

CHAPTER - I

INTRODUCTION

1.1 General Background of the Study

Nepal is being surrounded by the two economic superpowers of the world, China and India though it is still in the list of least developed countries. Majority of the population lie below the poverty line. A large portion of GDP is equipped with agriculture i.e. 32.4% and the continuity of industrial, commercial and trading score i.e. 20.5%. Various factor like, land locked situation, poor resource mobilization, lack of entrepreneurship, lack of institutional commitment, irregular government policies, etc are responsible for the slow pace of development in Nepal.

The history of industrial development is very short in Nepal. Comparatively, industrialization and commercialization are the new phenomenon in Nepal (*Pant; 2007*). Establishment of Biratnagar Jute Mills in 1994 B.S. marked beginning of organized industry in Nepal. In the years the followed, industrial growth was accelerated. Similarly, the growth of industry in Nepal was accelerated when the government initiated the five years development plans from 2013 B.S. The government on is own investment established the industries in sectors like cement, sugar, paper, bricks etc. After 1980s the government changes its strategy from state-led development to Market-led economy. As many of the Public sector industrial units were privatized in early 1990s and a number of large corporate houses came into existence from the private investment and joint venture investment Bank and financial institution along with insurance companies began to operate throughout the nation. Sound financial structure of the nation is the symbol of rapid economic growth. Financial structure comprises financial institutions, large corporate houses, intermediary business, financial markets, financial policies, rules, regulations etc. Suitable industrial and commercial policies adopted by the nation foster the economic development. In the lack of required policies our country is still in the infant stage of economic prosperity. Establishment of large corporate houses, wider operation of them, and industry friendly environment only helps in the accumulation of huge capital via various finance companies, insurance companies and other intermediary firms.

Still in the number of large investors and industrialists in Nepal is limited. General people are not aware about the saving and capital information. This is due to lack of education in one hand and due to lack of encouraging policy towards investment in another. People have a large fund but they spend the fund in unproductive sectors like real state, housing etc. Investment in industrial and commercial sectors is comparatively less. So the government is nowadays, formulating policies which encourage saving and investment in corporate sectors. The advent of number of financial institutions is educating the people directly or indirectly in the capital market development. Economizing in consumption, saving is being the part of their income nowadays. This saving is turning into investment either in corporate sector or in others which is accelerating the speed of economy to some extent.

Why people make the investment is a major issue today. People save their income and make investment mainly for the purpose of generating additional income in future. Basically the investment made in corporate productive sectors like industry, trade and commerce yield more than the other unproductive activities. A number of investment alternatives are available in our capital markets though it is very small and in the infant stage of development. Investments in shares, debentures, preference shares, corporate bonds issued by organization institution and treasury bills, development bonds etc issued by the government are the major investment alternatives. The investment decision of either small or large investors severely affected by the return that they expect to receive from the investment. Hence, return is the major consideration for the investment. The return may be in the different forms. Investor gets dividend as return from the investment in shares and interest as return from debentures, bonds and other forms of borrowing.

The globalization and liberalization process have surmounted a worldwide pressure on planners and policy makers to design for the rapid growth. This requires a sufficient and high amount of investment, which is possible through canalization of what the people save.

Realizing the above factors the government has given primary attention on the development of the banking sector, so that it performs two major responsibilities.

- Generating income through the promotion of trade commerce and industry.
- Trapping the public saving to raise the sufficient funds for investment.

There are several joint venture banks operating in Nepal that aim at contributing to trade commercial and industrial sector of the nation. The commercial banks including joint venture banks operating in Nepal are 31 in number. Today Nepal can take legitimate pride in the remarkable growth and progress in the banking industry. Commercial banking industry has remarkably developed in a short span of time of one decade. This development has helped to mobilize the internal resources as well as the external funds of foreign investors for the economic development of country. The advantage of joint venture and private banks in Nepal has many consequences apart from performing the role of commercial banks. They introduced new philosophy and modern banking practices in Nepal. The growth of joint venture banks increased dramatically after the restoration of democracy when government adopted liberal and market oriented policy.

The establishment of joint venture after restoration of democracy in 1990 has been contributing to a gradual development of banking culture i.e. issuing credit cards, tele banking, internet banking 24 hours banking service, mobile money services etc. It has drawn a heavy attention from non- business or general public towards commercial banks.

1.1.1 Sample of the Banks

Standard Chartered Bank Nepal Limited

Standard Chartered Bank Nepal Limited, formerly known as Nepal Grindlays Bank Limited was incorporated in the year 1985 and has been in operation since 1987. On 31 July 2000, Standard Chartered Bank concluded the acquisition of ANZ Grindlays Bank from the Australia and New Zealand Banking Group Limited. With this acquisition, 50% shares of Nepal Grindlays Bank Ltd. (NGBL) previously owned by ANZ grindlays are now owned by Standard Chartered Bank Nepal Limited with effective from July 16, 2001 (www.standardcharteredbank.com.np).

The equity composition of Standard Chartered Bank Nepal Ltd. is as follows:

Standard Chartered Grindlays Bank Ltd. Australia	-	50%
Standard Chartered Bank, UK	-	25%
Local Ownership	-	25%

The Bank focuses mainly on corporate, consumer and commercial banking, providing services for international firms, as well as embassies, aid agencies, airlines, hotels and government corporations.

The banking services range includes full trade finance capabilities as well as working capital and medium term loan facilities, remittances, deposit services, credit card and ATM. For international firms, Standard Chartered Bank Nepal Limited specializes in foreign trade; bonding, remittance services and foreign exchange.

The number of branches as on Mid July 2010 is 14.

Nepal SBI Bank Limited.

Nepal SBI Bank Ltd (NSBL) is the first Nepal- Indo joint venture bank in the country. It is sponsored by three institutional promoters, namely, State Bank of India, Karmachari Sanchaya Kosh (Employees Provident Fund) and Agricultural Development Bank of Nepal. Nepal SBI Bank limited became operational on the 8th July 1993.

The Bank was registered on 2050/1/16 (28.04.1993) in the Department of Industry, HMG/ under the Company Act 2021 and Commercial Bank Act 2031. The formal inauguration of Nepal SBI Bank Limited took place on 7th July 1993. It commenced its operations on 2050/3/24(8th July, 1993). The equity composition of the Bank is as follows:

State Bank of India	-	50%
<u>Local Ownership</u>		
Agricultural Development Bank	-	5%
Nepal & employee Provident Fund	-	15%
General Public	-	30%

It has been providing services through its 43 Branches, 6 Extension and 2 PPO Counters. The services provided by Nepal SBI Bank Limited include deposits, remittances, various types of loan facilities, letter of credit, bank guarantees, retail financing(house loans, vehicle loans, Mortgage loans and education loans)etc. It has launched 365 days banking and ATM facility from its New Road branch and

Darbarmarg Branch. Very soon, it has coming with Online Banking Facilities. The number of branches as of Mid July 2010 is 43.

NABIL Bank Limited (Nepal Arab Bank Limited)

NABIL Bank Limited (Nepal Arab Bank Limited was incorporated in the year 1984 A.D.(2041BS). It commenced its operation on 12 July 1984 as the first joint venture bank in Nepal. It was listed in the Nepal Stock Exchange in the year 1986 A. D. (08/09/42 B.S.) Dubai Bank Ltd., Dubai (Later acquired by Emirates Bank International Ltd., Dubai) was the first joint venture partner to NABIL. Currently, NB (International) Ltd., Ireland is the foreign partner. NABIL Bank Limited had the official name Nepal Arab Bank Ltd. Till 31st December 2001 (*www.nabilbank.com.np*).

The equity composition of Nepal Arab Bank Limited is as follows:

Foreign Institutions	-	50%
Other licensed institutions	-	6.15%
Other Entities	-	10%
Individuals	-	3.85%
General Public	-	30%

NABIL Bank is the pioneer in introducing many innovative banking services and marketing concept in banking sector of Nepal. It operates its activities through 48 branches (as on Mid July 2010). It is the only bank having presence in the Tribhuvan International Airport. Some of the services provided by NABIL Bank Limited are accepting deposits, documentary credit, guarantees, collections, credit cards, telebanking, safe deposit lockers, fund transfer etc.

Himalayan Bank Limited

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cut-throat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities Loans and Deposits.

Legacy of Himalayan lives on in an institution that's known throughout Nepal for its innovative approaches to merchandising and customer service. Products such as Premium Saving Account, HBL Proprietary Card and Millionaire Deposit Scheme Besides services such as ATMs and Tele-banking were first introduced by HBL. Other financial institutions in the country have been following its lead by introducing similar products and services. Therefore, HBL stands for the innovations that it brings about in this country to help our Customers besides modernizing the banking sector. With the highest deposit base and loan portfolio amongst private sector banks and extending guarantees to correspondent banks covering exposure of to other local banks under HBL credit standing with foreign correspondent banks,

All Branches of HBL are integrated into Globus (developed by Temenos), the single Banking software where the Bank has made substantial investments. This has helped the Banking provide services like 'Any Branch Banking Facility', Internet Banking and SMS Banking. Living up to the expectations and aspirations of the Customers and other stakeholders of being innovative, HBL very recently introduced several new products and services. Millionaire Deposit Scheme, Small Business Enterprises Loan, Pre-paid Visa Card, International Travel Quota Credit Card, Consumer Finance through Credit Card and online TOEFL, SAT, IELTS, etc. fee payment facility are some of the products and services. HBL also has a dedicated offsite 'Disaster Recovery Management System'. Looking at the number of Nepalese workers abroad and their need for formal money transfer channel; HBL has developed exclusive and proprietary online money transfer software- HimalRemitTM. In the Middle East and Gulf region, HBL is the biggest inward remittance handling Bank in Nepal. It is providing service through its 23 branches (as on Mid July 2010).

The equity composition of HBL Bank Ltd is as:

Foreign Institutions	-	20%
Other licensed Institutions	-	-
Other Entities	-	65%
General Public	-	15%

Himalayan Bank engages in all commercial banking activities, including foreign exchange, Tele-banking facilities, trade and industry finance, consumer banking, safe deposit lockers, corporate banking with other major financial institutions in the world.

Everest Bank Limited

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. Punjab National Bank (PNB) is the joint venture partner holding 20% equity in the bank. The Everest bank is providing customer-friendly services through its Branch Network. All the branches of the bank are connected through Anywhere Branch Banking System (ABBS), which enables customers for operational transactions from any branches.

The bank has been conferred with “Bank of the Year 2006, Nepal” by the banker, a publication of financial times, London and was bestowed with the ‘NICCI Excellence award’ by Nepal India chamber of commerce for its spectacular performance under finance sector. With an aim to help Nepalese citizens working abroad, the bank has entered into arrangements with banks and finance companies indifferent countries, which enable quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and UK. Everest Bank Limited offers a wide range of service. Some of them are trade finance, deposits, fund transfer, remittances export credit, bills purchase, loans and advances locker facilities, ATM with any branches and 6 extended banking counter (as on Mid July 2010).

The equity composition of EBL Bank Ltd is as:

Foreign Institutions	-	20%
Other licensed Institutions	-	12%
Other Entities	-	68%

Everest Bank Limited offers a wide range of service. Some of them are trade finance, deposits, fund transfer; remittances export credit, bills purchase, loans and advance locker facilities, ATM with any branches and 365 days banking etc. It is providing service through its 44 branches and 6 extended banking counter (as on Mid July 2010).

1.2 Focus of the Study

In capital market, all firms operate in order to generate earnings. Shareholders make investment in equity capital with the expectation of making earnings either directly in the form of dividend or indirectly in the form of capital gains in future. Thus shareholders wealth can be increased through either dividends or capital gains. The policy of a company regarding division of profit between dividend and retention is known as dividend policy. Before making dividend decision a firm should forecast its future need for the funds and then determine the amount to be retained.

In theory of finance, dividend decision plays a very crucial role. Dividend decision however is still a crucial as well as controversial area of managerial finance. It is more technical area of finance in the sense that it is complex on having numerous implications for the firm. Dividend policy may affect the area such as financial structure of the firm, flow of funds, stock prices, investor's satisfaction growth of the firm etc. Like other major decisions of the firm i.e. investment and financing decision, the dividend decision has major role in organization.

The dividend payout reduces the amount of earnings retained in the firm and affect total amount of internal financing. For expansion of every firm, there should be extra financing. This financing can be made either through the external source or internal. The external source is the earning retained after the payment of dividend. Thus the amount of internal financing is largely dependent upon the dividend policy adopted by the firm. For the existing firm, it is very necessary to analyze which source is more profitable because the cost of external financing is relatively high as compared the retained earning due to the extra cost required.

Retained earnings are used for making investment in favorable investment opportunities, which in turn helps to increase the growth rate of the firm. The main controversy between the shareholders and management is the rate of dividend because shareholders want more dividend and management wants more amount to retain to the company for the investment purpose. Dividend policy decision is the major financial decision of the firm, which determines further capital structure and growth of the firm.

In context of Nepal, most of the public enterprises are operating in loss. In such situation it is not possible to distribute dividend. Such enterprises mainly focus on minimizing their loss. There is little company; there is a new trend of distributing dividends. Dividend distribution trend has not only attracted the investors but has also made the management conscious about the policy regarding the payment of dividend. But a number of studies have been made a conclusive relationship between dividend price and market price of share has not developed yet. So People are making investment in hunch without any requirement information.

Ascertaining the impact of dividend on market price of shares of selected organizations comparison of MPS, EPS and DPS of them are the issues and this research focus on revolving these issues. Moreover, this study focuses on the dividend practice made by selected commercial banks along with other qualitative discussion. Dividend policy is the general area of interest in the literature of finance thus; focus of the study will be exactly determining the relation of dividend and market price of shares of the selected commercial banks.

1.3 Statement of the Problem

Dividend decision is still a fundamental as well as controversial area of managerial finance. The effect of dividend policy on a corporation's market value (or market value of share) is a subject of long standing argument. But still there is no single conclusive result regarding the relationship between the dividend payment and market price of the share.

Dividend is the most stimulating factor for the investment on shares of the company is thus desirable from the stockholder's point of view; on hand the payment of dividend makes the investors happy. But in the other hand the payment of dividend decreases the internal financing required for making investment in good opportunities. This will hamper the growth of the firm. There may be various factors that cause fluctuation in share prices.

Earnings are also treated as financing sources of the firms. The firm retains the earning; its repercussion can be seen in many factors such as decreased leverage ratio,

expansion of activities and increase in profit in succeeding years, whereas if firm pays dividend, it may need to raise capital through capital market, which dilutes the ownership control. On condition the firm takes loans or raises debenture, it will affect on risk characteristics of the firm. Therefore there are many dimensions to be considered on dividend theories, policies and practices.

The capital market is an important part of corporate development of a country. Even If capital market is in the early stage of development in Nepal, Nepalese investors have heavily made investment on newly established companies, especially in the financial sector. This trend will remain to continue until the investors are satisfied by the decision made by the management of these companies. Dividend is the most inspiring aspect for the investment in the shares of various companies for an investor. Even if dividends affect the firm's value, unless management knows exactly how they affect value, there is not much that they can do to increase the shareholder's wealth. So it is necessary for the management to understand how the dividend policy effects the market valuation of the firm or market price of the stock.

Thus, this study seeks to answer the following questions:

- What are the implications of dividend on market price of share?
- What are the factors that affect the dividend and valuation of the firms?
- What is the relationship between the factors affecting dividend and valuation of the firm?
- What is the inter relation between MPS, EPS and DPS.

1.4 Objectives of the Study

The major objective of the study is to obtain in-depth knowledge about the impact of dividend policy adopted by the firm to its market price of share as well as the overall valuation of the firm. Some of the important objectives of the study can be listed as follows:

- To analyze the impact of dividend policy on market prices of share.
- To analyze the variable, such as profit, retained earnings, growth rate and other relevant variables to show relationship between the value and other indicator affecting it.

- To examine the direction and magnitude of relation between financial variables of selected banks.

For the management of any organization, examination of the relationship between dividend and market price of share may become an important guideline in setting suitable dividend policy. Major focus of this study is to trace the dividend policy adopted by the firm/ company on the market price of the share as well as the overall value of firm. This study also provides relevant and pertinent literature for future research on the area of dividend policy of managerial finance.

1.5 Significance of the Study

Nowadays people are attracted to invest in shares for the purpose of getting more return as well as to maximize their wealth. So the dividend policy has become an effective way to attract new investors, to keep present investors happy and to maintain goodwill of the company. When a new company floats shares in the capital market, very big congregation gathers to apply for owner's certificate. It indicates people's expectation on higher return of investment in shares.

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

- By means of dividend
- By capital gains i.e. increase in share price.

The dividend is most sensitive element in the area of investment in the common stock. If the market does not receive its expected dosage, stock price will suffer. Dividend announcement also help to solve symmetric information problem between management and shareholders. Besides this, shareholders usually think that dividend is less risky than capital gain and they use the announcement of changes in dividend payment in assessing the value of a security.

In Nepal, due to lack of enough knowledge, people are investing hit- or- miss in shares. It is thus necessary to establish clear conceptions about the return resulting from investing in the stocks.

Especially, the significance of the study can be summarized in the following.

- The banks under this study will be benefited in the sense that they can formulate the appropriate dividend policy so as to meet the shareholders expectation and to maximize value of the firm.
- From the sample companies a general concept about the correlation between dividend declaration and Market price of share can be developed concerned body and policy maker may use this research as a reference to make the necessary provisions regarding dividend.
- Reporting the exact relation between dividend and market price of shares empowers the investors towards rationality of making investment in secondary market in general.

1.6 Limitations of the Study

- This study has been carried out within certain limitations, which are as follows:
- This research has been done for academic purpose, thus it lacks practical implied.
- This study is based specially on secondary data like annual reports of the banks under review, journals, unpublished as well as published thesis works, other published articles and reports and related materials from various websites.
- The balance sheet, profit and loss account and accompanying notes have been basically considered as the subject matters of the study and they are assumed to be correct and true.
- The study covers a five- year period, i.e. from FY 2006/07 to FY 2010/11
- The study covers only five commercial Banks, which are:
 - a) Standard Chartered Bank Nepal Ltd.
 - b) Nepal SBI Bank Ltd.
 - c) Nabil Bank Ltd. (Nepal Arab Bank Ltd.)
 - d) Himalayan Bank Ltd.
 - e) Everest Bank Ltd.
- The study is for the partial fulfillment of the study of Master of Business Studies (MBS). So the time and cost limits restrain the study.

1.7 Organization of the Study

This study comprises of five chapter study: These bellows are the headings under which entire study has been categorized as followings:

Chapter-I: Introduction

The first Chapter indicates with the subject matter consisting introduction, statement of Problem, Objectives of Study, Significance of Study, Limitations of Study, Organizations under study and Organization of study.

Chapter-II: Review of Literature

The Second Chapter presents subject matter consisting conceptual Framework, major Forms of Dividend, Factor affecting dividend policy, Developing Dividend Policies, Legal Provisions Regarding Dividend Practices in Nepal, Review of Major International Studies and Reviews of Major Studies in Nepal.

Chapter- III: Research Methodology

The Third Chapter provides with employed methodology in studies i.e. introduction, Research Design, Population and Sample, Source of Information, Period of Study, Financial Indicators and Statistical Tools.

Chapter- IV: Presentation and Analysis of Data

The fourth Chapter deals with Presentation of Financial Variables i.e. EPS, DPS, DPR, MPS, P/E Ratio, EY, DY, MPS to BVP and Statistical Tools i.e. Correlation Analysis and Regression Analysis.

Chapter- V: Summary, conclusion and Recommendation

The fifth Chapter consists of Summary, Conclusion, Recommendation, Bibliography and Appendices.

CHAPTER - II

REVIEW OF LITERATURE

This chapter includes the literature, previous studies and conceptual frame work for the related studies such as books, research paper and other studies related to the dividend policy. This chapter has been planned as below:

- Conceptual frame work
- Review of Journals and Articles
- Review of Thesis

2.1 Conceptual Framework

2.1.1 Meaning of Dividend

“Dividend refers to that portion of retained earnings that paid to stockholders while dividend Policy refers to the policy or guidelines that management uses in establishing the portion of retained earnings that is to be paid in dividends.” (*Mathur; 1999: 297*) Dividends are generally paid in the form of cash. So the payment of dividend reduces the cash balance of the company as well as the amount of retained earnings. In theory of finance, dividend decision plays a very crucial role. Dividend decision however is still a crucial as well as controversial area of managerial finance. It is more technical area of finance in the sense that it is complex on having numerous implications for the firm. Dividend policy may affect the area such as financial structure of the firm, flow of funds, corporate liquidity, stock prices, investor’s satisfaction, growth of the firm etc. Like other major decisions of the firm i.e. investment and financing decision has major role in all businesses organizations.

Dividend policy is the policy of any firm/organization/company regarding the division of its profit between shareholders as dividend and retention of the profit for making investments. The dividend policy includes all aspects related to the payment of dividend. There is inverse relationship between cash dividend and the amount retained. In other words, if the company pays more dividends to its shareholders, there will be fewer amounts retained for making investment and vice-versa. “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.” (*Weston and Copeland; 1990: 654*) Thus, the dividend payout reduces the amount of earnings retained in the firm and affect total amount of internal financing.

Dividend decision is one of three major decision of managerial finance. The firm has to choose between distributing profit as dividend to the shareholders or reinvesting the profit into the business for more profitable opportunities. It is better to pay the dividend, if the payment will lead to the wealth maximization. If not it is better to retain them for financial investment. Thus the relationship between dividend and value of the firm is considered as the criterion for decision-making.

Shareholders of a company always aim to maximize their wealth. The shareholders wealth includes not only the market price of the stock but also the current dividend the company pays to them. But the dividend payout reduces the total amount of internal financing. Thus the dividend policy should be concerned with the well being of the shareholders, which can be partially measured in terms of the market value of the stock.

Most of the shareholders want to maximize their wealth in two forms i.e. capital gain and cash dividend. Capital gain is the profit resulting from sale of the common stock where as dividend is the share in profit of the company. The shareholders, in one hand expect an increase in market price of the share and in the other hand they also expect distribution of firm’s earning in the form of dividend. From the firms having stable image in the market, the investors expect regular dividend. Thus this priority takes over the desire to retain earnings for financial expansion and growth. Thus, shareholders expectation can be fulfilled either through capital gain or dividends.

Since dividends would be more attractive to stockholders, one might think that there would be a tendency for corporation to increase distribution of dividends. But one might equally pressure that gross dividends would be reduced somewhat, with an increase in net after tax dividends still available to stockholders, and increase in retained earnings for the corporation. Interest and corporate growth resulting from internal financing i.e. amount retained Financial Management is therefore concerned

with the activities of the corporation that affect the well being of stockholders. That well being can be partially measured by the dividend received, but more accurate measure is the market value of stock.

Thus dividend decision is one of the central and major decision area related to the policies seeking to maximize the value of firm's common stock as well as the wealth of the shareholders.

2.1.2 Major Forms of Dividend

Depending upon the objectives and policies, they implement, the firm can give various type of dividend to the shareholders. Before adopting any dividend, the firm must ensure the smooth growth of the firm as well as satisfy the expectation of the shareholders. There should be consistency in dividend policy and financial plans, shareholders preference and attitude of the directors. The corporations in Nepal are in the early stage of development due to which they need to pay extensive concentration in the dividend. The empirical observation in case of public limited companies in Nepal shows that only few corporations are paying dividend to the government due to suffering from regular losses and not having risk of ownership transfer. Some of the major forms of dividends the corporations can adopt are discussed below:

a) Cash Dividend

The portion of earning paid in form of cash to the investors in proportion to their share of the company is known as cash dividend. After the payment of dividend to the shareholders both the total assets and net worth of the company decreases by the amount equal to the cash dividend. For the payment of dividend, company should sustain adequate balance of cash. In case of insufficiency in cash balance for the payment of dividend, fund to be borrowed for this purpose is difficult. Thus a company / firm should regularly perform cash planning for maintaining a stable dividend policy. In context of Nepal, cash dividend is the most popular form of dividend and is mostly adopted by many companies / firm / financial institutions. However it can be said that the volume of cash dividend depends on the earning of the organization, attitude of management, situation of the market, cost of external financing etc.

b) Stock Dividends & Stocks Splits

Stock dividend refers to the payment of additional stock to the shareholders. A stock dividend is paid in additional shares of the stock instead of in cash and simply involves a bookkeeping transfer from retained earnings to the capital stock account. In simple words the payment of stock dividend results into their transfer of amount from accumulated earnings to share capital account. “When firm needs to retain high percentage of earnings, they issue stock so that the shareholders of the firm are not disgruntled. With the stock split, the number of shares is increased through a proportional reduction in the par value of the stock. When a stock is split, shareholders are given a larger no. of shares for the old shares they already own. In either case each shareholder retains same percentage of all outstanding stock that he / she had before the stock dividends or splits. A 10% stock dividend means that one share of stock for every ten shares already owned are given to each shareholder. In case of 2 for 1 stock split, each shareholder would be given one additional share of stock for every share already owned, thus it will double the number of shares owned by each of the shareholder. Some of the Joint Venture Companies of Nepal have adopted the policy of paying cash along with stock dividend.

One of the most common forms of stock dividend referred as bonus share, are the subscription receipt (scrip) provided to the shareholders as additional shares. Bonus share has the attribute to buoyancy so that it is more preferred by the shareholders.

The effect of a stock dividend or a stock split can be summarized as follows:

- There is no change in the firm's assets or liabilities or in shareholder's equity (assets less liabilities).
- There is fall in per share earnings, book value and market price and offsetting rise in the number of shares held by each share holder.

Stock dividend or split does not change the asset of the firm since nothing is received by the firm for new share issued. In spite of the fact that stock dividend and splits do not change the underlying assets, liabilities or equity of the firm, there is some empirical evidence that total market value of a company's equity increases when the stock dividend or split occurs (roughly a 2 to 6 percent increase).

c) Corporate Share Repurchase

Corporate share repurchase is often viewed as an alternative to paying dividends. It is buying back of some of its own stock in case of some surplus cash. A company can reduce the number of shares by repurchasing the shares. The stock price must rise after the stock repurchase if the Price earning ratio remains unchanged. "If a firm has excess cash and insufficient investment opportunities to justify the use of these funds, it is in the shareholders' interest to distribute the funds. The distribution can be accomplished either by the repurchase of stock or by a paying the funds in increased dividends. Thus corporate repurchase of stock is considered as an alternative to payment of dividend. A repurchase is a signal that managers, who possess an inside knowledge of the firm, are convinced that their stock is worth more than its current price. Their assurance is strong enough to lead them to pay a premium for the stock regardless of the risk of dilution if they are wrong.

d) Property Dividend

A property dividend can either include shares of a subsidiary company or physical assets such as inventories that the company holds. The dividend is recorded at the market value of the asset provided. This type of payout structure is less common than the regular stock or cash dividend system. From a corporate perspective, property dividends can be distributed if the parent company does not wish to dilute its current share position or if it does not have enough cash on hand to distribute healthy payments. It is also known by the name of liquidating dividend it involves a payment of assets / property in any form other than cash. Such form of dividend may be followed whenever there are assets that are no longer necessary in operation of the business or in extra ordinary circumstances; Companies own product and the securities of Subsidiaries are the example.

e) Bond Dividend

This type of dividend is distributed to the shareholders in the form of bond. It helps to postpone the payment of cash. In other words, company declares dividend in the form of its own bond with a view to avoid cash outflows. They are issued rarely. They are long term enough to fall beyond the current liability group. The stockholder becomes secured creditors if the bond carries lien on assets. But none of these types expect cash and stock dividend have been practiced in Nepalese corporations although they

have ample scope for application so far in this study, the term dividend general refers to cash dividend.

f) Composite Dividend

Composite dividend refers to the payment of dividend in the form of cash dividend as well as stock dividend. Such payment is given when company doesn't have sufficient cash to pay shareholders. In this situation company pays certain percent in cash and then after and remaining percent in stock.

2.1.3 Factors Affecting Dividend Policy

While establishing a dividend policy in any organization, various factors should be taken into consideration. Dividend is that decision, which is influenced by many internal as well as external factors. Management has to consider both economic and non-economic factors before establishing any dividend policy. In practice, the financial executives consider the following factors when approaching a dividend decision.

a. Stability of Earnings

A firm that has relatively stable earnings often able to anticipate approximately what its future earnings will be, Such a firm is therefore more likely to pay out a higher percentage of its earning than a firm with fluctuating earnings. The unstable firm is not certain that in succeeding years the anticipated earnings will be realized, so it is likely to retain a higher proportion of current earnings. A lower dividend will be easier to sustain if earnings fall of in the future.

b. Profit Rate

The expected rate of returns on assets determines the relative attractiveness of paying earnings in form of dividend to the shareholders or using them in the present venture.

c. Past Dividends

A firm with record of past dividend payments strive to maintain the same in the future. Dividends are habit forming. If the market does not receive its expected dosage, the stock price will suffer. The majority of firms surveyed indicated they would maintain their current dividend payments even if they were operating at a net

loss for an interim; furthermore, a firm should attempt to maintain an persistent record of dividend payments.

d. Liquidity Position

One of the major factors to be considered in making the dividend decisions is the availability of cash or liquidity position of a company. As dividend symbolize a cash outflow, the greater the cash position and overall liquidity of a company, the greater its ability to pay a dividend regularly. Even a company that is growing and profitable may not be liquid, for its funds may go into investment opportunities, fixed assets and permanent current assets. Thus, even if a firm has a record of earning, it may not be able to pay cash dividends because of its liquidity position.

e. Need to Repay Debt

When a firm has issued Debt to finance expansion or to substitute for other form 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 provision of paying off debt. If the decision is to retire the debt, this will generally require the retention of earning. (*Weston and Copeland; 1990: 659*) In such case also the dividend decision will be effected.

f. Restrictions in Debt Contracts

Debt contracts especially when long –term debt is involved often confine a firm’s ability to pay cash dividends. In other words the protective covenants in bond indenture or loan agreement often include a restriction on payment of dividends. The restriction is employed by the lenders to conserve the company’s ability to service debt. Generally it is articulated as maximum percentage of earnings. 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. These types of limitations persuade the dividend policy of the firm.

g. Concern about Market Price

To the extent that there are insights into the effect of dividend on valuation, they may be gathered. If a firm concern about maintaining or increasing stock prices, it may elect to pay dividends.

h. Rate of Asset Expansion

There is need of more financing if a firm is growing rapidly. The greater the future need of funds, the more likely the firm is to retain its earning rather than pay them out in form of dividends.

i. Access to Capital Market

A large and well –established firm with a record of profitability and stability of earning has easy access to capital markets and other forms of external financing. In contrast a small and new firm is riskier for potential investors. Its ability to raise equity or debt funds from capital market is restricted. So it must retain more earning to finance its operation. Thus a well-established firm have higher payout ratio than that of a new or small firm.

j Legal Restrictions

Legal rules constrain dividend payment on certain condition as follows:

- Capital impairment rule states that dividend should not be paid out of paid-up capital, which causes adverse effect on security of creditors and preference shareholders.
- The firm should not pay cash dividend greater than the current net profit plus accumulated balance of retained earning. Accumulated loss should be recouped out of current earnings. This rule is violated by some of Nepalese companies due to management intention and government intervention.
- Insolvent firms i.e. liabilities exceeding assets or unable to pay bills are prohibited for paying ash dividend to protect creditors of the firm.
- If the firm has retained earning to provide opportunity to shareholders for capital gain and thereby evade tax liability of income, under such condition the firm may be forced to pay dividends.

k. Control

With a liberal dividend policy, there may be need of raising fresh capital in future. If the current shareholders cannot or do not subscribe the new shares, new stockholders can dilute their controlling interest in the firm. Thus Shareholders who are very sensitive to a potential loss of control prefer a low dividend payout policy.

1. Inflation

Inflation also play decisive role in dividend decision. In price rise, the company may have to retain high percentage of earning because of inadequate funds generated from depreciation to replace equipments.

2.1.4 Developing Dividend Policies

Even though most firms seem to have a policy of paying stable amount of dividend or a stable dividend payout ratio, this is not only the policy. There are three major types of dividend payout schemes

2.1.4.1 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. The fixed dividend amount would be paid year after year, irrespective of the fluctuation in the earnings. 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 clearly noted that this policy does not imply that the dividend per share or dividend rate will never be increase. The dividends per share are increased over the years when the company reaches new levels of earnings and expects to maintain it. Of course, if the increase is expected to be temporary, the annual dividend per share is not changed and remains at the existing level.

It is easy to follow this policy when earnings are stable. If, the earning are stable. If the earnings pattern of a company shows wide fluctuations, it is difficult to maintain such a policy. Investors who have dividends as the only source of their income prefer the constant dividend policy.

2.1.4.2 Constant Payout Ratio

Constant / target payout ratio is another form of stable dividend policy followed by some companies. The term payout ratio refers to the ratio of dividend to earnings or the percentage share of earnings used to pay dividend. With constant/ target payout ratio, a firm pays a constant percentage of net earnings as dividend to the shareholders. Thus, amount of dividend will fluctuate in direct proportion to earnings

and are likely to be highly volatile in the wake of wide fluctuations in the earnings of the company.

This policy is related to a company's ability to pay dividends. If the company incurs losses, no dividends shall be paid regardless of the desires of shareholders. Internal financing with retained earnings is automatic when this policy is followed. At any given payout ratio the amount of dividends and the additions to retained earnings increase with increased earnings and decrease with decreased earnings. This policy simplifies the dividend decision, and has the advantage of protecting a company against over and under payment of dividend. It ensures that dividends are paid when profits are earned, and avoided when it incurs losses.

2.1.4.3 Stable Rupee Dividend Plus Extra Dividend (or Low Regular Dividend Plus Extras)

A policy of paying a low regular dividend plus a year-end extra in good years is a compromise between the previous two policies. Under this policy, a firm usually pays fixed dividend to the share holders and in years of marked prosperity additional or extra dividend is paid over and above the regular dividend. As soon as normal conditions return, the firm cuts the extra dividend and pays the normal dividend per share. It gives the firm flexibility, but it leaves investors somewhat uncertain about what their dividend income will be. If a firm's earnings and cash flows are quite volatile, however, this policy may well be the best choice.

2.1.5 Legal Provisions Regarding Dividend Practices in Nepal

In Nepal, the Nepal Company Act-1997 has made some legal provisions regarding dividend payment. These provisions are as under:

- Section 2 (M) states that bonus shares (stock dividends) means shares issued in the form of additional shares to shareholders by capitalizing the surplus from the profits or the reserve fund of a company. The term also denotes an increase in the paid up values of the shares after capitalizing surplus or reserve fund.
- Section 47 has prohibited company from purchasing its own shares. This section states that no company shall purchase its own shares or supply loans against the security of its own shares.

- Section 137 Bonus Shares and Sub Section (1) states that the company must inform the Office before issuing bonus shares. Under Sub Section (1), this may be done only according to a special resolution passed by the general meeting.
- Section 140: Dividends and Sub Sections if this Section are as follows:
 - a. Sub Section (1): 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 any law forbids the distribution of dividends.
 - In case the right to dividend is disputed.
 - In case dividends cannot be distributed within the time-limit mentioned above owing to circumstances beyond anyone's control and without any fault on the part of the company.
 - b. Sub Section (2): In case dividends are not distributed within the time limit mentioned in Sub Section (1), this shall be done by adding interest at the prescribed rate.
 - c. Sub Section (3): Only the person whose name stands registered in the register of existing shareholder at the time the dividend shall be entitled to.

2.2 Review of Major International Studies

Various studies have been made concerning the dividends and stock prices. Some of the major international studies on the relating to dividend are stated as below.

Modiglianin and Miller (1961), In their article, Modigliani and Miller, for the first time in the history of finance, advocated that dividend policy does not affect the value of the firm, i. e., dividend policy has no effect on the share price of the firm. They argued that the value of the firm depends on the firm's earnings which depend on its investment policy. Therefore, as per MM Theory, a firm's value is independent of dividend policy.

According to MM, dividend policy of a firm is irrelevant, as it does not affect the wealth of the shareholder. They argue that the value of firm depends on the earning power of the firm's assets or its investment policy. Thus, when the investment policy is given, the dividend decision – splitting the earnings into packages of retentions and

dividends does not influence the value of equity shares. In other words, the division of earnings between dividend and retained earning is irrelevant from shareholders viewpoint

In general, the argument supporting the irrelevance of dividend valuation is that dividend policy of the firm is a part of its financing decisions. As a part of the financing decision of the firm, the dividend policy of the firm is a residual decision and dividends are passive residual.

The MM approach of irrelevance dividend is based on the following critical assumptions:

- The firms operate I perfect capital market where all investors are rational. Information is freely available to all. Securities are infinitely divisible and no investor is large enough to influence the market price of securities.
- There are no flotation costs. The securities can be purchased and sold without payment of any commission or brokerage etc.
- Taxes do not exist.
- The firm has a definite (fixed) investment policy, which is not subject to change.
- Risk of uncertainty does not exist. Investors are also able to forecast future prices and dividends with certainty, and one discount rate is appropriate for all securities and all time periods. Thus $r = k = kt$ for all time.

M-M provides the proof in support of their argument in the following manner.

Step-One

The market price of a share of the firm in the beginning 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,

$$P_0 = \frac{D_1 + P_1}{1 + K_e} \dots\dots\dots 1$$

Where,

- P_0 = Current market price of a share (market price at the beginning or at the zero period).
- K_e = The cost of equity capital (assumed constant).
- D_1 = The dividend per share to be received at the end of the period one.
- P_1 = The market price of the share at the end of period one.

Step-Two

Multiply both sides of equation (1) by the number of shares outstanding (n) to obtain the total value of the firm if no new financing exists

$$nP_0 = \frac{n(D_1 + P_1)}{1 + K_e} \dots\dots\dots 2$$

Where,

n = no. of outstanding shares at zero period

Step-Three

If the firm issues (sells) number of new shares (m) to finance the new investment needs of the fund at a price of P_1 , the value of the firm at time zero will be:

$$nP_0 = \frac{nD_1 + P_1(n + m) - mP_1}{1 + K_e} \dots\dots\dots 3$$

Where,

n = no. of shares at the beginning (no. of outstanding shares at zero period.)

m = no. of equity shares issued at the end of the period.

Step-Four

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

$$mP_1 = I - (E - nD_1)$$

Or, $mP_1 = I - E + nD_1 \dots\dots\dots 4$

Where,

I = Investment needs
 E = Earning available.

Step-Five

By substituting the value of mp1 from equation (4) to equation (3), we get,

$$nP_o = \frac{nD_1 + P_1(n + m) - I + E - nD_1}{1 + K_e}$$

Or,

$$nP_o = \frac{nD_1 + nP_1 + mP_1 - I + E - nD_1}{1 + K_e}$$

Or,

$$nP_o = \frac{P_1(n+m) - I + E}{1 + K_e} \dots\dots\dots 5$$

Step-Six

Conclusions:

Since dividend does not appear directly in expression and E, I, (n+m)P₁ and ke are assumed to be independent of dividend in other words. MM concludes that dividend policy is irrelevant and dividend policy has no effect in the value of the firm. A firm that pays dividends will have to raise funds externally financing offsets its advantage.

It does not seem too relevant to apply MM approach in Nepalese context because when we apply this approach, the assumptions supposed by MM are significantly deviated. In Nepal we are unable to find rational investors as well as perfect capital market ,which are considered by MM. It does not seem so sound to neglect the flotation cost, transaction cost ad tax effect on capital gain as neglected by MM. Arbitrage arguments are explained by MM applies only when there are very sensitive investors and which lacking in Nepal’s conscious investors always finds different between dividend and retained earning thus MM proposition is not relevant in the case of Nepal.

Walter’s Study (1966): He proposed a model for share valuation according to him the dividend policy of the firm affects the value of the share. So the dividends are

relevant. He argues that the choice of the dividend policies always effect the value of enterprises

His study shows clearly the importance of relationship between internal rate of return (R) and its cost of capital (K) in determining the dividend policy.

The assumptions of the Walter's model are as follows:

- The firm finances all investment through retained earning. The external funds (i.e. debt, new equity) are not used for new investment.
- All earning on the firm's investment (R) and the cost of capital (k) are constant.
- All earnings are either distributed as dividend or reinvested internally.
- The values of EPS and DPS are assumed to remain constant forever in determining a given value.
- The firm has perpetual or infinite life.

Based on these above assumptions, Walter has given following formula of valuation of equity share.

$$P = \frac{DPS}{K_e} + \frac{r}{K_e} \frac{(EPS - DPS)}{K_e} \text{ or } P = \frac{DPS + \frac{r}{K_e} (EPS - DPS)}{K_e}$$

Where,

P = Market Value of an Equity Share (Market Price Per Share)

DPS = Dividend Per Share

EPS = Earning Per Share

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

K_e = Cost of capital / capitalization rate

According to Walter's model, the optimum dividend policy depends on the relationship between the firm's internal rate of return (R) and its cost of capital (k). Walter referred different dividend policy for different types of the firm, which can be summarized as follows.

Growth Firm (r>k)

Growth firm are those firms, which expands rapidly because of ample investment opportunities yielding return (r) is higher than the opportunity cost of capital (k).so firms having $r > k$ is referred as growth firms which are able to reinvest earning at a rate which is higher than the rate expected by shareholders. They will maximize the value per share if they follow a policy of retaining all the earnings for internal investment. Thus the correlation between dividend and stock price is negative and optimum. Payout ratio for a growth firm is zero. The market value per share (p), increases, payout ratio declines when $r > k$.

Normal Firm ($r=k$)

If the internal rate of retain is equal to cost of capital the dividend payout does not affect the value of share, i.e. dividends are indifferent form stock prices. In other words, there is no role of dividends on the stock price. Such a firm can be called as a normal firm whether the earnings are retained or disturbed as dividend; it is a matter of indifference for a normal firm. The market price of the share will remain constant for different dividend payout from zero to hundred. Thus there is no unique optimum payout ratio for a normal form. When dividend policies is good as other and the market value per share is not affected by the payout ratio when $r=k$.

Declining Firm ($r < k$)

If the internal rate of return (R) is less than cost of capital (k), it indicates that the shareholders can earn a higher return by investment elsewhere. In such a case for maximizing the value of shares, dividend also should be maximized. By distributing the entire earning as dividend, the value of the share will be at optimal m value .In other words, the market value per share of a declining firm with $r < k$ will be maximum when it does not retain earning at all. The relation between dividends and stock price is positive. The optimum payout ratio for a declining firm is 100 % and the market value per share increases as payout ratio increases when $r < k$.

Criticism of Walter's Model

(i) No External Financing

This model is based on assumption that the investment opportunities of the firm are financed by retained earnings finance the investment opportunities of the firm only no

external financing i.e. debt or equity is used for the purpose. When a situation exist either the firm's investment or dividend policy or both will be sub-optimum.

(ii) Constant Rate of Return (R) and Opportunity Cost of Capital (K)

This model assumes that the rate of return (R) and opportunity cost of capital or discount rate (k) are constant .In fact rate of return(R) changes with increase or decrease of investment i.e. R decreases as more investment occurs and cost of capital (k) changes directly with the risks borne by the firms.

Gordon's Study (1962): Myron Gordon has developed another popular and important model relating to the stock valuation using the dividend capitalization approach. Gordon concludes that dividend policy does affect the value of share even when the return on investment and required rate of return are equal. He explains that investors are not different between current dividend and retention of earning with the prospect of future dividends, capital gain and both. The conclusion of this study is that investor has a strong preference for present dividends to future capital gain under the condition of uncertainty. It is assumed that current dividend is less risky than the expected capital gain. His argument stresses that an increase in dividend payout ratio leads to increase in the stock price for the reason that investors consider the dividend yield (D_1/P_0) is less risky than the expected gain.

Gordon's model is also described as "a bird in a hand argument"; it supports the arguments, which is popularly known as a bird in a hand is worth two in the bush. What is available at present is preferable than what may be available in the future. That is to say current dividends are considered certain and risk-less. So it is preferred by rational investors would naturally like to avoid uncertainty. So the current dividend is given increases if dividends payout ratio increases. This means there exist positive relationships between the amount of dividend and stock prices.

Basis assumptions of this model are as follows. (Francis, 1972)

- The firm uses equity capital only.
- Internal rate of return (r) and cost of capital (K_e) are constant.
- The firm and its stream of earnings are perpetual.

- There is no tax on corporate income.
- The retention ratio (b) once decided upon is constant. Thus the rate, (g=br) is constant forever.
- 'K_e' must be greater than g (=br) to get meaningful value.
- The source of financing for new investment is only retained earning. No external financial is available.

Gordon's model is also known as **Growth Model**. The formula for finding out the market value per share, proposed by Gordon is given below.

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

Where,

P = Price of share/market value per share

E = Earnings per share

b = Retention ratio/percentage of retained earning

1-b = Dividend payout ratio (i.e. percentage of earning distributed as dividend)

K_e = Capitalization rate/cost of capital

br = g or growth rate in r, (i.e. rate of return on investment of an all equity firm)

1ST Case: Growth Firms (r > k)

In the case of growth firm, the value of a share will increase as the retention ratio (b) increases and the value of a share will be decrease as the retention ratio (b) decreases i.e. high dividend corresponding to earning leads to decrease in share price and low dividend corresponding to earning leads to increase in share prices. So, dividends and stock prices are negatively correlated in growth firm i.e. r > k firm.

2nd Case: Normal Firms (r=k)

Dividend payout ratio does not affect the value of share in normal firm. In other words, share value remains constant regardless of changes in dividends policies. It means dividends and stock prices are free from each other in normal firm i.e. r=k firm.

3rd Case: Decline Firms ($r < k$)

In case of declining firms, share price tends to enhance with increase in payout ratio (1-b), or decrease in retention ratio (b). So, dividend and stock prices are positively correlated with each other in decline firm i.e. $r < k$ firm.

Lintner's Study (1956): He made an important study on corporate dividend policy in the American context. He investigated a partial adjustment model as he tested the earnings of that year, existing dividend rate, target payout ratio and speed of adjustment. The followings were the basic objective of the study.

- To identify occasions when a change in dividend might well have under active consideration even though no change was made.
- To determine the factors, this existed most actively into dividends.

He concluded that a major portion of a firm's dividend could be expressed in the following manner.

$$DIV_t^* = P \text{ EPS}_t \quad \dots\dots\dots (1)$$

and $DIV_t - DIV_{t-1} = a + b (DIV_t^* - DIV_{t-1}) + e_t \quad \dots\dots\dots (2)$

Adding DIV_{t-1} on both sides of equation (2)

$$DIV_t = a + b DIV_t^* + (1-b) DIV_{t-1} + e_t \quad \dots\dots\dots (3)$$

Where,

DIV_t^* = Firm's desired payment

EPS_t = Earnings

P = Targeted payout ratio

a = Constant relating to dividend growth

b = Adjustment factor relating to the previous period's dividend and new desired level of dividends where, $b < 1$.

The major findings of this study were as follows:

- Firms generally think in terms of proportion of earnings to be paid out.
- In order to modify the pattern of dividend, investment opportunities, liquidity position, funds flows are not considered.

Firms generally have target payout ratios in view while determining change in dividend rate or dividend per share.

Friend and Puckett's Study (1964): Irwin Friend and Marshall Puckett have conducted a study about the relationship between dividends and stock prices through the regression analysis on the data of 110 firms from five industry samples., viz., chemicals (n=20), electronics (n=20), electric utilities (n=25), and steels (n=20), in each of two years ,1956 and 1958. The industries were selected to permit a distinction be made between results for growth and non-growth industries and to provide a basis for comparison with results by other authors for earlier years .Both cyclic and non-cyclic industries were covered. The period covered include a boom year for the economy when stock prices leveled off after a substantial rise (1956) and a somewhat depressed year for the economy when stock prices however rose strongly (1958).

They used two-regression model of price function and dividend supply function. In price function, dividends, retained earnings and price earnings ratio are independent variables, whereas earnings last year's dividends and price earnings ratio are independent variables in dividend supply function. Symbolically their price function and dividend supply function can be written as:

Price Function;

$$P_t = a + bD_t + cR_t + d (E/P)_{t-1}$$

Where,

P_t = Per share price at time t

D_t = Dividends at time t

R_t = Retained earning at time t

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

And,

Dividend Supply Function

$$D_t = e + fE_t + gD_{t-1} + h (E/P)_{t-1}$$

Where,

E_t = Earnings per share at time t

P_{t-1} = Last year dividend

The followings were the basic assumptions of their study.

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

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

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

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

They tested this equation and found the following results.

Dividends have predominant influence on stock prices in the same three out of five industries but the differences between the dividends and retained earnings coefficients were not quite significant as in the first set of regressions. The dividends and retained earnings coefficients were closer to each other for all industries in both years except for steels in 1956, and the correlations were higher, again except for steels.

They also calculated the dividend supply equation, i.e. $D_t = e + fE_t + gD_{t-1} + h (E/P)_{t-1}$ and derived price equation for four industry groups in 1958. The derived price equation show no significant changes from those obtained from the single equation approach as explained above, reflecting the fact that stock price, or more accurately the price earnings ratio, does not seem to have a significant effect on dividend payout. On the other hand, they noted that, in three of the four cases tested, the retained earnings effect was increased relatively. Moreover, their result suggested that price effects on dividend supply are probably not a serious source of bias in the customary derivation and retained earnings effects on stock prices, though such bias might be masked if the distributing effects of short run income movements are sufficiently great.

Further, they used lagged price as a variable instead of lagged earnings price ratio. They found that retained earnings received greater relative weight than dividends in the majority of the cases. The only exceptions were steels and foods in 1958. Chemicals, electronics, and utilities were considered as growth industries and the retained earnings effect was larger than the dividend effect for both years covered. For

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

Similarly, they tested the regression of $P_t = a + bDt + cRt$ by using normalized earnings again. They obtained normalized retained earnings by subtracting dividends from normalized earnings. That normalization procedure was based on the period 1950-61. Again they added prior year's normalized earnings price variable and they compared the result. Comparing the result, they found that there was significant role of normalized earnings and retained earnings but effects of normalized price earnings ratio were constant. After examining the later equation, they found that the difference between dividend and retained earnings coefficients disappeared. Lastly, they come to a conclusion that management might be able to increase prices somewhat by raising dividends in foods and steel industries. At last, Friend and Puckett concluded that, it is possible that management might be able, at least in some measure, to increase stock prices in non-growth industries by raising dividends, and I growth industries by greater retention, i. e. smaller (lower) dividends.

Van Horne and McDonald's Study (1971)

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

Empirical tests were performed with year-end 1968 cross sections for two industries using a well-known valuation model. For there investigation, they employed two samples of firms viz. the 86 electric utilities in the continental U.S. which were included on the **COMPUSTAT** utility data tape; and 39 companies in the electronics and electric component industries as listed on the **COMPUSTAT** industrial data tape in 1986.

They performed empirical study by testing two regressions for the electric utilities and one regression model for electronics and electronic components industry.

The **First Model** was,

$$P_0/E_0 = a_0 + a_1(g) + a_2(D_0/E_0) + a_3(Lev) + u$$

Where,

P_0/E_0 = Closing market price in 1968 divided by average EPS for 1967 & 1968.

G = Expected growth rate, measured by the compound annual rate of growth in assets per share for 1960 through 1968.

D_0/E_0 = Dividend payout, measured by cash dividend in 1968 dividend by earnings in 1968.

Lev = Financial risk, measured by interest charges dividend by the difference of Operating revenues and operating expenses.

U = Error term

The **Second Model** was,

$$P_0/E_0 = a_0 + a_1(g) + a_2(D_0/E_0) + a_3(Lev) + a_4(F_a) + a_5(F_b) + a_6(F_c) + a_7(F_d) + u$$

Where,

F_a, F_b, F_c and F_d are dummy variables corresponding to “new issue ratio” (NIR) groups A through D.

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

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

$$P_0/E_0 = a_0 + a_1(g) + a_2(D_0/E_0) + a_3(Lev) + a_4(OR) + u$$

Where,

Lev = Financial risk measured by long term debt plus preferred stock dividend by net worth as the end of 1968.

OR = Operating risk, measured by the standard error for the regression of operating

Earnings per share on time for 1960 through 1968, and rest are as in First Model

By using these models, they compared the result obtained for the firms which both pay dividend and engage in new equity financing with other firms in an industry sample. They concluded that for electric utility firms in 1968, share value was not adversely affected by new equity financing in the presence of cash dividends, except for those firms in the highest new issue group and it made new equity a more costly form of financing than the retention of earnings. They also indicated that the payment of dividend through excessive equity financing reduces share prices. For forms in the electronics-electronic component industry, a significant relationship between new equity financing and value was not demonstrated.

Deepak Chawla and G. Shrinivasan's Study (1987): They studied the impact of dividend and retention on share price. The followings were the prime objectives of their study.

- To test the hypothesis of dividend and retained earnings.
- To estimate a model to explain share price, dividend and retained earnings relationship.
- To examine the structural changes in estimated relations over time.

In order to achieve (attain) those objectives, they used simultaneous equation model as developed by Friend and Puckett (1964). The following was the model in its unspecified form.

1. Price Function

$$P_t = f [D_t, R_t, (P/E)^1_{(t-1)}]$$

2. Dividend Supply Function,

$$D_t = f [E_t, D_{(t-1)} (P/E)^1_{(t-1)}]$$

3 Identity

$$E_t = D_t + R_{ts}$$

Where,

P = Market price per share.

D = Dividend per share.

R = Retained earning per share.

E = Earning per share.

(P/E)¹ = Deviation from the sample, average of price earning's ratio.

T = Subscript for time.

As per the financial theories they expected the coefficients of both dividend and retained earnings to be positive in the price equation. Similarly in the dividend supply function also they expected a positive sign for current earnings and previous dividend. They selected 18 chemicals and 13 sugar companies and estimated cross-sectional relationship for the years 1969 and 1973. They collected the required data from the official directory of Bombay Stock Exchange. They used two stages least square technique for estimation. They also used lagged, earnings price ratio instead of lagged price earnings ratio, i. e, (P/E)_(t-1).

It was found, from the result of their two stages least square estimation, that the estimated coefficients had the correct sign and the coefficients of determination of all the equations were very high in case of chemical industry. It implies that the stock price and dividend supply variation can be explained by their independent variables. But in case of sugar industry, they found that coefficient of dividend was significant at one percent level in both years left for further analysis of sugar industry. It was observed that the coefficient of dividend was very high as compared to retained earnings for chemical industry. They also found that coefficient of dividend was significant at one percent level in both years whereas coefficient of retained earnings was significant at ten percent level in 1969 and one percent level in 1973.

Finally, they concluded that dividend hypothesis holds well in the chemical industry. Both dividend and retained earnings significantly explain the variation in share price in chemical industry. They also stressed that the impact of dividend was more pronounced than that of the retained earnings but the market has started shifting towards more weight for retained earnings.

2.3 Review Journals and Articles

Very few articles relating directly or indirectly with dividend and stock price are published in Nepal. Some of them, which are significant in this study, are reviewed in this section.

Pradhan (1993), published an article on, “*Small Market Behavior in A small Capital Market: A case of Nepal*” he has analyzed various ratios related to dividend and market price of shares. The study was based on the pooled – cross sectional data of 17 enterprises covering the year from 1986 to 1990.

The objectives of this study were as following:

- To assess the stock market behavior in Nepal.
- To examine the relationship of market equity, market value to book value, price earning, and dividends with liquidity, profitability, leverage, assets turnover, and interest coverage.

Some findings of his study are as followings:

- Stocks with larger ratio of dividend per share to market price per share have higher liquidity. Liquidity position of stocks paying lower dividends is also more inconsistent as compared to stocks paying higher dividends.
- Stocks with larger ratio of dividend per share to market price per share have lower leverage ratios. So, leverage ratios of stocks paying smaller dividends were also more variable as compared to stocks paying higher dividends.
- Stocks with larger ratio of dividend per share to market price per share also have higher earnings. But these earning ratios of stocks paying larger dividends were also more variable as compared to stocks paying smaller dividends.
- Positive relationship is observed between the ratio of dividend per share to market price per share and dividend per share to the market price per share and interest coverage. Stocks with larger ratio of dividend per share to market price per share also have higher turnover ratios. Turnover ratios of stocks paying larger dividends are also more variable than that of stocks paying smaller dividends.
- There is also a positive relationship between the ratio of dividend per share to market price per share and interest coverage. Stocks with higher ratio of dividend per share to market price per share also have higher interest coverage. Interest coverage of stocks paying larger dividends was also more variable as compared to stocks paying smaller dividends.

- In conclusion, it indicates positive relationship of dividend per share to market price per share with liquidity, profitability, assets turnover and interest coverage; and negative relationship with leverage ratio and dividend pay out.

Manandhar (2001), published an article on “*Bonus Share and Dividend changes Empirical Analysis in Nepalese context*” a study based on the data collected for eleven years from 1987 to 1998. The analysis covers 35 observations pre-bonus dividend rate and 29 post- bonus dividend rates of 12 samples of the Nepalese corporate firms selected from the NEPSE. The sample corporate firms include 5 from banking 3 from insurance and finance Company and 4 from manufacturing; trading and airlines. This study had done to analyze the actual dividends behavior of Nepalese corporate firms after an issue of bonus share.

The major findings of research work are as following:

- The announcement of bonus share issue has significantly effect in the market price per share. Which ultimately the wealth of stock holders; in overall corporate management have not found considering its effect on dividend distribution in future as reflected itself.
- The systematic dividend paying practices before and after bonus share issue.
- There is no systematic policy on dividend distribution after the issue.
- There is diversity in the increase in dividend rate and the total dividend payment after the issue. Which means dividend increase doesn't follow the bonus after issue in Nepalese corporate firm's dividend behavior.
- The relationship between existing dividend and several of bonus share issue ration is not found significant in Nepalese corporate firms.

2.4 Review of Thesis

In last few years, prior to this thesis; some students of M.B.S. programmer have conducted research about the dividend and its relation with stock prices in various sectors. Some of them, which are supposed to be relevant for this study have been reviewed and presented in this section.

Yadav (2007) conducted a study on “*Dividend Policy and Its Impact on market Price of stock*” based on the secondary data of two commercial banks and two insurance companies list in NEPSE.

The main objective of the study is as following:

- To study the prevailing practice of dividend policy.
- To find the impact of dividend policy on market price of shares.
- To analyze the uniformity among DPS, EPS AND MPS he used the statistical as well as financial tools for analysis.

The major findings of the study are as following:

- There is no consistency in dividend policy.
- Most of the Nepalese firms do not have profit planning and investment strategy.
- Dividend payout ratio is almost 40% each year.
- MPS is affected by the financial position and dividend payment.
- Further, informational effect and market inefficiency also make the effect on MPS.

Shrestha (2008) conducted a study on “*The study of Dividend Policy of the commercial Banks in Nepal.*” The main objective of the study is as following:

- To study whether, the commercial banks are following the suitable dividend policy or not.
- To compare the dividend policy followed by different commercial banks chooses.
- To study the relationship of dividend policy with various financial indicators like EPS, DPS, MPS, DPR, net worth, net profit and book value of share.

The major findings of the study are as following:

- There is lack of rules and regulations that bind companies to pay dividend every year. Not only the companies do not have dividend policy but also the government does not have any clear policy towards dividend.
- There seems instability of dividend and inconsistency in dividend payout ratio of the banks.

- Every year EPS and MPS are highly fluctuation the CV of EPS has ranged from 8.55% to 53.08%; similarly, market prices per share are also fluctuating. Thus short of fluctuation causes not to win public faith.
- The average dividend yield of banks has ranged from 1.051% to 4.59%. The highest percent of 4.59 is also cannot be considered so encouraging figure.
- Shareholders in Nepal are not conscious. Taking the advantage of such shareholder's the company management does not show the commitment promised in prospectors while raising capital. Promoter hires investor mentioning to pay attractive dividends, when company makes profit. However in reality most of the companies are deviated from their statement as promise in prospectus.
- Government does not have any clear policies towards dividend and to improve the efficiency of the companies, the number of companies cannot earn enough profit and bureaucrats accused the cause of inefficiency to managers which is not sound good.

Bista (2009) conducted a study on “*Impact of Dividend on Market Price of Shares of Selected commercial Banks*” Collecting the data from secondary sources of few a years.

The main objective of the study is as following:

- To highlight the various aspects of dividend Policies and Practices in Nepal.
- To analyze the variables such as DPS, DPR, DY and their relation with market value.
- To analyze the dividend policy and its impact on stock price changes.

The major findings of the study are as following:

- EPS and DPS of commercial banks in average are fluctuating year by year.
- MPS is also in fluctuating trend since coefficient of variation of MPS for the sample banks is 28.17 which indicate the fluctuation.
- There is highly positive correlation between EPS and DPS of the sample firms.
- There is moderate positive correlation between EPS and MPS.
- There is very poor positive correlation between DPR and MPS of the sample firms.
- High negative correlation exists between dividend yield and MPS.

- Multiple regression analysis of MPS on EPS and DPS reveals the positive relation between of (MPS with EPS) and of (MPS with DPS).

Pokharel (2010), “*Dividend Policy of and Its Effect on Stock Price, with reference to Nepalese commercial Banks*” he has used secondary data. The main objective of the study is as following:

- To compare the various as aspect of dividend policy of the selected commercial banks.
- To analyze the dividend policy and its impact on stock price changes.
- To find out the relationship between the dividend with earnings, stock price and net worth.
- To know about applicable of practically study.

The major findings of the study are as following:

- The market price per share of stock affected by the dividend related financial variables such as DPS and DPR either negatively or positively.
- The changes in DPS affect the stock price differently in different banks. Beside this the stock price is largely depends upon dividend.
- MPS is affected by the financial position and dividend payment.

Magar (2011), “*Dividend Policy and its impact on Market Price of Stock*”

The main objective of the study is as following:

- To obtain in the depth knowledge about the impact of dividend policy adopted by the firm to its market price of share.
- To find out the relationship between the dividends with earning, market price of share and net worth.
- To find the impact of dividend policy on market price of stock.
- To provide the workable suggestion to the policy makers and executives to overcome the various issues and gaps.

The major findings of the study are as following:

- The correlation coefficient analysis indicates the relationship between financial indicators, i. e positive or negative.

- The regression coefficients (b) between MPS on EPS of all banks are positive. It makes an idea that the impact of EPS on MPS is positive, i.e. increase/decrease in EPS has also some level of increase/decrease in MPS. The regression coefficient (b) of NIC is 65.67 is higher than among sample banks. It tells us that EPS of NIC might have high impact on its MPS.
- The t-value between MPS and EPS shows that only EBL and NIC banks results are statistically significance.
- The regression coefficients between MPS on DPS of all banks except NIC are positive in F/Y lower level of decrease in DPS cause the high level of increase in MPS of NIC; this may be the main cause to be negative regression coefficient between MPS on DPS of NIC. From the study, in average there is positive impact of DPS on MPS. And positive regression coefficient (b) between MPS on DPS tells us that increase in DPS also some level of increase in MPS.
- The t-value between MPS on DPS shows that only the result of EBL, SBL and HBL are statistically significance and the NIC and NABIL results are statistically insignificance.
- The t-value between MPS on DPR tells us that only the result of EBL and NABIL are statistically significance.
- The t-value between MPS on P/E ratio tells us that the results of all sample banks regarding this are statistically significance.
- The regression coefficient (b) between MPS on DY of all sample banks except SBL are negative, this tell us that increase in DPS highly increase in MPS which decrease the DY and this gives the negative beta coefficient between MPS on DY.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlights the methodology adopted in the process of present study .It also focuses about sources and limitations of the data, which are used in the present study. 'Research methodology' is a way for systematically solving research problem. In other words research methodology indicates the methods and processes employed in the entire aspects of study. 'Research methodology' refers to the various sequential steps to be adopted by the researcher in studying a problem with certain object/objects in view. So it is the method, steps and guidelines which are to be followed in analysis, and it is the way of presenting the collected data with meaningful analysis.

3.2 Research Design

Research Design is a conceptual structure within which a research is conducted. In simple language, planning for research is a research design. It is purposeful scheme of action proposed to be carried out in a sequence during the process of research. Research design helps researchers to enable him to keep track of action and to know whether he was moving in the right direction to achieve his goal.

Research Design is the plan, structure and strategy of investigation concerned so as to obtain answers to research questions and to control variances. (*Kothari; 1994*)

The research design of this study basically follows the impact of dividend policy on the market price. In other words, this research is designed so as to find out the impact on the market of the common stock of a company when dividend is paid to the shareholders and also how the market price responds when dividend is not paid to the share holders. Various analytical and descriptive approaches are used to determine the impact of dividend policy followed by an organization on its market price.

3.3 Population and Sample

By the end of Mid July 2010, 32 commercial banks (including government owned, private and joint venture) are operating in Nepal. Due to time and resource factors, it

is not possible to study all of them regarding the study topic. Therefore, sampling will be done selecting from population:

Out of 32 commercial banks that are operating their activities in Nepal we have selected 5 Commercial Banks for our study. The samples selected for this study are:

- Standard Chartered Bank Nepal Ltd.
- Nepal SBI Bank Ltd.
- Nabil Bank Ltd.
- Himalayan Bank Ltd.
- Everest Bank Ltd.

Thus in our study,

Population Size : 32

Sample Size : 5

In this research study the sample size is 15.62% of the population size.

3.4. Nature and Source of Data

The research is mainly based on the secondary data which may include the Annual Reports of the banks under study, Economic Report published by Nepal Rastra Bank, the stock price for the whole year listed in the Nepal Stock Exchange (NEPSE), Economic Survey published from Nepal Ministry of Finance, Financial Status Report published from World Bank, Financial Reports published By Nepal Stock Exchange and Securities Exchange Board, financial and other relevant data regarding the dividend policies and practices of the Banks. Besides this the data are also collected from various newspapers, magazines, company websites and journals published by the concerned agencies.

3.5. Period of Study

The study is based on five years financial data of the banks under study. (i.e., NABIL Bank Ltd, Everest Bank Limited, Standard Chartered Bank Nepal Ltd, Nepal SBI Bank Ltd. and Himalayan Bank Ltd) from fiscal year 2006/07 to 2010/11. Thus the total number of observation of this study will be 25.

3.6. Financial Tools

The analysis of this study is based on following financial tools.

3.6.1. Earning Per Share (EPS)

Earning per share refers the rupee amount earned per share of common stock outstanding. It measures the profitability of the shareholders investment. The earning per share shows the profitability of the banks on a per share basis. The higher earning indicates the better achievements in terms of profitability of the banks by mobilizing their funds and vice versa. In other words, the earning per share indicates the strength and weakness of the bank.

Earning per Share is computed to know the earning capacity and to make comparison between concerned banks. This ratio can be computed by dividing the earning available to common shareholders by the total number of common stocks outstanding.

Thus,

$$\text{EPS} = \frac{\text{Earning Available to Common Stockholders}}{\text{Number of Common Stock Outstanding}}$$

3.6.2. Dividend Per Share (DPS)

Dividend per share indicates the rupee earnings distributed to common stockholders per share held by them. It measures the dividend distribution to each equity shareholders. Dividend per share shows the portion of earning distribution to the shareholders on per share basis. Generally, the higher DPS creates positive attitude of the shareholders toward the bank's common stock, which consequently helps to increase the market value of the share. And it also works as the indicator of better performance of the bank management.

It is calculated by dividing the total dividend distributed to equity shareholders by the total number of equity shares outstanding.

Thus,

$$\text{DPS} = \frac{\text{Total Amount of Dividend Paid to Ordinary Shareholders}}{\text{Number of Ordinary Shares Outstanding}}$$

3.6.3 Dividend Payout Ratio (DPR)

It is the proportion of earning paid in the form of dividend. This ratio shows what percentage of profit is distributed as dividend and what percentage is retained as reserve and surplus for the growth of the banks. The dividend payout ratio of a bank depends upon the earnings made by the bank. Higher earning enhances the ability to pay more dividends and vice versa.

There is an inverse relationship between dividends and retained earnings. The higher the dividend payout ratio, the lower will be the proportion of retained earnings and vice versa. The capacity of internal financing of the firm is checked by the retention ratio.

It is calculated as the percentage of the profit that is distributed as dividend. This ratio is calculated by dividing dividend per share by the earning per share.

Thus,

$$\text{DPR} = \frac{\text{Dividend Per Share}}{\text{Earning Per Share}}$$

And, Retention Ratio = (1-Dividend payout ratio)

$$= (1-\text{DPR})$$

3.6.4. Price Earning Ratio (P/E Ratio)/ Earning Multiplier

Price-earning ratio is also called the earnings multiplier. Price-earning ratio is the ratio between market price per share and earning per share. In other words, this represents the amount which investors are willing to pay for each rupee of the firm's earnings.

The P/E ratio measures investor's expectation and market appraisal of the performance of the firm. The higher P/E ratio implies the high market share price of a stock given the earning per share and the greater confidence of investor in the firm's future. This ratio is computed by dividing earning per share to market price per share.

Thus,

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

3.6.5. Earning Yield (EY)

Earning yield is the percentage of earning per share to market price per share in the stock market. In other words, it is a financial ratio relating to earning per share to the market share price at a particular time. It measures the earning in relation to market value of share. It gives some idea of how much an investor is earning for his money. The share with higher earning yield is worth buying. It is calculated as:

$$\text{Earning Yield} = \frac{\text{Earning Per Share}}{\text{Market Price Per share}}$$

3.6.6. Dividend Yield (DY)

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

This ratio highly influences the market price per share because a small change in dividend per share can bring effective change in the market value of the share. The share with higher dividend yields is worth buying. Thus the price of higher dividend yields increase sharply in the market. Dividend has important guidance to commit funds for the buying of shares in the secondary market. This ratio is calculated by dividing dividend per share by market price of the stock.

Thus,

$$\text{DY Ratio} = \frac{\text{Dividend Per Share}}{\text{Market Price Per Share}}$$

3.6.7. Market Price Per Share (MPS) to Book Value Per Share (BVPS)

This ratio measures the market situation per share in the competitive open market with respect to book value per share of joint venture banks. This ratio indicates the price that the market is paying for the share that is reported form the net worth of the banks.

This is important to compare the Market share prices of different stocks on the basis of the book value per share. It shows the market share price of a stock as a percentage

of book value per share and the effect of later on the former. The higher ratios represent to conclude that the better performance of joint venture banks in terms of market price per share to book value per share. This ratio can be derived by dividing market price per share by book value per share.

Thus,

$$\text{MPS to BVPS Ratio} = \frac{\text{Market Price Per Share}}{\text{Book Value Per Share}}$$

3.6.8. Book Value Per Share

It is a rupee value per share. It is calculated dividing Book Value of Net Worth (or Net Worth) by total numbers of shares outstanding.

Thus,

$$\text{Net Worth Per Share} = \frac{\text{Net Worth}}{\text{No.of Shares}}$$

3.7 Statistical Tools

Besides the financial tools, various statistical tools have been used to conduct this study. The result of analysis has been properly tabulated, compared, analyzed and interpreted. In this study, the following statistical tools are used to analyze the relationship between dividend and other variables.

3.7.1. Arithmetic Mean or Average (X)

An average is the value, which represents a group of values. It depicts the characteristic of the whole group. It is an envoy of the entire mass of homogeneous data. Generally the average value lies somewhere in between the two extremes, i.e. the largest and the smallest items. It is calculated as follows:

Arithmetic Mean (\bar{X})

An average is the value, which represents a group of values. It depicts the characteristics of the whole group. It is an envoy of the entire mass of homogenous data. Generally the average values lies somewhere in between the extreme, i.e. the largest and smallest items. It is calculated as follows:

Arithmetic mean $\bar{X} = \frac{X_1+X_2+X_3+\dots+X_n}{N}$

Or, $\bar{X} = \frac{\Sigma X}{N}$

Where

ΣX = Sum of the sizes of the items

N = Number of items

3.7.2 Standard Deviation (σ)

Karl Pearson first introduced the concept of standard deviation in 1893. Standard deviation is the positive square root of the arithmetic average of the series. The standard deviation measures the absolute dispersion of a distribution. The greater the amount of dispersion the greater the standard deviation, i.e. greater will be magnitude of deviations from the values of their mean. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series. Standard deviation is denoted by Greek letter '(sigma) and is calculated as follows.

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\Sigma(X-\bar{X})^2}{N}}$$

Where,

N = Number of item in the series.

\bar{X} = Mean

X = Variable

3.7.3 Coefficient of Variation (C.V.)

It is the measurement of the relative dispersion developed by Karl Pearson. It is used to compare the variability of two or more series. The series with higher coefficient of variation is said to be more variable, less consistent, less uniform, less stable and less homogenous. On the contrary the series with less coefficient of variation is said to be less variable, more obtained by dividing the standard deviation by arithmetic mean. Thus

$$\text{Coefficient of Variation (C.V.)} = \frac{\sigma}{\bar{X}} \times 100$$

Where, σ = Standard Deviation

$$\bar{X} = \text{Mean}$$

3.7.4 Coefficient of Correlation(r)

The correlation analysis is the technique used to measure the closeness of the relationship between the variables. It helps us in determining the degree of relationship between two or more variables. It describes not only the magnitude of correlation but also its direction. The coefficient of correlation is a number, which indicates to what extent two variables are related with each other and to what extent variations in one leads to the variations in the others.

The value of coefficient of correlation always lies between +-1. A value -1 indicates perfect negative relationship between the variables and a value of +1 indicates a perfect positive relationship. A value of 0 indicate there is no relationship between the variable the 0 correlation coefficient means variable are on correlated the closer are is to +1 or-1, the closer the relationship between the variable and closer are is to zero (0), the less closer relationship, the algebraic sign of the correlation coefficient indicate the direction of the relationship between to variables, whether direct or inverse, while the numerical value of the coefficient is concerned with the strength, or closeness of the relationship between to variable. Thus, in this study, the degree of relationship between market price and other relevant financial indicators such as dividend per share, earning per share, dividend ratio etc is major by the correlation coefficient. The correlation coefficient can be calculate as

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

$$r = \frac{\sum(X-\bar{X})(Y-\bar{Y})}{(N-1)\sigma_x \sigma_y}$$

$$r = \frac{N \sum XY - \sum X \sum Y}{\sqrt{N \sum X^2 - (\sum X)^2} \sqrt{N \sum Y^2 - (\sum Y)^2}}$$

Where,

σ_x σ_y are the standard deviation of the distributions of X and Y values respectively.

Cov (X, Y) = Covariance of X and Y value

$$\text{Cov (X, Y)} = \frac{\sum(X-\bar{X})(Y-\bar{Y})}{N-1}$$

Under this study, the correlations between the following variables are analyzed:

- a) Market Price Per Share and Earning Per Share
- b) Market Price Per Share and Dividend Per share
- c) Market Price Per Share and Dividend payout Ratio
- d) Market Price Per Share and Price Earning Ratio
- e) Market Price Per Share and Earning Yield
- f) Market Price Per Share and Dividend Yield
- g) Market Price Per Share and 'MPS to BVPS' Ratio
- h) Market Price Per Share and Net worth Per Share
- i) Earning Per Share and Dividend Per share
- j) Earning Per Share and Dividend Payout Ratio
- k) Dividend Per Share and Dividend Payout Ratio
- l) Dividend Per Share and Net worth Per Share
- m) Earning Yield and Dividend

3.7.5 Coefficient of Determination (R^2)

The Coefficient of determination is the primary way to measure the extent, or strength, of the association that exists between two variables, x and y. It refers to a measure of the total variance in a dependent variable that is explained by its linear relationship to an independent variable. The coefficient of determination is denoted by R^2 and the value lies between zero and unity. The closer to the unity, the greater the explained by its explanatory power. A value of one occurs only if the unexplained variation is zero, which simply means that all the data points in the scatter diagram fall exactly on the regression line. The R^2 is always a positive number. It can't tell whether the relationship between the variable is positive or negative. The R^2 is defined as the ratio of explained variance to the total variance, thus,

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

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

3.7.6 .Regression Analysis

Francis Galton was the first person to introduce the concept of regression. Regression refers to analysis, which involves the fitting of an equation to a set of data points, generally by method of least square. In other words the regression is statistical method for determining relationship between variables by the establishment of an approximate functional relationship between them. It is used to determine that whether the dependent variable or not. It is considered as the useful tool for determining the strength of relationship between two simple regressions or more multiple regression variables. It is also used to predict value of one variable given the value of other variables.

Simpler linear regression analysis is used to find the relationship between two variables. In this study, the following simple regression has been analyzed.

a. Market price Per Share on Earning Per Share

$$Y = a + bX$$

Where,

Y = Market Price Per Share

a = Regression Constant

b = Regression Coefficient

This model has been constructed to examine the relationship between market Price Per Share (dependent variable) and Earning Per Share (independent variable)

b. Market Price Per Share on Dividend Per Share

$$Y = a + bX$$

Where,

Y = Market Price Per Share

a = Regression constant

b = Regression coefficient

X = Dividend Per Share

This model has been constructed to examine the relationship between market Price Per Share (dependent variable) and Dividend Per Share (independent variable).

Market Price Per Share on Dividend Payout Ratio

$$Y = a + bX$$

Where,

Y = Market Price Per Share

a = Regression Constant

b = Regression Coefficient

X = Dividend Percent

This model has been constructed to examine the relationship between market Price Per Share (dependent variable) and Dividend Payout Ratio (independent variable).

Market Price Per Share on Dividend Yield

$$Y = a + bX$$

Where,

Y = Market Price Per Share

a = Regression Constant

b = Regression Coefficient

X = Dividend Yield

This model has been constructed to examine the relationship between market Price Per Share (dependent variable) and Dividend Yield (independent variable).

a. Regression Constant (a)

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

b. Regression Coefficients (b₁,b₂,b₃)

The regression coefficients of each independent variable shows the relationship between that variable and value of dependent variable, holding the effects of all other

independent variables of the regression model constant. in other words, these coefficients explain how changes in independent variables affect the values of dependent variables estimate.

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

Practically, the perfect prediction is not possible with the help of regression equation. Standard Error of Estimate is used to measure the reliability of the estimating equation. It measures the variability, or scatter of observed values around the regression line. It also measures the reliability of the estimating equation, Indicating the variability of the observed value differ from their predicted values on regression line.

The larger the value of S.E.E the grater the scattering or dispersion of points around regression line, conversely, if S.E.E is equals to zero, then there is no variation about the line and the correlation will be perfect. So, we expect the estimating equation to be a 'perfect' estimator of the dependent variable. In that case, all the data points would lie directly on the regression line and no points would be scattered around it. Similarly, the smaller the S.E.E, the closer will be the dots to regression line and better the estimates based on the equation for this line. Thus, with the help of standard error of estimate, it is possible for ascertaining how well and representative the regression line is a description of the average relationship between two series.

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

Presentation and analysis of data is the major part of this research study. Data are extracted from various source and we categorized data into mainly two parts (1) Primary data (2) Secondary Data. Using the various financial variables and statistical tools discussed in “Research Methodology”, we analyze the secondary data to achieve our objective of the study.

4.1 Financial Tools

Under this heading the financial variables have been presented and analyzed and calculations are done using the secondary data.

4.1.1 Earning Per Share (EPS)

Earning per share refers the rupee amount earned pre share of common stock outstanding. It measures the profitableness of the shareholders investment. The earning per share shows the profitability of the banks on per share basis. The higher earning indicates the better achievements of the profitability of the banks by mobilizing their funds and vice versa. The earnings per share of the banks under study tabulated as follows

Table: 4.1
Earning Per Share of Sample Banks

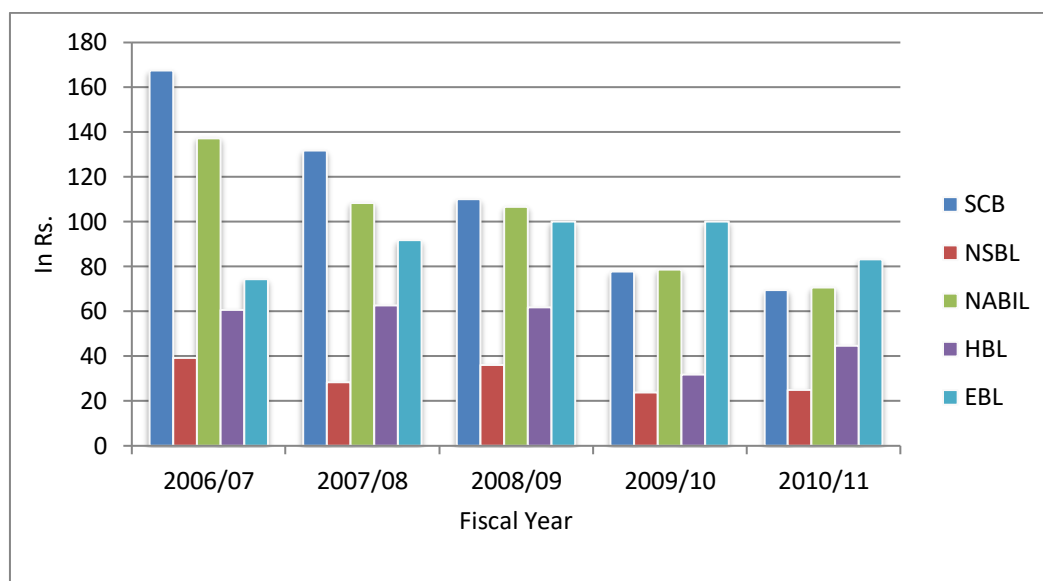
(In Rs.)

Year/Bank	SCB	NSBL	NABIL	HBL	EBL
2006/07	167.37	39.35	137.08	60.66	74.42
2007/08	131.92	28.33	108.31	62.74	91.82
2008/09	109.99	36.18	106.76	61.9	99.99
2009/10	77.65	23.69	78.61	31.8	100.16
2010/11	69.51	24.85	70.67	44.66	83.18
Mean	111.2	30.48	104.17	52.35	90.71
SD	32.95	6.22	23.84	12.24	8.77
CV	29.62	20.42	22.88	23.39	9.65

Source: Annual Reports of Sample Bank 2006 to 2011

The earning per share of the Banks under study is presented in graphical form as below:

Figure 4.1
Earning Per Share



The EPS of Standard Chartered Bank Nepal Ltd. (SCBNL) range between Rs.167.37 to Rs.69.51 during the period of study. During this period, the average EPS is Rs. 111.29. The standard deviation of the EPS under the period of study is 32.95. The CV of 29.62 indicates that there is a low fluctuation of 29.62 in the EPS of SCBNL, during the period of study.

During the period of study, Nepal SBI Bank Ltd. (NSBL) had an average EPS is Rs. 30.48 with a standard deviation of Rs. 6.22. The EPS range between Rs.39.35 to Rs.23.69. The coefficient of variation shows that there is a fluctuation of 20.42 in EPS of NSBL.

The average EPS of NABIL Bank during this period of study is Rs.104.17. It stayed within the range of Rs. 137.08 to Rs.70.67. The standard deviation of EPS is 23.84 whereas the coefficient of variation is 22.88%. The CV indicates a moderate fluctuation in the EPS of the bank.

Himalayan Bank Ltd. (HBL) has the EPS range between Rs. 62.74 and Rs.31.80 during the period of study. An average EPS of Rs. 52.35 is noted during this period.

The standard deviation of the EPS is 12.24. The C.V. of 23.39 indicates that there is a fluctuation of 23.39% in the EPS of HBL during the period of study.

Everest Bank Ltd. (EBL), within the period of study, had an average EPS of Rs. 90.714, ranging between Rs.74.42 and Rs.100.16. The standard deviation is 8.768; the fluctuation of 9.65% in the EPS is seen during this period, which shown by the coefficient of variation of the bank.

From the above analysis, it can be seen that the average EPS of SCB is the highest and that of NSBL is the lowest. The EPS range of the banks under study during this period is between Rs.167.37 and Rs. 23.69. Similarly the standard deviation of these banks shows that there is fluctuation in the EPS. If compared, SCBNL has the most consistent EPS among all sample banks.

4.1.2 Dividend Per Share (DPS)

Dividend per share is the rupee earnings distributed per share to common stockholders. Dividend per share shows the portion of earning distributed to the shareholders on per share basis. Generally, the higher DPS creates positive attitude among the shareholders toward the bank, which accordingly helps to increase the market value of shares. It also works as the indicator of better performance of bank management. The dividends pre shares of the banks under study are stated in table.

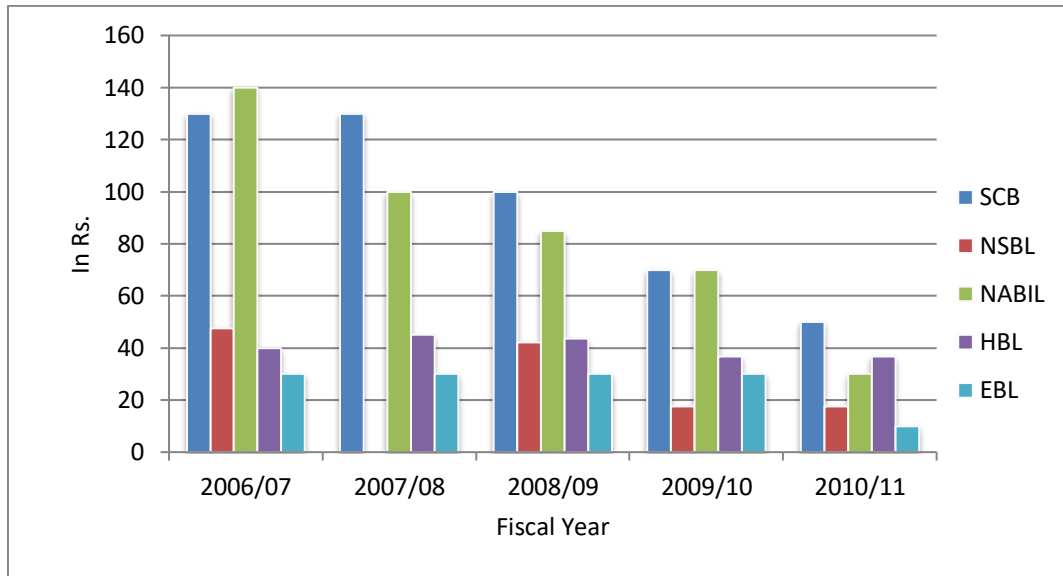
Table 4.2
Dividend Per Share of Sample banks

(In Rs.)

Year/Bank	SCB	NSBL	NABIL	HBL	EBL
2006/07	130	47.59	140	40	30
2007/08	130	-	100	45	30
2008/09	100	42.11	85	43.56	30
2009/10	70	17.50	70	36.84	30
2010/11	50	17.50	30	36.84	10
Mean	96	24.94	85	40.45	26
SD	32	17.56	16.13	3.366	8
CV	33.33	70.41	18.97	8.321	2.5

Source: Annual Reports of Sample Bank 2006 to 2011

Figure 4.2
Dividend Per Share



The average DPS of Standard Chartered Bank Nepal Ltd. (SCBNL) is 96 with the standard deviation of 32. The highest and lowest DPS are Rs.140 and Rs.50 respectively. The coefficient of variation is 33.33% which indicates that there is less fluctuation in the DPS of SCBNL during the period of study.

Nepal SBI Bank Ltd (NSBL) has an average DPS of RS.24.94. The highest DPS is Rs.47.59 whereas it has not paid dividend in the year 2007/08. The standard deviation is 17.56 and coefficient of variation is 70.41%. The CV indicates that the DPS of NSBL is highly fluctuating.

The average DPS of NABIL Bank Ltd, during this period of study is Rs.85. It is within the range of Rs.140 and Rs.30. The standard deviation of DPS is 16.13 whereas the coefficient of variation of 18.97% indicates the fluctuating nature of DPS in NABIL Bank Ltd.

Himalayan Bank (HBL) paid the highest DPS of Rs.45. An average DPS of Rs.40.45 has been noted during the study period. The standard deviation of the DPS is 3.366. The C.V. of 8.321 indicates that there is a little fluctuation in the DPS of HBL.

Everest Bank Ltd (EBL) has an average DPS of Rs.26. The standard deviation is 8 and the fluctuation of 2.5% in the DPS is seen during this period. It's DPS is highly fluctuated but it seems less fluctuated than NSBL.

From the above calculations, SCBNL has the highest average DPS and NSBL has the lowest. The CV indicates that among the banks under study during the period, SCBNL has the highest consistency in paying dividend whereas the DPS of NSBL is highly fluctuating.

4.1.3 Dividend Payout Ratio (DPR)

The proportion of earning paid in the form of dividend is called Dividend Payout Ratio (DPR). This ratio shows what percentage of the profit is distributed as dividend and it is measured in percentage. The dividend payout ratio of a bank depends upon the earnings made by the bank. The DPR of the banks under study are stated in the table and graph as follows:

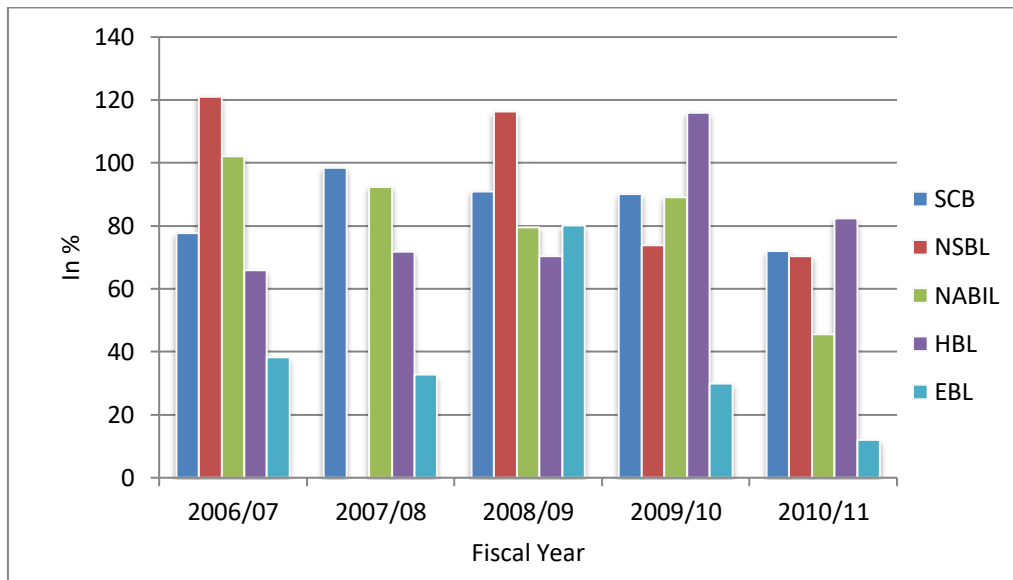
Table 4.3
Dividend Payout Ratio of Sample Banks

(In %)

Year/Bank	SCB	NSBL	NABIL	HBL	EBL
2006/07	77.67	120.94	102.13	65.94	38.26
2007/08	98.54	-	92.33	71.72	32.67
2008/09	90.92	116.39	79.62	70.37	80.17
2009/10	90.15	73.87	89.05	115.85	30
2010/11	71.93	70.42	45.52	82.49	12.02
Mean	85.89	76.32	81.73	81.28	38.63
SD	10.79	48.63	21.78	20.26	25.21
CV	12.57	63.72	26.65	24.92	65.26

Source: Annual Reports of Sample Bank 2006 to 2011

Figure 4.3
Dividend Payout Ratio



The average DPR of Standard Chartered Bank Nepal Ltd. (SCBNL) is 71.93%. It means that SCBNL generally pays 71.93% of its total earning as dividend to its shareholders. The standard deviation of DPR is 10.79%. The coefficient of variation is 12.57%. This value elucidate that there is only about 12.57% fluctuations in the DPR of the bank over the years.

An average DPR of 76.32% of Nepal SBI Bank Ltd (NSBL) indicates that NSBL generally pays out 76.32% of its earning as dividend. The standard deviation is 48.63 and coefficient of variation is 63.72%. The CV indicates that the DPR of NSBL widely varies during the period of study.

NABIL Bank Ltd has an average DPR of 81.73% during this period of study. It means that it generally pays 81.73% of its earning to its shareholders in form of dividend. The standard deviation of DPR was 21.78 whereas the coefficient of variation of 26.65% indicates the fluctuating nature of DPS in NABIL Bank LTD.

An average DPR of 81.28% is noted during the study period for Himalayan Bank Ltd.(HBL). The standard deviation of the DPR is 20.26. The CV of 24.92 shows a fluctuating behavior of dividend payment by HBL.

Everest Bank Ltd. (EBL) has an average DPR of 38.63. It means that EBL is generally paying 38.63% of its earning as dividend to its shareholders. The standard deviation of DPR is 25.12. The C.V. of 65.26 points toward inconsistency in dividend payment behavior.

The above calculations show that SCBNL has a firm DPR and it also has the lowest CV on DPR among all banks under study, it shows that SCBNL has the uniform dividend payments. On the other hand the CVs of the remaining banks are high which indicates high oscillation in their DPR.

4.1.4 Market Price Per Share (MPS)

MPS is the price of share on which shares are traded in the secondary market. The average market price per share of the banks under study is presented in table and in graphical form as follows:

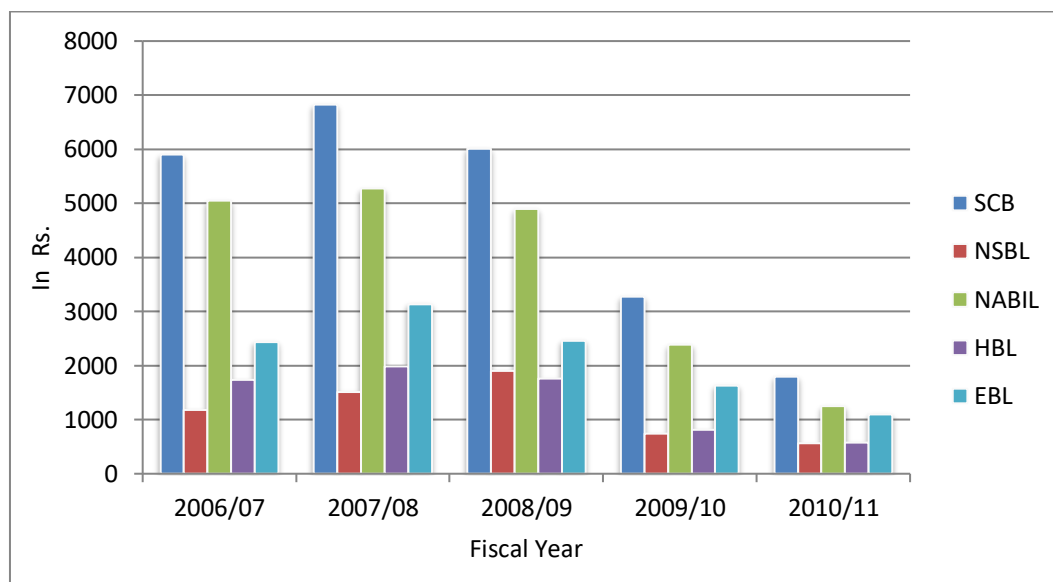
Table 4.4
Market Price Per Share (MPS) of Sample Banks

(In Rs.)

Year/Bank	SCB	NSBL	NABIL	HBL	EBL
2006/07	5900	1176	5050	1740	2430
2007/08	6830	1511	5275	1980	3132
2008/09	6010	1900	4899	1760	2455
2009/10	3279	741	2384	816	1630
2010/11	1800	565	1252	575	1094
Mean	4763.8	1178.6	3772	1374.2	2148.2
SD	1902.7	489.68	1639.47	565.68	710.11
CV	39.94	41.55	43.46	41.16	33.06

Source: Annual Reports of Sample Bank 2006 to 2011

Figure 4.4
Market Price Per Share (MPS)



Standard Chartered Bank Nepal Ltd.(SCBNL) during the period of study is Rs.4763.8 with a standard deviation of 1902.73 and a coefficient of variation of 39.94%.

During the period of study, Nepal SBI Bank Ltd. (NSBL) had an average closing MPS of Rs.1178.6 with a standard deviation of 489.68. The coefficient of variation shows that there is a fluctuation of 41.55% in closing MPS of NSBL.

The average of closing MPS of NABIL Bank Ltd, during this period of study is Rs.3772. It stayed within the range of Rs.1252 and Rs.5275. The standard deviation of closing MPS is 489.68 whereas the coefficient of variation is 41.55. The CV indicates an above moderate fluctuation in the closing MPS of the bank.

Himalayan Bank Ltd. (HBL) has the closing MPS range between Rs.1374.2 and Rs.1980.00 during the period of study. An average closing MPS of Rs.1374.2 is noted during this period. The standard deviation of the closing MPS is 565.68. The CV of 41.161 indicates that there is a fluctuation of 11.95% in the closing MPS of HBL during the period of study, which is least among the banks under study.

Everest Bank Ltd. Within the period of study, had an average closing MPS of Rs 2148.2 and the fluctuation of 33.06 in the closing MPS is seen during this period. The Standard deviation is 710.11.

From the above data and calculations, it can be seen that the average closing MPS of SCBNL is the highest and HBL is the lowest. The coefficient of variation of these banks shows that there is an above-moderate level of fluctuation in the MPS.

4.1.5 Price Earning Ratio (P/E Ratio)

Price-earning ratio is the ratio between market price per share and earning per share. It is also called earning multiplier. The price-earning ratios of the banks under study are presented in table and graph as follows:

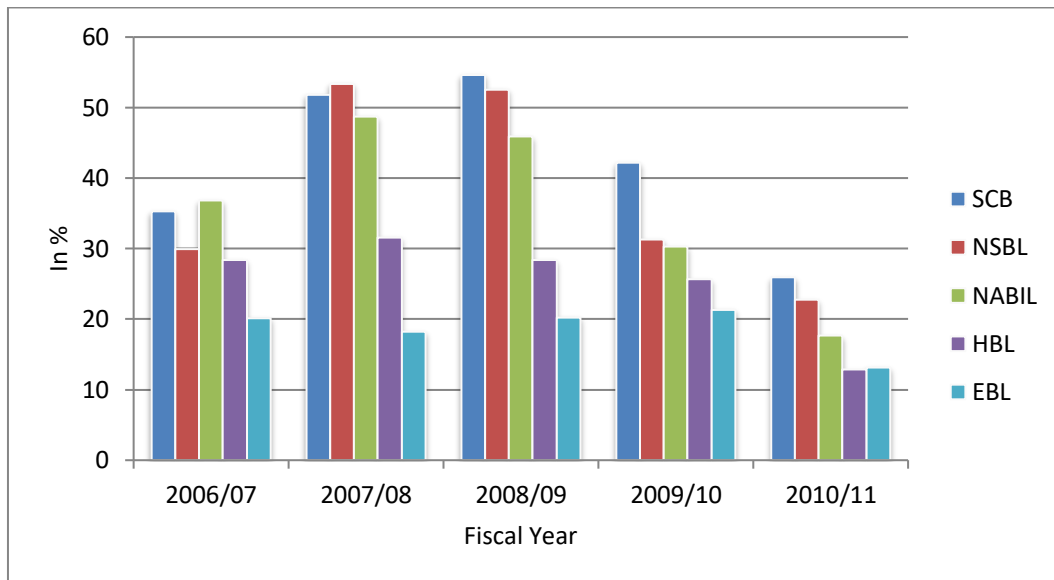
Table 4.5
Price Earning Ratio (P/E Ratio) of Sample Banks

(In %)

Year/Bank	SCB	NSBL	NABIL	HBL	EBL
2006/07	35.25	29.89	36.84	28.39	20.1
2007/08	51.77	53.35	48.70	31.56	18.18
2008/09	54.64	52.52	45.89	28.43	20.25
2009/10	42.23	31.28	30.33	25.66	21.33
2010/11	25.90	22.74	17.72	12.88	13.15
Mean	41.96	37.96	35.90	25.38	18.60
SD	10.58	12.57	11.20	6.53	2.64
CV	25.23	33.12	31.17	25.70	14.19

Source: Annual Reports of Sample Bank 2006 to 2011

Figure 4.5
Price Earning Ratio (P/E Ratio)



The average P/E Ratio of SCBNL, during this period of study is 41.96. It is within the range of 25.90 and 54.64. The standard deviation of P/E Ratio is 10.583 whereas the coefficient of variation of 25.23 indicates the fluctuating nature of P/E Ratio in SCBNL.

Nepal SBI Bank Ltd. (NSBL) has an average P/E Ratio of 37.96; range between 22.74 and 53.35, during the period of study. The standard deviation is 12.57 and the fluctuation of 33.125 in the P/E Ratio is seen during this period.

NABIL Bank Ltd has an average P/E Ratio of 35.92 the standard deviation is 11.20 and coefficient of variation is 31.17%. The CV indicates that the P/E Ratio of NABIL Bank Ltd is nature of fluctuating.

The average P/E Ratio of Himalayan Bank Ltd (HBL) is 25.38 with the standard deviation of 6.535. The coefficient of variation is 25.70%, which indicates that the banks have the lowest fluctuation in P/E Ratio among the banks under study during the period.

Everest Bank Ltd. (EBL) has average P/E Ratio of 18.602 during the study period. The standard deviation of the P/E Ratio is 2.64. The CV of 14.19% indicates that there is quite low fluctuation in the P/E Ratio of EBL.

From the above calculations, SCBBL has the highest average P/E Ratio and EBL has the lowest. The CV indicates that among the banks under study during the period, EBL has highest consistency in P/E Ratio whereas the P/E Ratio of NABIL is fluctuating than other one.

4.1.6 Earning Yield (EY)

Earning yield is the percentage of earning per share to market price per share in the secondary market. It gives an idea of how much an investor might get for his money. The share with higher earnings yield is worth buying. Earning yields of the banks under study are presented in the table and graph below.

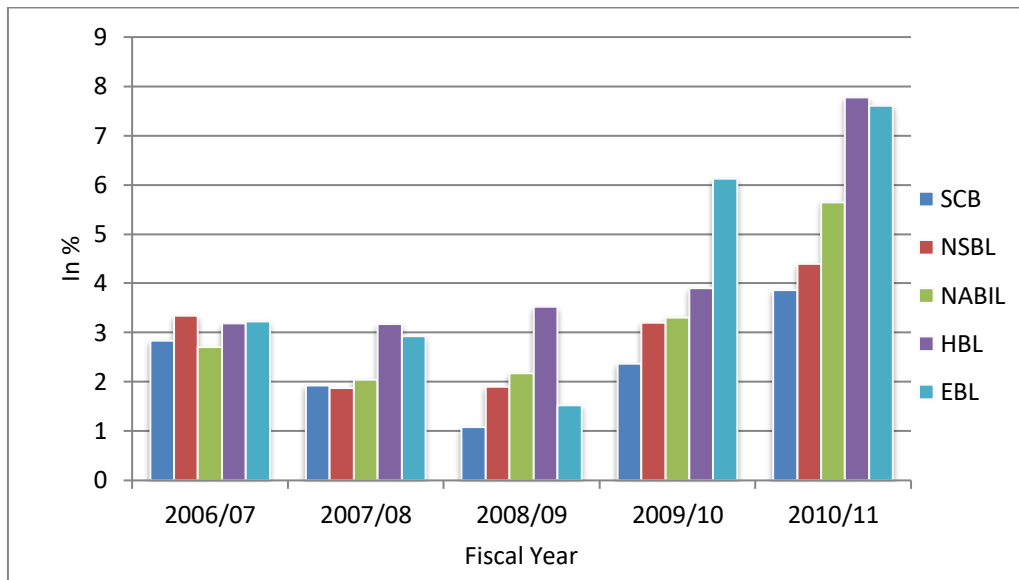
Table 4.6
Earning Yield of Sample Banks

(In %)

Year/Bank	SCB	NSBL	NABIL	HBL	EBL
2006/07	2.84	3.35	2.71	3.19	3.23
2007/08	1.93	1.87	2.05	3.17	2.93
2008/09	1.08	1.90	2.18	3.52	1.52
2009/10	2.37	3.20	3.30	3.90	6.13
2010/11	3.86	4.40	5.64	7.77	7.60
Mean	2.56	2.94	3.18	4.37	4.28
SD	0.74	0.96	1.32	1.67	2.24
CV	28.89	32.56	41.21	38.23	52.20

Source: Annual Reports of Sample Bank 2006 to 2011

Figure 4.6
Earning Yield of Sample Banks



The average EY of 2.56% with the standard deviation of 0.74 is seen for Standard Chartered Bank Nepal Ltd. (SCBNL). The highest and lowest EY are 3.86% and 1.083% respectively. The coefficient of variation is 28.89%, during the period of study.

Nepal SBI Bank Ltd.(NSBL) has an average EY of 2.94. The standard deviation is 0.96 and coefficient of variation is 32.56%. The CV indicates that the EY of NSBL is status of fluctuating.

The average EY of NABIL Bank Ltd, during this period of study is 3.18%. It is within the range of 2.05% and 5.64%. The standard deviation of EY is 1.32 whereas the coefficient of variation of 41.21%.

For Himalayan Bank Ltd. (HBL) has an average EY of 4.37% was noted during the period of study. The standard deviation of the EY is 1.67. The CV of 38.23% indicates that there is a least fluctuation in the EY of HBL.

Everest Bank Ltd. (EBL) has an average EY of 4.282%, ranging between 1.52% and 7.60%, during the period of study. The standard deviation is 2.24 and the fluctuation of 52.20% in the EY is seen during this period.

From the above calculations, EBL has the highest and SCB has the lowest. The CV indicates that among the banks under study during the period, HBL has the highest consistency in its earning yield whereas the earning yield of NSBL is highly fluctuating.

4.1.7 Dividend Yield (DY)

Dividend yield is the percentage of DPS on MPS. It measures the dividend in relation to market value of share. It is the dividend received by the investors as a percentage of market prices per share in the stock market. The ratio highly influences the market price per share because a small change in dividend per share can bring effective change in the market value of the share. The dividend yields of the banks under study are presented in the table and graph as below.

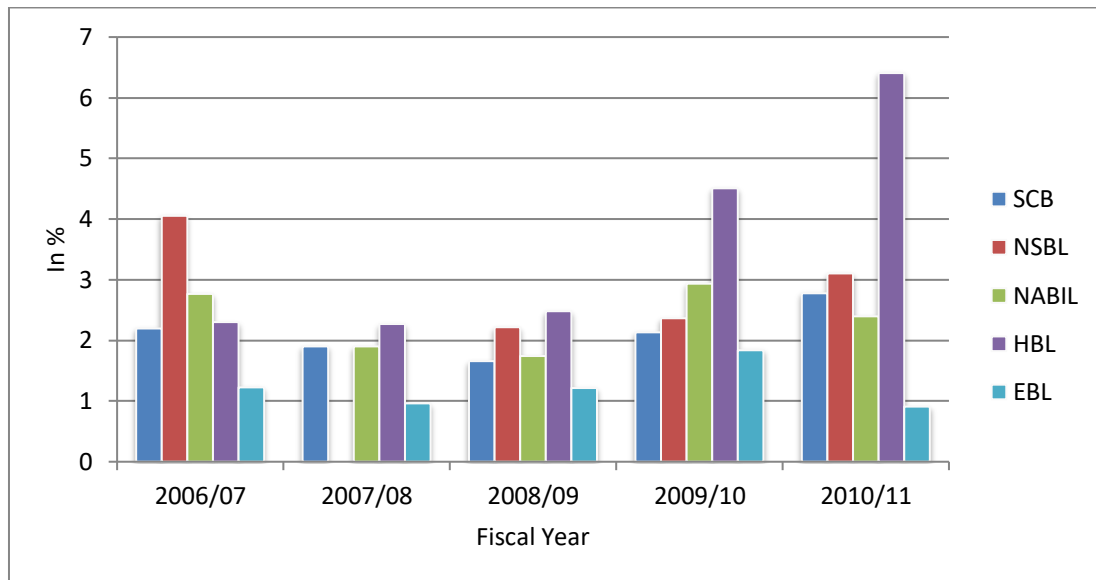
Table 4.7
Dividend Yield of Sample Banks

(In %)

Year/Bank	SCB	NSBL	NABIL	HBL	EBL
2006/07	2.20	4.05	2.77	2.30	1.23
2007/08	1.90	-	1.90	2.27	0.96
2008/09	1.66	2.22	1.74	2.48	1.22
2009/10	2.13	2.36	2.94	4.51	1.84
2010/11	2.78	3.10	2.40	6.41	0.91
Mean	2.14	2.34	3.35	3.594	1.23
SD	0.38	1.34	2.25	1.83	0.37
CV	17.55	57.17	67.16	50.99	30.02

Source: Annual Reports of Sample Bank 2006 to 2011

Figure 4.7
Dividend Yield of Sample Banks



The DY of Standard Chartered Bank Nepal Ltd. (SCBNL) has range between 1.90% and 2.78% during the period of study. The average DY is 2.14% in this period. The standard deviation of the DY under the period of study is 0.38. The CV of 17.55% indicates that the fluctuation of in DY of SCBNL.

During the period of study, Nepal SBI Bank Ltd.(NSBL) had an average DY of 2.346% with a standard deviation of 1.34. The coefficient of variation shows that there is a fluctuation of 57.12% in DY of NSBL, which is the highest fluctuation under the study.

The average DY of NABIL Bank Ltd, during this period of study is 3.35%. It stayed within the range of 1.90% and 2.94%. The standard deviation of DY is 2.25 whereas the coefficient of variation is 67.16%. The CV indicates a nature of fluctuation in the DY of the bank.

Himalayan Bank Ltd.(HBL) has the DY range between 2.27% to 6.41% during the period of study. An average DY of 3.594% is noted during this period. The standard deviation of The DY is 1.833. The CV of 50.99 indicates that there is a fluctuation of 50.99% in the DY of HBL.

Everest Bank Ltd. (EBL), within the period of study, had an average DY of 1.232. The standard deviation is 0.369 and the fluctuation of 30.02% in the DY.

From the above data and calculation, it can be seen that the average DY of EBL is lowest and HBL is highest. The DY range of the banks under study during the period is between the 6.41% and 0.00%. Similarly the standard deviation of NABIL is the highest and EBL is the lowest. The coefficient of variation of these banks shows a high level of fluctuation in the DY. If compared, NSBL has the most consistent DY among these banks.

4.1.8 Market Price Per Share (MPS) to Book Value Per Share (BVPS)

This ratio measures the market situation per share in the open market with respect to book value per share. In other words it is the ratio between MPS and BVPS. It compares the price that the market is paying for the share with the value of shares based on net worth of the banks. The higher ratios indicate the better performances in terms of MPS to BVPS. These ratios are presented in the table and graph as follows.

Table 4.8

Market Price Per Share to Book Value Per Share of Sample Banks

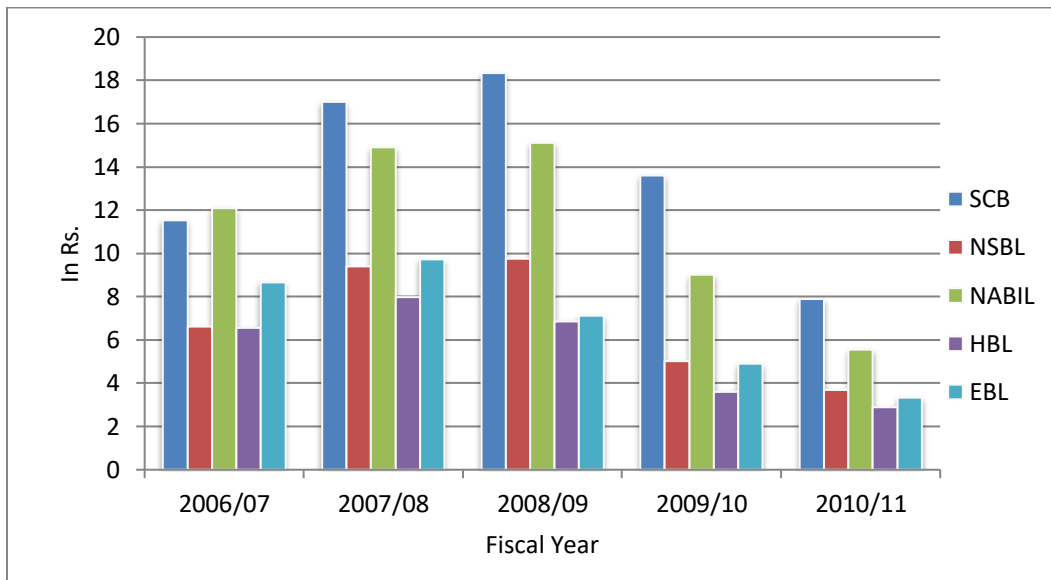
(In Rs.)

Year/Bank	SCB	NSBL	NABIL	HBL	EBL
2006/07	11.52	6.61	12.08	6.57	8.65
2007/08	17.01	9.41	14.90	7.99	9.73
2008/09	18.35	9.76	15.12	6.86	7.11
2009/10	13.61	5.02	9	3.60	4.91
2010/11	7.88	3.68	5.56	2.89	3.33
Mean	13.67	6.89	11.332	5.58	6.74
SD	4.22	2.67	4.074	2.21	2.63
CV	30.85	38.68	35.95	39.64	39.01

Source: Annual Reports of Sample Bank 2006 to 2011

Figure 4.8

Market Price Per Share to Book Value Per Share of Sample Banks



The average ratio of MPS to BVPS of Standard Chartered Bank Nepal Ltd. (SCBNL) is 13.674. The standard deviation of the ratio is 4.219. The coefficient of variation is 30.85%. This value elucidate that there is only about 30.85% fluctuations in the ratio of MPS to BVPS of the bank over the years.

An average MPS to BVPS ratio of 6.896 of Nepal SBI Bank Ltd (NSBL) is noted during the period of study. The standard deviation is 2.667 and coefficient of variation is 38.685%. The CV indicates that the ratio of MPS to BVPS of NSBL is highly fluctuating than other banks during the period of study.

NABIL Bank Ltd has an average MPS to BVPS ratio of 11.332 during this period of study. The standard deviation of the ratio is 4.0741 whereas the coefficient of variation of 35.952% indicates the above-moderate fluctuating nature of MPS to BVPS ratio in NABIL Bank Ltd.

An average MPS to BVPS ratio of 5.582 is noted during the study period for Himalayan Bank Ltd. (HBL). The standard deviation of the ratio of MPS to BVPS is 2.213. The CV of 39.64% shows a fluctuation in the ratio between MPS and BVPS to HBL during the study period.

Everest Bank Ltd.(EBL) has an average MPS to BVPS ratio of 6.7462. The standard deviation of this ratio is 2.6315. The CV is 39.01 points toward moderate level of variation in ratio of MPS to BVPS to the bank.

The above calculation shows that, the average ratio of MPS to BVPS of is the highest among the banks under study, while this ratio is lowest for HBL. Further the CV of the ratio of MPS to BVPS shows consistency in the ratio of HBL and wide fluctuation in the ratio of NSBL.

4.1.9 Book Value Per Share (BVPS)

The Book Value per Share is the value per share of total Book Value. It is calculated dividing Total Net Worth by total numbers of shares outstanding. The Book value per Share of the Banks under study is stated in the table and figure:

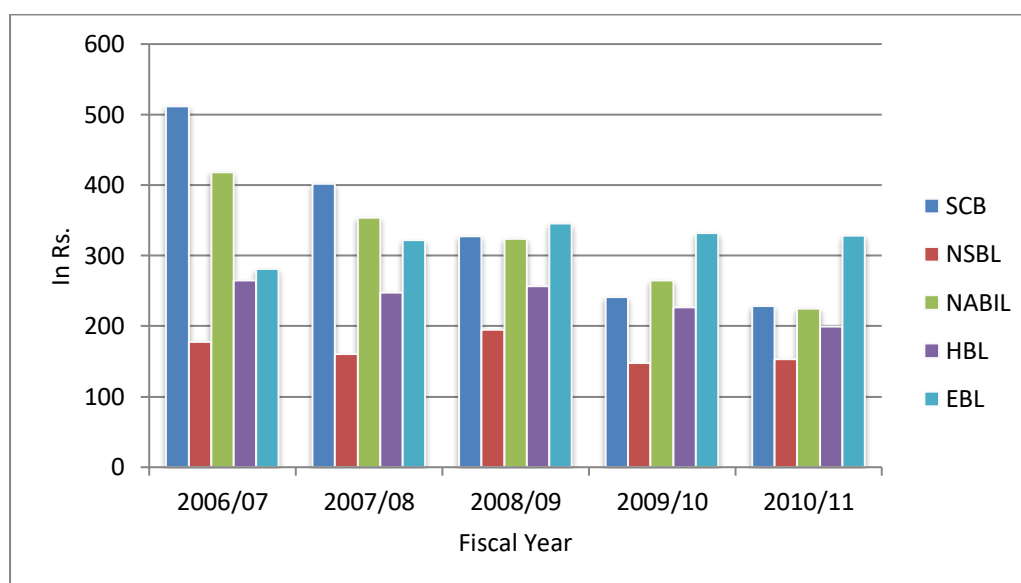
Table 4.9
Book Value Per Share (BVPS) of Sample Banks

(In Rs.)

Year/Bank	SCB	NSBL	NABIL	HBL	EBL
2006/07	512.12	178.04	418	264.74	280.82
2007/08	401.52	160.57	354	247.95	321.77
2008/09	327.53	194.68	324	256.52	345.23
2009/10	240.95	147.61	265	226.79	331.99
2010/11	228.41	153.51	225	199.77	328.43
Mean	342.11	166.88	317.2	239.15	321.64
SD	118.12	19.28	75.47	26.16	24.37
CV	34.53	11.55	23.79	10.94	7.576

Source: Annual Reports of Sample Bank 2006 to 2011

Figure 4.9
Book Value Per Share (BVPS) of Sample Banks



The above table and chart shows that the average Book Value Per Share (BVPS) of the banks under study range between Rs.342.106 (SCBNL) and Rs.166.882 (NSBL). NABIL, HBL and EBL have the average BVPS of Rs.317.2, Rs.239.154 and Rs.321.64 respectively. Similarly the CV shows the highest consistency in the BVPS of SCB (34.53%). The CV of BVPS of NSBL, NABIL, HBL and EBL are 11.55%, 23.79%, 10.94% and 7.576% respectively, which shows a level of fluctuation.

4.2 Statistical Tools

The statistical tool (i.e. correlation coefficient and regression analysis) is calculated using the www.easycalculation.com

4.2.1 Correlation Analysis

The correlation coefficient measures the relation between two or more variables. It also measures the extent to which one variable affects the other one. The correlation coefficient lies between +1 and -1. The +1 coefficient indicates that the variable is perfectly positively correlated and -1 coefficient indicates that the variables are perfectly negatively correlated. And if the correlation coefficient is 0, it means that the variables are not related to each other. The negative correlation indicates that increase in value of one variable leads to decrease in the value of the other and

positive correlation indicates that increase in value of one variable leads to increase in the value of the other variable also. The numbers indicate the degree of correlation between the variables.

The table given below shows the correlation coefficient (r) of sample banks between the financial variables.

Table 4.10
Correlation Matrix of Standard Chartered Bank Ltd

	EPS	DPS	DPR	PER	EY	DY	MPS to BVPS	BVPS
MPS	0.815	0.632	0.949	0.712	-0.776	-0.816	0.767	0.781
EPS	1	0.939	0.135	0.248	-0.347	-0.622	0.2747	0.998
DPS	0.939	1	0.455	0.524	-0.588	-0.621	0.5416	0.923
EY	-0.347	-0.588	-0.922	-0.983	1	0.977	-0.977	-0.294

Source: Appendix B

The above table depict that the MPS of SCBNL has positive correlation with its DPS and DPR. It is because of the reason that it is paying dividend regularly and with the payment of dividend, the MPS has been increasing. In the same way, MPS of SCBNL is positively correlated with its P/E Ratio, EPS, BVPS and MPS to BVPS ratio. On the other hand the MPS has negative correlation with the EY and DY. Likewise; the EPS has positive correlation with the DPS and DPR. It is because in some years, the DPR have been increased along with EPS. But same relation with DPS but negatively that is decreased along with EPS. Also the DPS is positively correlated with the DPR and BVPS. In the same way the EY of the bank is negatively correlated with its DY due to MPS continuously increasing.

Table 4.11
Correlation Matrix of SBI Bank Ltd.

	EPS	DPS	DPR	PER	EY	DY	MPS to BVPS	BVPS
MPS	0.657	0.276	0.0761	0.891	0.812	-0.408	0.975	0.816
EPS	1	0.818	0.624	0.260	-0.284	0.346	0.527	0.891
DPS	0.818	1	0.959	-0.168	-0.796	0.758	-0.085	0.750
EY	-0.284	-0.796	-0.929	0.369	1	0.683	-0.959	-0.514

Source: Appendix B

The above table indicates that the MPS of NSBL is negatively correlated with its DY which is because of irregularity in payment of dividends. MPS has positive correlation with its EPS, DPS, DPR, EY, P/E Ratio, BVPS and MPS to BVPS ratio. Similarly, the EPS is positively correlated with its DPS, DPR, DY, P/E Ratio, BVPS and MPS to BVPS. It is because of the reason that the DPS and DPR are decreased with the decrease in the EPS. Also the DPS of NSBL has positive correlation with the EPS, DPR, DY and BVPS. It has negative correlated with P/E ratio, EY and MPS to BVPS ratio. EY has negatively correlated with its EPS, DPS, DPR, BVPS and MPS to BVPS ratio. It is positively correlated with P/E ratio and DY ratio. It's due to flexibility in MPS.

Table 4.12
Correlation Matrix NABIL Bank Ltd.

	EPS	DPS	DPR	PER	EY	DY	MPS to BVPS	BVPS
MPS	0.935	0.853	0.756	0.912	-0.915	-0.461	0.949	0.897
EPS	1	0.962	0.792	0.825	-0.790	-0.193	-0.019	0.308
DPS	0.962	1	0.901	0.739	-0.765	-0.056	0.681	0.982
EY	-0.790	-0.765	-0.845	-0.963	1	0.364	-0.951	-0.748

Source: Appendix B

From the above table it is found that the MPS of NABIL has positive correlation with its EPS, DPS, DPR, P/E Ratio, BVPS and MPS to BVPS ratio. Its DPS and DPR is positive because of regularity in paying dividend. In the other hand the MPS has negative correlation with DY and DY. Likewise; the EPS has positive correlation with the MPS, DPS, DPR, P/E Ratio and BVPS. Its EY, DY and MPS to BVPS is negatively correlated because of flexibility in MPS. DPS has positive correlation with

the financial indicators as MPS above mention. The EY of the bank is negatively correlated with EPS, DPS, DPR, PER, MPS to BVPS and BVPS. It has been resulted because of highly fluctuation in the MPS i.e. decreased trend.

Table 4.13
Correlation Matrix Himalayan Bank Ltd.

	EPS	DPS	DPR	PER	EY	DY	MPS to BVPS	BVPS
MPS	0.885	0.913	-0.699	0.859	-0.789	-0.962	0.995	0.860
EPS	1	0.850	-0.947	0.522	-0.422	-0.754	0.882	0.717
DPS	0.850	1	-0.655	0.732	-0.633	-0.811	0.942	0.684
EY	-0.423	-0.633	0.142	-0.988	1	0.501	-0.769	-0.447

Source: Appendix B

The above table reveals that the MPS of HBL is positively correlated with EPS, DPS, P/E Ratio, BVPS and MPS to BVPS due to regularity payment of dividends. It has also negative correlated with its EY, DPR and EY. Similarly, the EPS is positively correlated with DPS, P/E Ratio, BVPS and MPS to BVPS. It is because of the reason that the DPS is increase for some years even though the EPS has decreased. Also the DPS of HBL positive correlated with EPS, P/E Ratio, BVPS and MPS to BVPS. But it is negatively correlated with DPR, EY and DY. It is due to highly changes in MPS.

Table 4.14
Correlation Matrix Everest Bank Ltd.

	EPS	DPS	DPR	PER	EY	DY	MPS to BVPS	BVPS
MPS	0.113	0.742	0.762	0.956	-0.965	-0.208	0.974	-0.215
EPS	1	0.429	0.096	-0.171	0.028	0.529	0.803	-0.081
DPS	0.429	1	0.940	0.657	-0.780	0.490	0.726	-0.156
EY	0.027	-0.779	-0.861	-0.976	1	0.143	-0.987	0.406

Source: Appendix B

The above table represents that the MPS of EBL is positively correlated with EPS, DPS, P/E Ratio, BVPS and MPS to BVPS due to regularity payment of dividends. It has also negative correlated with its EY, BVPS and DY. Similarly, the EPS is positively correlated with DPS, DPR, EY, DY and MPS to BVPS. It has negative correlated with P/E ratio and BVPS. Also the DPS of EBL positive correlated with EPS, P/E Ratio, DY and MPS to BVPS. But it is negatively correlated with EY and

BVPS. EY is negative correlated with DPS, DPR, P/E Ratio, MPS to BVPS and BVPS so on it has positive correlated with EPS and BVPS.

From the above analysis, the MPS of the banks (SCBNL, NABIL, NSBL and EBL) who are paying dividend regularly have positive correlation with their dividend component i.e. DPS, and DPR. It means that the MPS of these banks will increase with the increase in dividend and vice versa. In contrast the MPS of the Banks (NSBL) who have fluctuating nature of dividends are negatively correlated with their dividend component i.e. increase in dividend leads to decrease in MPS and vice versa. The non-payment of dividend also has lead to the negative correlation between MPS and the dividend components.

The correlation between MPS and EPS of SCBNL, NSBL, NABIL, HBL and EBL are positively correlated, which means that with increase in MPS, The EPS will also increase and vice versa.

From the above analysis, we can conclude that there is a positive correlation between MPS and P/E Ratio of the banks. It indicates that increase in P/E Ratio will increase the MPS and vice versa. Also Most of banks (SCBNL, HBL, EBL and NABIL) have negative correlation between MPS & EY and MPS & DY, but NSBL Bank has random relation. The correlation between MPS and MPS to BVPS ratio is positive in case of all banks. While the correlation between MPS and BVPS of SCBNL, NSBL, NABIL and HBL will increase with the increase in MPS but in case of EBL, it will decrease with the increase in MPS of BVPS.

Analyzing the relation between EPS – DPS and EPS – DPR, we can see positive correlation (SCBNL, NSBL, EBL and NABIL) but in HBL It seems positive with DPS but negative with DPR.

Regarding the correlation of DPS with DPR and BVPS is positive correlated with SCBNL, NSBL and NABIL. In case of HBL's DPS is negatively correlated with DPR but there exists positive correlation with BVPS and vice versa with EBL.

Further, normally there is mixed results between EY and DY. SCBNL, NABIL, EBL and HBL have positive correlation, i.e., it shows that increase in EY; the DY will also increase and vice versa. But incase of NSBL; there exist negative correlation between EY and DY i.e. DY will decrease if EY will increase and vice versa.

4.2.2 Regression Analysis

Table 4.15
MPS on EPS

Bank	Constant(a)	(b)	S.E.E.	S_b	R²	T-Value
SCBNL	-41.82	43.18	1423.05	17.72	0.664	2.437
NSBL	-411.724	52	275.20	19.87	0.433	2.615
NABIL	-2925.77	64.3	7.48.21	14.013	0.585	4.581
HBL	-764.49	40.85	2212.66	80.814	0.783	0.5051
EBL	1313.96	9.19	911.99	46.52	0.0127	0.197

Source: Appendix C

The table 4.15 of regression analysis of MPS and EPS shows five different banks status. From the above table, the beta (regression) coefficient of SCBNL is 43.18, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.43.18 increase in dependent variable (MPS), if constant (a) = -41.82 remain same. The coefficient of multiple determinations (r^2) of SCBNL is 0.664. This tells us that, 66.4% variance in MPS is due to change in NWPS. Since, the calculated T-value of SCBNL 2.437 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

In the case of NSBL the beta (regression) coefficient is 52, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.52 increase in dependent variable (MPS), if constant (a) = -411.72 remain same. The coefficient of multiple determinations (r^2) of NSBL is 0.433. This tells us that, 43.3% variance in MPS is due to change in NWPS. Since, the calculated T-value of NSBL 2.615 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

The beta (regression) coefficient of NABIL is 64.3, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.64.3 increase in

dependent variable (MPS), if constant (a) = -2925.77 remain same. The coefficient of multiple determinations (r^2) of NABIL is 0.433. This tells us that, 43.3% variance in MPS is due to change in NWPS. Since, the calculated T-value of NABIL 4.581 is higher than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically significance.

In the case of HBL the beta (regression) coefficient is 40.85. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.40.85 increase in dependent variable (MPS), if constant (a) = -764.49 remain same. The coefficient of multiple determinations (r^2) of HBL is 0.783. This tells us that, 78.3% variance in MPS is due to change in NWPS. Since, the calculated T-value of HBL 0.5051 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificance.

According to EBL the beta (regression) coefficient is 9.19. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.9.19 increase in dependent variable (MPS), if constant (a) = 1313.96 remain same. The coefficient of multiple determinations (r^2) of EBL is 0.0127. This tells us that, 1.27% Variance in MPS is due to change in NWPS. Since, the calculated T-value of EBL 0.197 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificance.

Table 4.16
MPS on DPS

Bank	Constant(a)	(b)	S.E.E.	S_b	R²	T-Value
SCBNL	-651.31	56.41	2570.93	35.93	0.9006	1.57
NSBL	986.62	7.698	607.61	15.48	0.076	0.497
NABIL	473.28	38.81	1102.49	13.68	0.727	2.836
HBL	-4832.71	153.45	298.46	39.63	0.834	3.872
EBL	435.125	65.88	614.9	34.37	0.551	1.916

Source: Appendix C

The table 4.16 of regression analysis of MPS and DPS shows five different banks status. From the above table, the beta (regression) coefficient of SCBNL is 56.41, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.56.41 increase in dependent variable (MPS), if constant (a) = -651.31

remain same. The coefficient of multiple determinations (r^2) of SCBNL is 0.9006. This tells us that, 90.06% variance in MPS is due to change in NWPS. Since, the calculated T-value of SCBNL 1.57 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

In the case of NSBL the beta (regression) coefficient is 7.698, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.7.698 increase in dependent variable (MPS), if constant (a) = 986.62 remain same. The coefficient of multiple determinations (r^2) of NSBL is 0.076. This tells us that, 43.3% variance in MPS is due to change in NWPS. Since, the calculated T-value of NSBL 0.497 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

The beta (regression) coefficient of NABIL is 64.3, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.64.3 increase in dependent variable (MPS), if constant (a) = -2925.77 remain same. The coefficient of multiple determinations (r^2) of NABIL is 0.433. This tells us that, 43.3% variance in MPS is due to change in NWPS. Since, the calculated T-value of NABIL 4.581 is higher than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically significant.

In the case of HBL the beta (regression) coefficient is 40.85. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.40.85 increase in dependent variable (MPS), if constant (a) = -764.49 remain same. The coefficient of multiple determinations (r^2) of HBL is 0.783. This tells us that, 78.3% variance in MPS is due to change in NWPS. Since, the calculated T-value of HBL 0.5051 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

According to EBL the beta (regression) coefficient is 9.19. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.9.19 increase in dependent variable (MPS), if constant (a) = 1313.96 remain same. The coefficient of multiple determinations (r^2) of EBL is 0.0127. This tells us that, 1.27% variance in MPS is due to change in NWPS; Since, the calculated T-value of EBL 0.197 is less

than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

Table 4.17
MPS on DP

Bank	Constant(a)	(b)	S.E.E.	S_b	R²	T-Value
SCBNL	-651.31	56.41	2570.93	35.93	0.9006	1.57
NSBL	986.62	7.698	607.61	15.48	0.076	0.497
NABIL	2163.82	26.803	2014.95	48.17	0.0935	0.5564
HBL	-4832.71	153.45	298.46	39.63	0.834	3.872
EBL	435.125	65.88	614.9	34.37	0.551	1.916

Source: Appendix C

The table 4.17 of regression analysis of MPS and DP shows five different banks status. From the above table, the beta (regression) coefficient of SCBNL is 56.41, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.56.41 increase in dependent variable (MPS), if constant (a) = -651.31 remain same. The coefficient of multiple determinations (r^2) of SCBNL is 0.9006. This tells us that, 90.06% variance in MPS is due to change in NWPS. Since, the calculated T-value of SCBNL 1.57 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

In the case of NSBL the beta (regression) coefficient is 7.698, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.7.698 increase in dependent variable (MPS), if constant (a) = 986.62 remain same. The coefficient of multiple determinations (r^2) of NSBL is 0.076. This tells us that, 43.3% variance in MPS is due to change in NWPS. Since, the calculated T-value of NSBL 0.497 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

The beta (regression) coefficient of NABIL is 26.803, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.26.803 increase in dependent variable (MPS), if constant (a) = 2163.82 remain same. The coefficient of multiple determinations (r^2) of NABIL is 0.0935. This tells us that, 9.35% variance in MPS is due to change in NWPS. Since, the calculated T-value of NABIL 0.5564 is

less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

In the case of HBL the beta (regression) coefficient is 40.85. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.40.85 increase in dependent variable (MPS), if constant (a) = -764.49 remain same. The coefficient of multiple determinations (r^2) of HBL is 0.783. This tells us that, 78.3% variance in MPS is due to change in NWPS. Since, the calculated T-value of HBL 0.5051 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

According to EBL the beta (regression) coefficient is 9.19. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.9.19 increase in dependent variable (MPS), if constant (a) = 1313.96 remain same. The coefficient of multiple determinations (r^2) of EBL is 0.0127. This tells us that, 1.27% variance in MPS is due to change in NWPS; Since the calculated T-value of EBL 0.197 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

Table 4.18
MPS on DPR

Bank	Constant(a)	(b)	S.E.E.	S_b	R²	T-Value
SCBNL	-6156.71	126.33	2047.15	94.84	0.4007	1.332
NSBL	1113.15	0.858	630.275	6.48	0.0058	0.1324
NABIL	-1426.85	63.61	1385.74	31.810	0.572	1.999
HBL	3149.64	-21.81	520.75	12.85	0.49	-1.699
EBL	388.30	61.56	592.26	30.08	0.5831	2.046

Source: Appendix C

The table 4.18 of regression analysis of MPS and DPR shows five different banks status. From the above table, the beta (regression) coefficient of SCBNL is 126.33, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.126.33 increase in dependent variable (MPS), if constant (a) = -6156.71 remain same. The coefficient of multiple determinations (r^2) of SCBNL is 0.4007. This tells us that, 40.07% variance in MPS is due to change in NWPS. Since, the

calculated T-value of SCBNL 1.332 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

In the case of NSBL the beta (regression) coefficient is 0.858, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.0.858 increase in dependent variable (MPS), if constant (a) = 1113.15 remain same. The coefficient of multiple determinations (r^2) of NSBL is 0.0058. This tells us that, 0.58% variance in MPS is due to change in NWPS. Since, the calculated T-value of NSBL 0.1324 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

The beta (regression) coefficient of NABIL is 63.61, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.63.61 increase in dependent variable (MPS), if constant (a) = -1426.85 remain same. The coefficient of multiple determinations (r^2) of NABIL is 0.572. This tells us that, 57.2% variance in MPS is due to change in NWPS. Since, the calculated T-value of NABIL 1.999 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

In the case of HBL the beta (regression) coefficient is -21.81. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.21.81 decrease in dependent variable (MPS), if constant (a) = 3149.64 remain same. The coefficient of multiple determinations (r^2) of HBL is 0.49. This tells us that, 49% variance in MPS is due to change in NWPS. Since, the calculated T-value of HBL 1.699 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

According to EBL the beta (regression) coefficient is 61.56. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.61.56 increase in dependent variable (MPS), if constant (a) = 388.30 remain same. The coefficient of multiple determinations (r^2) of EBL is 0.5831. This tells us that, 58.31% variance in MPS is due to change in NWPS. Since, the calculated T-value of EBL 1.916 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

Table 4.19
MPS on DY

Bank	Constant(a)	(b)	S.E.E.	S_b	R²	T-Value
SCBNL	13614.50	-4147.43	1418.88	1694.58	0.715	-2.45
NSBL	1528.84	-149.33	576.91	192.44	0.167	-0.78
NABIL	7552.095	-1608.5	1878.55	1789.09	0.2121	-0.90
HBL	2568.98	-332.43	195.605	53.30	0.93	-6.237
EBL	2699.55	-446.80	896.66	745.90	0.043	-0.60

Source: Appendix C

The table 4.19 of regression analysis of MPS and DY shows five different banks status. From the above table, the beta (regression) coefficient of SCBNL is -4147.43, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.4147.43 decrease in dependent variable (MPS), if constant (a) = -13614.50 remain same. The coefficient of multiple determinations (r^2) of SCBNL is 0.715. This tells us that, 71.5% variance in MPS is due to change in NWPS. Since, the calculated T-value of SCBNL 2.45 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

In the case of NSBL the beta (regression) coefficient is -149.33, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.149.33 decrease in dependent variable (MPS), if constant (a) = 1528.84 remain same. The coefficient of multiple determinations (r^2) of NSBL is 0.167. This tells us that, 16.7% variance in MPS is due to change in NWPS. Since, the calculated T-value of NSBL 0.78 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

The beta (regression) coefficient of NABIL is -1608.5, which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.1608.5 decrease in dependent variable (MPS), if constant (a) = 7552.095 remain same. The coefficient of multiple determinations (r^2) of NABIL is 0.2121. This tells us that, 21.21% variance in MPS is due to change in NWPS. Since, the calculated T-value of NABIL 0.90 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

In the case of HBL the beta (regression) coefficient is -332.43. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.332.43 decrease in dependent variable (MPS), if constant (a) = 2568.98 remain same. The coefficient of multiple determinations (r^2) of HBL is 0.93. This tells us that, 93% variance in MPS is due to change in NWPS. Since, the calculated T-value of HBL 0.623 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

According to EBL the beta (regression) coefficient is -446.80. which indicates that one rupee increase in independent variable (NWPS) leads to an average Rs.446.80 decrease in dependent variable (MPS), if constant (a) = 2699.55 remain same. The coefficient of multiple determinations (r^2) of EBL is 0.0043. This tells us that, 0.43% variance in MPS is due to change in NWPS. Since, the calculated T-value of EBL 0.61 is less than tabulated T-value of 2.78 at 5% level of significance and 4 degree of freedom, so the result is statistically insignificant.

4.3 Major Findings

The major findings led this study to conclude that there are difference in financial position of high dividend paying and low dividend paying banks. Other things remaining the same, financial position of high dividend paying banks is comparatively better than that of low dividend paying banks. Another interesting conclusion that can be drawn from this study is that market price of share is affected by dividends. Lastly, a dividend as a residual decision in Nepalese banks is rejected by banking executives of Nepal.

There are plenty of space for the future research in the area of banking dividend and market price of share in Nepal. In the context of Nepal, Capital and Stock markets are getting wider and wider than before Nepalese bankers and other companies are adopting developed capital market structure, and it give new generation more opportunities to research. One extension of the present study is to examine the performance of the key financial ratios of regular versus occasional dividend paying banks. A second avenue of research is to make study by adding additional years and the number of banks to get greater insight into the effect of dividend policy on value.

A third research avenue is to find out other relevant variables which will explain the variation in stock price besides the variables presented in the models the variation in earning price ratio and normalized retained earning. A fourth avenue of research is to estimate a better model in explaining the Banking dividend behavior in Nepal from among the various models available in the literature. A final direction of research is to survey the opinions of shareholders on banking dividend practice and share value in Nepal.

Finally, it is recommended that in a world of market imperfections, the best policy is to view separately the net preference of investors for dividends or for capital gains and the fact the new equity financing is more costly than the retention of earnings.

CHAPTER - V

SUMMARY, CONCLUSION & RECOMMENDATION

5.1 Summary

Dividend policy decision is one of the three major decisions of financial management. The dividend policy decision affects on the operation and prosperity of the organization because it has the power to influence other two decisions of the organization i.e. capital structure decision and investment decision. An investor expects two types of return namely capital gain and dividend by investing in equity capital or ordinary share. So, payment of dividend to shareholders is an effective way to attract new investors and maintain present investors. It is important to have clearly defined and effectively managed dividend policy so as to fulfill the shareholder's expectations and corporate growth.

Paying dividend can be taken as an important tool to attract new investors. Besides this dividend paying ability reflects the financial position of the organization in the market. Due to the division of earnings between dividend payout and retention ratio the market price of the share may also be affected, which is also crucial for the organization. So, the funds that could not be used due to the lack of investment opportunities would be better as dividend, since shareholders have investment opportunities elsewhere.

Dividend paying banks have analyzed to show the implication of dividend policy they have adopted in their market price per share. Even if market price is governed by various factors, this study is made to analyze one of the important factor i.e. Dividend. The study covers only five Joint Venture Banks (SCBNL, NSBL, NABIL, HBL and EBL) and only for the last five fiscal years from 2006/07 to 2010/11. The available secondary data have been analyzed using various financial and statistical tools. So, the reliability of the conclusions of this study is determined on the accuracy of secondary data. The major findings of this study can be summarized as follows.

5.2 Conclusion

- The average earning per share (EPS) of the banks under study shows a positive result. But the coefficient of variation indicates that the EPS of the banks are not stable. Among the banks under study, SCBNL has the highest average EPS with lowest fluctuation and NSBL has the least average EPS and SCB has the highest degree of fluctuation.
- The average DPS show that there is regularity in payment of dividend except NSBL. The DPS is quite fluctuating. The CV of DPS ranges between 2.5% and 70.41%. The SCBNL has the highest average DPS and the most regular to pay dividend to its shareholder. Among the bank under study, NSBL has the lowest average DPS and also the highest fluctuation in DPS .since the paid up capital per share is Rs. 100 the analysis of dividend percent also depicts the same result as that of DPS.
- The analysis of DPR also shows that that the DPR of the banks are not stable. The fluctuation ranges between 12.57% and 65.26%. Among the banks under study, SCBNL has the highest average DPR. The result also that,, EBL has the lowest average DPR but highest fluctuation as indicated by highest CV.
- The average MPS of the banks indicate quite high level of fluctuation. SCBNL has the highest average MPS while NSBL has the lowest. Among the banks under study, the MPS of NABIL is high fluctuation.
- The average price earning ratio of SCB and HBL among the banks under study is the highest and also unstable. The ratio of remaining banks is satisfactory and quite stable.
- The average earning yield of banks under study indicates that the average earning yield is quite low ranging between 2.56% to 4.37% and the stability of the earning yield is also low.
- The average dividend yields of the banks are also very low ranging between 2.14% and 3.59%. Among the banks HBL has the highest dividend yield and SCBNL has the lowest. Besides the dividend yield of NABIL is highly fluctuated,
- The average ratio between market price per share and book value per share is nearly similar ranging between 5.58 and 13.67.

- The analysis of Book Value per Share shows that SCBNL has the highest average BVPS and NABIL is the lowest. The coefficient of variation indicates that there is a low level of fluctuation in BVPS of HBL.
- Using the major statistical tools i.e. correlation and regression, following conclusion have been drawn.
- The MPS of SCBNL has positive correlation with its EPS, DPS, DPR, P/E Ratio, BVPS and MPS to BVPS ratio, but it is negatively correlated with its EY and DY, and so on EPS and DPS. The DPS has negative correlation with DPR. Also the EY of SCBNL positively correlated with its DY. The EY of SCBNL has negative correlation with its EPS, DPS, DPR, P/E Ratio, BVPS and MPS to BVPS ratio, but it is positively correlated with its EY and DY.
- In case of NSBL, the MPS is negatively correlated with DY while it has positive correlation with its EPS, DPS, DPR, PER, EY, BVPS and MPS to BVPS. The EPS is negatively correlated with EY while it has positive correlation with its EPS, DPS, DPR, PER, DY, BVPS and MPS to BVPS. DPS is positively correlated with other except PER, EY and MPS to BVPS. EY is negatively correlated with other except EY and DY.
- The MPS of NABIL has positive correlation with DPS, DPR, EPS, P/E Ratio, BVPS, and MPS to BVPS ratio. On other hand it is negatively correlated with EY and DY. The EPS of NABIL has positively correlated with other except EY, DY and MPS to BVPS. The DPS is negatively correlated with EY and DY. The EY of NABIL is negatively correlated with its DY and EY.
- MPS of HBL has positive correlation with its EPS, DPS, P/E Ratio and MPS to BVPS. The MPS is negatively correlation with EY, DY and DPR. Similarly EPS and DPS is so on. The EY of HBL has positive correlation with DPR, EY and DY but negative correlation with other.
- For EBL, MPS is positively correlated with EPS, DPS, DPR, PER and MPS to BVPS. There exists negative correlation with EY, DY and BVPR. There exists negative correlation of DPS with EY and BVPS; vice versa with other. EY of EBL is positively correlated with EPS, EY, DY and BVPS; vice versa with other.
- The regression analysis of MPS on EPS shows that the regression coefficient (b) is positive for all banks. In the same way similar type of relation exist between

MPS on DPS of these banks. It indicates that MPS increase or decrease directly affects the EPS and DPS.

- This regression coefficient (b) for relation between MPS on DPR is negative for HBL. It indicates that MPS increase or decrease directly affects the DPR.
- The regression analysis between MPS on DY shows that the regression coefficient (b) is negative for all banks. It indicates that MPS increase or decrease affects the DY vice versa.

After analyzing the financial variables using mean, standard deviation and coefficient of variation, making analysis of relation between the variables using correlation and regression, the following conclusion have been drawn.

- The market price per share is affected by the dividend related financial variables i.e. DPS and DPR either positively or negatively. The nature of effect is different for different banks. In case of some banks, there exists positive relation between dividend and market price per share while for other there is negative relation. Besides this the market price per share largely depends upon the dividend, which has been shown by the coefficient of multiple-determination.
- Besides dividend, other factors also affect the market price per share e.g. earning per share, price earning ratio, net worth per share, book value per share etc. Their effect is also different for different banks.
- The dividend per share is affected by earning per share, retention ratio, net profit and net worth per share differently in different banks. The extent of effect also differs in the banks.
- The MPS to BVPS ratio is greater than 1 for all banks in all FY under study. This indicates that the investors are not looking at BVPS but only at the transaction price of the share. This has created a gap between MPS and BVPS.
- An analysis of the average DPR of the sample banks shows that out of the total income generated, about 72% is distributed as dividend in general. If the individual DPR of the banks are compared to this figure, SCBNL has the average DPR (85.88%) above than the average DPR of all banks. Thus the individual average DPR of HBL (81.28%), NABIL (81.73%) and NSBL (76.32%). EBL has the individual average (38.63%) which is low as compared

to the average of all banks. The co-efficient of variation of the average DPR of the banks indicates that the fluctuation in the payment of dividend is 38.61% which is above moderate level. Thus it can be concluded that dividend policy of the banks are not uniform. There is no strategy of calculating growth in the dividends paid by the banks, which depicts that the dividend policy of the commercial banks are not stable and consistent. There is fluctuation in the dividend payment even if the banks are making profit regularly. The dividend payment ratio also does not show any stability and co-ordination with other variables. There is large fluctuation in dividend. From this we can conclude that there is no long-term vision regarding the dividend policy.

- There is lack of legal obligation that abides the companies to pay dividend when they are running at profit. There is not clear provision in Company Act 2053, Commercial Bank Act 2031 and other regulating acts regarding the dividend policy.

5.3 Recommendations

Based on the major findings of this study, some recommendations have been made so as to overcome some shortfalls regarding the issue of dividend of the banking sector.

- There is lack of proper legal provisions regarding the dividend payment. The government as well as the central bank of Nepal, Nepal Rastra Bank should pay their attention in this matter for prescribing certain provisions and rules regarding the percentage of earning as payment of dividend.
- The commercial banks also should have their long-term policy / strategy regarding the adoption of suitable dividend policy i.e. either it is adopting a stable dividend policy, constant payout ratio or low regular plus extra dividend policy.
- There is inconsistency in dividend payment. The dividend is neither static nor growing. This may create misconception about the organization regarding its financial position. Due to high degree of risk and uncertainty, the market price per share may be adversely affected. So the commercial banks should follow either static or growing dividend payment policy.
- Even if the net earning has been increasing, the dividend per share has widely fluctuated due to the issue of bonus shares. The impact of bonus share on DPS

should be pre-evaluated. The shareholders should also be informed about the reasons of fluctuation in dividend.

- While making dividend decision, a minor mistake may lead the bank to serious crisis. Due to this reason it is advised to adopt optimum dividend decision based on the following criteria:
 - Optimum retention for excellent expansion and modernization of bank.
 - Optimum dividend so as to maximize shareholders wealth through increase in market price per share i.e. net present value of shareholders.
 - Stable or consistency in the dividend payment.

Finally, after making this study, it is realized that there is a necessity of legal provisions and rules for prescribing certain policy regarding the dividend payment in the banking sector. For this purpose the concerned authority i.e. Nepal Government, Nepal Rastra Bank, Security Board and Nepal Stock Exchange should be conscious about the formulation and implication of rule regarding dividend payment. This will help to regularize the dividend policy of the financial sector in Nepal.

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APPENDICES

APPENDIX A

Standard Chartered Bank Limited

Variable/years	2006/07	2007/08	2008/09	2009/10	2010/11	Mean	SD	CV
EPS	167.37	131.92	109.99	77.65	69.51	111.29	32.95	29.62
DPS	130	130	100	70	50	96	32	33.33
DPR	77.67	98.54	90.92	90.15	71.93	85.892	10.79	12.57
MPS	5900.00	6830.00	6010.00	3279.00	1800	4763.8	1902.73	39.94
P/E Ratio	35.25	51.77	54.64	42.23	25.90	41.96	10.583	25.23
EY	2.84	1.93	1.083	2.37	3.86	2.56	0.74	28.89
DY	2.20	1.90	1.66	2.13	2.78	2.14	0.38	17.55
BVPS	512.12	401.52	327.53	240.95	228.41	342.106	118.117	34.53
MPS to BVPS	11.52	17.01	18.35	13.61	7.88	13.674	4.219	30.85
NWPS	512.12	401.52	327.53	240.95	228.41	342.106	118.117	34.53

Nepal SBI Bank Ltd.(NSBI)

Variable/years	2006/07	2007/08	2008/09	2009/10	2010/11	Mean	SD	CV
EPS	39.35	28.33	36.18	23.69	24.85	30.48	6.22	20.42
DPS	47.59	-	42.11	17.50	17.50	24.94	17.56	70.41
DPR	120.94	-	116.39	73.87	70.42	76.32	48.63	63.72
MPS	1176.00	1511.00	1900.00	741.00	565	1178.6	489.68	41.55
P/E Ratio	29.89	53.35	52.52	31.28	22.74	37.96	12.57	33.12
EY	3.35	1.87	1.90	3.20	4.40	2.94	0.96	32.56
DY	4.05	-	2.22	2.36	3.10	2.346	1.34	57.12
BVPS	178.04	160.57	194.68	147.61	153.51	166.882	19.2827	11.55
MPS to BVPS	6.61	9.41	9.76	5.02	3.680	6.896	2.667	38.685
NWPS	178.04	160.57	194.68	147.61	153.51	166.88	19.28	11.55

Nabil Bank Ltd.(NABIL)

Variable/years	2006/07	2007/08	2008/09	2009/10	2010/11	Mean	SD	CV
EPS	137.08	108.31	106.76	78.61	70.67	104.17	23.84	22.88
DPS	140	100	85	70	30	85	16.13	18.97
DPR	102.13	92.33	79.62	89.05	45.52	81.73	21.78	26.65
MPS	5050.00	5275.00	4899.00	2384.00	1252	3772	1639.47	43.46
P/E Ratio	36.84	48.70	45.89	30.33	17.72	35.90	11.20	31.17
EY	2.71	2.05	2.18	3.30	5.64	3.18	1.32	41.21
DY	2.77	1.90	1.74	2.94	2.40	3.35	2.25	67.16
BVPS	418	354	324	265	225	317.2	75.47	23.79
MPS to BVPS	12.08	14.90	15.12	9.00	5.56	11.332	4.0741	35.952
NWPS	418	354	324	265	225	317.2	75.47	23.79

Himalayan Bank Ltd.(HBL)

Variable/years	2006/07	2007/08	2008/09	2009/10	2010/11	Mean	SD	CV
EPS	60.66	62.74	61.9	31.8	44.66	52.35	12.24	23.39
DPS	28.39	31.56	28.43	25.66	12.88	25.38	6.535	25.70
DPR	65.94	71.72	70.37	115.85	82.49	81.28	20.26	24.92
MPS	1740.00	1980.00	1760.00	816.00	575	1374.2	565.68	41.161
P/E Ratio	28.39	31.56	28.43	25.66	12.88	25.38	6.535	25.70
EY	3.19	3.17	3.52	3.90	7.77	4.37	1.670	38.23
DY	2.30	2.27	2.48	4.51	6.41	3.594	1.833	50.99
BVPS	264.74	247.95	256.52	226.79	199.77	239.154	26.161	10.94
MPS to BVPS	6.57	7.99	6.86	3.60	2.89	5.582	2.213	39.64
NWPS	264.74	247.95	256.52	226.79	199.77	239.15	26.16	10.94

Everest Bank Limited (EBL)

Variable/years	2006/07	2007/08	2008/09	2009/10	2010/11	Mean	SD	CV
EPS	74.42	91.82	99.99	100.16	83.18	90.714	8.768	9.65
DPS	30	30	30	30	10	26	8	2.5
DPR	38.26	32.67	80.17	30	12.02	38.63	25.21	65.26
MPS	2430.00	3132.00	2455.00	1630.00	1094	2148.2	710.11	33.06
P/E Ratio	20.1	18.18	20.25	21.33	13.15	18.602	2.64	14.19
EY	3.23	2.93	1.52	6.13	7.60	4.282	2.24	52.20
DY	1.23	0.96	1.22	1.84	0.91	1.232	0.369	30.02
BVPS	280.82	321.77	345.23	331.99	328.43	321.64	24.37	7.576
MPS to BVPS	8.65	9.73	7.11	4.91	3.33	6.7462	2.6315	39.01
NWPS	280.82	321.77	345.23	331.99	328.43	321.65	24.37	7.57

APPENDIX B

Correlation-Standard Chartered Bank Nepal Ltd.

	EPS	DPS	DPR	MPS	P/E Ratio	EY	DY	BVPS	MPS to BVPS
EPS	1	0.939	0.135	0.815	0.248	-0.347	-0.622	0.998	0.2747
DPS	0.939	1	0.455	0.632	0.524	-0.588	-0.621	0.923	0.542
DPR	0.135	0.455	1	0.949	0.917	-0.922	-0.819	0.086	0.901
MPS	0.815	0.632	0.949	1	0.712	-0.776	-0.816	0.781	0.767
P/E Ratio	0.248	0.524	0.917	0.751	1	-0.983	-0.968	0.189	0.999
EY	-0.347	-0.588	-0.922	-0.776	-0.983	1	-0.977	-0.294	-0.977
DY	-0.622	-0.621	-0.819	-0.816	-0.961	0.977	1	-0.348	-0.974
BVPS	0.998	0.923	0.086	0.781	0.189	-0.294	-0.348	1	0.622
MPS to BVPS	0.275	0.5416	0.901	0.767	0.999	-0.977	-0.974	0.622	1

Correlation- SBI Bank Ltd.

X/Y	EPS	DPS	DPR	MPS	P/E Ratio	EY	DY	BVPS	MPS to BVPS
EPS	1	0.818	0.624	0.657	0.260	-0.284	0.346	0.891	0.527
DPS	0.818	1	0.9597	0.276	-0.168	-0.796	0.758	0.750	-0.085
DPR	0.624	0.9597	1	0.076	-0.329	-0.929	0.842	0.076	-0.127
MPS	0.657	0.276	0.076	1	0.891	0.081	-0.408	0.816	0.975
P/E Ratio	0.260	-0.168	-0.329	0.891	1	0.369	-0.749	0.503	0.9613
EY	-0.284	-0.796	-0.929	0.081	0.369	1	0.683	-0.514	-0.959
DY	0.346	0.758	0.842	-0.408	-0.749	0.683	1	0.1730	-0.574
BVPS	0.891	0.750	0.594	0.816	0.503	-0.514	0.1730	1	0.677
MPS to BVPS	0.527	-0.085	-0.127	0.975	0.9613	-0.959	-0.574	0.677	1

Correlation-NABIL Bank Ltd.

X/Y	EPS	DPS	DPR	MPS	P/E Ratio	EY	DY	BVPS	MPS to BVPS
EPS	1	0.962	0.792	0.935	0.825	-0.79	-0.193	0.307	-0.019
DPS	0.962	1	0.9005	0.853	0.739	-0.765	-0.056	0.982	0.681
DPR	0.792	0.9005	1	0.756	0.715	-0.845	0.166	0.819	0.667
MPS	0.935	0.853	0.756	1	0.912	-0.915	-0.461	0.897	0.949
P/E Ratio	0.825	0.739	0.715	0.912	1	-0.963	0.364	-0.748	-0.951
EY	-0.79	-0.765	-0.845	-0.915	-0.963	1	0.363	-0.748	-0.951
DY	-0.193	-0.056	0.166	-0.461	0.364	0.363	1	-0.219	-0.216
BVPS	0.307	0.982	0.819	0.897	-0.748	-0.748	-0.219	1	0.721
MPS to BVPS	-0.019	0.681	0.667	0.949	-0.951	-0.951	-0.216	0.721	1

Correlation- Himalayan Bank Ltd.

X/Y	EPS	DPS	DPR	MPS	P/E Ratio	EY	DY	BVPS	MPS to BVPS
EPS	1	0.8501	-0.947	0.889	0.5224	-0.423	-0.753	0.716	0.882
DPS	0.8501	1	-0.656	0.913	0.7318	-0.633	-0.811	0.684	0.942
DPR	-0.946	-0.655	1	-0.699	-0.243	0.142	0.537	-0.538	0.041
MPS	0.885	0.913	-0.699	1	0.859	-0.789	-0.962	0.860	0.995
P/E Ratio	0.522	0.732	-0.243	0.859	1	-0.988	-0.943	0.882	0.849
EY	-0.423	-0.633	0.142	-0.789	-0.987	1	0.501	-0.447	-0.769
DY	-0.753	-0.811	0.537	-0.962	-0.943	0.501	1	0.429	-0.942
BVPS	0.717	0.684	-0.538	0.860	0.882	-0.447	0.429	1	0.860
MPS to BVPS	0.882	0.942	0.041	0.995	0.849	-0.769	-0.942	0.860	1

Correlation– Everest- Bank Ltd.

X/Y	EPS	DPS	DPR	MPS	P/E Ratio	EY	DY	BVPS	MPS to BVPS
EPS	1	0.429	0.096	0.113	-0.171	0.0277	0.529	0.803	-0.081
DPS	0.429	1	0.939	0.742	0.657	-0.779	0.489	-0.155	0.725
DPR	0.096	0.939	1	0.762	0.778	-0.861	0.355	-0.477	0.819
MPS	0.113	0.742	0.762	1	0.956	-0.965	-0.208	-0.215	0.974
P/E Ratio	-0.171	0.657	0.778	0.956	1	-0.976	0.291	-0.481	0.995
EY	0.027	-0.779	-0.861	-0.965	-0.976	1	0.143	0.406	-0.987
DY	0.529	0.489	0.355	-0.208	0.291	0.143	1	0.095	-0.289
BVPS	0.803	-0.155	-0.477	-0.215	-0.481	0.406	0.095	1	-0.432
MPS to BVPS	-0.081	0.725	0.819	0.974	0.995	-0.987	-0.289	-0.432	1

APPENDIX C

Calculation example for regression Analysis: MPS on EPS

Standard Chartered Bank's

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

$$\text{or, } S.E.E. = \sqrt{\frac{131570841 - (-41.82 \times 23819) - 43.182 \times 2929268.85}{5-2}}$$

$$\therefore S.E.E. = \text{Rs.}1423.055$$

$$S_b = \frac{S.E.E.}{\sqrt{\sum (X-\bar{X})^2}}$$

$$S_b = \frac{1423.055}{\sqrt{6448.637}}$$

$$S_b = 17.72$$

$$t\text{-value} = \frac{b}{S_b} = \frac{43.182}{17.72} = 2.437$$

Nepal SBI Bank's

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

$$\text{or, } S.E.E. = \sqrt{\frac{81444403 - (-411.724 \times 5893) - 52 \times 190174.27}{5-2}}$$

$$\therefore S.E.E. = \text{Rs.}275.2030$$

$$S_b = \frac{S.E.E.}{\sqrt{\sum (X-\bar{X})^2}}$$

$$S_b = \frac{275.20}{\sqrt{191.639}}$$

$$S. b. = 19.87$$

$$t\text{-value} = \frac{b}{S_b} = \frac{52}{19.87} = 2.615$$

$$S_b \quad 19.87$$

NABIL Bank's

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

$$\text{or, } S.E.E. = \sqrt{\frac{84579286 - (-2925.80 \times 18860) - 64.3 \times 2147440.04}{5-2}}$$

$$\therefore S.E.E. = \text{Rs.}748.21$$

$$S_b = \frac{S.E.E.}{\sqrt{\sum (X-X)^2}}$$

$$S_b = \frac{748.21}{\sqrt{2842.44}}$$

$$S_b = 14.033$$

$$t\text{-value} = \frac{b}{S_b} = \frac{64.3}{14.03} = 4.581$$

$$S_b \quad 14.03$$

HBL Bank's

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

$$\text{or, S.E.E} = \sqrt{\frac{11042081 - (-764.49 \times 6871) - 40.853 \times 39345.9}{5-2}}$$

$$\therefore S.E.E. = \text{Rs.}2212.66$$

$$S_b = \frac{S.E.E.}{\sqrt{\sum (X-\bar{X})^2}}$$

$$S_b = \frac{2212.66}{\sqrt{749.64}}$$

$$S_b = 80.814$$

$$t\text{-value} = \frac{b}{S_b} = \frac{40.85}{80.814} = 0.5054$$

EBL Bank's

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

$$\text{or, S.E.E} = \sqrt{\frac{25595085 - (-1313.96 \times 10741) - 9.19 \times 977876.01}{5-2}}$$

$$\therefore S.E.E. = \text{Rs.}911.99$$

$$S_b = \frac{S.E.E.}{\sqrt{\sum (X-\bar{X})^2}}$$

$$S_b = \frac{911.99}{\sqrt{384.398}}$$

$$S_b = 46.52$$

$$t\text{-value} = \frac{b}{S_b} = \frac{9.19}{46.52} = 0.1975$$

Calculation example for regression Analysis: MPS on DPS

Standard Chartered Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{131570841 - (-651.31 \times 23819) - 56.41 \times 2255900}{5-2}} = \text{Rs. } 6609691.63$$

$$S_b = \frac{\text{S.E.E}}{\sqrt{\sum(X-\bar{X})^2}} = \frac{2570.93}{\sqrt{5120}} = 35.93$$

$$t\text{-value} = \frac{b}{S_b} = \frac{56.41}{35.93} = 1.57$$

Nepal SBI Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{81444403 - (986.62 \times 5893) - 7.698 \times 158829.84}{5-2}} = \text{Rs. } 607.61$$

$$S_b = \frac{\text{S.E.E}}{\sqrt{\sum(X-\bar{X})^2}} = \frac{607.61}{\sqrt{1540.537}} = 15.48$$

$$t\text{-value} = \frac{b}{S_b} = \frac{7.698}{15.48} = 0.497$$

NABIL Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{84579286 - (-473.28 \times 18860) - 38.81 \times 1855355}{5-2}} = \text{Rs. } 1102.49$$

$$S_b = \frac{\text{S.E.E}}{\sqrt{\sum(X-\bar{X})^2}} = \frac{1102.49}{\sqrt{6500}} = 13.68$$

$$t\text{-value} = \frac{b}{S_b} = \frac{38.81}{13.68} = 2.836$$

HBL Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{11042081 - (-4832.70 \times 6871) - 153.45 \times 286610.04}{5-2}} = \text{Rs. } 298.46$$

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

$$S_b = \frac{298.46}{\sqrt{56.64}} = 39.63$$

$$t\text{-value} = \frac{b}{S_b} = \frac{153.45}{39.63} = 3.872$$

EBL Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{25595085 - 435.125 \times 10741 - 65.88 \times 300350}{5-2}} = \text{Rs. } 614.9$$

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

$$S_b = \frac{614.9}{\sqrt{320}} = 34.37$$

$$t\text{-value} = \frac{b}{S_b} = \frac{65.88}{34.37} = 1.9161$$

Calculation example for regression Analysis: MPS on DPR

Standard Chartered Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{131570841 - (6156.71 \times 23819) - 126.33 \times 2102786.25}{5-2}} = \text{Rs. } 2047.15$$

$$S_b = \frac{\text{S.E.E}}{\sqrt{\sum(X-\bar{X})^2}} = \frac{2047.15}{\sqrt{465.908}} = 94.84$$

$$t\text{-value} = \frac{b}{S_b} = \frac{126.33}{94.847} = 1.332$$

Nepal SBI Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{8144403 - (1113.15 \times 5893) - 0.858 \times 457891.41}{5-2}} = \text{Rs. } 630.275$$

$$S_b = \frac{\text{S.E.E}}{\sqrt{\sum(X-\bar{X})}} = \frac{630.275}{\sqrt{9462.10}} = 6.48$$

$$t\text{-value} = \frac{b}{S_b} = \frac{7.698}{15.48} = 0.1324$$

NABIL Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{84579286 - (-1426.85 \times 18860) - 63.61 \times 1662141.87}{5-2}} = \text{Rs. } 1385.74$$

$$S_b = \frac{\text{S.E.E}}{\sqrt{\sum(X-\bar{X})^2}} = \frac{13.85.74}{\sqrt{1897.718}} = 31.810$$

$$t\text{-value} = \frac{b}{S_b} = \frac{63.61}{31.810} = 1.999$$

HBL Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{11042081 - (3149.64 \times 6871) - (-21.84 \times 522557.75)}{5-2}} = \text{Rs. } 520.75$$

$$S_b = \frac{\text{S.E.E}}{\sqrt{\sum(X-\bar{X})^2}} = \frac{520.75}{\sqrt{1642.29}} = 12.85$$

$$t\text{-value} = \frac{b}{S_b} = \frac{-21.84}{12.85} = |-1.6996| = 1.70$$

EBL Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{25595085 - 388.30 \times 10741 - 61.56 \times 330929.82}{5-2}} = \text{Rs. } 592.26$$

$$S_b = \frac{S.E.E}{\sqrt{\sum(X-\bar{X})^2}} = \frac{592.26}{\sqrt{387.63}} = 30.08$$

$$t\text{-value} = \frac{b}{S_b} = \frac{65.88}{34.37} = 1.9161$$

Calculation example for regression Analysis: MPS on DY

Standard Chartered Bank's

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

$$\text{Or, } S.E.E = \sqrt{\frac{131570841 - (13614.50 \times 23819) - (-4147.43 \times 47921.87)}{5-2}} = \text{Rs. } 1418.88$$

$$S_b = \frac{S.E.E}{\sqrt{\sum(X-\bar{X})^2}} = \frac{1418.88}{\sqrt{0.7012}} = 1694.58$$

$$t\text{-value} = \frac{b}{S_b} = \frac{-4147.43}{1694.58} = |-2.45| = 2.45$$

Nepal SBI Bank's

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

$$\text{Or, } S.E.E = \sqrt{\frac{81444403 - (1528.84 \times 5893) - (-149.33) \times 12479.365}{5-2}} = \text{Rs. } 576.91$$

$$S_b = \frac{S.E.E}{\sqrt{\sum(X-\bar{X})^2}} = \frac{576.91}{\sqrt{8.987}} = 192.44$$

$$t\text{-value} = \frac{b}{S_b} = \frac{-140.33}{192.44} = |-0.775| = 0.775$$

NABIL Bank's

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

$$\text{Or, } S.E.E = \sqrt{\frac{84579286 - (7552.095 \times 18860) - (-1608.5 \times 42549.02)}{5-2}} = \text{Rs. } 1878.5520$$

$$S_b = \frac{S.E.E}{\sqrt{\sum(X-\bar{X})^2}} = \frac{1878.55}{\sqrt{1.1016}} = 1789.09$$

$$t\text{-value} = \frac{b}{S_b} = \frac{-1608.5}{1789.09} = |-0.899| = 0.90$$

HBL Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{11042081 - (2568.98 \times 6871) - (-332.43 \times 20227.31)}{5-2}} = \text{Rs.} 195.6051$$

$$S_b = \frac{\text{S.E.E}}{\sqrt{\sum (X-\bar{X})^2}} = \frac{195.6051}{\sqrt{13.4374}} = 53.30$$

$$t\text{-value} = \frac{b}{S_b} = \frac{-332.43}{53.30} = |-6.237| = 6.237$$

EBL Bank's

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

$$\text{Or, S.E.E} = \sqrt{\frac{25595085 - 2699.55 \times 10741 - (-446.80 \times 13009.76)}{5-2}} = \text{Rs.} 896.66$$

$$S_b = \frac{\text{S.E.E}}{\sqrt{\sum (X-\bar{X})^2}} = \frac{896.66}{\sqrt{1.4451}} = 745.896$$

$$t\text{-value} = \frac{b}{S_b} = \frac{-446.80}{745.896} = |-0.60| = 0.60$$