CHAPTER-I

INTRODUCTION

1.1. Background of the Study

Dividend payout has been an issue of interest in financial literature. Academician and researchers have developed many theoretical models describing the factors that managers should consider when making dividend policy decisions. By dividend policy, we mean the payout policy that managers follow in deciding the size and pattern of cash distribution to shareholders over time. Dividend policy is one of the most important financial policies, not only form the viewpoint of the company, but also from that of the shareholders, the consumers, the workers, regulatory bodies and the Government. For a company, it is a pivotal policy around which other financial policies rotate. Value of the corporate securities depends to a great extent on dividend and, therefore, in deciding upon the financial structure of company, dividend has to be assigned due to consideration. Dividends are payments made by corporations to its shareholder members. It is the portion of corporate profits paid out to stockholders. When a corporation earns a profit or surplus, that money can be put to two uses: it can either be re-invested in the business (called retained earning), or it can be paid to the shareholders as a dividend. Many corporations retain a portion of their earnings and pay the remainder as a dividend.

All the business corporations are operated for profit. Less or more their objective is profit earning. Traditionally the only one objective of firm used to be profit maximization. But with past in time, the consumers became aware and consumers' groups and various interest groups emerged against the profit maximization objective of the firm exploiting the natural resources and consumers. Due to this various objectives of the firms such as sales maximization, wealth maximization etc is in practice now. Even firms have different objectives; they are not completely able to ignore the objective of earning profit. As profit is the backbone of firm which determines the position of the firm in the market and maximizes the wealth of the firm, manager should make a decision that how much portion of the profit to be shared to shareholders and how much portion to be kept for further investment.

Though Nepal is surrounded by the two economic superpowers of the world, China and India, it 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 infrastructure, lack of entrepreneurship, lack of institutional commitment, erratic 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 canalization of what the people save.

Realizing the same, 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.

Since FY 1987/88, a significant step towards financial liberalization was undertaken by His Majesty's Government now Nepal Government with the view to expedite the pace of economic development under the structural adjustment program. The liberalization policy of His Majesty's Government of Nepal has encouraged the private sector to invest in various fields, which support the nation's overall economic growth. The liberalization policy has attracted not only country's investors but also motivated the foreign investors to work in a partnership basis with Nepalese investors.

Bank, financial institutions is playing a vital role in the economic development of the country. The function of banks are not only accepting deposits and granting loans but also, including wide range of services to the different strata of society, to facilitate the growth of trade, commerce, industry and agriculture of the national economy. In the absence and insufficiency of banking and financial facilities, the growth of the economic development becomes slow. However, bank is a resource for economic development, which maintains the self confidence of various segments of society and advances credit to the people.

Commercial Bank Act, 2031 B.S., "A commercial bank is one which exchanges money, deposits money, accepts deposits, grants loans and performs commercial banking functions and which is not a bank meant for co-operations, agriculture, industries or for such specific purpose"

The growing influence of liberal economic policies in early 80's resulted into a global move for economic liberalization and globalization. This influence in Nepal, first of all appeared in the form of Nepal's liberal policies in the banking sector. The government of Nepal introduced financial sector reforms policy in 1980. This encouraged the healthy competition in the financial sector as well as it allowed the entry of foreign banks in the Nepalese market in the form of joint venture commercial banks. In other words, His Majesty's Government of Nepal permitted to establish private commercial banks with foreign investment in this sector.

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. 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, debit cards, tele banking, 24 hours banking service, other service etc. This has drawn a heavy attention from non-business or general public towards commercial banks.

Dividend is one of the major reasons for which public are interested to invest money on the shares of bank or other institution. It refers to the portion of earnings that is distributed to the shareholders in return to their investment in the shares. Normally, that business, which is running at profit, is capable to pay dividend. The amount which is distributed as dividend should be adequate to meet the normal expectations of share holders. Dividend can be paid in cash, shares and securities or a composition of these. There is a reciprocal relationship between retained earnings and cash dividend. So, cash dividend payout reduces the total amount of internal financing.

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 any organization.

The dividend payout reduces the amount of earnings retained in the firm and affect total amount of internal financing. For expansion of every firm, there should be extra financing. This financing can be made either through the external source or internal. The external source includes the issue of shares, bonds, debentures etc. Whereas the internal source is the earnings retained after the payment of dividend. Thus, the amount of internal financing is highly 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 dividend to shareholders that has brought new hopes for productive mobilization of funds. 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 the Problem

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

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. From the past many year it has been tried to see the relevant and practicable dividend policy in the firms all over the world.

Dividend is the most inspiring 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 golden opportunities. This will hamper the growth of the firm, which in turn affects the value of the stock. 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 are depends on 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 without having the prospective analysis of those 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. In popular practice of Nepal, when the firms earn big earnings they retain more and when they do not have good figure of earnings, company announces high dividend to protect their image in the capital market. 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 will seek to answer the following questions:

- What are the implications of dividend on market price of share ?
- What are the major factors that affect the dividend and valuation of the firms stock ?
- What is the relationship between the factors affecting dividend and valuation of the firms stock ?

1.3 Objectives of the Study

The major objective of the study is to find out the dividend policy and its impact on market price of the share. The main objectives of the study can be listed as follows:

1. To determine the relationship between market price and other related financial indicators such as earning per share, dividend per share, net worth per share and dividend payout ratio.
2. To examine the dividend practices carried out by the sampled joint venture commercial banks in Nepal.
3. 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 impact of 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 the Study

Nowadays people are attracted to invest in shares for the purpose of getting more return as well as to maximize their wealth.So the dividend policy has become an effective way to attract new investors, to keep present investors happy and to maintain goodwill of the company. When a new company floats shares through 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.

As dividend is one of the crucial factors in every organization. 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 the Nepalese context, people are investing hit–or–miss in shares because due to the lack of enough knowledge. Therefore, the important part is necessary to establish clear conceptions about the return resulting from investing in the stocks for the investors.

It is believed that many persons and parties such as shareholders, management of banks, financial institution, general public (depositors, prospective customers, investors etc.) and other policy making bodies which are concerned with banking (mainly Nepal SBI Bank Limited, Nabil Bank Limited, Standard Charted Bank Limited, Everest Bank Limited and Everest Bank Limited) business will be benefited from this study. It is also believed that it will provide valuable inputs for future research scholars.

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 2067/071 (2013/2017) only.

iv. The study covers only five commercial banks of Nepal, which are:

   a. Nabil Bank Ltd. (Nepal Arab Bank Ltd.)
   b. Standard Charted Bank Nepal Limited
   c. Nepal Investment Bank Limited
   d. Nepal SBI Bank Limited
   e. Everest Bank Ltd

1.6 Organizations Under Study

1.6.1 Nepal Arab Bank Limited (NABIL Bank Limited)

Nepal Arab Bank Limited (NABIL Bank Limited) was incorporated in the year 1984 A.D. (2041 B.S.). It commenced its operation on 12 July 1984 A.D. (2041/3/29 B.S.) as the first joint venture commercial bank in Nepal. It was listed in the Nepal Stock Exchange in the year 1986 A.D. (2042/09/08 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. The equity composition of Nepal Nabil Bank Limited is as follows:

NB (International) Limited, Ireland	-	50%
Nepal Industrial Development Corporation (NIDC)	-	10%
RastriyaBeemaSansthan	-	9.67%
Nepal Stock Exchange Limited	-	0.33%
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 and 2 counters. It is the only bank having presence in the Tribhuvan International Airport. Some of the services provided by NABIL Bank Limited are accepting deposits, lending, documentary credit, guarantees, collections, credit cards, tele-banking, safe deposit lockers, fund transfer, ATM etc.

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

Standard Chartered Grindlays Bank	-	75%
General Public	-	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.

1.6.3 Nepal Investment Bank Limited

Nepal Investment Bank Limited, previously Nepal Indosuez Bank Limited, was established in 1986 as a joint venture between Nepalese and French partners. The French partner holding 50% of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one of the largest banking group in the world.

With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessman, has acquired on April 2002 the 50% shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Limited.

The name of the Bank has been changed to Nepal Investment Bank Limited upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

A Group of Companies	-	50%
RastriyaBanijya Bank	-	15%
RastriyaBeemaSansthan	-	15%
General Public	-	20%

Nepal Investment 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.

1.6.4 Nepal SBI Bank Limited.

Himalayan Bank Ltd. (HBL) is the first Nepal-Indo joint venture commercial bank in the country. It is sponsored by three institutional promoters, namely, State Bank of India, KarmachariSanchayaKosh (Employees Provident Fund) and Agricultural Development Bank of Nepal. Nepal SBI Bank Limited became operational on the 8th July 1993 A.D. (2050/03/23 B.S).

The Bank was registered on 2050/1/16 (28 April 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 2050/3/23 B.S. (8th July, 1993 A.D.). The equity composition of the Bank is as follows:

State Bank of India	-	50%
Employee Provident Fund	-	15%
Agricultural Development Bank of Nepal	-	5%
General Public	-	30%

It has been providing services through its 10 Branches and 3 Extension 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 and education loans) etc. It has recently launched 365 days banking services and ATM facility from its New Road branch.

1.6.5 Everest Bank Limited

Everest Bank Limited is a joint venture commercial bank with International Finance Investment and Commerce Bank (IFIC) Limited of Bangladesh. It was established in 6th June 1993 A.D. (2050/02/23 B.S.) under Company Act, 2021. It is managed in accordance with the Technical and Management Agreement signed with IFIC Bank Ltd., Bangladesh. IFIC Bank is a leader in serving the demand of domestic and international banking. The equity composition of NB Bank Ltd is as follows:

IFIC Bank, Bangladesh	-	50%
Nepali Promoters	-	20%
General Public	-	30%

It has been providing services through 17 branches and 1 main office. NB Bank Limited 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.

1.7 Chapter Plan

The study contains five chapters. The introduction, literature review, research methodology, presentation and analysis of data, summary, conclusion and recommendation are the major chapters included under this study.

- The first chapter, introduction, deals with general introduction, focus of the study, statement of the problem, objectives of the study, importance/significance of the study, organization under study and limitations and chapter plan of the study.
- The second chapter, literature review deals with different literatures, which are closely related to this study. It provides information about the various aspects of the dividend. The various practices done regarding the dividend policy in Nepal is also reviewed under this chapter.
- The third chapter, research methodology deals with the detail research methods that are planned for conducting this study.
- The fourth chapter, presentation and analysis of data is concerned with the application of defined research method on the collected data and information. The generated results after the application of research method on data are analyzed and interpreted in this chapter.
- The fifth chapter, summary, conclusion and recommendation part deals with the summary and conclusion of the analysis. Brief conclusions from the analysis are drawn and necessary recommendations are made through this chapter.

CHAPTER –II

REVIEW OF LITERATURE

This research aims to analyze the impact of dividend policy on market price of the shares of joint venture commercial banks, which are Nabil Bank Limited, Standard Chartered Bank Limited, Nepal Investment Bank Limited, Nepal SBI Bank Limited and Everest Bank Limited. For this purpose, it needs to review related literatures in this concerned area which will help researcher to get the clear cut ideas, opinions and other concepts. What others have said? What others have done? and What others have written? These all and other related questions are reviewed which has provided useful inputs in this research work this chapter emphasizes about the literatures which were concerned in this connections. Therefore, in this chapter conceptual frameworks given by different authors and intellectuals of this area, book, journals research work and previous thesis related to dividend, dividend policy and impact of dividend policy are reviewed. Moreover, rules regarding to dividend policy are reviewed and an attempts has been made to present them properly.

2.1Conceptual Framework

Dividend refers to that portion of a firm's net earning, which are paid out to the shareholders. Dividends are generally paid in the form of cash. So that the payment of dividend reduces the cash balance of the company as well as reduces the amount of retained earnings. In theory of finance, dividend decision plays a very vital 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 business 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 retained earnings. In other words, if the company pays more dividends to its shareholders, there will be less retained earnings 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." Western, J Fred & Copland (1990) Thus, the dividend payout reduces the amount of retained earnings in the firm and affect total amount of internal financing. The decision depends upon the objective of the management for wealth maximization.

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 gains or dividends.

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 being can be partially measured by the dividend received, but more accurate measure is the market value of stock." Dean William H.(1973)

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

2.1.1 Forms of Dividend

Depending upon the objectives and policies, they implement, the firm can give various type of dividend to the shareholders. Before adopting any dividend, the firm must ensure the smooth growth of the firm as well as satisfy the expectation of the shareholders. There should be consistency in dividend policy and financial plans, shareholders preference and attitude of the directors. The corporations in Nepal are in the early stage of development due to which they need to pay extensive concentration in the dividend. The empirical observation in case of public limited companies in Nepal shows that only few corporations are paying dividend to the government due to suffering from regular losses and not having risk of ownership transfer. BhattaraiBishnuHari (1996) Some of the major forms of dividends, which are adopted by corporations:

a. Cash Dividend

The portion of earning paid in form of cash to the investors in proportion to their share of the company is known as cash dividend. After the payment of dividend to the shareholders both the total assets and net worth of the company decreases by the amount equal to the cash dividend. For the payment of dividend, company should sustain adequate balance of cash. In case of insufficiency in cash balance for the payment of dividend, funds to be borrowed for this purpose are difficult. Thus, a company 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 organization, attitude of management, situation of the market, cost of external financing etc.

b. Stock Dividends/Bonus Share

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 book-keeping transfer from retained earning to the capital stock account." Western J Fred & Copland (1990) A stock dividend represents a distribution of shares in addition to the cash dividend to the existing shareholders. This has the effect of increasing the number of outstanding shares of the company. The declarations of the bonus shares will increase to paid up shares capital and reduce the reserve and surplus of the company. The total net worth is not affected by the bonus issue. In fact, if represents nothing more than re-capitalization of the owner's equity portion, i.e. the reserve and surplus. It is simply and accounting transfer from retained earnings to capital stock.

c. Scrip Divided

A Scrip dividend is issued when company has been suffering from the cash problem and does not permit the cash dividend, but has earned profit. A dividend paid in promissory noted is called scrip divided. Scrip is a form of promissory notes promising to pay the holder at specified later date under this form of dividend, company issues and distributes transferable promissory notes to shareholders, which may be interest bearing or non-interest bearing. The use of scrip dividend is desirable only when corporations have really earned profit and have only to wait for the conversion of other current assets into cash. Therefore, in order to overcome the temporary shortage of cash, sometimes company uses scrip dividends.

d. Property Dividend

It is also known by the name of liquidating dividends. It involves a payment of assets/property in any form other than cash. Such form of dividend may be followed whenever there are assets that are no longer necessary in the operation of the business or in extra ordinary circumstances. Company's own products and the securities of subsidiaries are the example that have been paid as property dividend.

e. Optional Dividend

The optional dividend is, in fact, not a kind of dividend but simply a choice of dividend given to the shareholders to accept either cash or stock dividend. But the shareholders consider the comparative value of stock dividend with the amount of optional cash. "If the two are very nearly the same, as it often the case, the cash option may be a convenience to selling either whole or fraction of shares he does not wish to keep. If the cash dividend is subject to income taxes over and above the limit he prefers to have stock dividend.

f. Bond Dividend

This type of dividend is distributed to the shareholders in the form of bond. It helps to postpone the payment of cash. In other words, company declares dividend in the form of its own bond with a view to avoid cash outflows. They are issued rarely. They are long-term enough to fall beyond the current liability group. The stockholders become secured creditors if the bond carries lien on assets.

But none of these types except cash and stock dividend have been practiced in Nepalese corporations although they have ample scope for application. So for in this study, the term dividend generally refers to cash dividend.

2.1.2 Factors Influencing Dividend Policy

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

a. Stability of Earnings

A firm that has relatively stable earnings is 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 off in the future.

b. Profit Rate

The expected rate of returns on assets determines the relative attractiveness of paying out earnings in form of dividend to the shareholders who will use them elsewhere 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. 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. In deed, a growing firm even a very profitable one typically has a pressing need for funds. In such a situation the firm may elect not to pay cash dividend.

e. Need to Repay Debt

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

The tax position of the corporation's owners greatly influences the desire for dividends. For example, a corporation closely held by a few tax payers in high income tax brackets is likely to pay a relatively low dividend. The owners are interested in taking their income in the form of capital gains rather than as dividends which are subject to higher personal income tax rates. However, the stockholders of a large widely held corporation may be interested in a high dividend payout

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. But if earnings are paid out as dividend and are subjected to high personal income tax rates only portion of them will be available for reinvestment.

i. Access to the Capital Market

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

j. Legal Restrictions

Legal rules constrain dividend payment on certain 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 cash 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 can not 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

2.1.3 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. Stability or regularity of dividends is considered as a desirable policy by the management of most companies. Shareholders also generally prefer stable dividends because all other things beings of the same, stable dividends may have a positive impact on the market price of the share. There are three major types of dividend payout schemes:

a. 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 dividend 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.

b.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. In other words, a stable dividend payout ratio implies that the percentage of earnings paid out each year fixed. 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 dividend 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.

c. 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.

2.1.4 Legal Provisions Regarding Dividend Practices in Nepal

There are no clear-cut legal provisions regarding dividend policy in Nepal. Commercial Bank Act, 2031 has made some provision for distributing dividend. According to this section, before providing the whole expenses by the bank for preliminary expenses, loss incurred in last year, capital reserve, risk beard fund and reserve fund the bank shall not be declare and distribute the dividend to shareholders. Similarly, 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.
- Section 47 has prohibited company from purchasing its own shares. This section states that no company shall purchase its own shares or supply loans against the security of its own shares.
- Section 137 Bonus Shares and Sub Section (1) states that the company must inform the Office before issuing bonus shares, under Sub Section (1), this may be done only according to a special resolution passed by the general meeting.
- Section 140: Dividends and Sub Sections of this Section are as follows:

  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 of declaring the dividend shall be entitled to it.

Similarly, following are the major HMG's decision regarding dividend payment by the government corporation dated June 14, 1998.

i) Dividend should be paid in profitable year. Even though there are cumulative losses, dividend is to be paid if cash flow is sufficient to distribute dividend.

ii) In case of unaudited accounts, interim dividend should be paid on the basis of provisional financial statement.

iii) Decision regarding distribution of annual net profit shall not be made without prior acceptance of Ministry of Finance. All incentives, except those to be paid by law, shall not be distributed unless the amount of dividend is not paid to government.

iv) Concerned BOD and top management will be held responsible for implementation of these dividend policies.

v) Ministry of Finance will make necessary arrangements regarding fixation of dividend percentage coordinating all concerned corporation and ministries.

2.2 Review of Major International Studies

Various studies have been made concerning the dividends and stock prices. Some of the major international studies on the relating to dividends and shares are stated as below. This study draws heavily from these studies to carry it out.

2.2.1 Review of Journals

Gordon (1962) 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 (D_1/P_o) is less risky than the expected capital gain.

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 exist positive relationship between the amount of dividend and stock prices.

Basic assumptions of this model are as follows.

i. The firm uses equity capital only.
ii. Internal rate of return (r) and cost of capital (k_e) are constant.
iii. The firm and its stream of earnings are perpetual.
iv. There is no taxes 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.

Modigliani and Miller (1961) 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.

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.

<u>Step-One</u>

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,

Wh $\frac{D_1 +}{1 +}$ ------------------ (1)

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

K_e = The cost of equity capital (Assumed constant)

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

P_1 = The market price of the share at the end of 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.

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

Wh

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.Thuus amount of new issued will be,

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

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

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

$nP_0 =$ 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 k_e 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.

2.2.2 Review of Articles

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

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

Pradhan (1993) has conducted a study on **"Small Market Behavior in A Small Capital Market: A case of Nepal**". 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.
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 variables, 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 were 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.

Shresthahas written an article about **"Public Enterprises: Have They Dividend Paying Ability ?"**, which was published in the book **'PRASHASAN'** (30th Issue) in March 1981. It gives short glimpse of the dividend performance of some public enterprises of that time in Nepal. Dr. Shrestha has 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.

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 Milton J (1967) 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 RastriyaBanijya 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.
   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.
   v. 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.

Poudel has conducted a study on **"Investing in Shares of Commercial Bank in Nepal: An assessment of Return and Risk elements",** which was published in the Economic Review: Occasional Paper in April 2002. The study was based on secondary sources of 8 main joint venture commercial banks of Nepal covering the sample period commenced on Mid-July 1996 to Mid-July 2001.

The objective of this study were as follows :

i. To determine whether the shares of commercial bank are correctly priced.

ii. To exploring the future price behaviour of the individual share in the market.

iii. To determine whether the shares of commercial bank in Nepal are overpriced or under priced.

Some major points of his study, among others, were as follows :

i. An efficient market is one where shares are always correctly priced. In an efficient capital market, current market prices fully reflect available information. Therefore, if the market is efficient, it uses all information available for setting a price.

ii. The concept of value is at the heart of financial management. The value of any tradable item is whatever the bidder is prepared to pay. Several analytical techniques are available to assists the financial manager for valuing common stock. The investor expects regular earnings in the form dividends and capital gains from the upward movements of the stock price. Therefore, the valuation model should account for all these factors.

iii. The expected rate of return is the expected after-tax increase in the value of the initial investment over the holding period. The overall rate of return can be decomposed into capital appreciation and dividend components. Capital appreciation is the difference between investor's end of the period and beginning of the period.

iv. Investors are risk-averter and they select the securities that maximize expected rate of return for any given level of risk or minimize risk for any given level of expected returns. Chenny and Moses define risk as the variability of possible returns around the expected return of an investment. For some investment, this variability can be quite small. Similarly, Weston and Brigham define risk as the chance that some unfavorable event will occur.

v. The examined shares realized rates of return are not equal to the calculated required rates of return, none of the share prices are in the equilibrium. The share with higher realized return than the required return areunder pricedand the prices of shares will increase in the market that is striving towards the equilibrium.

vi) Very few stocks in the market may have negative beta coefficient indicating that their returns rise whenever returns on most stocks fall and vice versa.

In this study some remarks is conducted, they were as follows :

i. The share of commercial banks in Nepal are heavily traded in the stock market and therefore, these shares play a vital role in the determination stock exchange indicators.
ii. All the share produced higher rates of return then the return on market portfolio. However, the risk return characteristics do not seem to be the same for all the shares reviewed.
iii. The share with larger standard deviation seem to be able to produce higher rates of return. The portion of unsystematic risk is very high with the shares having negative beta coefficient.
iv. The market price of an over priced (under priced) share will fall (rise) in order to increase the expected return such that the expected return equals the required return.

2.2.3 Review of Previous Thesis

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.

Sharpa (2002) has conducted a research on **'Corporate Information Disclosure and its Effect on Share Price.'**

The primary objective of his study was to obtain an insight on corporate information disclosure with special reference to Nepalese stock market and its listed companies. To attain the mentioned objective, the following specific objectives were set.

1. To highlight the corporate disclosure practice in Nepal.

2. To identify the extent of disclosure of each of the item of information and to develop the information disclosure index.
3. To check the quality of corporate disclosure of Nepalese listed companies measured by company characteristics namely asset size, number of shares outstanding and earning margin.
4. To see the relationship between corporate information disclosure and stock price.

His research study began with the construction of disclosure index which he collected 59 informational items, classified according to their importance and calculated mean value after the collection of primary data. Thereafter, he selected 33 listed companies, used their annual reports and calculated disclosure scores, which was followed by the use of various statistical tools like regression, correlations etc. to attain the mentioned objective.

From the detailed analysis, he found that most of companies do not disclose adequate and qualitative information on their annual reports, and most of disclosed information consisted of only financial information that is statutorily required. Furthermore, he found positive relationship between disclosure scores and variables like earning margin assets size etc. The important finding of his research is that there is positive relationship between market price of share and disclosure score. In other words, the company having greater disclosure score had the higher prices of stock.

Rajbhandari(1999) has conducted a research on **"Dividend Policy: A comparative Study between Banks and Insurance Companies."** The main objective of her research was to find out the appropriate policies and practices in Nepal. Following specific objectives were set to attain the general objective.

1. To examine the relationship between dividend and market price of the stock.
2. To analyze the relation between dividend policy and market price of the stock.
3. To identify the appropriate dividend policy followed by the banks and insurance companies.

She selected three commercial banks and insurance companies as sample for her research study. Thereafter, she accomplished her research analysis with an aid of statistical tools like multiple regression analysis, correlation etc. After the detailed analysis, she came to conclude that the relationship between market price per share and last year's dividend was positive for three sampled companies, while it was negative for the rest three companies. Similarly, her research result showed that the relationship between earning per share and market price per share was not consistent for all the sampled companies. This is because of the positive relationships found for some companies and negative for others. (Rajbhandari, 2001:3-80)

Poudel(2001) in his study on **"Share Price Movement of Joint Venture Commercial Banks in Nepal"**on April 2001 concluded that the market value per share doesn't accommodate all the available historical information. He further stated that having good track records of the financial position market penetrations and continuous declaration of dividends, which may not be applicable to other, types of non-banking firms, encouraged the potential investor to buy the shares of joint venture commercial banks. Therefore the shares of joint venture commercial banks emerge as the blue chips in the Nepalese stock market. His calculation of beta coefficient, which measures the risky-ness of individual security in relative terms, suggests that none of the shares of eighty banks, he studies, were risky.

Poudel in his study objectified to examine the forms of the EMH (Efficient Market Hypothesis) that the NEPSE is in. He tried to judge whether the book value per share and other major financial ratios explain the share price movements. In his study Poudel had said that the study might not have long-term implications. He has taken seven joint venture banks for the case studies.

In his findings Poudel has found the market share and the growth rates of different banking indicators used are not captured by the market value of these banks. Since he had taken only joint venture banks in his study it cannot give a general concept of overall price movement of the listed companies in Nepalese stock market. He had only analyzed the data from 1995 to 1999 to conduct his study.

Because of the fact that different research performed on different headings, which were directly or indirectly related to the efficiency and effectiveness of the price of the shares in the security market, the researcher took interest to perform a detail study on this field.

CHAPTER-III

RESEARCH METHODOLOGY

3.1. Introduction

This chapter highlights the methodology adopted in the process of present study. It also focuses about sources and limitations of the data, which are used in the present study. 'Research Methodology' is a way for systematically solving 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 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

The research design is a conceptual structure within which a research is conducted. A research design is a plan for the collection and analysis of data. 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.

"A research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern of framework, of the project the stipulates what information is to be collected from which sources by what procedure. If it is a good design, it will ensure that the information obtained is relevant to the research questions and that it was collected by objective and economic procedures." PoulE.Green& Donald, S. Tull

"Research Design is the plan, structure and strategy of investigation concerned so as to obtain answers to research questions and to control variances." Krelingers, F.N. (1983)

The research design of this research 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.

3.3. Population and Sample

By the end of Dec. 2018, there were 28 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:

Table 3.1: List of Registered Commercial Banks as on end December 2018.

1. Prabhu Bank
2. Nepal Bank
3. RastriyaBanijya Bank
4. Agriculture Development Bank
5. Nabil Bank
6. Nepal Investment Bank
7. Standard Chartered Bank Nepal
8. Himalayan Bank
9. Nepal SBI Bank
10. Nepal Bangladesh Bank
11. Everest Bank
12. Bank of Kathmandu Limited (After the merger with Lumbini Bank)
13. Nepal Credit and Commerce Bank Limited (in merger process with Kumari Bank)
14. Kumari Bank (in merger process with NCC Bank)
15. Laxmi Bank
16. Global IME Bank Limited
17. Citizens Bank International Limited

18. Prime Commercial Bank
19. Sunrise Bank
20. NMB Bank Nepal
21. NIC Asia Bank
22. Siddhartha Bank
23. Machhapuchchhre Bank
24. Mega Bank Nepal Limited
25. Civil Bank Limited
26. Century Bank Limited
27. Sanima Bank
28. Janata Bank Nepal Limited

Source: www.nrb.org.np

Out of 28 commercial banks that are operating their activities in Nepal, only 15 are listed in Nepal Stock Exchange as on 30 DEC 2018. The researcher has selected 5 joint venture commercial banks for this study. The samples to be selected as follows:

1. Nabil Bank Ltd.
2. Standard charted Bank Nepal Limited
3. Nepal Investment Bank Limited
4. Himalayan Bank Ltd.
5. Everest Bank Ltd.

Thus for this study,

Population Size : 28

Sample Size : 5

The sample size covers about 17.85 % of the population size.

3.4. Nature and Source of Data

The research is highly based on the secondary data which may include the Annual Reports of the banks under study, Economic Report published from Nepal Rastra Bank, the stock price for the whole year listed in the Nepal Stock Exchange (NEPSE), Economic Survey published from HMG Ministry of Finance, Financial Status Report published from World Bank, Financial Reports published from Nepal Stock Exchange and Securities Exchange Board, various kinds of website which are related on dividend policies and financial and other relevant data regarding the dividend policies and practices of the Banks which are published on Newspapers and Magazines.

3.5. Period of the Study

The study is based on five years financial data of the banks under study. (i.e. Himalayan Bank Ltd., Nabil Bank Ltd and Everest Bank Ltd.) from fiscal year 2013/2017.

3.6. Analysis of Data

3.6.1 Financial Tools

The following financial tools have been used in the present study:

(a) 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 the profitability of the banks by mobilizing their funds and vice versa. Earning per share is computed to know the earnings 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,

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

(b) 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,

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

(c) 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:

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

(d) Dividend Payout Ratio (DPR)

It is the proportion of earning paid in the form of dividend. The dividend payout ratio is the earnings paid to the equity holders from the earnings of a firm in a particular year. 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)

(e) 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,

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

(f) 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. Earnings yield is informative to compare the market share prices of stocks in the secondary market. It is calculated as:

$$\text{EY Ratio} = \frac{\text{Earning Per Share}}{\text{Market Price Per Share}}$$

(g) 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 price 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,

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

(h) 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,

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

(i) Net Worth Per Share

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

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

3.6.2 Statistical Tools

Besides the financial tools, various statistical tools have been used to conduct this study. The pattern of available data is a major determinant to analyze the data. So analysis of data will be done according to pattern of available data. The result of analysis has been properly tabulated, compared, analyzed and interpreted. In this study, the following statistical tools are used to analyze the relationship between dividend and other variables.

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

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:

$$\text{Arithmetic Mean} = \frac{X_1 + X_2 + X_3 + \ldots\ldots\ldots\ldots + X_n}{N}$$

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

Where,

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

N = number of items

(b) Standard Deviation (σ)

Karl Pearson first introduced the concept of standard deviation in 1983. "It is the most usual measure of dispersion and it represents the square root of the variance of a group of numbers, i.e. the square root of the sum of the squared differences between a group of numbers and their arithmetic mean". 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. It is denoted by a Greek letter **'σ'** (Sigma) and is calculated as follows:

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

Where,

N = Number of items in the series.

$\overline{X}$ = Mean

X = Variable

(c) 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,

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

Where,

σ = Standard Deviation

$(\overline{X})$ = Mean

(d) Coefficient of Correlation (r)

According to Richard I. Levin, Correlation analysis is the statistical tools that we can used to describe the degree to which are variable is linearly related to another". 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 closerr 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:

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

or,

$$r = \frac{\sum (X-\bar{X})\,(Y-\bar{Y})}{(N)\,\sigma_X\,\sigma_Y}$$

or.

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

Where,

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

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

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

$$\sigma_X = \sqrt{\frac{1}{N}\sum(X - \bar{X})^2}, \qquad \sigma_Y = \sqrt{\frac{1}{N}\sum(Y - \bar{Y})^2}$$

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

(e) 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. "Coefficient of determination measures only the strength of a linear relationship between two variables." 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,

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

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

(f) Regression Analysis

Francis Galton was the first person to introduce the concept of regression. Regression refers to an analysis, which is involving 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.

i) 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).

ii) 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).

iii) 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).

iv) 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).

v) 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.

vi) 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.

vii) 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

i) Regression Constant (a)

The value of constant is the intercept of the model, when the independent variable 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.

ii) Regression Coefficients (b)

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.

iii) 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.

$$S.E. = \frac{\sigma_X}{\sigma_Y} \text{ X } \frac{\sqrt{1 - r^2}}{\sqrt{N}}$$

iv) t-statistics

Sir William S. Gosset developed t-test, which is used to test the hypothesis when population variance is not known. It is basically used when the sample size is less than 30 and the population standard deviation is unknown. For applying t-test in context of small samples the t value is calculated and then compared with the tabulated value of freedom. If the calculated value of (t) exceeds the table value (say $t_{0.05}$) we infer that the difference is significant at 5% level. But if (t) is less than the concerning table value of the (t) the difference is not treated as significant.

$$\text{t-value} = \frac{b}{S.E.}$$

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

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 10.0 For Windows.

4.1.1. Earning Per Share (EPS)

EarningPer Share of Banks Under Study is tabulated as follows:

Table 4.1

Bank	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**	**Std. Dev**	**C.V.**
SCBNL	109.90	77.65	69.51	72.60	65.70	**79.07**	**15.09**	**19.72**
HBL	37.46	49.17	13.98	41.74	8.68	**30.21**	**17.83**	**59.04**
NABIL	67.68	44.50	67.84	83.79	59.26	**64.61**	**14.32**	**22.17**
EBL	99.99	100.16	83.18	88.55	91.88	**92.75**	**36.70**	**7.10**
NIBL	37.42	52.55	39.06	27.60	46.20	**40.68**	**28.41**	**8.42**

Source: Annual reports of sample bank

The EPS of Standard Chartered Bank Nepal Ltd. (SCBNL) range between Rs. 109.90 to Rs. 65.70 during the period of study. During this period, the average EPS is Rs. 79.07. The standard deviation of the EPS under the period of study is 15.09. The C.V. of 19.72 indicates that there is a moderate fluctuation of 19.72% in the EPS of SCBNL, during the period of study.

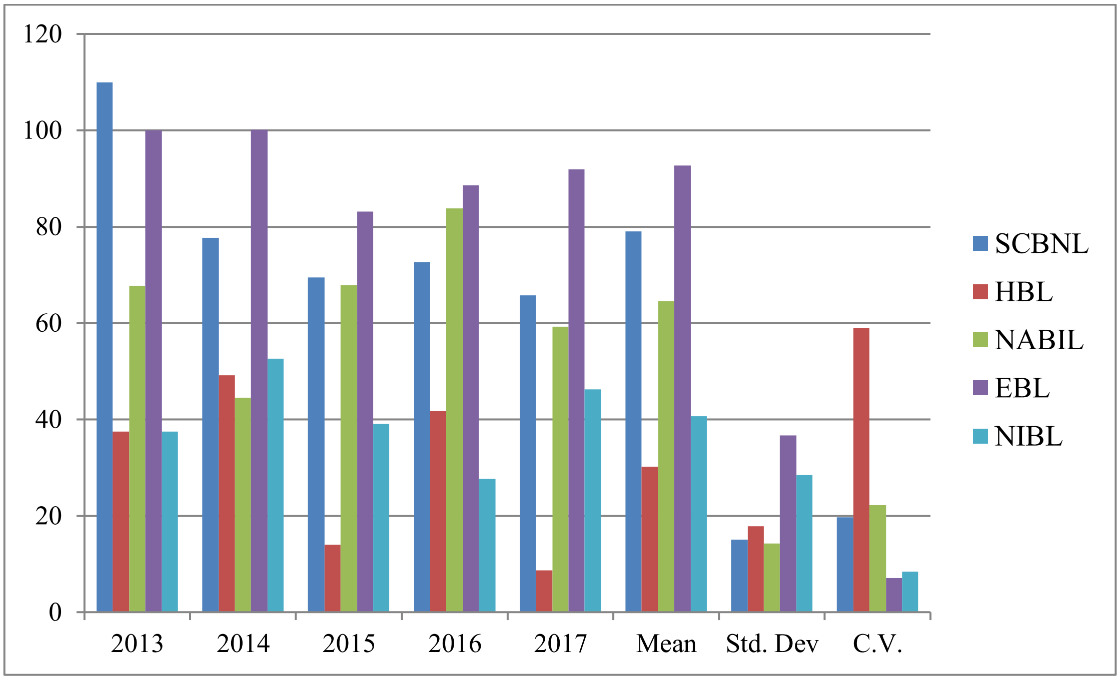
The average EPS of NABIL Bank Ltd, during this period of study is Rs. 64.61. It stayed within the range of Rs. 83.79 to Rs. 44.50. The standard deviation of EPS is 14.32 whereas the coefficient of variation is 22.17%. The CV indicates a moderate fluctuation in the EPS of the bank.

Everest Bank Ltd. (EBL) has the EPS range between Rs. 100.16 and Rs. 83.18 during the period of study. An average EPS of Rs. 92.75 is noted during this period. The standard deviation of the EPS is 6.59. The C.V. of 7.10 indicates that there is a fluctuation of 7.10% in the EPS of EBL during the period of study.

Nepal Investment Bank Ltd. (NIBL), within the period of study, had an average EPS of Rs. 40.08, ranging between Rs. 52.55 and Rs. 27.60. The standard deviation is 8.42 and the fluctuation of 20.69% in the EPS is seen during this period, which shown by the coefficient of variation of the bank.

Figure No: 4.1

The earning per share of the sample banks



This figure 4.1 analysis, it can be seen that the average EPS of SCBNL is the highest and that of HBL is the lowest. The EPS range of the banks under study during this period is between Rs. 109.90 and Rs. 10.41. Similarly the standard deviation of HBL is the highest and EBL 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)

The dividend per share of the banks under study is stated in the table below:

Table:4.2

Bank	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**	**Std. Dev**	**C.V.**
SCBNL	90.00	70.00	80.00	100.00	100.00	**88.00**	**13.04**	**14.82**
HBL	20.00	20.00	10.00	15.00	0.00	**13.00**	**8.37**	**64.36**
NABIL	0.00	30.00	50.00	55.00	40.00	**35.00**	**21.79**	**62.27**
EBL	7.50	15.00	15.00	0.00	5.00	**8.50**	**6.52**	**76.70**
NIBL	50.00	50.00	30.00	25.00	0.00	**31.00**	**20.74**	**66.89**

Source: Annual reports of sample bank

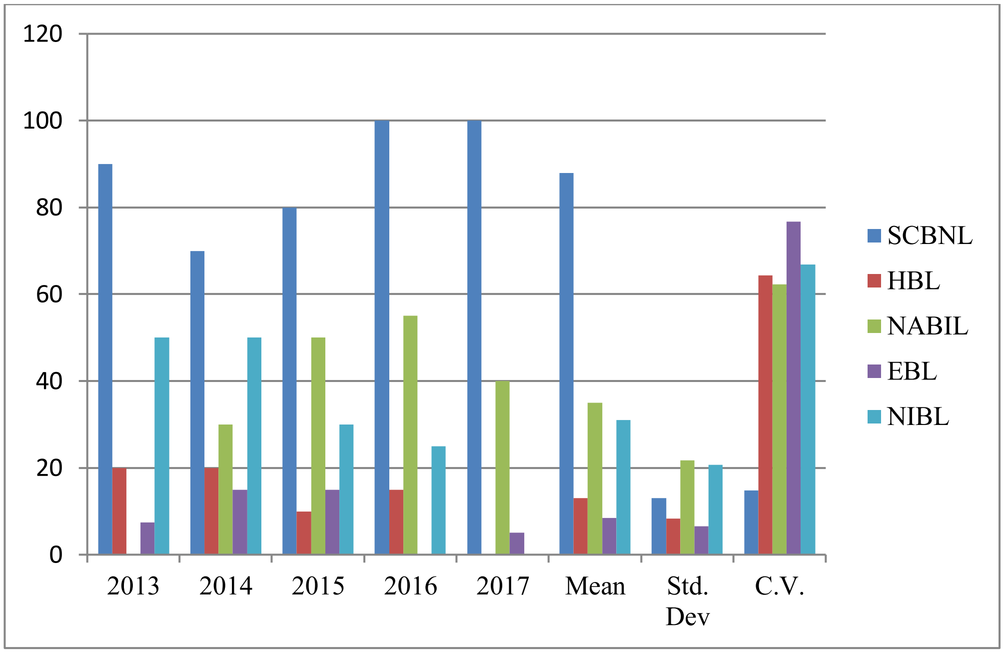
The average DPS of Standard Chartered Bank Nepal Ltd. (SCBNL) is Rs. 88.00 with the standard deviation of 13.04. The highest and lowest DPS are Rs. 100 and Rs. 70 respectively. The coefficient of variation is 14.82%, which indicates that there is less fluctuation in the DPS of SCBNL during the period of study.

Himalayan Bank Ltd (HBL) has an average DPS of Rs. 13.00. The highest DPS is Rs. 20.00 whereas it has not paid dividend in the year 2004/05. The standard deviation is 8.37 and coefficient of variation is 64.36%. The CV indicates that the DPS of HBL is quite fluctuating.

Everest Bank Ltd. (EBL) paid the highest DPS of Rs. 15.00. No dividend was paid in the year 2003/2004. An average DPS of Rs. 8.50 has been noted during the study period. The standard deviation of the DPS is 6.52. The C.V. of 76.70% indicates that there is a high fluctuation in the DPS of EBL.

Nepal Investment Bank Ltd (NIBL) has an average DPS of Rs. 31.00, ranging between Rs. 50.00 and Rs. 25.00, during the period of study. The standard deviation is 20.74 and the fluctuation of 66.89% in the DPS is seen during this period.

Figure No: 4.2



This figure 4.2 calculations, SCBNL has the highest average DPS and EBL 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 EBL 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 below.

Dividend Percent of Banks Under Study is stated in the table below:

Table:4.3

Bank	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**	**Std. Dev**	**C.V.**
SCBNL	90.00	70.00	80.00	100.00	100.00	**88.00**	**13.04**	**14.82**
HBL	20.00	20.00	10.00	15.00	0.00	**13.00**	**8.37**	**64.36**
NABIL	0.00	30.00	50.00	55.00	40.00	**35.00**	**21.79**	**62.27**
EBL	7.50	15.00	15.00	0.00	5.00	**8.50**	**6.52**	**76.70**
NIBL	50.00	50.00	30.00	25.00	0.00	**31.00**	**20.74**	**66.89**

Source: Annual reports of sample bank

All thebanks 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 EBL 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 EBL is highly fluctuating.

4.1.4. Dividend Payout Ratio (DPR)

The DPR of the banks under study are stated in the table as follows:

Bank	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**	**Std. Dev**	**C.V.**
SCBNL	54.41	54.00	75.57	86.49	78.81	**69.86**	**14.83**	**21.22**
HBL	53.39	40.68	71.53	35.94	0.00	**40.31**	**26.41**	**65.52**
NABIL	0.00	67.41	73.70	65.64	67.50	**54.85**	**30.81**	**56.18**
EBL	42.59	29.62	21.76	0.00	6.04	**20.00**	**17.32**	**86.62**
NIBL	49.32	72.15	88.76	46.55	0.00	**51.36**	**33.55**	**65.30**
Analysis of Mean DPR						**47.28**	**18.55**	**39.24**

Source: Annual reports of sample bank

The average DPR of Standard Chartered Bank Nepal Ltd. (SCBNL) is 69.86%. It means that SCBNL generally pays 69.86% of its total earning as dividend to its shareholders. The standard deviation of DPR is 14.83. The coefficient of variation is 21.22%. This value elucidate that there is only about 21% fluctuations in the DPR of the bank over the years.

An average DPR of 40.31% of Himalayan Bank Ltd (HBL) indicates that HBL generally pays out 40.31% of its earning as dividend. The standard deviation is 26.41 and coefficient of variation is 65.52%. The CV indicates that the DPR of HBL widely varies during the period of study.

NABIL Bank Ltd has an average DPR of 54.85% during this period of study. It means that it generally pays 54.85% of its earning to its shareholders in form of dividend. The standard deviation of DPR was 30.81 whereas the coefficient of variation of 56.18% indicates the fluctuating nature of DPS in NABIL Bank Ltd.

If analysis is done taking the mean DPR of the sample banks, the average Dividend payout ration of the sample banks comes out to 47.28% with a standard deviation of 18.55 and CV of 39.24% It indicates that, in average, out of the total earnings made, 47.28% is distributed as dividend to the shareholders with a fluctuation of 39.24%.

4.1.5. Market Price Per Share (MPS)

The average market price per share of the banks under study is presented in table form as follows:

Table: 4.5

Bank	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**	**Std. Dev**	**C.V.**
SCBNL	1050	840	1162	1985	2144	**1436.20**	**587.78**	**40.93**
HBL	412	440	562	562	1500	**695.20**	**455.11**	**65.47**
NABIL	500	430	700	1400	1500	**906.00**	**507.62**	**56.03**
EBL	153	252	616	1502	1100	**724.60**	**571.65**	**78.89**
NIBL	719	600	822	1401	1150	**938.40**	**329.76**	**35.14**

Source: Annual reports of sample bank

The average of closing MPS of Standard Chartered Bank Nepal Ltd. (SCBNL) during the period of study is Rs. 1436.20 with a standard deviation of 587.78 and a coefficient of variation of 40.93%.

During the period of study, Himalayan Bank Ltd. (HBL) had an average closing MPS of Rs. 695.20 with a standard deviation of 455.11. The coefficient of variation shows that there is a fluctuation of 65.47% in closing MPS of HBL.

The average of closing MPS of NABIL Bank Ltd, during this period of study is Rs. 906.00. It stayed within the range of Rs. 1500 and Rs. 430. The standard deviation of closing MPS is 507.62 whereas the coefficient of variation is 56.11%. The CV indicates an above-moderate fluctuation in the closing MPS of the bank.

From the above data and calculations, it can be seen that the average closing MPS of SCBNL is the highest and that of HBL is the lowest. Similarly the standard deviation of SCBNL is the highest and NIBL is the lowest. The coefficient of variation of these banks shows that there is an above-moderate level of fluctuation in the MPS. The closing MPS of the banks reached the highest point in the FY 2004/05 during the period of study.

4.1.6. Price Earning Ratio (P/E Ratio)

The price-earning ratio of the banks under study is presented in table as follows.

Table: 4.6

Bank	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**	**Std. Dev**	**C.V.**
SCBNL	6.35	6.48	10.98	17.17	16.90	**11.58**	**5.32**	**45.97**
HBL	11.00	8.95	40.20	13.46	172.61	**49.24**	**70.12**	**142.39**
NABIL	7.39	9.66	10.32	16.71	25.31	**13.88**	**7.27**	**52.37**
EBL	8.68	4.79	8.66	12.68	13.18	**9.62**	**3.46**	**35.98**
NIBL	7.09	8.65	24.35	26.10	34.65	**20.17**	**11.90**	**58.98**

Source: Annual reports of sample bank

The average P/E Ratio of SCBNL, during this period of study is 11.58. It is within the range of 17.17 and 6.35. The standard deviation of P/E Ratio is 5.32 whereas the coefficient of variation of 45.97% indicates the fluctuating nature of P/E Ratio in SCBNL.

Himalayan Bank Ltd. (HBL) has an average P/E Ratio of 49.24, ranging between 172.61 and 8.95, during the period of study. The standard deviation is 70.12 and the fluctuation of 142.39% in the P/E Ratio is seen during this period, which is very high.

NABIL Bank Ltd has an average P/E Ratio of 13.88. The standard deviation is 7.27 and coefficient of variation is 52.37%. The CV indicates that the P/E Ratio of NABIL Bank Ltd is quite fluctuating.

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

4.1.7. Earning Yield (EY)

Earning yield of the banks under study is presented in the table below.

Table : 4.7

Bank	2013	2014	2015	2016	2017	Mean	Std. Dev	C.V.
SCBNL	15.75	15.43	9.11	5.82	5.92	**10.41**	**4.92**	**47.23**
HBL	9.09	11.18	2.49	7.43	0.58	**6.15**	**4.47**	**72.67**
NABIL	13.54	10.35	9.69	5.98	3.95	**8.70**	**3.78**	**43.41**
EBL	11.51	20.89	11.54	7.89	7.53	**11.87**	**5.39**	**45.41**
NIBL	14.10	11.56	4.11	3.83	2.89	**7.30**	**5.15**	**70.55**

Source: Annual reports of sample bank

The average EY of 10.41% with the standard deviation of 4.92 is seen for Standard Chartered Bank Nepal Ltd. (SCBNL). The highest and lowest EY are 15.75% and 5.82% respectively. The coefficient of variation is 47.23%, during the period of study.

Himalayan Bank Ltd (HBL) has an average EY of 6.15%. The standard deviation is 4.47 and coefficient of variation is 72.67%. The CV indicates that the EY of HBL is quite fluctuating.

The average EY of NABIL Bank Ltd, during this period of study is 8.70%. It is within the range of 13.54% and 3.95%. The standard deviation of EY is 3.78 whereas the coefficient of variation of 43.41%. The coefficient of variation in EY of NABIL is the lowest among the banks under study.

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

4.1.8. Dividend Yield (DY)

The dividend yield of the banks under study is presented in the table as below.

Table:4.8

Bank	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**	**Std. Dev**	**C.V.**
SCBNL	8.57	8.33	6.88	5.04	4.66	**6.70**	**1.81**	**27.03**
HBL	4.86	4.55	1.78	2.67	0.00	**2.77**	**2.01**	**72.60**
NABIL	0.00	6.98	7.14	3.93	2.67	**4.14**	**3.02**	**72.81**
EBL	4.90	6.26	2.51	0.00	0.45	**2.82**	**2.73**	**96.69**
NIBL	6.95	8.33	3.65	1.78	0.00	**4.14**	**3.48**	**83.98**

Source: Annual reports of sample bank

The DY of Standard Chartered Bank Nepal Ltd. (SCBNL) range between 8.57% and 4.66% during the period of study. During this period, the average DY is 6.70%. The standard deviation of the DY under the period of study is 1.81. The C.V. of 27.03% indicates that the fluctuation of in DY of SCBNL is the lowest.

During the period of study, Himalayan Bank Ltd. (HBL) had an average DY of 2.77% with a standard deviation of 2.01. The DY range between 4.86% and 0% (in 2004/05). The coefficient of variation shows that there is a fluctuation of 72.60% in DY of HBL.

The average DY of NABIL Bank Ltd, during this period of study is 4.14%. It stayed within the range of 7.14% and 0.00% (in 1996/97). The standard deviation of DY is 3.02 whereas the coefficient of variation is 72.81%. The CV indicates a high fluctuation in the DY of the bank.

From the above data and calculations, it can be seen that the average DY of SCBNL is the highest and that of HBL is the lowest. The DY range of the banks under study during the period is between 8.57% and 0.00%. Similarly the standard deviation of NIBL is the highest and SCBNL is the lowest. The coefficient of variation of these banks shows a high level of fluctuation in the DY. If compared, SCBNL has the most consistent DY among these banks.

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

The ratios of the banks under study are presented in the table as follows.

Table:4.9

Bank	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**	**Std. Dev**	**C.V.**
SCBNL	1.95	1.89	3.65	6.64	5.25	**3.88**	**1.86**	**47.90**
HBL	2.51	2.01	2.10	3.00	9.05	**3.73**	**2.68**	**71.80**
NABIL	1.70	2.04	3.13	5.59	6.94	**3.88**	**2.05**	**52.80**
EBL	2.43	1.60	2.89	4.46	4.40	**3.16**	**1.12**	**35.47**
NIBL	1.91	2.21	3.00	4.62	4.17	**3.18**	**1.06**	**33.38**

Source: Annual reports of sample bank

The average ratio of MPS to BVPS of Standard Chartered Bank Nepal Ltd. (SCBNL) is 3.88. The standard deviation of the ratio is 2.08. The coefficient of variation is 53.55%. This value elucidate that there is only about 53% fluctuations in the ratio of MPS to BVPS of the bank over the years.

An average MPS to BVPS ratio of 3.73 of Himalayan Bank Ltd (HBL) is noted during the period of study. The standard deviation is 3.00 and coefficient of variation is 80.27%. The CV indicates that the ration of MPS to BVPS of HBL is highly fluctuating during the period of study.

NABIL Bank Ltd has an average MPS to BVPS ratio of 3.88 during this period of study. The standard deviation of the ratio is 2.29 whereas the coefficient of variation of 59.04% indicates the above-moderate fluctuating nature of MPS to BVPS ratio in NABIL Bank Ltd.

An average MPS to BVPS ratio of 3.16 is noted during the study period for Everest Bank Ltd. (EBL). The standard deviation of the ratio of MPS to BVPS is 1.25. The C.V. of 39.66% shows a moderate fluctuation in the ratio between MPS and BVPS to EBL during the study period.

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

4.1.10 Net Worth Per Share (NWPS)

The Net Worth Per Share of the banks under study are stated in the table as follows:

Table:4.10

Bank	2013	2014	2015	2016	2017	Mean	Std. Dev	C.V.
SCBNL	538.82	445.17	282.26	298.88	327.50	**378.53**	**98.34**	**25.98**
HBL	163.84	218.66	164.22	187.54	165.73	**180.00**	**21.28**	**11.83**
NABIL	307.67	210.92	240.10	266.53	232.06	**251.46**	**33.27**	**13.23**
EBL	62.95	149.97	207.11	336.75	249.87	**201.33**	**92.21**	**45.80**
NIBL	249.33	271.77	273.37	303.10	275.96	**274.71**	**17.10**	**6.23**

Source: Annual reports of sample bank

The table 4.10 shows that, the average Net Worth Per Share (NWPS) of the banks under study range between Rs. 378.53 (SCBNL) and Rs. 180.00 (HBL). NABIL, EBL and NIBL have the average NWPS of Rs. 251.46, Rs. 201.33 and Rs. 274.71 respectively. Similarly the CV shows the highest consistency in the NWPS of NIBL (6.23%) whereas the NWPS of EBL has the highest fluctuating tendency (45.80%) among the banks. The CV of NWPS of SCBNL, HBL and NABIL are 25.98%, 11.83% and 13.23% respectively, which shows a moderate level of fluctuation.

4.2. Statistical Tools

The statistical tools (i.e. correlation coefficient and regression analysis) is calculated using the program 'SPSS 10.0 for Windows.'

4.2.1. Correlation Analysis

The correlation coefficient measures the relation between two or more variables. It also measures the extent to which one variable effects 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.

Standard Chartered Bank Nepal Ltd.

Table 4.11: Correlation Coefficient of SCBNL

	EPS	DPS	DP	DPR	PER	EY	DY	MPS TO BVPS	NWPS
MPS	-0.318	0.888	0.888	0.841	0.964	-0.900	-0.963	0.918	0.600
EPS	-	0.052	-	-0.706	-	-	-	-	-
DPS	-	-	-	0.667	-	-	-	-	-0.292
EY	-	-	-	-	-	-	0.976	-	-

The table 4.11 depicts 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, MPS to BVPS ratio and NWPS. On the other hand the MPS is negatively correlated the EPS, EY and DY. Similarly, the EPS has positive relation with its DPS. But it is negatively correlated with the DPR since in the FY 2000/01, even if there is increase in EPS, the DPR has decreased. Also the DPS of SCBNL is positively correlated with the DPR but has negative correlation with its NWPS. In the same way the EY is positively correlated with the DY.

Himalayan Bank Ltd.

Table 4.12 Correlation Coefficient of HBL

	EPS	DPS	DP	DPR	PER	EY	DY	MPS TO BVPS	NWPS
MPS	-0.727	-0.926	-0.926	-0.828	0.990	-0.772	-0.854	0.986	0.362
EPS	-	0.897	-	0.219	-	-	-	-	-
DPS	-	-	-	0.584	-	-	-	-	0.509
EY	-	-	-	-	-	-	0.945	-	-

The table 4.12 indicates that the MPS of HBL is negatively correlated with its DPS, DP, DPR and DY, which is because of irregularity in payment of dividends. Also it has negative correlation with its EPS and EY due to regular decrease in earnings of the bank. MPS has positive correlation with its P/E Ratio, MPS to BVPS ratio and NWPS. Similarly, the EPS is positively correlated with its DPS 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 HBL has positive correlation with the DPR and NWPS. The correlation between EY and DY is also positive due to the same type of relation of EY and DY with the MPS.

NABIL Bank Ltd.

Table 4.13: Correlation Coefficient of NABIL

	EPS	DPS	DP	DPR	PER	EY	DY	MPS TO BVPS	NWPS
MPS	0.480	0.595	0.595	0.404	0.919	-0.928	-0.207	0.984	-.700
EPS	-	0.319	-	-0.125	-	-	-	-	-
DPS	-	-	-	0.900	-	-	-	-	-0.534
EY	-	-	-	-	-	-	-0.106	-	-

The table 4.13 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 and MPS to BVPS ratio. In the other hand the MPS has negative correlation with the EY, DY and NWPS. Likewise, the EPS has positive correlation with the DPS but is negatively correlated with the DPR. It is because in some years, the DPR has been increased even if the EPS is decreased. Also the DPS is positively correlated with the DPR but has negative correlation with its NWPS. In the same way the EY of the bank is negatively correlated with its DY.

Everest Bank Ltd.

Table 4.14 Correlation Coefficient of EBL

	EPS	DPS	DP	DPR	PER	EY	DY	MPS TO BVPS	NWPS
MPS	0.953	-0.747	-0.747	-0.970	0.844	-0.709	-0.939	0.929	0.960
EPS	-	-0.542	-	-0.973	-	-	-	-	
DPS	-	-	-	0.598	-	-	-	-	-0.550
EY	-	-	-	-	-	-	0.881	-	-

The table 4.14 reveals that the MPS of EBL is negatively correlated with its DPS, DP, DPR and DY, because of irregularity in payment of dividends. It has also negative correlation with its EY. MPS has positive correlation with its EPS, P/E Ratio, MPS to BVPS ratio and NWPS. Similarly, the EPS is negatively correlated with both DPS and DPR. It is because of the reason that the DPS and DPR are decreasing even if the EPS has increased. Also the DPS of HBL has positive correlation with the DPR but is negatively correlated with NWPS. The correlation between EY and DY is also positive due to the same type of relation of EY and DY with the MPS.

Nepal Investment Bank Ltd.

Table 4.15: Correlation Coefficient of NIBL

	EPS	DPS	DP	DPR	PER	EY	DY	MPS TO BVPS	NWPS
MPS	-0.474	-0.725	-0.725	-0.543	0.770	-0.751	-0.860	0.960	0.798
EPS	-	0.788	-	0.140	-	-	-	-	-
DPS	-	-	-	0.697	-	-	-	-	-0.470
EY	-	-	-	-	-	-	0.907	-	-

The table 4.15 reveals that the MPS of NIBL has negative correlation with the DPS, DP, DPR and DY because of non-payment of dividend in FY 2003/04. The same relation exists between MPS to EPS and EY. It is because of regular decrease in EPS, even if the MPS is in increasing trend. In the same way, MPS of NIBL is positively correlated with its P/E Ratio, MPS to BVPS ratio and NWPS. Similarly, the EPS has positive correlation with both of its DPS and DPR because they are also decreasing with the decrease in EPS. In the same way, DPS of NIBL is positively correlated with the DPR but has negative correlation with its NWPS. Also the EY has positive correlation with DY of the bank.

From the above analysis, the MPS of the banks (SCBNL and NABIL) 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 (HBL, EBL and NIBL) who have fluctuating nature of dividends are negatively correlated with their dividend component i.e. increase in dividend leads to decrease in MPS and vice versa. The non-payment of dividend also has lead to the negative correlation between MPS and the dividend components.

The correlation between MPS and EPS of SCBNL, HBL and NIBL is negative, which is due to the reason that even if there is decrease in EPS, the MPS of the banks have increased. On the other hand the MPS and EPS of NABIL and EBL are positively correlated, which means that with increase in MPS, the EPS will also increase and vice versa.

Further, normally there exists positive correlation between EY and DY (in case of SCBNL, HBL, EBL and NIBL) i.e. with increase in EY, the DY will also increase and vice versa. But in case of NABIL, there exists negative correlation between EY and DY i.e. DY will decrease if EY will increase and vice versa.

4.2.2. Regression Analysis

4.2.2.1. MPS on EPS

$$MPS = a + b \times EPS$$

Table 4.16: Regression Analysis of MPS on EPS

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	2501.84	-	1.35	0.270	0.10
	EPS	-8.28	14.23	-0.58	0.601	
HBL	Constant (a)	1255.49	-	3.63	0.036	0.53
	EPS	-18.55	10.12	-1.83	0.164	
NABIL	Constant (a)	-192.80	-	-0.16	0.881	0.23
	EPS	17.01	17.95	0.95	0.413	
EBL	Constant (a)	-273.83	-	-1.34	0.271	0.91
	EPS	14.84	2.72	5.46	0.012	
NIBL	Constant (a)	1259.02	-	3.36	0.044	0.22
	EPS	-5.50	5.90	-0.93	0.420	

The above table of regression analysis shows that among the banks under study, SCBNL, HBL and NIBL have negative relation between MPS and EPS, while NABIL and EBL have positive relation. The regression relation between MPS and EPS of SCBNL indicates that with an increase of Rs. 1 in EPS, the MPS will decrease by Rs. 8.28 other variables remaining constant. Similarly, in case of HBL and NIBL, with an increase of Rs. 1 in EPS, the MPS will decline by Rs. 18.55 and Rs. 5.50 respectively assuming that the other variables are constant. In contrast there will be increase in MPS of NABIL and EBL by Rs. 17.01 and Rs. 14.84 respectively with an increase in EPS by Rs. 1 remaining other variables constant.

The standard error of estimate of SCBNL, HBL, NABIL, EBL and NIBL are 14.23, 10.12, 17.95, 2.72 and 5.90 respectively. These values indicate the probable error in the predicted value for the respective banks.

4.2.2.2. MPS on DPS

$$\mathbf{MPS = a + b \times DPS}$$

Table 4.17: Regression Analysis of MPS on DPS

Bank	Variables	b	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	-2087.94	-	-1.97	0.144	0.79
	DPS	40.05	11.95	3.35	0.044	
HBL	Constant (a)	1349.75	-	7.57	0.005	0.86
	DPS	-50.35	11.89	-4.24	0.024	
NABIL	Constant (a)	420.61	-	0.97	0.403	0.35
	DPS	13.87	10.80	1.28	0.289	
EBL	Constant (a)	1281.00	-	3.69	0.035	0.56
	DPS	-65.46	33.69	-1.94	0.147	
NIBL	Constant (a)	1295.57	-	5.67	0.011	0.53
	DPS	-11.52	6.33	-1.82	0.166	

The table 4.17 of regression analysis of MPS and DPS shows that among the banks under study, SCBNL and NABIL have positive regression relation between DPS and MPS of the bank. Where as HBL, EBL and NIBL have negative relation between MPS and DPS. The regression relation between MPS and EPS of SCBNL and NABIL indicate that with an increase of Rs. 1 in DPS, the MPS will increase by Rs. 40.05 and Rs. 13.87 respectively, other variables remaining constant. In contrast there will be decrease in MPS of HBL, EBL and NIBL by Rs. 50.35, Rs. 65.46 and Rs. 11.52 respectively with an increase in DPS by Rs.1 assuming that the other variables are constant.

The coefficient of multiple determination (R^2) is lowest for NABIL (0.35), which indicates that only 35% variance in the MPS is explained by DPS i.e. 35% 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 (0.86). This indicates that 85% in variation in MPS of HBL is explained due to change in DPS of the bank. The value of R^2 of SCBNL, EBL and NIBL are 0.79, 0.56 and 0.53 respectively, which indicate that 79%, 56% and 53% variation in the MPS of these banks are explained due to the change in DPS of the respective banks.

4.2.2.3. MPS on DP

MPS = a + b × DP

Table 4.18: Regression Analysis of MPS on DP

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	-2087.94	-	-1.97	0.144	0.79
	DP	40.05	11.95	3.35	0.044	
HBL	Constant (a)	1349.75	-	7.57	0.005	0.86
	DP	-50.350	11.89	-4.24	0.024	
NABIL	Constant (a)	420.61	-	0.97	0.403	0.35
	DP	13.87	10.80	1.28	0.289	
EBL	Constant (a)	1281.00	-	3.69	0.035	0.56
	DP	-65.46	33.69	-1.94	0.147	
NIBL	Constant (a)	1295.57	-	5.67	0.011	0.53
	DP	-11.52	6.33	-1.82	0.166	

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.

4.2.2.4. MPS on DPR

MPS = a + b × DPR

Table 4.19: Regression Analysis of MPS on DPR

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	-466.05	-	-1.19	0.319	0.82
	DPR	20.10	5.49	3.66	0.035	
HBL	Constant (a)	1270.46	-	4.88	0.016	0.69
	DPR	14.27	5.58	-2.56	0.083	
NABIL	Constant (a)	541.40	-	1.01	0.385	0.16
	DPR	6.65	8.70	0.76	0.501	
EBL	Constant (a)	1364.90	-	11.69	0.001	0.94
	DPR	-32.02	4.62	-6.94	0.006	
NIBL	Constant (a)	1212.56	-	4.28	0.023	0.29
	DPR	-5.34	4.77	-1.12	0.344	

The regression analysis between MPS and DPR shows positive relation between MPS and DPR of SCBNL, HBL and NABIL while negative relation between MPS and DPR of EBL and NIBL. The regression relation between MPS and DPR of SCBNL, HBL and NABIL indicates that with an increase of 1% in DPR, the MPS will increase by Rs. 20.10, Rs. 14.27 and Rs. 6.65 respectively assuming that the other variables are constant. In the other hand with an increase in 1% in DPR, the MPS of EBL and NIBL will decrease by Rs. 32.02 and Rs. 5.34 other variables remaining constant.

The standard error of estimate of SCBNL, HBL, NABIL, EBL and NIBL are 5.49, 5.58, 8.70, 4.62 and 4.77, which indicate the possible error in the predicted value for the respective banks.

4.2.2.5. MPS on DY

MPS = a + b × DY

Table 4.20: Regression Analysis of MPS on DY

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	3530.48	-	10.15	0.002	0.93
	DY	312.77	50.47	-6.20	0.008	
HBL	Constant (a)	1230.84	-	5.49	0.012	0.73
	DY	-193.23	67.84	-2.85	0.065	
NABIL	Constant (a)	1050.08	-	2.23	0.112	0.04
	DY	-34.77	95.04	-0.37	0.739	
EBL	Constant (a)	1279.73	-	8.24	0.004	0.88
	DY	-196.58	41.57	-4.73	0.018	
NIBL	Constant (a)	1276.01	-	8.81	0.003	0.74
	DY	-81.51	27.95	-2.92	0.062	

The table 4.20 of regression analysis shows that among the banks under study, all banks except SCBNL have negative regression relation between MPS and DY. The regression relation between MPS and DY of SCBNL indicates that with an increase of 1% in DY, the MPS will increase by Rs. 312.77 other variables remaining constant. In contrast there will be decline in MPS of HBL, NABIL, EBL and NIBL by Rs. 193.23, Rs. 34.77, Rs. 196.58 and Rs. 81.51 respectively with an increase in DY by 1% assuming that other variables are constant.

The standard error of estimate of SCBNL, HBL, NABIL, EBL and NIBL are 50.47, 67.84, 95.04, 41.57 and 27.95 respectively. These values indicate the probable error in the predicted value for the respective banks.

4.2.2.6. DPS on EPS

DPS = a + b × EPS

Table 4.21: Regression Analysis of DPS on EPS

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	84.17	-	1.94	0.147	0.003
	EPS	0.03	0.33	0.09	0.934	
HBL	Constant (a)	0.29	-	0.07	0.948	0.80
	EPS	0.42	0.12	3.51	0.039	
NABIL	Constant (a)	3.64	-	0.07	0.951	0.10
	EPS	0.48	0.83	0.58	0.601	
EBL	Constant (a)	14.97	-	2.32	0.103	0.29
	EPS	-0.096	0.09	-1.12	0.346	
NIBL	Constant (a)	-2.53	-	-0.15	0.888	0.62
	EPS	0.57	0.26	2.22	0.113	

The regression analysis between DPS and EPS shows a positive relation between DPS and EPS among all banks except EBL. The regression relation between DPS and EPS of EBL indicates that with an increase of Rs. 1 in EPS, the DPS will decrease by Rs. 0.096 assuming that other variables held constant. In the other hand, there will be increase in DPS of SCBNL, HBL, NABIL and NIBL by Rs. 0.03, Rs. 0.42, Rs. 0.48 and Rs. 0.57 respectively with an increase in EPS by Rs. 1 remaining other variables constant.

The standard error of estimate of SCBNL, HBL, NABIL, EBL and NIBL are 0.33, 0.12, 0.83, 0.09 and 0.26 respectively. These values indicate the possible error in the predicted value for the respective banks.

4.2.2.7. DPS on NWPS

DPS = a + b × NWPS

Table 4.22: Regression Analysis of DPS on NWPS

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	101.13	-	3.95	0.029	0.09
	NWPS	-0.035	0.065	-0.53	0.633	
HBL	Constant (a)	-19.22	-	-0.61	0.587	0.26
	NWPS	0.18	0.17	1.02	0.381	
NABIL	Constant (a)	113.62	-	1.57	0.215	0.28
	NWPS	-0.31	0.29	-1.09	0.354	
EBL	Constant (a)	15.50	-	2.30	0.105	0.30
	NWPS	-0.035	0.03	-1.14	0.337	
NIBL	Constant (a)	171.13	-	1.12	0.342	0.22
	NWPS	-0.51	0.55	-0.92	0.424	

The table 4.22 show that regression analysis shows that among the banks under study, all banks except HBL has negative regression relation between DPS and NWPS. The regression relation between DPS and NWPS of HBL indicates that with an increase of Rs. 1 in NWPS, the DPS will increase by Rs. 0.18 assuming that other variables are constant. In contrast, with an increase of Rs. 1 in NWPS of SCBNL, NABIL, EBL and NIBL, the DPS will decline by Rs. 0.035, Rs. 0.31, Rs. 0.035 and Rs. 0.51 respectively remaining the other variables constant..

The standard error of estimate of SCBNL, HBL, NABIL, EBL and NIBL are 0.065, 0.17, 0.29, 0.03 and 0.55 respectively. These values indicate the probable error in the predicted value for the respective banks.

The coefficient of multiple determinations (R^2) is highest for EBL (0.30), which indicates that 30% in DPS is explained by NWPS i.e. 30% variation in DPS of the bank is explained due to the change in value of NWPS of the bank. The value of R^2 of SCBNL, HBL, NABIL and NIBL are 0.09, 0.26, 0.28 and 0.22 respectively, which indicate that 9%, 26%, 28% and 22% variation in the DPS of these banks are explained due to the change in NWPS of the respective banks.

4.2.2.8. MPS on EPS and DPR

$$MPS = a + b_1 \times EPS + b_2 \times DPR$$

Table 4.23: Regression Analysis of MPS on EPS and DPR

Bank	Variables	B	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	-3794.13	-	-1.78	0.217	0.86
	EPS	14.23	9.79	1.45	0.283	
	DPR	48.65	14.93	3.26	0.083	
HBL	Constant (a)	1624.93	-	54.09	0.000	0.99
	EPS	-14.62	0.77	-19.07	0.003	
	DPR	-12.11	0.52	-23.39	0.002	
NABIL	Constant (a)	-753.08	-	-0.55	0.640	0.45
	EPS	19.09	18.75	1.02	0.416	
	DPR	7.76	8.72	0.89	0.468	
EBL	Constant (a)	1082.04	-	0.86	0.479	0.94
	EPS	2.61	11.48	0.23	0.841	
	DPR	-26.64	24.33	-1.09	0.388	
NIBL	Constant (a)	1458.55	-	3.30	0.081	0.46
	EPS	-4.71	6.11	-0.77	0.521	
	DPR	-4.78	5.17	-0.92	0.453	

The table 4.23 show of multiple regression analysis shows that among the banks under study, SCBNL and NABIL have positive relation between MPS on EPS and DPR. HBL and NIBL have negative relation between MPS on EPS and DPR. In case of EBL, there is positive relation between MPS and EPS and negative relation between MPS and DPR. The regression relation between MPS on EPS and DPR of SCBNL and NABIL indicates that with an increase of Rs. 1 in EPS, MPS will increase by Rs. 14.23 and Rs. 19.09 whereas with increase of 1% in DPR, the MPS will increase by Rs. 48.65 and Rs. 7.76 respectively remaining variables other than two constant. In case of HBL and NIBL, with an increase of Rs. 1 in EPS, the MPS will decline by Rs. 14.62 and Rs. 4.71 respectively and the MPS will decline by Rs.12.11 and Rs. 4.78 respectively, with increase in 1% in DPR assuming that the other remaining variables constant. For EBL, the MPS will increase by Rs. 2.61 with increase in EPS by Rs. 1 and it will decline by Rs.26.64 with the increase in 1% of DPR.

The average standard error of estimate of SCBNL, HBL, NABIL, EBL and NIBL are 12.36, 0.65, 13.74, 17.91 and 5.64 respectively. These values indicate the probable error in the predicted value for the respective banks.

The value of coefficient of multiple determination (R^2) of SCBNL, HBL, NABIL, EBL and NIBL are 0.86, 0.99, 0.45, 0.94 and 0.46 respectively, which indicate that 86%, 99%, 45%, 94% and 46% variation in the MPS of these banks are explained due to the change in EPS and DPR of the respective banks.

4.2.2.9. MPS on P/E Ratio and DPS

$$\mathbf{MPS = a + b_1 \times PER + b_2 \times DPS}$$

Table 4.24: Regression Analysis of MPS on P/E Ratio and DPS

Bank	Variables	b	Std Error	T value	Sig. T	R^2
SCBNL	Constant (a)	-824.36	-	-1.50	0.272	0.97
	PER	76.51	19.62	3.90	0.060	
	DPS	15.62	8.01	1.95	0.190	
HBL	Constant (a)	365.63	-	1.25	0.337	0.98
	PER	6.50	1.85	3.51	0.072	
	DPS	0.71	15.51	0.05	0.968	
NABIL	Constant (a)	-51.50	-	-0.18	0.874	0.87
	PER	57.62	20.11	2.87	0.103	
	DPS	4.51	6.70	0.67	0.571	
EBL	Constant (a)	-337.46	-	-0.22	0.848	0.72
	PER	120.84	113.42	1.06	0.398	
	DPS	-11.78	60.20	-0.19	0.863	
NIBL	Constant (a)	138.39	-	0.07	0.948	0.60
	PER	30.94	49.99	0.62	0.599	
	DPS	5.68	28.68	0.20	0.861	

The multiple regression analysis among MPS on PER and DPS shows that all banks except EBL have positive multiple regression relation while EBL have positive relation with PER and negative relation with DPS other remaining variables constant. The regression relation between MPS on PER and DPS of SCBNL, HBL, NABIL and NIBL indicates that with an increase of 1% in PER the MPS will increase by Rs.

76.51, Rs. 6.50, Rs. 57.62 and Rs. 30.94 and with increase of Rs. 1 in DPS, the MPS will increase by Rs. 15.62, Rs. 0.71, Rs. 4.51 and Rs. 5.68 respectively remaining other than two variables constant. In case of EBL, with an increase of 1% in PER, the MPS will increase by Rs. 120.84 but it will decrease by Rs. 11.78 with an increase of Rs. 1 in DPS.

The value of coefficient of multiple determination (R^2) of SCBNL, HBL, NABIL, EBL and NIBL are 0.97, 0.98, 0.87, 0.72 and 0.60 respectively, which indicate that 97%, 98%, 87%, 72% and 60% variation in the MPS of these banks are explained due to the change in PER and DPS of the respective banks.

4.3 Major Findings

A. Findings of Descriptive Analysis

- From the descriptive analysis, the researcher found there is not any consistency in dividend policy in the sample firms. It has indicated the need of dividend strategy as well as the need of proper analysis of the respective sector of the firms.
- Most of the Nepalese firm from the very past have not profit planning and investment strategy, which has imbalanced the whole position of the firms. It means there is not consistency even in the earnings.
- Besides all the D/P Ratio of the firms in many years are found more than the popular practice (i.e. 40%)
- The lack of financial knowledge and the market inefficiency has affected the market price of the share in all the firms. But it is theoretically argued.
- Capital increasing rate are higher than that of NABIL and UICNL respectively in their respective sectors.
- The relationship between MPS and DPS of NABIL shows the coefficient of determination (R2) is 0.1627, which indicates that only 16.27 percent of the variation of MPS is determined by the explanatory variable DPS. The simple correlation coefficient (R) between MPS and DPS of NABIL is 0.4033.

- The relationship between EPS and DPS of NABIL as the results show, the slope of coefficient is 4.6. Only 6.04% of the variation of DPS is determined by the explanatory variable EPS. The simple correlation coefficient R between DPS and EPS of NABIL is 0.245.
- The relationship between EPS and MPS of HBL as these result shows, the slope of coefficient is 14.208. The coefficient of determination R2 is 0.9754, which indicates that only 97.54% of the variation of MPS is determined by the explanatory variable EPS. The simple correlation coefficient R between MPS and EPS of HBL is .9876.
- The relationship between MPS and DPS of HGICL. As the result show the slope of coefficient (b) is -0.03818. The coefficient of determination (R2) is 0.0207, which indicates that only 2.07 percent of the variation of MPS is determined by the explanatory variable DPS. The simple correlation coefficient (R) between MPS and DPS of HGICL is -0.1441.
- The relationship between EPS and DPS of HGICL as the results show, the slope of coefficient is -0.7411. The coefficient of determination R2 is 0.4181, which indicates that;41.81% the variation of DPS is determined by the explanatory variable EPS. The simple correlation coefficient (R) between DPS and EPS of HGICL is -0.6466

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

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

In Nepal, only a few listed companies are paying regular dividends to their shareholders. These companies are also not following the stable dividend payout policy. However, paying dividend can be taken as an important tool to attract new investors. Besides this, the payment of dividend shows the good financial health of the organization in the market. 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 five joint venture commercial banks (NABIL, SCBNL, NIBL, HBL and EBL) and only for the last five fiscal years from 2002/03 to 2006/07. 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 shareholders in Nepal don't seem to be investing their capital on the basis of financial performances of the financial institution as such. The main reason behind this statement is that market price of the shares don't seem to be more or less dependent upon earnings per share and dividend per share. The major findings of this study can be summarized as follows.

5.2 Conclusions

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. The CV ranges between 59.04% and 17.57%. Among the banks under study, SCBNL has the highest average EPS and HBL has the least with highest degree of fluctuation.
- The average DPS shows that there is no regularity in payment of dividend. The DPS is quite fluctuating. The CV of DPS ranges between 76.70% and 14.82%. The SCBNL has the highest average DPS and the most regular to pay dividend to its shareholders. Among the banks under study, EBL 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 86.62% and 21.22%. Among the banks under study, SCBNL has the highest average DPR and least fluctuation in the DPR. The result also shows that, EBL has the lowest average DPR but highest fluctuation as indicated by highest CV.
- The average MPS of the banks indicate quite high level of fluctuation. SCBNL has the highest average MPS while HBL has the lowest. Among the banks under study, the MPS of EBL is highly fluctuating and that of NIBL is the most stable.

- The average price-earning ratio of HBL among the banks under study is the highest and also highly unstable. The ratio for remaining banks is satisfactory and quite stable.
- The average earning yield of banks under study indicates that the earning yield is quite low ranging between 11.87% and 6.15% and the stability of the earning yield is also low i.e. fluctuation of earning yield range from 72.67% to 43.41%.
- The average dividend yields of the banks are also very low ranging between 6.70% and 2.77%. Among the banks SCBNL has the highest dividend yield and HBL has the lowest. Besides the dividend yield being low, there is high fluctuation in the dividend ranging from 96.69% to 27.03%.
- The average ratio between market price per share and book value per share is nearly similar ranging between 3.88 and 3.16 but the fluctuation in this ratio range between 71.80% and 33.38%.
- The analysis of net worth per share shows that SCBNL has the highest average NWPS and HBL is the lowest. The coefficient of variation indicates that there is a moderate level of fluctuation in NWPS of the banks under study.

Upon using the major statistical tools i.e. correlation and regression, following conclusion have been drawn

- The MPS of NABIL has positive correlation with DPS (0.595), DP (0.595), DPR (0.404), EPS (0.480), P/E Ratio (0.919) and MPS to BVPS ratio (0.984). On the other hand it is negatively correlated with EY (-0.928) and DY (-0.207). The EPS of NABIL has positive correlation with DPS (0.319) but negative relation with DPR (-0.125). The DPS is positively correlated with DPR (0.900) but negative with NWPS (-0.534). The EY of NABIL is positively correlated with its DY (i.e. -0.106).
- The MPS of SCBNL has positive correlation with its DPS (0.888), DPR (0.841), DP (0.888), P/E Ratio (0.964), MPS to BVPS ratio (0.918) and NWPS (0.600). But it is negatively correlated with its EPS (-0.318), EY (-0.900) and

DY (-0.963). On the other hand EPS of SCBNL is positively correlated with its DPS (i.e.0.052) but negative correlation with DPR (i.e.-0.706). The DPS has positive correlation with DPR (i.e.0.667) but negative correlation with NWPS (i.e.-0.292). Also the EY of SCBNL positively correlated with its DY (i.e.0.976).

- For NIBL, the MPS has negative correlation with its DPS (-0.725), DP (-0.725), DPR (-0.543), DY (-0.860), EPS (-0.474) and EY (-0.751). But it's MPS positively correlated with P/E Ratio (0.770), MPS to BVPS ratio (0.960) and NWPS (0.798). There exists positive correlation between EPS-DPS (i.e. 0.788) and EPS-DPR (i.e. 0.140). The DPS of NIBL is positively correlated with DPR (0.697) but there is negative correlation between DPS and NWPS (-0.470). There is also positive correlation exists between EY and DY (i.e. 0.907).

- In case of HBL, the MPS is negatively correlated with DPS (0.926), DP (-0.926), DPR (-0.828), DY (-0.854), EPS (-0.727) and EY (-0.772) while it has positive correlation with its P/E Ratio (0.990), MPS to BVPS ratio (0.986) and NWPS (0.362). The EPS of HBL is positively correlated with its DPS (0.897) and DPR (0.219). The DPS has positive correlation with DPR (0.584) and NWPS (0.509). There exists positive correlation between EY and DY of HBL (i.e. 0.945).

- The regression analysis of MPS on DPS shows that the regression coefficient (b) is positive for SCBNL and NABIL and negative for HBL, EBL and NIBL. 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 positive for SCBNL, HBL and NABIL. This regression coefficient (b) for relation between MPS on DPR is negative for EBL and NIBL.

- The regression analysis between MPS on DY shows that the regression coefficient (b) is positive for SCBNL only. All the other banks (HBL, NABIL, EBL and NIBL) 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 NIBL.
- The regression analysis on DPS on NWPS indicates that the regression coefficient (b) is positive for HBL only. The regression coefficient is negative for SCBNL, NABIL, EBL and NIBL.
- The multiple regression analysis of MPS on P/E Ratio and DPS shows that the regression coefficient (b) is positive for both P/E Ratio and DPS in case of SCBNL, HBL, NABIL and NIBL. But for EBL, the regression coefficient (b) is positive for P/E Ratio and negative for DPS.

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 determinations.
- Besides dividend, other factors also affect the market price per share e.g. earning per share, price earning ratio, net worth 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.
- There is lack of legal obligation that abides the companies to pay dividend when they are running at profit. There is not clear provision in Company Act 2053, Commercial Bank Act 2031 and other regulating acts regarding the dividend policy.

5.3 Recommendations

As the result of the study representing about more than 1/4th of the banking industry of Nepal and covering some of the most successful commercial banks as on date, some recommendations have been made so as to overcome some shortfalls regarding the issue of dividend of the banking sector of the country.

- Lack of proper legal provisions regarding the dividend payment exits in the country. 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 which can be distributed be as payment of dividend to its shareholders. This recommendation is suggested on the basis moderns banking environment and changing expectation of the stake holders/ investors of the banks.
- 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. This recommendation is based on the requirement of long term growth of banking industry in Nepal.
- 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 based on its earning capacity.

- 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 keeping in view with expected risk scenario.
  - Optimum dividend as most of the shareholders wants to have maximum return as well as to increase their 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. 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.

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APPENDIX-I

Analysis of EPS

Year	NABIL (X)	X^2	HBL (X_1)	X_1^2
2017/13	103.45	10701.9	24.01	576.48
2016/12	92.61	8576.61	0	0
2015/11	84.66	7167.32	2.67	7.13
2014/10	55.25	2052.56	41.39	1713.13
2013/09	59.25	3511.75	29.39	863.77
	∑395.23	**∑33010.14**	**∑97.46**	**∑3160.51**

Year	UICNL (X_2)	X_2^2	HGICL (X_3)	X_3^2
2017/13	16.86	284.26	36.70	1346.89
2016/12	12.38	153.26	39.87	1589.62
2015/11	5.97	35.64	38.40	1474.56
2014/10	5.97	35.64	38.41	1475.33
2013/09	15.69	246.18	25.5	650.3
	∑56.87	**∑754.98**	**∑178.88**	**∑6536.7**

$$\bar{X} = \frac{\sum X}{n} \quad cv = \frac{S.D.}{\bar{X}} \times 100$$

$$\text{C.V.} = \sqrt{\frac{\sum X^2}{n} - \left(\frac{\sum X}{n}\right)^2}$$

	NABIL	HBL		UICNL	HGIC
Mean	79.04	60.04	Mean	11.37	35.77
S.D.	18.83	17.34	S.D.	4.65	5.24
C.V.	23.83	28.88	C.V.	40.86	14.63

Similarly

Analysis DPS

	NABIL	**HBL**		**HGIC**	**UICNL**
Mean	51	13.06	Mean	7	5.6
S.D.	14.97	11.51	S.D.	6	4.63
C.V.	29.37	88.07	C.V.	85.71	82.68

Analysis of MPS

	NABIL	**HBL**		**HGIC**	**UICNL**
Mean	1089	1019.2	Mean	164.8	112.2
S.D.	352.99	247.81	S.D.	85.22	62.62
C.V.	32.41	24.31	C.V.	51.71	55.81

APPENDIX – II

1. Simple Correlation and the Regression result between MPS and DPS of NABIL.

Year	X	Y	X^2	XY	Y^2
2017/16	70	1505	4900	105350	2265025
2016/15	65	1000	4225	65000	1000000
2015/14	50	740	2500	37000	547600
2014/13	30	700	900	21000	490000
2013/12	40	1500	1600	60000	2250000

A = 5 $\sum X = 225$, $\sum Y = 5445$, $\sum XY = 288350$, $\sum X^2 = 14125$, $\sum Y^2 = 6552625$

Note:

Value of X represents market price per share: MPS

Value of Y represents dividend price per share: DPS

Mean,

$\overline{X} = 51$

$\overline{Y} = 1089$

i) Coefficient of Correlation, r = $\frac{n.\sum XY - \sum X.\sum Y}{\sqrt{N.\sum X^2 - (\sum X)^2} \times \sqrt{n.\sum Y^2 - (\sum Y^2}}$

= 0.4033

Coefficients of Determination (r^2) = 0.1627

Standard error of Correlation Coefficients, S.E. (r) = $\frac{1-r^2}{\sqrt{n}}$

= 0.3744

ii) Regression Equations of y on x is, $y_1 = a + bx_1$

Where,

A = Regression constant

B = regression coefficient (Slope of the regression line)

According to the principles of least squares, two normal equations for estimating two numerical constants a and b are given by,

$\sum Y = na + b\sum X$

And

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

Solving these two normal equations, we get

$B = \frac{n.\sum XY - (\sum X)(\sum Y)}{n.\sum X^2 - (\sum X)^2}$

= 9.51

A = Y-Bx =603.82

Standard error of the estimate (S.Ee) = $\sqrt{\frac{\sum Y^2 - a\sum Y - b\sum XY}{n-2}}$

= 12.4605

T – Value (t) = $\frac{b}{S_b}$

= 0.7632

2. Simple Correlation and the Regression results between EPS and DPS of NABIL.

Years	**X**	**Y**	**X^2**	**SY**	**Y^2**
2017/16	103.45	70	10701.9	7241.5	4900
2016/15	92.61	65	8576.612	6019.65	4225
2015/14	84.66	50	7167.316	4233	2500
2014/13	55.25	30	3052.563	1657.5	900
2013/12	59.26	40	3511.748	2370.4	1600

Note:

Value of X represents earnings price per share: EPS

Value of Y represents dividend price per share: DPS

Mean,

$\overline{X}$ = 79.046

$\overline{Y} = 51$

i) Cofficient of Correlation, r = $\frac{n.\sum XY - \sum X.\sum Y}{\sqrt{n.\sum X^2 - (\sum X)^2} \times \sqrt{n.\sum Y^2 - (\sum Y)^2}}$

= 0.97

Coefficient of determination (r^2) = 0.94103

Standard error of correlation Coefficient, S.E. (r) = $\frac{1-r^2}{\sqrt{n}}$

= 0.02637

ii) Regression Equations of y on x is, $y_2 = a + bx_2$

Where,

A = Regression constant

B = Regression coefficient (Slope of the regression line)

According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

$\sum Y = na + b\sum X$

And

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

Solving these two normal equations, we get,

B = $\frac{n.\sum XY - (\sum X)(\sum Y)}{n.\sum X^2 - (\sum X)^2}$

= 0.77214

A = $\overline{Y - b\overline{X}}$ = -10.0311

Standard error of the estimate (S.Ee) = $\frac{\sum Y^2 - a\sum Y - b\sum XY}{n-2}$

= 4.69172

Standard error of Regression Coefficient (S_b) = $\frac{S.E_e}{\sqrt{\sum (X-\overline{X})^2}}$

= 0.11156

T-Value 9t) = $\frac{b}{S_b}$

= 6.92153

3. Simple Correlation and the Regression result between EPS and MPS of NABIL.

Years	**X**	**Y**	**X^2**	**XY**	**Y^2**
2017/16	103.45	1505	10701.9	155692.3	2265025
2016/15	92.61	1000	8576.612	92610	1000000
2015/14	84.66	740	7167.316	62648.4	547600
2014/13	55.25	700	3052.563	38675	490000
2013/12	59.26	1500	3511.748	88890	2250000

N = 5$\sum X$ = 395.21, $\sum Y$ = 5445, $\sum XY$= 438515.7 $\sum X^2$ = 33010.14, $\sum Y^2$ = 6552625

Note:

Value of X represents earnings price per share: EPS

Value of Y represents market price per share: MPS

Mean,

$\overline{X}$ = 79.046

$\overline{Y}$ = 1089

i) Coefficient of Correlation, r = $\frac{n.\sum XY - \sum X.\sum Y}{\sqrt{n.\sum X^2 - (\sum X)^2} \times \sqrt{n.\sum Y^2 - (\sum Y)^2}}$

Coefficient of determination (r^2) = 0.6004

Standard error of Correlation coefficient, (S.E. (r) = $\frac{1-r^2}{\sqrt{n}}$

= 0.1787

ii) Regression Equations of y on x is, $y_3 = a+bx_3$

Where,

A = Regression constant

B = Regression coefficient (Slope of the Regression line)

According to the principle of least squares, two normal equations for estimating two numerical constants a and b are given by,

$\sum Y = na + b\sum X$

And

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

Solving these two normal equations, we get,

$B = \frac{n.\sum XY - (\sum X)(\sum Y)}{n.\sum X^2 - (\sum X)^2}$

= 4.6

$A = \overline{X} - b\,\overline{Y} = 725.4$

Standard error of the estimate (S.Ee) = $\sqrt{\frac{\sum Y^2 - a\sum Y - b\sum XY}{n-2}}$

= 441.819

Standard error of Regression coefficient (S_b) = $\frac{S.E_e}{\sqrt{\sum (X - \overline{X})^2}}$

= 10.5053

T-Value (t) = $\frac{b}{S_b}$

= 0.4378

4. Simple Correlation and the regression results between MPS and DPS of HBL

a = 5 $\sum X = 5096$, $\sum Y = 65.32$, $\sum XY = 77933.5$, $\sum X^2 = 5500896$, $\sum Y^2 = 1515.24$

$\overline{X}$ = 1019.2 Coefficient of correlation (r) = 0.7968

$\overline{Y}$ = 13.064 Coefficient of determination (r^2) = 0.6349

A = 24.64 b = 0.03699

Standard error of Regression coefficient (S_b) = 0.01621

T-Value (t) = 2.284

5. Simple Correlation and the Regression results between EPS and MPS of HBL n = 5 $\sum X = 299.93$, $\sum Y = 5096$, $\sum XY = 326769$, $\sum X^2 = 19475.3$, $\sum Y^2 = 5500896$

$\overline{X}$ = 59.986 Coefficient of correlation (r) = 0.99876

$\overline{Y}$ = 1019.2 Coefficient of Determination (r^2) = 0.9754

a = 166.92 b = 14.208

Standard error of Regression coefficient (S_b) = 1.30134

T-Value (t) = 10.9135

6. Simple correlation and the regression results between EPS and DPS of HBL n = 5, $\sum X = 299.93$, $\sum Y = 65.32$, $\sum XY = 4687.39$, $\sum X^2 = 19475.3$, $\sum Y^2 = 1515.24$

$\overline{X}$ = 59.986 Coefficient of correlation (r) = 0.99876

$\overline{Y}$ = 13.064 Coefficient of Determination (r^2) = 0.9754

a = 18.031 b = 0.51837

Standard error of Regression coefficient (S_b) = 0.24318

T-Value (t) = 2.1316

7. Simple Correlation and the regression results between MPS and DPS of HGIC n = 5, $\sum X = 1014$, $\sum Y = 35$, $\sum XY = 7000$, $\sum X^2 = 208206$, $\sum Y^2 = 425$

$\overline{X}$ = 202.8 Coefficient of correlation (r) = 0.14418

$\overline{Y}$ = 7 Coefficient of Determination (r^2) = 0.02079

a = 14.74 b = 0.03818

Standard error of Regression coefficient (S_b) = 0.15134

T-Value (t) = 0.2536

8. Simple correlation and the regression results between EPS and DPS OF HGIC n = 5, $\sum X = 178.88$, $\sum Y = 35$, $\sum XY = 1150.6$, $\sum X^2 = 6536.65$, $\sum Y^2 = 425$

$\overline{X}$ = 35.776 Coefficient of correlation (r) = 0.6466

$\overline{Y}$ = 7 Coefficient of Determination (r^2) = 0.41815

a = 33.51 b = -0.7411

Standard error of Regression coefficient (S_b) = 0.50504

T-Value (t) = 1.4683

9. Simple correlation and the regression results between EPS and MPS of HGIC n = 5, $\sum X = 178.88$, $\sum Y = 1014$, $\sum XY = 36348.3$, $\sum X^2 = 6536.65$, $\sum Y^2 = 2082.6$

$\overline{X}$ = 35.776 Coefficient of correlation (r) = 0.12045

$\overline{Y}$ = 202.8 Coefficient of Determination (r^2) = 0.01451

a = 184.15 b = 0.5213

Standard error of Regression coefficient (S_b) = 2.48053

T-Value (t) = 0.21015

10. Simple correlation and the regression results between MPS and DPS of UICNL n = 5, $\sum X = 699$, $\sum Y = 28$, $\sum XY = 4284$, $\sum X^2 = 101597$, $\sum Y^2 = 264$

$\bar{X}$ = 139.8 Coefficient of correlation (r) = 0.57332

$\bar{Y}$ = 5.6 Coefficient of Determination (r^2) = 0.3287

a = 7.728 b = 0.0953

Standard error of Regression coefficient (S_b) = 0.07875

T-Value (t) = 1.121199

11. Simple correlation and the regression results between EPS and MPS of UICNL n = 5, $\sum X = 699$, $\sum Y = 56.87$, $\sum XY = 7581.36$, $\sum X^2 = 101597$, $\sum Y^2 = 754.982$

$\bar{X}$ = 139.8 Coefficient of correlation (r) = 0.57

$\bar{Y}$ = 11.374 Coefficient of Determination (r^2) = 0.32489

a = 24.6828 b = 0.0952

Standard error of Regression coefficient (S_b) = 0.07936

T-Value (t) = 1.20155

12. Simple correlation and the regression results between EPS and DPS of UICNL n = 5, $\sum X = 56.87$, $\sum Y = 28$, $\sum XY = 353.82$, $\sum X^2 = 754.73$, $\sum Y^2 = 754.264$

$\bar{X}$ = 11.374 Coefficient of correlation (r) = 0.32868

$\bar{Y}$ = 5.6 Coefficient of Determination (r^2) = 0.10803

a = 1.8735 b = 0.32763

Standard error of Regression coefficient (S_b) = 0.3331

T-Value (t) = 0.60278

APPENDIX – III

For Multiple Regressions 1:

NABIL

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.9886	0.97732	0.93197	4.6871

a. Predictors: (Constant) EPS, LDPS

ANOVA

Model		*df*	SS	MS	F	Significance F
1	Regression	2	946.781067	473.3905	21.54818	0.150591
	Residual	1	21.9689327	21.96893		
	Total	3	968.75			

a. Predictors: (Constant), EPS, DPS

b. Dependent Variable: MPS

Coefficients

	Coefficients	*Standard Error*	*t Stat*
Intercept	- 19.66205326	11.45296092	-1.7167659
X Variable 1	0.778571336	0.16585659	4.6942442
X Variable 2	0.173191667	0.229202375	0.7556277

HBL

Model Summary

Regression Statistics	
Multiple R	0.8976105
R Square	0.76756
Adjusted R Square	0.302679
Standard Error	9.659326
Observations	4

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	308.1017	154.0509	1.651089	0.482121
Residual	1	93.30258	93.30258		
Total	3	401.4043			

Coefficients

	Coefficient	*Standard Error*	*T Stat*
Intercept	-98.158	64.7654	-1.51559
X Variable 1	2.149899	1.340136	1.604239
X Vaiable 2	-0.25767	0.521369	-0.49421

HGIC

Model Summary

Regression Statistics	
Multiple R	0.896854
R Square	0.804348
Adjusted R Square	0.413043
Standard Error	4.423259
Observations	4

ANOVA

	df	SS	MS	F	Significance F
Regression	2	80.43378	40.21739	2.055556	0.442326
Residual	1	19.56522	19.56522		
Total	3	100			

Coefficients

	Coefficients	Standard Error	T Stat
Intercept	130.0849	100.5555	1.293663
X Variable 1	-3.51967	2.707391	-1.30002
X Variable 2	1.128778	0.557702	2.023982

UICNL

Model Summary

Regression Statistics	
Multiple R	0.39402685
R Square	0.15525716
Adjusted R Square	-1.5342285
Standard Error	9.19098928
Observations	4

ANOVA

	df	SS	MS	F	Significance F
Regression	2	15.52572	7.762858	0.091896	0.919099
Residual	1	84.47428	84.47428		
Total	3	100			

Coefficient

	Coefficient	Standard Error	t Stat
Intercept	-10.423372	39.31019	-0.26516
X Variable 1	1.09987455	2.671286	0.41174
X Variable 2	0.9111474	2.701014	0.337335

For Multiple Regression 2.

NABIL

Model Summary

Regression Statistics	
Multiple R	0.727029879
R Square	0.528572445
Adjusted R Square	0.05714489
Standard Error	383.2158629
Observations	5

ANOVA

	df	**SS**	**MS**	**F**	**Significance F**
Regression	2	329311.2	164655.6	1.121217	0.471428
Residual	2	293708.8	146854.4		
Total	4	623020			

Coefficients

	Coefficients	Standard Error	T Stat
Intercept	1392.27956	878.0248	1.585695
X Veriable1	66.47066053	47.12912	1.410395
X Veriable2	-46.72321492	37.5025	-1.24587

HBL

Model summary

Regression Statistics	
Multiple R	0.988999
R Square	0.978119
Adjusted R Square	0.956238
Standard Error	57.95965
Observations	5

ANOVA

	Df	*SS*	*MS*	*F*	*Significance F*
Regression	2	300334.2	150167.1	44.70162	0.021881
Residual	2	6718.642	3359.321		
Total	4	307052.8			

Coefficients

	Coefficients	Standard Error	t Sat
Intercept	201.486	112.9892	1.783231
X Variable 1	1.67464	3.566604	0.469533
X Variable 2	13.25378	2.366304	5.601047

HGIC

Model Summary

Regression Statistics	
Multiple R	0.148526
R Square	0.02206
Adjusted R Square	-0.95588
Standard Error	35.42722
Observations	5

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	56.62366	28.31183	0.022558	0.97794
Residual	2	2510.176	1255.088		
Total	4	2566.8			

Coefficients

	Coefficient	**Standard Error**	**t Sat**
Intercept	198.5684	159.4819	1.245084
X Variable 1	-0.43021	3.461782	-0.12428
X Variable 2	0.202457	3.967542	0.0521028

UICNL

Model Summary

Regression Statistics	
Multiple R	0.986423
R Square	0.97303
Adjusted R Square	0.94606
Standard Error	7.230364
Observations	5

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	3772.244	1886.122	36.07858	0.02697
Residual	2	104.5563	52.27817		
Total	4	3876.8			

Coefficients

	Coefficients	Standard Error	t Sat
Intercept	168.9695	8.656268	19.5199
X Variable 1	5.125513	0.73931	6.93283
X Variable 2	-5.08812	0.736082	-6.91245

APPENDIX – IV

1. Hypothesis test of EPS

NABIL	**HBL**
$\overline{X_1}$ = 79.04	$\overline{X_2}$ = 60.04
S_1 = 18.83	S_2 = 17.34
N_1 = 5	N_2 = 5

$$S^2 = \frac{N_1 S_1^2 N_2 S_2^2}{\sqrt{S^2}\left(\frac{1}{S_1}+\frac{1}{S_2}\right)} = \frac{5x\ (18.83)2+5x\ (17.34)2}{5+5-2} = \frac{3276.22}{8} = 409.528$$

$$t = \frac{x_1 - \overline{x}_2}{\sqrt{S^2\left(\frac{1}{N_1}+\frac{1}{N_2}\right)}} = \frac{79.04-60.04}{\sqrt{409.528\left(\frac{1}{5}+\frac{1}{5}\right)}} = \frac{19}{12.7978} = 1.48451$$

Calculated t Value = 1.48451

d.f. = 5 + 5 – 2 = 8

Tabulated Value = 2.306

HGIC	**UICNL**
$\overline{x}$ = 35.77	$\overline{x_2}$ = 11.37
S_1 = 5.24	S_2 = 4.65
N_1 = 5	N_2 = 5

Calculated Value = 6.9657

Tabulated Value = 2.306

2. Hypothesis test of DPS

NABIL **HBL**

$\overline{x_1}$ = 51 $\overline{x_2}$ = 13.66

S_1 = 14.97 S_2 = 11.51

N_1 = 5 N_2 = 5

Calculated Value = 4.0183

Tabulated Value = 2.306

HGIC **UICNL**

$\overline{x_1}$ = 7 $\overline{x_2}$ = 5.6

S_1 = 6 S_2 = 4.63

N_1 = 5 N_2 = 5

Calculated Value = 0.3694

Tabulated Value = 2.306

NABIL **HBL**

$\overline{x_1}$ = 1089 $\overline{x_2}$ = 1019.2

S_1 = 352.99 S_2 = 247.81

N_1 = 5 N_2 = 5

Calculated Value = 0.3236

Tabulated Value = 2.306

HGIC **UICNL**

$\overline{x_1}$ =164.8 $\overline{x_2}$ = 112.2

S_1 = 85.22 S_2 = 62.62

N_1 = 5 N_2 = 5

Calculated Value = 0.3694

Tabulated Value = 2.306

3. Hypothesis test of MPS

NABIL	**HBL**
$\overline{x_1}$ =1089	$\overline{x_2}$ = 1019.2
S_1 = 352.99	S_2 = 247.81
N_1 = 5	N_2 = 5

Calculated Value = 0.3236

Tabulated Value = 2.306

HGIC	**UICNL**
$\overline{x_1}$ =164.8	$\overline{x_2}$ = 112.2
S_1 = 85.22	S_2 = 62.62
N_1 = 5	N_2 = 5

Calculated Value = 0.9947

Tabulated Value = 2.306