times)

Year	SCBNL	HBL	EBL
2004/05	2345.00	920.00	870.00
2005/06	3775.00	1100.00	1379.00
2006/07	5900.00	1740.00	2430.00
2007/08	6830.00	1980.00	3132.00
2008/09	6010.00	1760.00	2455.00
Average	4972.00	1500.00	2053.20
S.D.	1852.35	461.52	911.28
C.V.	0.3726	0.3077	0.4438

Source : Annual Reports of the concerned bank

Figure 7

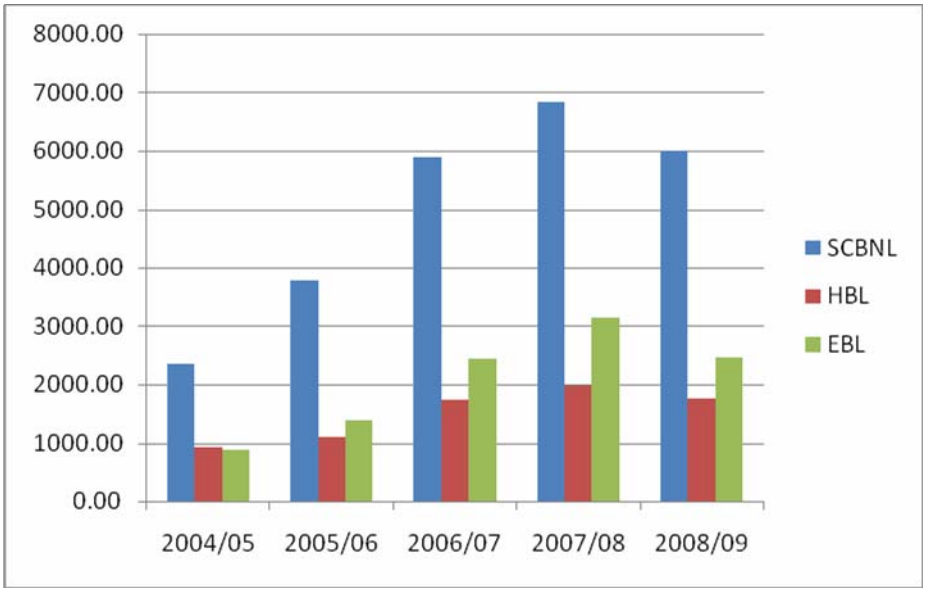


Table 7 shows that the market price per share of the concerned banks from the year 2004/05 to 2008/09.

Market value per share means to evaluate value of share in the market. In the year 2004/05 MVPS of SCBNL, HBL & EBL are Rs.2345, Rs. 920 and Rs. 870 respectively. In the year 2005/06 MVPS of all banks increases to Rs.3775, Rs. 1100 and Rs. 1379 respectively.

In the year 2006/07 MVPS of all bank's are highly increased i.e. SCBNL's Rs.5900, HBL's RS.1740 and EBL's Rs.2430. The MVPS of related banks are increased to 2007/08 and decreased in 2008/09. The average of MVPS of concerned banks is Rs. 4972, Rs. 1500 and Rs. 2053 in analysis period.

The coefficient of variation analysis shows that MVPS of HBL is most consistent among the sample banks i.e. 30.77% & C.V. of SCBNL and HBL are 37.26% and 44.38% respectively. MVPS of all banks are increased up to 2007/08 and decreased in the year of 2008/09.

4.1.6. Dividend payout Ratio Analysis

Dividend payout ratio is percentage of profit that is distributed as dividend. This ratio reflects percentage of profit is distributed as dividend and what percentage of profit is remained as reverse & surplus for the growth of the company. It is calculated by DPS divided by the EPS.

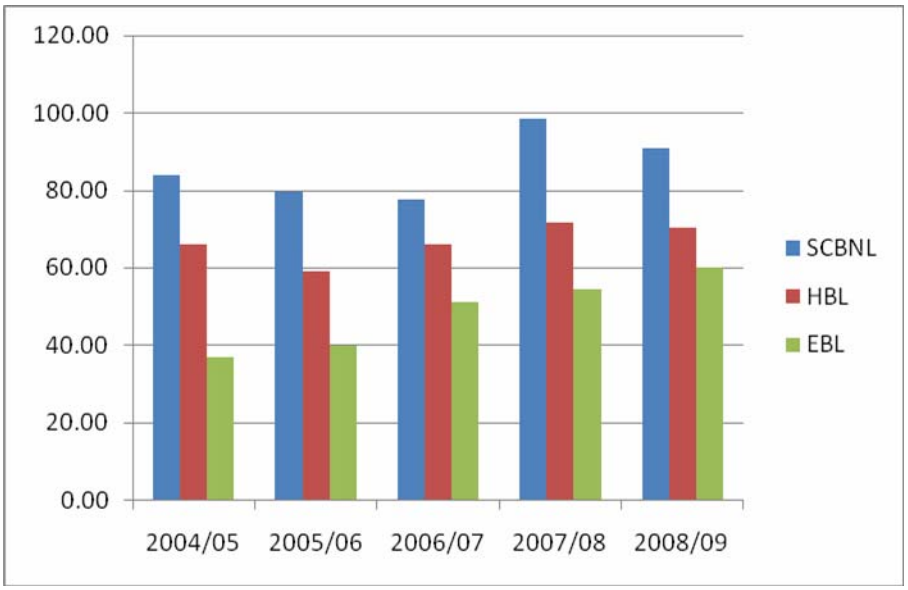
Table 8

Dividend Payout Ratio (In %)

Year	SCBNL	HBL	EBL
2004/05	83.83	65.91	36.88
2005/06	79.63	59.08	39.82
2006/07	77.67	65.94	51.00
2007/08	98.54	71.72	54.45
2008/09	90.91	70.37	60.00
Average	86.12	66.60	48.43
S.D.	8.60	4.95	9.80
C.V.	0.0999	0.0743	0.2024

Source : Annual Reports of the concerned bank

Figure 8



The table 8 shows that the dividend payout ratio of the three sample banks from the year 2004/05 to 2008/09. In the year 2004/05 HBL & EBL have paid 65.91% and 36.88% respectively. Where as SCBNL has paid higest persent of dividend i.e.83.83%.

In year 2005/06, 2006/07, 2007/08 and 2008/09, dividend payout ratio of SCBNL is the highest among the banks that is 79.63%, 77.67%, 98.54% and 90.91% respectively and D/P ratio of HBL is 59.08%, 65.94%, 71.72% and 70.37% . The dividend payout ratio of EBL is lowest among the banks that is 39.88%, 51.00%, 54.45% and 60.00% in analysis period. The average dividend payout ratio of sample banks is 86.12%, 66.60% and 48.43% respectively. Among them, average dividend pay out ratio of SCBNL is highest and EBL is the lowest. After analysing the average D/P ratio, it can be concluded that SCBNL has paid the highest amount as dividend to its shareholders from its earning and EBL has paid the lowest one among sample banks.

The calculation of the coefficient of variation of the D/P ratio of three banks suggests that D/P of HBL is more consistent (i.e. 4.95% deviation) with 7.43% CV. Where the C.V. of SCBNL and EBL is 9.99% and 20.24% in analysis period.

4.1.7. Dividend Yield Ratio Analysis

This ratio shows the relationship between dividend per share and market value per share. It is calculated by dividing dividend per share by market value per share. Dividends yield ratio is highly influences by the market value per share. The ratio highly influences the market value per share because change in dividend per share can bring effective change in market value of that share. Therefore, before allocation of a market scenario and price fluctuation it is to be studied and evaluated for the long run survival of the company.

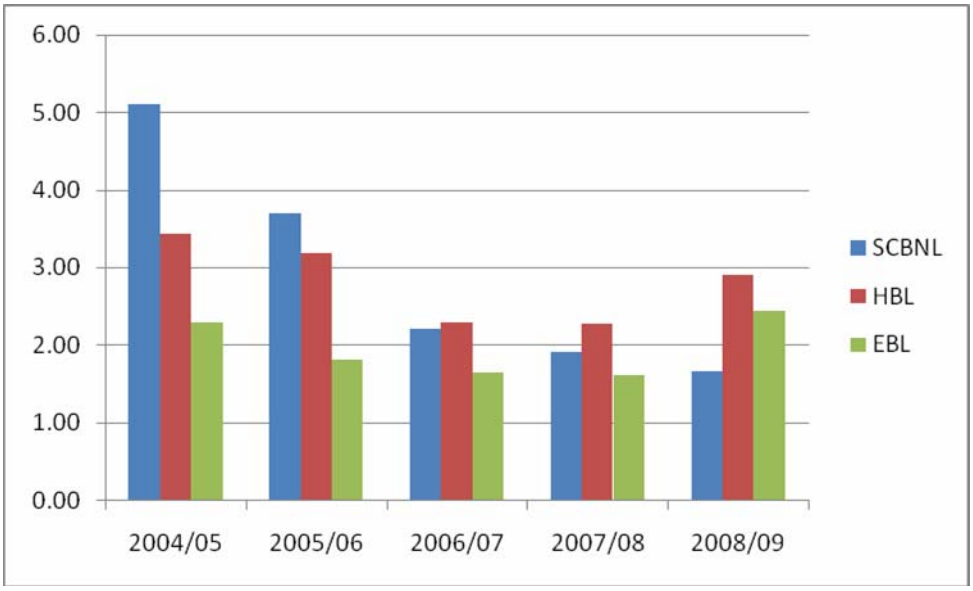
Table 9

Dividend Yield Ratio (In %)

Year	SCBNL	HBL	EBL
2004/05	5.11	3.43	2.29
2005/06	3.70	3.18	1.81
2006/07	2.20	2.29	1.64
2007/08	1.90	2.27	1.60
2008/09	1.66	2.90	2.44
Average	2.91	2.81	1.96
S.D.	1.46	0.52	0.39
C.V.	0.5017	0.1856	0.1970

Source : Annual Reports of the concerned bank

Figure 9



Above table shows dividend yield analysis for the year 2004/05 to 2008/09. In the year 2004/05 data related to dividend yield of SCBNL, HBL & EBL are 5.11%, 3.43% and 2.29%. In next years, this ratio is decrease for SCBNL. DY ratio of this bank is 3.70%, 2.20%, 1.90% and 1.66% in analysis period. In same way DY of HBL is decreased till 2007/08 i.e. 3.18%, 2.29% and 2.27% and increased in 2008/09 to 2.90%. DY of EBL is also decreased till 2007/08 i.e. 1.81%, 1.64% and 1.60% and increased in 2008/09 to 2.44%.

In average, SCBNL dividend yield ratio i.e. 2.91% is highest at all and EBL is the lowest i.e.1.96%. The dividend yeild ratio of HBL is 2.81% in average.

The coefficient of variation analysis shows that the DY of HBL has least fluctuation with least CV value of 18.56% while SCBNL has highest CV of 50.17% that shows the highet fluctuation of dividend yeild ratio.

4.1.8. Price Earning Ratio Analysis

This ratio reflects the price currently paid by the market for each rupee of current reported earning per share (EPS). It is calculated by dividing the market value share (MVPS) by earning per share. PE ratio is the investor's exception towards the company's financial performance. It gives the knowledge of financial protection towards owner which also indicated the market appraisals of the different banks.

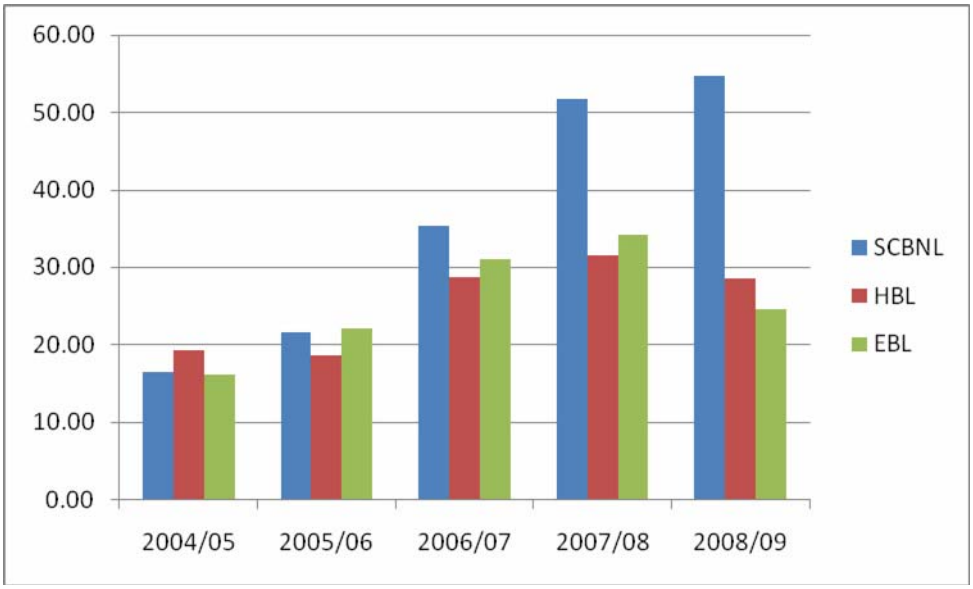
Table 10

Price Earning Ratio (In times)

Year	SCBNL	HBL	EBL
2004/05	16.38	19.20	16.05
2005/06	21.47	18.57	21.97
2006/07	35.23	28.68	30.99
2007/08	51.77	31.56	34.11
2008/09	54.64	28.43	24.55
Average	35.90	25.29	25.53
S.D.	17.27	5.98	7.19
C.V.	0.4810	0.2364	0.2818

Source : Annual Reports of the concerned bank

Figure 10



The table 10 describes the price earning ratio of the three sample banks. This study helps us to study the relationship between earning per share and market value per share. In the year 2004/05 and 2005/06, all banks PE ratios are below 25 times. Then PE ratio of selected banks is gone up rapidly. The PE ratio of SCBNL is 35.23, 51.77 and 54.67 times in 2006/07, 2007/08 and 2008/09 respectively. This ratio of HBL is 28.68, 31.56 and 28.43 times and EBL is 30.99, 34.11 and 24.55 times in this period.

Average PE ratio of SCBNL, HBL & EBL are 35.90 times, 25.29 times and 25.53 times respectively in analysis period.

The coefficient of variation analysis shows that the PE ratio of HBL is least fluctuation i.e. 23.64% of VC. On the other hand C.V. of SCBNL is highest i.e. 48.10%. This shows that PE of SCBNL is highly fluctuated in analysis period.

4.1.9. Profitability Ratio Analysis

Profitability ratio is the ratio between gross profit and total assets of company. It is calculated by dividing gross profit by total assets.The greater the ratio shows the better performance of company.

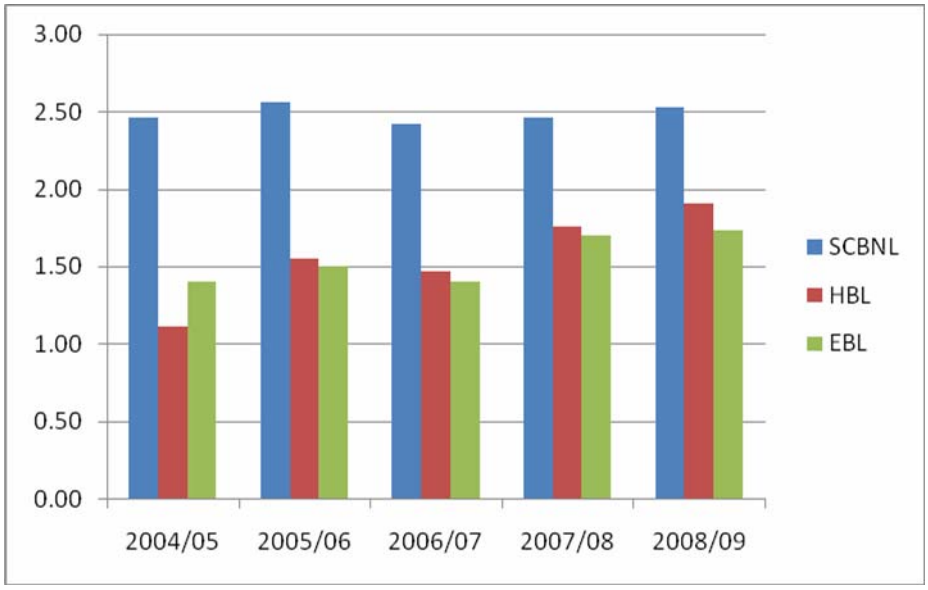
Table 11

Profitability Ratio Analysis (in %)

Year	SCBNL	HBL	EBL
2004/05	2.46	1.11	1.40
2005/06	2.56	1.55	1.50
2006/07	2.42	1.47	1.40
2007/08	2.46	1.76	1.70
2008/09	2.53	1.91	1.73
Average	2.49	1.56	1.55
S.D.	0.06	0.31	0.16
C.V.	0.0230	0.1958	0.1035

Source : Annual Reports of the concerned bank

Figure 11



The table 11 shows profitability ratio analysis of selected joint venture banks for the year 2004/05 to 2008/09.

In the analysis five years period, the profitability ratio of SCBNL is 2.46%, 2.56%, 2.42%, 2.46% and 2.53% respectively. In same period this ratio of HBL is 1.11%, 1.55%, 1.47%, 1.76 and 1.91% where as profitability ratio of EBL is 1.40%, 1.50%, 1.40%, 1.70% and 1.73% in analysis period. This shows that profitablity ratio of all sample banks are in increasing trend. The average profitabilty ratio of sample banks is 2.49%, 1.56% and 1.55% respectively. After analysing the average profitability

ratio, the profitability of SCBNL is the highest among three banks and we can concluded that the performance of SCBNL is best among three sample banks.

The coefficient of variation analysis shows that the profitability ratio of SCBNL is least fluctuating with CV of 2.30% and SD of 0.06 while profitability of HBL and EBL is highly fluctuating with CV of 19.58% and 10.35% respectively.

4.1.10. Liquidity Ratio Analysis

Liquidity ratio is the ratio between current assets and current liability of company. This ratio is calculated through dividing current assets by current liabilities.

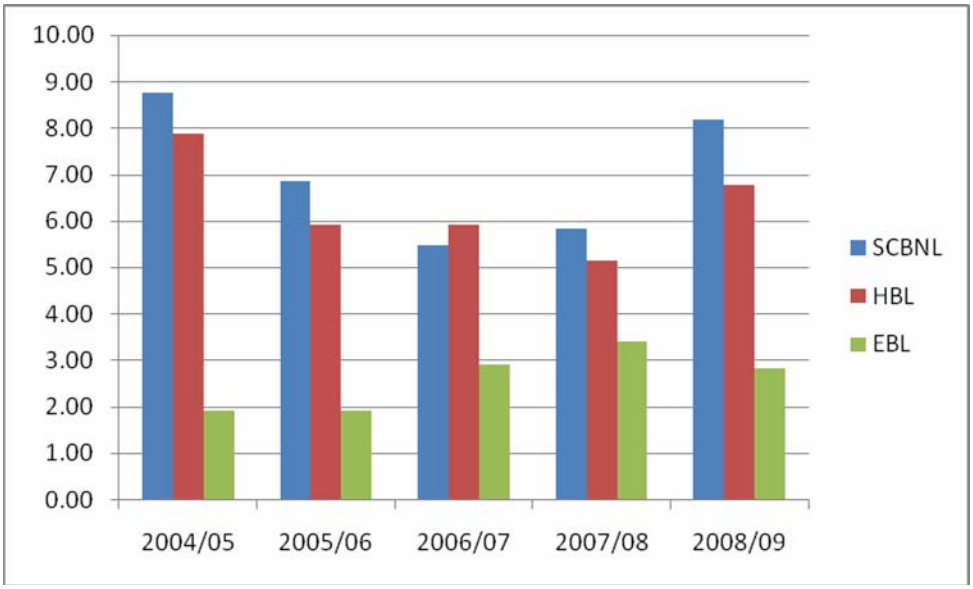
Table 12

Liquibility Ratio (In times)

Year	SCBNL	HBL	EBL
2004/05	8.77	7.86	1.90
2005/06	6.86	5.92	1.90
2006/07	5.46	5.92	2.90
2007/08	5.84	5.13	3.40
2008/09	8.18	6.76	2.83
Average	7.02	6.32	2.59
S.D.	1.44	1.04	0.66
C.V.	0.2046	0.1641	0.2566

Source : Annual Reports of the concerned bank

Figure 12



The table 12 shows that the liquidity ratio of the three sample bank for past five years. In analysis period, the current ratio of SCBNL is 8.77, 6.86, 5.46, 5.84 and 8.18 times. This ratio of HBL is 7.86, 5.92, 5.92, 5.13 and 6.76 times in analysis period. The current ratio of EBL is also 1.90, 1.90, 2.90, 3.40 and 2.83 times in analysis period. Average of this ratio is 7.02, 6.32 and 2.59 times which indicate the liquidity condition of all banks is in satisfactory level. Even though the liquidity position of SCBNL is most satisfactory than others and EBL's condition is in considerable level.

The coefficient of variation of liquidity ratio of these three banks are 20.46%, 16.41% and25.66% respectively. It shows that liquidity ratio of HBL is lowest fluctuation among three sample banks.

4.2. Correlation Analysis

Correlation analysis is the statistical tools that we can use to describe the degree to which one variable is linearly related to other variables. It deals to determine the degree of relationship between two or more variables. Its value is limited between the range +1 & -1. Thus if the variable were perfect correlated, returns on these would move up and down together. The variable of such would be exactly as risky as the individual stocks.

The variable negatively correlated would more perfectly together but in exactly opposite direction. In this audition, risk can be eliminated completely. But perfect negative correlation almost never find in the real world. The correlation between different variables, their coefficients, probable errors and interpretation are presented in following tables.

4.2.1 Correlation between EPS and DPS

Table 13

Name of Bank	Correlation coefficient (r)	Relatioship between variables	Coefficient Determinant (r^2)	Probable Error (PE)	Significant/ Insignificant
SCBNL	0.8624	positive	0.7437	0.0771	significant
HBL	0.8630	positive	0.7447	0.0768	significant
EBL	0.9990	positive	0.9935	0.0019	significant

Source : Appendix 3

Table no. 13 shows the relationship between EPS and DPS of three sample banks. It is observed that correlation coefficient(r) between EPS and DPS of sample banks is positive. Correlation

cofficient of sample banks is more than 0.75 which inducates that EPS and DPS of banks are strongly correlated.

The coefficient of determinant is more precise measure of strenth of the relationship between two variables and trends itself to more precise interpretation because it can be presented as a portion or as a percentage. The coefficient determinant between EPS and DPS of SCBNL is 0.7437, which means that the EPS determines 74.37% of variation in DPS. In same way, EPS determines 74.47% and 99.35% variation in DPS of HBL and EBL respectively.

The Probable Error (PE) is used to measure the reability and test of significance of correlation coefficient. PE is used in interpretation whether the calculated value of r is significant or not. If r < P.E., it is insignificant i.e. there is no evidence of correlation. If r> 6 P.E., it is significant. In above table all banks correlation coefficient is significant.

4.2.2 Correlation between EPS and MVPS

Table 14

Name of Bank	Correlation coefficient (r)	Relatioship between variables	Correlation Determinant (r^2)	Probable Error (PE)	Significant/ Insignificant
SCBNL	-0.3628	Negative	0.1316	0.2614	Insignificant
HBL	0.8298	Positive	0.6886	0.0937	Significant
EBL	0.8915	Positive	0.7947	0.0618	Significant

Source : Appendix 1

Table 14 shows the relationship between EPS and MVPS of three sample banks. It is observed that correlation coefficient(r) between EPS and MVPS of SCBNL is negative and rest of two banks is positive. Correlation cofficient of SCBNL is -0.3628 which indicates EPS and MVPS is not correlated. Other banks correlation coefficient is more than 0.75 which inducates that EPS and MVPS of banks are strongly correlated.

The coefficient of determinant is more precise measure of strenth of the relationship between two variables and trends itself to more precise interpretation because it can be presented as a portion or as a percentage. The coefficient determinant between EPS and MVPS of SCBNL is 0.1316, which

means that the EPS determines 13.16% of variation in MVPS. In same way, EPS determines 68.86% and 79.47% variation in MVPS of HBL and EBL respectively.

The Probable Error (PE) is used to measure the reability and test of significance of correlation coefficient. PE is used in interpretation whether the calculated value of r is significant or not. If r < P.E., it is insignificant i.e. there is no evidence of correlation. If r> 6 P.E., it is significant. In above table, correlation coefficient between EPS and MVPS of SCBNL is -0.3628 which is less than PE. So, correlation coefficient of EPS and MVPS is insignificant. Other two banks' correlation coefficient between EPS and MVPS is significant.

4.2.3 Correlation between D/P ratio and MVPS

Table 15

Name of Bank	Correlation coefficient (r)	Relatioship between variables	Correlation Determinant (r^2)	Probable Error (PE)	Significant/ Insignificant
SCBNL	0.5321	positive	0.2831	0.2158	Significant
HBL	0.7300	positive	0.5362	0.1396	Significant
EBL	0.8840	positive	0.7814	0.0658	Significant

Source : Appendix 2

Table 15 shows the relationship between D/P ratio and MVPS of three sample banks. It is observed that correlation coefficient(r) between D/P ratio and MVPS of sample banks is positive. All banks correlation coefficient is more than 0.50 which indicates that D/P ratio and MVPS of banks are correlated.

The coefficient of determinant is more precise measure of strenth of the relationship between two variables and trends itself to more precise interpretation because it can be presented as a portion or as a percentage. The coefficient determinant between D/P ratio and MVPS of SCBNL is 0.2831, which means that the D/P ratio determines 28.31% of variation in MVPS. In same way, D/P ratio determines 53.62 % and 78.14% variation in MVPS of HBL and EBL respectively.

The Probable Error (PE) is used to measure the reability and test of significance of correlation coefficient. PE is used in interpretation whether the calculated value of r is significant or not. If r

< P.E., it is insignificant i.e. there is no evidence of correlation. If r> 6 P.E., it is significant. In above table, correlation coefficient between D/P ratio and MVPS of all banks is more than 6 PE. So, correlation coefficient of D/P ratio and MVPS is significant.

4.2.4 Correlation between MVPS and last year's dividend (D_{t-1}) of related banks.

Table 16

Name of Bank	Correlation coefficient (r)	Relatioship between variables	Correlation Determinant (r^2)	Probable Error (PE)	Significant/ Insignificant
SCBNL	0.8734	Positive	0.7629	0.0713	Significant
HBL	0.8611	Positive	0.7415	0.0778	Significant
EBL	0.7262	Positive	0.5273	0.1423	Significant

Source : Appendix 4

Table 16 shows the relationship between last year dividend and MVPS of three sample banks. It is observed that correlation coefficient(r) between last year dividend and MVPS of sample banks is positive. All banks correlation coefficient is more than 0.50 which indicates that last year divided and MVPS of banks are correlated.

The coefficient of determinant is more precise measure of strenth of the relationship between two variables and trends itself to more precise interpretation because it can be presented as a portion or as a percentage. The coefficient determinant between last year dividend and MVPS of SCBNL is 0.7629, which means that the last year dividend determines 76.29% of variation in MVPS. In same way, last year dividend determines 74.15% and 52.73% variation in MVPS of HBL and EBL respectively.

The Probable Error (PE) is used to measure the reability and test of significance of correlation coefficient. PE is used in interpretation whether the calculated value of r is significant or not. If r < P.E., it is insignificant i.e. there is no evidence of correlation. If r> 6 P.E., it is significant. In above table, correlation coefficient between last year dividend and MVPS of all banks is more than 6 PE. So, correlation coefficient of last year dividend and MVPS is significant.

4.3. Regression Analysis

The regression is used to determine the statistical relationship between two or more variable and to make predicates of one variable on the basis of the others. The regression can analyse either is simple regression or multiple regressions. When we take only one independent variable and predict the value of he dependent variable through the appropriate regression line the analysis is know simple regression analysis. If the analysis is performed by the use of two or more independent variable is known as multiple regression analysis. The availability of the data has been taken for the five years.

4.3.1 Dependent Variable Market Value per Share (MVPS) is Earning per Share (EPS)

$Y = a + bX$

Where,

Y = market value per share (MVPS)

a = Regression constant

b = Regression coefficient

X = Earning per share (EPS)

Table 17

Simple Regression equation of MVPS on EPS

Banks	Constant (a)	Regression Coefficient (b)	r	r^2	t-value (Calculated)
SCBNL	8637.80	-25.16	-0.3628	0.1316	0.6743
HBL	-2196.50	63.19	0.8298	0.6886	2.5756
EBL	-1228.33	42.37	0.8915	0.7947	3.4070

Source : Appendix 1

Above table describes the major output of simple regression analysis between earning per share (EPS) independent variable and market value per share (MVPS) dependent variables of the concerned banks. As for the regression EPS and MVPS in concerned with regression coefficient (beta coefficient) of the SCBNL is -25.16, which indicate that one rupees change in EPS leads to

decrease in market price of Rs.25.16 holding other variable constant. The correlation coefficient between these two variables of SCBNL is also negative.

The beta coefficient of HBL is 63.19, which indicates that one rupees increase in EPS leads to average of Rs.63.19 increase in market price. Similarly the beta coefficient of EBL is 42.37, which indicates that one rupees increase in EPS leads to average about Rs.42.37 increase in MVPS respectively.

Coefficient of determinations (r^2) of SCBNL, HBL & EBL are 0.1316, 0.6886 and 0.7947 respectively. This indicates that 13.16%, 68.86% & 79.47% MVPS variation are explained by variation in EPS.

Since the calculated 't' value of SCBNL is 0.6743 which is lower than tabulated value of 't' i.e. 2.132 at 5% level of significance. So, the result is statistically insignificant at 5% level of significance. Hence, the calculated value of 't' of other two banks are 2.5756 and 3.4070 which are higher than the tabulated value of 't' (i.e. 2.132) at 5% level of significance. So, the result of HBL and EBL is statistically significant at 5% level of significance.

4.3.2 Dependent Variable Market Value per Share (MVPS) or last year Dividend per Share (D_{t-1})

$Y = a + bX$

Where,

Y = Market value per share

a = Regression constant

b = Regression coefficient

X = Last year Dividend per share

Table 18

Simple Regression equation of MVPS on D_{t-1}

Banks	Constant (a)	Regression Coefficient (b)	r	r^2	t-value (Calculated)
SCBNL	-12907.90	141.09	0.8734	0.7629	3.1067
HBL	61.11	41.93	0.8611	0.7415	2.9335
EBL	524.12	49.32	0.7262	0.5273	1.8293

Source : Appendix 4

Above table describes the major output of simple regression analysis between last year dividend per share, the independent variable and market value per share (MVPS) dependent variables of the concerned banks. As for the regression last year dividend per share and MVPS in concerned with regression coefficient (beta coefficient) is positive which indicates the positive correlation is exist between variables. This indicates that one rupees increase in dividend causes Rs. 141.09, Rs. 41.93 and Rs. 49.32 increase in the price of stock of SCBNL, HBL and EBL respectively holding other variable constant.

Coefficient of determinations (r^2) of SCBNL, HBL & EBL are 0.7629, 0.7415 and 0.5273 respectively. This indicates that 76.29%, 74.15% and 52.73% MVPS variation are explained by variation in last year dividend per share.

Since the calculated 't' value of SCBNL, HBL and EBL is 3.1067, 2.9335 and 1.8293 respectively. Among them, calculated t value of SCBNL and HBL is higher than tabulated value of 't' i.e. 2.132 at 5% level of significance. So, the result of these two banks is statistically significant at 5% level of significance. Hence, calculated t value of EBL is lower than tabulated value of 't' i.e. 2.132 at 5% level of significance. So, the result of this bank is statistically insignificant at 5% level of significance.

4.3.3 Dependent Variable Dividend per Share (DPS) on Earning per Share (EPS)

$Y = a + bX$

Where,

Y = Dividend per share

a = Regression constant

b = Regression coefficient

X = Earning per Share

Table 19

Simple Regression equation of DPS on EPS

Banks	Constant (a)	Regression Coefficient (b)	r	r^2	t-value (Calculated)
SCBNL	52.67	0.490	0.8624	0.7437	2.9508
HBL	-8.24	0.808	0.8630	0.7447	2.9586
EBL	-28.37	0.870	0.9990	0.9935	0.0806

Source : Appendix 3

Above table describes the major output of simple regression analysis between earning per share, the independent variable and dividend per share (DPS) dependent variables of the concerned banks. As for the regression EPS and DPS in concerned with regression coefficient (beta coefficient) is positive which indicates the positive correlation is exist between variables. This indicates that one rupees increase in EPS causes Rs. 0.490, Rs. 0.808 and Rs. 0.870 increase in the DPS of SCBNL, HBL and EBL respectively holding other variables constant.

Coefficient of determinations (r^2) of SCBNL, HBL & EBL are 0.7437, 0.7447 and 0.9935 respectively. This indicates that 74.37%, 74.47% and 99.35% DPS variation are explained by variation in EPS.

Since the calculated 't' value of SCBNL, HBL and EBL is 2.9508,2.9586 and 0.0806 respectively. Among them, calculated t value of SCBNL and HBL is higher than tabulated value of 't' i.e. 2.132 at 5% level of significance. So, the result of these two banks is statistically significant at 5% level of significance. Hence, calculated t value of EBL is lower than tabulated value of 't' at 5% level of significance. So, the result of this bank is statistically insignificant at 5% level of significance.

4.4 Test of Hypothesis

Hypothesis is usually considered as the principal instrument in research. It can also be considered as suggested solution of the research problems. Its main function is to suggest new experiments and observations. With the available data decision-makers applied the hypothesis testing and give the decision accordingly.

In this study, null and alternative hypothesis have been formulated to test whether the defference between DPS and EPS of sample banks are statistically significant or not with using 5% level of significance.

4.4.1 First Hypothesis

Null Hypothesis (H_0) : $\mu 1 = \mu 2 = \mu 3$

There is no significant different in DPS on sample commercial banks.

Alternative hypothesis (H_1): $\mu 1 \neq \mu 2 \neq \mu 3$

There is significant difference in DPS on sample commercial banks.

Table 20

Dividend per share (total)

Year	SCBNL	HBL	EBL
2004/05	120.00	31.58	20.00
2005/06	140.00	35.00	25.00
2006/07	130.00	40.00	40.00
2007/08	130.00	45.00	50.00
2008/09	100.00	43.56	60.00

Computation of Test Statistics 'F'.

Correction Factor (CF) = 68,025.52

Total Sum of Squares (TSS) = 26,244.24

Sum of Squares between Samples (SSC) = 24,075.40

Sum of Squares within Samples (SSW) = TSS – SSC = 2168.84

Table no.21

ANOVA Table

Sources of Variations	**Sum of Squares**	**Degree of Freedom**	**Mean Sum of Squares**	**F ratio**
Between Banks (SSC)	24,075.40	3-1=2	MSB = $\frac{SSC}{d.f}$ = 12,037.70	F = $\frac{MSB}{MSW}$ =66.60
Within Banks (SSW)	2,168.84	15-3 =12	MSW = $\frac{SSW}{d.f}$ = 180.74	
Total (TSS)	26,244.24	15-1= 14		

Source : Appendix5

Degree of freedom = (k-1) and (N- k) = 3-1 and 15-3 = 2 and 12.

Critical Value: The tabulated value of F at 5% level of significane for 2 and 12 d.f. is 3.89.
Decision: Since the calculated value of F (66.60) is greater than the tabulated value of F, the null hypothesis is rejected. Therefore, we can conclude that there is significant difference in DPS of sample banks at 5% level of significance.

4.4.2 Second Hypothesis

Null Hypothesis (H_0) : $\mu 1 = \mu 2 = \mu 3$

There is not significant difference in EPS on sample commercial banks.

Alternative Hypothesis (H_1) $\mu 1 \neq \mu 2 \neq \mu 3$

There is significant difference in EPS on sample commercial banks.

Table 22

Earning Per Share (In Rs.)

Year	SCBNL	HBL	EBL
2004/05	143.14	47.91	54.22
2005/06	175.84	59.24	62.78
2006/07	167.47	60.66	78.42
2007/08	131.92	62.74	91.82
2008/09	109.99	61.90	99.99

Computation of Test Statistics 'F'.

Correction Factor (CF) = 132,171.77

Total Sum of Squares (TSS) = 25,495.89

Sum of Squares between Samples (SSC) = 21,024.70

Sum of Squares within Samples (SSW) = TSS- SSC = 4,471.19

Table no.23

ANOVA Table

Sources of Variations	Sum of Squares	Degree of Freedom	Mean Sum of Squares	F ratio
Between Banks (SSC)	21,024.70	3-1=2	MSB = $\frac{SSC}{d.f}$ = 10512.35	F = $\frac{MSC}{MSW}$ = 28.21
Within Banks (SSW)	4,471.19	15-3 =12	MSW = $\frac{SSW}{d.f}$ = 372.60	
Total (TSS)	25,495.89	15-1= 14		

Source : Appendix6

Degree of freedom = (k-1) and (N- k) = 3-1 and 15-3 = 2 and 12.

Critical Value: The tabulated value of F at 5% level of significane for 2 and 12 d.f. is 3.89.

Decision: Since the calculated value of F (28.21) is greater than the tabulated value of F, the null hypothesis is rejected. Therefore, we can conclude that there is significant difference in EPS of sample banks at 5% level of significance.

4.5 Major Findings

1. DPS (cash) of SCBNL is highest in analysis period with average of Rs. 92.00 per share. Hence, the DPS of HBL and EBL is lower than SCBNL with average of Rs. 18.72 and Rs. 17.00 per share. Cash dividend of SCBNL is in decreasing trend and oher two banks trend is fluctuted.
2. After stastical analysis of DPS, it is found that C.V of SCBNL is 35.56% which is lowest and EBL is 70.83% that is highest among sample banks. This shows that DPS of SCBNL is more consistent and stable than other two banks. In same way, DPS of EBL is less consistent and less stable than others.
3. EPS of SCBNL is higher than other selected banks HBL ansd EBL. EPS always shows the performance of banks. So, it is concluded that the performance of SCBNL is better than other two banks.

4. After statistical anlysis of EPS, CV of HBL is lowest among three banks i.e. 10.36% and EBL is highest i.e. 24.76%. This shows that EPS of HBL is more consistent and stable than other two banks. In same way, EPS of EBL is less stable than other two banks.
5. All sample banks has increased or decresed the dividend per share every year as per increased or decreased of earning per share. The percentage of changing in EPS and DPS is consequent.
6. Average dividend pay out ratio of SCBNL, HBL and EBL in analysis period is 86.12%, 66.60% and 48.43% respectively. The CV of dividend payout ratio of HBL is lowest and EBL is highest. This analysis indicates that SCBNL has distributed more amounts of earnings to its shareholders and EBL has distributed the lowest among sample banks. But dividend payout raio of HBL is most consistent among sample companies.
7. Dividend yeild ratio of sample banks is not more than 6% in analysis period. Dividend yeild ratio of SCBNL is decreased every year with higher increment of market price than earning and dividend per share even though average DYR ratio is highest among sample banks. But DYR of other banks are not so highly fluctuated and in same level.
8. The sample banks have distributed the cash dividend and stock dividend jointly in analysis period. All sample banks have distributed higher percent of cash dividend in early years and gradually decrease in later years. In same way, these banks have increased the stock dividend in later years.
9. The correlation coefficient between EPS and DPS is positive for all three sample banks in analysis period. This indicates the EPS and DPS are correlated. The coefficient determinant is more than 70% of all three banks in analysis period. This indicates that more than 70% stock variation is explained by variation in EPS. The correlation coefficient between EPS and DPS of sample banks is significant because the value of r of sample banks is greater than 6 PE.
10. The correlation coefficient between EPS and MVPS is negative for SCBNL and coefficient determinant is 13.16%. This indicates the EPS and MVPS are negatively correlated. The value of r is less than PE. So, it is said that the correlation coefficient between EPS and MVPS of SCBNL is insignificant. Hence, the cirrelation coefficient between EPS and MVPS is positive for HBL and EBL in analysis period. This indicates the EPS and MVPS correlated for these banks. The coefficient determinant is more than 60% of these two banks in

analysis period. The correlation coefficient between EPS and DPS of HBL and EBL is significant.

11. D/P ratio and MVPS of sample three banks are positively correlated and relatioship between two variables is also significant.
12. The correlation coefficient between MVPS and last year DPS is positive for all three sample banks in analysis period. This indicates the MVPS and last year DPS are correlated. The coefficient determinants are 0.7629, 0.7415 and 0.5273 for three banks in analysis period. This indicates that 76.29%, 74.15% and 52.73% stock variation is explained by variation in last year DPS for three banks respectively. The correlation coefficient between MVPS and last year DPS of sample banks is significant because the value of r of sample banks is greater than 6 PE.
13. The regression coefficient (b) of MVPS(dependend variable) on EPS(independend variable) of SCBNL is -25.16, HBL is 63.19 and EBL is 42.37. This indicates one rupee change in EPS leads Rs. -25.16, 63.19 and 42.37 changes in MVPS of concerned banks respectively.
14. Calculated t value of MVPS and EPS of SCBNL is 0.6743 which is lower than tabulated value of t i.e. 2.132 at 5% level of significance. It means the result is insignificant at 5% level of significance. Hence, the calculated value of 't' of other two banks MVPS and EPS are 2.5756 and 3.4070 respectively which are higher than the tabulated value of 't' (i.e. 2.132) at 5% level of significance. So, the result of HBL and EBL is statistically significant at 5% level of significance.
15. The regression coefficient (b) of MVPS (dependend variable) on last year DPS (independend variable) of sample banks are 141.09, 41.93 and 49.32. This indicates one rupee change in last year DPS leads Rs. 14.09, 41.93 and 49.32 changes in MVPS of concerned banks respectively.
16. Calculated t valueof MVPS and last year DPS of SCBNL, HBL and EBL is 3.1067, 2.9335 and 1.8293 respectively. Among them, calculated t value of SCBNL and HBL is higher than tabulated value of 't' i.e. 2.132 at 5% level of significance. So, the result of these two banks is statistically significant at 5% level of significance. Hence, calculated t value of EBL is lower than tabulated value of 't' at 5% level of significance. So, the result of this bank is statistically insignificant at 5% level of significance.

17. The regression coefficients (b) of DPS (dependend variable) on EPS (independend variable) of sample banks are 0.490, 0.808 and 0.870. This indicates one rupee change in EPS leads Rs.0.490, 0.808 and 0.870 changes in DPS of concerned banks respectively.
18. Calculated t valueof DPS and EPS of SCBNL, HBL and EBL is 2.9508, 2.9586 and 0.0806 respectively. Among them, calculated t value of SCBNL and HBL is higher than tabulated value of 't' i.e. 2.132 at 5% level of significance. So, the result of these two banks is statistically significant at 5% level of significance. Hence, calculated t value of EBL is lower than tabulated value of 't' at 5% level of significance. So, the result of this bank is statistically insignificant at 5% level of significance.
19. In first hypothesis test, the calculated value of F (66.60) is less than tabulated value of F i.e. 3.89 at 5% level of significance for 2 and 12 d. f., the null hypothesis is rejected. Therefore, we can conclude that there is significant difference in DPS of sample banks at 5% level of significance.
20. In second hypothesis test, calculated value of F (28.21) is less than tabulated value of F i.e. 3.89 at 5% level of significance for 2 and 12 d. f., the null hypothesis is rejected. Therefore, we can coclude that there is no significant difference in EPS of sample banks at 5% level of significance.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

In this chapter, the summary of the study with conclusions and recommendations on the basis of analysis of data and findings of study have been presented.

5.1 Summary

The shareholders have invested their money as capital in company to earn return. Dividend is income or return that the shareholders received physically from the company. Dividend refers to the portion of net earning which is paid out to shareholders. In other words, dividend is the earning or profit distributed to shareholders by a company. It may be in cash, shares and securities or a combination of these. Dividend decision is the major financial decision of management because firm has to choose one alternative between distributing earnings to its shareholders or retained the earning for reinvesting in the firm.

Generally, dividend is known as the physical return of investment. In this sense dividend is normally paid in cash to the shareholders.When the company is incapable to pay dividend in cash, different forms of dividend payment models are used to satisfy its shareholders. The different types of dividend such as cash dividend, stock dividend, bond dividend, scrip dividend, property dividend, stock split, reverse stock split and stock repurchase are discussed in this study. In same way, different types of dividend policies like stable dividend polcy, regular plus extra dividend policy, irregular dividend policy, fixed dividend per share policy, mixed policy etc are briefly discussed in this study.

Dividend policy of firm may be affected by different factors such as earning, liquidity position, networth, investing opportunities, expectation of shareholders and policies followed by other companies, legal provision of nation etc. Considering all these factors, management has to take the appropriate dividend policy to satisfy existing shareholders with maintaining financial soundness of company.

The main objectives of the study is to study the major dividend policies and practices followed by Nepalese joint venture banks and examine the relationship between earnings, dividends, retained earnings and market price of stocks, dividend payout ratio, dividend yield and liquidity ratio. Because of various limitations only three joint venture banks are selected as sample for this study.

This study is mainly based on secondary data of selected three joint venture commercial banks. The source of data is the annual reports published by related banks in different fiscal year and data available at site of Nepal Stock Exchange.

Many financial and statistical tools are used to find out appropriate relationship between dividend and other financial variables of banks which helps to make the study reliable and realistic. The relationship between variables is statistically tested at 5% level of significance. This study has been organised into five major parts. The brief introduction, objectives, limitations of study has been mentioned in first chapter. The available related litratures have been reviewed in second chapter. In same way, research methodology is described in third chapter. All available data are presented and analysis with using different financial and statistical tools and summarize the findings of analysis in chapter four. In this final chapter, an attempt has made to present summary, conclusions and recommendations.

5.2 Conclusion

From the analysis of various financial indicators and statistical tools of sample banks, following facts can be concluded:

- Above mentioned major findings led this study concludes that the earning of banks are satisfactory in Nepalese context. Among sample banks, SCBNL is in leading position in terms of earning and DPS followed by EBL and HBL in analysis period.
- It is found that there is no consistecy in dividend distribution in sample banks. The research shows that these companies have no defined policy regarding distribution of the dividend payments. However these all companies have distributed certain amount of cash dividend and certain percent of stock dividend in analysis period. Among sample bnaks, SCBNL has paid the higher dividend than other banks in analysis period.
- Average price earning ratio of sample banks seems more than 25 times and dividend yeild ratio is less than 3% in average. This indicates that the market price of share seems high considering its earning and dividend payment.
- It is found that there is negative and insignificant relationship between earning and market value of SCBNL. This indicates that the price of this company's share is affected by other factors than earning. But other companies' earning and market price of share is positively correlated and relationship between these variables is

significant. Though there is positive and significant relationship between market value per share and last year's dividend.

- From this study, it has been found that the market price of stock is affected by other variables than earnings which indicate the rational behaviour of investors.
- The EPS and DPS of sample banks are highly correlated. It means the dividend per share of company is increased when the earning of banks is increased.
- There is significance difference in EPS and DPS of sample banks in analysis period.
- At last, this study examines and analyses the dividend policy and practices of three joint venture commercial banks for the period of five years from 2004/05 to 2008/09 due to the limitation of time and other constraint.

5.3 Recommendations

Based on major findings and conclusion drawn, some recommendations are provided below, hoping that these will be helpfull to overcome the issues in dividend practices in Nepal.

- The bank should consider the existing conditions and expectations of shareholders while distribiting dividends so that distributed dividend should meet the expectation of the shareholders as far as possible.
- The capital market of Nepal is going down day by day in this time. So, most of the investors are expecting a quick return on their investment rather than long term return. They prefer dividend in form of cash rather than stock. So, cash dividend should be distributed to satisfy the existing stockholders of company.
- Nepalese commercial banks have not followed any specific dividend policy till now. BOD has decided to distribute the dividend in any form. This dividend should be accepted by other shareholders. Nepalese commercial banks are not applying specific dividend policy like stable dividend, constant pay out, low regular and extra policy etc. So, there is uncertainty in dividend distribution to general shareholders. To reduce that uncertainty and maintain certain level of MVPS, companies should have declared the particular dividend policy and dividend pay out policy for short term and long term.
- In Nepalese context, there are only two forms of dividend used in practice i.e. stock dividend and cash dividend. Shareholders have to accept their offer without any hesitation. If shareholder wants to take another form of dividend instead of offered dividend, at this moment comapany has to provide the opportunity to choose the

alternatives. There are other forms of dividend like bond dividend, property dividend, script dividend etc. These forms of dividend can be proposed to the shareholders in annual general meeting for approval, if possible.

- In this study, SCBNL has the highest average dividend yeild ratio in analysis period i.e. 2.91%. This indicates that one shareholder who has purchased the share from market can get only 2.91% return of his investment. But the interest rate of deposits is more than 5% at present in our market. This situation has demotivated the new investors to enter in financial market. So, companies have to increase their performance and have to increase the amount of dividend to maintain the market price of share and not redice the worth of existing shareholders.
- There is lack of rules binding companies to pay dividend. The legal rules for the treatment of dividend are most for the smooth growth of national economy. Some regulating acts are silent on these matters most of the companies are paying dividend less than interest rate paid by commercial banks. In this situation, it is necessary to enact legal rules that bind companies to pay dividend and that regulates and market self- functioning to the stock market for this purpose. GON, NEPSE, SEBON and other concerned parties should do work together.
- The directors and managers of companies are selected or appointed to do the work on behalf of shareholders. They should develop certain programs to impove efficiency and reduce the government and concerned authorities' interference in daily operation. So, managers and directors has to fulfilled their duties and responsiblities to protect and fullfil the shareholders' interest. They should not operate the organisation on the desired of themselves.
- It is recommended that optimum dividend policy should be prepare by company based on following criteria which help to increase the networth of company, grab the investment opportunity and satisfy the existing shareholders.
    a. The optimum retention policy should be prepared for expansion and mordernization of company.
    b. The optimum dividend policy should be prepared that will help to increase the market value per share. Then net present value of shareholders weath can be maximized and prospecting investors are attracted to invest in company.
    c. The company should adopt the stable or consistency in dividend payment.

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APPENDIX 1

Calculation of Correlation coefficient, coefficient determinants, P.E., regression coefficient, regression constant and t values between EPS and MVPS

Standard Chartered Bank

Year	EPS(X)	MVPS(Y)	XY	X2	Y2
2004/05	143.14	2345	335663.30	20489.06	5499025
2005/06	175.84	3775	663796.00	30919.71	14250625
2006/07	167.47	5900	988073.00	28046.2	34810000
2007/08	131.92	6830	901013.60	17402.89	46648900
2008/09	109.99	6010	661039.90	12097.8	36120100
Total	728.36	24860	3549585.80	108955.65	137328650

Correlation coefficient, $r = \frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$

$r = \frac{5 \times 3549585.80 - 728.36 \times 24860}{\sqrt{5 \times 108955.65 - (728.36)^2} - \sqrt{5 \times 137328650 - (24860)^2}} = -0.3628$

Coefficient Determinants, $r^2 = (-0.3628)^2 = 0.1316$.

Probable Error, P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.1316}{\sqrt{5}} = 0.2614$

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

$= \frac{5 \times 3549585.80 - 728.36 \times 24860}{\sqrt{5 \times 108955.65 - (728.36)^2}} = -25.16$

Regression constant, $a = \frac{\sum Y - b\sum X}{n} = \frac{24860 - (-25.16) \times 728.36}{5} = 8637.80$

t - value, $t = \frac{r \times \sqrt{n-2}}{\sqrt{1 - r^2}} = \frac{-0.3628 \times \sqrt{5-2}}{\sqrt{1 - (-0.3628)^2}} = 0.6748$

Himalayan Bank Limited

Year	EPS(X)	MVPS(Y)	XY	X2	Y2
2004/05	47.91	920	44077.20	2295.368	846400
2005/06	59.24	1100	65164.00	3509.378	1210000
2006/07	60.66	1740	105548.40	3679.636	3027600
2007/08	62.74	1980	124225.20	3936.308	3920400
2008/09	61.9	1760	108944.00	3831.61	3097600
Total	292.45	7500	447958.80	17252.30	12102000

Correlation coefficient r = $$\frac{n\Sigma XY - \Sigma X\Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 447958.80 - 292.45 \times 7500}{\sqrt{5 \times 17252.30 - (292.45)^2} - \sqrt{5 \times 12102000 - (7500)^2}} = 0.8298$$

Coefficient Determinants $r^2 = (0.8298)^2 = 0.6886$.

Probable Error P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.6886}{\sqrt{5}} = 0.0937$

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

$$= \frac{5 \times 447958.80 - 292.45 \times 7500}{\sqrt{5 \times 17252.30 - (292.45)^2}} = 63.19$$

Regression constant, $a = \frac{\sum Y - b\sum X}{n} = \frac{7500 - 63.19 \times 292.45}{5} = -2196.50$

t - value, $t = \frac{r \times \sqrt{n-2}}{\sqrt{1 - r^2}} = \frac{0.8298 \times \sqrt{5-2}}{\sqrt{1 - 0.8298)^2}} = 2.5756$

Everest Bank Limited

Year	EPS(X)	MVPS(Y)	XY	X2	Y2
2004/05	54.22	870	47171.40	2939.808	756900
2005/06	62.78	1379	86573.62	3941.328	1901641
2006/07	78.42	2430	190560.60	6149.696	5904900
2007/08	91.82	3132	287580.24	8430.912	9809424
2008/09	99.99	2455	245475.45	9998	6027025
Total	387.23	10266	857361.31	31459.75	24399890

Correlation coefficient r = $$\frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 857361.31 - 387.23 \times 10266}{\sqrt{5 \times 31459.75 - (387.23)^2} - \sqrt{5 \times 24399890 - (10266)^2}} = 0.8915$$

Coefficient of Determinants $r^2 = (0.8915)^2 = 0.7947$.

Probable Error P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.7947}{\sqrt{5}} = 0.0618$

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

$$= \frac{5 \times 857361.31 - 387.23 \times 10266}{\sqrt{5 \times 31459.75 - (387.23)^2}} = 42.37$$

Regression constant, $a = \frac{\sum Y - b\sum X}{n} = \frac{10266 - 42.37 \times 387.23}{5} = -1228.33$

t - value, $t = \frac{r \times \sqrt{n-2}}{\sqrt{1 - r^2}} = \frac{0.8915 \times \sqrt{5-2}}{\sqrt{1 - 0.8915)^2}} = 3.4070$

APPENDIX 2

Calculation of Correlation coefficient, coefficient determinants and P.E. between DPR and MVPS

Standard Chartered Bank

Year	DPR(X)	MVPS(Y)	XY	X2	Y2
2004/05	83.83	2345	196581.35	7027.469	5499025
2005/06	79.63	3775	300603.25	6340.937	14250625
2006/07	77.63	5900	458017.00	6026.417	34810000
2007/08	98.54	6830	673028.20	9710.132	46648900
2008/09	90.91	6010	546369.10	8264.628	36120100
Total	430.54	24860	2174598.90	37369.58	137328650

Correlation coefficient r = $$\frac{n\Sigma XY - \Sigma X\Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 2174598.90 - 430.54 \times 24860}{\sqrt{5 \times 37369.58 - (430.54)^2} - \sqrt{5 \times 137328650 - (24860)^2}} = 0.5321$$

Coefficient of Determinants $r^2 = (0.5321)^2 = 0.2831$.

Probable Error P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.2831}{\sqrt{5}} = 0.2158$

Himalayan Bank Ltd.

Year	DPR(X)	MVPS(Y)	XY	X2	Y2
2004/05	65.91	920	60637.20	4344.128	846400
2005/06	59.08	1100	64988.00	3490.446	1210000
2006/07	65.94	1740	114735.60	4348.084	3027600
2007/08	71.72	1980	142005.60	5143.758	3920400
2008/09	70.37	1760	123851.20	4951.937	3097600
Total	333.02	7500	506217.60	22278.35	12102000

Correlation coefficient r = $$\frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 506217.60 - 333.02 \times 7500}{\sqrt{5 \times 22278.35 - (333.02)^2} - \sqrt{5 \times 12102000 - (7500)^2}} = 0.7322$$

Coefficient of Determinants $r^2 = (0.7322)^2 = 0.5362$.

Probable Error P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.5362}{\sqrt{5}} = 0.1396$

Everest Bank Ltd.

Year	DPR(X)	MVPS(Y)	XY	X2	Y2
2004/05	36.88	870	32085.60	1360.134	756900
2005/06	39.82	1379	54911.78	1585.632	1901641
2006/07	51	2430	123930.00	2601	5904900
2007/08	54.45	3132	170537.40	2964.803	9809424
2008/09	60	2455	147300.00	3600	6027025
Total	242.15	10266	528764.78	12111.57	24399890

Correlation coefficient r = $$\frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 528764.78 - 242.15 \times 10266}{\sqrt{5 \times 12111.57 - (242.15)^2} - \sqrt{5 \times 24399890 - (10266)^2}} = 0.8840$$

Coefficient of Determinants $r^2 = (0.8840)^2 = 0.7814$.

Probable Error P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.7814}{\sqrt{5}} = 0.0658$

APPENDIX 3

Calculation of Correlation coefficient, coefficient determinants, P.E., regression coefficient, regression constant and t values between EPS and DPS

Standard Chartered Bank

Year	EPS(X)	DPS(Y)	XY	X2	Y2
2004/05	143.14	120	17176.80	20489.06	14400
2005/06	175.84	140	24617.60	30919.71	19600
2006/07	167.47	130	21771.10	28046.2	16900
2007/08	131.92	130	17149.60	17402.89	16900
2008/09	109.99	100	10999.00	12097.8	10000
Total	728.36	620	91714.10	108955.65	77800

Correlation Coefficient, r = $$\frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 91714.10 - 728.36 \times 620}{\sqrt{5 \times 108955.65 - (728.36)^2} - \sqrt{5 \times 77800 - (620)^2}} = 0.8624$$

Coefficient of Determinants, $r^2 = (0.8624)^2 = 0.7437$

Probable Error, P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.7437}{\sqrt{5}} = 0.0771$

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

$$= \frac{5 \times 91714.10 - 728.36 \times 620}{\sqrt{5 \times 108955.65 - (728.36)^2}} = 0.490$$

Regression constant, $a = \frac{\sum Y - b\sum X}{n} = \frac{620 - 0.490 \times 728.36}{5} = 52.67$

t - value, $t = \frac{r \times \sqrt{n-2}}{\sqrt{1 - r^2}} = \frac{0.8624 \times \sqrt{5-2}}{\sqrt{1 - (0.8624)^2}} = 2.9508$

Himalayan Bank Limited

Year	EPS(X)	DPS(Y)	XY	X2	Y2
2004/05	47.91	31.58	1513.00	2295.368	997.2964
2005/06	59.24	35	2073.40	3509.378	1225
2006/07	60.66	40	2426.40	3679.636	1600
2007/08	62.74	45	2823.30	3936.308	2025
2008/09	61.9	43.56	2696.36	3831.61	1897.4736
Total	292.45	195.14	11532.46	17252.30	7744.77

Correlation Coefficient, r = $$\frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 17252.30 - 292.45 \times 195.14}{\sqrt{5 \times 17252.30 - (292.45)^2} - \sqrt{5 \times 7744.77 - (195.14)^2}} = 0.8630$$

Coefficient of Determinants, $r^2 = (0.8630)^2 = 0.7447$

Probable Error, P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.7447}{\sqrt{5}} = 0.0768$

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

$$= \frac{5 \times 17252.30 - 292.45 \times 195.14}{\sqrt{5 \times 17252.30 - (292.45)^2}} = 0.808$$

Regression constant, $a = \frac{\sum Y - b\sum X}{n} = \frac{195.14 - 0.808 \times 292.45}{5} = -8.24$

t - value, $t = \frac{r \times \sqrt{n-2}}{\sqrt{1 - r^2}} = \frac{0.8630 \times \sqrt{5-2}}{\sqrt{1 - (0.8630)^2}} = 2.9586$

Everest Bank Limited

Year	EPS(X)	DPS(Y)	XY	X2	Y2
2004/05	54.22	20	1084.40	2939.808	400
2005/06	62.78	25	1569.50	3941.328	625
2006/07	78.42	40	3136.80	6149.696	1600
2007/08	91.82	50	4591.00	8430.912	2500
2008/09	99.99	60	5999.40	9998	3600
Total	387.23	195	16381.10	31459.75	8725

Correlation Coefficient, r = $$\frac{n\Sigma XY - \Sigma X\Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 16381.10 - 387.23 \times 195}{\sqrt{5 \times 31459.75 - (387.23)^2} - \sqrt{5 \times 8725 - (195)^2}} = 0.9990$$

Coefficient of Determinants, $r^2 = (0.9990)^2 = 0.9935$

Probable Error, P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.9935}{\sqrt{5}} = 0.0806$

APPENDIX 4

Calculation of Correlation coefficient, coefficient determinants, P.E., regression coefficient, regression constant and t values between MVPS(Y) and Last year DPS (X).

Himalayan Bank Limited

Year	DPS(X)	MVPS(Y)	XY	X2	Y2
2004/05	20	920	18400.00	400	846400
2005/06	31.58	1100	34738.00	997.2964	1210000
2006/07	35	1740	60900.00	1225	3027600
2007/08	40	1980	79200.00	1600	3920400
2008/09	45	1760	79200.00	2025	3097600
Total	171.58	7500	272438.00	6247.30	12102000

Correlation Coefficient, $r = \dfrac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$

$$r = \frac{5 \times 272438.00 - 171.58 \times 7500}{\sqrt{5 \times 6247.30 - (171.58)^2} - \sqrt{5 \times 12102000 - (7500)^2}} = 0.8611$$

Coefficient of Determinants, $r^2 = (0.8611)^2 = 0.7415$

Probable Error, $P.E. = 0.6745 \times \dfrac{1 - r^2}{\sqrt{n}} = 0.6745 \times \dfrac{1 - 0.7415}{\sqrt{5}} = 0.0778$

Regression coefficient, $b = \dfrac{n\sum XY - \sum X \sum Y}{n\sum X^2 - (\sum X)^2}$

$$= \frac{5 \times 272438.00 - 171.58 \times 7500}{\sqrt{5 \times 6247.30 - (171.58)^2}} = 41.93$$

Regression constant, $a = \dfrac{\sum Y - b\sum X}{n} = \dfrac{7500 - 41.93 \times 171.58}{5} = 61.11$

t - value, $t = \dfrac{r \times \sqrt{n-2}}{\sqrt{1 - r^2}} = \dfrac{0.8611 \times \sqrt{5-2}}{\sqrt{1 - (0.8611)^2}} = 2.9335$

Standard Chartered Bank

Year	DPS(X)	MVPS(Y)	XY	X2	Y2
2004/05	110	2345	257950.00	12100	5499025
2005/06	120	3775	453000.00	14400	14250625
2006/07	140	5900	826000.00	19600	34810000
2007/08	130	6830	887900.00	16900	46648900
2008/09	130	6010	781300.00	16900	36120100
Total	630	24860	3206150.00	79900.00	137328650

Correlation Coefficient, r = $$\frac{n\Sigma XY - \Sigma X\Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 3206150.00 - 630.00 \times 24860.00}{\sqrt{5 \times 79900.00 - (630.00)^2} - \sqrt{5 \times 137328650 - (24860)^2}} = 0.8734$$

Coefficient of Determinants, $r^2 = (0.8734)^2 = 0.7629$

Probable Error, P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.7629}{\sqrt{5}} = 0.0713$

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

$$= \frac{5 \times 3206150.00 - 630.00 \times 24860.00}{\sqrt{5 \times 79900.00 - (630.00)^2}} = 141.09$$

Regression constant, $a = \frac{\sum Y - b\sum X}{n} = \frac{24860 - 141.09 \times 630}{5} = -12907.90$

t - value, $t = \frac{r \times \sqrt{n-2}}{\sqrt{1 - r^2}} = \frac{0.8734 \times \sqrt{5-2}}{\sqrt{1 - (0.8734)^2}} = 3.1067$

Everest Bank Limited

Year	DPS(X)	MVPS(Y)	XY	X2	Y2
2004/05	20	870	17400.00	400	756900
2005/06	20	1379	27580.00	400	1901641
2006/07	25	2430	60750.00	625	5904900
2007/08	40	3132	125280.00	1600	9809424
2008/09	50	2455	122750.00	2500	6027025
Total	155	10266	353760.00	5525.00	24399890

Correlation Coefficient, r = $$\frac{n\Sigma XY - \Sigma X \Sigma Y}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} - \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{5 \times 353760.00 - 155.00 \times 10266.00}{\sqrt{5 \times 5525.00 - (155.00)^2} - \sqrt{5 \times 24399890.00 - (10266.00)^2}} = 0.7262$$

Coefficient of Determinants, $r^2 = (0.7262)^2 = 0.5273$

Probable Error, P.E. $= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.5273}{\sqrt{5}} = 0.1423$

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

$$= \frac{5 \times 353760.00 - 155.00 \times 10266.00}{\sqrt{5 \times 5525.00 - (155.00)^2}} = 49.32$$

Regression constant, $a = \frac{\sum Y - b\sum X}{n} = \frac{10266 - 49.32 \times 155}{5} = 524.12$

t - value, $t = \frac{r \times \sqrt{n-2}}{\sqrt{1 - r^2}} = \frac{0.7262 \times \sqrt{5-2}}{\sqrt{1 - (0.7262)^2}} = 1.8293$

APPENDIX 5

Calculation of Grand total, Correction Factor, Total Sum of Squares, Sum of Squares between and within Samples for first hypothesis.

Year/Bank	SCBNL(X_1)	HBL(X_2)	EBL(X_3)	X_1^2	X_2^2	X_3^2
2004/05	120	31.58	20	14400	997.29	400
2005/06	140	35	25	19600	1225.00	625
2006/07	130	40	40	16900	1600.00	1600
2007/08	130	45	50	16900	2025.00	2500
2008/09	100	43.56	60	10000	1897.47	3600
Total	**620**	**195.14**	**195**	**77800**	**7744.76**	**8725**

Grand Total (T) = $\Sigma X_1 + \Sigma X_2 + \Sigma X_3$ = 620 + 195.14 + 195 = 1010.14

Correction Factor (CF) = $\frac{T^2}{N} = \frac{1010.14^2}{15}$ =68025.52

Total Sum of Squares (TSS) = $\Sigma X_1^2 + \Sigma X_2^2 + \Sigma X_3^2 - CF$

= 77800 + 7744.76 + 8725 - 68025.52

= 26244.24

Sum of Squares between Samples (SSC)

$$= \frac{(\Sigma X_1)^2}{n} + \frac{(\Sigma X_2)^2}{n} + \frac{(\Sigma X_3)^2}{n} - CF$$

$$= \frac{(620)^2}{5} + \frac{(195.14)^2}{5} + \frac{(195)^2}{5} - 68025.52$$

= 24075.40

Sum of Squares within Samples (SSW)

= TSS - SSC

= 26244.24- 24075.40

= 2168.84

APPENDIX 6

Calculation of Grand total, Correction Factor, Total Sum of Squares, Sum of Squares between and within Samples for second hypothesis.

Year/Bank	SCBNL(X_1)	HBL(X_2)	EBL(X_3)	X_1^2	X_2^2	X_3^2
2004/05	143.14	47.91	54.22	20489.05	2295.37	2939.81
2005/06	175.84	59.24	62.78	30919.70	3509.38	3941.33
2006/07	167.47	60.66	78.42	28046.20	3679.63	6149.69
2007/08	131.92	62.74	91.82	17402.88	3936.31	8430.91
2008/09	109.99	61.9	99.99	12097.80	3831.61	9998.00
Total	**728.36**	**292.45**	**387.23**	**108955.63**	**17252.30**	**31459.74**

Grand Total (T) = $\Sigma X_1 + \Sigma X_2 + \Sigma X_3$ = 728.36 + 292.45 + 387.23 = 1408.04

Correction Factor (CF) = $\frac{T^2}{N} = \frac{1408.04^2}{15}$ = 132171.77

Total Sum of Squares (TSS) = $\Sigma X_1^2 + \Sigma X_2^2 + \Sigma X_3^2 - CF$

= 108955.63 + 17252.29 + 31459.74 - 132171.77

= 25495.89

Sum of Squares between Samples (SSC)

$$= \frac{(\Sigma X_1)^2}{n} + \frac{(\Sigma X_2)^2}{n} + \frac{(\Sigma X_3)^2}{n} - CF$$

$$= \frac{(728.36)^2}{5} + \frac{(292.45)^2}{5} + \frac{(387.23)^2}{5} - 132171.77$$

= 21027.70

Sum of Squares within Samples (SSW)

= TSS - SSC

= 25495.89 - 21024.70

= 4471.19