CHAPTER 1

INTRODUCTION

1.1. General Background of Study

Even if, being surrounded by the two economic superpowers of the world, China and India, Nepal is still in the list of least developed countries. Majority of the population lie below the poverty line. The agro-dominated economy is further worsened by complex geographical situation. Various factors like landlocked situation, poor resource mobilization, lack of entrepreneurship, lack of institutional commitment, irregular government policies, political instability etc are responsible for the slow pace of development in Nepal.

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 chanalization 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 altogether 30 in number, which include Nepal Bank Limited, Rastriya Banijya Bank, Agricultural Development Bank, Nepal Bangladesh Bank Ltd., Nabil Bank, Everest Bank Ltd., Himalayan Bank Ltd., Nepal SBI Bank Ltd., Nepal Investment Bank Ltd., Standard Chartered Bank Nepal Limited, Nepal Credit and Commerce Bank Ltd., Bank of Kathmandu Limited, Nepal Credit and Commerce Bank Ltd., Lumbini Bank Limited, Nepal Industrial and Commercial Bank Limited, Siddhartha Bank Limited, , KIST Bank Limited, Machhapuchre Bank Limited, Kumari Bank and Laxmi Bank, Prime Bank, Sunrise Bank, Global Bank, Citizen Bank and Bank of Asia, Development Credit Bank Ltd., Nepal Merchant

Bank Ltd., Janata Bank Ltd, Mega Bank and Civil Bank. Today Nepal can take legitimate pride in the remarkable growth and progress in the banking industry.

The 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 the nation.

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[1]. The establishment of joint ventures 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. This has drawn a heavy attention from non-business or general public towards commercial banks.

In a 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.

[1] **NRB (1997)** *Economic Report 1996-97*, Research and Publication Department

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 includes the issue of shares, bonds, debentures etc., whereas the internal 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 are few companies who pay dividend. But after the establishment of Joint Venture companies, there is a new trend of distributing dividends. Dividend distribution trend has not only attracted the investors but has also made the management conscious about the policy regarding the payment of dividend.

1.2 Statement of 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.

Many empirical studies have been carried out in the developed capital market to analyze the relationship between dividend and stock prices like Lintner (1956), Modigliani and Miller (1961), Gordon (1962), Friend and Puckett (1964), Walter (1966), Van Horne and McDonald (1971), Chawla and Shrinivasan (1987). However, no conclusive relationship exists between the amount paid out as dividend and the market price of share. There is still a controversy concerning the relationship between dividend and market price of shares.

Dividend is the most stimulating factor for the investment on shares of the company is thus desirable from the stockholder's point of view. In one 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 shareholders' 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?

1.3 Objectives of 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 highlight various aspects of dividend policies and practices in Nepal carried out by the banking sector.
- To analyze the variables, such as profit, retained earnings, growth rate and other relevant variables to show relationship between the value and other ingredients affecting it.
- To provide feedback to the policy makers and executives working in various commercial banks chosen for study based on findings of analysis.

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 the firm. This study also provides relevant and pertinent literature for future research on the area of dividend policy of managerial finance.

1.4 Significance of 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:

(i) By means of dividend

(ii) 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.

1.5 Limitations of Study

This study has been carried out within certain limitations, which are as follows:

i. 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.

ii. 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.

iii. The study covers a five-year period, i.e. from FY 2005/06 to FY 2009/10

iv. 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.

1.6 Organizations Under Study

1.6.1 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 form 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 Grindlays Bank Ltd. leading to the name change of the Bank to Standard Chartered Bank Nepal Limited with effective from July 16, 2001.[2] 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.[3] The number of branches as on Mid July 2010 is 14.

1.6.2 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.

[2] Source: www.standardchartered.com.np
[3] Ibid

The Bank was registered on 2050/1/16 (28.04.1993) in the Department of Industry, HMG/N 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%
Local Ownership		
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 Durbar marg Branch. Very soon It has coming with Online Banking Facilities. The number of branches as of Mid July 2010 is 43

1.6.3 NABIL Bank Limited (Nepal Arab Bank Limited)

NABIL Bank Limited (Nepal Arab Bank Limited was incorporated in the year 1984 A.D. (2041 BS). 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.[4] The equity composition of Nepal Arab Bank Limited is as follows:

Foreign Institutions	-	50%
Other licensed Institutions	-	6.15%

[4] Source: www.nabilbankltd.com.np

Other Entities	-	10.42%
Individuals	-	3.44%
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 26 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, tele-banking, safe deposit lockers, fund transfer etc.

1.6.4 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 Savings 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 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 Bank 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 NB Bank Ltd is as:

Foreign Institutions	-	20%
Other Licensed Institutions	-	14%
Other Entities	-	51%
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 a wide network of agencies and correspondence banking with other major financial institutions in the world.

1.6.5 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 in different countries, which enable quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and U K.

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 branch banking, 365 days banking etc. It is providing service through its 42 branches and 6 extended banking counter (as on Mid July 2010)

CHAPTER 2

REVIEW OF LITERATURE

1.1. Conceptual Framework

"Dividend refers to that portion of a firm's net earning, which are paid out to the shareholders.[5] 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, the dividend 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 investments 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."[6] Thus, the dividend payout reduces the amount of earnings retained in the firm and affect total amount of internal financing.

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[5] **Khan, M. Y. & Jain, P. K.**, "Dividend Policy Decision", *Financial Management Text and Problems, Second Edition, (New Delhi, Tata McGraw-Hill Publishing Company Ltd., 1992) P. 543*

[6] **Weston, J. Fred & Copeland, Thomas E.**, "Dividend Policy", *Managerial Finance Ninth Edition (USA, The Dryen Press, 1990) P. 657.*

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 by dividend received but more accurately 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."[7] It is thus very important to maintain balance between the shareholders' 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

[7] **Throp, Smith Dan** "Relief from Double Taxation of Dividend Income," *Harvard Business Review, (January-February 1977), pp. 90-91*

being can be partially measured by the dividend received, but more accurate measure is the market value of stock."[8]

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.

2.2 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.[9] 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.[10] Some of the major forms of dividends the corporations can adopt are discussed below:

2.2.1 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 / firms / financial institutions. However it can be said that the volume of cash dividend depends on the earning of the

[8] **Dean, William H.**, *Finance (Illionois, The Dryden Press, 1973), p.1.*
[9] **Bhattarai, Bishnu Hari** "Dividend Decision and Its Impact on Stock Valuation, A comparative study of 10 companies" *A Masters Degree Dissertation Submitted to T. U., October 1996 pp. 24*
[10] *Ibid pp. 24*

organization, attitude of management, situation of the market, cost of external financing etc.

2.2.2 Stock Dividends & Stock 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 earning to the capital stock account.[11] In simple words the payment of stock dividend results into the transfer of amount from accumulated earning 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.[12] 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 doubles 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:[13]

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

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[11] **Weston, J. Fred & Copeland, Thomas E.**, "Dividend Policy", *Managerial Finance Ninth Edition (USA, The Dryen Press, 1990) P. 680.*

[12] **Van Horne, James C.** "Other Aspects of Dividend Policy", *Financial Management and Policy Seventh Edition (India, Prentice Hall of India Pvt. Ltd. New Delhi 1988) P. 373*

[13] **Schall, Lawrence D. and Haley, Charles W.**, "The firm's investment, financing and dividend decisions", *Introduction to Financial Management, Sixth Edition, (McGraw Hill International Editions, Finance Series, 1991), P. 448*

Stock dividend or split does not change the asset of the form since nothing is received by the firm for new shares 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.[14]

2.2.3 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 paying the funds our in increased dividends."[15] Thus corporate repurchase of stock is considered as an alternative to payment of dividend. A repurchase is a signal that mangers, who possess an inside knowledge of the firm, are convinced that their stock is worth more than its current price".[16] 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.

2.3 Factors Effecting 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.

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[14] **Grinblatt, M. S., Masulis R. W. and Titman, S.**, "The Valuation Effects of Stock Splits and Stock Dividends", *Journal of Financial Economics, 12 September 1984, pp. 461-490*

[15] **Van Horne, James C.** "Dividend Policy: Theory and Practice", *Financial Management and Policy Tenth Edition (New Delth-110001, Prentice Hall of India Pvt. Ltd. New Delhi ,April,1988)P. 331*

[16] **Asquith, Paul and Mullins, Jr., David W.**, "Signaling with Dividends, Stock Repurchase and Equity Issues", *Financial Management, Autumn 1986. pp 33*

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 period.[17] Furthermore, Baker, Farrelly and Edelman (1985) find that managers strongly agree with the statement that 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

[17] **Jensen, Gerald R. & Johnson, James M.**, "The Dynamics of Corporate Dividend Reductions", *Financial Management, Vol. 24, No. 4, (Winter 1995), p.32*

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.[18] 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.[19]

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 it's 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.

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[18] **Weston, J. Fred & Copeland, Thomas E.**, "Dividend Policy", *Managerial Finance Ninth Edition (USA, The Dryen Press, 1990) P. 659.*

[19] **Adhikari, Nabaraj** "Corporate Dividend Practices in Nepal" *A Masters Degree Dissertation Submitted to T. U., Central Department of Management, 1999*

j. Legal Restrictions

Legal rules constrain dividend payment on certain conditions 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.

l. 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.

2.4 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:

2.4.1. 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 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.

2.4.2. 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 earrings 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.

2.4.3. Stable Rupee Dividend plus Extra Dividend (or Low Regular Dividend plus Extras):

A policy of paying a low regular dividend plus a yearend extra in good years is a compromise between the previous two policies. Under this policy, a firm usually pays fixed dividend to the shareholders 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.

2.5. 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 funds.[20]

- 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.[21]

- 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.[22]

- Section 140: Dividends and Sub Sections of this Section are as follows:[23]

[20] **Endi Consultants Research Group Kathmandu, Nepal**, "Nepalese Company Act-1997", *Nepal For Profitable Investment, (Kathmandu, Shree Star Printing Press Baghbazar), p. 43*
[21] *Ibid, p. 60*
[22] *Ibid, p. 94*
[23] *Ibid, p. 94-95*

- ❖ 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 can not 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.

- ❖ 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.

- ❖ 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.

2.6. 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.

2.6.1. Modiglianin and Miller's Study[24]

In their 1961 article, Modiglianin 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 it's 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 shareholders. They argue that the value of the 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

[24] **Miller, Merton H. and Modigliani, France** "Dividend Policy, Growth and Valuation of the Shares" *Journal of Business, XXIV (Oct. 1961), pp. 411-433.*

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:

i. The firms operate in 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.
ii. There are no flotation costs. The securities can be purchased and sold without payment of any commission or brokerage etc.
iii. Taxes do not exist.
iv. The firm has a definite (fixed) investment policy, which is not subject to change.
v. 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,

$$P_0 = \frac{D_1 + P_1}{1 + K_e} \quad \text{.....} \quad 1$$

Where,

P_0 = Current market price of a share (market price at the beginning or at the zero period.)

Ke = 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 the 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.

$$np_0 = \frac{n(D_1 + P_1)}{1 + K_e} \quad \text{.....} \quad 2$$

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:

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

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 new issued will be,

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

Or, $mp_1 = I - E + nD_1$ 4

Where,

I = Investment needs

E = Earning available.

Step-Five

By substituting the value of mp_1 from equation (4) to equation (3), we get,

$$nP_0 = \frac{nD_1 + P_1(n + m) - I + E - nD_1}{1 + K_e}$$

or,

$$nP_0 = \frac{nD_1 + nP_1 + mP_1) - I + E - nD_1}{1 + K_e}$$

Or,

$$nP_0 = \frac{P_1(n + m) - I + E}{1 + K_e} \quad \text{.....} \quad 5$$

Step-Six

Conclusions:

Since dividend does not appear directly in expression and E, I, $(n+m)p_1$ and ke are assumed to be independent of dividend.

In other words, MM conclude 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 to finance its investment plans. MM hold that when the firm pays dividends, external financing offsets its advantage.

It does not seem so 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 the rational investors as well as perfect capital market, which are considered by MM. It does not seem so sound to neglect the flotation cost, transaction cost and tax effect on capital gain as neglected by MM. Arbitrage arguments as explained by MM applies only when there are very sensitive investors and which are lacking in Nepal. A conscious investor always finds different between dividend and retained earning. Thus, MM proposition is not relevant in the case of Nepal.

2.6.2. Walter's Study[25]

James E. Walter conducted a study on dividend and stock prices in 1966. He proposed a model for share valuation. According to him, the dividend policy of the firm affects the value of the shares. So, the dividends are relevant. He argues that the choice of dividend policies always affect the value of enterprise.

[25] **Walter, James E**, "Dividend Policies and Common Stock Prices", *Journal of Finance, Volume 11, March, 1966, PP. 29-41.*

His study shows clearly the importance of the 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:

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

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

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

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 firms are those firms, which expand 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 earnings 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 earnings for internal investment.

Thus, the correlation between dividend and stock price is negative, and the optimum payout ratio for a growth firm is zero. The market value per share (P), increases, as payout ratio declines when r > k.

Normal Firm (r = k)

If the internal rate of return is equal to cost of capital, the dividend payout does not affect the value of share, i.e. dividends are indifferent from stock prices. In other words, there is no role of dividends on stock prices. Such a firm can be called as a normal firm. Whether the earnings are retained or distributed as dividend, it is a matter of indifference for a normal firm. The market price of share will remain constant for different dividend payout ratio from zero to 100. Thus, there is no unique optimum payout ratio for a normal firm. One dividend policy 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 investing 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 share will be at optimum value. In other words, the market value per share of a declining firm with r < k will be maximum when it does not retain earnings at all. The relation between dividends and stock price is positive. The optimum payout ratio for a declining firm is 100 percent 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 such a situation exist either the firm's investment or its dividend policy or both will be sub-optimum.[26]

(ii) Constant rate of return (R) and opportunity cost of capital (K)

[26] **Francis, Jack Clark**, "Investment: Analysis and Management", *MC Graw Hill Book Company. Inc. New York, 1972, P. 347.*

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

2.6.3. Gordan's Study[27]

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 shares even when the return on investment and required rate of return are equal. He explains that investors are not indifferent between current dividend and retention of earnings with the prospect of future dividends, capital gain and both. The conclusion of this study is that investors have a strong preference for present dividends to future capital gains 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 (D1/Po) is less risky than the expected capital gain.[28]

Gordon's model is also described as "a bird in hand argument". It supports the arguments, which is popularly known as a bird in 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 as compared to deferred dividend in future. The future is uncertain. The investors would naturally like to avoid uncertainty. So the current dividends are given more weight than expected future dividend by the investors. So the value per share increases if dividend payout ratio increases. This means there exists positive relationship between the amount of dividend and stock prices.

Basic assumptions of this model are as follows.[29]

i. The firm uses equity capital only.
ii. Internal rate of return (r) and cost of capital (ke) are constant.

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[27] **Gordon, Myron J.,** "The Investment Financing and Valuation of Corporation", *Homewood III. Richard D. Irwin, 1962*. (Source: www.edunepal.com.np)
[28] **Pradhan, S.**, "Basics of Financial Management", *Educational Enterprises (P.) Ltd., Kathmandu, 1962, P.683.*
[29] **Francis, Jack Clark,** *Investments: Analysis and Management, McGraw Hill, 1972, p.352*

iii. The firm and its stream of earnings are perpetual.

iv. There is no tax on corporate income.

v. The retention ratio (b) once decided upon is constant. Thus the growth rate, (g= br) is constant forever.

vi. 'K_e' must be greater than g (=br) to get meaningful value.

vii. The source of financing for new investment is only retained earning. No external financing 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= Earning 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 decrease as the retention ratio (b) decreases. i.e. high dividend corresponding to earnings leads to decrease in share prices 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 dividend policies. It means dividend and stock price 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, dividends and stock prices are positively correlated with each other in decline firm i.e., r < k firm.

2.6.4. Lintner's Study[30]

John Lintner, in 1956 made an important study on corporate dividend policy in the American context. He investigated a partial adjustment model as he tested the dividend patterns of 28 companies. According to J. Lintner, dividend is a function of earnings of that year, existing dividend rate, target payout ratio and speed of adjustment. The followings were the basic objectives of the study.

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

ii. To determine the factors, which existed most actively into dividends.

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

$$DIV_t^* = P\ EPS_t \quad \text{----------} \quad (1)$$

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

Adding DIVt-1 on both sides of equation (2)

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

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 divided and new desired level of dividends where, **b < 1.**

[30] **Lintner, John**, "Distribution of Incomes of Corporations Among Dividends, Retained Earning, and Taxes", *American Economic Review, (May 1956), pp. 97-113.*

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 pay out ratios in view while determining change in divided rate or dividend per share.

2.6.5. Friend and Puckett's Study[31]

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), foods (n=25), and steels (n=20), in each of two years, 1956 and 1958. The industries were selected to permit a distinction to be made between the results for growth and non-growth industries and to provide a basis for comparison with results by other authors for earlier years. Both cyclical and non-cyclical industries were covered. The periods covered include a boom year for the economy when stock prices leveled off after a substantial rise (1956) and a somewhat depressed year for the economy when stock prices, however, rose strongly (1958).

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

Price Function;

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

Where,

P_t = Per share price at time t D_t = Dividends at time t

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

[31] **Friend, Irwin and Puckett, Marshall**, "Dividends and Stock Prices", *The American Economic Review, Vol. LIV, No. 5, Sept. 1964, pp. 656-682.*

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 $P_t = a + b\,D_t + c\,R_t$ 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 earnings effect in three of five industries i.e., chemicals, foods, and steels.

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

$P_t = a + b\,D_t + cR_t + d\,(E/P)_{t-1}$

They tested this equation and found the following results.

Dividends have a predominant influence on stock prices in the same three out of five industries but the differences between the dividends and retained earnings coefficients were not quite 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 of dividend and retained earnings effects on stock prices, though such a bias might be masked if the distributing effects of short run income movements are sufficiently great.

Further, they used lagged price as a variable instead of lagged earnings price ratio. They found that retained earnings received greater relative weight than dividends in the majority of the cases. The only exceptions were steels and foods in 1958. Chemicals, electronics, and utilities were considered as growth industries and the retained earnings effect was larger than the dividend effect for both years covered. For the other two industries (steels and foods) there no longer seems to be any significant systematic differences between the retained earnings and dividend coefficients.

Similarly, they tested the regression of $P_t = a + bD_t + cR_t$ 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 in growth industries by greater retention, i.e. smaller (lower) dividends.

2.6.6. Van Horne and McDonald's Study[32]

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

[32] **Van Horne, James C. and MC-Donald, John G.**, **"**Dividend Policy and New Equity Financing**"**, *Journal of Finance, May 1971, PP. 507 - 519.*

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 1968.

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 divided by earnings in 1968.

Lev = Financial risk, measured by interest charges divided 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 variables representing its NIR group is one and the value 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 divided by net worth as of 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 above

By using these models, they compared the result obtained for the firms which both pay dividend and engage in new equity financing with other firms in an 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.[33] 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.

2.6.7. Deepak Chawla and G. Shrinivasan's Study[34]

They studied the impact of dividend and retention on share price. The followings were the prime objectives of their study.

i. To test the hypothesis of dividend and retained earnings.

ii. To estimate a model to explain share price, dividend and retained earnings relationship.

iii. To examine the structural changes in estimated relations over time.

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[33] Ibid, p.517

[34] **Chawla, Deepak and Shrinivasan, G.**, "Impact of Dividend and Retention on Share Price – An Economic Study", *Decision, Vol.14, No.3 (July-September 1987) pp.137-140*
(**Extracted from:** Masters Degree Thesis submitted to T.U. Central Department of Management 1999, "Corporate Dividend Practices in Nepal" by **Nabaraj Adhikari**

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 the sign for retained earnings is negative in both years and 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 in1969 and one percent level in 1973.

Finally, they concluded that dividend hypothesis holds good 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.

2.7. Review of Major Studies in Nepal

The review of studies regarding dividend policy can be broadly classified into two categories:

2.7.1. Review of Books and Journals in Nepalese Perspective:

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.

Dr. R.S. Pradhan has conducted a study on **Small Market Behavior in A Small Capital Market: A case of Nepal**[35] in 1993. It is pertinent to put forth here because 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 follows:

i. To assess the stock market behavior in Nepal.

[35] **Pradhan, R. S.,** " Stock Market Behaviour in a Small Market: A case of Nepal ", *The Nepalese Management Review, Vol. IX, Summer 1993, pp. 23-43.* Source: www.edunepal.com.np

ii. 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.

The following model was employed.

$V = b_0 + b_1 LIQ + b_2 LEV + b_3 EARN + b_4 TURN + b_5 COV + Ui$ ……

The dependent variable, V chosen for the study has been are specified as under:

- Market equity, number of shares multiplied by market price of shares (ME).
- Market value of equity to its book value (MV / BV)
- Price – earning ratio (PE)
- Dividend per share to market price per share (DPS/MPS)
- Dividend per share to earning per share (DPS / EPS)

The independent variables are specified as:

LIQ = Current Ratio (CR) or Quick / Acid Test Ratio (QR)

LEV = Long-Term Debt to Total Assets (LTD / TA) or Long-Term Debt to Total Capitalization (LTD / TC). Total Capitalization is specified as Long-Term Debt plus Net Worth.

EARN = Return on Assets, i.e. Earnings Before Tax to Total Assets (ROA) or Return on Net Worth, i.e. Earnings Before Tax to Net Worth (RONW).

COV = Interest Coverage Ratio, i.e. Earnings Before Tax to Interest.

TURN = Fixed Assets Turnover, i.e. Sales to Average Fixed Assets (S/FA), or Total Assets Turnover, i.e. Sales to Average Total Assets (S/TA)

U = Error Term

Some findings of his study, among others, were as follows:

i. 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.

ii. 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.

iii. 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.

iv. Positive relationship is observed between the ratio of dividend per share to market price per share and turnover ratios. 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.

v. 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.

vi. So, 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.

Dr. M. K. Shrestha has written an article about "**Public Enterprises: Have They Dividend Paying Ability**?"[36], which was published in the book 'PRASHASAN' in March 1981. It gives short glimpse of the dividend performance of some public enterprises of that time in Nepal. Dr. Shrestha has highlighted (focused) the following issues in the article.

HMG wants two things from the public enterprises: (i) They should be in a position to pay minimum dividend & (ii) Public enterprises should be self-supporting in financial matters in future years to come.

But these both objectives are not achieved by public enterprises.

[36] **Shrestha, M.K.**, **"**Public Enterprises: Have They Dividend Paying Ability?", *PRASHASAN, The Nepalese Journal of Public Administration, March, 1981*. Source: www.edunepal.com.np

1. One reason for this inefficiency is caused by excessive governmental interference over daily affairs even though there is provision of government interference only for policy matters. On the other hand, high-ranking officials of HMG appointed as directors of board do nothing but simply show their bureaucratic personalities, Bureaucracy has been the enemy of efficiency and thus led corporation to face losses. Losing corporations are, therefore, not in a position of paying dividends to government.
2. Another reason of this is the lack of self-criticism and self-consciousness. Esman[37] has pointed out that lack of favorable leadership is one of the biggest constraints to institution building. Moreover corporate leadership comes, as managers are not ready to have self-criticisms. In fact, all so called managers of corporations have not been able to identify themselves regarding what they can contribute as managers of corporations. So HMG must be in a position to develop a financial target on corporate investment by imposing financial obligation on corporations.
3. The article points out the irony of government biasness that government has not allowed banks to adopt an independent dividend policy and HMG is found to have pressurized on dividend payment in case of Nepal Bank Limited regardless of profit. But, it has allowed Rastriya Banijya Bank to be relieved from dividend obligation despite considerable profit.
4. The improvement suggested by authors are:
    i. Adopt a criteria-guided policy to drain resources from corporations through the medium of dividend payment.
    ii. Realization by managers about cost of equity capital and dividend obligation.

If HMG wants to tap resources through dividend, the following criteria should be followed.

i. Proper evaluation of public enterprises interns of capability of paying dividend through corporation coordination committee.

[37] **Esman, Milton J.**, "The Institution Building Concept: An Interim Appraisal", *Pittsburgh Inter University Research Programme in Institution Building, 1967, p. 44*. (Extracted from: Masters Degree Thesis submitted to TU, Central Dept of Management, "Dividend Policy & Practices in Commercial Banks, A comparative study of Nepal SBI Bank Ltd and Nepal Bangladesh Bank Ltd." by **Manoj Bhakta Acharya**) Source: www.edunepal.com.np

ii. Imposition of fixed rate of dividend by government on financially sound public enterprises.

iii. Circulating the information about minimum rate of dividend to all public enterprises.

iv. Specifying performance targets in terms of profit, priorities on timings and plans and development of strategic plans that bridges the gap between aspiration and reality.

Identification of corporation objectives in Corporations Act, Company Act or special charters so as to clarify public enterprise managers regarding their financial obligation to pay dividend to HMG.

2.7.2. Review of Previous Theses

In last few years, prior to this thesis; some students of M.B.A. and M.B.S. programme 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.

2.7.2.1 Bishnu Hari Bhattarai's Study[38]

The study of dividend decision and its impact on the stock valuation was carried out by Bishnu Hari Bhattarai, in 1996 using 10 companies of various sectors. The basic objective of the study was to identify the relationship between dividend and the stock price. The major objectives of this study can be stated as follows:

i. Highlight various aspects of dividend policies and practices in Nepal.

ii. Analyze the variables such as profit, dividend, retained earning, growth rate and relevant variables to show the relationship between the value and other ingredients affecting it.

iii. Provide feedback to the policy makers and executive working in various companies chosen for study based on the findings of the analysis.

[38] **Bhattarai, Bishnu Hari**, "Dividend Decision and Its Impact on Stock Valuation", *Unpublished Master's Thesis, Tribhuvan University, Shanker Dev Campus, Kathmandu, 1996.*

The major findings of this study are as follows:

i. The companies while paying dividend generally neglect shareholder's expectations.

ii. Dividends were paid only in profitable years.

iii. In aggregate, there was no stable dividend paid by the companies i.e. instability of dividend.

iv. There were no criteria to adopt a certain payout ratio. There is haphazard payout ratio in the companies under study.

v. Cash balance and dividend payment were positively correlated.

vi. Mostly the joint venture companies were paying dividend.

vii. There was positive impact of dividend on valuation of shares.

viii. Dividend paid was inadequate to cover the required rate of return of the investors.

ix. Market price considerably higher than actual net worth.

2.7.2.2 Nabaraj Adhikari's Study[39]

The study has covered the period from 1990 to 1996 with total observations of 47 in financial sector and 30 non-financial sectors. This study has used both primary and secondary data. The major objective of this study was to assess corporate dividend practices in Nepal. The specific objectives were as follows:

i. To analyze the properties of portfolios formed on dividends.
ii. To examine the relationship between dividends & stock prices.
iii. To survey the opinions of financial executives on corporate dividend practices.

The major conclusion, of this research study was as follows:

It is observed that there are differences in financial position of high dividend paying and low dividend paying companies. Other things remaining the same, financial

[39] **Adhikari, Nabaraj**, "Corporate Dividend Practices in Nepal", *Unpublished Master's Thesis, Tribhuvan University, Central Department of Management, Kathamandu, 1999.*

position of high dividend paying companies is comparatively better than that of low dividend paying companies. Thus 'Dividends affect the market price of share' is the major conclusion of this study.

Likewise, the other findings based on primary data are given below.

i. The price of common stock was induced by dividend payout ratio.

ii. Nepalese shareholders were not really indifferent towards payment or non-payment of dividend.

iii. The majority of the respondents feel that the major motives to pay cash dividend was to convey information to shareholders that the company is in good position.

iv. As regards dividend as a residual decision, the majority of the respondents feel that it was not a residual decision.

With respect to factors affecting corporate dividend policy, the majority of the respondents gave the first priority to 'earnings', the second priority to 'availability of cash', the third priority to 'past dividends' & fourth priority to 'concern about maintaining or increasing stock price'.

2.7.2.3 Sadakar Timilsena's Study[40]

Using the data of 16 enterprises from 1990 to 1994, Sadakar Timelsena carried out this study on dividend and stock prices. The major objectives of this study were as follows:

i. To test the relationship between dividend per share and stock prices.

ii. To determine the impact of dividend policy on stock prices.

iii. To identify whether it is possible to increase the market value of stock changing dividend policy or payout ratio.

[40] **Timelsena, Sadakar**, "Dividend and Stock Prices: An Emperical Study", *Unpublished Master's Thesis, Tribhuvan University, Central Department of Management, Kathamandu, 1997.*

To explain the price behavior, the study used simultaneous equation model as developed by Friend and Pucket (1964). The findings drawn by the study are as follows:

i. The relationship between dividend per share and stock price was positive in the sample companies.

ii. Dividend per share affected the share price variedly in different sectors.

iii. Changing the dividend policy or dividend per share might help to increase the market price of share.

iv. The relationship between stock prices and retained earning per share was not prominent.

v. The relationship between stock prices and lagged carrying price ratio was negative.

CHAPTER 3

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 the research problem. In other words, research methodology indicates the methods and processes employed in the entire aspects of the study. "Research methodology" refers to the various sequential steps to be adopted by a researcher in studying a problem with certain object/objects in view". So, it is the methods, steps, and guidelines, which are to be followed in analysis, and it is a way of presenting the collected data with meaningful analysis.

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 researcher 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.[41]

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 price of 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 shareholders. Various analytical and descriptive approaches are used to determine the impact of dividend policy followed by an organization on its market price.

[41] **Krelinges, Fred N**, *Foundation of Behaviourial Research*

3.3. Population and Sample

By the end of Mid July 2010, 26 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. The population is as follows:[42]

S.No	Name	Estd(BS)
i.	Nepal Bank Ltd.	1994
ii.	Rastriya Banijya bank	2022
iii.	Agricultural Development Bank Ltd	
iv.	Nabil Bank Ltd	2041
v.	Nepal Investment Bank Ltd.	2042
vi.	Standard Chartered Bank Nepal Ltd.	2043
vii.	Himalayan Bank Ltd	2049
viii.	Nepal SBI Bank Ltd.	2050
ix.	Nepal Bangladesh Bank Ltd.	2051
x.	Everest Bank Ltd.	2051
xi.	Bank of Kathmandu Ltd.	2051
xii.	Nepal Credit & Commerce Bank Ltd. (Prev. Nepal Bank of Ceylon)	2053
xiii.	Nepal Industrial & Commercial Bank Ltd.	2055
xiv.	Lumbini Bank Ltd	2055
xv.	Machapuchhre Bank Ltd	2057
xvi.	Kumari Bank Ltd	2056

[42] **Source: List of Licensed Commercial Banks**, *Banking and Financial statistics, Mid-July 2010, Nepal Rastra Bank*.

xvii.	Laxmi Bank Ltd.	2058
xviii.	Siddhartha Bank Ltd.	2058
xix.	Global Bank	2063
xx.	Prime Bank	2064
xxi.	Citizen Bank	2064
xxii.	Sunrise Bank	2064
xxiii.	Bank of Asia	2064
xxiv.	Development Credit Bank Ltd	2065
xxv.	Nepal Merchant Bank Ltd	
xxvi.		
xxvii.		
xxviii.		
xxix.		
xxx.		
xxxi.		

Table 3.1: List of Licensed Commercial Banks as on Mid July 2010

Out of 30 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:

1. Standard Chartered Bank Nepal Ltd.
2. Nepal SBI Bank Ltd.
3. Nabil Bank Ltd.
4. Himalayan Bank Ltd.
5. Everest Bank Ltd.

Thus in our study,

Population Size : 30

Sample Size : 5

In this research study the sample size is 16.13% 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 2005/06 to 2009/10. Thus the total number of observations 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 profitableness 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,

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

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 is common stock, which consequently helps to increase the market value of the shares. And it also works as the indicator of better performance of the bank management.

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

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

3.6.3. Dividend Percent (DP)

Dividend percent is the ratio of dividend per share to the paid-up price per ordinary share. It can be calculated as:

$$DP = \frac{\text{Dividend Per Share}}{\text{Paid-up Price Per Share.}}$$

3.6.4. 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,

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

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

= (1-DPR)

3.6.5. 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,

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

3.6.6. 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 earnings yield is worth buying. It is calculated as:

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

3.6.7. 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,

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

3.6.8. 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 from 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,

$$\text{MPS to BVPS Ratio} = \frac{\text{Market price per share}}{\text{Book value per share}}$$

3.6.9. 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,

$$\text{Net Worth Per Share} = \frac{\text{Net Worth}}{}$$

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 ($\bar{X}$)

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:

$$\text{Arithmetic Mean } \bar{(} \quad \frac{\qquad\qquad\qquad\qquad\qquad\qquad}{N} \quad \bar{)} = X_1 + X_2 + X_3 + \ldots\ldots\ldots\ldots\ldots\ldots + X_n$$

$$\text{or, } \bar{X} = \frac{\sum X}{N}$$

Where,

$\sum X$ = sum of the sizes of the items

N= number of items

3.7.2. Standard Deviation (±)

Karl Pearson first introduced the concept of standard deviation in 1983. Standard deviation is the positive square root of the arithmetic average of the squares of all the deviations measured from 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 derivation, i.e. greater will be the magnitude of the deviations of the values from 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 a Greek letter '±' (Sigma) and is calculated as follows.

Standard Deviation **(σ)** $= \sqrt{\frac{\Sigma(X - \overline{X})^2}{N}}$

Where,

N = Number of items in the series.

$\overline{X}$ = 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 consistent, more uniform, more stable and more homogenous. It is denoted by C.V. and is obtained by dividing the standard deviation by arithmetic mean. Thus

Coefficient of Variation **(C.V.)** $= \frac{\text{S.D. x 100}}{\text{Mean}} = \frac{\sigma \text{ x } 100}{\overline{X}}$

Where,

σ = Standard Deviation

$\bar{X}$ = 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 other.

The value of coefficient of correlation always lies between ± 1. A value of –1 indicates a perfect negative relationship between the variables and a value of +1 indicates a perfect positive relationship. A value of zero indicates that there is no relation between the variables. The zero correlation coefficient means the variables are uncorrelated. The closer r is to +1 or –1, the closer the relationship between the variables and closer **r** is to zero (o), the less close relationship. The algebraic sign of the correlation coefficient indicates the direction of the relationship between two variables, whether direct or inverse, while the numerical value of the coefficient is concerned with the strength, or closeness of the relationship between two variables.

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 payout ratio etc is measured by the correlation coefficient. The correlation coefficient can be calculated as

$$r = \frac{Cov(X\ Y)}{\sigma_X \sigma_Y}$$

$$\frac{\sum(X - \bar{X})(Y - \bar{Y})}{(N-1)\sigma_X \sigma_Y}$$

or

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

r =

Where,

σ_X, σ_Y are the standard deviation of the distributions of X and Y values respectively.

Cov (X, Y) = covariance of X, Y value

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

Under this study, the correlation 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 Percent
d) Market Price Per Share and Dividend Payout Ratio
e) Market Price Per Share and Price Earning Ratio
f) Market Price Per Share and Earning Yield
g) Market Price Per Share and Dividend Yield
h) Market Price Per Share and 'MPS to BVPS' Ratio
i) Market Price Per Share and Net Worth Per Share
j) Earning Per Share and Dividend Per Share
k) Earning Per Share and Dividend Payout Ratio
l) Dividend Per Share and Dividend Payout Ratio
m) Dividend Per Share and Net Worth Per Share
n) Earning Yield and Dividend Yield

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 unity, the

greater the explanatory power. A value of one can occur 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 two variables 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 an analysis, which involves the fitting of an equation to a set of data points, generally by the method of least square. In other words the regression is a statistical method for determining relationships between the variables by the establishment of an approximate functional relationship between them. It is used to determine that whether the dependent variable is influenced by the given independent variable or not. It is considered as a useful tool for determining the strength of relationship between two (Simple Regression) or more (Multiple Regression) variables. It is also used to predict value of one variable given the value of other variables.

Simple linear regression analysis is used to find the relationship between two variables. In this study, the following simple regressions have 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

X= Earning Per share

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).

c. Market Price Per Share on Dividend Percent

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 Percent (independent variable).

d. 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 Payout Ratio

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

e. 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

The relationship between market price per share (dependent variable) and dividend yield (independent variable) can be explained through this model.

f. Dividend Per Share on Earning Per Share

$Y = a + bX$

Where,

Y = Dividend Per Share

a = Regression Constant

b = Regression Coefficient

X = Earning Per Share

The relationship between dividend per share (dependent variable) and earning per share (independent variable) can be explained through this model.

g. Dividend Per Share on Net Worth Per Share

$Y=a + bX$

Where,

Y= Dividend Per Share

a = Regression Constant

b= Regression Coefficient

X= Net Worth Per Share

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

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

$\Sigma Y = na+bX$

$\Sigma XY= a\Sigma X + b\Sigma X^2$

Where,

'a' and 'b' are unknown.

n = number of observation in the sample

In multiple regression analysis, two or more independent variables are used to estimate the values of dependent variable. It is the extension of simple regression technique. In this study, the following multiple regression analysis have been analyzed

a. Market Price Per Share on Earning Per Share and Dividend Payout Ratio

$Y= a+ b_1X_1 + b_2X_2$

Where,

Y= Market price per share

a= Regression constant

b_1, b_2 = Regression coefficient of 1^{st} and 2^{nd} variables respectively.

X_1= Earning per share

X_2= Dividend payout Ratio.

It helps to predict the Market Price Per Share on Earning Per Share and Dividend Payout Ratio.

b. Market Price Per Share on Price Earning Ratio and Dividend Per Share

$Y = a + b_1X_1 + b_2X_2$

Where,

Y= Market Price Per Share

a= Regression constant

b_1= Regression coefficient of 1st variable

b_2= Regression coefficient of 2nd variable

X_1= Price Earning Ratio

X_2= Dividend Per Share

This model helps to predict the Market Price Per Share on Price Earning Ratio and Dividend Per Share.

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 (b_1, b_2, b_3 .....)

The regression coefficient 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 the observed values around the regression line. It also measures the reliability of the estimating equation, indicating the variability of the observed values differ from their predicted values on the regression line.

The larger the value of S.E.E., the greater the scattering or dispersion of points around the 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 the regression line and the 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 as a description of the average relationship between two series.

CHAPTER 2

REVIEW OF LITERATURE

1.2. Conceptual Framework

"Dividend refers to that portion of a firm's net earning, which are paid out to the shareholders.[43] 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, the dividend 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 investments 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."[44] Thus, the dividend payout reduces the amount of earnings retained in the firm and affect total amount of internal financing.

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[43] **Khan, M. Y. & Jain, P. K.**, "Dividend Policy Decision", *Financial Management Text and Problems, Second Edition, (New Delhi, Tata McGraw-Hill Publishing Company Ltd., 1992) P. 543*

[44] **Weston, J. Fred & Copeland, Thomas E.**, "Dividend Policy", *Managerial Finance Ninth Edition (USA, The Dryen Press, 1990) P. 657.*

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 by dividend received but more accurately 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."[45] It is thus very important to maintain balance between the shareholders' 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

[45] **Throp, Smith Dan** "Relief from Double Taxation of Dividend Income," *Harvard Business Review, (January-February 1977), pp. 90-91*

being can be partially measured by the dividend received, but more accurate measure is the market value of stock."[46]

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.

2.5 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.[47] 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.[48] Some of the major forms of dividends the corporations can adopt are discussed below:

2.5.1 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 / firms / financial institutions. However it can be said that the volume of cash dividend depends on the earning of the

[46] **Dean, William H.**, *Finance (Illionois, The Dryden Press, 1973), p.1.*
[47] **Bhattarai, Bishnu Hari** "Dividend Decision and Its Impact on Stock Valuation, A comparative study of 10 companies" *A Masters Degree Dissertation Submitted to T. U., October 1996 pp. 24*
[48] *Ibid pp. 24*

organization, attitude of management, situation of the market, cost of external financing etc.

2.5.2 Stock Dividends & Stock 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 earning to the capital stock account.[49] In simple words the payment of stock dividend results into the transfer of amount from accumulated earning 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.[50] 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 doubles 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:[51]

iii. There is no change in the firm's assets or liabilities or in shareholder's equity (assets less liabilities).

iv. There is fall in per share earnings, book value and market price and an offsetting rise in the number of shares held by each shareholder.

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[49] **Weston, J. Fred & Copeland, Thomas E.**, "Dividend Policy", *Managerial Finance Ninth Edition (USA, The Dryen Press, 1990) P. 680.*

[50] **Van Horne, James C.** "Other Aspects of Dividend Policy", *Financial Management and Policy Seventh Edition (India, Prentice Hall of India Pvt. Ltd. New Delhi 1988) P. 373*

[51] **Schall, Lawrence D. and Haley, Charles W.**, "The firm's investment, financing and dividend decisions", *Introduction to Financial Management, Sixth Edition, (McGraw Hill International Editions, Finance Series, 1991), P. 448*

Stock dividend or split does not change the asset of the form since nothing is received by the firm for new shares 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.[52]

2.5.3 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 paying the funds our in increased dividends."[53] Thus corporate repurchase of stock is considered as an alternative to payment of dividend. A repurchase is a signal that mangers, who possess an inside knowledge of the firm, are convinced that their stock is worth more than its current price".[54] 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.

2.6 Factors Effecting 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.

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[52] **Grinblatt, M. S., Masulis R. W. and Titman, S.**, "The Valuation Effects of Stock Splits and Stock Dividends", *Journal of Financial Economics, 12 September 1984, pp. 461-490*

[53] **Van Horne, James C.** "Dividend Policy: Theory and Practice", *Financial Management and Policy Tenth Edition (New Delth-110001, Prentice Hall of India Pvt. Ltd. New Delhi ,April,1988)P. 331*

[54] **Asquith, Paul and Mullins, Jr., David W.**, "Signaling with Dividends, Stock Repurchase and Equity Issues", *Financial Management, Autumn 1986. pp 33*

b. 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.

m. 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.

n. 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 period.[55] Furthermore, Baker, Farrelly and Edelman (1985) find that managers strongly agree with the statement that a firm should attempt to maintain an persistent record of dividend payments.

o. 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.

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[55] **Jensen, Gerald R. & Johnson, James M.**, "The Dynamics of Corporate Dividend Reductions", *Financial Management, Vol. 24, No. 4, (Winter 1995), p.32*

p. 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.[56] In such case also the dividend decision will be effected.

q. 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.

r. 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.[57]

s. 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 it's earning rather than pay them out in form of dividends.

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[56] **Weston, J. Fred & Copeland, Thomas E.**, "Dividend Policy", *Managerial Finance Ninth Edition (USA, The Dryen Press, 1990) P. 659.*

[57] **Adhikari, Nabaraj** "Corporate Dividend Practices in Nepal" *A Masters Degree Dissertation Submitted to T. U., Central Department of Management, 1999*

t. 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.

u. Legal Restrictions

Legal rules constrain dividend payment on certain conditions 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.

v. 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.

w. 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.

2.7 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:

2.7.3. 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 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.

2.7.4. 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 earrings 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.

2.7.5. Stable Rupee Dividend plus Extra Dividend (or Low Regular Dividend plus Extras):

A policy of paying a low regular dividend plus a yearend extra in good years is a compromise between the previous two policies. Under this policy, a firm usually pays fixed dividend to the shareholders 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.

2.8. 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 funds.[58]

- 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.[59]

[58] **Endi Consultants Research Group Kathmandu, Nepal**, "Nepalese Company Act-1997", *Nepal For Profitable Investment, (Kathmandu, Shree Star Printing Press Baghbazar), p. 43*
[59] *Ibid, p. 60*

- 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.[60]

- Section 140: Dividends and Sub Sections of this Section are as follows:[61]

  - 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 can not 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.

  - 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.

  - 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.

2.9. 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.

2.9.1. Modiglianin and Miller's Study[62]

In their 1961 article, Modiglianin 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.,

[60] *Ibid, p. 94*
[61] *Ibid, p. 94-95*
[62] **Miller, Merton H. and Modigliani, France** "Dividend Policy, Growth and Valuation of the Shares" *Journal of Business, XXIV (Oct. 1961), pp. 411-433.*

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 it's 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 shareholders. They argue that the value of the 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:

vi. The firms operate in 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.

vii. There are no flotation costs. The securities can be purchased and sold without payment of any commission or brokerage etc.

viii. Taxes do not exist.

ix. The firm has a definite (fixed) investment policy, which is not subject to change.

x. 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,

$$P_0 \frac{D_1 + P_1}{1 + K_e} \quad \ldots\ldots\ldots\ldots \quad 1$$

Wh

P_0 = Current market price of a share (market price at the beginning or at the

zero period.)

Ke = 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 the 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.

$$np_0 = \frac{n(D_1 + P_1)}{1 + K_e} \quad \ldots\ldots\ldots\ldots \quad 2$$

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

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

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 new issued will be,

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

$$\text{Or, } mp_1 = I - E + nD_1 \quad \ldots\ldots\ldots\ldots \quad 4$$

Where,

I = Investment needs

E = Earning available.

Step-Five

By substituting the value of mp_1 from equation (4) to equation (3), we get,

$$nP_0 \frac{nD_1 + P_1(n + m) - I + E - nD_1}{1 + K_e}$$

or,

$$nP_0 \frac{nD_1 + nP_1 + mP_1) - I + E - nD_1}{1 + K_e}$$

Or

$$nP \frac{P_1(n + m) - I + E}{1 + K_e} \quad \ldots\ldots\ldots\ldots \quad 5$$

Step-Six

Conclusions:

Since dividend does not appear directly in expression and E, I, $(n+m)p_1$ and ke are assumed to be independent of dividend.

In other words, MM conclude 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 to finance its investment plans. MM hold that when the firm pays dividends, external financing offsets its advantage.

It does not seem so 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 the rational investors as well as perfect capital market, which are considered by MM. It does not seem so sound to neglect the flotation cost, transaction cost and tax effect on capital gain as neglected by MM. Arbitrage arguments as explained by MM applies only when there are very sensitive investors and which are lacking in Nepal. A conscious investor always finds different between dividend and retained earning. Thus, MM proposition is not relevant in the case of Nepal.

2.9.2. Walter's Study[63]

James E. Walter conducted a study on dividend and stock prices in 1966. He proposed a model for share valuation. According to him, the dividend policy of the firm affects the value of the shares. So, the dividends are relevant. He argues that the choice of dividend policies always affect the value of enterprise.

His study shows clearly the importance of the 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:

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

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

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

[63] **Walter, James E**, "Dividend Policies and Common Stock Prices", *Journal of Finance, Volume 11, March, 1966, PP. 29-41.*

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 firms are those firms, which expand 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 earnings 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 earnings for internal investment. Thus, the correlation between dividend and stock price is negative, and the optimum payout ratio for a growth firm is zero. The market value per share (P), increases, as payout ratio declines when r > k.

Normal Firm (r = k)

If the internal rate of return is equal to cost of capital, the dividend payout does not affect the value of share, i.e. dividends are indifferent from stock prices. In other words, there is no role of dividends on stock prices. Such a firm can be called as a normal firm. Whether the earnings are retained or distributed as dividend, it is a matter of indifference for a normal firm. The market price of share will remain constant for different dividend payout ratio from zero to 100. Thus, there is no unique optimum payout ratio for a normal firm. One dividend policy 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 investing 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 share will be at optimum value. In other words, the market value per share of a declining firm with r < k will be maximum when it does not retain earnings at all. The relation between dividends and stock price is positive. The optimum payout ratio for a declining firm is 100 percent and the market value per share increases as payout ratio increases when r < k.

Criticism of Walter's Model:

(iii) 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 such a situation exist either the firm's investment or its dividend policy or both will be sub-optimum.[64]

(iv) Constant rate of return (R) and opportunity cost of capital (K)

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

2.9.3. Gordan's Study[65]

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 shares even when the return on investment and required rate of return are equal. He explains that investors are not indifferent between current dividend and retention of earnings with the prospect of future dividends, capital gain and both. The conclusion of this study is that investors have a strong preference for present dividends to future capital gains 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

[64] **Francis, Jack Clark**, "Investment: Analysis and Management", *MC Graw Hill Book Company. Inc. New York, 1972, P. 347.*

[65] **Gordon, Myron J.,** "The Investment Financing and Valuation of Corporation", *Homewood III. Richard D. Irwin, 1962*. (Source: www.edunepal.com.np)

in the stock price for the reason that investors consider the dividend yield (D1/Po) is less risky than the expected capital gain.[66]

Gordon's model is also described as "a bird in hand argument". It supports the arguments, which is popularly known as a bird in 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 as compared to deferred dividend in future. The future is uncertain. The investors would naturally like to avoid uncertainty. So the current dividends are given more weight than expected future dividend by the investors. So the value per share increases if dividend payout ratio increases. This means there exists positive relationship between the amount of dividend and stock prices.

Basic assumptions of this model are as follows.[67]

viii. The firm uses equity capital only.

ix. Internal rate of return (r) and cost of capital (ke) are constant.

x. The firm and its stream of earnings are perpetual.

xi. There is no tax on corporate income.

xii. The retention ratio (b) once decided upon is constant. Thus the growth rate, (g= br) is constant forever.

xiii. 'K_e' must be greater than g (=br) to get meaningful value.

xiv. The source of financing for new investment is only retained earning. No external financing 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= Earning per share

b= Retention ratio / percentage of retained earning

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[66] **Pradhan, S.**, "Basics of Financial Management", *Educational Enterprises (P.) Ltd., Kathmandu, 1962, P.683.*

[67] **Francis, Jack Clark,** *Investments: Analysis and Management, McGraw Hill, 1972, p.352*

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 decrease as the retention ratio (b) decreases. i.e. high dividend corresponding to earnings leads to decrease in share prices 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 dividend policies. It means dividend and stock price 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, dividends and stock prices are positively correlated with each other in decline firm i.e., r < k firm.

2.9.4. Lintner's Study[68]

John Lintner, in 1956 made an important study on corporate dividend policy in the American context. He investigated a partial adjustment model as he tested the dividend patterns of 28 companies. According to J. Lintner, dividend is a function of earnings of that year, existing dividend rate, target payout ratio and speed of adjustment. The followings were the basic objectives of the study.

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

[68] **Lintner, John**, "Distribution of Incomes of Corporations Among Dividends, Retained Earning, and Taxes", *American Economic Review, (May 1956), pp. 97-113.*

iv. To determine the factors, which existed most actively into dividends.

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

$$DIV_t^* = P\ EPS_t \quad \text{----------} \quad (1)$$

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

Adding DIVt-1 on both sides of equation (2)

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

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 divided 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 pay out ratios in view while determining change in divided rate or dividend per share.

2.9.5. Friend and Puckett's Study[69]

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), foods (n=25),

[69] **Friend, Irwin and Puckett, Marshall**, "Dividends and Stock Prices", *The American Economic Review, Vol. LIV, No. 5, Sept. 1964, pp. 656-682.*

and steels (n=20), in each of two years, 1956 and 1958. The industries were selected to permit a distinction to be made between the results for growth and non-growth industries and to provide a basis for comparison with results by other authors for earlier years. Both cyclical and non-cyclical industries were covered. The periods covered include a boom year for the economy when stock prices leveled off after a substantial rise (1956) and a somewhat depressed year for the economy when stock prices, however, rose strongly (1958).

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

Price Function;

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

Where,

P_t = Per share price at time t D_t = Dividends at time t

R_t = Retained earnings 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.

4. Dividends do react to year-to-year fluctuations in earnings.
5. Price does not contain speculative components.
6. Earnings fluctuations may not sum zero over the sample.

The regression $P_t = a + b\ D_t + c\ R_t$ 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 earnings effect in three of five industries i.e., chemicals, foods, and steels.

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

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

They tested this equation and found the following results.

Dividends have a predominant influence on stock prices in the same three out of five industries but the differences between the dividends and retained earnings coefficients were not quite 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 of dividend and retained earnings effects on stock prices, though such a bias might be masked if the distributing effects of short run income movements are sufficiently great.

Further, they used lagged price as a variable instead of lagged earnings price ratio. They found that retained earnings received greater relative

weight than dividends in the majority of the cases. The only exceptions were steels and foods in 1958. Chemicals, electronics, and utilities were considered as growth industries and the retained earnings effect was larger than the dividend effect for both years covered. For the other two industries (steels and foods) there no longer seems to be any significant systematic differences between the retained earnings and dividend coefficients.

Similarly, they tested the regression of $P_t = a + bD_t + cR_t$ 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 in growth industries by greater retention, i.e. smaller (lower) dividends.

2.9.6. Van Horne and McDonald's Study[70]

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.

[70] **Van Horne, James C. and MC-Donald, John G.**, **"**Dividend Policy and New Equity Financing**"**, *Journal of Finance, May 1971, PP. 507 - 519.*

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 1968.

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 divided by earnings in 1968.
Lev	=	Financial risk, measured by interest charges divided 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 variables representing its NIR group is one and the value 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 divided by net worth as of 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 above

By using these models, they compared the result obtained for the firms which both pay dividend and engage in new equity financing with other firms in an 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.[71] 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.

2.9.7. Deepak Chawla and G. Shrinivasan's Study[72]

They studied the impact of dividend and retention on share price. The followings were the prime objectives of their study.

iv. To test the hypothesis of dividend and retained earnings.

v. To estimate a model to explain share price, dividend and retained earnings relationship.

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[71] Ibid, p.517

[72] **Chawla, Deepak and Shrinivasan, G.**, "Impact of Dividend and Retention on Share Price – An Economic Study", *Decision, Vol.14, No.3 (July-September 1987) pp.137-140*
(**Extracted from:** Masters Degree Thesis submitted to T.U. Central Department of Management 1999, "Corporate Dividend Practices in Nepal" by **Nabaraj Adhikari**

vi. 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.

4. Price Function

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

5. Dividend Supply Function,

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

6. 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 the sign for retained earnings is negative in both years and 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 in1969 and one percent level in 1973.

Finally, they concluded that dividend hypothesis holds good 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.

2.10. Review of Major Studies in Nepal

The review of studies regarding dividend policy can be broadly classified into two categories:

2.10.1. Review of Books and Journals in Nepalese Perspective:

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.

Dr. R.S. Pradhan has conducted a study on **Small Market Behavior in A Small Capital Market: A case of Nepal**[73] in 1993. It is pertinent to put forth here because 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 follows:

iii. To assess the stock market behavior in Nepal.

iv. 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.

The following model was employed.

$V = b_0 + b_1 LIQ + b_2 LEV + b_3 EARN + b_4 TURN + b_5 COV + Ui$ ……

The dependent variable, V chosen for the study has been are specified as under:

- Market equity, number of shares multiplied by market price of shares (ME).
- Market value of equity to its book value (MV / BV)
- Price – earning ratio (PE)
- Dividend per share to market price per share (DPS/MPS)
- Dividend per share to earning per share (DPS / EPS)

The independent variables are specified as:

LIQ = Current Ratio (CR) or Quick / Acid Test Ratio (QR)

LEV = Long-Term Debt to Total Assets (LTD / TA) or Long-Term Debt to Total Capitalization (LTD / TC). Total Capitalization is specified as Long-Term Debt plus Net

[73] **Pradhan, R. S.,** " Stock Market Behaviour in a Small Market: A case of Nepal ", *The Nepalese Management Review, Vol. IX, Summer 1993, pp. 23-43.* Source: www.edunepal.com.np

Worth.

EARN = Return on Assets, i.e. Earnings Before Tax to Total Assets (ROA) or Return on Net Worth, i.e. Earnings Before Tax to Net Worth (RONW).

COV = Interest Coverage Ratio, i.e. Earnings Before Tax to Interest.

TURN = Fixed Assets Turnover, i.e. Sales to Average Fixed Assets (S/FA), or Total Assets Turnover, i.e. Sales to Average Total Assets (S/TA)

U = Error Term

Some findings of his study, among others, were as follows:

vii. 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.

viii. 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.

ix. 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.

x. Positive relationship is observed between the ratio of dividend per share to market price per share and turnover ratios. 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.

xi. 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.

xii. So, 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.

Dr. M. K. Shrestha has written an article about "**Public Enterprises: Have They Dividend Paying Ability**?"[74], which was published in the book 'PRASHASAN' in March 1981. It gives short glimpse of the dividend performance of some public enterprises of that time in Nepal. Dr. Shrestha has highlighted (focused) the following issues in the article.

HMG wants two things from the public enterprises: (i) They should be in a position to pay minimum dividend & (ii) Public enterprises should be self-supporting in financial matters in future years to come.

But these both objectives are not achieved by public enterprises.

5. One reason for this inefficiency is caused by excessive governmental interference over daily affairs even though there is provision of government interference only for policy matters. On the other hand, high-ranking officials of HMG appointed as directors of board do nothing but simply show their bureaucratic personalities, Bureaucracy has been the enemy of efficiency and thus led corporation to face losses. Losing corporations are, therefore, not in a position of paying dividends to government.
6. Another reason of this is the lack of self-criticism and self-consciousness. Esman[75] has pointed out that lack of favorable leadership is one of the

[74] **Shrestha, M.K**., **"**Public Enterprises: Have They Dividend Paying Ability?", *PRASHASAN, The Nepalese Journal of Public Administration, March, 1981*. Source: www.edunepal.com.np

[75] **Esman, Milton J.**, "The Institution Building Concept: An Interim Appraisal", *Pittsburgh Inter University Research Programme in Institution Building, 1967, p. 44*. (Extracted from: Masters Degree Thesis submitted to TU, Central Dept of Management, "Dividend Policy & Practices in

biggest constraints to institution building. Moreover corporate leadership comes, as managers are not ready to have self-criticisms. In fact, all so called managers of corporations have not been able to identify themselves regarding what they can contribute as managers of corporations. So HMG must be in a position to develop a financial target on corporate investment by imposing financial obligation on corporations.

7. The article points out the irony of government biasness that government has not allowed banks to adopt an independent dividend policy and HMG is found to have pressurized on dividend payment in case of Nepal Bank Limited regardless of profit. But, it has allowed Rastriya Banijya Bank to be relieved from dividend obligation despite considerable profit.

8. The improvement suggested by authors are:

   i. Adopt a criteria-guided policy to drain resources from corporations through the medium of dividend payment.

   ii. Realization by managers about cost of equity capital and dividend obligation.

   If HMG wants to tap resources through dividend, the following criteria should be followed.

   v. Proper evaluation of public enterprises interns of capability of paying dividend through corporation coordination committee.

   vi. Imposition of fixed rate of dividend by government on financially sound public enterprises.

   vii. Circulating the information about minimum rate of dividend to all public enterprises.

   viii. Specifying performance targets in terms of profit, priorities on timings and plans and development of strategic plans that bridges the gap between aspiration and reality.

Commercial Banks, A comparative study of Nepal SBI Bank Ltd and Nepal Bangladesh Bank Ltd." by **Manoj Bhakta Acharya**) Source: www.edunepal.com.np

Identification of corporation objectives in Corporations Act, Company Act or special charters so as to clarify public enterprise managers regarding their financial obligation to pay dividend to HMG.

2.10.2. Review of Previous Theses

In last few years, prior to this thesis; some students of M.B.A. and M.B.S. programme 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.

2.7.2.3 Bishnu Hari Bhattarai's Study[76]

The study of dividend decision and its impact on the stock valuation was carried out by Bishnu Hari Bhattarai, in 1996 using 10 companies of various sectors. The basic objective of the study was to identify the relationship between dividend and the stock price. The major objectives of this study can be stated as follows:

iv. Highlight various aspects of dividend policies and practices in Nepal.

v. Analyze the variables such as profit, dividend, retained earning, growth rate and relevant variables to show the relationship between the value and other ingredients affecting it.

vi. Provide feedback to the policy makers and executive working in various companies chosen for study based on the findings of the analysis.

The major findings of this study are as follows:

x. The companies while paying dividend generally neglect shareholder's expectations.

xi. Dividends were paid only in profitable years.

xii. In aggregate, there was no stable dividend paid by the companies i.e. instability of dividend.

[76] **Bhattarai, Bishnu Hari**, "Dividend Decision and Its Impact on Stock Valuation", *Unpublished Master's Thesis, Tribhuvan University, Shanker Dev Campus, Kathmandu, 1996.*

xiii. There were no criteria to adopt a certain payout ratio. There is haphazard payout ratio in the companies under study.

xiv. Cash balance and dividend payment were positively correlated.

xv. Mostly the joint venture companies were paying dividend.

xvi. There was positive impact of dividend on valuation of shares.

xvii. Dividend paid was inadequate to cover the required rate of return of the investors.

xviii. Market price considerably higher than actual net worth.

2.7.2.4 Nabaraj Adhikari's Study[77]

The study has covered the period from 1990 to 1996 with total observations of 47 in financial sector and 30 non-financial sectors. This study has used both primary and secondary data. The major objective of this study was to assess corporate dividend practices in Nepal. The specific objectives were as follows:

iv. To analyze the properties of portfolios formed on dividends.
v. To examine the relationship between dividends & stock prices.
vi. To survey the opinions of financial executives on corporate dividend practices.

The major conclusion, of this research study was as follows:

It is observed that there are differences in financial position of high dividend paying and low dividend paying companies. Other things remaining the same, financial position of high dividend paying companies is comparatively better than that of low dividend paying companies. Thus 'Dividends affect the market price of share' is the major conclusion of this study.

Likewise, the other findings based on primary data are given below.

v. The price of common stock was induced by dividend payout ratio.

vi. Nepalese shareholders were not really indifferent towards payment or non-payment of dividend.

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[77] **Adhikari, Nabaraj**, "Corporate Dividend Practices in Nepal", *Unpublished Master's Thesis, Tribhuvan University, Central Department of Management, Kathamandu, 1999.*

vii. The majority of the respondents feel that the major motives to pay cash dividend was to convey information to shareholders that the company is in good position.

viii. As regards dividend as a residual decision, the majority of the respondents feel that it was not a residual decision.

With respect to factors affecting corporate dividend policy, the majority of the respondents gave the first priority to 'earnings', the second priority to 'availability of cash', the third priority to 'past dividends' & fourth priority to 'concern about maintaining or increasing stock price'.

2.7.2.4 Sadakar Timilsena's Study[78]

Using the data of 16 enterprises from 1990 to 1994, Sadakar Timelsena carried out this study on dividend and stock prices. The major objectives of this study were as follows:

iv. To test the relationship between dividend per share and stock prices.

v. To determine the impact of dividend policy on stock prices.

vi. To identify whether it is possible to increase the market value of stock changing dividend policy or payout ratio.

To explain the price behavior, the study used simultaneous equation model as developed by Friend and Pucket (1964). The findings drawn by the study are as follows:

vi. The relationship between dividend per share and stock price was positive in the sample companies.

vii. Dividend per share affected the share price variedly in different sectors.

viii. Changing the dividend policy or dividend per share might help to increase the market price of share.

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[78] **Timelsena, Sadakar**, "Dividend and Stock Prices: An Emperical Study", *Unpublished Master's Thesis, Tribhuvan University, Central Department of Management, Kathamandu, 1997.*

ix. The relationship between stock prices and retained earning per share was not prominent.

x. The relationship between stock prices and lagged carrying price ratio was negative.

CHAPTER 3

RESEARCH METHODOLOGY

3.8. 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 the research problem. In other words, research methodology indicates the methods and processes employed in the entire aspects of the study. "Research methodology" refers to the various sequential steps to be adopted by a researcher in studying a problem with certain object/objects in view". So, it is the methods, steps, and guidelines, which are to be followed in analysis, and it is a way of presenting the collected data with meaningful analysis.

3.9. 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 researcher 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.[79]

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 price of 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 shareholders. Various analytical and descriptive approaches are used to determine the impact of dividend policy followed by an organization on its market price.

3.10. Population and Sample

By the end of Mid July 2010, 30 commercial banks (including government owned, private and joint venture) are operating in Nepal. Due to time and

[79] **Krelinges, Fred N**, *Foundation of Behaviourial Research*

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 30 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:

6. Standard Chartered Bank Nepal Ltd.
7. Nepal SBI Bank Ltd.
8. Nabil Bank Ltd.
9. Himalayan Bank Ltd.
10. Everest Bank Ltd.

Thus in our study,

Population Size : 30

Sample Size : 5

In this research study the sample size is 16.67% of the population size.

3.11. 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.

3.12. 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 2005/06 to 2009/10. Thus the total number of observations of this study will be 25.

3.13. Financial Tools

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

3.13.1. Earning Per Share (EPS)

Earning per share refers the rupee amount earned per share of common stock outstanding. It measures the profitableness 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,

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

3.13.2. 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 is common stock, which consequently helps to increase the market value of the shares. And it also works as the indicator of better performance of the bank management.

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

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

Number of Ordinary Shares Outstanding

3.13.3. Dividend Percent (DP)

Dividend percent is the ratio of dividend per share to the paid-up price per ordinary share. It can be calculated as:

$$DP = \frac{\text{Dividend Per Share}}{\text{Paid-up Price Per Share.}}$$

3.13.4. 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,

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

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

= (1-DPR)

3.13.5. 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,

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

3.13.6. 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 earnings yield is worth buying. It is calculated as:

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

3.13.7. 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,

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

3.13.8. 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 from 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,

$$\text{MPS to BVPS Ratio} = \frac{\text{Market price per share}}{\text{Book value per share}}$$

3.13.9. 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,

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

3.14. 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.

3.14.1. Arithmetic Mean or Average ($\bar{X}$)

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 $\bar{X}$ $\frac{\qquad\qquad}{N}$ ( ) = $X_1 + X_2 + X_3 + \ldots\ldots\ldots\ldots\ldots\ldots + X_n$

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

Where,

$\sum X$ = sum of the sizes of the items

N= number of items

3.14.2. Standard Deviation (±)

Karl Pearson first introduced the concept of standard deviation in 1983. Standard deviation is the positive square root of the arithmetic average of the squares of all the deviations measured from 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 derivation, i.e. greater will be the magnitude of the deviations of the values from 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 a Greek letter **'±'** (Sigma) and is calculated as follows.

Standard Deviation **(σ)** $\sqrt{\frac{\sum(X - \bar{X})^2}{N}}$

Where,

N = Number of items in the series.

$\bar{X}$ = Mean

X = Variable

3.14.3. 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 consistent, more uniform, more stable and more homogenous. It is denoted by C.V. and is obtained by dividing the standard deviation by arithmetic mean. Thus

Coefficient of Variation **(C.V.)** $= \frac{\text{S.D. x 100}}{\text{Mean}} = \frac{\sigma \text{ x 100}}{\bar{X}}$

Where,

σ = Standard Deviation

$\bar{X}$ = Mean

3.14.4. 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 other.

The value of coefficient of correlation always lies between ± 1. A value of –1 indicates a perfect negative relationship between the variables and a value of +1 indicates a perfect positive relationship. A value of zero indicates that there is no relation between the variables. The zero correlation coefficient means the variables are uncorrelated. The closer r is to +1 or –1, the closer the relationship between the variables and closer **r** is to zero (o), the less close relationship. The algebraic sign of the correlation coefficient indicates the direction of the relationship between two variables, whether direct or inverse, while the numerical value of the coefficient is concerned with the strength, or closeness of the relationship between two variables.

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 payout ratio etc is measured by the correlation coefficient. The correlation coefficient can be calculated as

$$r = \frac{Cov(X\ Y)}{\sigma_X \sigma_Y}$$

$$\frac{\sum(X - \bar{X})(Y - \bar{Y})}{(N-1)\sigma_X \sigma_Y}$$

or

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

Where,

σ_X, σ_Y are the standard deviation of the distributions of X and Y values respectively.

Cov (X, Y) = covariance of X, Y value

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

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

o) Market Price Per Share and Earning Per Share
p) Market Price Per Share and Dividend Per Share
q) Market Price Per Share and Dividend Percent
r) Market Price Per Share and Dividend Payout Ratio
s) Market Price Per Share and Price Earning Ratio
t) Market Price Per Share and Earning Yield
u) Market Price Per Share and Dividend Yield
v) Market Price Per Share and 'MPS to BVPS' Ratio
w) Market Price Per Share and Net Worth Per Share
x) Earning Per Share and Dividend Per Share
y) Earning Per Share and Dividend Payout Ratio
z) Dividend Per Share and Dividend Payout Ratio

aa) Dividend Per Share and Net Worth Per Share

bb) Earning Yield and Dividend Yield

3.14.5. 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 unity, the greater the explanatory power. A value of one can occur 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 two variables is positive or negative. The R^2 is defined as the ratio of explained variance to the total variance. Thus,

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

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

3.14.6. Regression Analysis

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

It is also used to predict value of one variable given the value of other variables.

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

h. Market Price Per Share on Earning Per Share

Y=a + bX

Where,

Y= Market Price Per Share

a = Regression Constant

b= Regression Coefficient

X= Earning Per share

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

i. 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).

j. Market Price Per Share on Dividend Percent

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 Percent (independent variable).

k. 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 Payout Ratio

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

l. 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

The relationship between market price per share (dependent variable) and dividend yield (independent variable) can be explained through this model.

d. 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.

e. Regression Coefficients (b_1, b_2, b_3 .....)

The regression coefficient 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.

f. 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 the observed values around the regression line. It also measures the reliability of the estimating equation, indicating the variability of the observed values differ from their predicted values on the regression line.

The larger the value of S.E.E., the greater the scattering or dispersion of points around the 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 the regression line and the 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 as a description of the average relationship between two series.

CHAPTER 4

PRESENTATION AND ANALYSIS OF SECONDARY DATA

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. Presentation of Financial Variables

Under this heading the financial variables have been presented and analyzed and calculations are done using the programme "**SPSS 14.0 for Windows**".

4.1.1. Earning Per Share (EPS)

Earning per share refers the rupee amount earned per 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 are tabulated as follows:

Table: 4.1

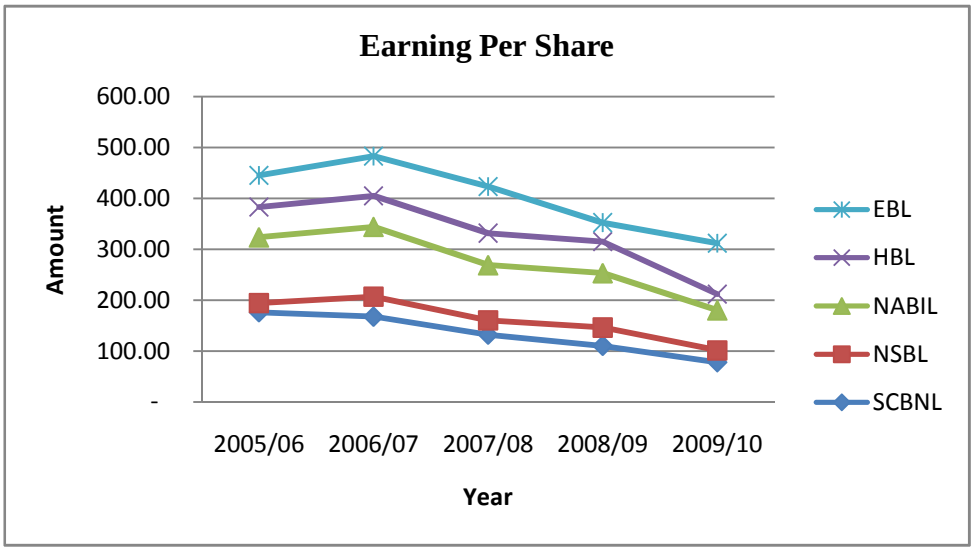
Earning Per Share

Banks/ Years	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	SD	CV
SCB	175.84	167.37	131.92	109.99	77.65	**132.55**	**40.65**	**30.67**
NSBL	18.27	39.35	28.33	36.18	23.69	**29.16**	**8.69**	**29.81**
NABIL	129.21	137.08	108.31	106.76	78.61	**111.99**	**22.81**	**20.37**
HBL	59.24	60.66	62.74	61.9	31.8	**55.27**	**13.19**	**23.86**
EBL	62.78	78.42	91.82	37.42	99.99	**74.09**	**24.88**	**33.59**

Source: Appendix A,

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

Figure 4.1.1



Source: Table 4.1.1 and Appendix A

The EPS of Standard Chartered Bank Nepal Ltd. (SCBNL) range between Rs. 175.84 to Rs. 77.65 during the period of study. During this period, the average EPS is Rs. 132.55. The standard deviation of the EPS under the period of study is 40.65. The C.V. of 30.67 indicates that there is a low fluctuation of 30.67% in the EPS of SCBNL, during the period of study.

During the period of study, Nepal SBI Bank Ltd. (NSBL) had an average EPS of Rs. 29.16 with a standard deviation of 8.69. The EPS range between Rs. 39.35 to Rs. 18.27. The coefficient of variation shows that there is a fluctuation of 29.81% in EPS of NSBL.

The average EPS of NABIL Bank Ltd, during this period of study is Rs. 111.99. It stayed within the range of Rs. 137.08 to Rs. 78.61. The standard deviation of EPS is 22.81 whereas the coefficient of variation is 20.37%. 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. 55.27 is noted during this period. The standard deviation of the EPS is 13.19. The C.V. of 23.86

indicates that there is a fluctuation of 23.86% 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. 74.09, ranging between Rs. 62.78 and Rs. 99.99 The standard deviation is 24.88 and the fluctuation of 33.59% 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. 175.84 and Rs. 18.27. Similarly the standard deviation of SCB is the highest and NSBL is the lowest. The coefficient of variation 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 the bank management. The dividends per share of the banks under study are stated in the table below:

Table 4.1.2

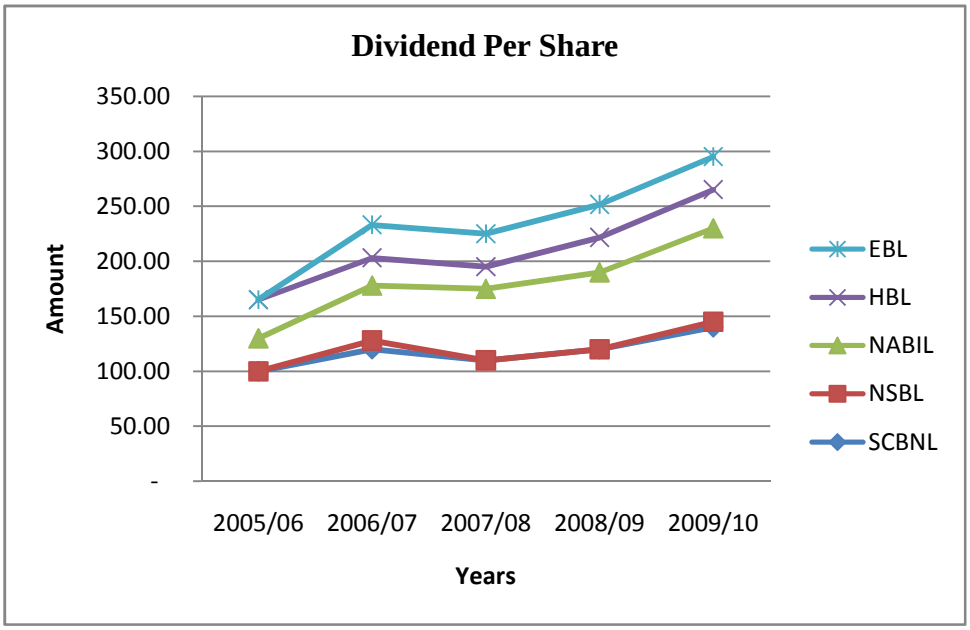
Dividend Per Share by Bank wise

Bank/ Years	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	SD	CV
SCBNL	140	130	130	100	70	**114**	**28.81**	**25.27**
NSBL	5	47.59	-	42.11	17.50	**22.44**	**21.51**	**95.88**
NABIL	85	140	100	85	70	**96**	**26.79**	**27.90**
HBL	35	40	45	43.56	36.84	**40.08**	**4.26**	**10.63**
EBL	-	30	30	30	30	**24**	**13.42**	**55.90**

Source: Appendix A

The Dividend Per Share of the banks under study, during the period is presented in the following graph:

Figure 4.1.2:



Source: Appendix A and Table 4.1.2

The average DPS of Standard Chartered Bank Nepal Ltd. (SCBNL) is Rs. 114.00 with the standard deviation of 28.81. The highest and lowest DPS are Rs. 140 and Rs. 40.00 respectively. The coefficient of variation is 25.27%, 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. 22.44. The highest DPS is Rs. 47.59 whereas it has not paid dividend in the year 2007/08. The standard deviation is 21.51 and coefficient of variation is 95.88%. 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. 140.00. It is within the range of Rs. 140 and 85. The standard deviation of DPS is 26.79 whereas the coefficient of variation of 27.90% indicates the fluctuating nature of DPS in NABIL Bank Ltd.

Himalayan Bank (HBL) paid the highest DPS of Rs.45.00. An average DPS of Rs. 40.08 has been noted during the study period. The standard deviation of the DPS is 4.26. The C.V. of 10.63% indicates that there is a little fluctuation in the DPS of HBL.

Everest Bank Ltd (EBL) has an average DPS of Rs. 24. In the year 2005/06 divided is nil. The standard deviation is 13.42 and the fluctuation of 55.90% in the DPS is seen during this period. NIBL 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 Percent (DP)

Dividend percent is the ratio of DPS to the Paid up Price per Share. It is measured in percentage. The dividend percent during the period of study are presented in the table and graph below.

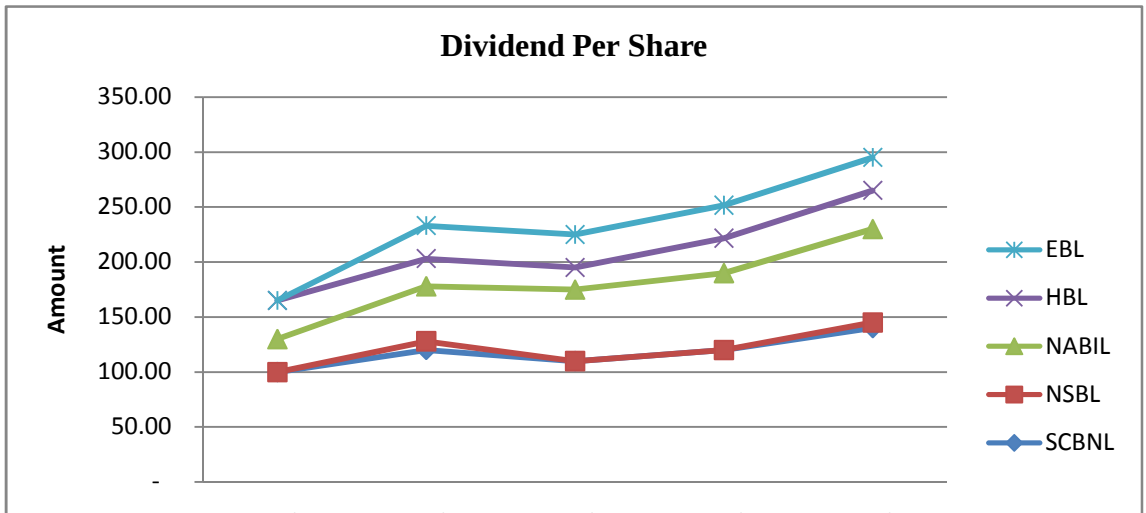
Table 4.1.3

Dividend Percent

Bank/ Years	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	SD	CV
SCBNL	140	130	130	100	70	**114**	**28.81**	**25.27**
NSBL	5	47.59	-	42.11	17.50	**22.44**	**21.51**	**95.88**
NABIL	85	140	100	85	70	**96**	**26.79**	**27.90**
HBL	35	40	45	43.56	36.84	**40.08**	**4.26**	**10.63**
EBL	-	30	30	30	30	**24**	**13.42**	**55.90**

Source Appendix A

Figure 4.1.3



All the banks under study have the same paid up price of Rs. 100 per share but the DPS is different. From the above data, SCBNL pays the highest dividend on the face value of share and NSBL the lowest. The CV indicates that among the banks under study during the period, SCBNL has the highest consistency in dividend percent whereas the dividend percent of NSBL is highly fluctuating.

4.1.4. 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:

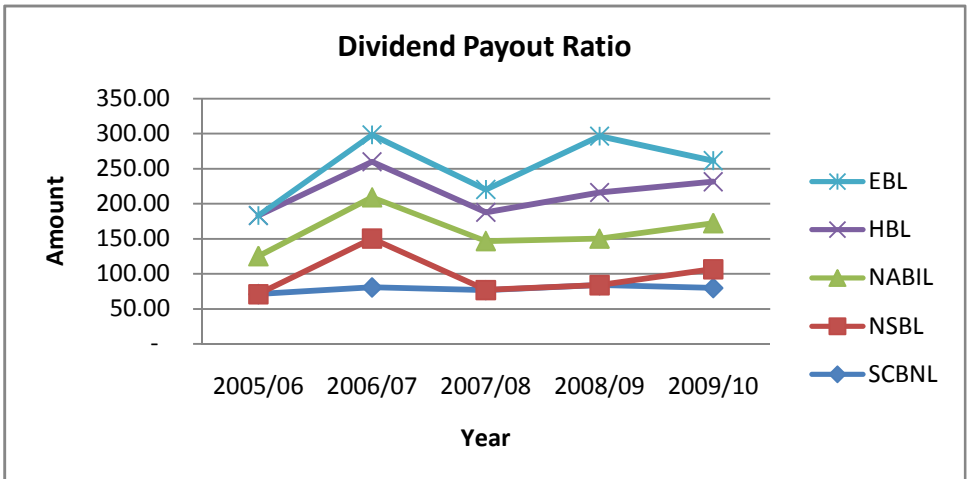
Table 4.1.4

Dividend Payout ratio of bank wise

Bank Year	2005/06	2006/07	2007/08	2008/09	2009/10	**Mean**	**S.D**	**C.V.**
SCBNL	79.62	77.67	98.54	90.92	90.15	**87.38**	**8.65**	**9.90**
NSBL	27.37	120.94	-	116.39	73.87	**67.71**	**53.51**	**79.02**
NABIL	65.78	102.13	92.33	79.62	89.05	**85.78**	**13.77**	**16.05**
HBL	59.08	65.94	71.72	70.37	115.85	**76.59**	**22.49**	**29.37**
EBL	-	38.26	32.67	80.17	30	**36.22**	**28.72**	**79.29**

Source: Appendix A

Figure 4.1.4



Source: Table 4.1.4 and Appendix A

The average DPR of Standard Chartered Bank Nepal Ltd. (SCBNL) is 87.38%. It means that SCBNL generally pays 87.38% of its total earning as dividend to its shareholders. The standard deviation of DPR is 8.65. The coefficient of variation is 9.90%. This value elucidate that there is only about 9.90% fluctuations in the DPR of the bank over the years.

An average DPR of 67.71% of Nepal SBI Bank Ltd (NSBL) indicates that NSBL generally pays out 67.71% of its earning as dividend. The standard deviation is 53.51 and coefficient of variation is 79.02%. The CV indicates that the DPR of NSBL widely varies during the period of study.

NABIL Bank Ltd has an average DPR of 85.78% during this period of study. It means that it generally pays 85.78% of its earning to its shareholders in form of dividend. The standard deviation of DPR was 13.77 whereas the coefficient of variation of 16.05% indicates the fluctuating nature of DPS in NABIL Bank Ltd.

An average DPR of 76.59 % is noted during the study period for Himalayan Bank Ltd. (HBL). The standard deviation of the DPR is 22.49. The C.V. of 29.37% shows a fluctuating behavior of dividend payment by HBL.

Everest Bank Ltd (EBL) has an average DPR of 36.22 It means that EBL is generally paying 36.22% of its earning as dividend to its shareholders. The standard deviation of DPR is 28.72. The CV of 79.29% points toward inconsistency in dividend payment behavior.

The above calculations shows 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.

If analysis is done taking the mean DPR of the sample banks, the average Dividend payout ration of the sample banks comes out to 76.01% with a standard deviation of 23.61 and CV of 33.14% It indicates that, in average, out of the total earnings made, 76.01% is distributed as dividend to the shareholders with a fluctuation of 33.14%.

4.1.5. 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:

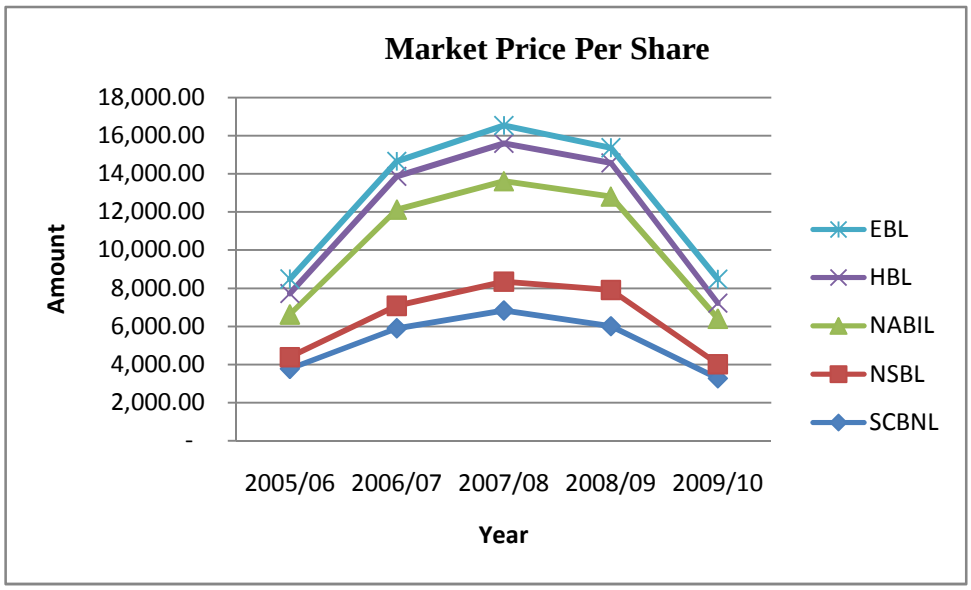
Table 4.1.5

Market Price Per Share (MPS)

Bank/ Years	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	SD	CV
SCBNL	3,775.00	5,900.00	6,830.00	6,010.00	3,279.00	**5,158.80**	**1,542.35**	**29.90**
NSBL	612.00	1,176.00	1,511.00	1,,900.00	741.00	**1,188.00**	**534.55**	**45.00**
NABIL	2,240.00	5,050.00	5,275.00	4,899.00	2,384.00	**3,969.60**	**1,519.93**	**38.29**
HBL	1,100.00	1,740.00	1,980.00	1,760.00	816.00	**1,479.20**	**495.30**	**33.48**
EBL	1,379.00	2,430.00	3,132.00	2,455.00	1,630.00	**2,205.20**	**704.51**	**31.95**

Source: Appendix A

Figure 4.1.5



Source: Table 4.1.5 and Appendix A

The average of closing MPS of Standard Chartered Bank Nepal Ltd. (SCBNL) during the period of study is Rs. 5,158.80 with a standard deviation of 1,542.35 and a coefficient of variation of 29.90%

During the period of study, Nepal SBI Bank Ltd. (NSBL) had an average closing MPS of Rs. 1,188.00 with a standard deviation of 534.56. The coefficient of variation shows that there is a fluctuation of 45% in closing MPS of NSBL.

The average of closing MPS of NABIL Bank Ltd, during this period of study is Rs. 3,969.60. It stayed within the range of Rs. 2240 and Rs. 5,275. The standard deviation of closing MPS is 1,519.93 whereas the coefficient of variation is 38.29%. 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. 816 and Rs. 1,980.00during the period of study. An average closing MPS of Rs. 1,479.20 is noted during this period. The standard deviation of the closing MPS is 495.30. The C.V. of 33.48% 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. (EBL), within the period of study, had an average closing MPS of Rs. 2,205.20 and the fluctuation of 31.95% in the closing MPS is seen during this period. The standard deviation is 704.51.

From the above data and calculations, it can be seen that the average closing MPS of SCBNL is the highest and that of NSBL is the lowest. Similarly the standard deviation 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.

4.1.6 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 4.1.6

Price earning Ratio (P/E Ratio)

Bank/ Years	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	SD	CV
SCBNL	21.47	35.25	51.77	54.64	42.23	**41.07**	**13.40**	**32.62**
NSBL	33.49	29.89	53.35	52.52	31.28	**40.10**	**11.78**	**29.38**
NABIL	17.34	36.84	48.70	45.89	30.33	**35.82**	**12.65**	**35.31**
HBL	18.57	28.39	31.56	28.43	25.66	**28.52**	**4.91**	**18.52**
EBL	22.12	20.1	18.18	20.25	21.33	**20.40**	**1.49**	**7.30**

Source: Appendix A

The Price Earning Ratios of the Banks under study are also presented in graphical form as below:

Figure 4.1.6

Source: Appendix A and Table 4.1.6

The average P/E Ratio of SCBNL, during this period of study is 41.07. It is within the range of 21.47 and 54.64. The standard deviation of P/E Ratio is 4.50 whereas the coefficient of variation of 32.62% indicates the fluctuating nature of P/E Ratio in SCBNL.

Nepal SBI Bank Ltd. (NSBL) has an average P/E Ratio of 40.10, ranging between 29.89 and 40.10, during the period of study. The standard deviation is 11.78 and the fluctuation of 29.38% in the P/E Ratio is seen during this period.

NABIL Bank Ltd has an average P/E Ratio of 35.82 the standard deviation is 12.65 and coefficient of variation is 35.31%. 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 26.52 with the standard deviation of 4.91. The coefficient of variation is 18.52%, which indicates that the bank has 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 20.40 during the study period. The standard deviation of the P/E Ratio is 1.49. The C.V. of 7.30% 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 HBL has the lowest. The CV indicates that among the banks under study during the period, EBL has the highest consistency in P/E Ratio whereas the P/E Ratio of NIBL is fluctuating than other one.

4.1.7 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.

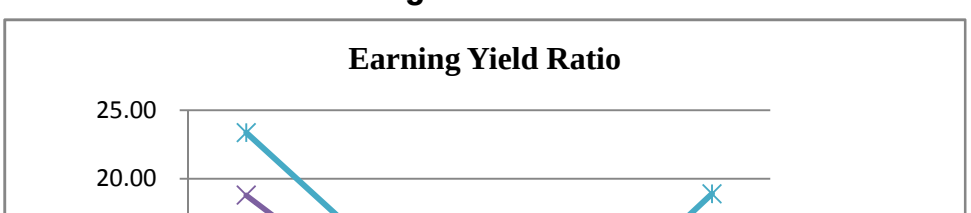
Table 4.1.7

Earning Yield

Bank/ Years	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	SD	CV
SCBNL	4.66	2.84	1.93	1.83	2.37	**2.72**	**1.15**	**42.27**
NSBL	2.99	3.35	1.87	1.90	3.20	**2.66**	**0.72**	**26.91**
NABIL	5.77	2,.71	2.05	2.18	3.30	**3.201**	**1.52**	**47.35**
HBL	5.39	3.49	3,.17	3.52	3.90	**3.89**	**0.87**	**22.48**
EBL	4.55	3.23	2.93	1.52	6.13	**3.67**	**1.75**	**47.53**

Source: Appendix A

Figure 4.1.7



The average EY of 2.72% with the standard deviation of 1.15 is seen for Standard Chartered Bank Nepal Ltd. (SCBNL). The highest and lowest EY are 1.83%and 4.66% Source: Appendix A & table 4.1.7 ation is 42.27%, during the period of study.

Nepal SBI Bank Ltd (NSBL) has an average EY of 2.66. The standard deviation is 0.72 and coefficient of variation is 26.91%. 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 3.20%. It is within the range of 2.05% and 5.77%. The standard deviation of EY is 1.52 whereas the coefficient of variation of 47.35%.

For Himalayan Bank Ltd. (HBL) has an average EY of 3.89% was noted during the period of study. The standard deviation of the EY is 0.87. The C.V. of 22.48% indicates that there is a least fluctuation in the EY of HBL.

Everest Bank Ltd (EBL) has an average EY of 3.67%, ranging between 1.52% and 6.13%, during the period of study. The standard deviation is 1.75 and the fluctuation of 47.53% in the EY is seen during this period.

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

4.1.8 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. 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 dividend yields of the banks under study are presented in the table and graph as below.

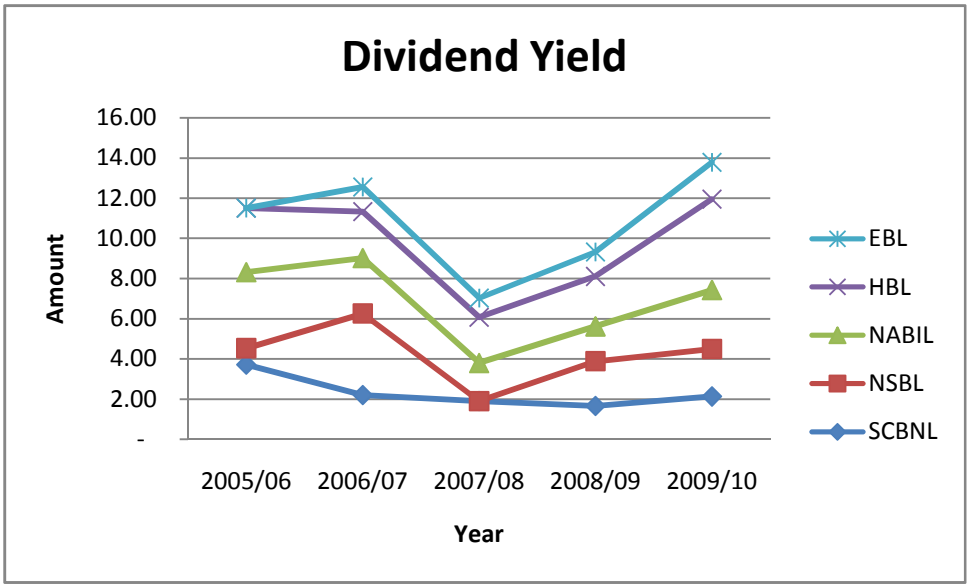
Table 4.1.8

Dividend Yield (DY)

Bank/ Years	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	SD	CV
SCBNL	3.71	2.20	1.90	1.66	2.13	**2.32**	**0.80**	**34.58**
NSBL	0.82	4.05	-	2.22	2.36	**1.89**	**1.56**	**82.48**
NABIL	3.79	2.77	1.90	1.74	2.94	**2.63**	**0.84**	**31.91**
HBL	3.18	2.30	2.27	2.48	4.51	**2.95**	**0.95**	**32.22**
EBL	-	1.23	0.96	1.22	1.84	**1.05**	**0.67**	**63.82**

Source: Appendix A

Figure 4.1.8



Source: Appendix A & Table 4.1.8

The DY of Standard Chartered Bank Nepal Ltd. (SCBNL) has range between 1.66% and 3.71% during the period of study. During this period, the average DY is 2.32%. The standard deviation of the DY under the period of study is 0.80. The C.V. of 34.58% indicates that the fluctuation of in DY of SCBNL.

During the period of study, Nepal SBI Bank Ltd. (NSBL) had an average DY of 1.89% with a standard deviation of 1.56. The coefficient of variation shows that there is a fluctuation of 82.48% 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 2.63%. It stayed within the range of 1.90% and 3.79%. The standard deviation of DY is

0.84 whereas the coefficient of variation is 31.91%. The CV indicates a nature of fluctuation in the DY of the bank.

Himalayan Bank Ltd. (HBL) has the DY range between 2.27% and 4.51% during the period of study. An average DY of 2.95% is noted during this period. The standard deviation of the DY is 0.95. The C.V. of 32.22 indicates that there is a fluctuation of 32.22% in the DY of HBL .

Everest Bank Ltd. (EBL), within the period of study, had an average DY of 1.05%. The standard deviation is 0.67 and the fluctuation of 63.82% in the DY.

From the above data and calculations, it can be seen that the average DY of HBL is the highest and that of NSBL is the lowest. The DY range of the banks under study during the period is between 7.32% and 0.00%. Similarly the standard deviation of NSBL is the highest and SCB 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.

4.1.9 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 performance in terms of MPS to BVPS. These ratios are presented in the table and graph as follows.

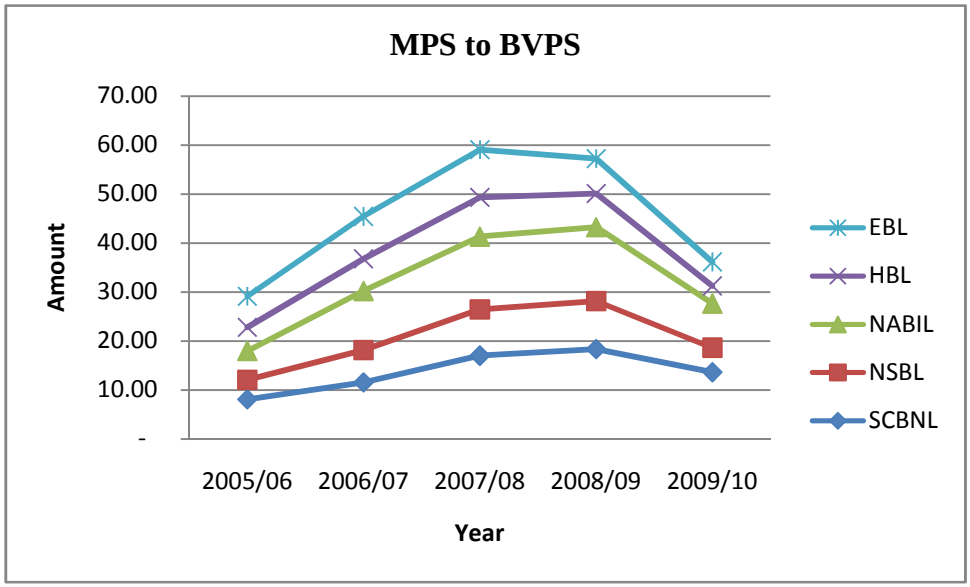
Table 4.1.9

Market Price Per share (MPS) to Book value Per share (BVPS)

Bank/ Years	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	SD	CV
SCBNL	8.06	11.52	17.01	18.35	13.61	13.71	4.16	30.32
NSBL	4.03	6.61	9.41	9.76	5.02	6.97	2.56	36.81
NABIL	5.88	12.08	14.90	15.12	9.00	11.40	3.96	34.78
HBL	4.81	6.57	7.99	6.86	3.60	5.97	1.75	29.27
EBL	6.34	8.65	9.73	7.11	4.91	7.35	1.90	25.84

Source: Appendix A

Figure 4.1.9



Source: Appendix A

The average ratio of MPS to BVPS of Standard Chartered Bank Nepal Ltd. (SCBNL) is 5.28. The standard deviation of the ratio is 1.66. The coefficient of variation is 31.45%. This value elucidate that there is only about 31.45% fluctuations in the ratio of MPS to BVPS of the bank over the years.

An average MPS to BVPS ratio of 2.63 of Nepal SBI Bank Ltd (NSBL) is noted during the period of study. The standard deviation is 0.90 and coefficient of variation is 34.15%. The CV indicates that the ration 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 3.89 during this period of study. The standard deviation of the ratio is 1.29 whereas the coefficient of variation of 33.15% indicates the above-moderate fluctuating nature of MPS to BVPS ratio in NABIL Bank Ltd.

An average MPS to BVPS ratio of 3.99 is noted during the study period for Himalayan Bank Ltd. (HBL). The standard deviation of the ratio of MPS to BVPS is 0.66. The C.V. of 16.47% 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 7.35. The standard deviation of this ratio is 1.90. The CV of 25.84% 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 EBL is the highest among the banks under study, while this ratio is lowest for NSBL. 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.

4.2.10 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 4.2.10

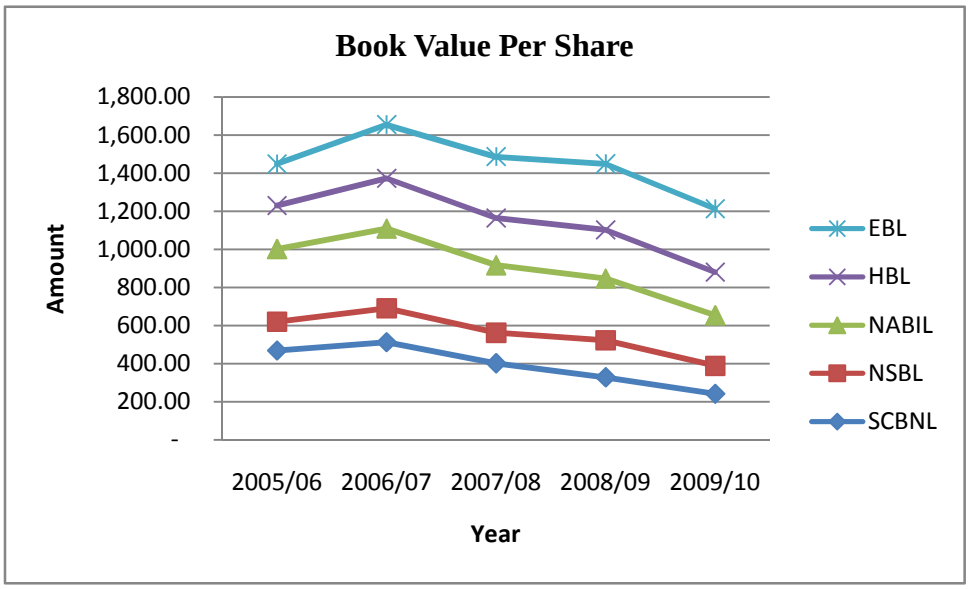
Book value per share

Bank/ Years	2005/06	2006/07	2007/08	2008/09	2009/10	Mean	SD	CV
SCBNL	468.22	512.12	401.52	327.53	240.95	**390.07**	**108.72**	**27.87**
NSBL	151.78	178.04	160.57	194.68	147.61	**166.54**	**19.60**	**11.77**
NABIL	381	418	354	324	265	**348.40**	**58.07**	**16.67**
HBL	228.72	264.74	247.95	256.52	226.79	**244.94**	**16.79**	**6.85**

EBL	217.67	280.82	321.77	345.23	331.99	**299.50**	**51.69**	**17.26**

Source: Appendix A

Figure 4.2.10



Source: Appendix A & table 4.2.10

The above table and chart shows that, the average Book Value Per Share (BVPS) of the banks under study range between Rs. 390.07 (SCBNL) and Rs. 166.54 (NSBL). NABIL, HBL and EBL have the average BVPS of Rs. 348.40, Rs. 244.94 and Rs. 299.50 respectively. Similarly the CV shows the highest consistency in the BVPS of SCB (27.87%) whereas the BVPS of NABIL has the high fluctuating tendency (19.08%) among the banks. The CV of BVPS of NSBL ,NABIL, HBL and EBL are 11.77%, 16.67% , 6.85% and 17.26% 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 program **'SPSS 14.0 for Windows**.'

4.2.7 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 variables are 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) between the financial variables. The data used for calculation can be seen in Appendix – B.

Table 4.2.11

Standard Chartered Bank Nepal Ltd.

	EPS	DPS	DP	DPR	PER	EY	DY	
MPS	0.413	0.413	0.413	0.375	0.606	-0.564	-0.588	
EPS	1	0.940	0.940	-0.649	-0.655	0.683	0.622	
DPS	0.940	1	1	-0.351	-0.436	0.509	0.485	

EY	0.683	0.509	0.509	-0.730	-0.965	1	1	

Source: Appendix C

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. The same relation exists between MPS and DP. 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 is negatively correlated to EY and DY. Similarly, the EPS has positive relation with its DPS and DP due to continue payment of Dividends. Also the DPS of SCBNL is positively correlated with the EY, DY and has also positively correlation with its BVPS. In the same way the EY is positively correlated with the EPS, DPS, DP and DY.

Table 4.2.12

Nepal SBI Bank Ltd.

	EPS	**DPS**	**DP**	**DPR**	**PER**	**EY**	**DY**	
MPS	0.717	0.407	0.407	0.285	0.833	-0.801	0.001	
EPS	1	0.842	0.842	0.723	0.225	-0.166	0.645	
DPS	0.842	1	1	0.975	-0.149	0.189	0.891	
EY	-0.166	0.189	0.189	0.281	-0.997	1	0.587	

Source: Appendix c

The above table indicates that the MPS of NSBL is negatively correlated with its EY which is because of irregularity in payment of dividends. MPS has positive correlation with its EPS, DPS, DP,, DPR, DY, P/E Ratio, BVPS and MPS to BVPS ratio. Similarly, the EPS is positively correlated with its DPS , DP, DY, BVPS, PE Ratio, MPS to BVPS and DPR. 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, EY, DY, MPS to BVPS and BVPS. The correlation

between EY and DY is also positive due to the same type of relation of EY and DY with the MPS.

Table 4.2.1.3
NABIL Bank Ltd.

	EPS	DPS	DP	DPR	PER	EY	DY	
MPS	0.293	0.631	0.631	0.596	0.883	-0.821	-0.821	
EPS	1	0.747	0.747	-0.028	-0.181	0.277	0.272	
DPS	0.747	1	1	0.643	0.245	-0.280	-0.085	
EY	0.277	-0.280	-0.280	-0.721	-0.958	1	0.926	

Source: Appendix C

From the above table it is found that the MPS of NABIL has positive correlation with its DPS, DP and DPR. It is because of regularity in paying dividend. In the same way, MPS of NABIL is positively correlated with its EPS, P/E Ratio, BVPS and MPS to BVPS ratio. In 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 and DPR have been increased 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 4.2.14

Himalayan Bank Ltd.

	EPS	DPS	DP	DPR	PER	EY	DY	
MPS	0.807	0.888	0.888	-	0.733	-	-	

				0.591		0.660	0.939	
EPS	1	0.513	0.513	-0.949	0.189	-0.092	-0.948	
DPS	0.513	1	1	-0.216	0.890	-0.834	-0.690	
EY	-0.092	-0.834	-0.834	-0.201	-0.989	1	0.387	

Source: Appendix C

The above table reveals that the MPS of HBL is positively correlated with its EPS, DPS, DP, PE ratio, BVPS and MPS to BVPS, because of regularity in payment of dividends. It has also negative correlation with its EY, DY, DPR. Similarly, the EPS is positively correlated with DPS, DP, PE Ratio, MPS to BVPS and BVPS. It is because of the reason that the DPS and DP are increasing even if the EPS has decreased. Also the DPS of NSBL has positive correlation with the EPS, PE Ratio, BVPS and MPS to BVPS but is negatively correlated with DPR. The correlation between EY and DY is negative.

Table 4.2.15

Everest Bank Ltd.

	EPS	**DPS**	**DP**	**DPR**	**PER**	**EY**	**DY**	
MPS	0.720	0.799	0.873	0.414	0.042	0.082	0.478	
EPS	1	0.570	0.570	0.320	-0.206	0.749	0.749	
DPS	0.570	1	1	0.873	0.601	0.089	0.906	
EY	0.749	0.089	0.0879	0.107	-0.287	1	0.149	

Source: Appendix C

The above table reveals that the MPS of EBL has positive correlation with the EPS, DPS, DP, DPR, PE Ratio, BVPS, EY, DY, BVPS and MPS to BVPS. It is because of regular increase in EPS, even if the MPS is in increasing trend. The EPS has positive correlation with both of its DPS and DPR because they

are also decreasing with the increase in EPS. In the same way, DPS of EBL is positively correlated with the EPS, DPS, DP, DPR, PE Ratio, BVPS, EY, DY and MPS to BVPS . Also the EY has negative correlation with PE Ratio, and BVPS of the bank.

From the above analysis, the MPS of the banks (SCBNL, NABIL, HBL and EBL) who are paying dividend regularly have positive correlation with their dividend component i.e. DPS, DP, 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 SCNBL, 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 (SCNBL, NSBL and NABIL) have negative correlation between MPS & EY and MPS & DY, But Other Banks have 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 is positive for all banks except HBL bank. It means that the BVPS of SCBNL, NSBL, NABIL and EBL will increase with the increase in MPS but in case of HBL, it will decrease with the increase in MPS of BVPS.

Analyzing the relation between EPS – DPS and EPS – DPR, we can see positive correlation but in NSBL (0.002), it seems positive but least correlated.
Regarding the correlation of DPS with DPR and BVPS, all banks except HBL, have positive correlation between DPS with DPR and DPS with BVPS. In

case of HBL, the DPS is positively correlated with DPR but there exists negative correlation between DPS and BVPS.

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

4.2.8 Regression Analysis

Table 4.2.2.1
MPS on EPS

MPS = a + b × EPS

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	4171.34	-	1.41	0.25	0.038
	EPS	7.45	21.51	0.35	0.75	
NSBL	Constant (a)	-120.28	-	-0.16	0.881	0.528
	EPS	44.71	24.43	1.83	0.165	
NABIL	Constant (a)	1785.52	-	0.426	0.699	0.086
	EPS	19.50	36.79	0.530	0.633	
HBL	Constant (a)	-195.21	-	-0.269	0.805	0.650
	EPS	30.30	12.822	2.363	0.099	
EBL	Constant (a)	467.38	-	1.814	0.167	0.519
	EPS	5.988	3.331	1.798	0.170	

Source: Appendix D

The above table of regression analysis shows that among the banks under study have positive relations between MPS and EPS. The regression relation between MPS and EPS of SCBNL indicates that with an increase of Rs. 1 in EPS, the MPS will increase by Rs. 7.45 other variables remaining constant. Similarly, in case of NSBL and NABIL, with an increase of Rs. 1 in EPS, the MPS will rise by Rs. 44.71 and Rs. 19.50 respectively assuming that the other variables are constant. In contrast there will

be increase in MPS of HBL and EBL by Rs. 30.30 and Rs. 5.988 respectively with an increase in EPS by Rs. 1 remaining other variables constant.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL and EBL are 21.51, 24.43, 36.79, 12.822, 3.331 respectively. These values indicate the probable error in the predicted value for the respective banks.

The coefficient of multiple-determination (R^2) is lowest for SCB (0.038), which indicates that only 3.8% in MPS is explained by EPS i.e. 3.8% variation in MPS of the bank is explained due to the change in value of EPS of the bank. The value of R^2 of NABIL, HBL and EBL are 0.528, 0.086, 0.650 and 0.519 respectively, which indicate that 52.8%, 8.6%, 65% and 51.9% variation in the MPS of these banks are explained by to the change in EPS of the respective banks.

4.2.8.1 MPS on DPS

Table 4.2.2.2
MPS on DPS

MPS = a + b × DPS

Bank	Variables	b	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	2637.96	-	2.481	0.481	0.171
	DPS	22.11	28.15	0.771	0.489	
NSBL	Constant (a)	961.26		6.083	0.089	0.165
	DPS	10.10	13.105	-1.319	0.479	
NABIL	Constant (a)	531.43	-	0.211	0.846	0.398
	DPS	35.82	25.411	1.409	0.253	
HBL	Constant (a)	-2657.18	-	-2.137	0.122	0.788
	DPS	103.203	30.88	3.342	0.044	
EBL	Constant (a)	659.47	-	5.2	0.014	0.638
	DPS	9.459	4.111	2.301	0.105	

Source: Appendix D

The table 4.2.2.2 of regression analysis of MPS and DPS shows that among the banks under study, SCBNL, NABIL, HBL and EBL have positive regression relation between DPS and MPS of the bank. The regression relation between MPS and DPS of SCBNL NABIL, HBL and EBL indicate that with an increase of Rs. 1 in DPS, the MPS will increase by Rs. 22.11, Rs10.10, Rs. 35.82, Rs. 103.203 and Rs. 9.459 respectively, other variables remaining constant.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL and EBL are 28.15, 13.105, 25.411, 30.88 and 4.111 respectively. These values indicate the probable error in the predicted value for the respective banks.

The coefficient of multiple-determination (R^2) is lowest for NSBL (1.165), which indicates that only 11.65% variance in the MPS, is explained by DPS i.e. 11.65% variation in MPS of the bank is explained due to the change in value of DPS of the bank. This value is highest in case of HBL (0.788). This indicates that 78.8% in variation in MPS of HBL is explained due to change in DPS of the bank. The value of R^2 of NABIL, HBL and EBL are 0.398, 0.788 and 0.638 respectively, which indicate that 39.8%, 78.8% and 63.8% variation in the MPS of these banks are explained due to the change in DPS of the respective banks.

4.2.8.2 MPS on DP

Table 4.2.2.3
MPS on DP

MPS = a + b × DP

SCBNL	Constant (a)	2637.96	-	2.481	0.481	0.171
	DPS	22.11	28.15	0.771	0.489	
NSBL	Constant (a)	961.26		6.083	0.089	0.165
	DPS	10.10	13.105	-1.319	0.479	
NABIL	Constant (a)	531.43	-	0.211	0.846	0.398
	DPS	35.82	25.411	1.409	0.253	
HBL	Constant (a)	-2657.18	-	-2.137	0.122	0.788
	DPS	103.203	30.88	3.342	0.044	
EBL	Constant (a)	659.47	-	5.2	0.014	0.638
	DPS	9.459	4.111	2.301	0.105	

Source: Appendix D

Since the paid up price per share is Rs. 100, the numerical value of DPS and DP comes to be equal. This justifies that same type of regression relation between MPS and DP can be seen which is analyzed in case of regression between MPS and DPS. Further same type of coefficient of multiple determination can be seen in case of regression relation between MPS and DP as in case of MPS and DPS.

4.2.8.3 MPS on DPR

Table 4.2.2.4
MPS on DPR

MPS = a + b × DPR

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	-680.52	-	-0.081	0.940	0.140
	DPR	68.827	95.449	0.700	0.534	
NSBL	Constant (a)	995.06	-	2.171	0.118	0.081
	DPR	2.849	5.528	0.515	0.642	
NABIL	Constant (a)	1670.750	-	-0.377	0.731	0.355
	DPR	65.75	51.166	1.285	0.289	
HBL	Constant (a)	2476.84	-	3.051	0.055	0.350
	DPR	-13.025	10.251	-1.271	0.293	
EBL	Constant (a)	932.076		5.063	0.015	0.007
	DPR	-0.582	4.146	-0.140	0.897	

Source: Appendix D

The regression analysis between MPS and DPR shows positive relation between MPS and DPR of SCBNL, NABIL and NSBL, while negative relation between MPS and DPR of EBL and HBL. The regression relation between MPS and DPR of SCBNL, NABIL and NSBL indicates that with an increase of 1% in DPR, the MPS will increase by Rs. 68.827, Rs. 65.75, and Rs. 2.849 respectively assuming that the other variables are constant. In the other hand with an increase in 1% in DPR, the MPS of HBL and EBL will decrease by Rs. 13.025 and 0.582 other variables remaining constant.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL, NIBL, EBL are 95.449, 5.528, 51.166, 10.251 and 4.146, which indicate the possible error in the predicted value for the respective banks.

The coefficient of multiple-determination (R^2) is lowest for SCBNL (0.140), which indicates that only 14% in MPS is explained by DPR i.e. 14% variation in MPS of the bank is explained due to the change in value of DPR of the bank. The coefficient of multiple-determination is highest in case of NABIL (0.355), which indicates that 35.5% variation in MPS of NABIL is due to the change in DPR of the bank. The value of R^2 of HBL and EBL are 0.350 and 0.007 respectively, which indicate that 27.5%, 33.8% and 17.1% variation in the MPS of these banks are explained due to the change in DPR of the respective banks.

4.2.8.4 MPS on DY

Table 4.2.2.5
MPS on DY

MPS = a + b × DY

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	7768.83	-	3.574	.037	0.345
	DY	-1125.01	894.75	-1.257	0.298	
NSBL	Constant (a)	995.06	-	2.171	0.118	0.081
	DY	2.849	5.528	0.515	0.642	
NABIL	Constant (a)	-1670.75	-	-0.377	0.731	0.355
	DY	65.75	51.166	1.285	0.055	
HBL	Constant (a)	2476.89	-	3.051	0.293	0.350
	DY	-13.025	10.251	-1.271	0.322	
EBL	Constant (a)	932.076	-	5.063	0.015	0.007
	DY	-0.582	4.146	-0.140	0.897	

Source: Appendix D

The above table of regression analysis shows that among the banks under study, SCBNL, HBL, EBL have negative regression relation between MPS and DY. The regression relation between MPS and DY of these banks indicates that with an increase of 1% in DY, the MPS will decrease by Rs. 1125.01, Rs. 13.025 and 0.582 other variables remaining constant. In contrast there will be rise in MPS of NABIL and NSBL by Rs. 2.849 and by NPR 65.75 with an increase in DY by 1% assuming that other variables are constant.

The standard error of estimate of SCBNL, NSBL, NABIL, HBL and EBL are 894.75, 5.528, 51.166, 10.251 and 41146 respectively. These values indicate the probable error in the predicted value for the respective banks.

The coefficient of multiple-determination (R^2) is lowest for EBL (0.007), which indicates that only 7% in MPS is explained by DY i.e. 22.87% variation in MPS of the bank is explained due to the change in value of DY of the bank. The value of R^2 of SCBNL, NSBL, NABIL and HBL are 0.345, 0.081, 0.355 and 0.350 respectively, which indicate that 34.5%, 8.1%, 35.5% and 35% variation in the MPS of these banks are explained due to the change in DY of the respective banks.

CHAPTER 5

SUMMARY, CONCLUSION & RECOMMENDATION

4.2. Summary and Conclusion

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 shareholders' 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 been 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 2005/06 to 2009/10. 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.

From the analysis of financial variables using statistical tools mean, standard deviation and coefficient of variation, following conclusions have been drawn.

- 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 shows that there is regularity in payment of dividend except NSBL. The DPS is quite fluctuating. The CV of DPS ranges between 10.63% and 95.88%. The SCBNL has the highest average DPS and the most regular to pay dividend to its shareholders. Among the banks 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 the DPR of the banks are not stable. The fluctuation ranges between 10.63% and 95.88%. Among the banks under study, SCBNL has the highest average DPR .The result also shows that, NSBL 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 EBL has the lowest. Among the banks under study, the MPS of NSBL is highly fluctuating.

- The average price-earning ratio of SCB 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 2.66% to 8.10% and the stability of the earning yield is also low .

- The average dividend yields of the banks are also very low ranging between 2.32% and 2.80%. Among the banks HBL has the highest dividend yield and SCB has the lowest. Besides the dividend yield of NSBL is highly fluctuated,

- The average ratio between market price per share and book value per share is nearly similar ranging between 5.97 and 13.71.

- The analysis of Book Value Per Share shows that SCBNL has the highest average BVPS and NSBL is the lowest. The coefficient of variation indicates that there is a low level of fluctuation in BVPS of HBL.

Upon 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, DP, P/E Ratio, BVPS and MPS to BVPS ratio, but it is negatively correlated with its EY and DY. On the other hand EPS of SCBNL is positively correlated with its DPS and negatively correlated to DPR. The DPS has negative correlation with DPR. Also the EY of SCBNL positively correlated with its DY.

- In case of NSBL, the MPS is negatively correlated with DPR, EY and DY while it has positive correlation with its EPS, DPS, DP, PER, BVPS and MPS to BVPS. The EPS of NSBL is positively correlated with its DPS and DPR. The DPS has positive correlation with DPR and BVPS. There exists positive correlation between EY and DY of NSBL.
- The MPS of NABIL has positive correlation with DPS, DP, DPR, EPS, P/E Ratio, BVPS and MPS to BVPS ratio. On the other hand it is negatively correlated with EY and DY. The EPS of NABIL has positive

correlation with DPS and DPR. The DPS is positively correlated with DPR and BVPS. The EY of NABIL is positively correlated with its DY.

- ❖ MPS of HBL has positive correlation with its EPS, DPS, DP, P/E ratio and MPS to BVPS. The MPS is negatively correlated with EY, DY and DPR. Similarly EPS has positive correlation with DPS and negative correlation between DPR. The DPS of HBL has positive correlation with EY and DY but negative correlation with DPR.

- ❖ For EBL, MPS is positively correlated with EPS, DPS, DP, PER, EY, DY and MPS to BVPS. There exists negative correlation between MPS and DPR. There exists positive correlation between EPS-DPS and negative correlation between EPS-DPR. The DPS of EBL is negatively correlated with DPR and BVPS.
- ❖ The regression analysis of MPS on DPS shows that the regression coefficient (b) is positive for all banks except NSBL. In the same way similar type of relation exist between MPS on DP of these banks.

- ❖ The regression coefficient (b) of the regression analysis between MPS on DPR is negative for SCBNL, NABIL, HBL and NIBL. This regression coefficient (b) for relation between MPS on DPR is negative for NSBL.

- ❖ The regression analysis between MPS on DY shows that the regression coefficient (b) is positive for HBL and NIBL. All the other banks (SCBNL, NSBL and NABIL) have negative regression coefficient.

- ❖ The regression coefficient (b) for the analysis between DPS on EPS is positive for SCBNL, HBL, NABIL and NIBL while it is negative for NSBL.

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 conclusions have been drawn.

- The market price per share is affected by the dividend related financial variables i.e. DPS, DP 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 exist 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 shares. This indicates lack of consciousness and knowledge in shareholders. 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 54.88% is distributed as dividend in general. If the individual DPR of the banks are compared to this figure, SCBNL has the average DPR (87.38%) above than the average DPR of all banks. The individual average DPR of HBL (67.71%), NABIL (85.78%) and EBL (45.28%) are also near about this figure. On the other hand the average DPR of NSBL (67.71%) is low as compared to the average of all banks. The coefficient of variation of the average DPR of the banks indicates that the fluctuation in the payment of dividend is 39.66% which is above moderate level. Thus if 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 payout ratio also does not show any stability and coordination with other variables. There is large fluctuation in dividend in each year. There is not certain criterion for paying 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.

Conclusions

The above mentioned major findings led this study to conclude that there are differences 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 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 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 this study. A few of such possible explanatory variables may be normalized lagged earnings price ratio and normalized retained earnings. 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.

4.3. 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(HMG/N), 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.

APPENDIX – D

REGRESSION ANALYSIS

1. MPS on EPS

R	
R^2	
Adjusted R^2	
Std Error of the Estimate	

---------- Variables in Equation ----------

	Un-standardized Coefficients		Standardized Coefficients		
	b	Std. Error	Beta	t	Sig.
Constant					
EPS					

2. MPS on DPS

R	
R^2	
Adjusted R^2	
Std Error of the Estimate	

---------- Variables in Equation ----------

	Un-standardized Coefficients		Standardized Coefficients		
	b	Std. Error	Beta	t	Sig.
Constant					
DPS					

3. MPS on DP

R	0.888
R^2	0.789
Adjusted R^2	0.719
Std Error of the Estimate	311.657

---------- Variables in Equation ----------

	Un-standardized Coefficients		Standardized Coefficients		
	b	Std. Error	Beta	t	Sig.
Constant					
DP					

4. MPS on DPR

R	0.904
R^2	0.817
Adjusted R^2	0.756
Std Error of the Estimate	162.906

---------- Variables in Equation ----------

	Unstandardized Coefficients		**Standardized Coefficients**		
	b	Std. Error	Beta	t	Sig.
Constant					
DPR					

5. MPS on DY

R	
R^2	
Adjusted R^2	
Std Error of the Estimate	

---------- Variables in Equation ----------

	Unstandardized Coefficients		**Standardized Coefficients**		
	b	Std. Error	Beta	t	Sig.
Constant					
DY					

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